

The Foreign Trade of Iceland, 1870-1914:

An Analysis of Trade Statistics and a Survey of its Implications for the Icelandic Economy

by

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Volume One

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Abstract

The Icelandic economy was transformed in the late 19th century onwards when economic resources were shifted from pastoral farming towards mechanised fishing, because this meant urbanisation, growth of new social classes, formation of new power relations, a positive turn in the number of population, and a rise in the level of technology. The principal aim of the present research is to examine the general relevance of foreign trade for the start of the economic transformation and for the transformatory process until 1914. A supplementary aim is to generalise the findings by looking into the Icelandic experience in international context.

The research is conducted through a sequence of three main steps. First, shifts that occurred in foreign trade are identified, and since foreign trade could affect the economy through the trade flow and the institutional framework of trade, both aspects are examined. The trade flow is analysed with a detailed investigation of trade statistics, and the economic context of exports and imports is outlined. The institutional framework is analysed as of 1870 and subsequent major shifts described, mainly with the use of secondary sources. The second step is meant to analyse systematically which of the shifts observed were relevant and important for the economic transformation. This examination is based on one hand on existing literature and the historical evidence produced here, and on the other hand on two analytical frameworks that I use in a synthesised way to explore the economic implications of the shifts observed. One framework is A.O. Hirschman's linkages approach and the other is an economic determinants model which is informed by the staples theory. The final step is a discussion about Iceland's economic performance in international comparison, including a sketch of the interplay between external elements and internal elements for economic stasis and change in the case of Iceland.

The findings show that significant shifts occurred in Iceland's foreign trade in the research period, both in the trade flows and the institutional framework of trade. Furthermore, their economic implications were such that they were in fact all-important for a reorganisation of the utilisation of economic resources and for the transformation of the economy. The findings in turn indicate that the causes of the transformation have partly been overlooked, that its nature has been oversimplified, and that its timing differs from that in the literature. Furthermore, the findings suggest that the cumulative impact of the shifts and their long-term historical relevance was so profound and pervasive that the term modernisation is apt. In international comparison, Iceland appears to have gained very much from foreign trade, and it is maintained that institutional elements in Iceland's external relations affected the economy's factor markets in such a way as to uphold economic stasis while entrance of 'outsiders' in foreign trade was decisive in breaking it.

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Halldor Bjarnason

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Declaration

I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person where due reference is not made in the text.

Halldor Bjarnason

Technical Note

The Icelandic form of spelling has been retained for all Icelandic proper names and places referred to in the thesis. They often include letters peculiar to the Icelandic language and alphabet, and they should be pronounced broadly as expressed here:

<i>Á</i> and <i>á</i>	pronounced as	<i>o</i> in 'power'
<i>Ð</i> and <i>ð</i>	pronounced as	<i>th</i> in 'then'
<i>É</i> and <i>é</i>	pronounced as	<i>ye</i> in 'yet'
<i>Í, í, Ý, ý</i> and <i>ý</i>	pronounced as	<i>ea</i> in 'seat'
<i>Ó</i> and <i>ó</i>	pronounced as	<i>oa</i> in 'coast'
<i>Ú</i> and <i>ú</i>	pronounced as	<i>oo</i> in 'pool'
<i>Þ</i> and <i>þ</i>	pronounced as	<i>th</i> in 'thin'
<i>Æ</i> and <i>æ</i>	pronounced as	<i>i</i> in 'time'
<i>Ö</i> and <i>ö</i>	pronounced as	<i>u</i> in 'fur'

In accordance with the Icelandic patronymic custom and recommendations of handbooks concerning the use of personal names, Icelanders are referred to by their first name throughout the thesis and listed in that way in the Bibliography.

Unless otherwise stated, all growth rates are calculated as compound rates of growth.

Values are presented in Icelandic *krónur* (pl.) or Danish *kroner* (pl.), which were of equal nominal and real value in the research period. £1 was equivalent to 18.15 kr. until 31 March 1896, and 18.12 kr. from 1. April 1896 onwards.

Note that titles of sources in footnotes are shortened from the first reference onwards.

See also note on Meaning and Use of Symbols at the beginning of the Appendices.

Chapter I

Introduction: The Economic Transformation of Iceland and the Relevance of Foreign Trade

I.1. Significance of the Subject: The Economic Transition of Iceland

The period comprising the late 19th and early 20th centuries is one of the most transitional epochs in the history of Iceland. Important changes in the constitutional status of Iceland, its economy, demography, social structure, and cultural landscape occurred at the time. To quote a recent, general history of Iceland, ‘medieval modes and institutions were finally abandoned ...’ between 1874 and 1904.¹ This shift marked the beginning of Iceland’s overall modernisation although Icelandic historians have traditionally shied away from using the term to describe the ensuing changes. However, modernisation certainly is an meaningful interpretation of the history of Iceland since the late 19th century onwards, which is comparatively in stark contrast to earlier periods, and lately the term has more often been used by Icelandic scholars.² Perhaps as a sign of

¹ In Icelandic: ‘Á landshöfðingatímanum [1874–1904] voru miðaldahættir og stofnanir loks kvaddar ...’ See Björn Þorsteinsson and Bergsteinn Jónsson, *Íslandssaga til okkar daga*, p 301.

² See, for instance, the following works. Magnús S. Magnússon, *Iceland in Transition*, p 37 cf. endnote 48. Sigurður G. Magnússon, ‘Hugarfarið og samtíminn,’ p 28. Guðmundur

growing recognition of this, a special debate in the first Icelandic history congress in 1997 was devoted to this theme and called the ‘Advent of Modernity in Iceland.’³

Along this general modernisation of Icelandic society, the economy was transformed. The scale of this change is indicated by one economic historian who said that in 1880–1930 ‘Iceland was drastically changed from economic archaism to a dynamic capitalist economy,’ and another wrote that ‘the country was transformed from an extremely poor and backward dependency of Denmark into an independent, capitalist state’ in 1870–1930.⁴ The preponderance of economic change in the modernisation process has long been recognised among Icelandic historians. In fact, they generally agree that the Icelandic modernisation or overall transformation was economic in origin and propelled by economic change. The start of this process has traditionally been traced to more efficient fishing vessels, first decked sailing ships in the 1880s and later machine powered boats and ships in the 1900s, because over a few decades it shifted the base of the economy from low-technology, pastoral farming and dispersed population to high-technology fishing that gave great impetus to the growth of urban areas. Consequently, it is claimed, urban based secondary industries and tertiary activities started to grow significantly, and although rural subsistence practices persisted, they relatively declined as the urban areas formed markets for agricultural surplus. Also, because of increasing urban wage labour, division of work increased. The exodus of labour from farming to urban activities put pressures on the farming sector, who went through a crisis but gradually put into use labour-saving methods and implements.

Hálfðanarson and Svanur Kristjánsson, ‘Formáli’ to *Íslensk þjóðfélagspróun*, ed. by Guðmundur Hálfðanarson and Svanur Kristjánsson, p 8. Helgi Skúli Kjartansson, ‘History and Culture,’ p 86.

³ In Icelandic: ‘Innreið nútímans á Íslandi’. See *Íslenska sögubíngið ... 1997: Ráðstefnurit*, vol. 2.

⁴ See Magnús S. Magnússon, *Iceland in Transition*, p 15, and Guðmundur Jónsson, ‘The State and the Icelandic Economy,’ p 2, respectively.

The historical interpretation of the economic transition has tended to emphasise the significance of the mechanisation in this process. However, Magnús S. Magnússon (1985) has offered a more profound understanding of the initial transitory phase and in turn underscored its importance. He argues that the economic and social consequences of the mechanisation only were an acceleration of a process already begun with the rise of outfit of decked fishing vessels around 1880. Magnús stresses that with this outfit the production relations between fishermen and the means of production began to change in that the fishermen became increasingly alienated from ownership of the boats, vessels, and the fishing gear, thereby producing proletariat on one hand and capitalists (often merchants) on the other. Thus, Magnús argues that capitalist modes of production, the engine of economic change in modern times, emerged in a proto-type form much earlier and the mechanisation was not their beginning, only their full materialisation.

As this description of the economic transition indicates, it was economic development in the sense of economics. By definition, development consists of economic change that emerges in a new composition of inputs (given fixed output) or a new composition of outputs (possibly concomitant with an altered input structure). In other words, development refers to a relatively significant change in the type of goods and services produced (output), or, if output does not change, then in the kind of means that are used for that production (inputs). Possibly, the composition of inputs and outputs can change concurrently. Also, reference is implicitly also made to certain kind of structural changes such as replacements of labour for capital and rise of manufacturing industries and service industries with falling primary sector activities.⁵ Casting Iceland in these terms and looking at the output side first, it emerges that service industries grew fast in

⁵ C. Pass, B. Lowes, and L. Davies, *Dictionary of Economics*, pp 149–50. G. Bannock, R.E. Baxter, and R. Rees, *The Penguin Dictionary of Economics*, 3rd ed., p 136. G.N. von Tunzelmann, *Technology and Industrial Progress*, p 30.

the research period and the share of primary industries fell substantially over time, indicating that the fall in the agricultural sector was larger still because the fishing sector grew.⁶ These changes alone hardly qualify as a structural change (development), but looking at the input side, however, a very clear picture emerges. Machines and other durable capital goods replaced much labour in fishing, the leading industry. Furthermore, the input structure in manufacturing industries probably changed relatively. Although one-men workshops continued onwards, workshops with several men and more equipment became ever more common, and a few factories were built. Given all this, the transition of the Icelandic economy even before 1914 clearly was economic development in its proper sense.

I.2. Focus of the Study: Foreign Trade and the Economic Transition

I.2.1. Aim of the Research and Period of Study

The present thesis sets itself to examine the general relevance of foreign trade for the transition of the Icelandic economy until 1914. In doing so, the thesis also probes into the transition itself, that is, why and how the shift from stasis to a state of continuous change happened and why the transition proceeded in the way it did. This examination will

⁶ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, p 161 (table 15.2).

subsequently be supported with a basic discussion about the Icelandic experience in international comparison.

There are broadly two motives for studying possible links between foreign trade and the economic transition until 1914. First, there is lack of knowledge about the initial phase of the transition relative to historians' knowledge about the transition after it had entered the mechanisation stage in the 1900s. Magnús S. Magnússon's research provided a better understanding of the transitory process during the research period, but the timing of some major events in his account has not yet been explained convincingly. Furthermore, his research necessarily could not include every aspect or angle on the economic transition. Thus, foreign trade, for example, is left out in the analysis, so its role has not been ascertained. Incidentally, however, Magnús's findings indicated that merchants were of considerably important at the onset of the transition.

Second, there exist theoretical constructs and historical evidence that associate foreign trade with economic change in general, and they immediately suggest themselves for consideration in the Icelandic case. As happens, there is a considerable body of literature in economics and economic history dealing with the links between trade flows and economic change, whether economic growth or development. According to this theoretical literature, there can be influential links from the exchange of exports for imports to development, although favourable institutional structures in the economy are influential for their materialisation. Apart from these theoretical considerations, there is ample historical evidence that suggests that foreign trade can be influential for economic change. This evidence dates not only from the research period, which was a part of a longer era of unprecedented expansion and integration of the world economy through trade, but there is also evidence from the 20th century where the economic history of the third world is a case in point. Given this, examination of Iceland's foreign trade and its possible impact on the economic transition seems to be not only a timely venture and of

considerable significance but also highly relevant for historians' understanding of this process.

The period of research is that from 1870 until the outbreak of World War I in 1914. The start of the period is somewhat arbitrarily selected, but since the aim is to examine the causes of the overall shift in the economy and the relevance of foreign trade, and historians agree that not much happened in the Icelandic economy until after 1880, the advent of the transition is well within the research period. Furthermore, since the transition had appeared in so many ways and forms in the economy by 1914, and the transitory process had gained its own momentum, the final year is appropriate although it is partly self-evident because of the start of the war.

To underpin my research questions, it is necessary, first, to explicate the current historical interpretation of the shift from stasis to effective motion in the Iceland economy. Then, I introduce one of two basic elements of foreign trade and discuss them in relation to Iceland. One element is the institutional framework and the other is the trade flows where I describe shortly the theoretical links between the different types of exports and imports on one hand and economic development on the other hand. Finally, to complement the theoretical approach just described, I touch on various other factors affecting trade flows, and sketch some of the main features of international trade and core-periphery relations in the research period. It should be noted that sometimes elementary matters are included in the following text. While I hope the reader will bear with me for their inclusion, I consider them, nevertheless, relevant for the discussion and that they need to be commented on in the description of the research plan for the thesis.

1.2.2. The Causes and the Process of the Economic Transition: Current Historical Interpretation

The most extensive study on the economic transition until 1914 is definitely Magnús S. Magnússon's doctoral thesis, *Iceland in Transition: Labour and Socio-Economic Change Before 1940* (1985). Other studies have touched upon more specific facets of the transition, and Magnús's findings and conclusions broadly present current interpretation of the overall transition among historians. Magnús describes the era before 1880 as the pre-transitional epoch. It was marked by the 'old' or traditional Iceland when the economy stood at a standstill in developmental terms. By far the largest part of the population belonged to peasant households.⁷ The economy was based on pastoral farming where ownership or occupation of land (in return for rent) was the basic unit of production and reproduction. Fishing was prosecuted part time by those living nearby the coast and on a seasonal basis by those living farther off. The need for labour in the farming and the fishing sectors was seasonal in character and coincided rather conveniently. The labour requirement peak in farming was during the summer for hay-making, but the most lucrative seasons in the fishing were during the winter, and labour was geographically moved to meet those peaks.⁸

What then constituted a check on conceivable changes in the Icelandic economy?

Essentially, it was of double origin, Magnús S. Magnússon claims. First, a key element

⁷ Throughout the thesis, the term 'peasant' is used for the Icelandic term *bóndi*, whether *sveitabóndi* ('inland peasant') or *útvegsbóndi* ('seaside peasant'). As Jón Ólafur Ísberg points out in 'Hugleiðingar um söguskoðun Íslendinga,' p 137, the term 'farmer,' which is usually used by Icelandic historians, is not entirely appropriate. Farmers are a product of capitalistic societies while peasants exist in pre-capitalistic societies, like Iceland. For further clarification of the socio-economic position of peasants, see, for example, F. Ellis, *Peasant Economics: Farm Households and Agrarian Development*, ch. 1.

⁸ Magnús S. Magnússon, *Iceland in Transition*, pp 16, 17, 38–9, 274–6.

was labour bondage, i.e., the ‘legal obligation of the propertyless classes to commit themselves as domestic servants ...’ at the homes of peasants, officials, and other recognised households.⁹ Here, Magnús refers to the fact that by far the largest number of those who were did not want to or were unable for various reasons to start farming, and could not enter other socially accepted occupations based on learning or artisan skills, had to serve as bonded labour for peasants and were hired usually on annual basis. Because of this, Magnús argues that a free and unrestricted flow of people into permanent fishing throughout the year was blocked. Thus, effectively labour bondage barred off the growth of the fishing sector and, thereby, urban areas by the coast.¹⁰

Second, Magnús S. Magnússon points out that Iceland had become isolated in terms of technology and production relations.¹¹ Pastoral farming had long assumed hegemony and certain production relations within it had entrenched themselves over time, producing low organisational and technological level in the absence of foreign influence. In spite of its geographical location, even in ocean navigation Iceland persisted on a low technological level. Magnús ascribes an important role to the low technology in fishing in maintaining the archaic structure of the economy. This was to be expected, he says, because there were no social or business groups present in Icelandic society to promote conceivable changes in the economy. The most likely group to do so, merchants in the foreign trade, restricted themselves to exchange, not production.¹² Magnús says: ‘The existence of institutional factors, such as the Danish monopoly trade, combined with the efforts of the native landowning/ruling class effectively prevented any major technical

⁹ Magnús S. Magnússon, *Iceland in Transition*, pp 16–17.

¹⁰ Magnús S. Magnússon, *Iceland in Transition*, pp 16–17, 53.

¹¹ Indeed, Magnús uses the term ‘modes of production’ (p 17) in this context, but he admits (p 227, fn 12) that he sometimes uses this term inaccurately instead of production relations which determine the economic structure, the basis of the economy, according to Marx (see pp 219 and 221). Magnús’s use of ‘modes of production’ in p 17 seems to be such an incidence.

¹² Magnús S. Magnússon, *Iceland in Transition*, pp 17, 48.

and economical improvements.’¹³ By Danish monopoly trade, Magnús refers to the monopoly of Denmark in Iceland’s foreign trade from the 17th century until the late 19th century.

By way of summing up, internal forces were channelled towards upholding the *status quo* and external forces for change were weak or non-existent. What then initiated change in the Icelandic economy? According to Magnús, the beginning lay in substantial amounts of capital that began to be invested in cod fishing, taking the form of a rapidly growing number of decked vessels from around 1880 onwards. This capital came from seaside peasants (Icel. *útvegsbændur*) and, more important in the long run, from merchants of both Icelandic and Danish origin.¹⁴ Previously, profits generating from land had mostly been circulated within the agricultural sector, and merchants’ profits had almost entirely been expatriated to Denmark, but for some reason, which neither Magnús nor any other historian has probed into, this changed around 1880.¹⁵

The significance of the rise in the number of decked vessels after 1880, Magnús says, was that labour was drawn away from agriculture to a greater extent than before because the ships conducted their operations during the summer, which coincided with the peak season in the farming. Incidentally, as Magnús points out, this entailed less conflicts with the farming sector than one might have expected because circumstances there generally were at a low ebb in the 1880s. This was evident in, for example, mass emigration to America, cold weather and arctic ice, and demographic pressure. The flow of people from farming to urban areas meant the emergence of a proletarianisation process. Urban areas grew slightly faster than before, the division of labour slowly

¹³ Magnús S. Magnússon, *Iceland in Transition*, p 40.

¹⁴ Generally, translations of terms for social groups in Iceland are in line with those used in Gísli Ágúst Gunnlaugsson, *Family and Household*, pp 33–4. However, the term ‘peasant’ is always used for the Icelandic term *bóndi*, cf. an earlier footnote in this chapter.

¹⁵ Magnús S. Magnússon, *Iceland in Transition*, pp 17–18, 48–9.

increased, and the first attempts to organise and unite workers were made. These changes accelerated in the wake of the unparalleled spurt in the outfit of decked vessels in the 1890s onwards but the economy was still at a 'proto-factory stage,' because the farming dominated and the outflow of people partly was seasonal. Hence, the decked vessels did not break the umbilical cord between the farming and fishing, as Magnús S. Magnússon puts it.¹⁶

Around 1905 — initially, Magnús put the break at about 1910 — the economy finally moved into the industrial era when steam trawlers and motor boats were introduced into cod fishing. Also, in 1904 the Bank of Iceland was started and Iceland received Home Rule, two episodes marking the start of a new age, says Magnús.¹⁷ Here, Magnús subscribes to historians' traditional interpretation of the causes of the mechanisation and, effectively, industrialisation, and neither he nor any other historian has investigated any further why this mechanisation was launched or offered any explanation for the timing of this change.¹⁸ In the view of some historians, this course of events is not self-evident, more profound explanations are needed, and the significance of the Bank of Iceland has been doubted.¹⁹ In any case, the advent of trawlers and motor boats meant a full mechanisation in the fishing, as Magnús points out, while the fish processing remained practically the same, involving labour-intensive methods. In terms of labour, the relation with farming was finally broken, because the trawlers were engaged in fishing activities almost the whole year round, and motor boats made fishing a much more stable way of living. Consequently, urban areas grew fast, the division of

¹⁶ Magnús S. Magnússon, *Iceland in Transition*, pp 18–19, 55–6, 87–8, 90–96, 276–7.

¹⁷ Magnús S. Magnússon, 'Innreið nútímans í íslenskri efnahagssögu,' p 362.

¹⁸ Jón Þ. Þór, 'Vélvæðing í íslenskum atvinnuvegum,' p 43.

¹⁹ Gísli Gunnarsson, 'Kenningar um um útbreiðslu þróaðs hagkerfis,' pp 20–22. Ólafur Ásgeirsson, 'Framsaga Ólafs Ásgeirssonar BA,' p 44.

work increased markedly, proletarianisation was completed, and workers' unions were organised. In a word, the economy entered a new era, which Magnús says grew along these lines until about 1930, when the great depression set the economy off on a new course.²⁰

Later studies by other historians generally have complemented the findings of Magnús S. Magnússon. However, Guðmundur Hálfðanarson has identified an interesting shift in the mid 19th century concerning urban areas, and its implications are highly relevant in the present context. From the 1850s onwards, the population in urban areas (hamlets) in Iceland grew at 1.9–2.8% per annum, when it was 'only' 0.75–1.0% per annum in the first half of the century. As Guðmundur points out, this seems to be quite unrelated to swings in the number of decked vessels, because there is no causal connection between the two factors. Guðmundur's explanation is that farming communities were experiencing a heavy population pressure because of a comparatively rapid population growth in the first half of the century. Hence, people increasingly were forced to find a livelihood outside the countryside, namely by the seaside where the population tended to gather in hamlets. Urban labour was necessary for industrialisation to materialise, and Guðmundur's findings indicate that labour was not in short supply. But while he stresses the seemingly ample supply of urban labour as a stimulating factor for the advent of Iceland's industrialisation, he acknowledges that it only was one prerequisite among many other.²¹ Guðmundur identified a very important push factor in the creation of urban areas in Iceland, but further examination of pull factors is lacking. Hence, some historians have pointed out that the role of foreign trade, which is a pull factor, may be underestimated in the advent of the economic transformation.²² The

²⁰ Magnús S. Magnússon, *Iceland in Transition*, pp 15, 19–20, 86, 88–9, 90–96, 277–9.

²¹ Guðmundur Hálfðanarson, 'Aðdragandi iðnbyltingar,' pp 29–32.

²² Gunnar Karlsson, 'Framsaga Gunnars Karlssonar,' p 33.

findings of Guðmundur can comply with those of Magnús, but they suggest that out of Magnús's two main explanations for the economic stasis, the bondage labour is less plausible than the relative isolation of Iceland. In fact, Magnús's own findings implicitly support this because new capital in the fishing sector (a pull factor) accelerated the exodus of people from farming, and made the labour bondage (a push factor because it restricted the freedom of people) irrelevant.

1.2.3. The Institutional Framework of Foreign Trade

According to the reproduction of Magnús S. Magnússon's findings above, the engagement of merchants into operation of decked fishing vessels around 1880 was of considerable significance, at least in the long run. Incidentally, this has not spurred any particular interest among historians into the causes of this. Neither has it drawn historians' attention to the role of mercantile activity in the Iceland economy nor aroused sensitivity for the overall institutional framework of foreign trade. By institutional framework reference is made to the structure or organisation of trade. More precisely, it includes both formal rules and regulations, such as laws, and business practices and procedures that have been formed over time by those engaging in the exchange of goods (merchants and their customers) and that have become effectively institutionalised. It also includes issues such as concentration of power (number and ownership of merchant houses), competition, etc.

This neglect about the institutional framework of Iceland's foreign trade is all the more remarkable since there is at hand an interesting opinion of a contemporary on

this aspect. The archivist Jón Sigurðsson (1811–79), a man of learning and great knowledge of Icelandic history, adamantly maintained that changes in the institutional framework of Iceland's trade were all-important for revitalising the Iceland economy in the mid and late 19th century. Jón was at the forefront of the nationalistic movement in Iceland, and that may have led him to exaggerate the importance of this matter and caused Icelandic historians to brush off his arguments as polemic. Nevertheless, it is slightly remarkable that Icelandic historians have not examined his arguments, because he is not only a prominent figure in the history of Iceland and in Icelandic historiography, but also a national hero because of his leading position in the early independence struggle, and his life and work has been recounted many times.

But even if neither the findings of Magnús S. Magnússon nor the writings of Jón Sigurðsson had suggested that the structure of trade might be important in relation to the economic transition, the very fact that structure matters should have suggested itself for research. After all, mercantile activity is not a neutral or impartial transmitter of goods. It is an industry to perform a certain function, that is, to exchange exports for imports. For that purpose, merchants rely on a set of practices and customary procedures. Just as any other industry, its overall structure (the institutional framework), can influence the economy no less than its substance or content, which is the trade flows themselves.

I.2.4. Foreign Trade and Economic Development in Theory

Scholars have entertained an interest over time in the relations between exchange of goods in foreign trade and economic development. The literature on this subject has

accumulated as the theoretical constructs have been advanced and refined, and various disciplines contributed to this. The core of these ideas is usually associated with gains-from-trade arguments. In spite of various empirical work based on theory, few hard and fast patterns have emerged, partly because methodologies vary and partly because of diverse institutional frameworks in foreign trade. Because of this and the fact that my aim is to highlight the theoretical relevance of trade flows for the Icelandic transition, the discussion below mainly outlines how trade flows can cause a major shift in terms of industrial composition in economy. Furthermore, the discussion below about gains from trade will be confined to semi-dynamic gains since static and dynamic gains have greater relevance for examination of economic growth although they can also affect economic development as will be commented on in Chapter III.

While exports are important to provide incomes and cash for any economy (trade surplus), their role in providing imports is even more significant because of the developmental implications of imports. This is because imports offer the chance to overcome limitations of and restrictions in the resource base. Note in this context that it is irrelevant whether imports are supplied through exports or whether they come in the form of capital investments by foreign parties. Imports are typically grouped into consumer goods and producer goods, depending on their use rather than their product characteristics, and services. Of these three valuables, the development potential of consumer imports is perhaps the smallest. Basically, those consumer imports in greatest demand may provide a stimulus either for their production internally (import substitution) or for consumers to produce more exports, to satisfy rising wants for these consumer imports. Hence, consumer imports can cause diversification in the industrial base or increase exports in a spiral way. The developmental implications of consumer goods are possibly larger in the latter case in that they do not necessarily simply cause a greater export production. Instead, they may stimulate specialisation in the economy

where economic resources are directed into production of goods where the economy has the greatest comparative advantages (or the least comparative disadvantages).

Producer goods, however, have more direct relevance for development in that they provide the means of production, that is, capital goods and intermediate goods for the purposes of production of goods. And since economic development for the past two centuries or so has mainly been propelled by mechanisation of production processes and rising relative production of manufactures, the acquisition and employment of producer goods is of major importance in terms of development. With no less development potentials are services that are supplied through exports, because they provide skills, knowledge, and ideas for the production purposes they are meant to serve, but they may also feed into other activities in the economy. Besides, the introduction of capital goods may require service imports as well, if the capital goods are to be used properly and efficiently. Finally, to put exports and imports in a perspective, the size of the export sector is a variable that one must also pay attention to when examining semi-dynamic gains from trade.

No scholar has examined this particular theoretical relationship between Iceland's trade flows and the start of the economic transformation. However, one scholar has examined the relation between Iceland's principal export sector, fishing and fish-processing, and the transformatory process in the early 20th century, after the transition was in full swing. This is the geographer Sigfús Jónsson and the venue was his doctoral thesis, 'The Development of the Icelandic Fishing Industry 1900–1940 and Its Regional Implications' (1981). The approach Sigfús employed is based on the staples theory with insights from the linkages approach; for further explication of these constructs, I refer to Chapter III. Briefly, the theory considers three component to be decisive for the economic history of newly settled regions, namely geography (natural resources), institutions, and technology. Production processes in the economy have their own

particular production relations through individual patterns in the use of these three components in varying quantities. The theory assumes that export staples are more important than other production processes in the economy, and that they are highly influential for the economy in terms of the type and location of economic activities, infrastructure, social structure, etc. Also, the theory assumes that because of their extraordinary importance, shifts in export staples practically reshape the economy over time and cause new types and locations of economic activities, different infrastructure and social structure, etc.

Sigfús Jónsson's application of the staples theory, as informed by the linkages approach, illustrates the central idea of the theory and the difference between my purpose in the present research and that of Sigfús in his doctoral thesis. Whereas I deal with the causes of the transition and its internal causal relationship until 1914, and concentrate on the significance of foreign trade in that process, Sigfús aims at analysing the principal export sector (fishing) over time. For this purpose he examines a host of issues and aspects, most of them lying within the export sector. They include the level of technology in fishing and fish processing, the organisation of fish exports, growth of infrastructure and industries serving the export sector, government intervention, national export incomes, and finally spatial or geographical implications of the growth of the fishing sector. In other words, I concentrate on the significance of foreign trade *in toto* for the transformatory process in the economy, while Sigfús in the main confines himself to analysing the only economic activity entirely devoted to exporting, both the activity itself and factors affecting its course over time. Hence, the outwards influences of the export sector, which I examine to some extent, are practically left out in Sigfús's research, and he does not pay attention to other sectors in the economy that produce for export as well as the domestic market.

Clearly, in comparison with the gains-from-trade arguments, the staples theory offers a relatively different approach to the interplay between trade flows and economic development. The theory does this by addressing new kinds of links between trade and the economy while leaving out other links. Leaving aside their differences, the main merits of both constructs is that they emphasise the need to examine trade flows when probing into economic development. With the exception of Sigfús Jónsson, this need has been eschewed or overlooked in Icelandic historical research, and Magnús S. Magnússon's work is included because his methodology does not give him chance to take this aspect in. This is because foreign trade and the rest of the world is necessarily and effectively exogenous to the traditional historical materialism model, which Magnús uses. True, Magnús devotes several pages to Iceland's foreign trade and shipping, and he tries to detect how it influenced the pattern of production relations he is arguing for in his study.²³ However, this is a very brief discussion about some of the main trends and, more important, trade is viewed within the framework of historical materialism where it has no special place.²⁴ In other words, Magnús's treatment of the topic is no examination of foreign trade *per se*, and because of his model he misses the dynamics of foreign trade and its potential impact on the economy in terms of both the institutional framework and trade flows. This deficient of historical materialism as a research method, along with its tendency towards linear-stages thought, is well known in the theoretical literature as developmentalism.²⁵ It has been criticised by many, but those advocating analytical or

²³ Magnús S. Magnússon, *Iceland in Transition*, pp 40–43, 65–70.

²⁴ Trade is nowhere explicit in the analytical framework Magnús employs, according to his explication of it (Magnús S. Magnússon, *Iceland in Transition*, pp 219–27).

²⁵ P.J. T[taylor], 'developmentalism,' pp 130–31.

‘rational choice’ Marxism have reacted by trying to take a more realistic account of foreign trade.²⁶

1.2.5. The Contemporary World Economy: International Trade and Core-Periphery Relations

It is common knowledge in the international economic history literature that international trade was growing during the research period, and that peripheral regions were increasingly integrated into the world economy through trade. This understanding probably has escaped most Icelandic historians, even if they were aware of a considerable expansion in Iceland’s foreign trade compared to earlier times.²⁷ Therefore, the foreign trade of Iceland has not been perceived or interpreted with much reference to this fact.²⁸ However, with reference to the international context, Iceland’s foreign trade ought to be a highly relevant issue when examining the economic transition of Iceland,

²⁶ T.J. Barnes], ‘analytical Marxism, geography and,’ pp 15–17, and H.D. Evans, *Comparative Advantage and Growth*, pp xiii, 2, 4, 212. An example of Marxist sensitivity to some extent towards foreign trade in economic development is J. Sender and S. Smith’s *The Development of Capitalism in Africa*.

²⁷ For instance, Gunnar Karlsson does not mention this world expansion in trade and suggests instead that changes in technology in neighbouring countries stimulated expansion in Iceland’s foreign trade in late 19th century. See Gunnar Karlsson, ‘Framsaga Gunnars Karlssonar,’ pp 33–4.

²⁸ A paper by the present author may be regarded as the first attempt, yet tentative, to highlight the relevance of foreign trade for the start of the economic transition. See Halldór Bjarnason, ‘Útanríkisverslun Íslands á seinni hluta 19. aldar: Fáein atriði um fjármagn, verslun og hagþróun’ (1997). This assessment rests on the understanding that the economic transition was not merely in the form of a mechanisation (industrialisation) in the fishing sector (see Chapter X), as Sigfús Jónsson (1981) assumed in his studies. But to be sure, Sigfús departs from the traditional perception of Icelandic historians in that he is influenced by the staple theory and puts export staples and foreign markets in central place when explaining the economic history of Iceland after 1900.

because it would be slightly remarkable if foreign trade did not in some way influence the Iceland economy in this era of rising international trade.

Also, foreign trade should be a very relevant issue for an island economy like Iceland, because findings in international economic history research suggested that economies with a relatively small natural resource base, and usually small in geographical size too, tended to have large export sectors. Other things equal, foreign trade, therefore, was relatively more influential in economic activity than in large economies. But there are even more intriguing reasons for examining this relationship between trade and the Icelandic transition.

The position of Iceland in international context during the research period has received negligible interest among Icelandic historians. Most often, the history of Iceland is compared to that of the other Nordic countries. This comparison is justifiable in many respects, but when it comes to their economic history, the Nordic countries are not the only or necessarily the ideal economies to compare with Iceland in a rigorous way. This is because Iceland's economic position was considerably different from the Scandinavian countries, saving Finland. In name, Iceland was a dependency, but it will be argued later in the thesis that the term colony is more apt, at least with regard to economic relations. Denmark and Sweden, on the other hand, were in my research period independent, and Norway practically so, although a part of the Swedish kingdom. Norway, in any case, never came close to be a dependency or colony, while the status of Faroe Islands and Greenland, which were also Danish possessions, was more like that of Iceland. This difference in constitutional and, effectively, economic position is very important because it can be claimed that it heavily influenced the economic history of all these countries. More precisely, in Iceland, as well as in the Faroes and Greenland, archaic and partly restrictive characteristics in their factor markets and social structures persisted, while the

societies of Denmark, Norway, and Sweden to a varying extent experienced economic development and modernisation akin to the one that took place in Western Europe.

Looking at this matter in a larger context, when the Iceland economy is compared with other contemporary societies that were also predominantly traditional and peripheral, it seems safe to suggest that the economic position of Iceland was much more like them than the Scandinavian countries. Note that I am speaking here about positions of the respective economies relative to the international context in terms of trade and politics. Hence, I am not referring to any direct similarities in their resource base or social structure, let alone culture, although there are no doubt numerous parallels in their history and in the elements of their societies, including economic systems. Taking a concrete example from the economic history of Iceland during my research period, Iceland had enclave activities that were owned by foreign entrepreneurs and companies, run partly with Icelandic labour, but actually operating on the boarder of the economy and with the profits of the enterprises expatriated. The enclaves in Iceland, herring fishing and whaling enterprises, are classic examples of enclaves that were common in many places in peripheral regions of the world in the research period. This fact seems to have escaped most Icelandic historians because these enclaves have at best only implicitly, and nowhere explicitly, been linked to this world-wide phenomenon to the best of my knowledge.²⁹

All of this should in fact not surprise those familiar with the economic history of the world economy in the research period, but it may be a strange perspective with regard to Icelandic historiography.³⁰ It seems rather evident that Iceland was a typical

²⁹ The first instance of this realisation seems to be in Halldór Bjarnason, 'Útanríkisverslun Íslands á seinni hluta 19. aldar: Fáein atriði um fjármagn, verslun og hagþróun' (1997).

³⁰ Probably the first Icelandic historian to claim support for this world-wide comparative approach in historical research of traditional societies and peripheral regions is Þorsteinn Helgason, 'Skilyrði hraðþróunar' (1986).

periphery in terms of the world economy whereas the Scandinavian countries saving Finland were more like the Western European core countries. This perception of Iceland is based on the understanding that the world economy broadly was divided into two in the research period. On the one hand were the Western European core economies that industrialised one after another in the 19th century, with Britain starting in the 18th century. On the other hand were peripheral regions and they can be split broadly into the intra-European periphery, the tropics, and the temperate settlements. The trend in the world economy in the research period was that the core economies were extending their influence, not only economically and politically but also culturally, into peripheral regions — directly and indirectly. Hence, the economic history of the world economy in the period is one of integration, extension of power, and inter-dependence on a world scale. It is only logical to study the history of Iceland with due notice to the fact that the island was a part of the peripheral regions of the world and subject to similar patterns in its economic history.

I.2.6. Key Research Questions

The historical problem that the thesis focuses on may be restated in the following way. The start of the economic transformation of Iceland has been interpreted primarily with reference to selected internal elements, traditionally on the basis of the mechanisation in the fishing sector but later in terms of production relations in the sense of historical materialism. For a variety of reasons listed above, this is too a narrow approach and perhaps the most relevant matter not considered so far in relation to the economic

transition is Iceland's foreign trade. Therefore, the principal aim of the present research is to test the overall relevance of foreign trade for the process of the economic transition in Iceland from its beginning until the outbreak of World War I in 1914. Also, it was decided to put the findings in a broader context and tentatively consider the Icelandic case in terms of some of the literature about patterns in the contemporary world economy and international trade. These aims can be broken down to five sets of questions, and analytically the search for answers requires a five step procedure.

- 1) What major shifts occurred in the exports and imports of Iceland in terms of commodity composition, quantities, and prices?
- 2) How were Iceland's balances of trade and terms of trade, and how did the levels of the volume and value of trade change over time?
- 3) In what ways did shifts in the trade flows affect the economy and, especially, the process of the economic transition as it has been described in the literature?
- 4) Similarly, in what ways did shifts in the institutional framework of trade affect the economy and, especially, the process of the economic transition as it has been described in the literature?
- 5) With reference to comparative research on the economic history of contemporary peripheral economies, how was Iceland's performance in terms of economic growth and development? Also, what does comparative research suggest about the sources of and barriers to growth and, particularly, development? From this point of view, how well do existing explanations fit the Icelandic case?

To analyse the impact of foreign trade on the economy and, especially, the economic transition, it is necessary, first, to perform a comprehensive trade analysis, which means that both exports and imports have to be examined closely. This entails in the first instance examination of the types of exports and imports, aggregated at different levels, the economic context of exports and imports in terms of existing production and consumption patterns respectively in Iceland, the quantities and values of exports and imports, their prices and market countries. In the case of export staples, shifts in their demand and their competitive position in the markets are discussed and explained. More general aspects of the trade flows will then be examined and there I compute and discuss Iceland's trade balance by countries and in total, terms of trade by different criteria, as well as value and volume indices individually. By surveying the trade flows, an extensive picture will be offered of the impact of international markets on the Iceland economy in terms of both exports and imports. This will also give answers to many questions about production and consumption patterns in Iceland and how these patterns changed over times as a result of internal and external factors.

Following the trade analysis itself, the macro-economic implications of identified shifts in the trade flows will be examined in some detail with the help of the special research method employed in the thesis. In other words, the significance of the main shifts in the trade flows will be assessed by examining whether and how they had impact on the economy and the transitory process.

Subsequently, the focus will be moved to the institutional framework of trade. This means examination of many but not all aspects of the formal and informal section of trade. The focus will be on changes in the law and in voluntary practices, customs, and procedures that emerged in the exchange of goods over time. As happens, some changes in the institutional framework were specific to products while other changes applied to exports or imports in general, and both sides are included in the analysis in the

thesis. As in the case of the trade flows, the shifts in the institutional framework of trade will be examined in more detail with the help of the research method to assess the significance of the main shifts in the institutional framework and examine whether and how they had impact on the economy and the transitory process.

Finally, to amplify and complement the findings of the analysis, the findings for Iceland are discussed with reference to some of the research on the contemporary world economy and the economic history of peripheral regions. The logic behind this was that it would be fruitful to look at the Icelandic experience in international comparison so that important similarities and dissimilarities between Iceland and other contemporary economies in transition could be identified better. This exercise partly required an approach based on the methodology of economics, such as factor market analysis, as well as discussion about historical models from economic history. It was considered worth the while to put the Iceland case in international context in this way, although the treatment of the subject is inevitably tentative.

1.3. Review of Relevant Literature

It seems safe to say that scholarly research in the economic history of Iceland in the late 19th century and the early 20th century is still in its infancy. Fifteen years ago Magnús S. Magnússon found the state of research in this field to be poor,³¹ and although the publication of useful studies and primary material has increased, research into, for instance, foreign trade in this period is still laborious and time-consuming because of lack of research and want of reproduction of primary sources.

With regard to the trade flows, it is short to say that the literature is small. There is no general account or historical survey with sufficient breakdown of either exports or imports over time, there are few solid studies on individual export branches, and there are no studies at all about individual imports. Probably the most useful studies about exports were Valdimar Unnar Valdimarsson and Halldór Bjarnason's *Saltfiskur í sögu þjóðar*, volume 1 (1997), which deals with Iceland's saltfish industry, and Sveinbjörn Blöndal's *Sauðasalan til Bretlands* (1982), which is about live sheep sales to Britain. An helpful work deserving mention is Matthías Þórðarson's *Sildarsaga Íslands* (2n ed. 1939) about herring exports. Unlike the studies above, this is not a scholarly work but it is informative in spite of patchy and insufficient references. Also, Trausti Einarsson deals with exports of whaling products in his scholarly work *Hvalveiðar við Ísland 1600–1939* (1987). In spite of useful historical information from these sources, only the first two contained statistics that were useful. Hence, there was a limited help from existing literature in the trade analysis, and, moreover, the primary material that was analysed (trade statistics) had to be collected from the original sources (printed trade returns).

³¹ Magnús S. Magnússon, *Iceland in Transition*, pp 22–3.

The state of research is not much better whereas the institutional framework of trade is concerned. In the first place, there is no account on either the formal or informal section of the institutional setting in my period. In the case of the law governing Iceland's foreign trade, the information was gathered from primary sources. The only piece of writing containing some outline of the informal institutions is Matthías Þórðarson's *Dansk-Islandsk Samhandel 1787–1942* (1942), but it is very sketchy in treatment of the matter, and it only deals with the pre-transitional situation.³² True, there is a number of biographies, local histories, business histories, and special studies where issues belonging to the institutional framework are commented on, but they were not always meant to be scholarly and the treatment is often haphazard and rather unfocused. Also, these writings have usually preoccupied themselves with indigenous initiative, that is, Icelandic merchants and Icelandic trading associations, and only dealt superficially with Danish merchants. Given the preponderance of Danish merchant houses in Iceland's foreign trade and the nature of these writings, they were considered of too limited a value to search for and scrutinise.

Besides, even if this literature is used as far as it goes, changes in informal institutions can only partly be sketched on the basis of these studies, and there was not time to work systematically on primary sources. Since, it was not possible to offer comprehensive account of the informal section of the institutional framework of trade, selected issues were chosen to discuss in the thesis, such as business practices between merchants and their customers, and both secondary sources and primary sources used somewhat randomly to fill in the picture.

In other parts of the thesis, when the links from foreign trade to the economy Iceland and the transition were traced, a number of sources were used, both primary and

³² Matth. Thordarson, *Dansk-Islandsk Samhandel 1787–1942*, pp 37–46.

secondary. It goes without saying that there are also many gaps in the literature, but they were not equally as much burden for the research as the scarcity of literature about foreign trade.

I.4. Sources and Methods in General

I.4.1. The Trade Analysis

The purpose with the trade analysis essentially was to provide general and detailed information about the trade flows, their economic context, and a host of matters relating to both exports and imports, including product-specific changes in the institutional framework, for instance, new merchants or new producers of exports. This part of the research was relatively straightforward and empirical in nature because the objective was to gather relevant information and present them systematically. The sources for this part of the research were mainly trade returns although a range of other primary sources, literature, and reference works were used too.

The trade returns employed were predominantly returns of the countries trading with Iceland, but Icelandic returns were also used. *A priori*, the most obvious source was the Icelandic returns, but it was clear at the same time that they were problematic.³³ This is because they are not a product of ordinary customs inspection as trade returns usually

³³ See Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar*, vol. 1, table appendix, and Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, Section 10.

are. Instead, they were based on essentially voluntary reports from merchants and their collection by the central administration was not always entirely successful. Apart from this, the reports that were returned are subject to both systematic and accidental under-reporting, besides lacking information about value of exports and imports until 1895. Instead of requesting information about values as well as quantities, separate reports were made about average prices. Also, the processing of the reports for publication as official trade returns was such that until 1895 no information was published about the countries trading with Iceland. Finally, whereas the specification of exports was satisfying, a large part of the imports was reported in the printed returns in compound commodity groups that are of restricted analytical value.

In spite of all the deficiencies of the Icelandic trade returns, an attempt was made to use them as a basis for the trade analysis during 1870 to 1895, after which the Icelandic returns became usable in technical sense. But the attempt was effectively futile, and I eventually ended up using trade returns of the countries trading with Iceland as a basis for the trade analysis for 1870 to 1895. Furthermore, when the Icelandic returns for 1896 to 1914 were inspected in comparison with the trade returns of Iceland's trading partners, a considerable under-reporting was discovered in the Icelandic source, and the foreign returns were preferred. Also, the foreign returns excelled the Icelandic returns by far in terms of commodity specification, and while this advantage seemed not so important at first, it became extremely useful later in the research. Hence, the Icelandic trade returns ultimately only became a supplementary source, although the returns were very useful where they offered information not to be found elsewhere.

For further information about the trade datasets, I refer to Appendix A where they are more closely described. There, I also discuss various problems relating to the making of the returns, the processing of the data, and the varying qualities of the present datasets that were built up. It suffices to say here that extensive datasets were prepared

and the information aggregated by various criteria for the purpose of the research, both in tables and graphs. The main summary tables are to be found in Appendix A while some of their aggregates are highlighted in a selection of graphs that accompany the main text.

I.4.2. Links from Trade to the Economy

A search in the theoretical and empirical literature in economic history showed that it did not offer any approach that clearly was suitable for the purpose of the research. The staples theory was feasible in that it was comparatively extensive as commented on above, and it integrated a number of important basic, economic components or determinants within a single explanatory framework. Nevertheless, it is a theory and as such, it rather is a statement of a particular causal relationship between the basic components than an extensive analytical framework to test actual relationships between the components, allowing for many types of economic outcomes. Besides, the preoccupation of the staples theory with exports, ignoring the role of imports, fitted uneasily with the gains-from-trade arguments that offered a wider and highly relevant perspective on the relation between trade and development. Because of these reasons, the staples theory as such was found somewhat restrictive and not suitable.

As time passed, a certain analytical construct had been fused into the original staples theory, and the theory used in this extended form by a number of scholars, including Sigfús Jónsson. This was the linkages idea, and this intrinsic part of the extended staples theory suggested itself as my principal research method. Further reading

in economics, particularly development economics, and inspection of scholars' application and criticism of the staples theory in economic history gradually convinced me of the applicability of the linkages approach as my basic research method. This idea of linkages is explicated in Chapter III but in brief, it claims that every economic activity can and does produce certain linkages, and these linkages are traced to their macroeconomic context. Thus, a particular line of production can have backwards, forwards, fiscal, and consumption linkages. They stand for the types of impact that this economic activity has on the economy with regard to possible provision of its producer goods and service inputs, further processing of its outputs, money revenues from exports and imports to the state, and rewards to factors of production (excluding producer goods).

The general linkages approach was very useful as a first step for the examination of links from trade to the economy. By its nature, however, it is far more suitable for scrutinising the flows of production and consumption, than for inspecting overall shifts in factor use. This is because it essentially is focused on flows in values, whichever products or money, and not on organisational change in the use of factors. Since the thesis was no less concerned with shifts in the way utilisation of factors of production is organised, another way had to be found to deal with this aspect. How I coped with this methodological problem is explained in Chapter III, but it suffices to say that a certain economic determinants model was used. In short, it assumes that all economic activity is based on utilisation of four elements or determinants, namely geography, population, technology, and institutions. The model is meant to analyse how industries form their own particular patterns in the use of these elements, which, thereby, become factors of production but at another level in the analysis. Shifts in the composition of industrial activities are reflected in a different pattern in the use of factors and, effectively thereby, in elements. In this way, the model gives an opportunity to

analyse these patterns and how they change, for instance, in economic development. This economic determinants model was the deciding factor in attaining the ultimate aims of the research. Without it, the overall economic impact of either institutional change in foreign trade or trade flows could not have been analysed in as effective a way as I believe the outcome witnesses.

I.5. Disposition

Apart from this Introduction (Chapter I), Conclusions and Implications (Chapter X), and Appendices, thematically the thesis falls into three parts. The first part is where the scene of the research is set, empirically (Chapter II) and theoretically and methodologically (Chapter III). Chapter II conveys some background information about Iceland besides offering an introduction to historical circumstances in Iceland around 1870 and a brief historical account of selected themes until 1914. I start the chapter with a sketch of natural conditions, population, industries, infrastructure, and economic circumstances as of 1870, while I describe external relations from 1870 to 1914. Subsequently, I deal with foreign trade of Iceland by describing legal and natural conditions of trade from 1870 to 1914, and by sketching the institutional framework in 1870. The chapter concludes with a few words about restraints in the Iceland economy in the 19th century.

In Chapter III, I first look at what has been said about the relevance of foreign trade and international markets for traditional economies like Iceland. Theories about gains from trade in terms of economic growth and development are discussed and so are trade policies. This is supplemented with a reproduction of an opinion of an Icelandic

contemporary, Jón Sigurðsson, who wrote about growth and developmental potentials of Iceland with regard to its foreign trade. Having outlined the theoretical underpinnings of the research, its methods of research are described.

The second part of the thesis (Chapters IV–VI) is devoted to the examination of trade flows from a variety of angles and presents the results of the trade analysis. Chapter IV is a comprehensive survey of exports of Iceland. The level of total exports, their composition, and changes over time, both by value and quantity, and destinations of exports is examined. The economic context of exports over time is described, the level of export concentration is commented on, and attention is paid to circumstances in foreign markets by commenting on prices and principal competitors among other countries. Chapter V offers equivalent treatment of imports of Iceland. This part of the thesis is concluded by Chapter VI, which deals with balances of trade, externally-owned exports and imports that arose from enclave activities, storage of trade surpluses, volume and price trends, besides terms of trade, and gains from trade through labour reallocation. Also, the pattern in Iceland's trade by countries is described, thus allowing to expose the system of trade surpluses and deficits.

The third part of the thesis (Chapters VII–IX) analyses the impact of Iceland's foreign trade on the economy and, particularly, the economic transition with the help of the general linkages approach and the economic determinants model. It also puts the findings in international context. Chapter VII deals with the implications of trade flows for the Icelandic economy while Chapter VIII deals with the implications of institutional change in foreign trade for the Icelandic economy. The core of the first chapter is examination of live sheep exports and a fall in the prices of saltfish. In the second chapter, the institutional implications of the live sheep exports are first examined and then the focus is put on shifts in the levels of money supply. In Chapter IX, I attempt to interpret the findings for Iceland in terms of the international context. First, the theme

from Chapter III about the alleged gains from trade is revisited. The historical evidence is outlined and the reasons why traditional economies fared very unevenly in this respect are discussed. Then, the Iceland economy and the findings presented in Chapters VII and VIII are cast in terms of the different explanatory frameworks that have been employed in the economic history literature on trade and development. Finally, the findings for Iceland are discussed in terms of two particular historical patterns scholars have found to exist, namely colonial relations on one hand and dualism and enclaves on the other.

Finally, Chapter X offers conclusions with reference to the research questions and a discussion of the implications of the findings of the thesis, after which a few words are added about various aspects and issues calling for further research in future. Concerning the core theme of the thesis — the relevance of foreign trade for the economic transition of Iceland until 1914 — it will be argued that foreign trade was all-important for the start of the transition and its onwards process that was characterised by two distinct forces of motion, capital investment in fishing and unprecedented money inflow, rather than the first only. In fact, the money inflow is considered to have started the monetisation of the economy and, in turn, modernisation of the economy as well. Therefore, it is maintained that the findings call for a re-assessment of the existing interpretation of the economic transition in the research period, that is, its causes, nature, timing, and wider historical implications.

For information about technical matters relating to the trade datasets and other series presented in the thesis, five Appendices are included for consultation. Appendix A comprises an explanatory text about the trade data followed by a selection of tables used for the trade analysis. The explanatory text is a relatively detailed account about the making of the trade datasets, the sources used, and the procedures followed in their building, for instance, explanations for estimates that were necessary, and how various problems were solved. Appendix B deals with externally-owned exports and imports (enclave activities). It discusses problems of definition and the sources about exports and

imports of enclaves, and the methods used in the thesis. Appendix C has comments about practical and methodological issues relating to the choice of trade indices, and previous estimates of trade indices are compared with those produced in the present research. Appendix D explains how gross margins in Iceland's trade with Denmark were computed. Finally, Appendix E contains the series underlying selected international commodity price series that are graphed in the thesis, together with references to the respective sources.

Chapter II

The Icelandic Economy in the Late 19th Century

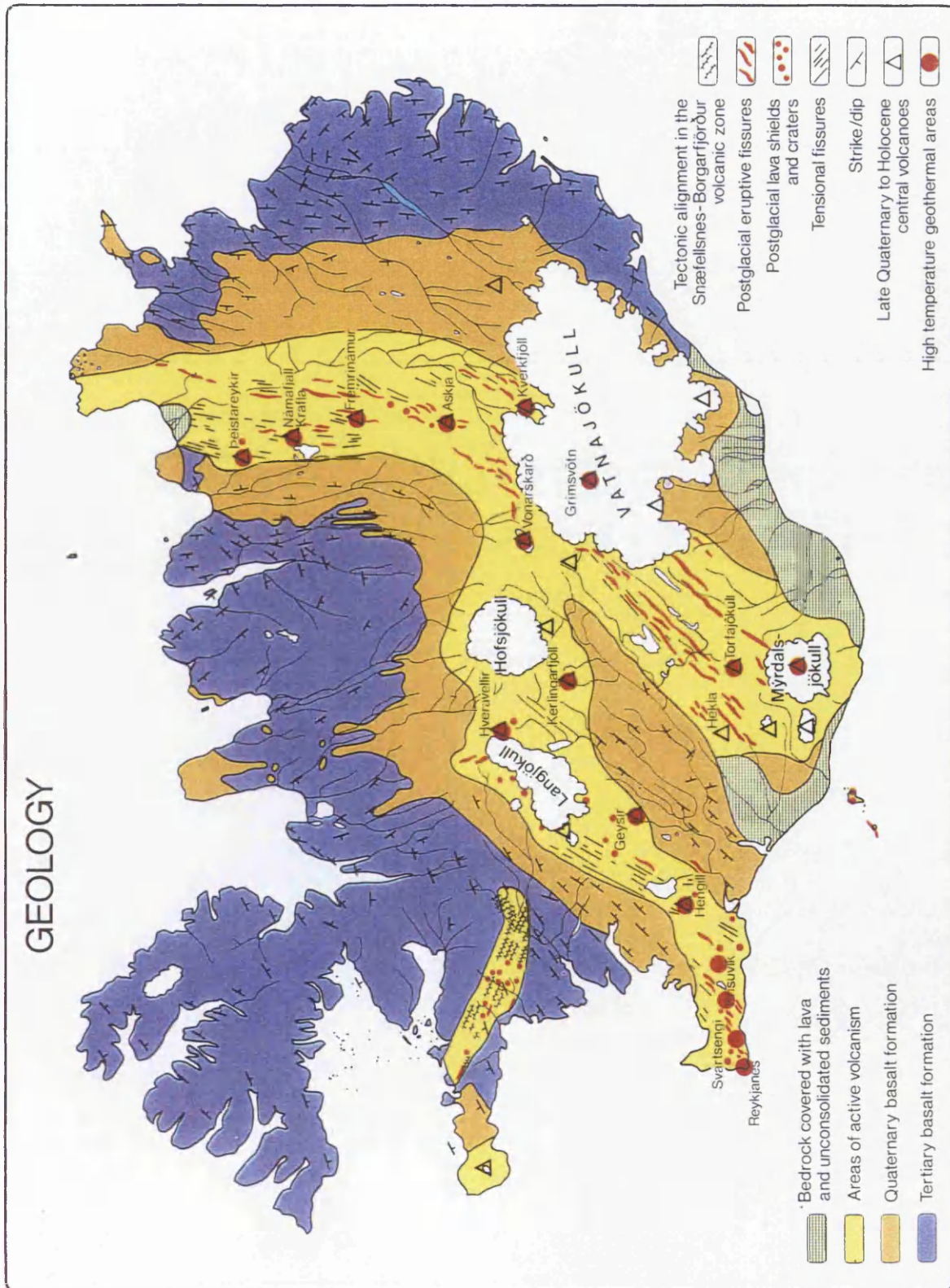
II.1. Natural Conditions

Iceland is an island in the North Atlantic ocean, lying between Norway and Greenland just south of the Arctic Circle. It has an area of 103,100 km². The geology of Iceland is determined by its location, because it is situated astride a plate boundary, which is a part of the mid-ocean, ridge-rift system. The plates are moving in divergent directions, causing volcanism across the country and outside the main rift line as well (Map II.1). Besides volcanic eruptions of various kinds, earthquakes and geothermal activity is also a consequence of the volcanism. In spite of many volcanoes and eruptions in pre-historic and historic times, the country is largely a table land where the average height above sea-level is 500 m and one quarter of the land is below 200 m.¹ There are also lowlands, the largest of which are in the southwest part of the country.

The geology of Iceland and the country's location heavily influence the physical geography of the country. At the time of settlement in the 9th and 10th century AD, it is estimated that about half of the country was covered with vegetation and, thus, soils. The reasons for this relative nakedness of the country are several. In geological sense, the

¹ Sigurður Þórarinnsson, 'Geology and Physical Geography,' pp 1, 3, 5–6. See also Þorleifur Einarsson, *Geology of Iceland*.

Map II.1
Geology of
Iceland



From: **Iceland 1986**, ed. by Jóhannes Nordal and Valdimar Kristinnsson.

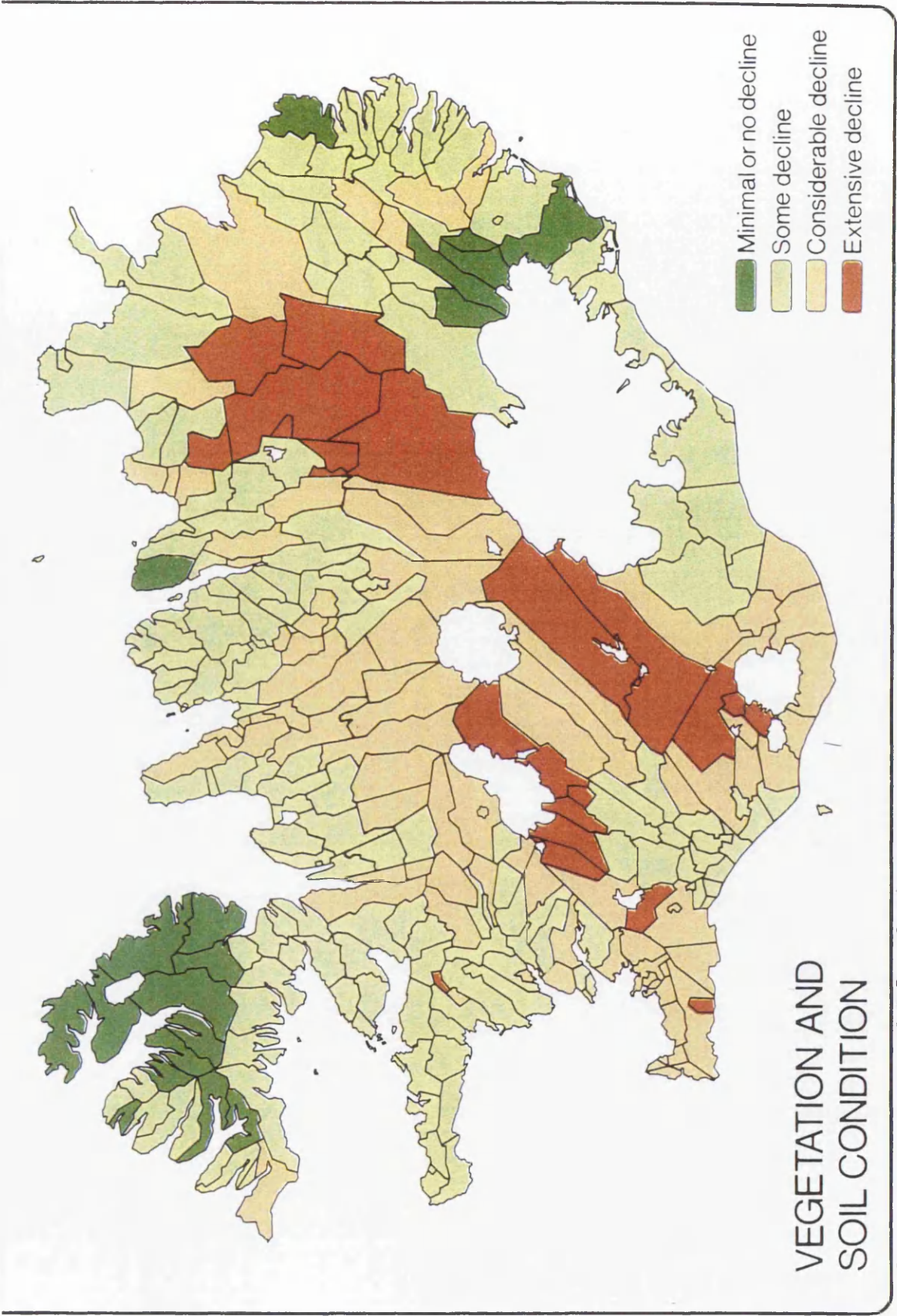
country is comparatively young so vegetation had had a relatively short time to develop. Furthermore, the volcanism and the ice that more or less covered the country in glacial periods caused a destruction of soil and vegetation. Also, the geographical isolation of the country hindered immigration of flora.²

New findings indicate that the vegetation area contracted immediately after settlement after which the vegetation remained on a similar level over the centuries (Map II.2). The contraction was due to the habitation of man, for the vegetation cover was eroded through wood cutting for domestic use and wood burning to make charcoal. With the depletion of wood, which was mainly birch bushes, the soil was left uncovered, resulting in erosion of the soil where it was weak. This was because peat soils, which currently make up about 40% of the total soil cover, have a low percentage of clay, making its structure weak and susceptible to erosion by wind and water. This was especially unfortunate because of the generally cool climate of Iceland, chemical and biological processes work slowly in building up soil, and a deterioration in temperature in Iceland during ca 1300–1900 probably contributed to this process. Also, lava flows and distribution of ash from volcanic eruptions often destroyed tracts of land temporarily or permanently. Today it is estimated that about half of the initial size of the vegetation area still has soil cover. Thus, according to disputable official figures, about 1% of Iceland is cultivated, while 20% is used as grazing areas, about 50% is waste land, and the remaining 29% are glaciers, lakes, lava, and sands. The situation around 1870 probably was in general similar to that of today (Map II.3).³

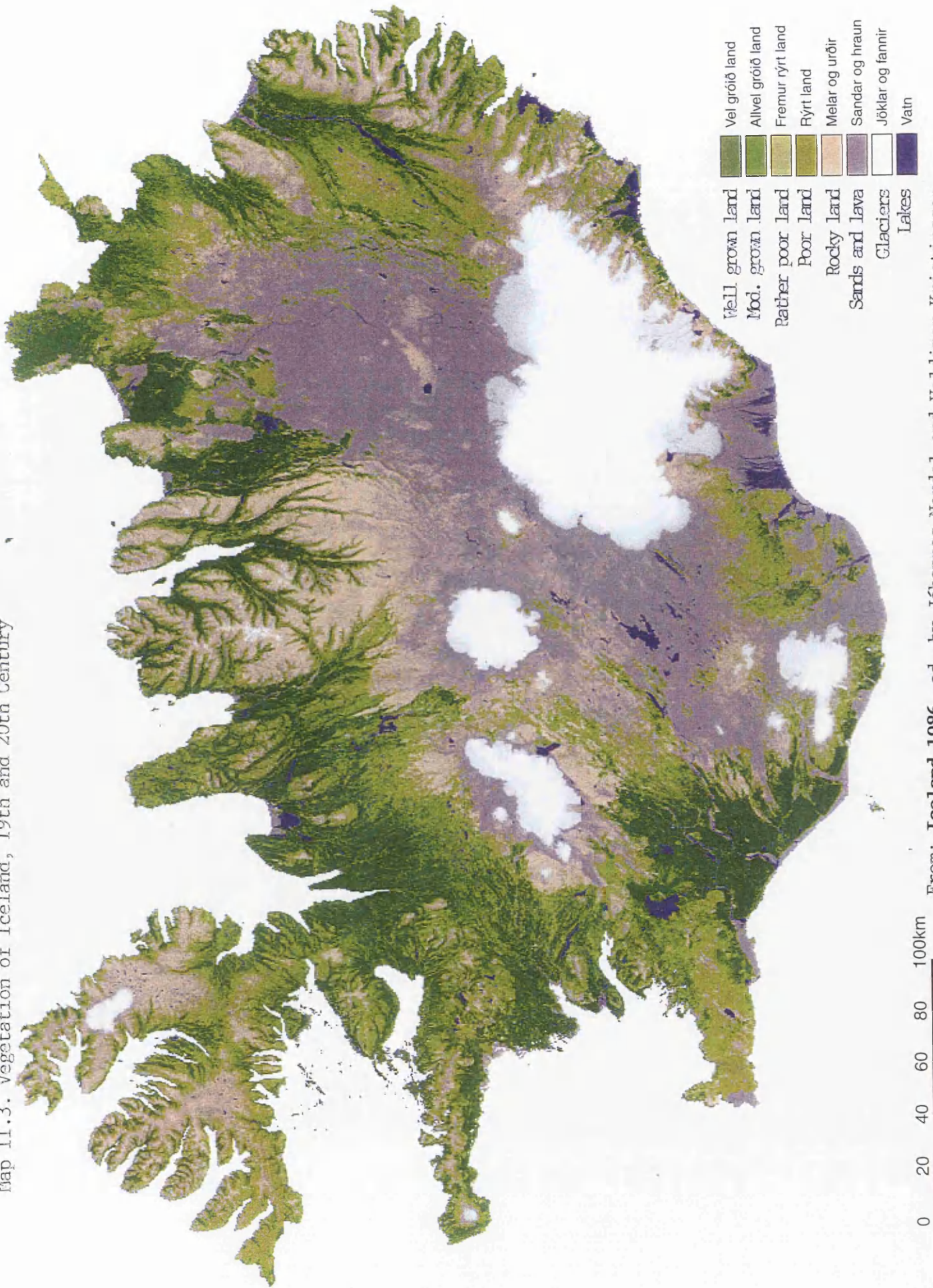
² Sigurður Þórarinnsson, 'Geology and Physical Geography,' pp 2, 6–8. Eyþór Einarsson, 'Flora and Vegetation,' pp 25–6. See also Þorleifur Einarsson, *Geology of Iceland*.

³ Árni Daníel Júlíusson, 'The Environmental Effects of Icelandic Subsistence Farming.' Sigurður Þórarinnsson, 'Geology and Physical Geography,' pp 7–8. Icel., Nat. Ec. Inst., *Basic Statistics of Iceland*, p 8.

Map II.2. Soil Erosion in Iceland Between ca 900 and the 20th Century



Map II.3. Vegetation of Iceland, 19th and 20th Century



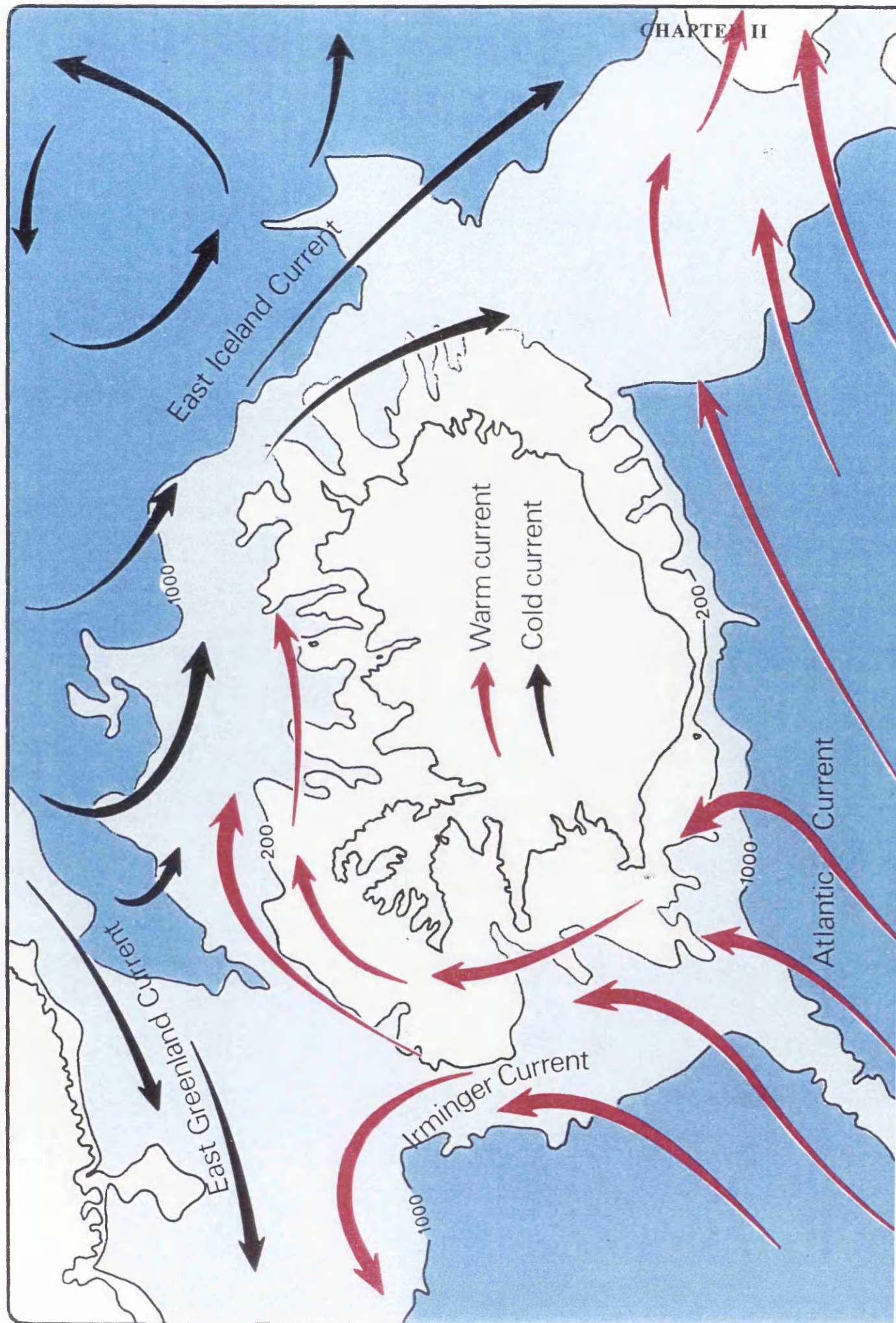
The climate of Iceland is best termed as cold-tempered oceanic because the summer is cool (10–11° C) and winter is mild (around 0° C). However, Iceland lies in climatic boundary zones because air masses coming to Iceland from south and north are of tropical and polar origin respectively, and so are oceanic currents. This causes regional variations in temperature, precipitation, and the extent and location of drift ice off Iceland, but seasonal movements are far larger and they depend on atmospheric depressions crossing the Atlantic.⁴ Economically, currents in the sea are perhaps of more importance for Iceland because they very much affect fishing in Icelandic waters (Map II.4). Therefore, it is not the surface geographical location of the country that has been most important for living conditions but the oceanic landscape. Between East Greenland and the British Isles there is a sub-oceanic ridge and Iceland is situated along it. Because of this, a particular sub-current of the massive tropical Gulf current, which moves east and northwards across the Atlantic ocean, takes a turn westwards along the south side of the Greenland-Scotland ridge. This is the Irminger current and it flows south off Iceland and then turns northwards between Greenland and Iceland. Off the northwest part of the country the Irminger current meets a cold Polar current with which it merges. Together they form an arctic current that moves eastwards north off Iceland and then turns southwards where it meets the Irminger current south of the ridge. This system of oceanic currents around Iceland, which also affects temperature and salinity of the sea, makes it possible for Atlantic-boreal species like cod to spawn and grow up south and west off Iceland, while Arctic-boreal species like herring live north and east of Iceland.⁵

It is safe to say that Iceland was a relatively barren country in our research period, both in terms of vegetation and terrestrial natural resources. Not only was

⁴ Sigurður Þórarinnsson, 'Geology and Physical Geography,' p 8.

⁵ Ingvar Hallgrímsson, 'Life in the Iceland Seas,' pp 9–11.

Map II.4. Currents in Icelandic Waters. (From: Iceland 1986, ed. by Jóhannes Hordal and Valdinar Kristinnss.)



vegetation already confined at the time of the settlement, but it contracted considerably afterwards. Owing to its geological history, Iceland was scarce in commercial, terrestrial natural resources. Hence, the economy's potentials for diversification were considerably confined because of the resource base. Of viable raw materials, only sulphur could be found in considerable quantities, but transport difficulties and other reasons hindered any large-scale exploitation in the 19th century.⁶ The only natural resource in abundance in the 19th century was Icelandic waters, because they were underutilised and could support a larger population than lived in Iceland, even at the existing level of technology.

II.2. Socio-Economic Structure, Economic Circumstances, and External Relations

In the present chapter, sections two to five are devoted to a description and analysis of some of the most important aspects of Icelandic society. While external relations, besides legal and natural conditions of trade, will be discussed in relation to the whole period under study, socio-economic structure and business conditions will only be discussed as they were around 1870. This is because in my view, the socio-economic structure and general business conditions primarily developed because of shifts in the trade flow (exports) and the institutional framework of the foreign trade. And since the impact of exports and institutions in foreign trade on the economy will be specifically dealt with in

⁶ Sæmundur Rögnvaldsson, 'Húsavík fyrri tíma: Verslun, brennisteinsnám og kirkja,' pp 45–66. Frank Ponzi, *Ísland fyrir aldamót. Iceland: The Dire Years*.

the thesis, changes in socio-economic structure and business conditions are best described and analysed in connection with them (see Chapters VII–VIII).

2.1. Population, Industries, and Infrastructure Around 1870

Icelanders are descendants of Norwegian and Celtic people who settled in Iceland in the 9th and 10th century AD, and there has been a relatively small influx of people of other nationalities over the centuries. The native tongue is Icelandic, which has changed comparatively little from Old-Norse, which was spoken in Scandinavia at the time of settlement and is the mother tongue of the modern Nordic languages. In spite of various contacts with other countries and influences from Europe over the centuries, including christianisation in 1000 AD, Iceland was still predominantly a traditional economy around 1870, broadly using R. Dasmann's definition of 'ecosystem people' who are 'members of indigenous cultures who live within a single ecosystem, or at most two or three adjacent and closely related ecosystems.'⁷ While the kind of society referred to with such phrasing can be relatively easily grasped, the choice of an appropriate term is a

⁷ G.A. Klee, 'Introduction' to *World Systems of Traditional Resource Management*, ed. by G.A. Klee, p 1.

minefield.⁸ Nevertheless, in this thesis the term 'traditional' economy or society will be preferred to premodern or 'subsistence' economy, 'self-sufficiency,' or 'household production' to list a few other common terms. Household production is intrinsic to traditional societies, and references to subsistence and self-sufficiency obscure the trade element that is intrinsic in traditional economies.⁹ Hence, the definition must include internal and external trade, besides subsistence-orientation, and it does not imply any value-judgement whatsoever.¹⁰ The terms LDCs and Third World appear in the thesis also, the first referring primarily to transitional societies in this century (no longer wholly traditional), and the latter is a geographical shorthand for LDCs around the world.¹¹

In 1870, the population in Iceland numbered 70,000 people. Practically all of them lived in rural areas (Map II.5) because pastoral farming formed the socio-economic basis of the economy. The farming was of a peasant type, each household forming the most common unit of production and the most important unit of consumption within the society.¹² Peasants either owned or, more often, leased their farms, and in the latter case they sometimes came with a small livestock as well. Rent for the land and the animals was paid in kind. Young people and youngsters of both sexes from the age of 13 to 16 years onwards always served first as domestic servants at their parents' home or at other

⁸ [H. Alavi and T. Shanin], 'Introduction' to *Introduction to the Sociology of 'Developing Societies'*, pp 2–4. J.S. Hogendorn, *Economic Development*, pp 10–11. R. Cameron, *A Concise Economic History of the World*, 3rd ed., p 5.

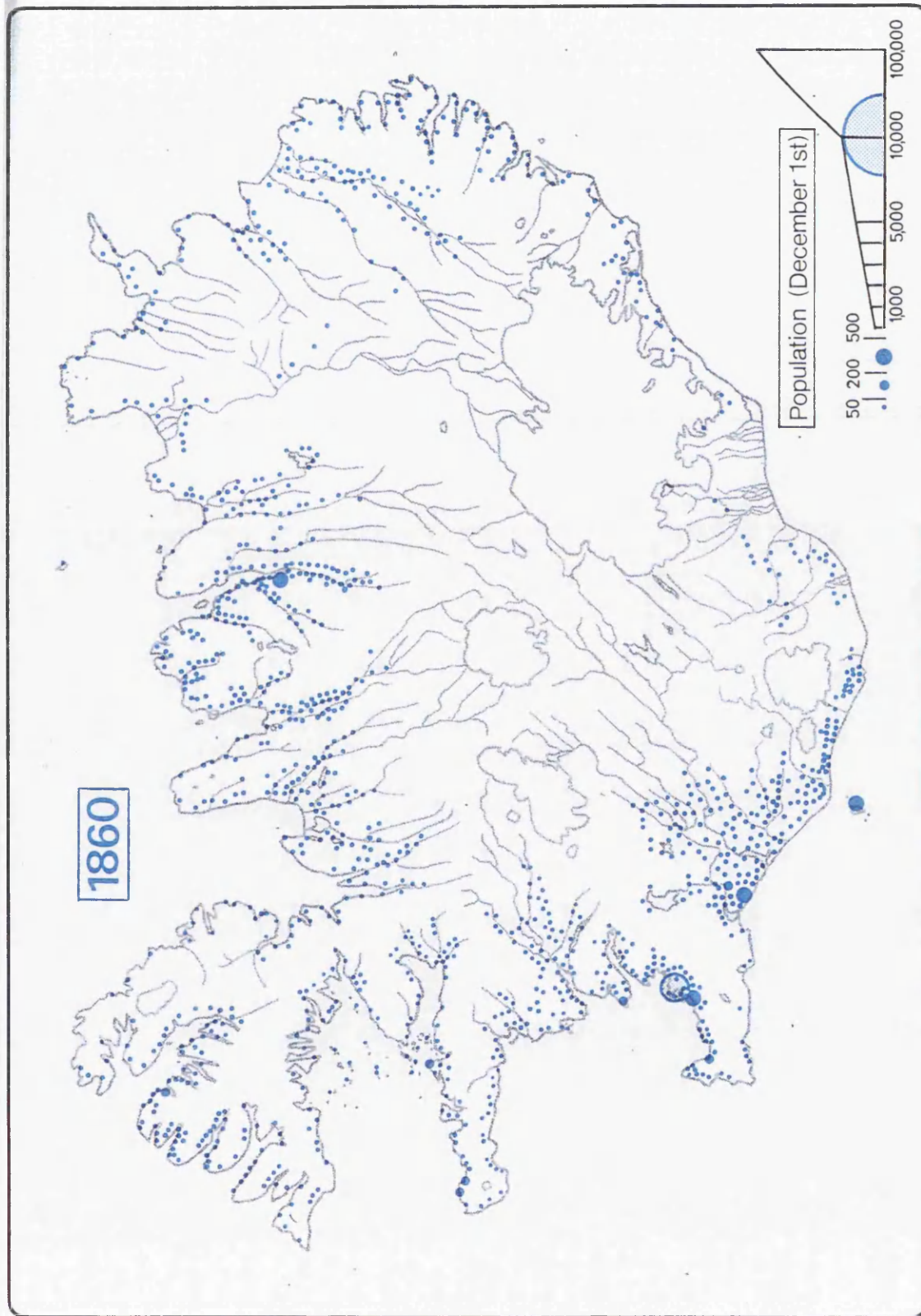
⁹ See a discussion on terminology in L.G. Reynolds, *Economic Growth in the Third World*, pp 15–17. In relation to this, see a definition of subsistence agriculture in M. W[atts], 'subsistence agriculture,' p 605. — A relevant discussion about the role of trade in a traditional economy (19th century Norway) is in Ø. Østerud, *Agrarian Structure and Peasant Politics in Scandinavia*, pp 189–94.

¹⁰ As an example of a systematic discussion on trade is R. Hodges, *Primitive and Peasant Markets*. Examples of trade in historic times are given in R. Cameron, *A Concise Economic History of the World*, 3rd ed., pp 32–7, 62–8. For more vivid examples of trade in traditional societies, see, for example, L.G. Reynolds, *Economic Growth in the Third World*, pp 17–22.

¹¹ Cf. L.G. Reynolds, *Economic Growth in the Third World*, p 5.

¹² A lucid theoretical discussion about different kinds of units of production and units of consumption is in F.L. Pryor, *The Origins of the Economy*, pp 38–44.

Map II.5. Geographical Distribution of the Icelandic Population, 1860



households. The law about labour bondage stipulated so that common people, irrespective of age, had to submit themselves as domestic servants, unless they had the means to start farming on their own or were unable to work. After having stayed in domestic servitude (usually 10 to 15 years), most people had acquired enough means to sustain themselves in farming and could start an independent household, i.e., get a tract of land and support themselves from the yields of the land, mainly through the products of the animals. In fact, people's initial means often consisted of an animal stock into which they had transformed their wages (or been paid in kind). The step of forming an individual household signified not only an entrance into society as a fully independent person but it also was an economic precondition for a marriage and to have children.¹³

Perhaps the most important animal in the husbandry was the sheep, because it provided food and materials, both for domestic consumption and for export. This was primarily mutton, milk, wool, and tallow. In the countryside, hamlets or groupings of farms did not exist because land was utilised individually. Over time it had been split up into separate holdings, and all land that was needed to support a farm usually was one unit spatially. Apart from that, there were common lands in the highlands (moors and heathlands) where sheep grazed during the summer and were collected collectively in the autumn. The summer was the peak season in farming because of hay-making, which was no less in outfields (growing wild) than homefields (fertilised with manure) and required much labour for a relatively short time. Notwithstanding the hay crop, peasants depended also considerably on winter grazing (Icel. *vetrarbeit*) for sheep, but it tended to be a risky practice because of climatic reasons, i.e., frost and snow. Another important

¹³ Gísli Ágúst Gunnlaugsson, 'Fólksfjölda- og byggðapróun,' p 84. Sigurður G. Magnússon, 'Alþýðumenning á Íslandi,' pp 313–15, 317 (indented citation). Guðmundur Jónsson, *Vinnuhjú*, pp 17–19, 35–6. Guðmundur Hálfðanarson, 'Aðdragandi iðnbyltingar,' p 31. Guðmundur Hálfðanarson, 'Íslensk þjóðfélagsþróun,' p 17.

animal in the husbandry was the horse because it was vital for transportation. However, horses never were fed with hay or kept in houses so they grazed outside around the year.

Fishing was carried out to a varying degree by those living by the coast, and on a seasonal basis by many of those living in the countryside. It was mainly cod fishing for export, but other demersal species were also caught, both for domestic consumption and export. In 1870, the fishing was predominantly practised in open rowing boats, but their small size severely restricted the catches and the distance that could be rowed onto the fishing banks. The number of decked vessels was negligible, and, besides, they were mainly used for shark fishing to process the liver into oil. The cod was salted and dried before exportation, and this provided work for coastal farmers and their labourers, besides inhabitants of the small and few hamlets and townships at the time.

Omitting regional variations, ways of life were relatively similar, irrespective whether people lived in the countryside or by the coast. The food that inland people consumed was primarily a whole variety of dairy products (milk, butter, whey, and *skyr*), while mutton and suet (Icel. *mör*), blood and liver pudding, and imported cereals were consumed to a lesser extent. Those living by the coast consumed far less in the way of dairy products, and mutton was a rarity. Conversely, cereals were important, and various fish and fish products constituted the staple items. Cultivation of potatoes and other vegetables were only just starting in Iceland in the mid 19th century onwards. Relative scarcities of particular types of food in the countryside and by the coast were met through traditional barter exchange between inland and coastal peasants — so dried fish was eaten to some extent in the countryside and people by the coast acquired various farmed products.¹⁴

¹⁴ Gudmundur Jonsson, 'Changes in Food Consumption,' pp 39–46, 50. Kristín Bjarnadóttir, 'Matföng úr sjó,' pp 27–30.

Because of the low level of division of labour in the economy, handicrafts and manufacturing were a part of people's work generally, although some of it was bartered locally and through the traditional inland-coastal peasants' exchange. External trade was all channelled through the urban areas (hamlets). They were situated along the coast, and owed their existence solely to this mercantile activity, with which the work of most urban dwellers was directly and indirectly connected.

The social overhead capital (infrastructure) of the country was minimal. Starting with human capital (education and skills), children only were supposed to be able to read by confirmation. All further primary education, which indeed was slowly increasing around 1870, was subject to private initiative, which relatively few were able to benefit from.¹⁵ Apart from this, Iceland had a grammar school and a seminary.¹⁶ There was no medical college but the director general of public health (Icel. *landlæknir*) had the right to teach students privately and qualify them. Doctors in Iceland in 1870 numbered only twelve, about one for every 5,800 people.¹⁷ Craftsmen mostly went to Denmark to learn their craft, although some became skilled with learning-by-doing.

In housing, because of scarcity of wood, dwellings of people and buildings for domesticated animals were almost entirely made of peat, rocks, and brushwood branches. They were constructed by simple customary methods. As a way of keeping people's dwellings warm during winter, they were often of a two-storey type (Icel. *fjósbaðstofa*) where the cows (usually one or two) were in byres on the ground floor and the people stayed upstairs to benefit from the cows' body heat.

¹⁵ Ingólfur Á. Jóhannesson, *Menntakerfi í mótun*, pp 5–7. See also Gunnar M. Magnúss, *Saga alþýðufræðslunnar á Íslandi*.

¹⁶ Guðni Jónsson, *Saga Háskóla Íslands*, pp 13, 16.

¹⁷ Einar Laxness, *Íslandssaga* 1–ö, p 51. Lárus H. Blöndal og Vilmundur Jónsson, *Læknar á Íslandi*, 2nd ed., vol. 2, pp 67–74.

As for transportation, in 1870 there were no roads and only one bridge in the country. This was all the more detrimental because the country had many rivers, some of which large, as well as mountains, sands, and lava which constrained internal transport. On land, commodities and all items were either carried on a person's back, on horseback or on small sledges. Rivers usually were crossed by making the horses swim, because rowing boats (with or without ferrymen) were available only in a relatively few places. So too were boxes (Icel. *kláfferjur* or *kláfar*) in which items were put and then pulled over the river, hanging on strings. The use of carriages of any sort was impractical in the circumstances and, anyway, a rarity in the country.

Coastal communication was poor, because no regular coastal shipping routes were operated, and they only started in the late 1870s. There were a few dozen decked vessels in the country, but they were used as much for fishing as for transportation. Besides, no lighthouses and navigation lights existed, and harbours only had small quays or piers, where passengers and cargoes had to be rowed between land and ship. The only place in Iceland in regular mail and navigation contact with the outside world was Reykjavík, with a population of 2,000 in 1870. It was also the administrative and the ecclesiastical centre in the country, the location of the schools and of publishing, etc. It had a number of craftsmen and people of various occupations, but it was mostly inhabited by fishermen and their families.

The only regular, internal communication was postal routes, operated by the administration and mainly for its own purposes. Thus, the postmen travelled by foot or on horseback primarily between homes of officials, and they only occasionally passed urban areas (the hamlets) where the trading centres were. Consequently, this service was of restricted use for businesses and trades, although the quantity of non-administrative

post was on the rise. But the capacity of the postmen to carry post was limited and the postal trips were made at no more than two to three months' interval in 1870.¹⁸

Because of the rural base of the economy, where peasant farming prevailed, transactions in valuables in the domestic sector had archaic features. Even token money was absent, and exchange was almost entirely in the form of barter and truck, both of which were based on certain regional price lists that were issued annually by local authorities.¹⁹ Also, financial services in Iceland were at a relatively low level. There was no commercial bank and only one savings fund in 1870. Those lending out money in the country were often rich land owners and high officials (lay and ecclesiastical). Sometimes public funds lent out money but it was limited and very often as mortgages.²⁰

II.2.2. Organisation of External Relations, 1870–1913

II.2.2.1. Government and Administration

After four centuries of a chieftain form of government (Icel. *goðaveldi*), Iceland was subsumed under the kingdoms of its more powerful neighbours, first Norway and later Denmark. In 1870, Iceland had formally been a part of the Danish monarchy since

¹⁸ Heimir Þorleifsson, *Póstsaga Íslands 1776–1873*.

¹⁹ The terms 'truck' and 'truck system' refer in the thesis to exchange of goods for labour.

²⁰ Gunnar Karlsson, 'Fyrsti sparisjóður á Íslandi?', p 82. Benjamín Sigvaldason, 'Páttur um Stefán "aumingja,"' pp 108–14. Guðmundur Jónsson, 'The State and the Icelandic Economy,' pp 316–19, 322–3.

1662.²¹ Administratively, Denmark proper was divided into prefectures (Dan. pl. *amter*) and Iceland and the Faroe Islands constituted two separate prefectures as well. However, of these two remote prefectures, only Iceland was called a *biland* (Dan.) or *hjálanda* (Icel.) in the late 19th century, both of which are approximately synonymous with the term ‘dependency,’ while Danish West Indies, for example, were called a colony.²² In line with the prefecture position of Iceland and a prolonged mercantilist policy towards Iceland, it was financially in 1870 still an integral part of the Danish administration and governed from Copenhagen. Apart from a number of small public funds, the high government authorities in Iceland practically did neither have any separate revenues nor expenditures for autonomous allocation. All major revenues generating in Iceland were centralised in the king’s Land Register Fund (Icel. *jarðabókarsjóður*) in Iceland or in the state treasury in Copenhagen, and then reallocated in the interest of the state at large.²³

In 1871 the Danish king and his ministers ended a long-standing constitutional conflict with Icelanders over the island’s position vis-à-vis Denmark by passing a law. There Iceland was defined as an inseparable part of the Danish state but with a right to limited autonomy in its own affairs. Shortly after, at the millennium anniversary of the *Alþingi* in 1874, the parliament and the king of Denmark granted Iceland a constitution, which shifted the role of the *Alþingi* from a consultative to an autonomous assembly in internal affairs. Hence, the *Alþingi* could now start to exercise its power according to the 1871 legislation. This meant that it was free to draft bills, and no law for Iceland could be passed without the consent of the *Alþingi*, but the Danish government had a veto to block Icelandic bills. Also, through administrative adjustments the *Alþingi* now had

²¹ Magnús Hauksson, ‘Einveldisskuldbindingin 1662,’ pp 76–81.

²² [Einar Arnórsson], ‘Yfirlit yfir stjórn Íslands,’ pp 216–17.

²³ Guðmundur Jónsson, ‘The State and the Icelandic Economy,’ p 314. Einar Laxness, *Íslandssaga* a–k, 2nd ed., p 227.

increased control of executive matters in Iceland. As time passed, the autonomy in internal matters proved to be an undisputed improvement, because it enabled an independent revenue raising (for example, the introduction of property and income taxes), and the spending was more according to the needs of the country. Nevertheless, internal legislative affairs onwards were subject to the consent of a Danish ministry and the king, who repeatedly used his veto. Also, Iceland exercised no power in its external affairs, which were completely at the discretion of the Danish Foreign Ministry. Furthermore, Danish administration of executive affairs at the top level inevitably added to Iceland's subservience to a foreign country.

This arrangement was to remain until 1904 when Iceland received Home Rule. This came about as a result of a change in Denmark in 1901 from a constitutional monarchy to democracy where ministers became responsible to the parliament only. This ended a long-standing conflict between a relatively liberal parliament and conservative cabinets, which constitutionally had only been responsible to the king.²⁴ The essence of the Home Rule was that the executive power was fully moved to Iceland while the Alþingi gained full autonomy in those matters that had been defined as Icelandic (internal) in 1871. Foreign affairs, however, remained in the hands of the Danish government. In consequence, the higher levels of the executive power were reorganised and centralised in an Icelandic ministry situated in Reykjavík, headed by a minister of Icelandic nationality. He had a chair in the Danish state council, which was composed of the ministers of state and the king, and where decisions of the Danish and Icelandic parliaments were signed by the king. Further attempts of *Alþingi* for more independence for Iceland, with which political debate in Iceland in the 1900s was very much occupied, were futile until 1918 when the Danish parliament and the Alþingi terminated their

²⁴ Magnús Hauksson, 'Þingræði og ráðherraábyrgð,' pp 96–8.

disagreement and Iceland gained almost full autonomy. During the research period, the arrangements for the judicial power remained unaltered. The lower courts of law were located in Iceland but the High Court in Copenhagen was the highest judiciary. In retrospect, the constitutional changes in 1874 were far larger and more important than those of 1904, although the latter traditionally have been hailed as new step in the renaissance in Icelandic history. This is mostly because of concurrent economic prosperity and progress, but in terms of Iceland's constitutional rights and capabilities, the shift in 1874 was more significant.

II.2.2.2. Currency and Communications

In 1870, the legal tender in Iceland was the Danish *rigsdal*, which was a silver currency, but in 1875, it was replaced with the *krone* that was backed with gold. In the 1870s, Norway and Sweden also switched to *krone* and made them convertible into gold, all three currencies being at par. These three currencies, besides the British pound sterling and possibly other gold coins too, were all circulated in Iceland in our research period. In 1885, the Alþingi founded the National Bank of Iceland (*Landsbanki Íslands*) — the first commercial bank in Iceland — and decided also that the bank would issue notes to use domestically. Then, the Icelandic *króna* came into existence, and the notes were fiduciary, i.e., inconvertible. This bank note issue was no revolution in spite of constant money scarcity. The issue was relatively small, equivalent to half of Iceland's trade surplus in 1886 which, moreover, was a year of depression, and the bank's lending policy was rather conservative. Hence, foreign currencies, presumably mainly Danish,

remained widely in use, and they dominated all small exchange because the Icelandic currency consisted of notes only, not coins. In 1904, a privately-owned bank started operation in Iceland, the Bank of Iceland. It was in the ownership of a Danish and a Norwegian bank and of a Danish stockbroker firm, and the Alþingi granted the Bank of Iceland permission to issue Icelandic bank notes that were convertible in gold. This bank issue was comparatively much larger than that of the National Bank of Iceland and it generated considerable amounts of money into the economy.

In 1870, communication with the outside world was of two kinds only, a postal service and scheduled shipping routes, which were subsidised by the Danish government. This was so because the shipping voyages were planned for the postal service, which was vital for the governance of the country. Hence, the ships were not particularly large but they could take cargoes and a few passengers. Until 1851, there had only been one annual return trip between Copenhagen and Reykjavík, without any stopover. During 1852 to 1857 the trips were increased to three a year and one return trip was scheduled between Liverpool and Reykjavík. All these trips were made with sailing ships where a one way trip took about three to four weeks. In 1858, there was a radical change because a steam ship was from now on used for the trips (making a one way trip last for two weeks). Also, the size of the ship was substantially larger than that of the sailing ships, the number of trips became six a year, and a stopover was made in Tórshavn, the Faroes, and in Leith. The Liverpool line was terminated. This arrangement for scheduled shipping lasted until 1870, when there was a change. The voyages became seven annually and an additional stopover was made in Seyðisfjörður on the east coast of Iceland and in Lerwick, but a much smaller steam ship was now deployed.²⁵ In the long run, from 1870 throughout to 1913, the number of return trips between Iceland and

²⁵ Heimir Þorleifsson, *Póstsaga Íslands 1776–1873*.

Copenhagen gradually increased from seven to twenty and the tonnage of the steam ships employed rose substantially. By contrast, scheduled shipping to other countries than Denmark (Copenhagen), Britain (Leith/Granton), and the Faroe Islands (Tórshavn) practically were none until 1896. Except for the years 1870–73, there were no scheduled journeys made between Norway and Iceland until after 1896, and only in 1910–12 were scheduled trips made to Germany (Hamburg-Leith-Reykjavík).²⁶

In spite of considerable interest among some Icelanders and foreign businessmen in establishing telecommunications with Iceland in the late 19th century, and notwithstanding grants of temporary privileges and contracts pertaining to this, Iceland did not become a part of the telecommunications network in the world until 1905. In 1905–06, marconigrams or wireless telegraphs were sent by the Marconi company for demonstration and to promote the technology in Iceland. However, the Icelandic government chose the wire telegraph technology, and in 1906 a sub-marine cable was laid from Shetland to Tórshavn in the Faroes to Seyðisfjörður in Iceland. By the end of the year, a regular telegraphic and telephonic connection had been installed, and over the next years the telecommunications network was improved and expanded internally.²⁷

²⁶ Guðni Jónsson, *Eimskipafélag Íslands*, pp 24–35. B. Kolltveit, 'Rutefart mellom Norge og Island.'

²⁷ Jón Guðnason, *Verkmennning Íslendinga*, vol. 3, *Fjarskipti*. See also articles in *Landssími Íslands: Minningarrit*.

II.3. Foreign Trade

II.3.1. Legal and Natural Conditions, 1870–1913

II.3.1.1. Provisions of the Law

As a result of legislation passed in the Danish parliament in 1854 and taking effect in 1855, subjects of other states were freely allowed to participate in the foreign trade of Iceland from 1855 onwards. Before that time, indeed since 1602, only Danish subjects and enterprises had had the right to engage in Iceland's foreign trade, and Icelanders had been forbidden to trade with other than Danish merchants. Hence, people were barred from trading with, for example, French fishermen, who fished in Icelandic waters and sometimes touched land for provisions and other reasons. In the law of 1854, the operation of foreign trade was confined to certain ports of entry (Icel. *löggiltar verslunarhafnir*). They were about thirty in 1870, spread along the coast of Iceland, and grew in number over time. Six of the ports of entry were distinguished from the other, because all ships transporting merchandise between Iceland and other countries had to make their first arrival in one of them. This was because of sanitary reasons and for payment of dues.²⁸

The importance of foreign trade for the economy is augmented by the fact that until 1880, domestic or inland trade in imports was banned in Iceland.²⁹ Apart from

²⁸ *Lovsamling for Island*, vol. 15, pp 613–16. On the number of ports of entry in 1870, see Páll Línal, *Bæirnir byggjast*, p 35, 39–40, and Icel., Gov. Gen., 'Verzlunarskýrslur [árin 1878 og 1879], p 75.

²⁹ Icel., Gov. Gen., *Stjórnartíðindi* 1879, sect. A, p 86.

acting as a deterrent against the formation of inland urban areas, this rendered the mercantile activities in the ports of entry all-important. A relatively lively internal trade in domestic products is regarded by some scholars as an important and complementary precondition for economic growth and for the forming of a domestic, commercial framework.³⁰ But trade in domestic products, all of which was by barter, was carried out by the producers themselves (peasants and craftsmen), rather than traders, i.e., people that made a living partly or wholly by trading commodities they had not produced. There were no specialist intermediaries in the internal trade of Iceland, and shops doing business in domestic produce were non-existent — although there was a demand for the services of traders in Iceland, as in every other traditional economy.³¹ The practical lack of traders in Iceland no doubt added to the economic stasis in the early and mid 19th century.

The merchants doing business with Icelanders around 1870 were mainly of two types. Permanent merchants (Icel. *fastakaupmenn*) were those who bought a burgess licence in the ports of entry and had a shop there open throughout the year. Usually they lived in Copenhagen and conducted their businesses there, employing an agent (Dan. *faktor*), often an Icelander, to run their shops in Iceland.³² Permanent merchants were free to trade with Icelanders in ports of entry, other than where they had their shops, but in that case only on board their ship. The other type of merchants were travelling or seasonal merchants (Icel. *lausakaupmenn*). They did not have to buy a burgess licence in

³⁰ P. Bauer, 'Subsistence, Trade, and Exchange: Understanding Developing Economies.' P. Bauer and G.M. Meier, 'Traders and Development.'

³¹ An vivid example of a craftman's trade in Iceland around 1870 is Gunnar M. Magnúss, *Dagar Magnúsar á Grund*, pp 51–5, 70. Vagrants sometimes traded in Iceland, see, for example, Benjamín Sigvaldason, 'Páttur af Poka-Siggu.' For other traditional economies, more advanced in this regard, see L.G. Reynolds, *Economic Growth in the Third World*, pp 17–22.

³² The Danish word *faktor* also exists in English where *factor* means either 'a doer or transactor of business for another person' or 'a person or organization that buys and sells goods for others, on commision' (*The Chambers Dictionary* (1993), p 602).

any of the ports of entry in Iceland, and, in turn, were not allowed to open a permanent shop there. Therefore, they made trips to Iceland only in the summer and traded with Icelanders on board their ships. However, they were only allowed to do so in the ports of entry, and they were subject to a four weeks' maximum time per annum to do their trading in Iceland. Apart from permanent and seasonal merchants, a few Icelandic trading associations were operating around 1870. They were owned and run by peasants, mainly to sell their produce abroad.³³

The legal framework for foreign trade in the legislation from 1854 was imbued with conservative regulation, which hindered trade in many respects. Therefore, in 1879 concession was made that took effect in 1880. Certain paperwork and dues concerning the ships' voyages were abandoned. It was no longer compulsory to call any of the six ports of entry at arrival. Seasonal merchants were no longer restricted to the four weeks' maximum time. Also, preconditions for obtaining burgess licences were eased. In 1888, conditions for the operations of seasonal merchants were relaxed further still with new legislation from 1887. Now they were free to trade on board their ships wherever they saw fit, provided they took a licence (against a charge) to do this, and it was valid for the respective calendar year. Furthermore, they were allowed to sell alcoholic drinks in the ports of entry, a privilege that had until then been restricted to permanent merchants only. After the change in 1887, no significant alterations in the provisions of the law were made for the remainder of the research period.³⁴ Iceland comparatively early on introduced customs and export levies, which was done in 1872 and 1881 respectively, and over time more commodities and goods became subject to such levies.³⁵

³³ Einar Laxness, *Íslandssaga* I–ö, p 119.

³⁴ Icel., Gov. Gen., *Stjórnartíðindi* 1879, sect. A, p 86; 1887, sect. A, p 130.

³⁵ Icel., Gov. Gen., *Stjórnartíðindi* 1901, sect. A, p 178 (paragr. 14).

In the light of the socio-economic structure of the country, its external relations and the legal framework for foreign trade, there is little wonder that legislation regarding businesses and trades was slight. In fact, it was lacking in most areas. It can be claimed that the traditional economy of Iceland did not need such commercial legislation. On the other hand, lack of legislation certainly did not encourage men to start businesses in Iceland or ease their troubles. Not until the 1890s and, especially, the 1900s was legislation passed that was necessary for, or facilitated, an Iceland-based conduct of ordinary trades and businesses, including foreign trade. The first special legislation concerning interests on loans was passed in 1890, while apprenticeship in commerce was first regulated, along with various manufacturing industries, in 1893. Then, in the 1900s there was a spurt of legislation concerning this province: use of cheques in 1901, ban on private currencies in 1901, restriction on truck practice in 1902, introduction of mercantile registration along with regulations for firms and procuratory in 1903, protection for trade marks in 1903, permission for operation of bonded warehouses in 1907, regulations for commercial travellers and commission agents in 1907, regulations for bookkeeping in 1909, and regulations for chattel purchasing (Icel. *lausaffárkaup*) in 1911.³⁶

Evidently, the opening up of Iceland's foreign trade for other countries than Denmark in 1855 was a very important step in advancing Iceland's trade. However, the small changes for a long time afterwards testify to the situation that persisted, i.e., oligopoly of Danish merchant houses. Their stronghold was secured, for instance, in the way the Danish government sided with Danish merchants and refused to give consent to Alþingi's bills that made living in Iceland compulsory for all permanent merchants operating in the country. That is why Alþingi resorted to improving the competitive

³⁶ Icel., Gov. Gen., *Stjórnartíðindi* 1890, sect. A, p 24; 1893, sect. A, pp 38–46; 1901, sect. A,

position of seasonal merchants as many of the changes in the legal framework in 1880 and 1888 show. Also, relaxing the conditions for starting mercantile activities benefited particularly Icelanders, who almost certainly had access to less money and credit than Danes.

II.3.1.2. Economic and Natural Circumstances

Because of certain regional divisions in Iceland, there were regional differences in the types of commodities produced for export. Thus, the ports of entry traditionally were divided into two, fish ports (Icel. *fiskihafnir*) and sheep ports (Icel. *sláturhafnir*). Exports from the fish ports were all kinds of fisheries' products and these came mainly from ports in the south and west parts of the country. On the other hand, exports from the sheep ports were dominated by agricultural products, especially from sheep. These agricultural products primarily came from ports in the north and east parts of the country. Only a few ports of entry were a mixture of both types. These ports of entry were irregularly spread along the coast of Iceland and none was on the southeast coast.

Mainly as a result of natural conditions in Iceland, the high season in foreign trade in 1870 was in the summer. In the spring, ships would come loaded to Iceland with imports, and during the summer they would be deployed for various purposes. They would be variably used for fishing, for transporting commodities, or for mercantile trips (Icel. '*spekúlanttúrar*') to harbours and havens in Iceland. In the autumn, they would return to Denmark and other countries with exports. During winter, weather tends to be

pp 182–6, 198; 1902, sect. A, p 10; 1903, sect. A, p 238–52, 254–62. Icel., Min. of Icel.,

harsh in Icelandic waters and apt to sudden change. Voyages were more risky, especially off the eastern and northern parts of the country because of possible drift ice. Because of this, Danish merchants never made trips to Iceland during winter. Peasants, for their part, usually restricted their trips to the ports of entry to two a year, because of other work and transport difficulties, which sometimes coupled with long distances. These trips were made in the spring, mainly to buy imports, and in the autumn, to sell their produce besides adding to their winter provisions with imported goods. Sometimes, a winter trip was made in December to exchange woollens for imports.³⁷ Over time and in particular in the 1890s onwards, trading practices changed. Peasants made more frequent trips to ports of entry and the idle time in shipping voyages to Iceland during winter gradually became shorter.

II.3.2. The Institutional Framework Around 1870

II.3.2.1. Concentration in the Structure of Foreign Trade

At this time, the foreign trade of Iceland was predominantly in the hands of Copenhagen-based merchant houses. Copenhagen was in a sense the capital of Iceland, and its hegemony in Denmark itself was unrivalled because it was the only major commercial city. Accessible information about the number of merchant houses operating in Iceland and their ownership does not exist, so we do not have a full account of the concentration

Stjórnartíðindi 1907, sect. A, pp 326–8, 472–4; 1909, sect. A, pp 232–6; 1911, sect. A, p 196.

³⁷ Jón Sigurðsson, *Sigurður í Yztafelli*, pp 71, 81–2.

of trade. However, qualitative observations suggest that it was high, because some of the merchants doing business in Iceland had outlets in more than one port of entry and even dominated trade in large areas of the country. Figures about the number of shops or outlets in Iceland over time support this. In 1870, they were 62 in number, which means that on average each port of entry had just about two shops. But the larger ports of entry, especially Reykjavík, had more and, hence, many ports had one shop only, which effectively supported monopolistic business practices.³⁸

According to figures about the homes of owners of the shops, 58% of them lived abroad, almost certainly exclusively in Denmark, and 42% lived in Iceland.³⁹ However, these figures definitely are not representative of the division of the quantity or value of trade because owners of the largest shops all had their homes in Denmark (Copenhagen) while the owners of the smaller ones lived in Iceland. Because of the Danish monopoly of the trade for centuries, owners of the largest shops predominantly were Danish by origin and birth. But the reasons for their residence in Denmark were not only because of family ties and the ways of living they were accustomed to. The relative isolation of Iceland, both internally and especially externally, effectively made it almost impossible to run a business with a base in Iceland, even if merchants would have appointed representatives or agents abroad. Therefore, it was much more efficient to live in a place like Copenhagen where merchants could have a full and constant control of their mercantile activities. Because of this, Icelanders who were successful in their trading activities eventually moved to Copenhagen. Why then so many merchants chose to live in

³⁸ Þorkell Jóhannesson, 'Brot úr verzlunarsögu,' part 2. Einar Laxness, *Íslandssaga* 1–ö, pp 118–19. Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 397. Klemens Jónsson, *Saga Reykjavíkur*, vol. 2, p 95. Klemens Jónsson, *Saga Akureyrar*, p 116.

³⁹ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 397.

Iceland is due to the fact that they were not in full control in the operation of their business and depended on Copenhagen-based parties. Most often, merchants living in Iceland were only able to start their commercial activity because Danish wholesalers extended credit in the form of merchandise. The risk was all on the side of the Icelandic merchant, and if his enterprise failed the wholesaler had it liquidated to get his claims paid. So, in name the Iceland based shop owners were masters of their business, but in reality they were at the mercy of Danish merchants in terms of supplies and prices.

In these circumstances, it was difficult for seasonal merchants to compete efficiently with permanent merchants. The latter had a dominant position in Iceland's foreign trade, although changes were made in the legal framework to strengthen the competitive position of seasonal merchants. In any case, their trips to Iceland in the second half of 19th century show that they managed to attract business. The seasonal merchants were both Danish entrepreneurs, usually with general merchandise, and Norwegian entrepreneurs, whose cargo often was largely or wholly timber. Probably the strongest card for seasonal merchants with general merchandise was to offer attractive prices on imports rather than on exports, and it probably was not difficult to beat the Danish merchants in terms of prices of imports. As for Norwegian merchants, Icelanders alternatively paid in kind and cash, and the advantage of trading with the Norwegians was that timber tended to be a scarce commodity in shops of permanent merchants, and the Norwegians probably offered better prices.⁴⁰ Altogether, however, seasonal merchants only played a supplementary role in the foreign trade of Iceland because the hegemony of permanent merchants was too strong.

⁴⁰ Klemens Jónsson, *Saga Akureyrar*, p 117. Jón Sigurðsson, *Sigurður í Yztafelli*, p 71. Jón Sigurðsson, *Helga Sörens dóttir*, pp 85–7. B. Kolltveit, 'Rutefart mellom Norge og Island,' pp 250–52, 275.

II.3.2.2. Bookkeeping Barter and Pertinent Policies

One of the distinct features of the institutional framework in the foreign trade around 1870 was the prevalence of barter. Practically all transactions between Icelandic producers and merchants took place on this basis, and to facilitate this kind of exchange merchants employed bookkeeping barter.⁴¹ Thus, sales of exports and purchases of imports were made by crediting and debiting respectively the customer's account. Merchants were in this business to make money and, therefore, they eagerly accepted cash in exchange for imports, but they were very reluctant and usually refused to pay for exports in cash. Moreover, merchants were not keen on paying credits in cash, even if the customer had one.⁴² Hence, it was to their advantage to exchange imports, not cash, for exports, and merchants were sometimes accused of pushing people to buy imports to use up their credits. Besides, it was more profitable to sell imports and exports at the same time, rather than only exports or imports in return for cash. This way, they also maximised the potential gain from the business, because there were fixed costs and larger turnover made the business more profitable.

To minimise the risk of the merchant in this exchange, it was customary to fix the price of the exports only after they had been sold in external markets. Often, the procedure was that a certain minimum price was promised to the producer at delivery in the autumn, and if the commodities would fetch good prices, the customer would get a

⁴¹ The term is used by W.G. Huff in 'Bookkeeping Barter, Money, Credit, and Singapore's International Rice Trade, 1870–1939' to describe this type of exchange.

⁴² Some have argued that inflation in the 19th century was the cause of reluctance by merchants to pay for exports in cash. Even if there had been an inflation or over-pricing, it has nothing to do with this reluctance.

bonus. Thus, because of termination of communications over winter, usually the price was not settled until the spring the year after. On the other hand, imports always had a beforehand fixed price, which indeed often reflected the outcome of the merchant's business last year. Naturally, there was a pressure on merchants to offer good prices for Icelandic products. For example, Icelandic papers quoted Copenhagen sales prices of Icelandic exports and from the mid-century onwards, peasants sometimes combined regionally or put up formal trading associations to demand fixed minimum prices for their products from the merchants. In the event that merchants' costs on Icelandic products (purchase price plus expenses) exceeded their sales prices, any conceivable losses in the business were always compensated with higher margins on imports next year. This was easy because Icelandic customers had, of course, no information about merchants' purchase prices.

Apart from this, customers were treated differently depending on social status and the quantity of their business with the respective merchant. Thus, merchants were more lenient towards land owners and rich customers, and merchants sometimes paid a part of their credits in cash, and even offered small interests on standing credits. Given the absence of savings funds and commercial banks, money could not be kept in entirely safe places and merchants no doubt were eager to keep the money for their customers, thereby getting cheap loan and working capital. Poor people, however, never or only temporarily were in credit and this precluded them from getting any cash. Besides, keeping the customer in debt was a way to secure that he would not take his custom at another merchant, provided that there was another merchant or shop available nearby. Here, poor communications came into play because people usually could not travel extra long distances to do business with other merchants.

II.3.2.3. The Relationship Between Merchants and Their Customers

It is safe to assume that the overall consequences of the institutional framework of foreign trade were to constrain the Icelandic economy. The prevailing business practices formed a closed system from which Icelanders could barely escape. Common people were tied to merchants because of frequent debts, seasonally or generally. The unwillingness of merchants to pay in cash prevented Icelanders from taking their custom to another shop (if there was one), even if better terms of trade there conceivably enabled them to pay up their previous debt. In those cases where customers had a balance, merchants' reluctance to pay in cash and some of their customers' reluctance to have their credits disbursed no doubt effectively prevented people from spending money internally on things they could well afford and would have spent on if money had been ready to hand. Similar curbing impacts also were evident in the truck system, which mainly affected urban dwellers.⁴³ Thus, day labourers working for merchants in the ports of entry were not paid in cash but by crediting their account. Moreover, wages and various transactions between people in Iceland were very often made with crediting customers' accounts backwards and forwards across shops or, in any case, across accounts within the same shop.

Still another facet of foreign trade is that merchants' profits were expatriated, and this aggravated the money shortage in the country. No less significant were the morally detrimental effects of the prevailing business practices. Instead of looking at the

⁴³ In the thesis, the terms truck and truck system will be used for the practice of paying wages in goods. Cf. *The Chambers Dictionary*, p 1859 (under 'truck¹').

permanent merchants as useful and advantageous intermediaries in society — as, for example, the seasonal merchants — people sometimes considered the permanent merchants as an ill necessity. People, however, had no alternative but to do business with them, because people were so dependent on them for their subsistence. At the same time, people reviled them and accused for being merciless money-makers, exercising their power in every way to secure their dominance. For example, they were accused of forming cartels to annihilate competition, and imports customarily were more expensive during winter, when there was far less competition, than during the summer. Merchants also often were reproached for taking small account of variations in the quality of the exports when settling prices. Producers sometimes responded to this by deliberately spoiling the agricultural products — to make them heavier without a drop in price. Wool was dipped in water or sprinkled with sand, and stones were even put in the tallow. Possibly, the lack of prices reflecting quality of commodities may have been a consequence, no less than cause, of these practices. In any case, the outcome was that the price mechanism did not stimulate quality improvements, and careful producers were not rewarded for their efforts because of the practices of the unscrupulous.

II.4. The Depression of 1860s in Standards of Living

In 1870, the Icelandic economy clearly was traditional as most economies around the world at the time. Furthermore, nothing suggested that this was going to change in the near future. Indeed, at first glance nothing special or remarkable seemed to call for the necessity of development. Yet Icelanders needed development because standards of living

had deteriorated markedly for the past 10–15 years. And they had potentials for development and, thereby, a chance to raise the standards of living by exploiting the under-utilised riches of the sea. Unfortunately, however, the socio-economic structure of Iceland and the nature of its external relations prevented realisation of these potentials. What supported the stasis is a question that the findings of the thesis indirectly will hopefully shed some light on. But first the depression in standards of living in the 1860s needs to be demonstrated.

When looking at several indicators of standards of living and quality of life after the mid 19th century, it emerges that living condition were worse than in past decades. Between the years 1855/60 and 1870/75 infant mortality was higher than before, number of weddings fell, age of brides and bridegroom rose, number of lodgers rose, and real wages fell.⁴⁴ It cannot be a coincidence that so many trends, all witnessing significantly more difficult life than before, are evident for a decade or more. Besides, the explanation for this is at hand, namely population pressure.⁴⁵ There had been a continuous natural population increase since the late 1780s, and the population was larger than it had been since the 17th century or further back. Because of this, the countryside had already become densely populated in the 1850s. People could hardly get land any more and since this was a prerequisite for marriage, number of wedding fell and the age of those who could marry rose. People were forced to stay on as domestic servants if they could not find other forms of employment, and that is why real wages fell. One outlet in the countryside that had been long practised was lodging (Icel. *húsmennska*). Lodgers had an individual household but not separate dwellings and rarely children. In return they had

⁴⁴ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 150–51, 155, 185. Guðmundur Hálfðanarson, ‘Aðdragandi iðnbyltingar,’ p 31. Guðmundur Jónsson, *Vinnuhjú*, pp 44–5. Magnús S. Magnússon and Gísli Gunnarsson, ‘Levnadsstandarden på Island 1750–1914,’ pp 99–101.

⁴⁵ Guðmundur Hálfðanarson, ‘Íslensk þjóðfélagsþróun,’ pp 20–27.

to yield their service to the peasant of the farm. This was not feasible for young couples, although many turned lodgers as the figures show. In the circumstances small farms increasingly were formed in the interior over the 19th century, most of which belonged to the highland settlement (Icel. *heiðabyggð*) in the northeast part of the country, but this probably was not an outlet for masses of people in other parts of the country.

Why did the depression in the standards of living not last after 1870/75? Was the socio-economic structure adapting to the new population level and finding ways to offer similar or better living conditions than before? The answer is negative because emigration provided the vent for the population pressure and in turn contributed towards the preservation of *status quo*. In the 1870s, emigration from Iceland to America started and became a mass exodus, primarily from the northern and eastern parts of the country where the population pressure was greatest.⁴⁶ Although standards of living rose when emigration began, it was not a long-term solution. It only cured the symptoms of the inflexible socio-economic structure and of the external relations, but it did not remedy the structure itself or change external relations, thereby opening up chances for more solid base for development. What provided such a base will be evident from the findings of the thesis and the subject will be revisited in the conclusions (Chapter X).

⁴⁶ Jón Sigurðsson, *Helga Sörens dóttir*, pp 27–8, 113–4. For literature on emigration from Iceland, see the works of Helgi Skúli Kjartansson, including his unpublished thesis ‘Vesturfarir af Íslandi.’

Chapter III

Foreign Trade and Economic Development in

Theory: The Methodological Basis of the Thesis

III.1. General Remarks

In this chapter, the theoretical relevance of foreign trade to economic development in general will be outlined, after which the research method used in the thesis will be described. After having discussed the rationale behind the linkage between foreign trade and economic development, I will turn to relevant models and methods of past studies to underpin the methodology of the present thesis. Over time, scholars from various disciplines and intellectual quarters have applied very different methods in researching the causes of and hindrances to economic development in traditional economies and transitory economies. Consequently, this is a vast subject and I will briefly sketch only those methods that seem most relevant to the Iceland case and my purpose in the thesis. Using this sketch as a methodological base, I then proceed to advance and explicate my particular method of analysis which is a synthesis of two existing theoretical constructs.

III.2. Foreign Trade and Economic Development in Theory and Policy: An Outline

III.2.1. The Theoretical Gains from Trade and Trade Policy

III.2.1.1. Static Gains from Trade

In theory, foreign trade can relate to economic development through either exports or imports. Furthermore, granted that existing utilisation of economic resources in two scenarios is widely different, foreign trade can have two kinds of impact. Hence, trade can affect development in three different ways. Given full utilisation of resources, shifts in the demand for exports are usually described as producing static gains from trade. The term is based on comparative advantages, expounded by D. Ricardo, who in turn advanced his argument on the basis of A. Smith's absolute advantages. To explain the theoretical basis of static gains from trade, we need to digress and discuss these and underlying terms briefly.

Why countries engage in trade was explained by Smith by linking trade with absolute advantages. If country *A* produced a particular good cheaper than other countries and country *B* was able to produce another product more economically than other countries, the two countries *A* and *B* had advantages in exchanging their respective goods. D. Ricardo enhanced the theory by holding that absolute advantages were not necessary, because trade could possibly be based on comparative advantages. Countries could and often did produce the same goods but production costs varied, and these reflected variations in natural conditions and labour inputs, i.e., comparative advantages

in each product. This he demonstrated with comparison of a pair of countries. Given free trade, he said, producers in both countries would seek to produce goods where they had the most comparative advantages or the least comparative disadvantages as measured by production costs. Even though one of the countries had absolute advantages in all products, it would still pay off for it to direct its producing capacity to the goods where it had the greatest comparative advantages. In turn, this gave the other country room for specialising in those products where it had the least comparative disadvantages. Thus, in the end both countries, and in fact all countries, would benefit most with specialisation.¹

It seems plausible to say that comparative advantages play a role in determining exports of an economy. But they probably are rather based on different factor endowments, as E. Heckscher and B. Ohlin later maintained, than Ricardo's inputs of labour quantities that he assumed were a function of natural conditions. In short, Heckscher and Ohlin claimed that varying quantities of the factors of production, especially labour and capital, across countries caused different factor prices, which in turn were reflected in different production costs. Furthermore, countries would export those goods that were intensive in their abundant factor.² For instance, labour abundant economy would export goods intensive in labour, while a country abundant in capital (money) would export capital intensive goods. Without going into any details in the sources of comparative advantages, a certain modification of the factor endowments theory deserves mention. G. Haberler suggested that not all the factors were of equal importance but mainly those factors of production specific to industries. Some factors were more mobile than other, he pointed out, particularly labour and money capital, but fixed and physical capital tended to be less mobile because it was more tied to its

¹ J. Williamson and C. Milner, *The World Economy*, pp 20–27. G.N. von Tunzelmann, *Technology and Industrial Progress*, p 46.

² J. Williamson and C. Milner, *The World Economy*, pp 39–43.

respective industries. Thereby, he added to Heckscher and Ohlin's insight the role of relative factor supply elasticities, i.e., relative variations in the sensitivity of factors towards fluctuations in levels of factor rewards (factor 'prices'). But he also maintained that specific factors matter more than other factors because the respective industries would tend to be on guard towards shifts that undermined their position. Thereby, he added elasticities in substitution to Heckscher and Ohlin's insight. With reference to these two lines of arguments, Haberler claimed that the quantity of those factors specific to industries influenced foreign trade most.³

The nature of comparative advantages and their possible sources will not be discussed further. Trade does not take place entirely on the basis of production costs for it is partly subject to brands and other things. The theoretical constructs have mainly been sketched here because a convincing suggestion of the sources of comparative advantages, that of factor endowments, highlights the role of factors of production. The ideas about comparative advantages and factor endowments have a theoretical relevance to economic circumstances in traditional or transitory economies like Iceland during the period, where relative proportions of factors generally were changing fast. Furthermore, the theoretical discussion here serves as a background when this theme will be revisited later in this chapter and in Chapter IX. There, the empirical relevance of factor endowments and comparative advantages will be commented on in relation to historical evidence from international trade and Iceland's experience of foreign trade in the research period.

Given comparative advantages and other causes for foreign trade, why are shifts in exports under conditions of full employment of resources called static gains from trade and what does the term stand for? The answer is that since economic resources are

³ J. Williamson and C. Milner, *The World Economy*, p 52.

implicitly and explicitly assumed fully employed, changes in the type of exports only mean that the composition of total exports shifts, but not the overall export production. Employing the pertinent expression in economy theory, the shift produces a move along the production possibility curve or frontier, but not a move of the frontier itself, neither outwards nor inwards. The scale of this shift in exports evidently varies. In the case of a minor shift, the impact of the new circumstances may be confined to income generating effects in the economy. That is, it may only affect economic growth which measures fluctuations in the type and level of domestic production of an economy as measured by gross domestic production in national income accounting. However, a country may virtually be opened up for trade, for instance, when monopoly is removed. Similarly, a country may experience relatively huge shifts in supply or demand in its export markets. In these cases, the comparative advantages of the country may be so greatly affected that a relatively radical change is inevitable where new types of industries emerge and old ones go into decay. Note that economic development was defined in Chapter I as a question of what types of outputs are produced and their relative quantities, as well as what kinds of inputs are used for that production. Therefore, a shift of this kind may cause a long-run structural change in the economy. In sum, shifts in comparative advantages may 'merely' affect economic growth, but they may at other times conceivably have implications for economic development in the respective economy.

Why a change under the conditions of fully employed resources is called static gains from trade owes mainly to the fact that whatever the scale of that change, it primarily means a move along the production possibility frontier. A part of the reason may also be that historically, scholars have tended to examine economic development on the basis of economic growth. Moreover, economic growth was thought to generate economic development more or less automatically and by itself. Consequently, economic development has more often than not been studied implicitly and explicitly from the point

of view of economic growth, and until the mid 20th century economic theory did not contribute very much to the understanding on the causes of development *per se* or the role of foreign trade in that process. Regarding our theme, probably owing to the alternative use of growth and development as effective synonyms, scholars have been less occupied with how trade could affect economic structure and thus have developmental implications than with the implications of trade for economic growth. Therefore, economic development is usually not associated with static gains from trade, although in principle it may occur under the assumptions made.

III.2.1.2. Dynamic Gains from Trade

Historically, the assumption of full employment of economic resources is an outgrowth of neo-classical economic theory, as all of the theorising above. However, economic resources may not necessarily be fully employed in every economy, as some of the classical economists maintained. This may happen particularly in traditional societies where hindrances can block, partly or wholly, utilisation of resources or they can lie idle out of ignorance of their existence. Anyway, existing (yet possibly unknown) resources can conceivably be more productive with another arrangement in utilisation of factors. Typically, this happens when trade is opened up or an economy is integrated more closely into the wider network of international trade through exports. Then, dynamic gains from trade can emerge because the shift in the composition of outputs moves the production possibility frontier outwards. That is, utilisation of available economic resources is rearranged without a noticeable drop in total production.

More specifically, this can happen through (a) productivity gains from either specialisation or greater division of labour (supply side) or (b) vent-for-surplus gains because of underutilised resources (demand side), possibly both, as H. Myint has argued on the basis of A. Smith and J.S. Mill's writings. In both cases the outcome is that the level of the aggregate production is raised.⁴ However, such a shift rests on the condition that factors are relatively mobile and they can be shifted rather easily between uses in production. In fact, mobility of factors is always a necessary condition for any major change take place at all, and this indicates that the degree of resource utilisation probably is a secondary issue to restrictions that may exist in the mobility of factors.

In the literature, the benefits of specialisation and division of labour has traditionally been linked with economic growth, in line with what was said above. But while division of labour in itself has small if any implications for economic development, specialisation does so. This is because previous utilisation of a particular resource may be abandoned and a new resource, relatively different, be employed instead. More obviously, the employment of an entirely new resource can produce a considerable change in the composition of outputs in the economy.

Evidently, dynamic gains from trade do not by definition mean that a significant event in terms of economic development has occurred. However, a shift of this kind can produce a considerable shift in the composition of outputs in the economy. In fact, this can offer a more radical change in industrial activities than when economic resources are fully employed, because there is more room for change and factors do not have to be pulled away from previous employment. Hence, dynamic gains from trade can very likely have greater developmental implications than static gains from trade.

⁴ B. Ingham, *Economics and Development*, pp 126–7. J.S. Hogendorn, *Economic Development*, pp 334–5. See also A.G. Kenwood and A.L. Loughheed, *The Growth of the International Economy*, 3rd ed., p 131.

III.2.1.3. Semi-Dynamic Gains from Trade

As happens, static and dynamic gains from trade may possibly deliver nothing in terms of economic development. Besides, what change qualifies as development can be a matter of dispute. In any case, trade may leave comparative advantages unaffected for long periods of time, shifts in comparative advantages may be unimportant in terms of the economic structure, and even opening up for trade may have negligible structural effects on the economy. Therefore, various semi-dynamic gains from trade can be equally as or more important than static or even dynamic gains, in terms of economic development.⁵ Conveniently, sources of semi-dynamic gains from trade can be of three kinds, although they all revolve around imports, in contrast to static and dynamic gains from trade that rest on exports. One source is imports of consumer goods and intermediate goods for further processing, either in homes or by firms. These imports depend on, for instance, tastes, incomes, and income distribution of the population, and they have the developmental potential to change personal tastes and create new wants. Thus, they may possibly initiate domestic substitutes for those particular import goods to satisfy people's wishes for future consumer goods. Conceivably, consumer goods can also be conducive to production of those products where the economy has the greatest comparative advantages (or the least comparative disadvantages). In that way, consumer goods may push the economy not only to export more but to specialise in products

⁵ The expression 'semi-dynamic' gains is my own in want of a better term for those particular gains from trade that produce a move along the production possibility frontier (and that are of different origin than static gains) rather than an outwards move of the frontier itself.

making better use of economic resources. Which of the two possible developmental impacts of consumer imports is more likely to happen in reality is another matter, but the former is presumably more common.

Another source of semi-dynamic gains is imports of capital goods, and these imports depend on internal circumstances in factor and commodity markets. The potential of capital goods is huge in terms of advancing the level and type of infrastructure, besides rising production capacity and productivity of firms in the economy. Finally, the developing potential is obvious since economic development rests very much on employment of capital goods, especially machines, and production of manufactures. A third source of semi-dynamic gains from trade is service imports, i.e., imports of 'new ideas.' For instance, capital goods are of limited usefulness unless skills to operate them and maintain them are imported too. Besides, managerial and technical know-how must often be imported at first instance to carry out new production combinations and new products. Entrepreneurship is also stimulated through imports of new ideas, which are copied and feed back into other activities. Evidently, there are numerous examples of semi-dynamic gains from service imports, and J.S. Hogendorn remarks that this source can be the most important of all the semi-dynamic gains from trade.⁶ Note, however, that semi-dynamic forces unleashed with service imports can be equally as powerful in moving the production possibility frontier outwards, i.e., generating economic growth, as in implementing changes in terms of development.

All three sources of semi-dynamic gains from trade may operate simultaneously or in sequence. For instance, demand in international markets or rising imports of consumer goods may stimulate exports of existing products, and greater exports enable

⁶ J.S. Hogendorn, *Economic Development*, pp 335–6. L. Sirc, *Outline of International Trade*, p 38. See also B. Ingham, *Economics and Development*, p 335. — Hogendorn seems to be referring to service imports only, but spillovers or positive externalities from enclave activities can also conceivably have similar effects on the economy.

capital goods to be imported, which in turn may gradually change the industrial structure by increasing relative production of manufactures, especially where machines can be employed. Provided that manufactures are exported, their share as of total exports or their composition may change, but altered industrial structure may not necessarily emerge in the type or quantity of manufactures among exports, because the products are marketed internally. A comparison of imports to exports would suggest whichever the case was, and examination of the economic context should produce suggestions as to the causal relationship between imports and exports.

In conclusion, the relevance of foreign trade for economic development is firmly backed up in the theoretical literature, mainly through the causal relationship described by semi-dynamic gains from trade. By their nature, static and dynamic gains from trade are more pertinent to economic growth than economic development. Besides, shifts in the types of exports and imports are dealt with in semi-dynamic gains from trade. However, static and dynamic gains from trade could not be dismissed from our discussion because they rest on the theory of comparative advantages which semi-dynamic gains are also implicitly built on. Furthermore, although growth and development are separate things and discussion about development has perhaps too often been in terms of growth, the two are close enough to warrant integrated discussion to a certain extent.

III.2.1.4. Trade Policy

In theory, foreign trade and economic development are highly related and integrated. This raises the question of foreign trade policy, namely whether it has been used to let

this theoretical relation materialise, and what the results are. To illustrate this point, I will briefly comment on the late 20th century experience. In the era of *laissez faire* in the late 19th century and early 20th century, the free trade principle was an unquestioned wisdom among economists, and it formed the basis of foreign trade policy in most countries until the 1930s. But in the decolonisation era in the post war years, when former colonies in Africa and elsewhere gained independence, economists were charged with a new and unusual task. This was to find ways to initiate economic development to reduce the social and economic gap between the industrialised countries and their transitory economies (less developed countries or LDSs).

By then, it was obvious that industrialisation was the principal way to start and sustain economic development, confer the ideology of the Marshall Plan.⁷ With mechanisation of the production processes, foodstuffs and raw materials could be produced more efficiently, and later the LDSs could possibly move into production of capital goods for the home market or external markets. In principle, foreign trade should have been a fairly relevant measure to start this, that is to exchange primary goods for knowledge and skills (human capital) and light industrial goods on which to build an industrial base. However, economists eventually forming a new subdivision within economics, development economics, did not suggest this. Owing to the influence of Keynesian economics, and possibly British post-war circumstances, they opposed the narrow base of neo-classical economics. Also, they were sensitive to the structural framework of developed and less developed economies, and they believed there to be huge differences between the LDCs and the circumstances that prevailed before the now industrialised nations entered this phase of long-run development. Hence, they doubted the applicability of the 'free' and unrestricted trade model for LDCs. Instead, import

⁷ M.P. Todaro, *Economic Development*, 6th ed., p 71.

substitution industrialisation was advocated, which meant that the countries should start their industrialisation by producing the very goods they had been importing. Often, these were consumer goods that did not demand heavy capital investments and seemed suitable as a stepping stone for capital-scarce countries to subsequent capital-intensive industrialisation. To serve this purpose, foreign trade in many LDCs was restricted and adapted to serve this economic policy.⁸

In the 1960s and around 1970 it became clear that the prescription of import substitution industrialisation was not working. Economic growth tended to be small and unstable, and if there was a growth, then there were few signs of improving living standards for the mass of people. Also, development was sometimes lopsided and uneven, not producing the desired results. Development economics came under heavy criticism from two different quarters. Free market advocates argued that the de-linking with international markets had been fatal because that way a necessary corrective for the domestic market was barred off. On the other hand, some structural economists and Marxist and Neo-Marxist writers either saw structural deficiencies in the economic analysis and policy prescription for the LDCs, or they stressed that capitalist development caused (and had over the centuries caused) a detrimental economic dependency of the LDCs, if not downright underdevelopment.⁹ Since the 1970s, the pendulum has swung back and free trade policy has been prescribed, for good or worse, by development economists and international institutions and organisations involved in Third World development. However, the sanguine belief in industrialisation as the

⁸ B. Ingham, *Economics and Development*, pp 86, 136–8, 167–76, 335–6. D. Colman and F. Nixon, *Economics of Change in Less Developed Countries*, 3rd ed., chap. 9. M.P. Todaro, *Economic Development*, 6th ed., chaps 12 and 13. See also C. Simmons, 'Economic Development and Economic History.'

⁹ D. Colman and F. Nixon, *Economics of Change in Less Developed Countries*, 3rd ed., pp 48–60. M.P. Todaro, *Economic Development*, 6th ed., pp 82–90. J.S. Hogendorn, *Economic Development*, pp 337ff. See also C. Simmons, 'Economic Development and Economic History' and B. Ingham, *Economics and Development*, pp 139–43, 185–6.

panacea for economic growth and, thus, development and higher living standards has disappeared for economists now realise that economic growth does not necessarily mean economic development or rising living standards, as it had historically done in the long run in the West. Consequently, economic growth and development are no longer approximate synonymous in the vocabulary of economists, and other means are increasingly used to measure levels and variations in standards of living and quality of life.¹⁰

In conclusion, it is safe to say that although development economists are concerned and aware of the less benign effects of present world trade for the LDCs, they believe that foreign trade — and free trade to a large extent — are intrinsic for their economic development. There, imports of consumer goods, capital goods, and services are all well and rightfully recognised. But while the theoretical reasoning may be sound and empirical insights in abundance, world politics and global economic power imbalances seem to be in the way of significantly reducing the gap between the most advanced economies and the Third World.

¹⁰ C. Simmons, 'Economic Development and Economic History,' pp 12–15. F. Nixon, "Economic Development": A Suitable Case for Treatment? J.S. Hogendorn, *Economic Development*, pp 11–13.

III.2.2. Jón Sigurðsson on the Significance of Foreign Trade for Iceland: A Contemporary View

With reference to the general explanatory framework of the thesis and the case in point, it is relevant to reproduce a view of an Icelandic contemporary on the relation of foreign trade to the Icelandic economy. This was the archivist Jón Sigurðsson (1811–1879), a man of great knowledge about Icelandic history and his times. His view supplements my account of Iceland's foreign trade in Chapter II, and since he was a liberal (in fact, a national-liberal), he puts to some extent the arguments of free trade advocates and classical economists in Icelandic context. In turn, the exposition of his ideas concerning Iceland is pertinent to the discussion on the historical experience of peripheral economies from foreign trade.

Jón Sigurðsson was far from being the only contemporary who wrote about the foreign trade of Iceland in the mid and late 19th century,¹¹ but few elaborated their views as extensively as he did. His ideas deserve close attention for a number of reasons. First, apart from a brief first hand experience, when he worked as an assistant in a shop in Reykjavík, he gained important insights into foreign trade at second hand through his friendship with his countrymen among merchants. This he supplemented with own studies of the history of Iceland's foreign trade over the centuries.¹² Second, among Icelanders he held a unique knowledge of contemporary political economy, and he has been called the first Icelandic economist, although he was not an economist by

¹¹ Sverrir Jakobsson, 'Jón Sigurðsson forseti,' p 57 (Ólafur E. Johnsen). Tryggvi Gunnarsson is quoted by Jón Sigurðsson, 'Um verzlun og verzlunarsamtök,' p 238. See, for example, also Einar Ásmundsson, *Um framfarir Íslands*, pp 72–5.

¹² Sverrir Jakobsson, 'Jón Sigurðsson forseti,' pp 12, 56. Einar Laxness, 'Sagnfræðingurinn Jón Sigurðsson.'

education.¹³ He had attended university lectures in political economy in Copenhagen, where he spent most of his life, and he had studied the writings of liberal economists and philosophers. Among them were works by A. Smith, D. Ricardo, J.B. Say, J.R. McCulloch, K.H. Rau, M.L. Nathanson, and T. Twiss, who all advocated liberalism. Jón Sigurðsson is also known to have been familiar with the ideas of Jeremy Bentham in his early years.¹⁴ Because of this, Jón's understanding of the role and significance of foreign trade, as this was perceived at the time, probably was more profound than among any of his contemporaries.

From the overall context of Jón Sigurðsson's political ideology, it is clear that he saw foreign trade as a paramount issue for the economy. It was *the* way by which the economy should be revitalised and expanded. To quote Jón, an unrestricted, external trade was the 'basis of all other improvements in Iceland,'¹⁵ and 'the key to the progress of Iceland.'¹⁶ Also, 'economic conditions of the country, as far as industries and their progress is concerned, depend on optimum conditions of trade.'¹⁷ Furthermore, 'all

¹³ Þorvaldur Gylfason, *Að byggja land*, pp 17–18. — The first Icelandic economist by education, Arnljótur Ólafsson, studied political economy at Copenhagen University in the early 1850s and was a liberal like Jón Sigurðsson. However, notwithstanding authoring the first textbook in political economy, Arnljótur directed his energy towards purely economic and social studies of the history of Iceland, rather than polemical writings for contemporary debate like Jón, although Jón's writings were based on extensive research and study of Icelandic history. Next to study political economy was Indriði Einarsson, in the 1870s. See Bjarni Jónsson, *Íslenzkir Hafnarstúdentar*, pp 198, 217 and Indriði Einarsson, *Séð og lifað*, [2nd ed.], p 142.

¹⁴ Páll Eggert Ólason, *Jón Sigurðsson*, pp 101–2. Sverrir Jakobsson, 'Jón Sigurðsson forseti,' p 57.

¹⁵ In Icel.: 'undirrót og grundvöll allra annarra endurbóta á Íslandi ...' Quoted in Sverrir Jakobsson, 'Jón Sigurðsson forseti,' p 41.

¹⁶ In Icel.: 'lykillinn til Íslands framfarar ...' Quoted in Sverrir Jakobsson, 'Jón Sigurðsson forseti,' p 60.

¹⁷ In Icel.: 'allur hagur landsins, að því sem viðvíkur bjargræðisvegum og framför þeirra, er undir því komin, að verðlanin sé í því bezta horfi sem auðið er ...' Quoted in Sverrir Jakobsson, 'Jón Sigurðsson forseti,' p 56.

industries and all prosperity of nations stands and falls with trade,’¹⁸ and ‘merchants practically generate industries.’¹⁹ Numerous other, similar comments of Jón show the decisive role he assigns to foreign trade for any economy.²⁰ But exactly through what sequence was foreign trade to revive the economy?

According to Jón Sigurðsson, the basis of external trade was differences in resources. Each country produced and exported those commodities and goods it had in abundance, in exchange for those items that it lacked or did not have in enough quantities. This was, as Jón frequently put it, the nature of trade generally. By doing this, each country found a way to overcome its deficiencies of nature. External trade effectively substituted for them. Within each country, merchants found their business niches and while pursuing their interests, they in turn served the interests of their country.²¹ Hence, through the agency of foreign trade, hitherto closed resources would be opened up and many other advantages would follow, because, for example, the profit motive would be more effective than any decree in improving the qualities of commodities.²² Evidently, Jón was echoing classical economists and liberals when he referred to comparative advantages of economies and Smith’s system of natural liberty, within which self-interest of businessmen and markets operated.²³

Similarly, in true liberal tradition Jón Sigurðsson stressed the importance of minimal government intervention (*laissez faire*). He claimed that all progress and

¹⁸ In Icel.: ‘allir atvinnuvegir og öll velmegun þjóðanna stendur og fellur með verðlaninni ...’ Jón Sigurðsson, ‘Um verðlun á Íslandi,’ p 184.

¹⁹ In Icel.: ‘kaupmenn skapa að kalla má atvinnuveguna í hendi sér.’ Jón Sigurðsson, ‘Um verðlun á Íslandi,’ p 183.

²⁰ See, for example, his ‘Um verðlun á Íslandi,’ pp 163–4, and his ‘Um verðlun og verðlunarsamtök,’ pp 230, 232.

²¹ Jón Sigurðsson, ‘Um verðlun á Íslandi,’ pp 164, 165, 180–81, 184, 194, 199.

²² Jón Sigurðsson, ‘Um verðlun á Íslandi,’ pp 190, 209.

²³ Lord Robbins, *The Theory of Economic Development*, pp 99–101, discusses the relation of Smith’s system of natural liberty to the self-interest of businessmen and markets.

prosperity of man and nations depended on the exchange of merchandise because ‘when trade is free, purchases and sales grow spontaneously, industries and all kinds of provisions and produce are generated, and all parts harmonise, provided that the government keeps back except for the sake of stimulation and guidance.’²⁴ In his view, this principle had been utterly violated in the case of Iceland from the 17th century through to his own times. In consequence, a general decline of the Iceland economy was inevitable, and Icelandic society had generally fallen into a decay. Iceland was an example of what always happened when foreign trade was restricted, especially when, as was the case in Iceland, it was limited to an exchange with one country only. True, the harm would be less if the country in question ran a substantial external trade all over the world, excelled in education, and was at the forefront in science. But some ill effects would, nevertheless, emerge. Generally, by restricting trade to one country only, the ‘light of education merely shone from one side,’ this would undermine the progress of the subordinate nation, make it ignorant and prejudiced. It would then belittle itself, the metropolis country would exploit this situation to its advantage, and this would end in oppression of the nation in question.²⁵

This is what had happened in Iceland, Jón Sigurðsson claimed. From 1602 to 1787, subjects of foreign states had not been allowed to participate in the Iceland trade, and until 1855, they had been kept outside through technical hindrances. Moreover, foreign trade had not only been confined to Danish subjects but had been firmly channelled through Copenhagen.²⁶ Hence, other countries were precluded and the

²⁴ In Icel.: ‘þegar verzlunin er frjáls þá vaxa kaup og sölur af sjálfum sér, atvinnuvegir og allskonar aðdrættir og aflabörgð bæði á sjó og landi spretta upp, og allt lagar sig hvað eftir öðru, ef ekki er gripið fram í af stjórnarinnar hendi nema til að hvetja og leiðbeina ...’ Jón Sigurðsson, ‘Um verzlun á Íslandi,’ p 208.

²⁵ Jón Sigurðsson, ‘Um verzlun á Íslandi,’ pp 164, 180–81, 189.

²⁶ Jón Sigurðsson, ‘Um verzlun á Íslandi,’ pp 158–9, 159–60, 175–7.

commercial centre of Iceland was located outside the country. This was most unfortunate for Iceland because Denmark was one of the smallest nations in Europe, and comparatively inferior in industries and trades. It needed to copy others and lagged behind. Therefore, Danes had to import a great deal for their consumption, and imports from Iceland were used only marginally in Denmark, so they had to be re-exported. For Iceland, this meant delays, repeated gluts in the market, and lower prices of exports and higher prices of imports because of extra warehouse costs, damage and shrinkage of merchandise, loading and unloading costs, middlemen costs, etc. Furthermore, merchants understandably had their homes in Copenhagen and this caused the profits of trade to be reinvested there instead of Iceland.²⁷

The repercussions of this situation ranged even further. Jón Sigurðsson claimed that because the merchants resided in Copenhagen, they had become insensitive and unaware of the needs and wishes of their customers in Iceland, and also indifferent to industries and trades in the country. They focused more on selling imports in Iceland than Iceland's exports in Copenhagen, and they operated their business irrespective of what might best suit Icelandic interests. Consequently, their thrift decreased as the economy declined. Moreover, in these circumstances inefficient merchants might persist, holding the illusion that the Iceland economy rested on their activities, and nobody would trade with Iceland if they did not. They would make other people believe this in Copenhagen and Iceland, even their customers. At that point, the degree of oppression was reached where merchants treated Icelanders practically as their livestock, a situation which the state of foreign trade in the mid 19th century witnessed, Jón said.²⁸

²⁷ Jón Sigurðsson, 'Um verzlun á Íslandi,' pp 165, 177–80.

²⁸ Jón Sigurðsson, 'Um verzlun á Íslandi,' pp 183, 184–5. Jón Sigurðsson, 'Um verzlun og verzlunarsamtök,' p 228.

It is easy to understand now why and in what way Jón Sigurðsson perceived the role of external trade to be so decisive for any economy, and how it could have both destructive and constructive impacts, depending on the degree of freedom that external trade enjoyed. However, he did not naively suppose that the shift from a monopoly in Iceland to free trade would happen automatically and without friction. The greatest obstacle he saw was the perennial debt of Icelandic customers with merchants. Even if indigenous merchants or merchants from other countries than Denmark would gradually engage in Iceland's foreign trade, Icelanders would have difficulties in transferring their custom from the established Danish merchant houses to the new competitors precisely because of the debts. To solve this dilemma, Jón advised his countrymen to be provident and frugal, try to use domestic materials and foods, reduce their imports, and slowly pay up their debts. But since it could be a long while before ordinary merchants would throw themselves into competition with the Danes, he stressed that Icelanders should also form trading associations to which they should as much as possible divert their custom to. Using these two means, Icelanders would gradually get off the hook they were hanging on at the Danish merchants and be free to manage their sales and purchases as they saw fit.

With reference to the discussion about the experience of traditional and transitory economies in the late 19th century and in the post war years, it is noteworthy that Jón does not worry about too little demand or too a small export sector. He is convinced that the single change from a monopoly to a free trade system in Iceland's foreign trade will be progressive for the economy. After all, a monopoly prevailed and its retreat, not matter how small, was a step forwards, and Jón was speaking of its total abandonment so his optimism is understandable. Also, it is interesting to note that he believed that a change in the institutional framework of foreign trade did not only mean

an improvement in the system itself — for example, the locus of trade would move to Iceland — because he assumed that it would affect the levels and types of production in the economy, including exports. He spoke directly of new industries, and he almost certainly had in mind manufacturing industries above all, although not factories but rather workshops. In doing so, he in fact anticipated some changes in terms of economic development, although he does not use that expression. The extent to which he expected such process to happen is unclear, and he probably was not referring to a radical change such as a structural change in the economy. Rather, it seems plausible that he was thinking of a kind of a progress within the existing economic base, in the form of a certain amount of diversification.

It is also noteworthy that Jón does not envisage any particular obstacles in factor markets. However, even though he did not mention them, he almost certainly realised at least some of those that existed, but did not want to comment on them, so as not to spoil his case for free trade. After all, his writings on foreign trade had polemical purposes, and were an input into political debate among Icelanders, and between Icelanders and Danes. Therefore, in spite of his silence about this matter, it is plausible to assume that he tacitly consented with a number of his contemporaries who criticised many practices and customs that they deemed detrimental for the economy in one way or another. For instance, only a blind man did not notice the severe money shortage in Iceland with all its repercussions, and Jón was well aware of this.²⁹ In conclusion, Jón adamantly believed that the monopoly system in Iceland's foreign trade was the single most important cause of all the defects in trade and the economy. Hence, by destroying it and shifting to effective free trade, Jón claimed this change in the organisational framework of trade

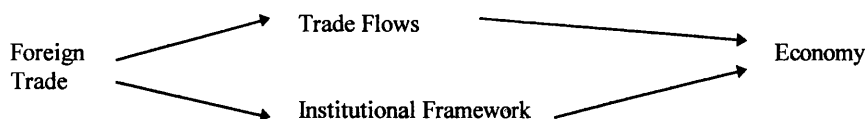
²⁹ Indriði Einarsson, *Séð og lifað*, [2nd ed.], p 145.

would regenerate the economy and put it on the track of progress. In Chapter X, his views will be revisited in the light of the findings of the thesis.

III.3. The Method of Analysis

III.3.1. The Trade Analysis

It is evident that in examining the impact of foreign trade on any economy, two separate aspects of trade must be studied since foreign trade can affect economies in broadly two ways (Fig. III.1). One aspect is the trade flows over time, not only quantities and values besides prices, but also the types of exports and imports, etc. The other aspect that must be studied is the institutional framework of trade. Examination of trade flows is relatively straightforward and empirical in nature, because its purpose is to accumulate relevant information and present them in an orderly way. But since the outcome of the trade analysis was to be used as input into the examination of the links between foreign trade and the economic transition, it was considered necessary to perform a rather detailed examination. Therefore, it was decided to describe the economic context of the exports and imports as well, that is, discuss exports and imports in relation to their respective production and consumption patterns. This would put subsequent examination of the links between trade and the economy on a firmer ground and make it more rigorous.

Fig. III.1. Channels of Possible Impact of Foreign Trade on the Economy

In this detailed examination of Iceland's exports and imports, changes in the institutional structure of trade specific to goods inevitably came to discussion. However, they were described in a rather elementary way and to the extent that was deemed suitable in each case. This meant that changes in the institutional framework of trade were not examined systematically and that general changes in the institutions of trade were not discussed at all. The latter problem was solved by discussing these general changes in relation with the macro-economic implications of the product-specific changes. But the first problem could only be solved with the application of a systematic method at the point when the macro-economic implications of institutional changes would be analysed. As will be described below, the solution was to develop a research method that could be applied to the trade flows and to institutional change within the same analytical approach.

To underpin the analytical framework that was developed, I will start by discussing models and theories that are relevant for the core research questions of the thesis. This discussion serves as a platform for the next step where the research model or method of analysis is explicated. The restrictions and the potentials of the model are first outlined shortly, and then its overall structure is detailed and what parts of the model are employed in the present research.

III.3.2. The Relation of Trade and Development: A Sketch of Relevant Historical Models and Theories

Before I probe into the thickets of relevant theoretical constructs, it is useful to make a notice of a simple fact about economic growth and development in history. It is common knowledge that development is comparatively recent while growth almost certainly has recurred through history. From this point of view, the Western European development experience, which has been repeated with great variations in other parts of the world in the 19th and 20th century, is a deviation from the 'regular' pattern, not the other way around.³⁰ This is not rhetoric, because acknowledging this fact affects our ideological viewpoint. This saves us from taking an Eurocentric view and becoming fixated on the 'failures' of traditional and transitory societies to modernise, initiate economic growth and ultimately develop. Also, this way of thinking puts traditional and modern societies on an equal footing.³¹

As it happens, there has not emerged a clear and distinct strand in the economic history literature on Western Europe that has offered historical models and theories to explain in fundamental terms their unique and 'deviant' evolution since the early modern period. This may partly be because of the Eurocentric view commented on, but it no doubt is a massive task too, which also counts for the situation. There are, of course, fairly abstract theories about specific aspects of this evolution, based on empirical

³⁰ J.L. Anderson, *Explaining Long-Term Economic Change*, p 67. R. Brenner, 'Economic Backwardness,' p 15. M.P. Todaro, *Economic Development*, 6th ed., p 111. S.D. Neumark, *Foreign Trade and Economic Development in Africa*, p ix.

³¹ This stance is mainly based on empirical observations (see last footnote), but it is echoed more generally by postcolonialism and deconstruction method, such as exercised by M.

research.³² They include the Brenner debate over the fall of feudal system, M. Weber's and R.H. Tawney's works on the Protestant ethic and the rise of capitalist behaviour, and the world system analysis of I. Wallerstein and others.³³ Also, there are various models of economic change, such as that about economic backwardness by A. Gerschenkron, but they tend to be country-specific.³⁴ Hence, general, theoretical interpretative studies with regard to the overall economic context across countries seem to be relatively few.³⁵ This fact is highlighted here to explain why the literature on the 'core' countries of Europe does not provide us with an economic model or a theory to compare with other parts of the world. Therefore, we cannot see if the 'core' countries differed fundamentally from countries modernising later and what factors were specifically strategic in their case.

Consequently, it appears that there is more of general interpretations in the theoretical literature on the economic history of the Americas, Africa, Asia, and Oceania, than of Europe. Scholars have proffered models and theories to explain the economic history of the Extra-European parts of the world in the medium and long-term, mainly by studying their responses to the economic stimulus of the 'core' countries of Western Europe. For this research, the theoretical literature on the economic history of the temperate settlements is perhaps most relevant for us. In addition to the immense geographical size of the United States and their wealth of natural resources, which makes them less dependent than otherwise on foreign trade, they are often largely regarded as

Foucault. See D. Gregory, 'discourse,' p 136; P.A. Jackson, 'postcolonialism,' pp 465–6; G. Pratt, 'poststructuralism (including deconstruction),' p 468.

³² Cf. C. Trebilcock, *The Industrialization of the Continental Powers*, pp 1–21.

³³ See J.L. Anderson, *Explaining Long-Term Economic Change*. See also P. Gellner, 'Brenner debate,' pp 37–9; P.J. Taylor, 'world-systems analysis,' pp 677–9.

³⁴ C. Trebilcock, *The Industrialization of the Continental Powers*, p 425.

³⁵ An example, however, of this kind of literature is J.L. Anderson, *Explaining Long-Term Economic Change*.

an variant of the Western European model of industrialisation. But the economic history of Canada, Argentina, and Australia has to a varying extent been explained with reference to staples. This applies especially to the economic history of Canada, which is the home country of the staples theory. The essence of the theory is that 'national economic and social develment is based upon the export of unprocessed or semi-processed primary resources (staples).'³⁶ Furthermore, exports of staples function as 'the leading sector of the economy, and set the pace for economic growth.'³⁷ Export staples, which depend on geographical/ecological, insitutional, and technological factors, dominate the economy and changes in leading staples over time reshape the structure of the economy according to the special economic and social functions of the predominant staple at each time. The theory is carved out from the historical experience of Canada, which is a relatively resource abundant country and was colonised to harness its natural endowments to make commodities for export to Europe.

Although H.A. Innis, who is usually credited for the theory, was not first to write about staples in relation to Canada, he was first to emphasise their importance for the general course of Canadian economic history. His works were in the form of rather loosely connected studies on staples rather than an explicit theory, but M.H. Watkins in 1963 advanced Innis' insights by infusing into them a certain linkages typology, besides benefiting from work of other scholars. This he produced in the form of a cohesive theory of staples, applicable to 'new' countries like Canada.³⁸ The linkages typology derived from A.O. Hirschman's *The Strategy of Economic Development* (1958), written within development economics. There he forwarded it as a tool for analysing and selecting suitable development strategies, for instance, choosing new industries to

³⁶ T.J. B[arnes], 'staples theory,' p 589.

³⁷ M.H. Watkins, 'A Staple Theory of Economic Growth.'

³⁸ M.H. Watkins, 'A Staple Theory of Economic Growth.'

initiate, for traditional and transitional economies. He distinguished between two types of linkages that a new industry ('master industry') might induce. Backward linkage referred to the stimulus that the master industry might produce in the way of inducing domestic production by a 'satellite industry' whose products were inputs for the master industry. That way, inputs were produced internally instead of being imported, and fully processed imported inputs could be replaced by imported raw materials that were processed internally. Effectively, these are examples of semi-dynamic gains from trade because the start of new industries inevitably is based on imports of either capital goods or knowledge (services), possibly both. Forward linkage referred to a possible stimulus towards the start of a satellite industry that used as inputs the products of the master industry.³⁹ That way, they would be further processed internally, instead of being exported right away and processed externally. This is sometimes called up-stream or resource-based industrialisation in the development literature.⁴⁰ Watkins employed this linkages approach and added a new type, namely final demand linkage (consumption linkage). This new type of linkage described the effects that payments to factors of production, employed in each industry, had on the domestic economy through their allocation of the payments.

By the time Watkins published his paper, the insights of Innis' staples theory and literature in human geography had spurred D.C. North in 1955 to advance a theory to explain the economic development of the United States. Amplifying it in later works, he called it the export base theory, applicable to 'new' countries with a favourable man to 'land' ratio and that had been built up within a capitalist framework. Adopting a stages approach and suggesting a spiral sequence of events, he theorised how the American economy had developed from, first, a subsistence stage to one where regional

³⁹ A.O. Hirschman, *The Strategy of Economic Development*, pp 100, 102.

trade and village industries started. Then an interregional trade emerged, which resulted in diminished returns in agriculture and forced the region to industrialise. As the industrial base diversified, the region engaged more and more into external sales and finally ended in selling to other regions (or countries) products, services, labour, and capital.⁴¹ Explicitly modelled on the United States experience, which irrefutably was in many regards unique among temperate settlements, the export base theory has had limited applicability or relevance for other temperate settlements, judging from the economic history literature. Hence, the staples theory and not the export base theory has been tested on Argentina and Australia. The conclusions have been mixed, some scholars considering it useful while other have been more doubtful.⁴²

Tropical countries, with their frequent industrial enclave activities, have sometimes been denoted as dual economies in the theoretical literature. This means that they generally were unable to generate a stable economic growth or significant development, because of the isolation of capitalist activities within the economy. Japan, which had a dualistic economy according to A.C. Kelley, J.G. Williamson and R.J. Cheetham, is an exception because it initiated an industrialisation.⁴³ Furthermore, in describing the economic history of many tropical countries, including those that escaped enclaves, scholars have often referred to the vent-for-surplus phenomenon which J.S. Mill coined and is traceable to A. Smith. This term is used to describe economies that started exporting but without any detectable fall in domestic production. This could only happen when the factors of production were not fully utilised, because of structural

⁴⁰ M. Gillis et al., *Economics of Development*, 4th ed., p 475.

⁴¹ D.C. North, 'Location Theory and Regional Economic Growth,' pp 244–5. See also D.C. North, *The Economic Growth of the United States, 1790–1860*.

⁴² See, for example, D.C.M. Platt and G. di Tella, eds, *Argentina, Australia and Canada*, pp 3–4.

⁴³ A.C. Kelley, J.G. Williamson, and R.J. Cheetham, *Dualistic Economic Development*.

obstacles in factor markets, small infrastructure, or low level of technology. In the case of the tropics, inefficient allocation of factors applied especially to labour but also sometimes to 'land' (natural resources).⁴⁴

Until recently, most scholars presumably thought of the staples theory and the vent-for-surplus theory as being incompatible.⁴⁵ However, in a novel paper in 1994, R. Findlay and M. Lundahl showed that the staples theory, which had been applied to 'land' abundant economies, essentially rested on one underutilised factor, namely 'land.'⁴⁶ Hence, the staples theory could be reinterpreted and perceived as a particular example of vent-for-surplus situation. Furthermore, the authors synthesised the theories within the neoclassical formulation of comparative advantages.⁴⁷ It appeared then that the tropical countries and the temperate settlements were subject to the same logic of having at least one, yet not identical, underutilised factor of production. This brings us back to the theory of comparative advantages, Heckscher and Ohlin's theory, Haberler's theory and W.A. Lewis' analysis, which all are based on a quantitative, and sometimes qualitative, studies of the three conventional factor markets ('land,' labour, and capital). Useful as these observations are, they are not entirely satisfactory as many scholars have remarked.⁴⁸ For instance, why did the United States diverge from the other temperate settlements economies, and why was Japan so unique among tropical countries? Besides, factor market analysis is inadequate to explain the Western European 'deviation' since the early modern period. Surely, variations in the economic history of countries, be they traditional or modern, can be explained within the same analytical or explanatory

⁴⁴ B. Ingham, *Tropical Exports and Economic Development*.

⁴⁵ An example is R. Caves, cf. R. Findlay and M. Lundahl, 'Natural Resources,' p 69.

⁴⁶ Indeed, labour and capital tended to be relatively abundant compared to other parts of the world outside Western Europe but they were, after all, mobile factors, opposite to land. Hence, land clearly was more underutilised factor than labour or capital.

⁴⁷ R. Findlay and M. Lundahl, 'Natural Resources.'

framework. After all, one of the aims of historical enquiry is to aid our understanding of causes of change, both those that are common and dissimilar. Note, however, that this does not mean that just one explanatory framework is valid. On the contrary, a variety of equally valid frameworks can exist and should be used to understand the past, because history is not uni-linear but multi-linear process.⁴⁹ In any case, there is a need for an additional tool in economic history, one that offers more intuitive approach into the mechanism of structural change in economies.

Incidentally, the linkages approach comes to consideration here. Several scholars, including Hirschman himself, have been making attempts to integrate the staples theory and the linkages approach. In a noteworthy discussion by F.S. Weaver in his book about the economic history of South America (1980), he observed that the staples theory essentially was a typology rather than a theory, because its application entailed a survey of backward, forward, and consumption linkages of an export activity. Moreover, the theory can 'provide a systematic organising device with which one can relate economic activity to other dimensions of social life ...'⁵⁰ Here, Weaver was under the heavy influence of R.E. Baldwin, in particular a paper from 1956, where he compared a hypothetical plantation production with family small-holdings production and synthesised economic and social aspects of both methods into a convincing argument in favour of the latter.⁵¹ Antedating Hirschman's book in 1958, Baldwin did of course not employ a linkages approach but his paper shows he clearly was thinking along similar lines.

⁴⁸ R. Findlay and M. Lundahl, 'Natural Resources,' p 68.

⁴⁹ In fact, it would perhaps be better to speak of a multi-dimensional process since the use of 'linear' phrasing suggests linear thought, which I am not oriented towards.

⁵⁰ F.S. Weaver, *Class, State, and Industrial Structure*, p 86.

⁵¹ R.E. Baldwin, 'Patterns of Development in Newly Settled Regions.'

Weaver, however, seems to be unaware that the linkages approach had been significantly advanced since 1958. In a study by S.R. Pearson in 1970, the term fiscal linkage had been adopted to describe fiscal revenues of a state accruing to it through export duties and import tariffs.⁵² Also, Hirschman in 1977 had reviewed and advanced his linkages approach for the purpose of development studies and there he modestly proffered it as a tool in economic historical research. Hirschman's main addition to the approach was in introducing inside and outside linkages, which was a new subdivision and cut across production linkages (backward and forward) and consumption linkage. This suggested subset described the connections between already operating industries (or firms) and the start of new activities in the economy or activities in new locations in the country. If those behind the new activity were indigenous to the former industries and firms, this showed inside linkage. If those initiating the new activities were foreigners or the state, this showed outside linkage.⁵³ Hence, the distinction between inside and outside linkage was a measure of the relations of new activities to previous industries or firms. Unfortunately, Hirschman did not make clear how he perceived domestic entrepreneurs who were external to previous industries or firms, for example, young men engaging in business for the first time.

Several years later (1987), Hirschman gave a concise and more systematic presentation of his linkages approach.⁵⁴ Interestingly, he dropped inside and outside linkages. Whatever his reason, the distinction he made between 'insiders' and 'outsiders' is useful, although this set of linkages cannot be quantified in the same way as the other linkages. Provided that there is information available, production linkages (forward and backward) can be computed in standard input-output tables and, indeed, this fact has

⁵² A.O. Hirschman, 'linkages,' p 209.

⁵³ A.O. Hirschman, 'A Generalized Linkage Approach,' p 81.

⁵⁴ A.O. Hirschman, 'linkages.'

secured them a place in the toolbox of development economics.⁵⁵ However, in historical research and in particular when an industry is starting, sources about this can be scarce if they exist at all. Hence, the study of production linkages presumably tends to be similar to the study of inside-outside linkages, which can only be studied in qualitative terms.

In the 1987 paper, Hirschman stressed the historical relevance of his linkages approach more strongly. He linked it in particular with the staples theory as he had done in the 1977 paper. Why he focused so on the staples theory probably is because development studies sometimes tend to assign in a slightly deterministic way particular economic and social structures with particular products. In other words, the production of a good and its pertaining technology (production function) is supposed to determine the economic and social structure. This way of thinking was at the heart of Baldwin's paper in 1956, and this is one of the issues Hirschman discusses in 1977 and 1987.⁵⁶ But this way of thinking was also a very central theme to the staples theory when it was applied to Canada. H.A. Innis' view was that Canadian export staples over time had permeated the economy, heavily influencing it each time a new export staple emerged. Moreover, this legacy is still very much alive in Canadian economic historiography, and is partly infused with debates concerning to what extent Canada's economic history has been desirable and why the economy has evolved so. Some have suggested that Canada is locked in a staples trap, a stand that is analogous to debates about the economic experience of LDCs in the post-war world.⁵⁷

⁵⁵ Input-output tables are described in, for example, M. Gillis et al., *Economics of Development*, 4th ed., pp 137–45.

⁵⁶ See a discussion about Baldwin's stance in J.T. Thoburn, *Primary Commodity Exports*, pp 33–5.

⁵⁷ J. Richards, 'The Staple Debates.' G.D. Taylor, "A Multitude of Solitudes": The Pursuit of Business History in Canada.' T.J. Barnes], 'staples theory,' pp 589–91.

III.3.3. The Potentials and Restrictions of the Linkages

Approach for Historical Research

The linkages approach is a very promising complementary tool in economic history analysis, not only on microeconomic but also macroeconomic level. This is because it offers a relatively extensive method to understand and relate changes in economic variables to one another over a wide range in the economic spectrum. Furthermore, the method is dynamic because shifts — disequilibria — in the economy as well as foreign markets are integral to its mechanism. Hence, it is far removed from static equilibrium neoclassical analysis and much more apt for economic history analysis. To the best of my knowledge, the potential of the linkages approach has yet not been fully explored in the literature with a full-fledged execution of it, and I am not aware of any formal, comprehensive presentation of the method.⁵⁸ Therefore, an attempt will be made to present the methodology in general, discuss its components, and explain its application.

First, however, I briefly want to comment on its potentials and restrictions with regard to historical research, and say a few words about the relevant terminology. The linkages approach seems to be suitable for whichever short, medium, or long-term

⁵⁸ Apart from F.S. Weaver and a few writers referred to in Hirschman's 1977 and 1987 papers, I am aware of only a few scholars who have employed the linkages approach to some extent, implicitly or explicitly, and no one has used in its full version. Bulmer-Thomas is aware of the approach but does not use it explicitly, while D. Senghaas states it formally and uses its basics in his reasoning. J. Sender and S. Smith explicitly use a part of the linkages approach, and so does Sigfús Jónsson (in relation to the staples theory). E. Horesh and S. Joekeš, unlike all the others, specifically study leakages. Note that the listing is no doubt defective. For the works of those authors, see the bibliography.

analysis. Also, in spite of the dynamic nature of the approach, it seems to cope equally well with stasis as with change in the economy. However, it does not deal with changes in social phenomena that feed into the economy, for instance, long-term changes in technology.⁵⁹ Rather, the approach follows up the impact of impulses into the economy, wherever they trickle. Another point is that the linkages approach seems to be applicable to countries irrespective of their level of industrialisation or modernisation. Of course, its executions become more complicated in 'advanced' economies, but its logic should remain unaffected. Also, although the approach originally was aimed at an analysis of the industry level, there is nothing to preclude an analysis of the firm level or the national level like in this research. Similarly, it can be applied as well on the regional level, in which its boundaries are treated as state boundaries in an 'ordinary' economy-wide analysis. The last point to make is that it is only a complementary tool of analysis. For example, surveys of factor markets grasp certain aspects that the linkages approach misses. Furthermore, by its nature it does not explain various institutional structures in society or their changes, and it does not deal with the political nature of external relations. The strength of the linkages approach primarily lies in the survey of the overall context of production and consumption flows, which are two side of the same coin, for no other approach within economic history seems to provide equally as extensive and systematic method of analysis of this particular aspect of an economy. Besides, it offers a dynamic interpretation of economic change.

In line with Hirschman, the term 'linkages approach' will be retained for this particular kind of analysis, instead of calling it an 'expanded staples theory' as Weaver

⁵⁹ An interesting literature about technology changes and economic growth is within the new growth theory and the evolutionary growth theory which are two competing paradigms in explaining long term economic growth. An extensive application of the second method, stretching from the 18th century to the 1990s, is G.N. von Tunzelmann, *Technology and Industrial Progress: The Foundations of Economic Growth*.

suggests.⁶⁰ Apart from causing confusion, because the ‘staples theory’ and ‘expanded staples theory’ would mean quite different things, the connotation obscures the true essence of this analytical approach. Although it has only been discussed in relation with the staples theory, as far as I know, it can just as well be tested in relation to any other historical model or theory, as Hirschman indirectly suggests. After all, a study of the linkages of a particular economic activity in a specific place and at a specific point of time does not by any logic entail that the outcome will be an example of an economy that scholars happen to have explained with the staples theory. The outcome of such an analysis could just as well be an economy that economic historians have until now called a dual economy (or with dualistic features). Or, it could be an example of an economy that happened to industrialise relatively successfully, like the United States, where the domestic market was no less important than external markets. The range of outcomes of such an analysis is endless, at least hypothetically so, and the relevance of the linkages approach is by no means confined to economies that have large export sectors. In principle, the approach is applicable to all economies. Whatever term economic historians would prefer to use in reference to any particular outcome is quite a different matter, and it does not have any bearing on the kind of analysis that the linkages approach offers. This particular line of thought is pursued here, because Hirschman offers a fresh look at this matter, when he chooses to term the sum of linkages observed in economy at a particular point of time as its specific *constellation of linkages*. Essentially, this is what historical models and theories dealing with economic change are trying to describe, and in order to identify similarities and differences in constellations of linkages, they have to be employed widely and systematically enough.⁶¹

⁶⁰ F.S. Weaver, *Class, State, and Industrial Structure*, p 87.

⁶¹ The need for comparative, systematic, economic history research across countries is also expounded in C. Trebilcock, *The Industrialization of the Continental Powers*, pp 425–6. In the

III.3.4. The Methodology of the Linkages Approach and its Use in the Present Research

Let us now move onto the methodology of the linkages approach and discuss its components. Since neither Hirschman nor other writers have, to my knowledge, explicitly set out a graphical illustration for the approach, Fig. III.2 must be taken as an attempt to such formulation. It serves the purpose of forming a basis for my selective analysis of the Icelandic economy in the thesis. Precisely because of my analysis is not employed to the fullest, it is necessary to show that it is not haphazard but based on a systematic methodology.

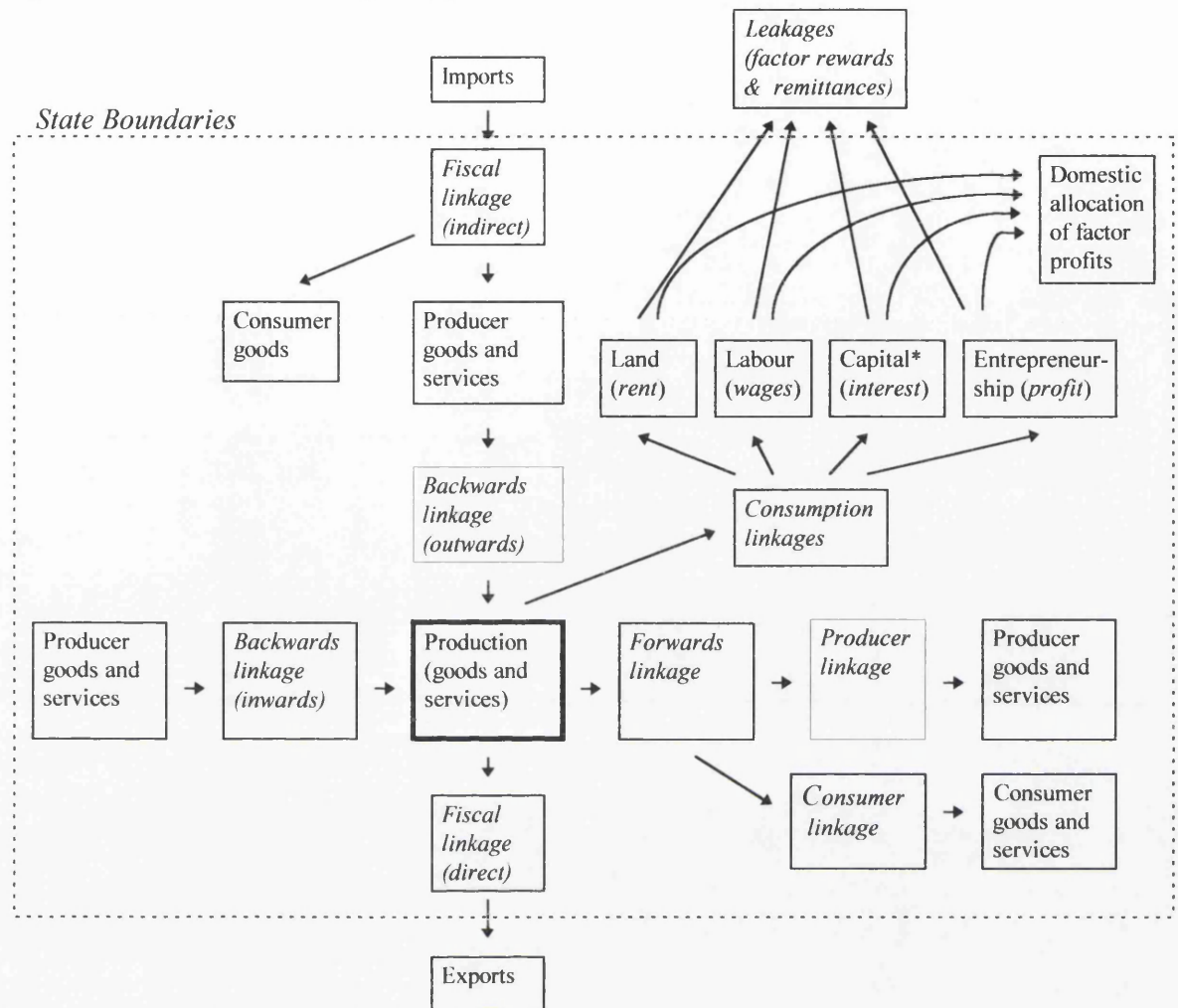
The purpose of the linkages approach is to examine changes in economic activity over time. Hence, it does not matter whether all the linkages existing initially are scrutinised before studying later developments (or moving on to the next sample year), or whether a particular subset of linkage is studied over time before moving on to the next subset of linkage. To facilitate explication and understanding of the approach, it will be broken into subset below. To begin with, the initial production in the economy, whether in primary, secondary, or tertiary sector, is studied. Hence, production of services is included, such as mercantile activities in the foreign trade. Regarding the branches of economic activity, the following aspects need to be scrutinised: a) the types of industries

context of Icelandic scholarship, this need is underscored in Björn S. Stefánsson, 'Framsaga Björns S. Stefánssonar,' pp 22–3.

(businesses and enterprises) with regard to their use of producer goods and services,⁶² b) their particular use of land, labour, money capital, and entrepreneurship, and c) their particular use of and need for social overhead capital. This examination would chart some of the general characteristics of the economic activity and show, for example, if and to what extent it was dependent on external supplies of inputs (producer goods, services, and the factors of production listed above). It would also reveal its need for social overhead capital. Furthermore, it would be possible to study the use of factors in terms of their quantity and quality, identify relative factor intensities by industries (G. Haberler), etc., but the need for such an extensive analysis would, of course, depend on the type and purpose of the respective research.

⁶² Producer goods are durable or capital goods, such as machines, and intermediate products, for example, fuel. (See C. Pass, B. Lowes, and L. Davies, *Dictionary of Economics*, pp 61, 256, 411.)

Fig. III.2. The General Linkages Approach



Source: A.O. Hirschman, 'A Generalized Linkage Approach,' A.O. Hirschman, 'linkages'

* Money capital only

The next step would be to investigate new activities (production of new goods) over time, new ways of producing previous products and services, and study their outward relations (listed under the checklist a–c above). In particular, we would pay attention to any possible relations to the ongoing activity ('master' industry) and check if it provided product and service inputs for the 'master' industry (backward linkages) or if it used the 'master' industry's goods as such inputs (forward linkages). We would also pay attention to conceivable destructive impacts on the domestic economy (backwash

effects), which could happen if the products of the new activity or its inputs had detrimental effects on domestic industries. Also, we would look for possible production of 'indirect' inputs, such as services and products of craftsmen and skilled workers, commercial and state agents, etc., which former and new activities had stimulated in emerging in the economy.⁶³ This particular sequence of checking would be done each time we observed any new activity being initiated.

Assuming we had studied all new economic activities and production lines in the economy during the research period, we would then examine more closely the consumption linkage created by of each of the particular activities observed, including the initial activities. More precisely, we would scrutinise who were the recipients of the factor rewards over time, and follow up the eventual allocation of the rewards (Fig. III.3). Note that mercantile activity in foreign trade, like any other industry in the economy, would be included. Perhaps the first concern here would be to identify conceivable leakages of any sort, i.e., non-refundable money transfers from the economy. In economics, the term leakages is sometimes used instead of externalities, which describe positive indirect influences outside their intended purpose (such as education) and negative indirect influences on other factors or agents (such as pollution).⁶⁴ But since externalities are an established term for this phenomenon, many have unequivocally used the term leakages in the special meaning discussed here, and I will do so too.⁶⁵ It applies

⁶³ The term is borrowed from E. Horeh and S. Joekes, 'The Impact of Primary Exports,' p 181, who use it when referring in fact to positive externalities, cf. below in the main text of the thesis. The existence of this particular type of linkage was, however, brought to my attention by J.T. Thoburn, *Primary Commodity Exports*, p 51 (endnote 42), quoting a paper by F. Stewart and P. Streeten, who called it horizontal linkage.

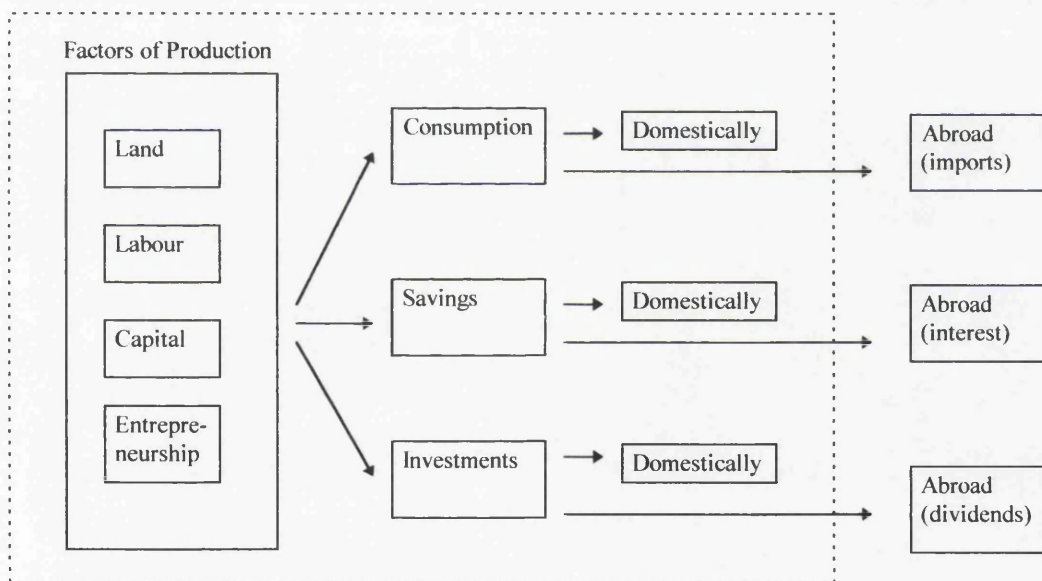
⁶⁴ C. Pass, B. Lowes, and L. Davies, *Dictionary of Economics*, p 184.

⁶⁵ M.H. Watkins, 'A Staple Theory of Economic Growth,' p 145. A.O. Hirschman, 'A Generalized Linkage Approach,' p 71 (footnote 7). J.T. Thoburn, *Primary Commodity Exports*, pp 32, 41. F.S. Weaver, *Class, State, and Industrial Structure*, p 90. E. Horeh and S. Joekes, 'The Impact of Primary Exports,' pp 181, 182.

to all possible drains of capital (mainly money) from the economy under study to other countries. This can be in the form of remittances, wages to foreign workers (returning home), interest, dividends, and profits to foreign residents. Besides leakages, we would also want to trace the domestic allocation of the profit part of the rewards into savings (hoarded and in savings funds, banks, etc.), investment, and consumption. Evidently, these links are extremely important because they are the source of money capital in the economy, unless it receives donations of some kind, loans, or has incomes of money capital either invested or loaned abroad.

Fig. III.3. Allocation of Factor Profits

State Boundaries



The final step in the linkages analysis would be to examine fiscal linkages, i.e., possible state levies in the form of export duties (direct fiscal linkage) and import tariffs (indirect fiscal linkage). Because the state usually does not take any part in ordinary market production, state finances *per se* are not an integral part of the linkages approach analysis. However, since the state usually receives dues from exports and imports, the

relative significance of these particular revenues as of the total revenues of the state is interesting. So too is the expenditure pattern of the state, such as appropriations to social overhead capital (infrastructure) and industries (typically agriculture).⁶⁶ Furthermore, the purpose of such levies has a bearing to economic development and the policy of the state towards development. In general, the usefulness of fiscal linkages mainly lies in putting in focus the links between the state and economic development.

In the present research, not all of the linkages of the approach were examined. I concentrated on backwards and forwards linkages, besides consumption linkages. Except for fiscal linkages, the other linkages are my own extension to Hirschman's model and there was no special need to survey them for the purposes of the present research. Besides, time and room prevented me from probing into the remaining linkages, although they would almost certainly have added noteworthy features to the overall picture. It would have been impossible to examine them too, given the state of research in Iceland's economic history. Rather, my aim was to outline the salient characteristics of each set of principal linkages (saving for fiscal linkages) for the main export staples.

The general linkages approach was extremely useful as a basic tool in identifying or charting links from foreign trade to the economy. The strong side of the approach is that it is powerful in providing an overview of the economy in a certain way by explaining links between a number of economic variables. Hence, it highlights how industries (processes of production) connect through inputs and outputs, how industries feed into consumption of consumer goods through factor rewards, and how this system is affected by imports. Also, the approach aptly addresses links from trade to state revenues, besides including leakages. The weak side of the approach, however, is that it cannot analyse various organisational shifts in use of factors of production. In other

⁶⁶ As defined in R. L[ee], 'infrastructure', p 288.

words, it is suitable to deal with flows that production and consumption — supply and demand — generate, but incapable of portraying shifts in the way utilisation of factors of production is organised. Hence, the approach is well equipped in dealing with the dynamics from the interplay between production and consumption, but at a loss when dealing with how use of factors is organised. Since the thesis dealt with a process of economic development, it was no less focused on the latter than the former, and this caused a certain problem for the analysis of the overall impact of trade. Hence, although the flow dynamics were an inseparable part of the analysis, to show where links from trade to the economy lay and how factor intensities were affected, it no less was concerned with organisational shifts in the economy, to show how trade affected the structural aspects of the economy. The linkages approach dealt admirably with the former, but was inadequate for the latter, and this called for a remedy.

III.3.5. The Economic Determinants Model

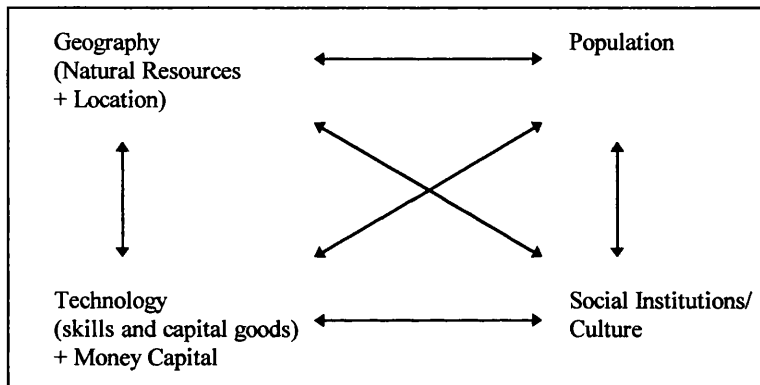
The problem with the general linkages approach with regard to the long-term change in the use of factors was located in its consumption linkages because it was found that they did not fully envelope the overall impact of shifts in economic activity on the four factors of production. Recall that consumption linkages only deal with the intensity or the extent to which a specific industry uses individual factors of production. In a statistical survey of consumption linkages, this would be measured by computing the sums of the rewards to factors, but in the present research, only verbal description of relative factor intensities was offered, based on judgement of qualitative sources and the historical

literature. However, this procedure is insufficient in an overall analysis because it excludes changes in the way factors are employed in the production process and what impact this has on factor markets. More precisely, it ignores possible locational and organisational changes in the employment of 'land' (natural resources), labour, and capital. Furthermore, it ignores the social implications of changes in the use of the entrepreneurial factor. For instance, a change in the economy may cause an industry to move the location of its production process, employ labour on different terms than before, find other sources of money capital, and cause an inflow of entrepreneurs from a new social group. Useful as the general linkages approach is in providing a systematic and dynamic interpretation of the causal interaction between production and consumption in economy, the inability of the approach to deal with these aspects is a major restriction of the method.

In solving this problem, the H.A. Innis' staples theory was of initial help because it stresses the interaction between geography, institutions, and technology in economic activity. In turn, it underscores the use of these sources for purposes of production. The advantage of the theory is that its three basic elements correspond to three factors of production. Geography is the determinant of 'land,' institutions relate to the entrepreneurial factor, and technology is the basis of production of capital goods. The main asset of this insight from the staples theory was that it related the slightly narrow perception of factors of production to their sources and a broader context. However, in terms of my methodology, the obvious weakness of the staples theory was that it did not include the population from which labour was drawn. Therefore, a certain model was built (Fig. III.4), consisting of four major economic determinants: geography, population, technology and capital, and institutions and culture. Incidentally, a broadly similar formalisation of the same basic idea was found in R. Cameron's *A Concise*

Economic History of the World, so this typology and its name (economic determinants) is no novelty in the literature.⁶⁷ Notwithstanding, it perhaps is less common than it deserves, and in the context of this research, the economic determinants model is extremely useful.

Fig. III.4. Economic Determinants Model: Basic Elements of an Economy



Cameron only employs this idea of economic determinants as a general platform for the treatment of the topic in his textbook, and he neither implicitly nor explicitly uses the staples theory or any other theory in his book. But given the linkages approach used in the present research, the model is an extremely useful supplement to the approach. This is because it opens up the possibility of examining the overall changes in the use of factors of production. While the linkages approach focuses on intensities in the use of factors and, effectively, pecuniary relations of individual production processes with factors, the economic determinants model as used here gives a chance to include examination of organisational or structural aspects. Hence, both form and content in the economy is studied. In fact, it is safe to say that with reference to the present study, the

⁶⁷ R. Cameron, *A Concise Economic History of the World*, 3rd ed., pp 9–11.

essence of the economic transition cannot be fully grasped without employment of the economic determinants model. Of course, this claim is based on the fact that my focus was on the elements of the economic development of Iceland, rather than on shifts in intensities in factor use which is a far more circumscribed topic and suitable for study by examining consumption linkages.

The economic determinants model is relatively straightforward and does not require much elaboration. Therefore, only the salient points will be briefed. The model assumes that the economy is essentially conditioned by four principal components, which interact with each other in every economic activity. Note that the interaction consists of flows of substance or content but it is also conditioned by the social structures that have been built over time in monitoring each of the components. For instance, use of land for the purposes of production is not only subject to its quantities but also to law and the organisation of ownership. Labour is not only subject to the size of the population but also to the level of human capital which depends on the educational system among other things. The availability of money capital is not only subject to the supply of money in circulation, but also to the financial framework of the economy. The availability of capital goods and intermediate goods is not only subject to technology and the existence of merchants and traders, but also to social or institutional structures and external relations. Finally, the human agency factor, entrepreneurship, is more dependent on the type of social stratification and cultural traits than on the forces influencing the population component.

Evidently, the application of the economic determinants model can mean a very extensive survey of not only factor markets but also purely social aspects, provided that the latter can be shown to influence economic activity. In the present research, the economic determinants model was not used to map the entire economy in terms of the

economic determinants typology, because that would have been a pointless accumulation of information. To paraphrase Hirschman, the aim was to identify differences in constellations of the determinants over time, and examine these differences across export industries since constellations are presumably similar within industries. Hence, the model was used to distinguish between the initial constellations as described in Chapter II and in the trade analysis, and the subsequent constellations resulting from the seemingly important shifts later on. The procedure was to (a) identify if and how a shift in a industry affected its use of the components in terms of both content and organisation, and (b) assess whether the shift meant a significant break with its previous use. The first step is taken in Chapter IV on exports, while the second step is taken in Chapters VII–VIII, which analyse the relevance of the shifts in foreign trade (trade flows and institutional framework) for the economic transition. In addition, the implications of these differences in constellations of determinants are explored more profoundly in Chapter IX on Iceland in international context and Chapter X on conclusions.

My application of the economic determinants model may appear somewhat complicated. However, it actually is very straightforward as my examples below will illustrate. The shifts in foreign trade that seemed to be important in terms of the economic transition were examined component by component. Concerning the geography component, it was observed whether or not the shifts meant utilisation of new economic resources, a move in the location of the industrial activity, and had spatial implications (concentration or dispersion). Regarding the population component, it was observed whether or not the shifts entailed a change in the demand for labour by type (mainly unskilled vs. skilled), influenced the relations between labour and means of production, changed the ownership of the raw materials processed, and altered the terms of employment (mainly wage labour vs. piece labour). In the case of technology as embodied in technical skills and capital goods, it was observed whether or not the shifts

required new technical and managerial skills to operate, for instance, machines and new types of production units (outcomes of diversification in the economy, specialisation among firms, vertical integration within firms). In the case of money capital, it was observed whether or not the shifts involved more or less capital intensity than before, what type of capital, and what implications this had for the financial structure. Finally, regarding social institutions and culture, it was observed whether or not the shifts had any impact on, most important, power balances in the social context, either through the entrepreneurial function or as societal side-effects from other components, not already discussed. This outline shows that the application of the economic determinants model is relatively simple and logical, and indicates what sort of issues were examined in relation to each component or economic determinant.

Chapter IV

Exports of Iceland, 1870–1913

IV.1. Exports of Iceland and the International Context

IV.1.1. Values and Growth Rates of Exports: Levels, Shifts, and their Causes

When the outlines of Iceland's exports during 1870–1913 are studied, one of the most salient features is the marked increase that occurred. The value of exports rose from 4 million kroner in 1870 to 21.7 million kroner in 1913 — or by more than five times over (Table IV.1, see Fig. IV.1). Comparing the average of 1870–74 with the average of 1910–13, the increase was slightly less — a rise of 4.2 times over.¹ In terms of annual compound growth,² exports by value grew by 4.0% per annum from 1870 to 1913, and by 3.4% per annum from the 1870–74 average to the 1910–13 average. This expansion was even more evident in the quantities of exports, which rose by between six and seven times over (Fig. IV.2).

¹ Table A.EXP/ALL-5.

² Unless otherwise stated in the thesis, calculation of growth rates in text and tables always refers to annual compound rates.

Figure IV.1

Exports of Iceland, 1870–1913, by Main SITC Groups (Absolute Values)

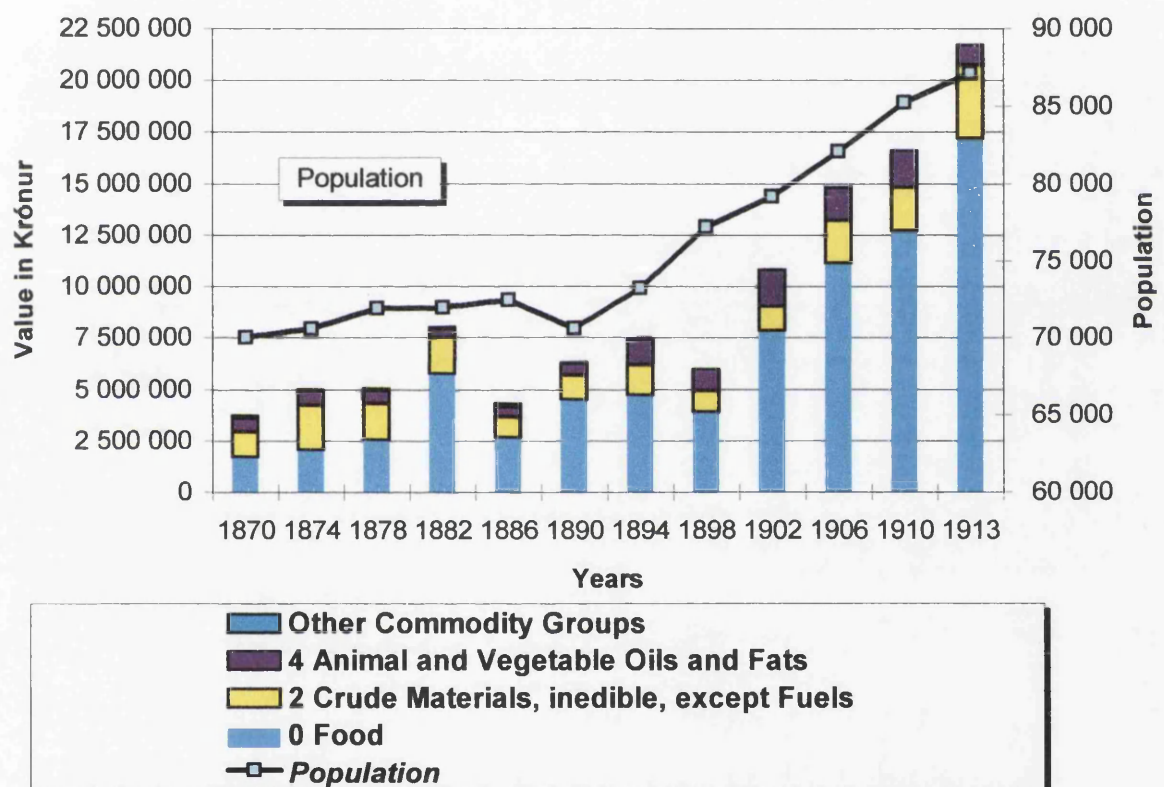


Figure IV.2

Exports of Iceland, 1870–1913, by Main SITC Groups (Absolute Quantities)

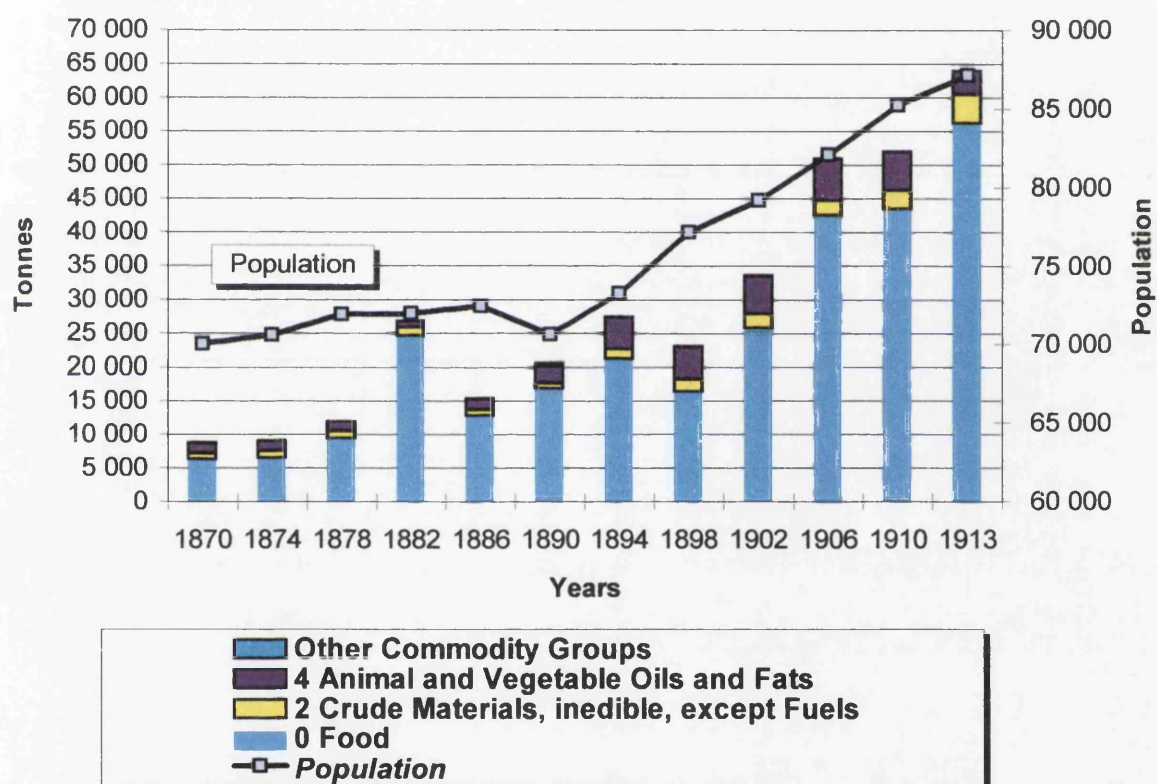


Table IV.1. Exports of Iceland, 1870 to 1913: Values, Quantities, and Growth Rates***From 1870 to 1913***

	<i>1870</i>	<i>1913</i>	<i>Times over</i>	<i>Growth per annum</i>
Absolute figures:				
Quantity (Tonnes)	9 264	63 940	6.9	4.6%
Value (Thous. kr.)	3 968	21 746	5.5	4.0%
Per capita:				
Quantity (Tonnes)	0.1	0.7	5.5	4.1%
Value (kr.)	57	250	4.4	3.5%

From 1870–74 to 1910–13

	<i>1870–74</i>	<i>1910–13</i>	<i>Times over</i>	<i>Growth per annum</i>
Absolute figures:				
Quantity (Tonnes)	9 356	58 447	6.2	4.4%
Value (Thous. kr.)	4 580	19 370	4.2	3.4%
Per capita:				
Quantity (Tonnes)	0.1	0.7	5.1	3.9%
Value (kr.)	65	224	3.4	2.9%

Sources: Tables A.EXP/ALL-1 and A.EXP/ALL-5.

To put this into a more meaningful perspective, we might consider the relationship of the population of the country to the exports. This is a crude measure of the extent to which people were engaged in production for export. By that measure, the value of exports per capita increased between three and four times over during the period, depending on which years are compared. The annual growth rate was 3.5% per annum from 1870 to 1913 whereas the rate was 2.9% per annum on 1870–74 and 1910–13 averages. All the evidence, therefore, points to a relatively lively period of export activity from Iceland between 1870 and 1913.

In terms of value, the exports of Iceland seem to have been growing more or less constantly throughout the period. Only two sub-periods of setbacks are evident, a large reduction in the export value in 1886 over the previous sample year and a relatively smaller contraction in 1898 compared to the previous sample year (see Fig. IV.1). However, in relation to the export values in 1902 onwards and the fast rate of growth at

the time, the first three decades clearly form a separate sub-period of a modest export growth. The main spurt in the exports came only after the turn of the century and, therefore, our research period falls into two in this respect.

Looking at the wider context, i.e., the international scene, we see that in the very beginning, the early 1870s, there was a boom in intra-European trade as well as Europe's trade with other countries. Then, from the mid 1870s or ca 1873 onwards there was a marked deceleration of the rate of growth of exports and a concurrent price fall for a decade or so. Trade resumed again in the late 1880s and prices rose but then, in ca 1890, another recession settled in and lasted until the mid 1890s or so with deterring effects on trade and with prices contracting. From ca 1896 onwards there was a more or less continuous acceleration in the rate of growth of exports and prices moved upwards.³ This 'highly subjective, though widely held, version of the general course of the world's business' affected economies world-wide to a varying extent and at different points of time, depending on social and economic factors, such as the type of exports.⁴ And the pattern in Iceland's exports by value is a point in case because it partly diverged from this international pattern. As Fig. IV.1 demonstrates, the deceleration in growth of exports took place in Iceland only during the 1880s and 1890s. All this testifies to Icelandic variants of the international pattern. However, a striking similarity in movements in national wholesale price levels across a range of countries in Europe (Denmark, Germany, France, and the United Kingdom) legitimates the understanding that in spite of their simplification they give a general impression of the major swings of

³ S.B. Saul, *The Myth of the Great Depression*, pp 11–15, 27–8. W. Ashworth, *A Short History of the International Economy since 1850* (4th ed.), pp 215–16, 221. S.B. Saul, *Studies in British Overseas Trade*, Chapter V.

⁴ W. Ashworth, *A Short History of the International Economy since 1850* (4th ed.), p 221.

world trade at the time, especially when the large share of European countries in world trade is considered.⁵

IV.1.2. The Background: General Swings in International Trade and their Causes

What were the causes of these ups and downs in world trade and prices? First it must be emphasised that these general trends affected individual branches in world trade to a varying extent, each having its own special course because of different suppliers, location of manufacturing or production, and market countries. But the very fact that so many different goods in world trade had so much in common in terms of rates of growth and of prices indicates that there were some common causes also.⁶ Of those explanations still put forward, the oldest is the monetary explanation or the impact of the supply of money and, moreover, gold and silver.⁷ An example of that is the boom in the early 1870s, which was due to the Franco-Prussian war in 1870–71 and its aftermath, when trade was reviving and prices going up, directly and indirectly fuelled by France's huge war indemnities to Germany.⁸ There was 'wild, speculative investment' that in 1873 ended

⁵ For price levels, see J. Foreman-Peck, *A History of the World Economy* (2nd ed.), pp 73 (Fig. 5.3), 156 (Fig. 9.1); and Denm., State Bur. of Stat., *Danmarks Vareindførsel og -Udførsel* 1906, p 11*–12*, and 1913, p 6* (table). For share of Europe in world trade, see A.G. Kenwood and A.L. Lougheed, *The Growth of the International Economy* (3rd ed.), p 81 (Table 8).

⁶ S.B. Saul, *The Myth of the Great Depression*, p 15.

⁷ S.B. Saul, *The Myth of the Great Depression*, p 16.

⁸ R. Cameron, *A Concise Economic History of the World* (3rd ed.), pp 302, 306.

in a 'series of severe crisis' in Europe and America, namely shortage of money.⁹ Also, many countries were adopting the gold standard in the 1870s onwards, accumulating gold with the same effect.¹⁰ By contrast, prices and trade revived after discoveries of gold in South Africa in 1886 and in Australia, Alaska, Canada, and Siberia around the turn of the century.¹¹ With many countries on the gold standard, the supply of money and gold was necessarily very important for the trade and movements of prices.¹²

Another explanation that has been put forward is the shift between home and foreign investment over time, especially in the case of Britain which was by far the largest investor in late 19th century and as late as 1914 still held 43% of all foreign investments in the world.¹³ The thesis is that increase in foreign investment eventually brought up domestic prices, while an increase in home investment would bring down prices. According to S.B. Saul, this seems to hold true only for the period until 1887 after which other forces in the world economy overruled or blurred this mechanism.¹⁴ This, however, is a much debated issue and the relationship between investment, trade, prices, and migration in the Western hemisphere needs further research before this relationship can be asserted or fully explained.¹⁵

⁹ S.B. Saul, *Studies in British Overseas Trade*, p 95. R. Cameron, *A Concise Economic History of the World* (3rd ed.), p 302.

¹⁰ R. Cameron, *A Concise Economic History of the World* (3rd ed.), pp 306–7. A.G. Kenwood and A.L. Loughheed, *The Growth of the International Economy* (3rd ed.), pp 106–8. J. Foreman-Peck, *A History of the World Economy* (2nd ed.), pp 154, 162–3.

¹¹ S.B. Saul, *Studies in British Overseas Trade*, p 105. R. Cameron, *A Concise Economic History of the World* (3rd ed.), pp 302, 306. S.B. Saul, *The Myth of the Great Depression*, p 27.

¹² R. Cameron, *A Concise Economic History of the World* (3rd ed.), p 306.

¹³ A.G. Kenwood and A.L. Loughheed, *The Growth of the International Economy* (3rd ed.), pp 26–7.

¹⁴ S.B. Saul, *The Myth of the Great Depression*, pp 19–20. S.B. Saul, *Studies in British Overseas Trade*, pp 90–94, 131–2.

¹⁵ A.G. Kenwood and A.L. Loughheed, *The Growth of the International Economy* (3rd ed.), pp 149–54.

The third set of explanations for the swings in prices and trade has to do with supply or cost related factors. One of the most important was the sharp fall in freight rates after 1880 onwards. This was due to technical advances, increased productivity in shipping, opening up of the Suez canal in 1869, etc. Cost reductions in land transport did also take place. Even if prices did not fall instantly when costs were diminishing, such a prolonged situation with good profits was conducive to increased production, which eventually would force the prices down.¹⁶ Only in the very end of our period, after 1910, did freight rates move markedly upwards.

The last set of explanations is related to demand factors. Demand is difficult to measure but S.B. Saul's point is that since demand for manufactured products seem to have decelerated in many industrial countries from the 1870s to 1890s that may be interpreted as having brought prices generally down to some extent. Conversely, the demand rose from the late 1890s or around 1900 which would explain partly for rising prices and mounting trade.¹⁷ Both trends would, of course, apply to manufactures, i.e., domestic produce, as well as imported goods from primary producing countries, namely foodstuffs and raw materials.

It is against this background sketched here that the general movements of exports of primary products and their prices in our period must be studied. The period was one of many variations despite the general trends described above, and through this interplay world trade was transforming. The period 1873–1896 has often been termed the Great Depression, especially in British historiography. The studies of S.B. Saul have largely undermined the use of such label for analytical purposes although this particular era may appear to have been characterised by a similar development of certain economic

¹⁶ S.B. Saul, *The Myth of the Great Depression*, pp 21–4.

¹⁷ S.B. Saul, *The Myth of the Great Depression*, pp 25–6.

indicators, namely contracting prices and decelerating rate of growth of production and world trade. Saul's findings also suggest that development of world trade underwent or had undergone by ca 1890 profound organisational changes along the lines illustrated above.¹⁸ What is certain is that this particular era is not served justice with the labelling of a depression, and it is highly misleading for the analysis of the many currents in world trade at the time. Similarly, the labelling of the 1850s and 1860s as a period of a particular boom is not very meaningful or helpful in the view of R.A. Church.¹⁹ Hence, the era of 1873–96 is not in such a stark contrast to the 1850s and 1860s as has sometimes been assumed.

Focusing on world trade in primary products, both foodstuffs and raw materials, we should first note that its fluctuations were much less than in the trade of manufactures.²⁰ However, both types of trade underwent concurrent movements in the same directions. Hence, after the boom in the early 1870s, the rate of growth of exports of primary commodities slowed also down from the mid 1870s or so until the mid or the late 1880s, and prices fell in absolute terms. Contracting trade in Europe owing to decreasing money and gold supplies, and falling investment in primary producing countries with necessarily falling imports on their behalf²¹ are a part of the explanation. Whereas these factors were affecting trade in general, both in manufactures and in primary commodities, particular cost factors were at work in the 1880s, which had special importance in the case of primary products. Then, imports of foodstuffs from primary producing countries to Europe soared in quantity because of significant and

¹⁸ His argument is most strongly presented in his *Studies in British Overseas Trade*, pp 110–33. For arguments against the validity of the depression notion, see his *The Myth of the Great Depression*, pp 9–11, 17, 28, 32, 54.

¹⁹ R.A. Church, *The Great Victorian Boom*, p 76–8.

²⁰ W. Ashworth, *A Short History of the International Economy since 1850* (4th ed.), p 216 (Table 10).

²¹ S.B. Saul, *Studies in British Overseas Trade*, pp 61–2, 68–70.

continuous falls in freight rates at the time. This was first spelled out in the rapidly rising quantities of wheat from Russia, Asia, South and North America,²² and of meat, both as live animals and refrigerated, from United States, Canada, Australia, New Zealand, and Argentina.²³ As facilities for cooling and freezing on board advanced, other kinds of 'perishable foods' like butter, eggs and fruit increased too in quantity.²⁴ This had significant impacts on agriculture in developed, European countries, causing a decline in farming and brought down prices of domestic produce.²⁵ This fuelled demands for protection against imports and tariffs that were subsequently increased, for example, in France and Germany, but not in Britain or Denmark.²⁶ Tariffs and contracting prices in developed countries in Europe had retarding impact on demand for primary products, and increased real wages (what could be bought for nominal wages) moved consumption towards more expensive, domestic foodstuffs rather than imported foods, which were often of inferior quality to the home production.²⁷

With changing circumstances in supply of money and gold in the late 1880s, prices and trade mounted, spilling over into imports of primary products. The downswing of the early 1890s had no doubt damaging effects of trade in primary commodities but world trade was by now getting much more complicated as we have indicated earlier, and imports of raw materials from new parts of the world greatly increasing in world trade, so the general impact of the downswing is difficult to

²² M.A. O'Connor, 'World Supply of Wheat,' p 292. S.B. Saul, *Studies in British Overseas Trade*, p 23. R. Perren, *Agriculture in Depression*, p 7.

²³ S.B. Saul, *Studies in British Overseas Trade*, pp 23–4.

²⁴ R. Perren, *Agriculture in Depression*, p 7.

²⁵ R. Perren, *Agriculture in Depression*, p 8–9 (text and tables).

²⁶ R. Cameron, *A Concise Economic History of the World* (3rd ed.), pp 302–5. J. Foreman-Peck, *A History of the World Economy* (2nd ed.), pp 113–16.

²⁷ R. Perren, *Agriculture in Depression*, p 10, 13. S.B. Saul, *The Myth of the Great Depression*, p 35. S.B. Saul, *Studies in British Overseas Trade*, pp 24–6.

ascertain. According to W. Ashworth, the rate of growth of value of primary exports started in the 1890s to rise slowly again to a level that remained very much the same until the end of the period.²⁸

Linking this overall development of world trade in primary commodities in the research period with our statistics in the beginning of the chapter, there is no wonder why the downswing of the late 1870s and the 1880s hit the regions of East and South Europe harder than Iceland. Wheat and other cereals were a significant item in their exports while exports of Iceland consisted of animal and fish products mainly.²⁹ Also, although Iceland did not fare as well as the temperate settlement countries as a group in terms of the rate of growth of exports, most of them sagged in the middle of the period in terms of export earnings per capita. Only Argentina and Chile showed similarities to Iceland in having higher levels of per capita export earnings in 1890 than in 1870.³⁰ This suggests that Iceland fared better than many temperate settlement countries.

²⁸ W. Ashworth, *A Short History of the International Economy since 1850* (4th ed.), p 216 (Table 10).

²⁹ I.T. Berend and G. Ránki, *Economic Development in East-Central Europe*, pp 53–7, 150 (Table 6-16). R. Cameron, *A Concise Economic History of the World* (3rd ed.), p 302.

³⁰ No information about South Africa in 1870 or 1890 are available to me but then it represents a very extreme or unusual case because of its resource and exports, namely diamonds and gold. Therefore, it is sometimes excluded in world-wide comparisons, see for example L.G. Reynolds, *Economic Growth in the Third World*, p 5.

IV.2. Iceland's Commodity Structure and Export

Concentration

One of the most eye-catching features in Iceland's exports during the period is the predominance not just of primary products but even more of foodstuffs (Fig. IV.1). By value, foodstuffs accounted for 40–50% of total exports in the 1870s and then rose to a stable 72–79% level after 1900 (Fig. IV.3), but this change owed more to changes in prices than production in Iceland because the share of foodstuffs remained rather stable over time (Fig. IV.4).³¹ Foodstuffs can, therefore, rightfully be called the staple exports of Iceland. Within the category of foodstuffs, exports were overwhelmingly fisheries' products, which were usually around 80% of all foodstuffs' exports by value (Fig. IV.5). These fisheries' products consisted almost wholly of saltfish, varying from ca 50 to 80% of all foodstuffs by value, and salted herring. Exports of herring increased from the 1880s onwards, albeit fluctuating heavily, but in 1906–13, when they were especially large, they occupied close to 20–30% of all foodstuffs by value. In spite of these developments, saltfish remained the dominant export good.³²

Other foodstuffs' exports were practically of one kind only, namely agricultural products. Their share in foodstuffs' exports was equally as large in the end of the period as in the beginning of it, 10–15% by value.³³ However, having said that, there was a booming period in-between, with a peak in 1890, when they amounted to round about quarter of all foodstuffs' exports by value (Fig. IV.5). This increase was due to live

³¹ Table A.EXP/ALL-5.

³² Table A.EXP/ALL-7.

³³ Table A.EXP/ALL-7.

Figure IV.3

**Exports of Iceland, 1870–1913,
by Main SITC Groups (Relative Values)**

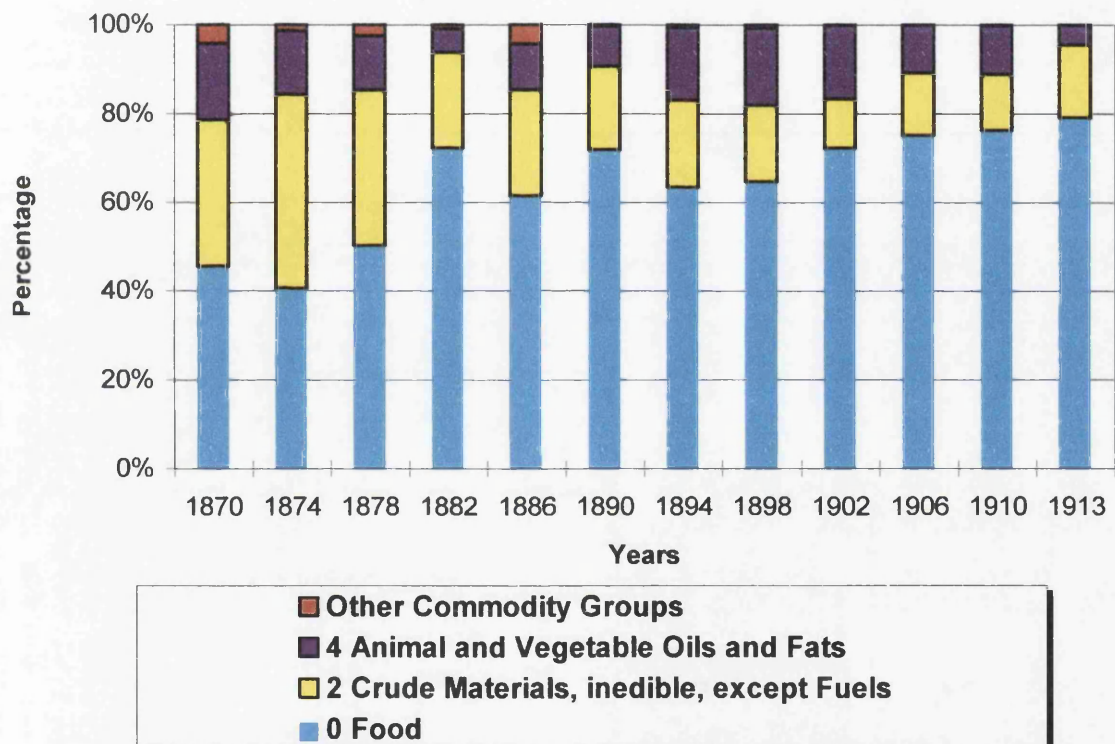


Figure IV.4

Exports of Iceland, 1870–1913, by Main SITC Groups (Relative Quantities)

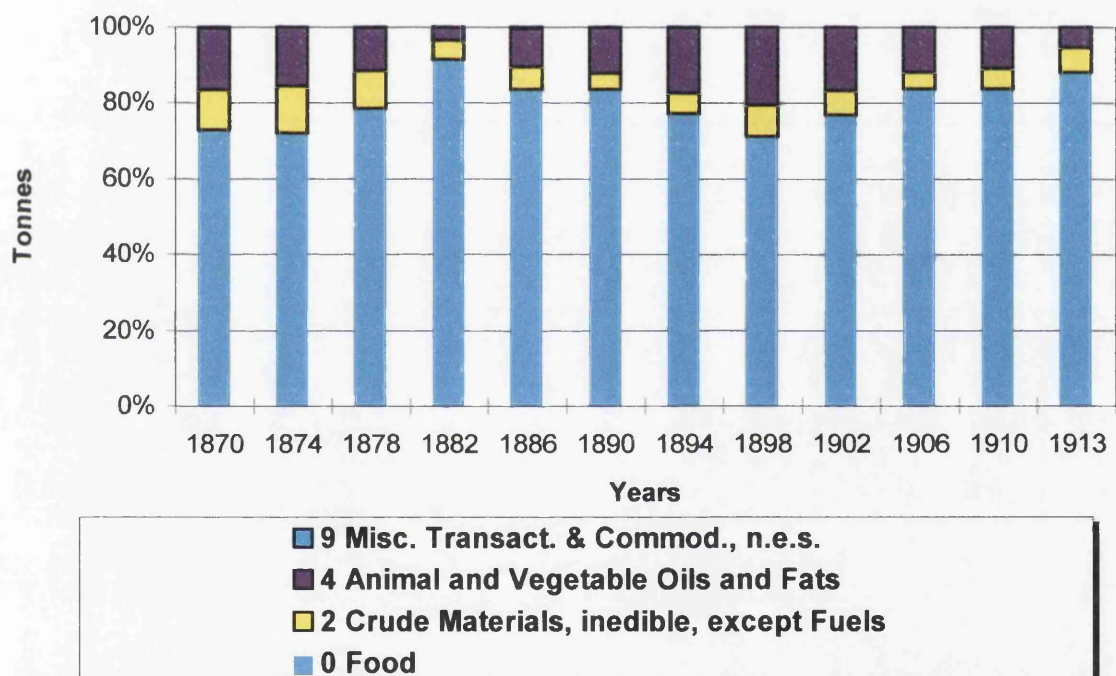
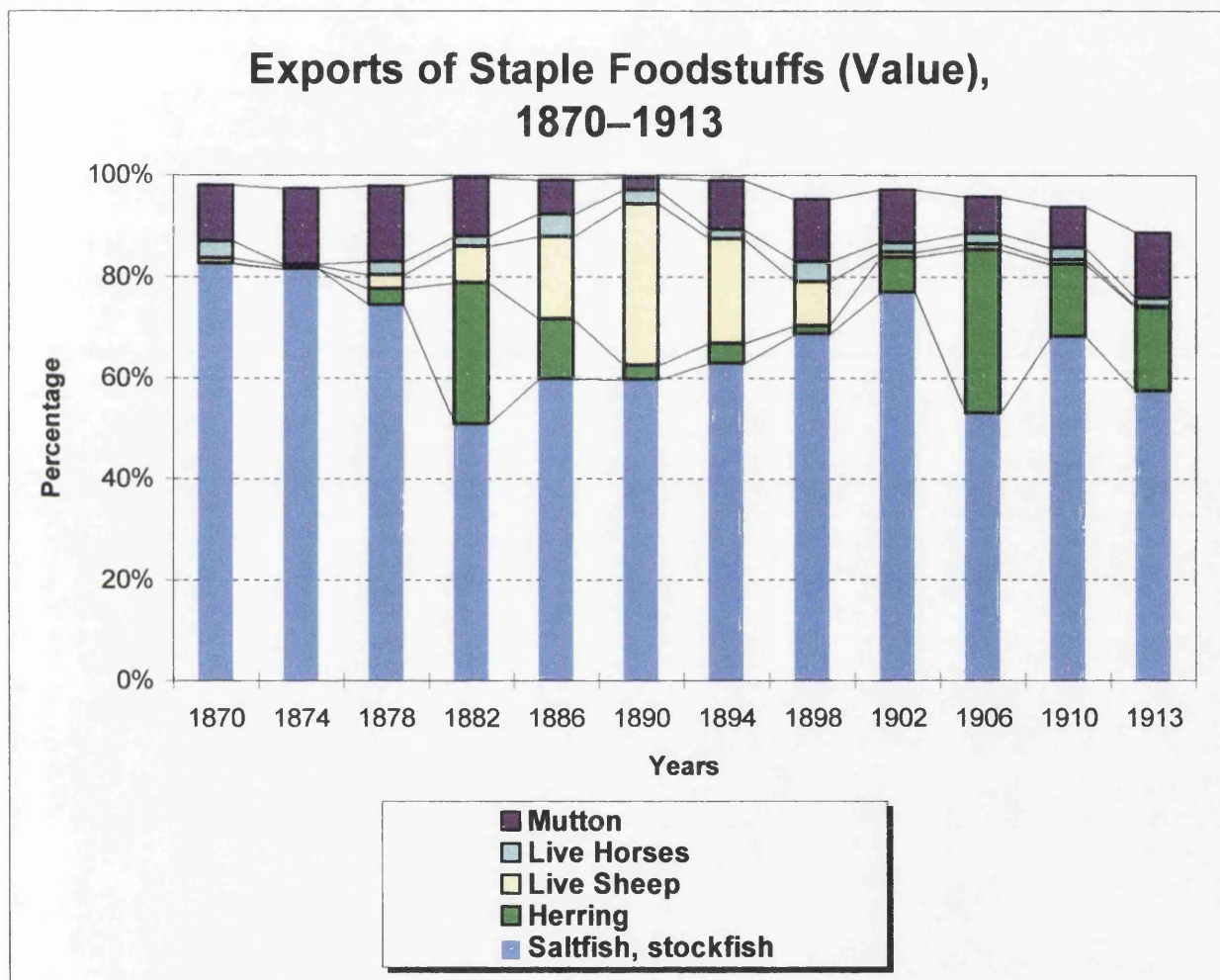


Figure IV.5



sheep exports but the staple agricultural export good was salted mutton with live horses coming as third in significance.³⁴

Crude materials' exports ranked second in terms of value after foodstuffs. Nevertheless, their share in Iceland's exports declined by value from 33–44% in the 1870s to 10–15% after 1900 (Fig. IV.3). These crude materials consisted primarily of wool and, to a much lesser degree, skins and hides besides eiderdown and feathers (Fig. IV.6). From the late 1890s onwards, however, crude materials produced from whaling (whale bones, bone meal, guano, and baleens) increased significantly among the crude materials' exports, overtaking wool in terms of quantity although not of value.³⁵ The share of the third largest group of commodities among exports by value, animal oils and fats, remained much the same throughout the period, fluctuating between 10 and 15% of export value (Fig. IV.3).³⁶ Their quantities, however, tripled but a substantial fall in their prices over time caused them to stay on the same level by value (Fig. IV.7). The animal oils and fats were mainly of two kinds — tallow from sheep and all sorts of fish oil (cod liver oil, shark liver oil, seal oil, and whale oil).³⁷

Overall, there was much continuity in Iceland's exports. The commodity structure represented by SITC groups changed very little over time, except that foodstuffs grew at the expense of crude materials. This continuity is well illustrated in a graph of the value of the staple commodities (Fig. IV.8), summarising the earlier graphs. Some four commodities were very constant among the exports and made up 70–90% of their value: saltfish ranging from 40 to 50% of exports; wool with diminishing share

³⁴ Table A.EXP/ALL-7.

³⁵ Tables A.EXP/ALL-2, A.EXP/ALL-3, A.EXP/ALL-6 and A.EXP/ALL-7.

³⁶ Table A.EXP/ALL-5.

³⁷ See Icelandic trade returns, for example, Icel., Gov. Gen., 'Verzlunarskýrslur 1894,' pp 78–9.

Figure IV-6-

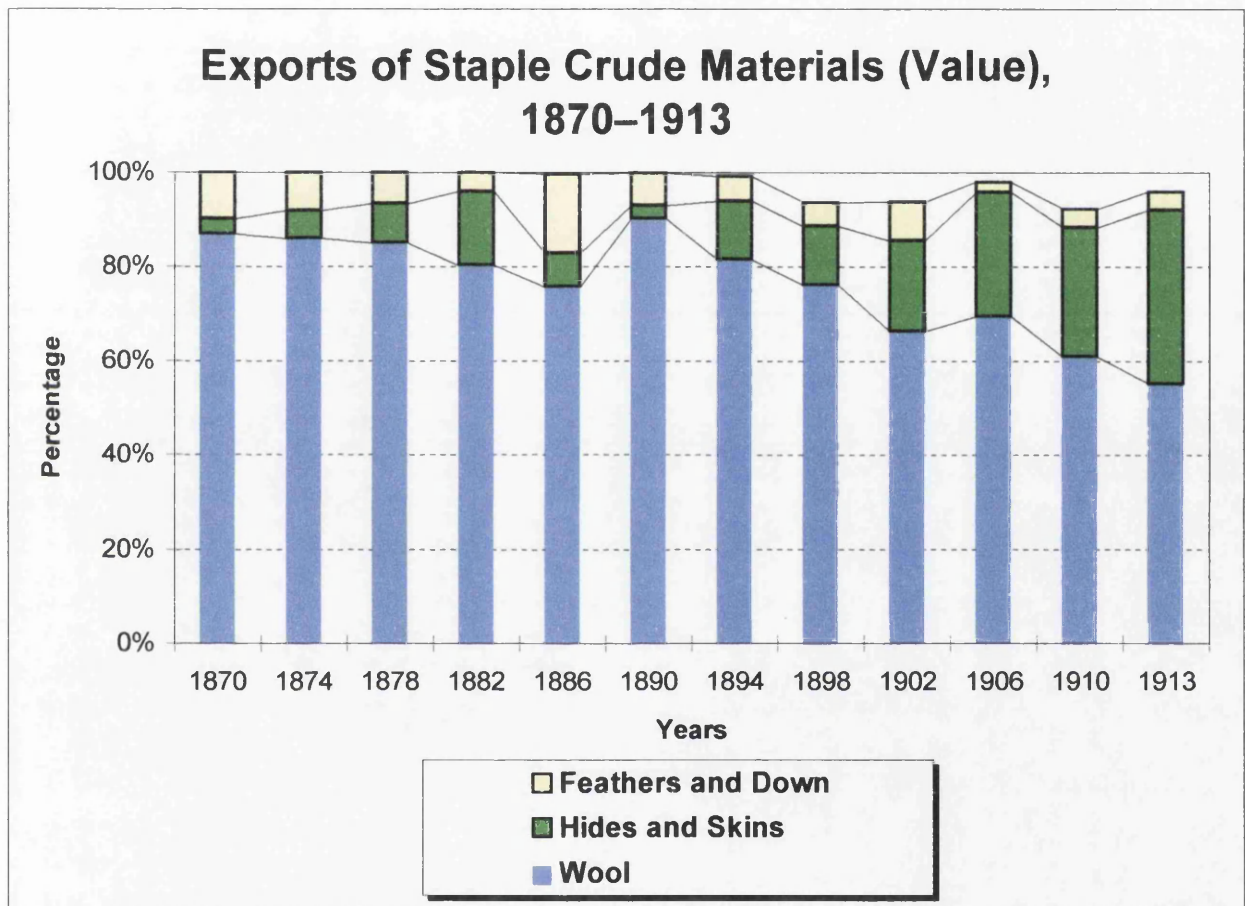
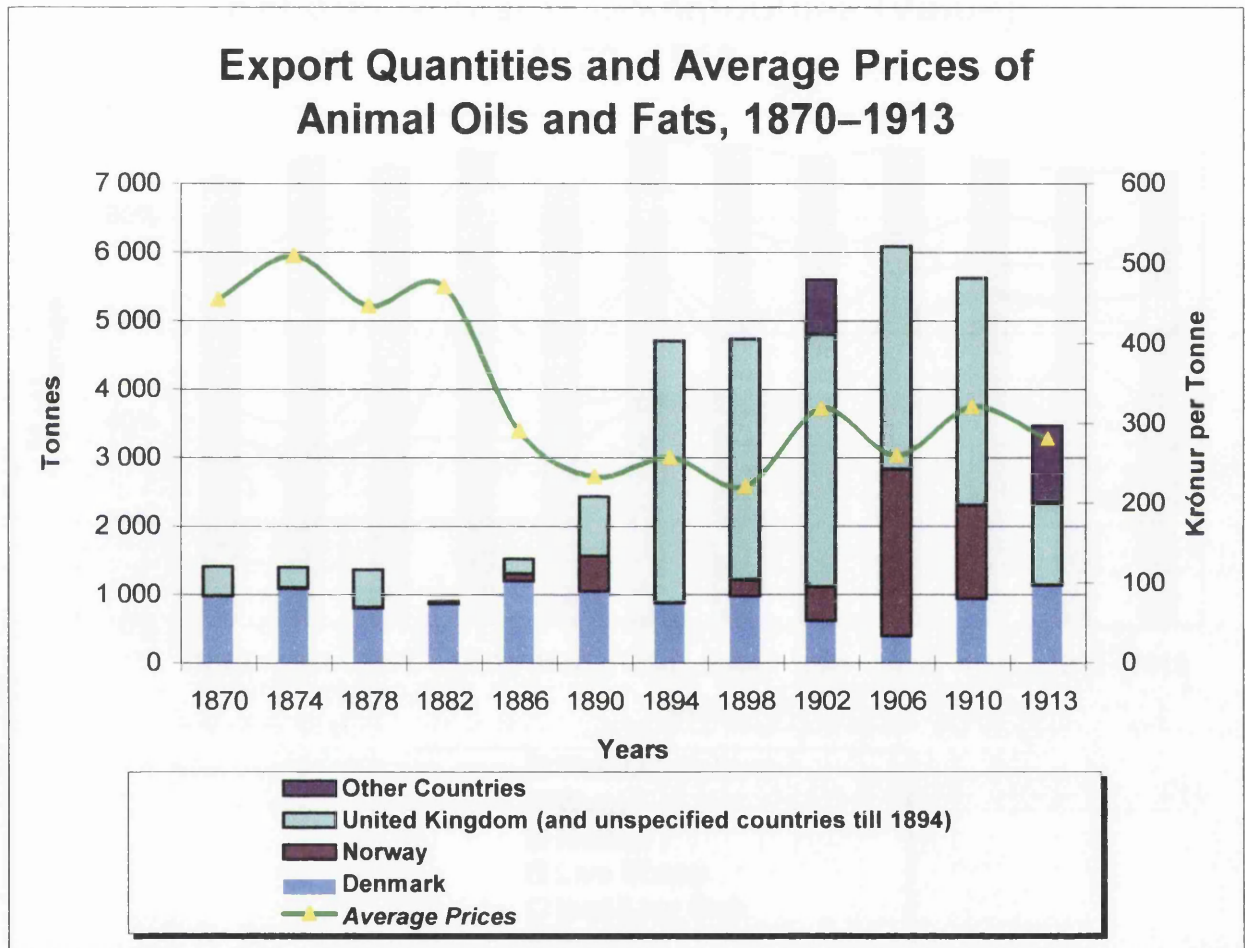


Figure IV.7



from 30% down to 10%; fish oils and tallow with 10–15%; and mutton with 5–10%. Other major commodities fluctuated more strongly among the exports: most typically herring, whose catches were very uneven, but also live sheep exports, which boomed in the 1880s and early 1890s. The value of these six commodities made up round about 90% of Iceland's exports during the whole period 1870–1913.³⁸

The relatively few export commodities of Iceland turn our attention to export concentration, which is one economic indicator of a country's dependence on its export trade. This measures the significance of the largest export commodity by value. There is nothing that prevents one from considering the two or more largest commodities and then adding up their shares, although a more extensive version of that kind of measure is the Hirschman index, which takes into account the shares of all exports of total export value according to a special equation.³⁹ Iceland's export concentration will not be tested here with the Hirschman index but the single largest commodity method is more easily employed and gives us a general indication of the degree of export concentration of Iceland compared with other countries. If we look at a number of developed countries first, their export concentration in 1900 was ranging between 10 and 30%.⁴⁰ For a host of developing countries in the world in 1900 and around 1913, their degree of export concentration ranged usually between ca 30 and 65 or even 70%; very few had lower or higher percentages.⁴¹ The percentages for Iceland in 1902 and 1913 were 56 and 45%

³⁸ Tables A.EXP/ALL-2, A.EXP/ALL-3, A.EXP/ALL-6 and A.EXP/ALL-7.

³⁹ See, for example, J.R. Hanson II, *Trade in Transition*, pp 40–41.

⁴⁰ J.R. Hanson II, *Trade in Transition*, p 39 (Table 3.2). The countries Hanson includes are Austria-Hungary, Belgium, Denmark, France, Italy, the United Kingdom, Canada, the United States, Argentina, and Cape of Good Hope.

⁴¹ J.R. Hanson II, *Trade in Transition*, p 39 (Table 3.2). V. Bulmer-Thomas, *The Economic History of Latin America*, p 59 (Table 3.2). I.T. Berend and G. Ránki, *Economic Development in East-Central Europe*, p 150 (Table 6-16).

respectively.⁴² This may suggest a change towards lesser degree of a single commodity export concentration but the ratio was in fact lower than in the 1870s, 35–40% (Fig. IV.8). However, in spite of being a rough indicator of export concentration this method of the largest commodity shows clearly how dependent primary producing countries were on a single or a few commodities in their exports, and Iceland was certainly no exception to that.

IV.3. Exports of Iceland and their Context in the Economy

IV.3.1. Agriculture and Agricultural Products: Iceland and its Market Countries

Because of the predominance of sheep raising in the Iceland agriculture, most of the agricultural exports derived from sheep. This is reflected in the exports of the largest agricultural commodities around 1870, which were in order of significance wool and salted mutton (Fig. IV.8); tallow in the category ‘Fish Oil, Tallow’ was also an agricultural commodity from sheep. In 1913, wool and mutton still were the staple agricultural exports. Over time only one other agricultural commodity ranked really high among the aggregate exports and that was live sheep. Among the smaller items of agricultural products exported were hides and skins, feathers and eiderdown, woollen

⁴² Table A.EXP/ALL-7.

goods, live horses, and butter (Fig. IV.9 and IV.10). From a macro-economic perspective, the export of these smaller items was of relatively little consequence. However, two of them deserve brief treatment here in connection with the agricultural staples; woollen goods because of their relationship to wool, and live horses because of a certain common feature with the live sheep trade.

As already noted, all the main exports were related or interlocked because of the prominence of sheep raising. Animal husbandry such as was practised in Iceland is almost certainly more conducive to such linkages than arable.⁴³ Sheep were uniquely positioned in Icelandic agriculture. Not only were they a highly important source of domestic food and material for clothing, in most cases they were also the source of the main agricultural export product. Looking into the first aspect, sheep not only gave people meat and wool, they also produced a number of items that were purely used internally and were not merchandise in foreign markets. Among these were foods from blood, liver, lung, heart, head, and feet.⁴⁴ Considering the second aspect, wool and woollens, skins, mutton, and tallow were all products of sheep and constituted by far the largest part of Iceland's agricultural exports. As a consequence of the strong links to both domestic consumption and the export trade, exports of live sheep necessarily constrained the supply of individual products that would otherwise have been available, both for export and domestic consumption. Exports of live sheep decreased not only the available quantity of wool, mutton, and hides for export but also reduced domestic consumption of these goods.

Before we probe into the exports of Iceland it is of relevance for our subject to say a few words about the development of agriculture in the countries where Iceland

⁴³ This view cannot be fully expounded here but the logic behind this notion is that more diverse products can be acquired from animals than cereals.

⁴⁴ Jónas Jónasson, *Íslenzkir þjóðhættir* (3rd ed.), pp 45, 90–92, 175.

Figure IV.9

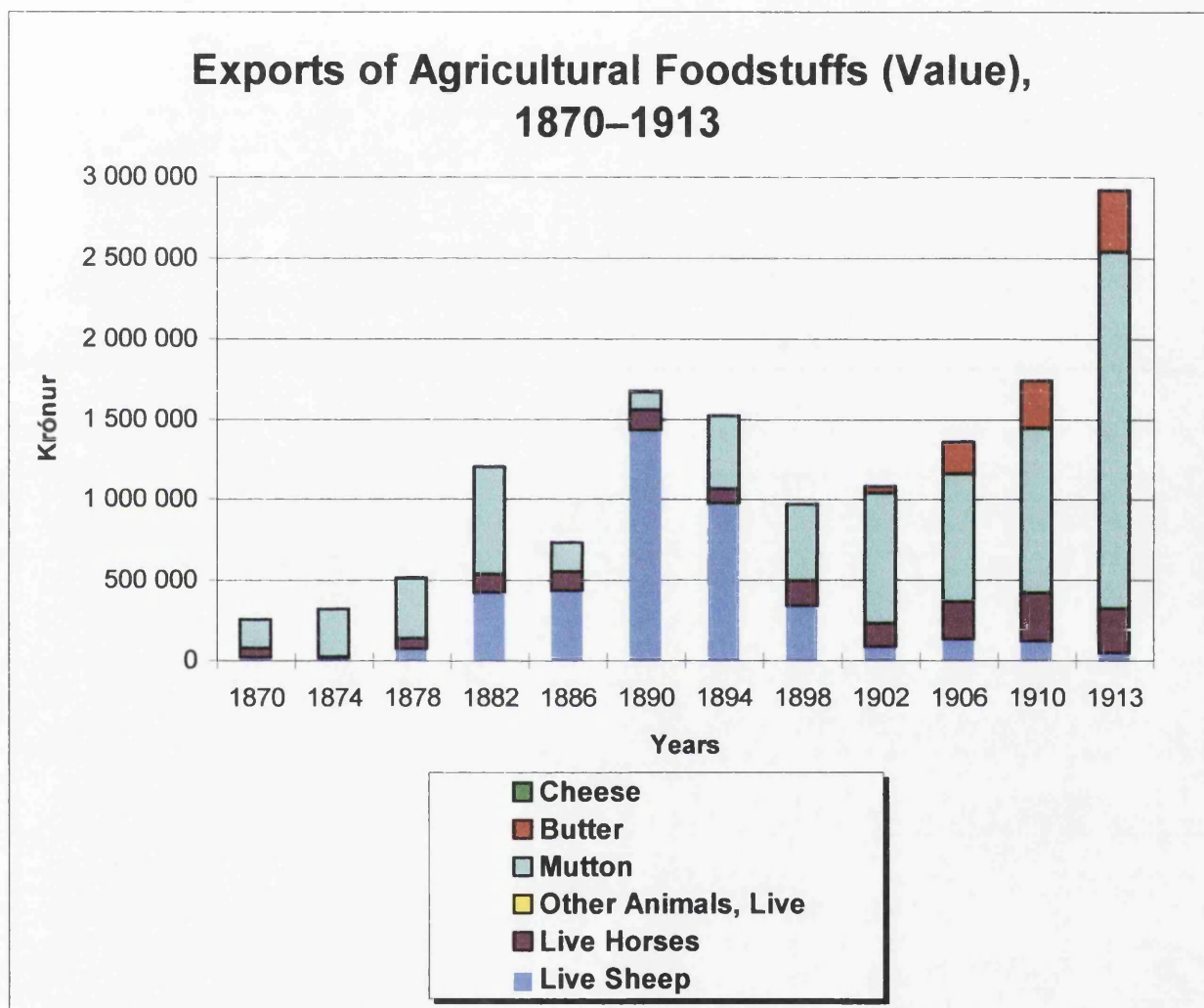
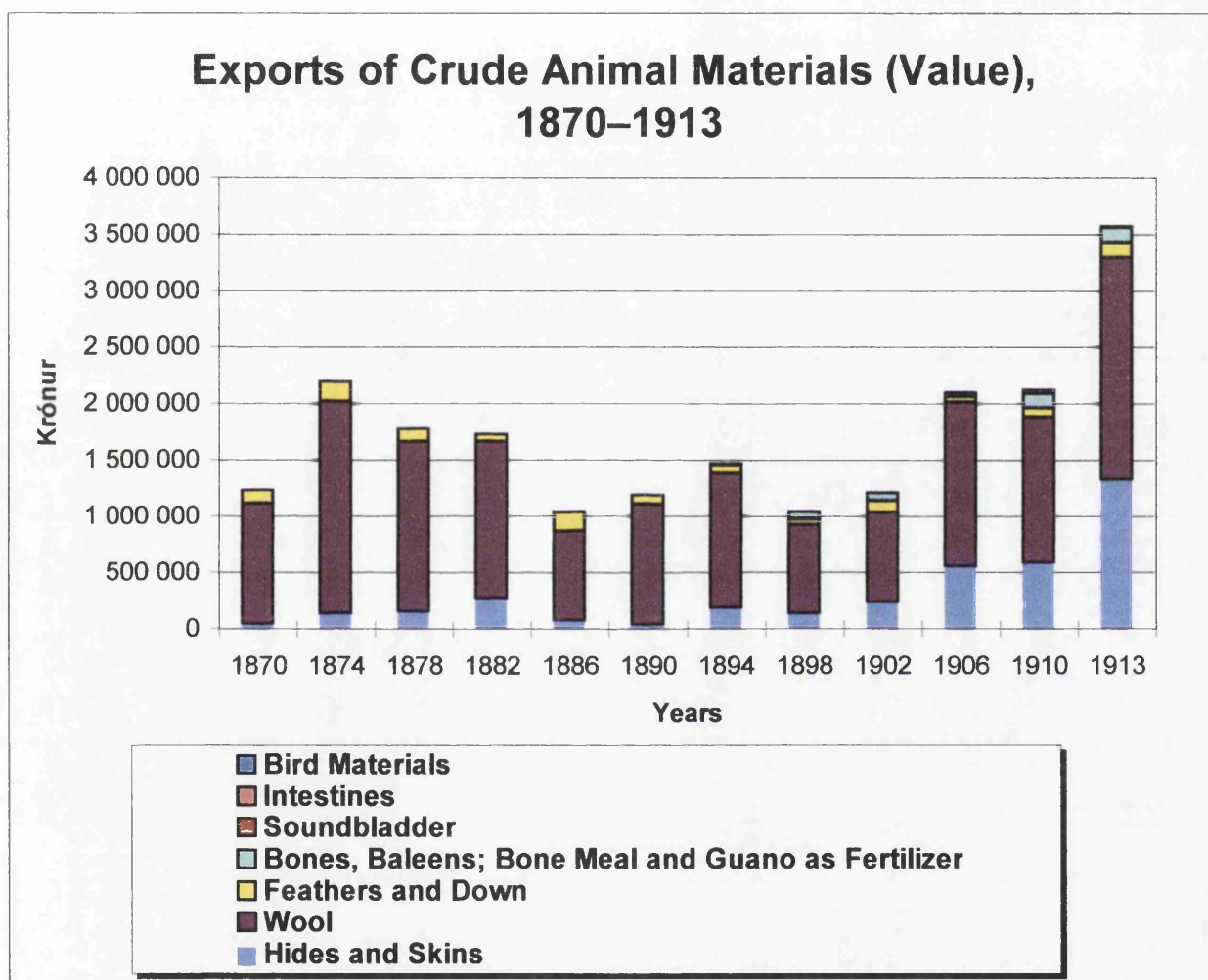


Figure IV.10



marketed its agricultural products, Denmark, Norway, and Britain. As the export structure by agricultural commodities above showed, Iceland was by the beginning of our period predominantly a producer of animal foodstuffs and animal crude materials. Moreover, it continued to be so throughout the period. This is in rather stark contrast to the development of agriculture in Iceland's market countries where there was a transition, to a varying degree, from crop growing to livestock farming in all three countries.

British farming was mixed, some farmers raising livestock (sheep and cattle) and growing fodder crops to feed them with, while other farmers concentrated on grain crops for human consumption. Neither domestic meat nor cereals were sufficient to the population, the reliance on imports being far more in the case of cereals. With the general price fall in the 1870s and huge wheat and other cereal imports in the 1880s onwards, which also pressed down prices, arable agriculture in Britain was squeezed and had to tackle a difficult and prolonged process of adjustment. Subsequent rise of meat imports, both of live animals and various kinds of fresh meat (chilled or frozen), did also put a pressure on livestock farmers in Britain but they were more fortuitous because domestic meat was largely of higher quality than imported. It catered for different consumers and kept its price better than cereals although imported meat increased and real wages (not necessarily nominal wages) were rising. A higher level of consumption in Britain did also find outlets by growing domestic production and imports of milk, butter, cheese, eggs, and fruit, to name a few. By and large, there was, however, a depression felt in British agriculture in our period, prices fell until the late 1890s onwards when they turned upwards, and in line with Britain's adherence to free trade policy it did not hamper imports by tariffs or other measures. The main raw material in terms of merchandise from sheep was wool, and there was fierce competition there from other

countries in the world, which forced down prices of wool by as much as wheat; both are examples of goods that fell more violently in price than prices in general.⁴⁵

In Denmark an arable farming dominated, which catered well for domestic demand and there were usually surpluses for export. Denmark was hard hit by the flood of cheaper cereals from other parts of the world, and it reacted rather quickly to the new circumstances by shifting towards livestock farming, mainly poultry and pigs.⁴⁶ In the words of S.B. Saul, 'Denmark rapidly turned herself into a butter, bacon and egg factory' for Britain, especially from the late 1880 onwards because of an import ban in Germany on live pigs.⁴⁷ Hence, Danes escaped a prolonged and painful adjustment and adhered also to free trade policy as the British. In Norway, the situation was rather different because the mountainous landscape, the soil and other natural circumstances did not allow for great farming, except in restricted areas, and that is way most farmers also lived on other activities, such as fishing or hunting. Although there was cereal growing it was relatively small and Norwegian agriculture had small need to protect herself against cheap cereals. Norway experienced rising cereal imports in the second half of 19th century, and, thus, cereal growing diminished and farmers turned to raising livestock for meat and dairy production.⁴⁸

⁴⁵ See R. Perren, *British Agriculture in Depression*, Chapters 1–3 and 7. See also M. Tracy, *Government and Agriculture* (3rd ed.), Chapter 2.

⁴⁶ M. Tracy, *Government and Agriculture* (3rd ed.), pp 110–14.

⁴⁷ S.B. Saul, *Studies in British Overseas Trade*, p 27 (quotation). M. Tracy, *Government and Agriculture* (3rd ed.), p 114.

⁴⁸ F. Hodne, *Norges økonomiske historie*, pp 174, 185–6.

IV.3.1.1. Wool and Woollens

Sheep in Iceland were of an indigenous stock offering three different colours of fleece: white, black, and mixed. By contrast, many foreign breeds of sheep in our period had predominantly white wool. Another characteristic of the wool was its mix of long, straight, coarse hairs on one hand and short, curly, fine hairs on the other. This was also distinctive from many of the large foreign sheep breeds where there was relatively small difference between the two types of hair. That kind of wool is well suited for all kinds of woollens with fine and even texture, whereas the Icelandic wool is better suited for other types.⁴⁹ Available records about the numbers of sheep vastly underreport them throughout the period but it is safe to claim, nevertheless, that the sheep population increased by 60–70% between 1870 and 1913 (although there were great setbacks in the 1880s and again from the mid 1890s to ca 1900). The number of sheep per capita increased from nearly seven sheep per inhabitant in 1870 to nearly nine sheep in 1913.⁵⁰

Exporting wool was a very important business for farmers. This was not only because it was one of their largest commodities by value in the exports but also because the overwhelming share of Iceland's wool production, perhaps as much as 60 to 80%, was marketed abroad.⁵¹ Whatever the exact proportion over time was, qualitative

⁴⁹ Magnús Guðmundsson, *Ull verður gull*, pp 156–60, 177. Stefán Aðalsteinsson, *Sauðkindin*, p 19.

⁵⁰ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 280, 282, see p 909 (Fig. 22). The range of increase, 60–70%, depends on whether underreporting or not is taken into account. Underreporting was definitely some 20–30% (same source, p 252 cf. 255–6) and the 70%, which are based on computation of underreporting, are more representative of the livestock increase than the 60%.

⁵¹ The marketed share is estimated followingly. The livestock is assumed understated by 30% in 1870 and 1890, and 25% in 1910 (Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 252). Then, we assume that each sheep gave ca 2 kg of wool which is based on 20th century data (Árni G. Pétursson, 'Sauðfjárrækt,' p 94, and Magnús Guðmundsson, *Ull verður gull*, p 171). From this estimated total production of wool the proportion of export quantity is calculated. One source claims the quantity of wool per sheep to be only 1.0–1.25 kg

sources confirm that the majority was exported.⁵² In the early 1870s, most of Icelandic wool was exported to the country group 'UK and others,' i.e., the United Kingdom, but substantial quantities went also to Denmark, which from the late 1870s onwards turned into the main importing country.⁵³ The quantity of wool from Iceland was only a drop in the ocean of wool that was imported into the UK in the period and, therefore, mattered for nothing.⁵⁴ In Denmark, the Icelandic wool fluctuated roughly between a third and a half of the total wool imports in the 1870s and 1880s, Germany being the other main supplier. In the early or mid 1890s the wool imports of Denmark started to rise and rocketed into the late 1900s. The increased wool quantities came first from Germany and the United Kingdom (the wool from the latter no doubt partly re-exports), but then Russia suddenly became a very large supplier also, and later France. By 1910 Denmark's total wool imports had fallen sharply, Russia had dropped out, and the UK and Germany were the main suppliers until only Iceland was left in 1913, being then practically the only wool supplier to Denmark.⁵⁵ In contrast to wool, woollen goods were throughout the period almost exclusively exported to Denmark.⁵⁶

It is noteworthy that there was clearly a high degree of homogeneity in prices of wool exported from Iceland and of prices of wool imported to Denmark and the UK (Fig. IV.11). First, there was a similar trend in the pricing of all three, which testifies to a single, yet multinational, wool market of which Iceland was a part. Second, although the export prices of Icelandic wool were initially on a much lower level than the other two,

(Þorvaldur Thoroddsen, *Lýsing Íslands* (2nd ed.), p 85) but it is not based on scientific computations.

⁵² Þorvaldur Thoroddsen, *Lýsing Íslands* (2nd ed.), p 84.

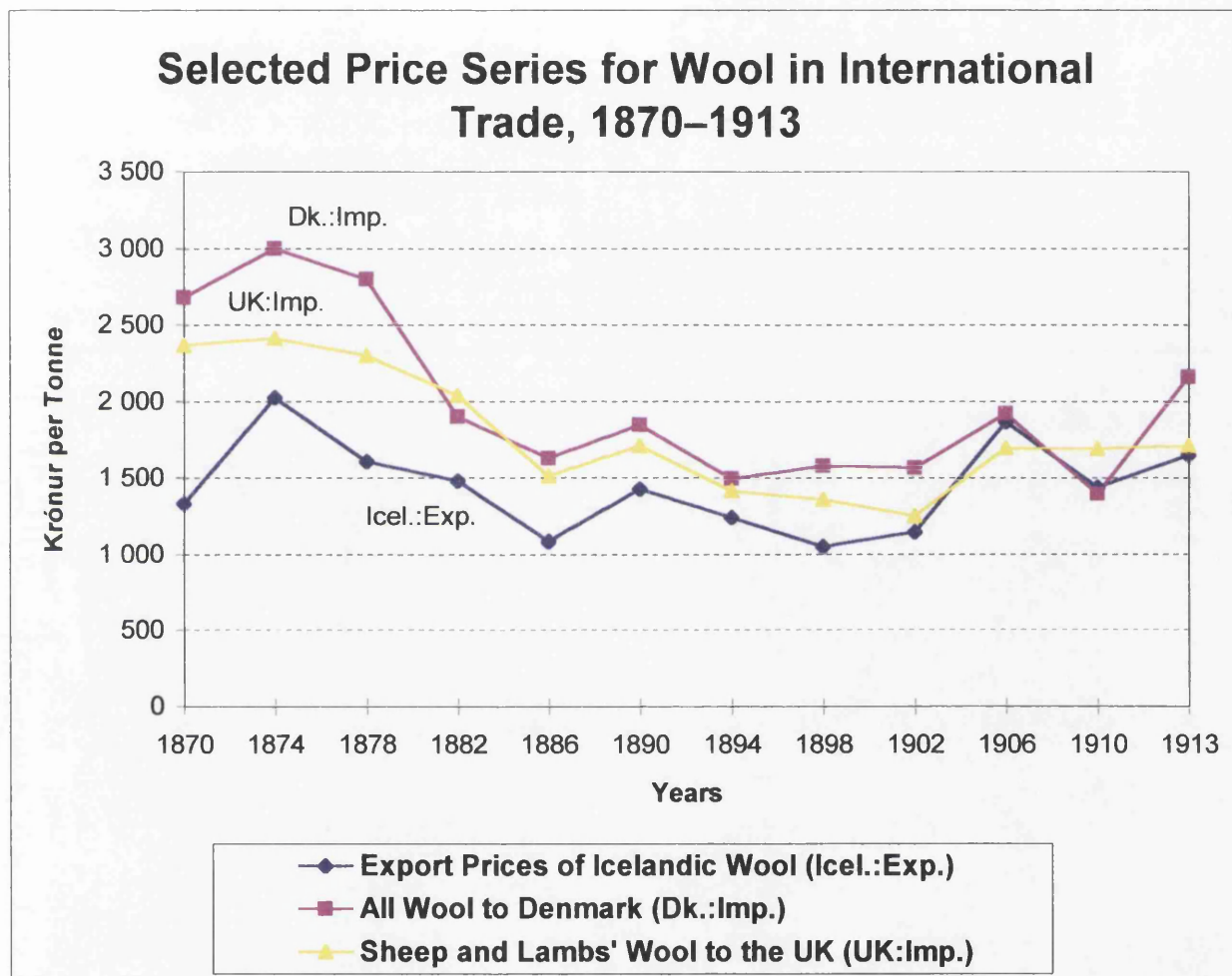
⁵³ Table A.EXP/ALL-3.

⁵⁴ British trade returns, see bibliography at the end of the thesis.

⁵⁵ Danish trade returns, see bibliography at the end of the thesis.

⁵⁶ Table A.EXP/ALL-3.

Figure IV.11



the difference gradually diminished and by 1906 it was practically non-existent. The reason for this is, however, not clear to me.

The relation between the total production of wool, the share of domestic consumption, and the quantities exported over time will not be discussed, mainly because the number of sheep over time are substantially under-reported in the relevant records, and this makes their use very difficult. Besides, no obvious long-term trend can be identified in the exports of wool over time (Fig. IV.12). However, exports of woollen goods, which were a minor export product, are more interesting, because significant shifts occurred in the export quantities over time (Fig. IV.13). It is unclear whether the huge exports of woollens in 1870 were an exception or the end of an era of great woollen goods exports. But it is evident that after 1870, their exports fall into eras. In 1874–86 the export quantities usually fluctuated between ca 15 and 20 tonnes per annum, but they were on a far higher level than after 1886, when the quantities fell down to 5–10 tonnes a year. This calls for an explanation, and the reason for this decline in woollens exports is almost certainly a reduction in the supply of labour available to farmers, because other activities in the economy had attracted it, and also because of higher wages than before to those who continued to be employed in agriculture.⁵⁷ A complementary reason is also the emigrations from Iceland. As it happens, woollens were predominantly produced in the northern and eastern part of the country.⁵⁸ It is hardly a mere coincidence that from these very parts of the country the emigration in the second half of the 19th century was by far most and it reached its height in the late 1880s.⁵⁹

⁵⁷ On wages of workforce in agriculture, see Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 607 (Table 12.2), and Guðmundur Jónsson, *Vinnuhjú*, pp 40–41.

⁵⁸ See the printed Icelandic trade returns.

⁵⁹ Jónius H. Kristinsson, *Vesturfaraskrá 1870–1914*, p xix (Fig. 7), xx–xxi (Table 1).

Figure IV.12

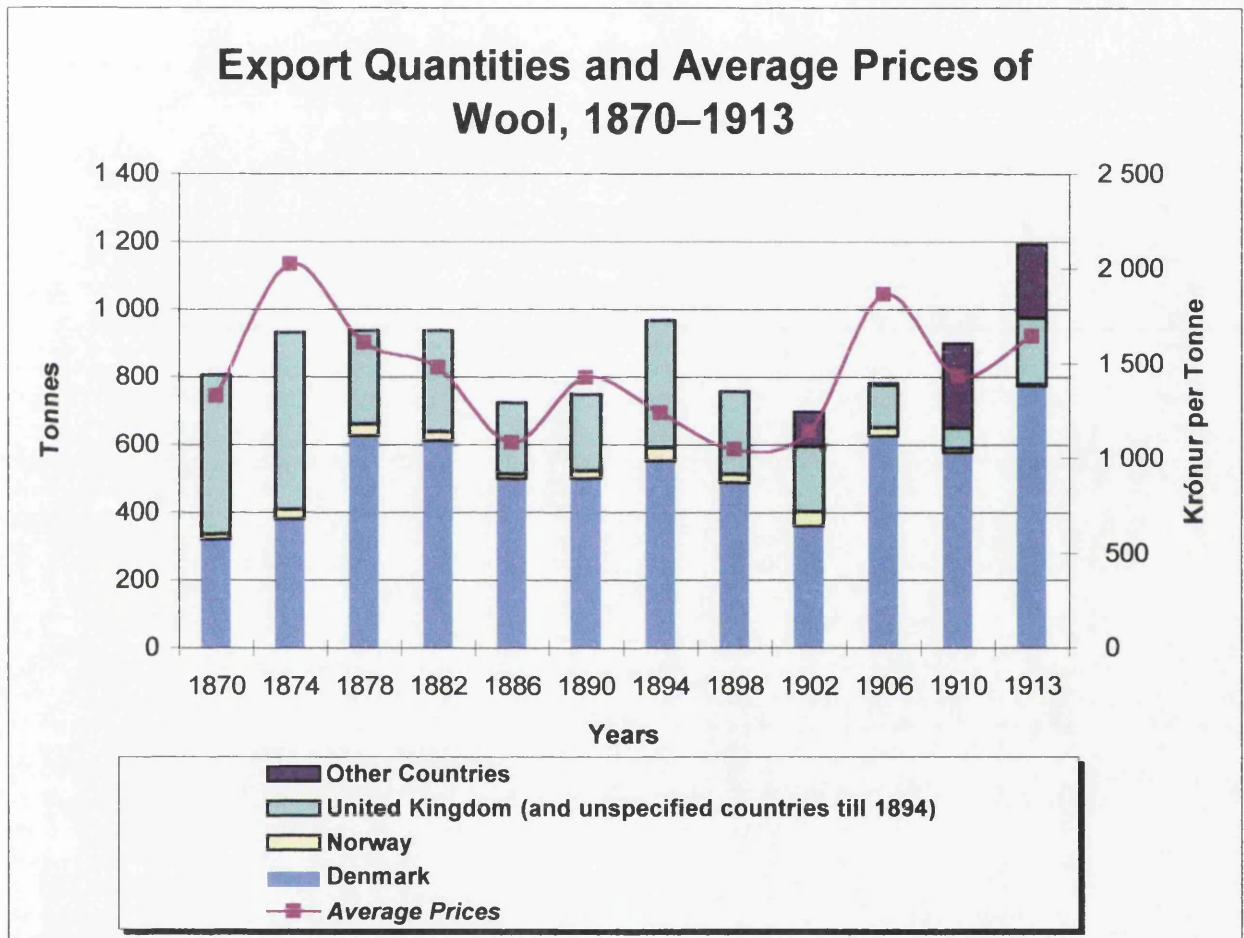
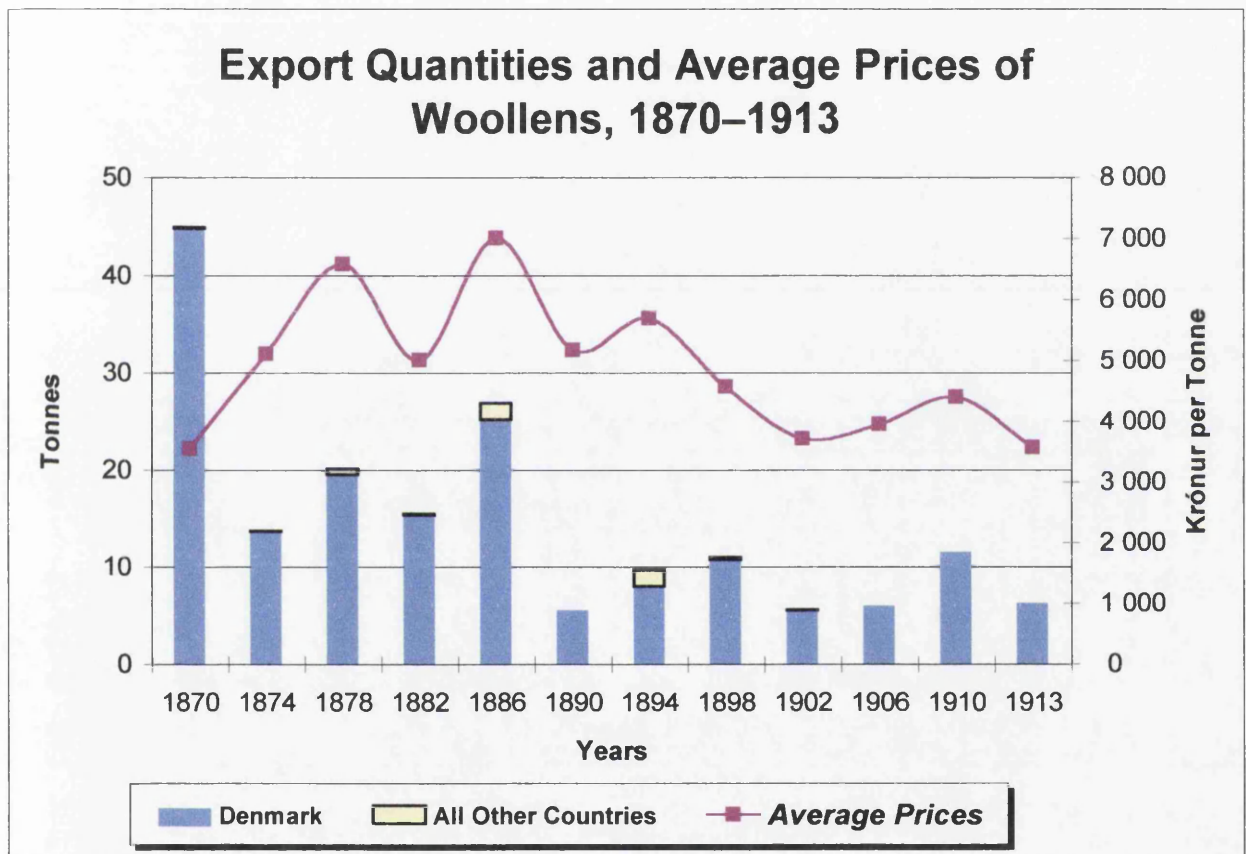


Figure IV.13



IV.3.1.2. Mutton and Live Sheep

The exports of mutton and live sheep will be discussed here in one section because of how related they were. Wool was indeed a product of sheep like mutton, but the wool supply was neither in terms of quantity nor value as contingent on the exports of live sheep as the supply of mutton was.⁶⁰ Also, live sheep were mainly bought to acquire meat and, therefore, are more pertinent to the mutton exports.⁶¹ Mutton⁶² was consumed internally and exported, and the share of each is difficult to estimate, but it is probably safe to assume that only a small part of the mutton production was exported in the 1870s. Then, almost no mutton was exported from the southern part of the country and only a marginal quantity from the western part. In the northern and eastern parts of the country, where most of the Iceland mutton came from, possibly about one third of it was marketed abroad.⁶³ Shortly after 1900, this still was the situation in general except that export of mutton from the northern and eastern parts was presumably somewhat less

⁶⁰ The value of wool per sheep was somewhat less than the value of mutton if it is granted that the average quantity of wool was 2 kg (Árni G. Pétursson, 'Sauðfjárrækt,' p 94, and Magnús Guðmundsson, *Ull verður gull*, p 171) and the average quantity of mutton is set at 10 kg per sheep (Árni G. Pétursson, 'Sauðfjárrækt,' p 94). It should, however, be noted that the estimated quantities of wool and mutton are based on 20th century data.

⁶¹ True, a contemporary source from the early 1870s speaks of 'wool merchants' in relation to those merchants buying live sheep in Iceland (Jón Sigurðsson to Eiríkur Magnússon, 26 April 1872, Jón Sigurðsson, *Bréf Jóns Sigurðssonar: Nýtt safn*, p 151) and possibly the first merchants buying Icelandic sheep were mainly after the wool. This, however, changed later in the 1870s or around 1880s when acquisition of meat became the prime objective.

⁶² When speaking of exported meat from Iceland, the word mutton will be used in the thesis although it encompasses also game, prepared meat, tongues, intestines, and other meat. This is justified by the fact that more than 90% of all the meat exports were mutton according to my datasets and almost exclusively salted mutton.

⁶³ See the printed Icelandic trade returns for geographical distribution of the mutton exports. For the division between domestic consumption and export, see Jón Sigurðsson, *Sigurður í Yztafelli*, pp 64, 72, 80, 116–17.

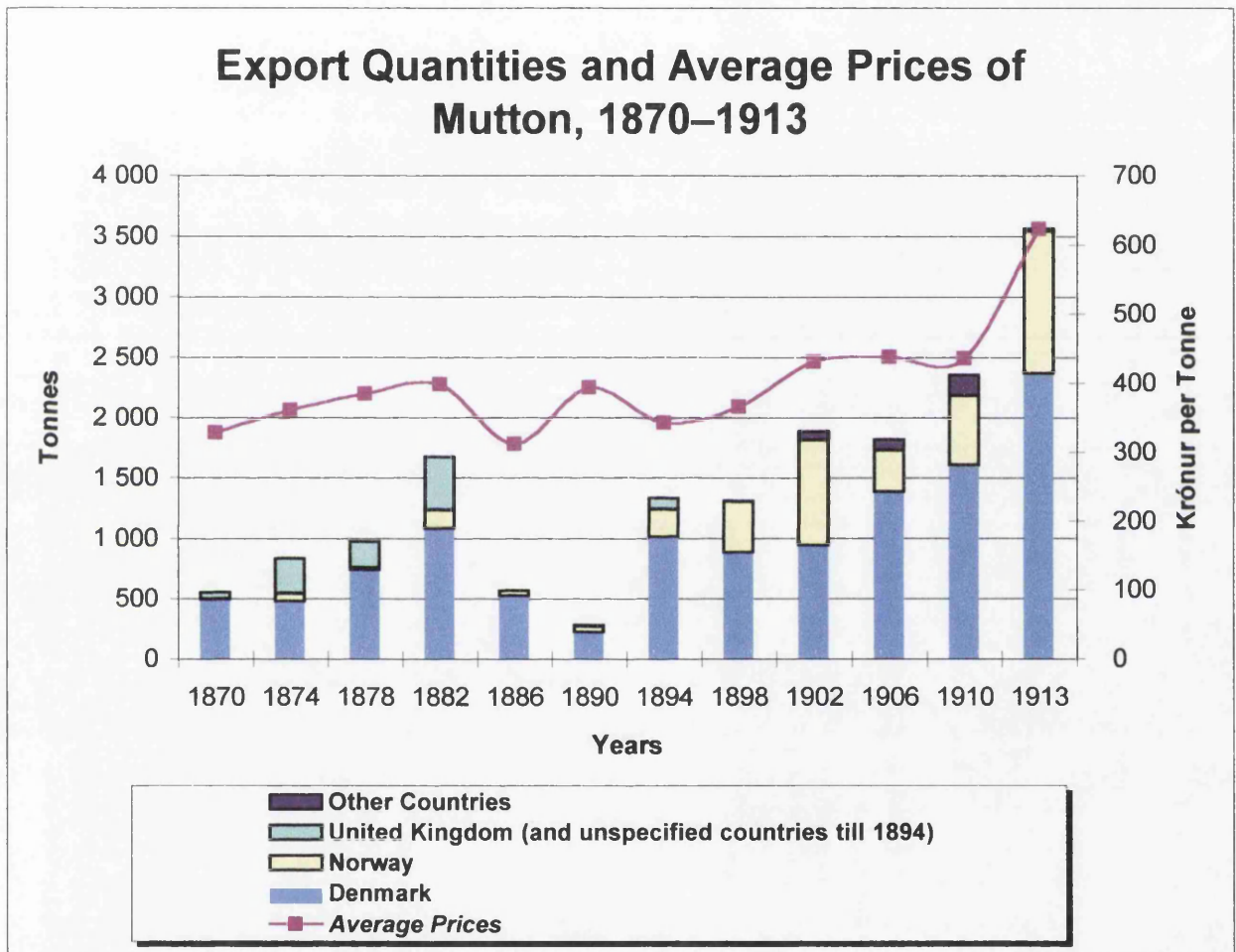
judging by qualitative sources.⁶⁴ All things considered, and even allowing for wide margins because of varying consumption over time and by regions, the majority of the mutton production was consumed internally, rather than exported.

Exporting of salted mutton had been under way long before 1870, and thereafter it continued to be one of the staples in agricultural exports. By contrast with wool, which was a large item in trade in 1870 and fell subsequently, mutton was less significant throughout the period as a whole but its share in aggregate exports was much more stable (Fig. IV.14). It counted usually for 5–8% of the exports by value, which indicates that the mutton exports expanded generally at a similar rate as total exports. The mutton was predominantly exported to Denmark and until the mid or late 1880s the Icelandic produce amounted to about two thirds of all meat imported to Denmark; Sweden and Germany were the other main suppliers. Then, the meat imports of Denmark soared, mainly because of huge quantities from the United States, and around 1890 the meat imports from Iceland were only a fraction of the total quantities (ca 7%). By 1898 the meat imports of Denmark had fallen somewhat, but they increased again to a record peak in 1906 after which there was a setback and the imports steady for the remainder of the period. The main suppliers from 1898 onwards were (not in order of significance) Sweden, Russia, and the United States. Icelandic mutton sagged from 28–30% of the total in 1894–98 to 15–18% in 1902–06 but went up to 33% in 1910 and 43% in 1913.⁶⁵

⁶⁴ See the printed Icelandic trade returns for geographical distribution of the mutton exports. On the domestic consumption, see Jón Sigurðsson, *Sigurður í Yztafelli*, pp 65 and 124, and Steindór Steindórsson, *Hlaðir í Hörgárdal*, p 62. Both are speaking of consumption in the northern part of the country and my inference from their writings is that the consumption of mutton fell from a daily basis to once or twice a week.

⁶⁵ Danish trade returns, see bibliography at the end of the thesis. By meat to Denmark is referred to all meat and prepared meat except pork and bacon, game and poultry.

Figure IV. 14

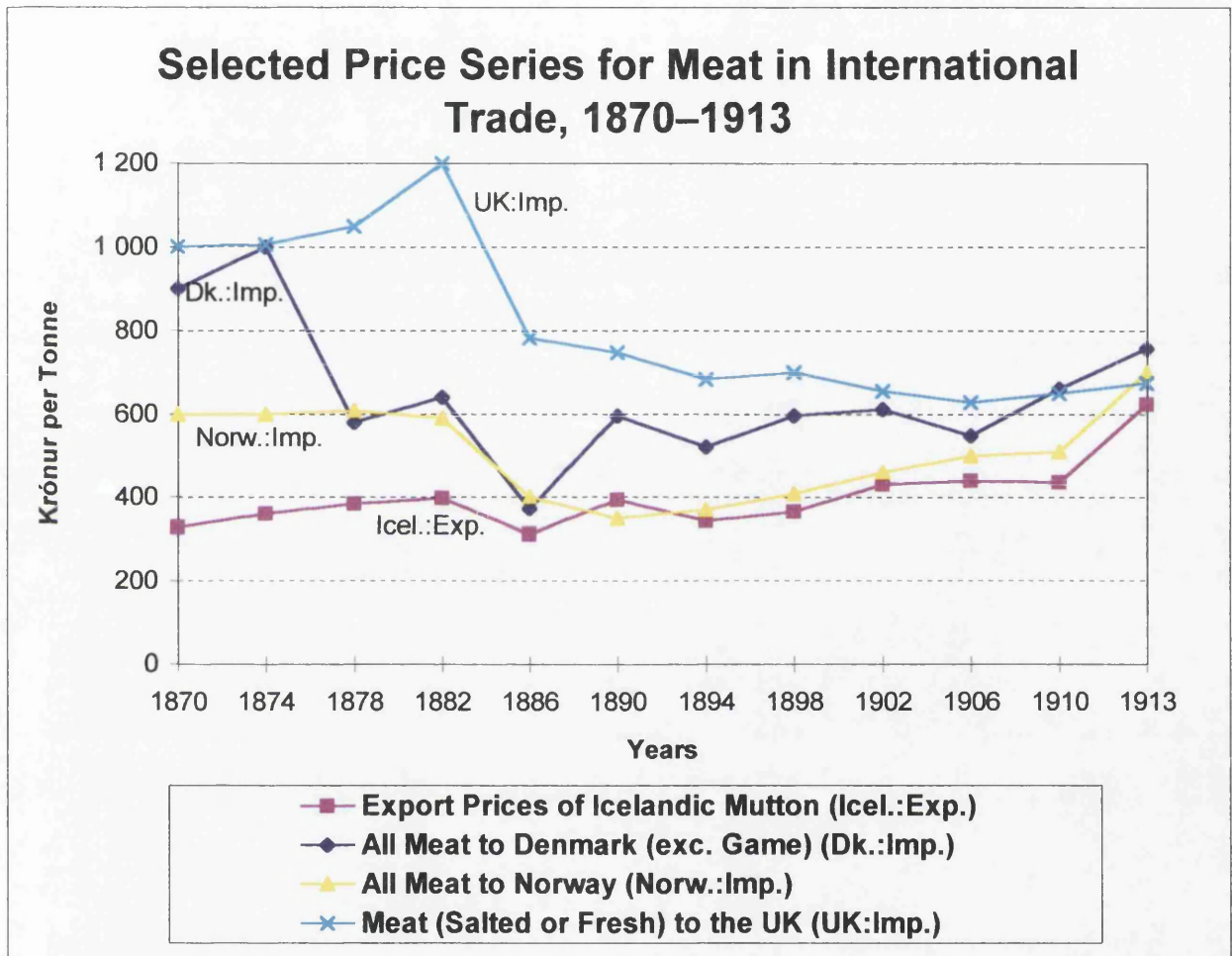


In spite of the importance of Denmark as a market for Icelandic mutton, it should be noted that from the early 1890s onwards Norway became a notable market also, taking one sixth to one third of the total mutton exports by value from Iceland.⁶⁶ By far the largest supplier of meat to Norway in the early 1870s was Denmark, then came Sweden and Russia, both of which were shortly replaced the United Kingdom. In the late 1880s, imports of meat to Norway started growing very fast and it was in this surge that Iceland markedly started meat exports to Norway also; then the United States also became a large supplier for Norway. Around 1900 the aggregate meat imports of Norway slowed down, halted at a higher level than initially and were fairly stable until the end of the period. This did not affect the imports of Iceland mutton that rose from the early 1890s into the early 1900s. In the late 1900s the quantities from Iceland fell slightly but went up again. All the while, the share of Icelandic mutton of all meat imported to Norway was small. It was only in the very end, in 1913, that the Icelandic produce was unusually large, amounting to ca 20% of the meat imports. By then, the two main suppliers were Denmark and Sweden and had been so since ca 1900.⁶⁷

When the prices of Icelandic mutton exports are compared to meat imports of neighbouring countries (Denmark, Norway, and the UK), a similar pattern to that in the wool trade above emerges. Icelandic mutton had clearly the lowest price initially and was far below the average import prices of meat to Denmark even although these imports consisted largely of Icelandic produce. Possibly, this was related to the bad name Icelandic mutton generally had because of poor quality. However, over time the price gap was slowly narrowing, and by 1913 all four price levels were within a close range (Fig. IV.15). Whereas this pattern is a repetition of the trends in the movements of wool

⁶⁶ Table A.EXP/ALL-7.

Figure IV.15



prices, there are certain oddities in the price movements of meat. The first is the conspicuous fall in the price of imported meat to Denmark between 1874 and 1878. Given that the imports in both years consisted largely of Icelandic mutton the explanation is either a drop in the demand for some reason or there was an impending rise in the supply of competitive meat from the other suppliers (Sweden and Germany) or supplies from new countries. Which one is more likely, is impossible to say without more information. Perhaps there was a drop in Danish demand for Icelandic mutton because of unusually bad quality. The second oddity in price trends is the permanent rise in prices of meat to Denmark in 1890 onwards, because the drop in prices in 1886 was a lasting one in the imports of meat to the UK and Norway. There were considerable changes in suppliers of meat to Denmark at the time, but they were too in the case of Norway, although the majority of meat imported to Denmark and Norway onwards was predominantly salted.⁶⁸ Also, both Denmark and Norway received more meat than before from the US and the UK.⁶⁹ The explanations may be that changes happened in the type of meat imported or its quality, or that live sheep exports from Iceland to Britain pushed up prices of mutton, but we lack adequate information to ascertain this.⁷⁰ What is clear is that the price levels were moving closer to each other in the late 1880s, no

⁶⁷ Norwegian trade returns, see bibliography at the end of the thesis. By meat to Norway is referred to all meat that was not smoked or prepared in any way. Pork and bacon is also excluded. From 1898 onwards reindeer meat, game, and poultry is also excluded.

⁶⁸ The difference between 'fresk' (fresh, chilled, or frozen) and 'ikke fersk' is not stated in the Danish trade returns until 1898 onwards but even that late, the share of 'fersk' meat was negligible. In the Norwegian trade returns, there is only a distinction made between smoked meat and all other meat (saving game) but the portions are presumably similar to that of Denmark.

⁶⁹ Referring to meat imports of Britain, it is confined here to unenumerated salted and fresh meat, excluding preserved meat by other means than salting (such as drying), also excluding bacon and hams, beef, and pork. There is no distinction between salted and fresh meat in the British trade returns until the late 1900s, and then fresh meat is more expensive than salted meat. It is certain that this was also the case before that time, when freight with ships with cooling and freezing facilities were dearer than in the late 1900s.

doubt because of the shifts in the suppliers of meat in all three instances, and especially because of the new imports of meat from America and other continents.

Because of varying quantities of live sheep exported over time, the share of exported live sheep as of the total livestock is not accurately represented in a single figure. However, if we divide the total export quantities during 1880 to 1896 with these 17 years the average export quantities were ca 37,500 sheep per annum.⁷¹ Ewes with lambs and shearlings were not suitable for export although they were sometimes sold too.⁷² The remaining livestock, i.e., wethers, rams more than one year old, and other ewes, fluctuated between ca 90,000 to 140,000 in number according to official figures.⁷³ If we adjust for, say 30% underreporting, an exportable livestock ranged between ca 130,000 and 200,000 sheep.⁷⁴ Taking the middle way (ca 165,000 sheep), the average live sheep exports thus equalled to over 20% of all exportable sheep, although it should be underscored that these calculations are very uncertain.

Exports of live sheep from Iceland were almost exclusively confined to Britain.⁷⁵ Due to an ever extending network of railways in Britain and rising crops of turnips as a result of increasing use of fertilisers, many farmers in Britain around and after the mid 19th century found themselves in a situation where they could start fattening animals to provide meat to serve urban dwellers. Thereby, they turned excess turnip crops into muck and money. Until then, relatively remote farmers had been used to

⁷⁰ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 36, discusses price trends in live sheep and mutton in Iceland.

⁷¹ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 13.

⁷² D. Thomsen, 'Sala á íslenzkri vöru,' p 241.

⁷³ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 280–82, cf. p 909 (Fig. 22).

⁷⁴ Estimated on the basis of Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 252.

⁷⁵ Table A.EXP/ALL-3.

rearing store stock sheep to be droven to local markets or transported to other areas closer to the cities for fattening. Trade in, for example, live sheep increased in Britain because of this and they began to be imported also no later than by the mid 19th century.⁷⁶ Hence, imports of live sheep were well grounded in Britain before Icelandic sheep entered this trade. In 1870 exports of live sheep from Iceland were just about starting and they did not become a notable item in the export trade until around 1880 (cf. Fig. IV.8). It was started at the initiative of Icelanders but it did not get a firm foot until British travelling merchants that had been buying horses in Iceland for many years began to buy live sheep. With continued encouragement and efforts of Icelanders, the British attracted their countrymen into this trade, and Icelandic parties became agents for the British.⁷⁷ This trade expanded rapidly into the early 1890s but fluctuated considerably from year to year (Fig. IV.16).⁷⁸

Britain imported ever increasing numbers of live sheep from the beginning of our period until ca 1882 after which they fell rapidly and almost constantly. By the end of the period they had practically ceased. Hence, unfortunate as it may seem, live sheep exports from Iceland only took off when Britain's live sheep imports in general started falling. In the 1880s the live sheep from Iceland were only drops in the flood of live sheep to Britain at the time, with Germany and Holland besides Denmark⁷⁹ supplying most of it. Around 1890, live sheep imports of Britain shrank and Iceland's share became large, in 1890 it was 23% of all live sheep to Britain although that is not typical because the live sheep quantities from Iceland reached an all-time peak in that year. But

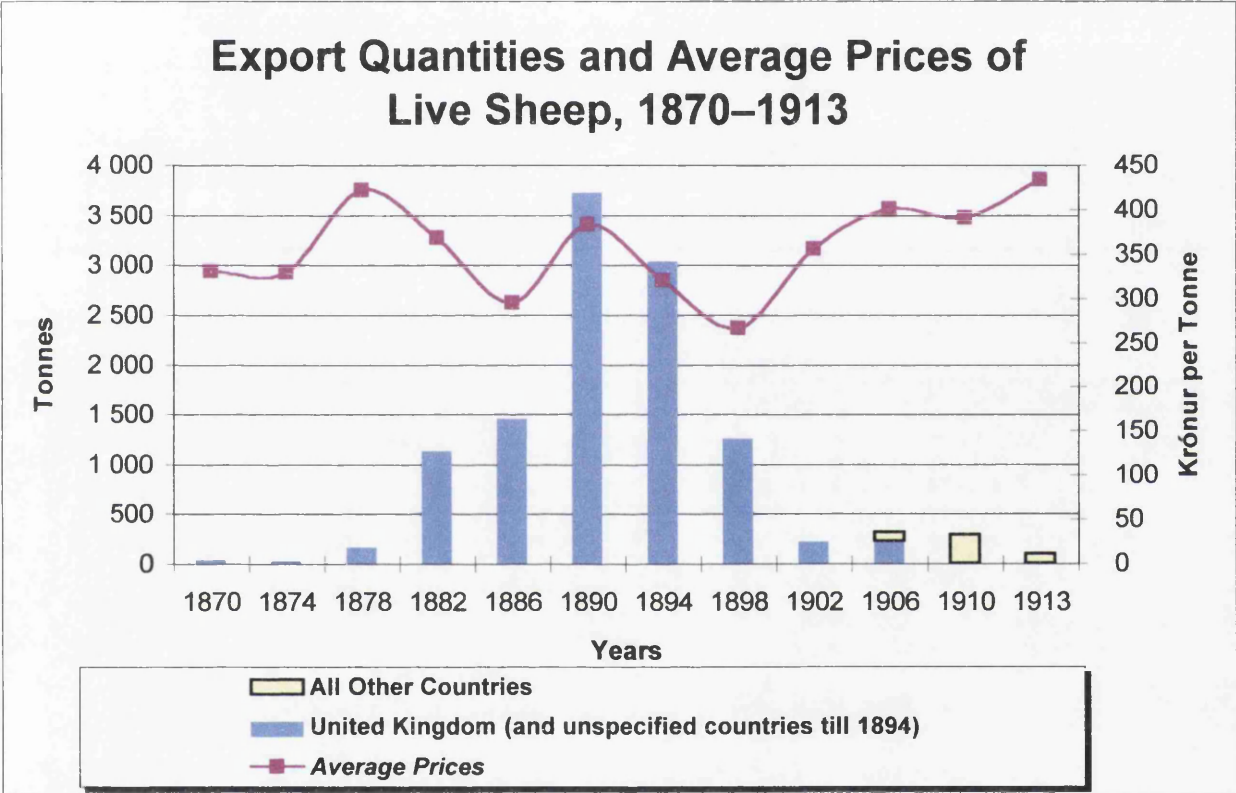
⁷⁶ C.S. Orwin and E.H. Whetham, *History of British Agriculture*, pp 26–7, 97–100. For import quantities of live sheep, see British trade returns.

⁷⁷ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, pp 22–4.

⁷⁸ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 16.

⁷⁹ Although Iceland's imports to the United Kingdom are included with those from Denmark proper, they accounted for little in the total quantities of both.

Figure IV-16



then live sheep imports from the United States rocketed and the quantities from Iceland started declining also.⁸⁰

Not only was the contracting live sheep trade in Britain adverse for exporters in Iceland, but also the movements of live sheep prices there. From 1878 until 1898 there was a huge price fall in imported live sheep to the UK, which may or may not generally have affected prices of live sheep in Iceland, because there was a large difference between prices of imported live sheep to Britain and export prices in Iceland (Fig. IV.17). It does not appear to have affected it very much because the export prices in Iceland were in the long-term steady while the import prices in Britain fell.⁸¹ The reason may be that freight rates fell enough to hold the prices up in Iceland, in spite of the fall in market prices. However, in the mid 1890s, freight rates for live animals were still considerably higher than for ordinary merchandise such as mutton.⁸² This probably explains for a substantial difference as late as in 1913 in prices of live sheep and price levels of wool and meat, the last two being reasonably close to each other. Apart from that, there is small wonder why imports of live sheep to Denmark were so few: the route was longer, that is, more expensive and with greater reduction in the number of sheep, and import prices of live sheep there practically the same as export prices in Iceland. For that reason alone, Denmark was excluded from this trade.

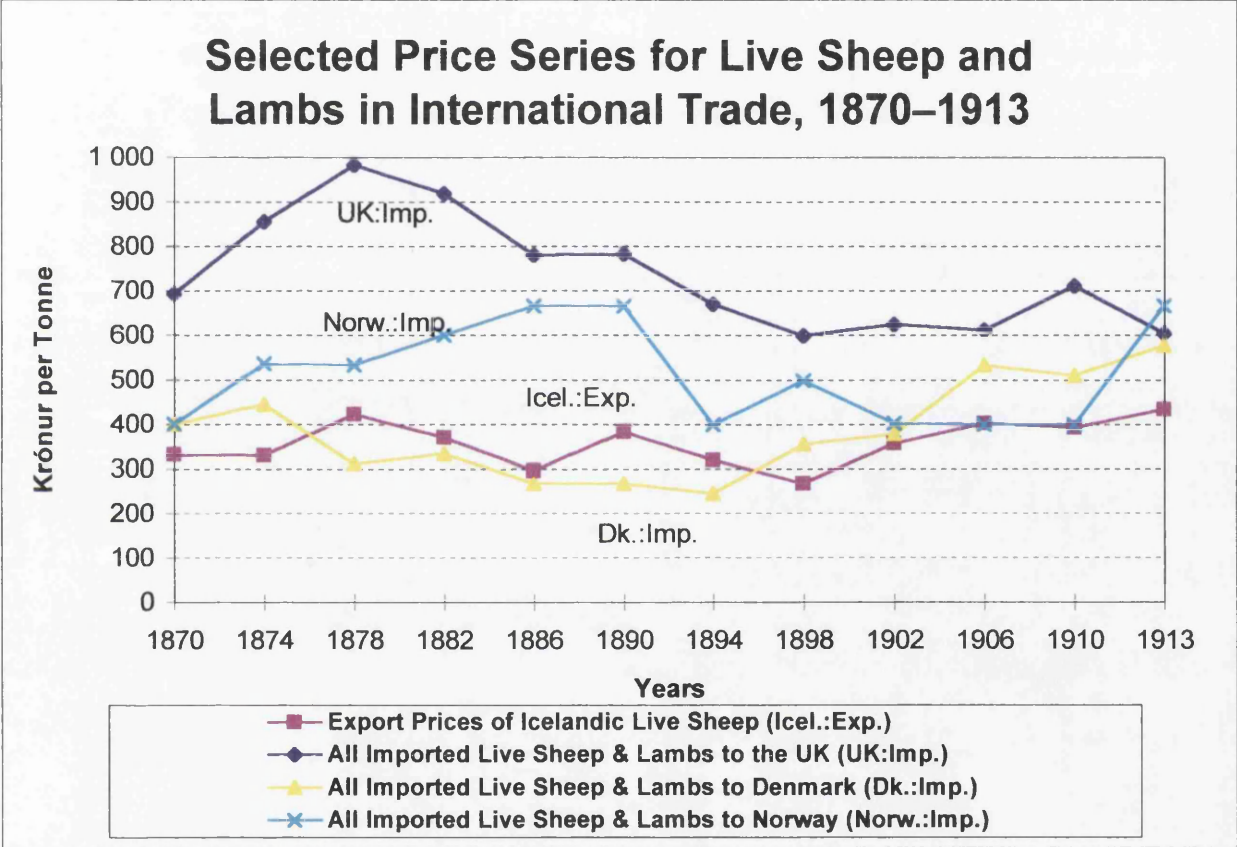
The export trade in mutton and live sheep from Iceland falls roughly into three shorter periods. As long as exports of live sheep were negligible, they did not affect

⁸⁰ British trade returns, see bibliography at the end of the thesis. For the numbers of live sheep exported from Iceland, see approximate figures in Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, pp 13, 16. More accurate figures for my test years are in A.EXP/UK-14.

⁸¹ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 34, claims that prices of live sheep in Iceland moved in tandem with prices in the 'British market' ('... breska markaðinum'). Even if Sveinbjörn was referring to import prices to Britain, this claim is not correct as my graph on prices of live sheep shows.

⁸² D. Thomsen, 'Sala á íslenskri vöru,' p 243.

Figure IV.17



much the supply of mutton available for export. In any case, the mutton exports soared in 1870–82 (Fig. IV.14), and this can partly be explained by pointing out that the number of sheep almost certainly grew at the same time (Fig. IV.18). This years formed the first sub-period. When the Icelandic live sheep exports gained momentum in the 1880s, they reduced the supply of mutton for export. The exports of both now had to be understood in relationship to each other, and the beginning of the 1880s start the second sub-period. One may wonder why prices of live sheep fluctuated far more than prices of mutton (Fig. IV.16 and IV.14). The reasons for that are mainly two. In contrast with the usual barter exchange in other trades, the British paid with money, which was important in a money scarce economy, and British merchandise, which could be acquired with the cash, was cheaper and/or better than could be acquired elsewhere. The importance of both of these things will be explained in Chapter VII, but one can assert that live sheep exports were clearly advantageous for farmers and, therefore, they were more keen on selling their sheep alive instead of it slaughtering them and selling the products individually.

The contraction in mutton exports was evident as the live sheep exports grew (Fig. IV.19) although fluctuations in the sheep number affected it also. The drop in the number of sheep is, for example, very clear in the export quantities in the year 1886. Although it does not show in my graphs, prices of live sheep substantially fell in 1886–88 compared to previous years and the exports of live sheep contracted.⁸³ The price fall does not appear to have shaken the belief of Icelandic farmers in the profitability of this business, judging by the shares of mutton versus live sheep in 1886 compared to 1882 (Fig. IV.14 and IV.16), because live sheep quantities were larger in 1886 while the mutton exports were smaller. However, a second price fall in 1891–93 probably aroused

⁸³ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, pp 16, 18, 29, 32, 59.

Figure IV.18

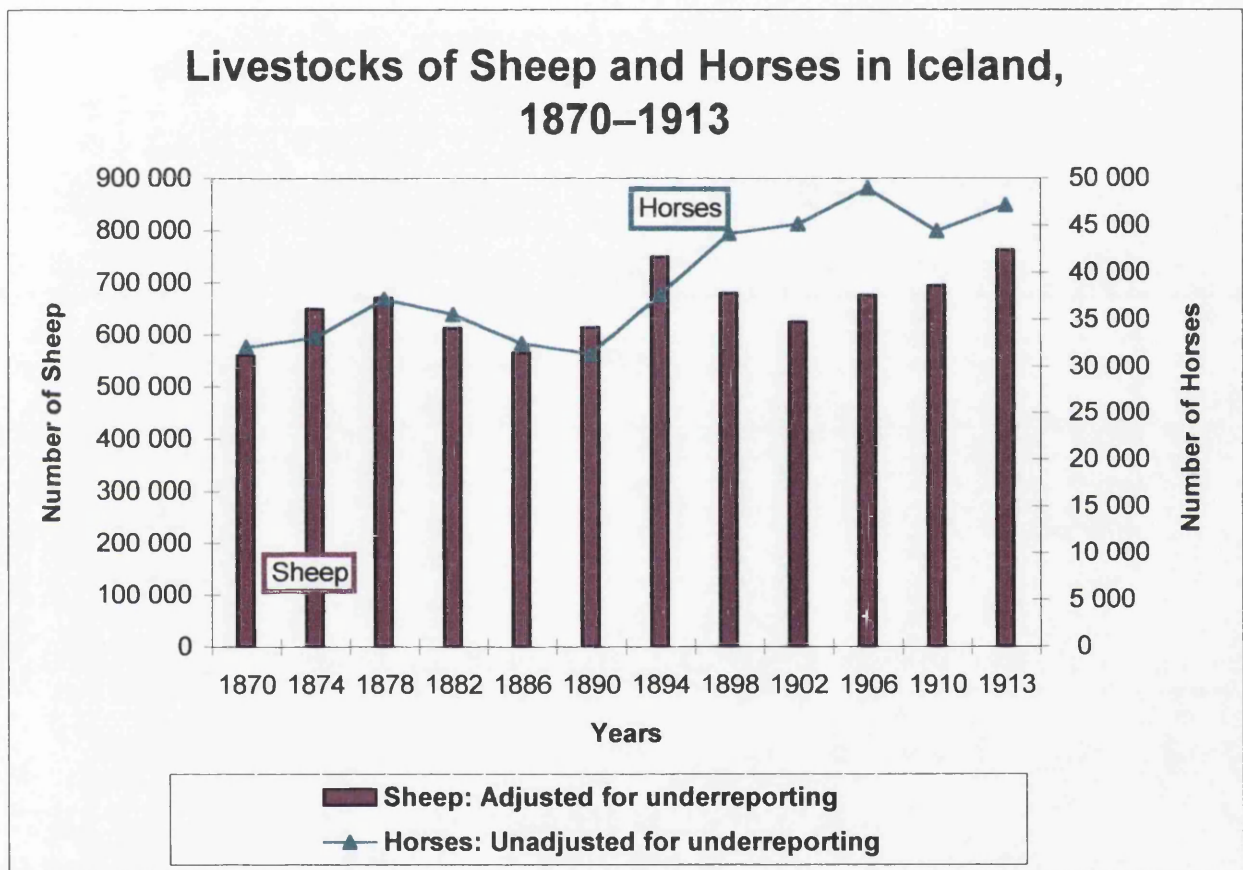
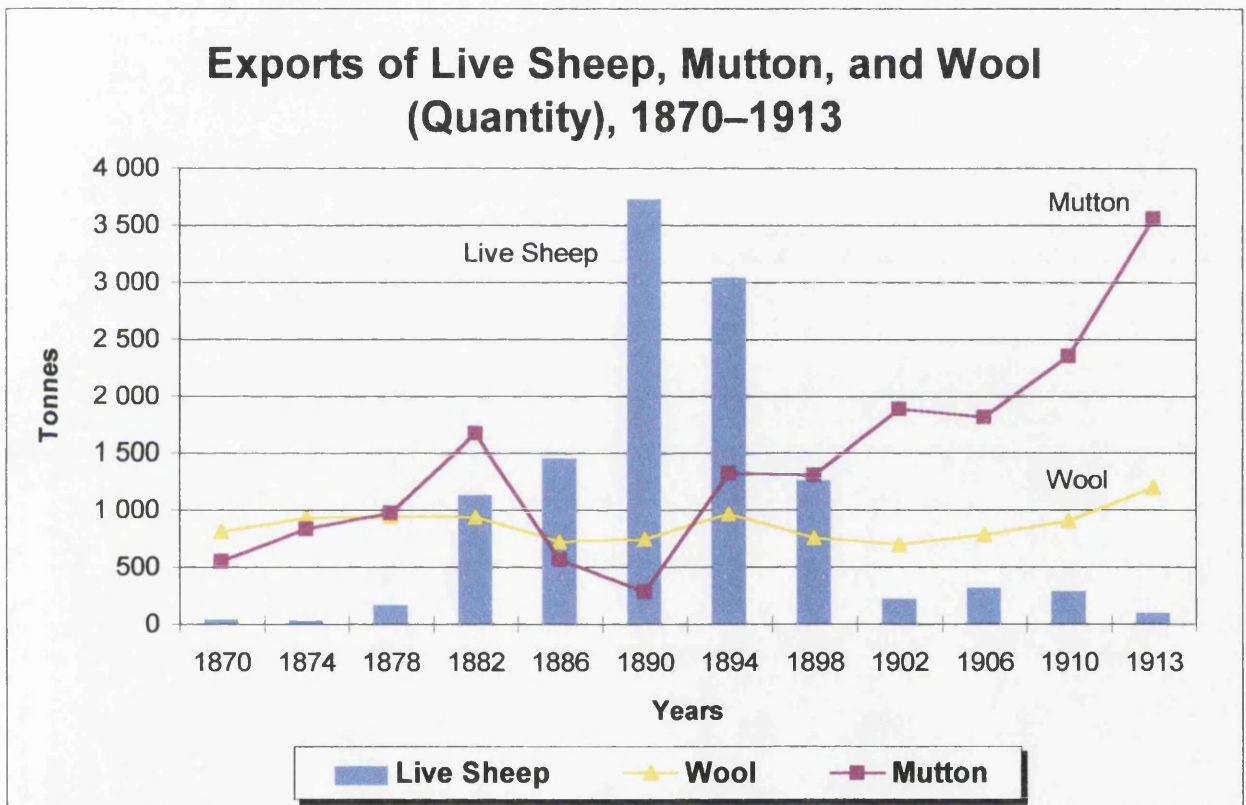


Figure IV-19



concerns because the altered portions afterwards in the exports of mutton versus live sheep can hardly be explained otherwise. Whereas the quantity of live sheep was only slightly less in 1894 than in 1890, the mutton quantity was by far larger (Fig. IV.16 and IV.14). This seems to show that farmers were not so sure any longer of the safe profits or the infallibility of the live sheep market.

The second price fall was in a sense the beginning of the end in the Icelandic live sheep trade for the price remained low in the immediate years after 1894 and the export quantities contracted.⁸⁴ However, substantial exports would probably have continued if external circumstances had not squeezed Icelandic sheep out of the British market. Since this business started voices had been raised now and then that Icelanders had to be aware that the imports to Britain might be checked on grounds of danger of animal diseases. In 1892 the British government put a ban on importation of live sheep from several countries. Iceland was among them but in her case the ban was lifted shortly due to pressure from the Danish government and those who had vested interests in this trade. There was no post of official veterinarian in Iceland at the time, but in spite of the British concern no action at this was taken by Danish or Icelandic authorities to establish one. Later, in 1896, the British parliament passed a law prohibiting altogether imports of live sheep for fattening purposes. If they were imported they had to be put in a quarantine and slaughtered subsequently. The law met opposition among liberal members of parliament, from the Danish government, Icelanders, and those with vested interests in the trade, but without results.⁸⁵ That was the end of the second sub-period in the exports of mutton and live sheep.

⁸⁴ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, pp 16, 18. Table A.EXP/ALL-10.

⁸⁵ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 53–4.

The law of 1896 initiate the third period. Although considerable exports of live sheep continued for a few years, the law effectively removed the basis for these sales. This was because there was no profit for the British to slaughter immediately sheep, which sometimes came in a slack condition after a long journey from Iceland aboard ship. They had to be fed to gain weight and resume former condition.⁸⁶ Icelandic exporters, however, were eager in continuing this trade because of the money incomes it generated, and tiny live sheep exports continued to Britain until around 1905. In the very end of our period, new live sheep markets were found elsewhere in Europe but the quantities exported were negligible.⁸⁷ Whereas the live sheep trade fell after 1896, the mutton trade continued. The last sub-period is, therefore, dominated by exports of mutton alone, and mutton exports soon soared, both because of a rising number of sheep (Fig. IV.18) and because the prices also started to rise; the growth in the mutton exports was particularly rapid in the very end of our period, 1910–13.

IV.3.1.3. Live Horses

Horses were indispensable for Icelanders because they were practically the only means of land transport and travelling, as well as their use for other purposes. Their importance in terms of transportation and travelling owes to the fact that until the very end of the 19th century, no roads or bridges existed in Iceland. Hence, no large goods or items were transported any distances without horses, apart from things people carried on their

⁸⁶ Table A.EXP/ALL-3. Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 46–7.

⁸⁷ Table A.EXP/ALL-3.

backs. Also, travelling, both for short and long distances, was usually not possible without horses, especially when crossing rivers. Horses were also much used by farmers throughout the year, for example carrying hay in summer and fetching sheep in autumn into heathlands or moorlands and valleys.⁸⁸

Available records about the size of the horse livestock population are probably subject to a similar underreporting as the numbers of sheep. Even so, their numbers evidently underwent huge swings as well. A great increase in horse numbers in the 1870s was followed by an equal reduction in the 1880s, but in 1913 the horse population it was considerably larger than in 1870 (Fig. IV.18). Taking the figures at face value, i.e., not adjusting for any underreporting, the ratio of horses per capita remained, however, the same — at roughly half a horse per inhabitant in 1870 and 1913.⁸⁹ By comparison with live sheep, the export quantities of live horses were much lower, ranging between 5 and 10% of the total horse livestock in the 1880s onwards.⁹⁰

The activity of exporting live horses was certainly far less significant in Iceland's foreign trade than the trade in live sheep. Horses ranged from being 1 to 3% in the aggregate export values throughout the period while sheep rose from less than 1% to a peak of 23%, before declining to less than 1%.⁹¹ The reason why these horse sales are worth special comment is a certain similarity to the live sheep trade, namely the hard cash which Icelanders received for the horses (see Chapter VIII). The predominant

⁸⁸ See Th. Krabbe, *Island og dets tekniske Udvikling*, on various aspects of Iceland's infrastructure (roads, bridges, communication). Of contemporary sources, one may cite Þorvaldur Thoroddsen, *Lýsing Íslands* (2nd ed.), pp 86, 94–5. The importance of horses is well captured in a selection of excerpts from various sources, Finnþogi Guðmundsson and Jóhannes Halldórsson, comp., *Ferðir um Ísland á fyrri tíð*. See also Jónas Jónasson, *Íslenzkir hjóðhættir* (3rd ed.), pp 148–51.

⁸⁹ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 280, 282, see p 909 (Fig. 21).

⁹⁰ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 281–3.

⁹¹ Table A.EXP/ALL-7.

country of import was Britain where the horses were almost exclusively used in coalmines. The Icelandic horse breed was well suited for that purpose because it was relatively small and strongly built.⁹² After 1900, Denmark became equally as important as a market and there the horses were used on farms and as carriage horses in towns.⁹³

Exports of live horses had been under way since the mid century but they did not gain momentum until around 1880,⁹⁴ and price movements did not have anything to do with it because the export prices of Icelandic live horses probably went down at the time (Fig. IV.20). It is noteworthy that this rise in horse exports coincides with mounting exports of live sheep. One wonders if the buyers of both goods were the same but because of lack of research we know little about this branch except that merchants in the live sheep trade exported sometimes horses.⁹⁵ What is almost certain is that if live sheep merchants were themselves not active in the live horse exports, they attracted other British merchants into it; Icelanders were not involved in it.⁹⁶ After the initial spurt around 1880 the quantities of horses exported were fairly stable, yet slightly growing in the long run, throughout the period and the price was on the rise. This is very different from the sheep trade with its fluctuating quantities and prices. The live horse exports were relatively uneventful and without many shifts after the spurt around 1880, and, therefore, our period only falls into two, the 1870s when the exports appear to have been

⁹² Table A.EXP/ALL-3. D. Thomsen, 'Sala á íslenzkri vöru,' pp 238–9. Þorvaldur Thoroddsen, *Lýsing Íslands* (2nd ed.), p 86.

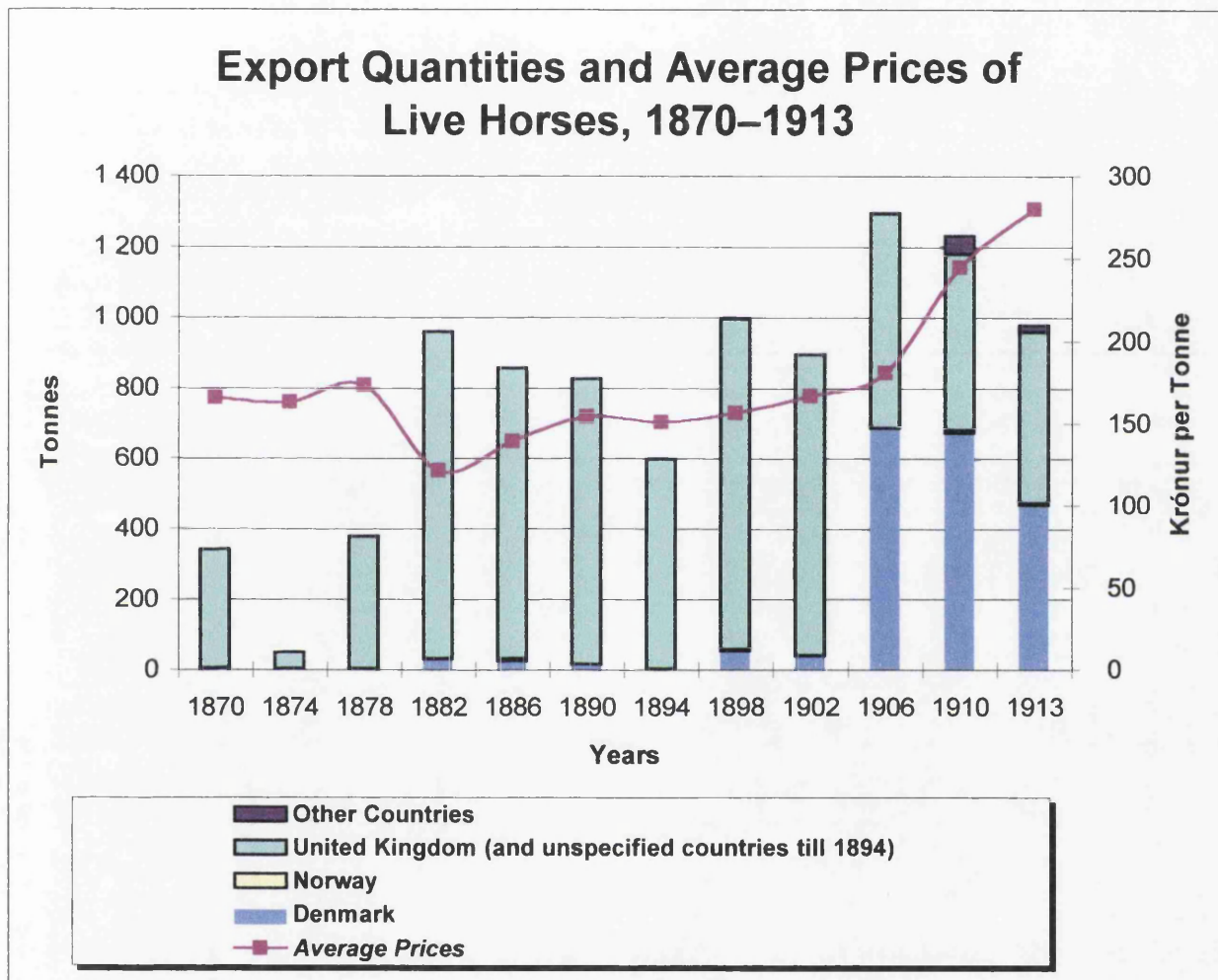
⁹³ Table A.EXP/ALL-3. Þorvaldur Thoroddsen, *Lýsing Íslands* (3rd ed.), p 105. Gunnar Bjarnason, 'Hesturinn okkar,' p 111.

⁹⁴ Þorkell Jóhannesson, 'Brot úr verzlunarsögu,' part 1, pp 236–7. Halldór Bjarnason, 'Iceland in the British Parliamentary Papers,' Tables 1 and 2.

⁹⁵ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 31.

⁹⁶ This is indirectly confirmed from a contemporary source in the early 1870s (Jón Sigurðsson to Eiríkur Magnússon, 26 April 1872, Jón Sigurðsson, *Bréf Jóns Sigurðssonar: Nýtt safn*, pp 151–2).

Figure IV.20



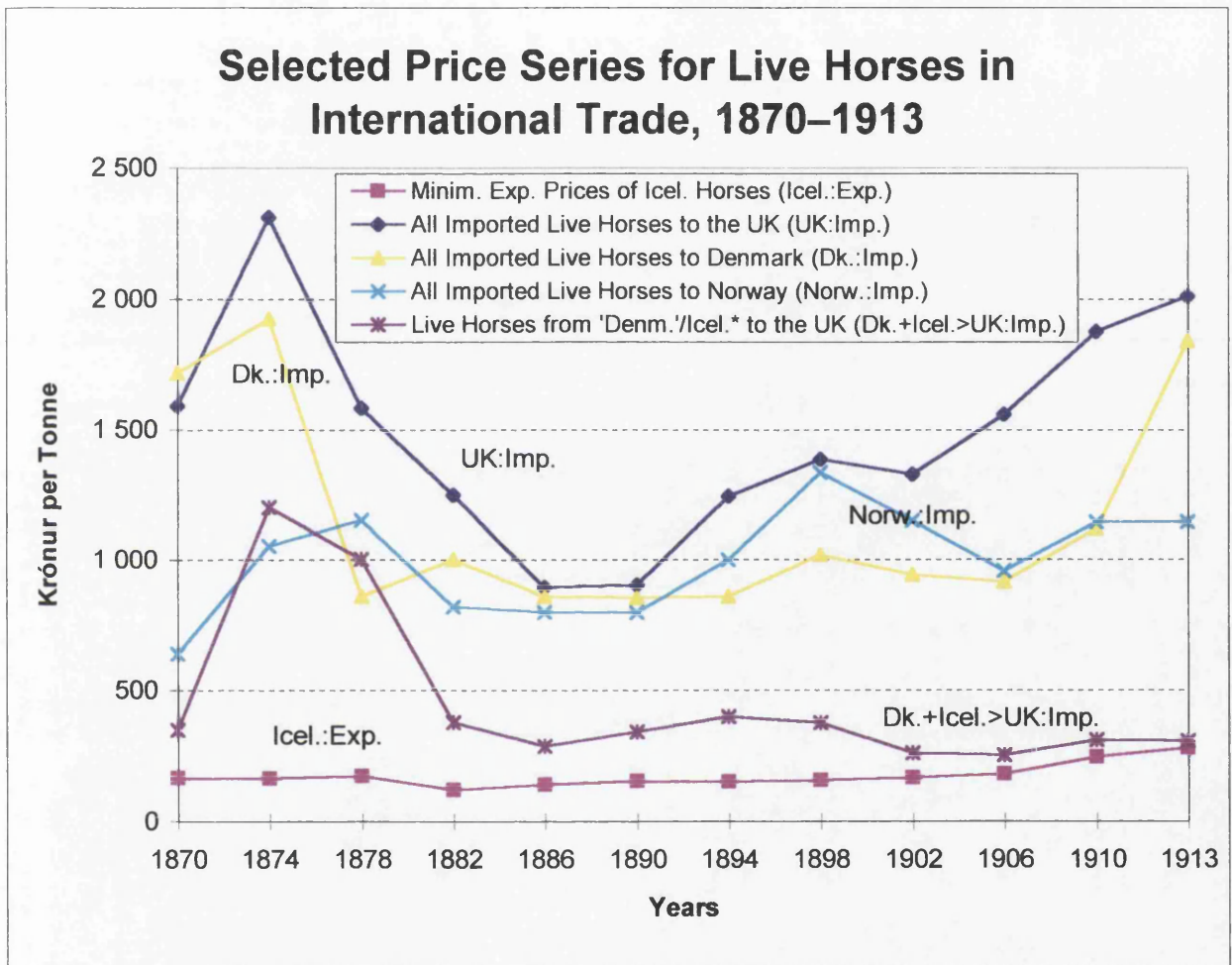
irregular, and the 1880s onwards when the exports rose markedly, whatever the reason for that was.

Judging by our sample years, Icelandic live horses occasionally represented a substantial portion of total imports of live horses to Britain, ranging from only a few percents to 20, 30, or even 40% until the 1880s. From ca 1890 onwards the portion fluctuated roughly around one tenth of Britain's total imports of live horses. France supplied most of the horses in the early 1870s, then Germany for a long time, but the United States and subsequently Russia overtook this import trade from the mid 1890s onwards.⁹⁷ Readily available information about the purchase prices of Icelandic live horses are scarce and the prices plotted on Fig. IV.21 are probably minimum prices; until 1894 there are the prices Danish merchant houses paid for live horses in Iceland. However, it is unlikely that the prices British horse merchants paid were much higher, although the way the British bought the horses, i.e. with money, gave Icelanders far better terms of trade than by selling to the Danish merchant houses. Also, from 1898 onwards, when the prices are based on the actual values paid for Icelandic live horses to Britain, the level is in good accordance with the previous level. Finally, British trade returns show that Icelandic horses were very cheap in relation to horses from other countries.⁹⁸ Hence, even if the true prices were somewhat higher than those indicated in Fig. IV.21, they were much lower than the average prices for live horses in Denmark or Britain. This was partly because Icelandic horses formed a very special niche in the British horse market, namely for mining horses, that had far lower prices than live horses

⁹⁷ Table A.EXP/UK-14. British trade returns, see bibliography at the end of the thesis.

⁹⁸ Horses from Iceland are included with horses from Denmark proper but they were practically all from Iceland, see table A.EXP/ALL-7 and British trade returns (see bibliography at the end of the thesis). All this is in accordance to a latter-day source saying that Icelandic horses were sold at the lowest price class, being a kind of 'oddments' in European horsemarket (Gunnar Bjarnason, 'Hesturinn okkar,' p 112).

Figure IV.21



intended for other purposes in Britain.⁹⁹ But owners of horses in Iceland may also have been poor salesmen, sometimes dumping the prices.¹⁰⁰

IV.3.2. Fisheries and Fisheries' Products

In the period 1870–1913, the fisheries' sector in Iceland can be divided into two parts, one representing the use of marine resources by Icelanders and the other constituting foreign enterprise. The reason for this dualism is as follows. Whereas the Icelanders' fisheries were wholly integrated into the Iceland economy, the second was characterised by an outside exploitation of Iceland's resources. It was managed by foreigners, operated partly by a foreign work force and had more restricted influences on the Iceland economy. Therefore, these two sub-sectors are best discussed separately.

In 19th century, fishing by Icelanders in Icelandic waters revolved largely around cod fishing. Fishermen caught fish for domestic consumption as well for export, but the commercial fishery was presumably the basis of Icelandic fisheries and of living at the seaside, although it is difficult to ascertain the proportions of fishing for export and fishing for domestic consumption and no one has attempted to quantify the shares. Cod was the predominant fish species in the regular, i.e., demersal, fisheries but its catches were usually mixed with other species to a varying extent. Haddock (*ýsa*), tusk (*keila*), ling (*langa*) and saithe (*uþsi*) were all common species in the catches of Icelandic

⁹⁹ An example of this, indeed for the Icelandic horse, is a qualitative source. In 1893 Icelandic horses sold in Newcastle to mines fetched £4.15s while Icelandic horses for sport and carriages were sold in London at £14–£16 (D. Thomsen, 'Sala á íslenskri vöru,' pp 238–9).

fishermen at the time and exported.¹⁰¹ Besides this, fishing of lumpsucker (*hrognkelsi*) and other species was also practised, almost wholly for internal consumption.

In 1870, practically all fish that was to be exported, whether cod or other species, was salted and then dried; only a tiny amount was dried to make regular stockfish (the *Plattfisch* type).¹⁰² So large was this production that throughout the period 1870–1913 saltfish was *the* export staple, not only within the fisheries' products but also in the aggregate export values of Iceland (Fig. IV.22 and IV.8). Some of the remainder of the catch was eaten by the fishermen and their families, and fish was the staple item in people's diet at the seaside. The rest was dried ashore to use in domestic barter trade between people at the seaside and farmers in the countryside. Pickling was not unknown but since salt was usually scarce it was not much practised for internal consumption purposes.

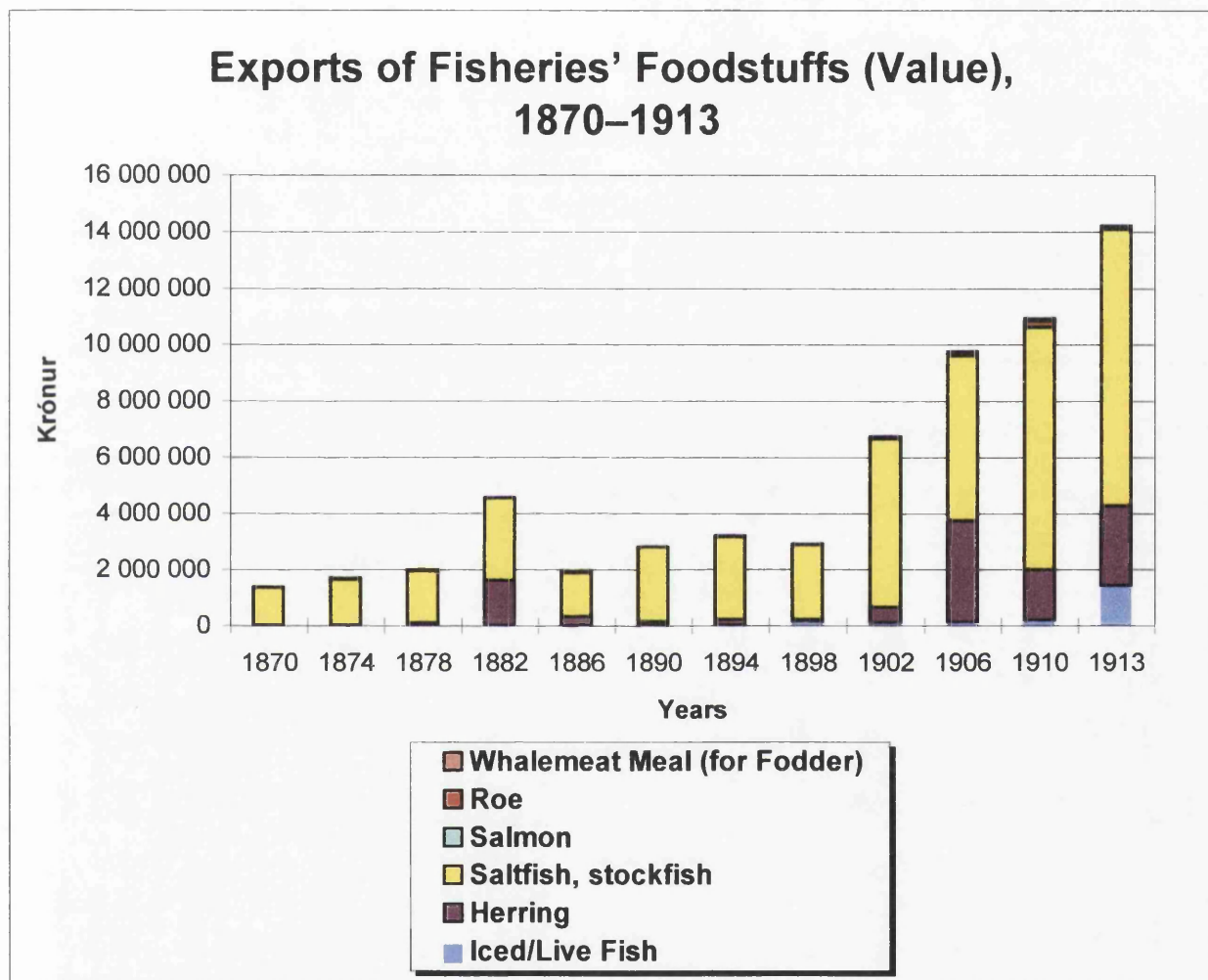
The fishing of demersal species formed the customary fisheries of Icelanders, primarily practised for the sake of food acquisition. Most other kinds of fishing, besides hunting of sea mammals, had the main objective of supplying oils and fats, skins, etc.; this was used both domestically and exported. One of these activities was shark fishing, for shark was in demand because of its high volume of fat, varying by species, that was turned into oil. The cod also provided oil from its liver and, as an additional product, roe which was salted and used as bait in the Mediterranean.¹⁰³ There were no other important fisheries except the fishing of salmon, which was mainly done in rivers nearby the sea. The salmon was salted for export and carried a very high price. The main hunting of sea mammals in Iceland was that of seals, whose skin and high fat volume

¹⁰⁰ This gets a support from a contemporary source (Jón Sigurðsson to Eiríkur Magnússon, 26 April 1872, Jón Sigurðsson, *Bréf Jóns Sigurðssonar: Nýtt safn*, pp 151–2).

¹⁰¹ See Icelandic trade returns from 1886 onwards.

¹⁰² For information about export quantities of stockfish, see the Icelandic trade returns.

Figure IV.22



made attractive merchandise. Walrus was also hunted because of its skins, fat and teeth, but to a lesser extent than seal.

Besides saltfish, a major item in our period was herring, and here is where the second sub-sector of the fisheries' sector in Iceland comes in. Herring fishery was initiated by Norwegians and was primarily controlled and carried out by them until the 1890s. Thereafter, although beginning to share the fishery with Icelandic fishermen, they continued to dominate the herring trade. All along, however, they employed an Icelandic work force to some extent. In spite of relatively extensive use of the sea by Icelanders through the centuries they had never realised the importance of or made use of herring. It is a very unstable fish species because of its relatively irregular migrations but had often been in abundance in Icelandic waters. Norwegians had a long record of herring fisheries and by the end of our period had taught Icelanders to appreciate this 'silver of the sea'.

Whaling was another activity within the Icelandic fisheries sector which the Norwegians started. It was completely in their hands during the period to 1913 although they partly employed Icelandic work people. In contrast to the herring fisheries, whaling contributed very little to ordinary foodstuffs' exports because the only tradable good of that kind, meat meal, was used for animal fodder. Other products of whaling were mainly bones, bone meal, and guano (all used as fertilisers), baleens (for manufactures), and whale oil (for lighting and industrial uses).¹⁰⁴ By value all these products excluding whale oil accounted for only a very small portion of the export values, never exceeding 5%.¹⁰⁵ The quantity of whale oil is difficult to ascertain because it is not always

¹⁰³ D. Thomsen, 'Sala á íslenskri vöru,' pp 231, 232–3.

¹⁰⁴ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 22–3, 64, 65, 82. See also British trade returns under 'Manures'. It should be pointed out that it is often difficult to distinguish between meal from whale meat and meal from whale bones in my sources. Therefore, figures for both commodities must be taken with reservation.

¹⁰⁵ Table A.EXP/ALL-7.

separated from other kinds of oils or from fats in the sources for my datasets. However, given that all oils and fats from Iceland amounted usually to 10–15% of total export values (cf. Fig. IV.8), whale oil presumably only accounted for a few percentages.

The fisheries' sector, like agriculture, was characterised by stability in terms of exports. No product from the domestic fisheries' sub-sector came close to rivalling the hegemony of the saltfish. Only from the external — or part-Norwegian — sub-sector came a product, herring, that ranked high in the aggregate exports by value in any year. But its mode of production stood half-way outside the Iceland economy and its influences on that economy were restricted.

IV.3.2.1. Saltfish

In order to understand the basis of saltfish production and the changes that came about through international trade, it is necessary to describe briefly some of the main features in the organisation and the state of technology in the fishery at the beginning of our period. Around 1870, fishing in Iceland was conducted largely in the same manner as it had been for past centuries. The fishing equipment consisted predominantly of small, open rowing boats from which the fishermen used a hook and a bait to catch the fish. There were two ways of using this, either as a handline or a longline (viz. lying in the sea), and which was more important is impossible to say because their use varied by regions in Iceland. Nets were only used in certain regions, and were not common.¹⁰⁶

¹⁰⁶ Jóhann Bárðarson, *Áraskip* (2nd ed.), pp 42–3. Guðmundur Daníelsson, 'Út og inn um brimgarðinn,' pp 94, 104, 111.

At this time, decked vessels had been introduced in the Iceland fishery but they still employed only about 7% of the total number of seamen in the country.¹⁰⁷ Furthermore, many of these vessels were engaged in shark fishing, either wholly or partly. Even if decked vessels could catch and presumably carry more demersal fish to land per seaman, they were fitted out for a shorter period of the year than the open boats. Much as the decked vessels have been praised in Iceland's fishery history, they were insignificant in the demersal fisheries around 1870.

The fishery was conducted from fishing stations where natural circumstances were favourable for landing catches and where fishing banks were nearby. Seamen were both local and from the interior countryside. The main fishing season in Iceland was during the later winter, at a low point in the agricultural cycle, and, hence, many farmers and their labourers flocked to the seaside. There, they joined men who lived nearby to form crews which were supervised by those who owned the boats and were usually also foremen on them. Because most of the men were far away from their homes, they lived in huts throughout the fishing season. They cured the fish according to its prospective disposal (salting and drying, or only drying) and its ownership. The farmers who sent their labourers off to the sea owned the fish their workers caught. Labourers contracted themselves for year at a time, and they only got their agreed year wages. The farmer then used their labour as he saw fit. The catches of agricultural labourers, i.e., the shares of the inland farmers, were salted and dried, and subsequently used as a payment to local merchants for imports. Fish that farmers wanted to use for their household, if any, was dried during the fishery season and the labourers carried it back home when the season

¹⁰⁷ This figure is estimated on the basis of number of decked vessels and a few instances about crew sizes in these ships (Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 310; Gils Guðmundsson, *Geir Zoëga*, pp 128, 133; Vilhjálmur S. Vilhjálmsón, *Sjógarpurinn og bóndinn Sigurður í Görðunum*, p 111). Therefore, it must be regarded as a highly hypothetical proxy but reliable enough to give a rough indication of the ratio of decked vessels seamen versus boat seamen.

was over. Because they were not present when the curing of the saltfish took place, during the early summer, that was taken care of by the foreman. He cured the fish along with his share of the catches and used for this the help of the members of his household or others. Those of the crew who owned their catches or who lived near the fishing stations took entire care of the curing and used the product either domestically or as payment to their merchant. This description captures the main features of the organisation of the fishery in the southern and western parts of the country, but there were regional differences to this pattern across Iceland, stemming from economic and social relation between those who owned the boats, huts and the land by the sea, and those who supplied the fishermen if they were not independent for their crewing. Nevertheless, the saltfish that was exported around 1870 came predominantly from the southern and western parts of the country, and this illustration is based on that fact.

In terms of consumers, by far the largest market country over time for Icelandic saltfish was Spain.¹⁰⁸ Although a considerable part of the saltfish exported from Iceland went first to other countries, most of it ultimately ended in Spain. It was not until the late 1880s that a new consumer market emerged for Icelandic saltfish, namely Italy which increased its saltfish imports from Iceland rapidly.¹⁰⁹ Thus, Spaniards and Italians were the main consumers of Icelandic saltfish although small quantities went to other countries in our period, both directly and as re-exports.¹¹⁰ According to Shannon Ryan, Spain's aggregate saltfish imports in 1875–85 increased from ca 38,000 to ca 53,000 tonnes.¹¹¹ If we assume that practically all of Iceland's saltfish exports, directly and

¹⁰⁸ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, p 40.

¹⁰⁹ Table A.EXP/ALL-3.

¹¹⁰ The minor consumer markets were Ireland, Portugal, and Greece. See D. Thomsen, 'Sala á íslenskri vöru,' pp 173, 202, 203, and O. Volla, *Den norske klippfiskhandels historie*, pp 291, 356, 358 (table).

¹¹¹ S. Ryan, *Fish Out of Water*, p 134 (Table 4.T).

indirectly, went to Spain at that time, then Iceland's share of the Spanish market fluctuated around 11–13%, being ca 4,800 tonnes in 1875 and 5,700 tonnes in 1885.¹¹² Other countries exporting saltfish to Spain were Norway, France, Newfoundland, and Scotland besides Faroe Islands.¹¹³ Because I have no knowledge of Spain's aggregate saltfish imports towards the end of our period it is difficult to estimate the share of Iceland then. Besides, unknown quantities of Icelandic saltfish passing to Spain through other countries blur the outcome. However, Icelandic saltfish was primarily sold to the Northern part of Spain, especially in Bilbao and Barcelona, and around the turn of the century it replaced the Norwegian saltfish in Barcelona, one of the best markets, and Iceland asserted itself as the largest saltfish supplier there.¹¹⁴ The reasons for that are discussed in a section on Norway below.

Although Icelandic saltfish only entered Italy in the late 1880s, and competed there with Norwegian, French and North American saltfish, it shortly gained a firm foothold. Quantities of saltfish passing directly from Iceland to Italy were, however, relatively stable until the late 1900s when they increased rapidly.¹¹⁵ Possibly, this was only a sign of larger quantities going directly to Italy instead of indirectly. One of the main market districts there for Icelandic saltfish was in Genoa and the Piedmont region.¹¹⁶ According to consular reports in 1894, Iceland's share was around one tenth of all saltfish imports for the port of Genoa in that year, but the quantities of Icelandic saltfish tripled the year after.¹¹⁷ The quantity in 1894 amounted to ca one half of

¹¹² Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, p 251.

¹¹³ S. Ryan, *Fish Out of Water*, pp 97, 147.

¹¹⁴ S. Ryan, *Fish Out of Water*, pp 96–7, 137. O. Vollen, *Den norske klippfiskhandels historie*, pp 275–7, 333, 335–6, 341–8.

¹¹⁵ Table A.EXP/ALL-3.

¹¹⁶ D. Thomsen, 'Sala á íslenskri vöru,' p 217. S. Ryan, *Fish Out of Water*, p 188.

¹¹⁷ S. Ryan, *Fish Out of Water*, p 188 (text and table).

Icelandic saltfish going directly to Italy.¹¹⁸ Presumably, the other main port for Icelandic saltfish was Leghorn for it imported a kind of saltfish similar to the one Genoa imported from Iceland, namely Labrador Style, which is described in the section on Spain and Italy below.¹¹⁹

In general, exports of saltfish by quantity rose at a rather steady rate throughout the period 1870–1913 (Fig. IV.23). Benefiting from recent research on the Icelandic saltfish industry and exports of saltfish, annual figures are available in our period to confirm this, although testifying to considerable short term fluctuations in the saltfish exports. The largest relative downswing was in the mid 1880s, and the sample year of 1886 shows it well. The downturn is a measure of the natural hardships that the people of Iceland experienced in the mid 1880s, as well as concurrent tariff problems and fierce competition in the Spanish saltfish market. While the personal hardships affected the saltfish industry mainly by reducing export quantities, the second, or external, shock was reflected in prices. The saltfish price appears to have been fairly stable until 1878, when it soared up to become ca 29% higher by 1882, presumably because of almost doubling of prices of imported salt compared to 1878.¹²⁰ Then, the Spanish tariff for Icelandic saltfish was stepped up and the situation was aggregated by generally falling saltfish prices in Spain because of increased competition, primarily from France. Thus, sales potential for the Icelandic saltfish deteriorated significantly.¹²¹ The outcome was that by 1886 the average saltfish export price was down by ca 36% compared to 1882. Although

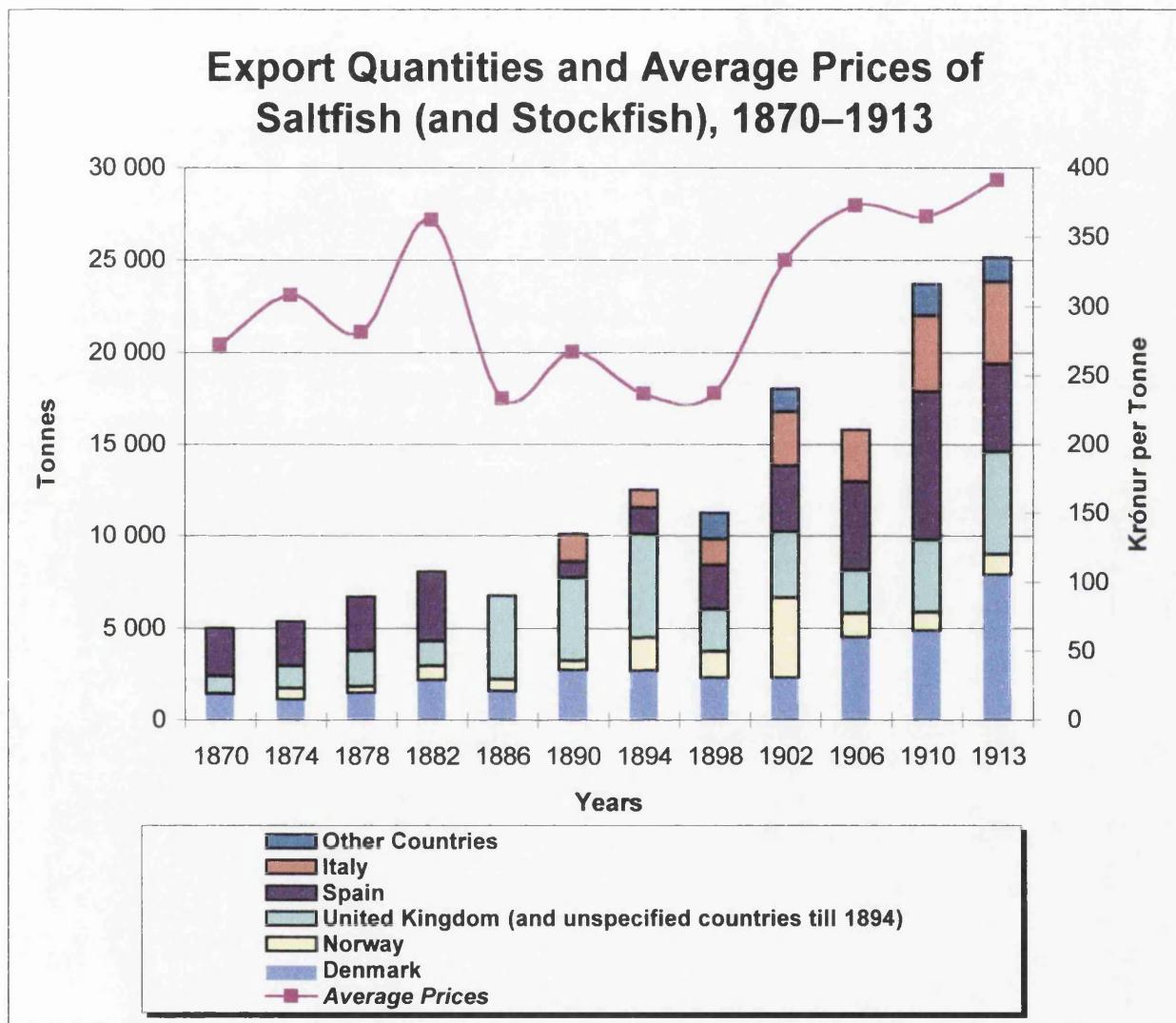
¹¹⁸ Table A.EXP/ALL-3.

¹¹⁹ S. Ryan, *Fish Out of Water*, pp 183–5

¹²⁰ Table A.EXP/ALL-9. For prices of imported salt, see section on chemicals (salt) in Chapter V.

¹²¹ For a full discussion of these events, see a section on Spain and Italy below.

Figure IV.23



the price was ‘only’ about 19% lower in 1886 than the ‘normal’ level of 1870–78,¹²² this was a substantial blow for producers in Iceland and aroused national concern.¹²³

The fall in the price of Icelandic saltfish in the 1880s had various consequences. Historians have thus far primarily attributed to it the huge saltfish exports from Iceland to Britain in the late 1880s.¹²⁴ That is true and the relationship between the two is described in a section on Spain and Italy below. Another direct consequence, however, and a very important one was the fresh fish trade in Iceland (*blautfiskverslun*) which I maintain was started by the price fall (this view is supported in Chapter VII). The innovation came about when a trade in uncured or fresh fish (*blautfiskur*) started to spread in the late 1880s. Merchants began to buy fresh fish from fishermen in various places in the southern and western part of the country, to use for curing at their own expense and responsibility. This trading was immediately hotly debated because it meant a transfer from fishermen to merchants of the value added that was derived from curing. Opponents of this trade accused merchants of exercising their power over fishermen to squeeze the fish out of them by denying to sell the fishermen salt or charging the fish fresh as an instant payment for their debts with their merchant — thus depriving fishermen of their means to increase their income. It appears that merchants did not reply to this criticism very much but fishermen certainly lost some income.¹²⁵

Apart from the fresh fish trade, the fall of the saltfish price definitely was the cause for the introduction of the Italian market for Icelandic saltfish for the timing of it coincides with the difficulties in Spain and that cannot be a mere incident.¹²⁶ Also, the

¹²² Table A.EXP/ALL-10.

¹²³ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, pp 61–2.

¹²⁴ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, p 84.

¹²⁵ See fuller account of the fresh fish trade in Chapter VII.

¹²⁶ See a section on Spain and Italy later in this chapter.

introduction of the Icelandic saltfish in Italy is presumably linked to Pike Ward's initiation of a Labrador cure in Iceland. On both of these aspects, see a section on Spain and Italy below.

After the downswing in the 1880s, short term fluctuations tended to be proportionally less severe over time.¹²⁷ Therefore, it is impossible to distinguish any particular sub-periods in the saltfish exports although two of my sample years after the 1880s also showed a contraction from previous sample years. These years, 1898 and 1906, do not represent any great secular downwards turns at these points of time. Although nearby years also had similar contractions in export quantities of saltfish, the reasons were mainly fluctuations in fishing but not in prices for they remained relatively stable in the 1890s and 1900s albeit moving from a certain plateau up to a higher one at the turn of the century (cf. Fig. IV.23).¹²⁸ The graph suggests an acceleration in the exports of saltfish in the 1900s onwards but the general trend, based on annual figures, does not back this well up.¹²⁹

Prices of the Icelandic products relative to selected market prices abroad is an aspect that was studied in cases of other export commodities. It was found that prices of wool, mutton, and live sheep from Iceland showed a distinct pattern, viz. a relatively large gap between the Icelandic product and prices abroad in the beginning of our period and then the gap decreased over time. It is remarkable that prices of Icelandic saltfish are not subject to such a pattern (Fig. IV.24). Although the Icelandic saltfish clearly had the lowest prices, there was no large gap between them and saltfish prices abroad in the

¹²⁷ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, p 36 (Fig. II.1).

¹²⁸ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, p 36 (Fig. II.1). Halldór Bjarnason, 'Iceland's Success in the International Saltfish Markets,' p 98.

¹²⁹ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, p 36 (Fig. II.1).

beginning of the period. This fact suggests that there was already by 1870 much more competition for saltfish than wool, mutton, or live sheep, for example, in the foreign trade of Iceland. Why that was so is not obvious and this is outside my study to examine.

IV.3.2.2. Hermetically Sealed Fish Products and Fish on Ice

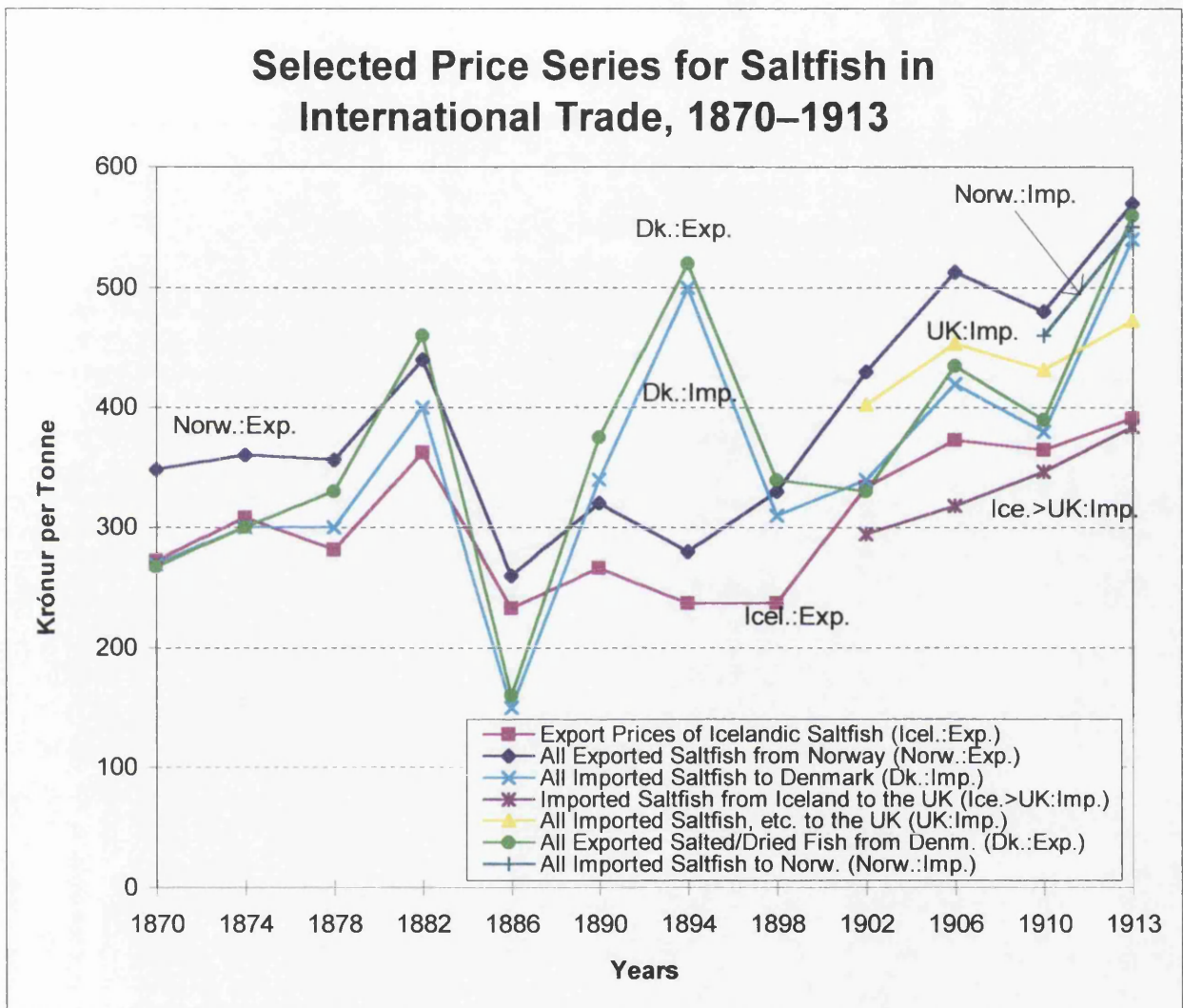
The hegemony of saltfish production remained unaltered throughout our period. No other edible fish product from the domestic sub-sector, i.e., caught and cured by Icelandic nationals, challenged its importance. There were, however, some attempts to break new ground in fish processing. The very first, tinning of salmon, was indeed already under way in 1870 (started in 1858). It was symbolic for this novel product in terms of the Iceland economy that it was initiated by a foreigner, James Ritchie who also operated a tinning factory in Peterhead in Scotland. Ritchie's enterprise was unique, and we have no explanation for what brought him to the country.¹³⁰ Exports of tinned salmon in 1870 amounted to 26 tonnes (1% of the total export value).¹³¹ Even if this was still a minor item of trade, it might have expanded over time with favourable conditions, but it must be admitted that these were lacking in Iceland at the time. The tinning was halted in 1876, when experiments with exports of salmon on ice were started by two Englishmen in the same district. They offered higher prices than Ritchie could afford, making the tinning unprofitable for him, and he left Iceland with his equipment.¹³²

¹³⁰ Sigurður Fjeldsted, 'Laxveiði,' pp 245–6, 249.

¹³¹ Tables A.EXP/UK-14, A.EXP/UK-15, A.EXP/ALL-5.

¹³² Sigurður Fjeldsted, 'Laxveiði,' p 249.

Figure IV.24



During the following decades trade returns record tiny exports of unspecified hermetically sealed food and prepared food from Iceland.¹³³ I have no knowledge about what kind of food this was, whether it was of internal origin or possibly re-exports or ships' provisions. Anyway, Ritchie did not have a successor until long after he left the country because it was only in 1906 that a production of hermetically sealed fish product was tried again. Then, an Icelander made an experiment with pickled salmon for export but it was unsuccessful.¹³⁴ Another Icelander, which was more fortunate, set up a tinning factory to sell its products abroad; it started production in 1907.¹³⁵ Although the output was small and tiny relative to total export values (less than 1%),¹³⁶ it might have served as an archetype for others, and conditions for such business in Iceland were apparently more favourable than before. However, that did not happen and it remained the only fish tinning factory in the country down to 1913.¹³⁷

According to trade returns, exports of fresh fish, i.e., on ice or frozen, were very sporadic until after 1900. Some fresh fish, definitely on ice, was exported in the mid 1870s, presumably salmon by the Englishmen mentioned above.¹³⁸ There are also accounts of exports of herring on ice by Norwegians in the 1890s, and the trade returns confirm such exports then.¹³⁹ It was not until around 1900 that permanent exports of

¹³³ Tables A.EXP/UK-14 and A.EXP/DEN-2 (more accurate information are to be found in the Danish trade returns on imports).

¹³⁴ Sigurður Fjeldsted, 'Laxveiði,' pp 250–51.

¹³⁵ Högni Torfason, *Saga lagmetisiðnaðarins*, pp 14–19. Arnór Sigurjónsson, *Fiskimálanefnd*, pp 104–5.

¹³⁶ Danish trade returns (imports). Table A.EXP/ALL-5. — It should be noted that Arnór Sigurjónsson, *Fiskimálanefnd*, p 105, erranously puts the average export value of the factory per annum at 200 thous. kr. instead of 20 thous.kr. This is evident by checking his sources (the Icelandic trade returns) and it is more in line with the information in my dataset.

¹³⁷ Högni Torfason, *Saga lagmetisiðnaðarins*, p 15.

¹³⁸ Table A.EXP/ALL-3. Sigurður Fjeldsted, 'Laxveiði,' pp 249–50.

¹³⁹ Matthías Þórðarson, *Síldarsaga Íslands* (2nd ed.), pp 120, 256. Table A.EXP/ALL-3.

fish on ice started, and they grew rapidly down to 1913.¹⁴⁰ A relatively small part of it was halibut to Denmark, but I do not know for whose account it was exported thereto.¹⁴¹ Besides small amounts to Britain,¹⁴² the overwhelming part of the iced fish, until the late 1900s, went to Norway.¹⁴³ Primarily, this was cod and haddock which Norwegian tinning factories, mostly in Stavanger, contracted German steam trawlers to fish in Icelandic waters and bring to Norway.¹⁴⁴

This description illustrates well the foreign character of the exports of iced fish. The activities around this were halfway or wholly outside the Iceland economy and as long as this remained so, the economy benefited very little from these exports. Furthermore, fishing by other nationalities, although they were all often fishing just off the shore, is excluded here because they were not in any contact with the foreign trade of Iceland or the Iceland economy.¹⁴⁵ After Icelanders began using steam trawlers in their fishing, this changed very much. The first time an Icelandic trawler started ‘fishing on ice’ was in 1907 and for ca five months of the year thereafter the trawlers were usually devoted to this type of fishing and sailed with the catches to Britain.¹⁴⁶ The first steam trawler wholly owned by Icelanders came to Iceland in 1905 but before, around 1900, rather unsuccessful attempts had been made with steam trawlers by companies almost solely owned by foreigners.¹⁴⁷ As the Icelandic trawlers increased in number so did their

¹⁴⁰ Table A.EXP/ALL-3.

¹⁴¹ Danish trade returns (imports).

¹⁴² Sigurður Fjeldsted, ‘Laxveiði,’ p 251.

¹⁴³ Table A.EXP/ALL-3.

¹⁴⁴ K. Shetelig Hovland, *Norske Islandsfiskere*, pp 31, 35–6.

¹⁴⁵ Jón Þ. Þór, *Breskir togarar*, p 172. Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 354.

¹⁴⁶ Heimir Þorleifsson, *Saga íslenzkrar togaraúngerðar*, p 114–15.

¹⁴⁷ Heimir Þorleifsson, *Saga íslenzkrar togaraúngerðar*, pp 31–46. Here, an experiment with a sailing trawler in 1901–02 by an Icelander is excluded (Heimir Þorleifsson, *Saga íslenzkrar togaraúngerðar*, p 47–52).

catches, and by 1913 the export quantities of fish on ice amounted to 7,000 tonnes or 6–7% of the total export value.¹⁴⁸ Basically, the success of this branch of trade has two causes. First, because of the seasonal migrations of the demersal species, which the traditional fishing was based on, they were in small quantities in the customary fishing banks during the autumn and early winter. Hence, this was usually a very low time in the fishing but various other species could be caught, for example haddock, halibut, and plaice. Second, everybody knew that this fish was in demand in Britain because British trawlers, which had begun fishing off Iceland around 1890, were very keen on flatfish although they did also fish a lot of cod and haddock besides other species. Also, the British ‘fished on ice’.¹⁴⁹ Therefore, to avoid letting the trawlers lay idle during this low time, Icelandic owners began ‘fishing on ice’ during these very months and sailed with the catches to Britain.

Of course, sailing with the fish on ice abroad meant a minimum processing of the fish but this was an established disposal of the fish, provided secure incomes, and domestic outlets were not large enough. One possible domestic outlet was the tinning industry but it was only just starting in Iceland as we have seen and it needed time to establish itself both domestically and in foreign markets, among other things. Another domestic outlet was to cater for fish consumption in Reykjavik and neighbourhood because there had been insufficient supply of fish in the early 1900s according to temporary sources. But the trawlers had indeed landed fish for consumption in the town ever since the first steam trawler came in 1905 and they continued to do so after they started sailing to Britain with fish on ice.¹⁵⁰ It is difficult to say whether the demand was

¹⁴⁸ Tables A.EXP/ALL-3, A.EXP/ALL-5 and A.EXP/ALL-7.

¹⁴⁹ Jón Þ. Þór, *Breskir togarar*, pp 20–21, 24–5, 168 (Table II), 169.

¹⁵⁰ Heimir Þorleifsson, *Saga íslenzkrar togaraútgerðar*, pp 64, 67, 113.

in fact satisfied but even if it was not, the owners probably had to find a large enough additional outlet, which the British market did provide.

IV.3.2.3. Herring

Remarkable as it may seem, herring was not used by Icelanders until the late 19th century.¹⁵¹ Herring was a fish that did not need much processing, and probably all herring that was caught in Scandinavia around 1870 was salted in barrels although already in the 1870s a trade with herring on ice was also started.¹⁵² Also, although herring is a very unstable species because of its migratory behaviour it has definitively often been in abundance in Icelandic waters through the centuries, as it was in 19th century and this century.¹⁵³

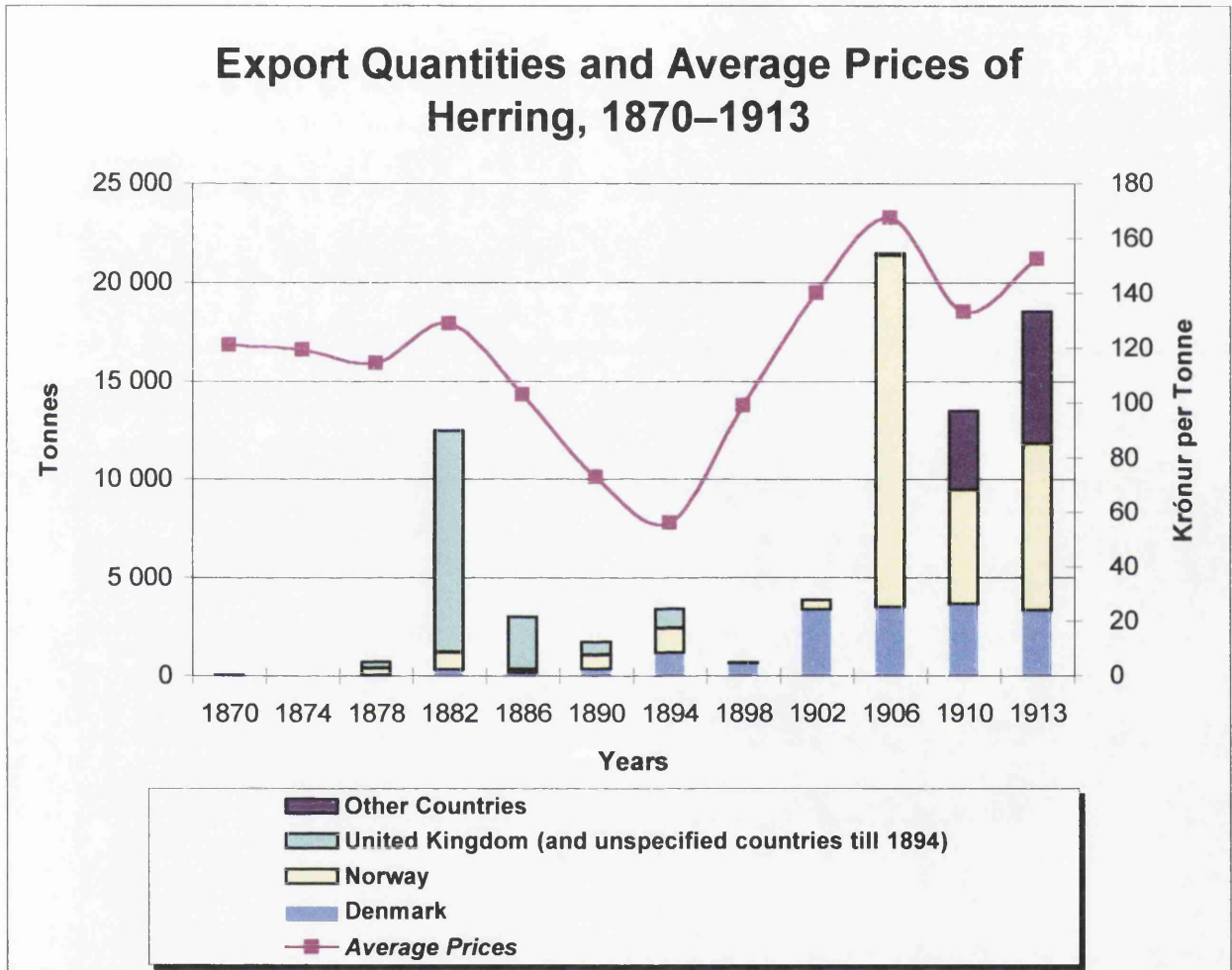
The prehistory of herring exports from Iceland dates to the mid 19th century when Norwegian merchants became aware of herring migrations in the sea off Iceland. After initial, although irregular, experiments by Norwegian herring merchants and fishery ship-owners in the late 1850s and into the 1870s, a large scale herring fishery began in the late 1870s (Fig. IV.25). The timing of this was no coincidence for in the 1870s the customary spring herring fishery off the Norwegian coast failed completely. This was a blow because the spring herring was an export commodity and then the Norwegians started focusing more on Icelandic waters where they already had attempted

¹⁵¹ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 67, 79–82.

¹⁵² F. Hodne, *Norges økonomiske historie*, pp 118–19, 124–5.

¹⁵³ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 67–79, 171, 173–4.

Figure IV.25



a herring fishery.¹⁵⁴ Due to fluctuating marine conditions and the general migratory habits of the herring, the results of the Iceland fishery varied very much. In spite of this, Norwegian herring ships continued coming to Iceland on regular basis until round about 1890.¹⁵⁵ In the 1890s, the interest of Norwegians in the herring fishery off Iceland diminished. This was partly due to the introduction of the drift net method of fishing, for until then Norwegians had predominantly used barrier seine, i.e., pulled the seine around the herring and then towards land. The drift net was a less costly and more efficient way of catching herring because it could be applied in the open sea and, thus, nearby banks became the first choice of fishermen. Also, the herring seems to have changed its migration patterns because catches off Iceland became poor compared to earlier years. Some Norwegians though continued their Iceland herring fishery, especially those who had settled down in Iceland. The latter had usually started trading with general merchandise and integrated the herring fishery into it.¹⁵⁶

In spite of the significant herring fishery started by Norwegians, Icelanders were slow in following their example. According to an estimate by Hreinn Ragnarsson and Einar Hreinsson, herring catches of Icelanders only slowly increased in the late 1860s and the 1870s.¹⁵⁷ Icelanders did not know how to prepare herring to make it suitable for consumption, so this dampened their interest.¹⁵⁸ Some actually used it as a fodder for animals.¹⁵⁹ In 1880 or 1881, Icelanders made the first reported attempt to fish

¹⁵⁴ O. Vollan, *Omlægginga av fisket*, pp 20–21, 30–32. O. Vollan, *Den norske klippfiskhandels historie*, pp 261–3.

¹⁵⁵ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 79–117.

¹⁵⁶ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 117–20, 160–63.

¹⁵⁷ See Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 319.

¹⁵⁸ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 79–80. *Ódýr fæða*, p iii.

¹⁵⁹ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), p 103.

herring for exportation, and their exports of herring presumably started to grow.¹⁶⁰ Around that time, Icelandic fishermen in the northern and eastern parts of the country, where the Norwegians were predominantly based, also started using the herring as bait in the cod fishery, for it was gradually dawning upon them that this increased cod catches.¹⁶¹ Because of lack of research and adequate information, the situation in the 1880s and 1890s is obscure. By the early 1890s though, fishermen and owners of fishery vessels generally had realised the crucial importance of the herring as a bait.¹⁶² Therefore, it is logical to assume that the catches and use of herring for that purpose had increased by then. To assist this, ice houses were introduced, commencing in 1894. There, food (predominantly herring) was frozen with the aid of ice and salt. Although these ice-houses were simple and were based on a simple technology, they were a great improvement over existing methods and increased rapidly in number.¹⁶³ Thus, the use of herring as a bait for cod fishing rose significantly. It is plausible to assume that over time the herring exports of Icelanders also increased and that their share of the herring exports rose, especially in the 1890s when the activities of Norwegians ebbed in Iceland. Hence, by around 1900 Icelanders had begun to take part in the herring trade for real. Information about the share of Icelanders in total herring exports is limited but the Icelandic trade returns suggest that it was no more than ca 27% in 1905, when the Norwegians were back.¹⁶⁴

The turn of the century marks a new epoch in the herring trade. Norwegian herring merchants and ship-owners came back in numbers and began to use drift nets in

¹⁶⁰ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 99, 102–3. Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 319.

¹⁶¹ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 82, 143–6.

¹⁶² Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 146–53.

¹⁶³ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), p 153–8.

¹⁶⁴ Icel., Min. of Icel., *Landshagsskýrslur fyrir Ísland 1906: Verzlunarskýrslur 1905*, p ii.

the fishery.¹⁶⁵ Icelanders were now much more keen about the herring and concurrently started fishing in drift nets.¹⁶⁶ This change in the fishing technology is probably one of the main explanations for the larger export of herring after 1898, as compared to earlier decades (cf. Fig. IV.25). The open sea was now the location of the fishery, and it was no longer restricted to the coastal shelf. Another new invention, purse seine or ring net, was also tried in the herring fishing off Iceland, but the major part of the fish landings were caught in drift nets, at least until the mid 1900s.¹⁶⁷ The share of Icelanders in herring exports rose only marginally. Figures for 1913 are lacking but in 1912 and 1914 their share was only round about one third.¹⁶⁸ Even so, it must be acknowledged that in absolute terms the herring fishery of Icelanders accelerated greatly after 1902 compared to previous decades, and this fishery stimulated the concurrent mechanisation of open and decked boats besides being one of the pillars for operation of trawlers that Icelanders were buying in the 1900s.¹⁶⁹

Although the herring fishing was mainly operated by Norwegian companies, and profits and losses of the activity moved out of the Iceland economy, it had a special advantage for the Iceland economy apart from many indirect beneficial impacts. This special advantage partly explains why the only limits or restrictions to the herring fishing, apart from those set by legislation, were ones set by the Norwegian companies themselves. Even though the Norwegian companies supplied most of the outfit for the fishing (ships, boats, fishing gear, capital, fishermen, etc.) from Norway, they had to rely to certain extent on Icelandic work force in salting the herring in barrels before

¹⁶⁵ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 190–92, 200–201 (tables).

¹⁶⁶ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 175–89, 192, 194–202.

¹⁶⁷ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 163, 181, 193–4, 196, 271.

¹⁶⁸ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), p 201. Cf. the Icelandic trade returns.

¹⁶⁹ Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), p 183–4, 196–8. Heimir Þorleifsson, *Saga íslenzkrar togaraúngerðar*, pp 106–110.

exportation. It is noteworthy that it seems that the Norwegians usually had no difficulties in securing themselves Icelandic labour to salt the herring. This may be explained by a variety of circumstances — for example, by under-employment in the economy. But a very important reason was that the Norwegian companies always paid their Icelandic work force in money rather than merchandise, unlike the Danish merchant houses when they hired people for work. Because of this the Norwegian herring fishing was of importance to the economy, although the Icelandic herring fishing generated more linkages into the Iceland economy. Furthermore, this work was mainly done by women, which presumably entailed special consumption implications, different from those if acquired by men. Apart from that, the sums of money acquired by these women no doubt were unprecedented for Icelandic women until then. This special aspect of the herring fishing will be commented on in Chapter VIII.

IV.3.2.4. Whale Products (excluding Oil)

Whaling in Icelandic waters was practised to some extent for centuries, both by Icelanders and foreigners. By the early 19th century, however, whaling by Icelanders and foreigners around Iceland had largely ceased,¹⁷⁰ although the demand for whale products (oil and baleens) had not fallen in foreign markets.¹⁷¹ Whaling was revolutionised when, in the late 1870s, the Norwegian Svend Foyn invented a new method in whaling using a combination of an explosive harpoon, air pumping system, and a steamship.

¹⁷⁰ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 22–31, 35–41.

¹⁷¹ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 22–3, 63–4, 66. — On markets for animal oils in general, see S. Ryan, *The Ice Hunters*, Chapter 1.

Subsequently, he acquired a patent for this invention for ten years, ending in 1882. With and without Foyn's concession to use his method, several whaling companies had been established in Norway by 1882 but when his patent ran out, many new were formed.¹⁷² As it happens, the first Norwegian company to set up a whaling station in Iceland did so in 1883. There can be no doubt that the timing of this coincided with the expiring of Foyn's patent. Iceland was the first country in a series of countries outside Norway where Foyn's effective method was used.¹⁷³ The Norwegian company that set up a whaling station in Iceland in 1883 had a connection to one of the Norwegian herring companies that were operating in Iceland at the time. Subsequent companies were not related to the herring companies, however, and they came from different cities in Norway. The whaling fishery in Iceland is usually described as a Norwegian enterprise but companies from other countries were involved too. They came from Copenhagen, Hamburg, and Leith; most often one company from each city. The one from Leith was Chr. Salvesen and Co. and it was different from the others that it bought shares in some of the other companies and integrated the whaling fishery in Iceland into its international activities.¹⁷⁴ However, the Norwegian companies dominated the trade and, with this qualification, the whaling fishery off Iceland can rightfully be called Norwegian.

Unfortunately, we have no reliable figures about exports of whale oil from Iceland. The sources used for the dataset usually do not indicate from which animal the oil came, so whale oil is mixed with cod liver oil, shark oil, seal oil, and animal fats. Furthermore, the Icelandic trade returns are especially unreliable in this matter.¹⁷⁵

¹⁷² Trausti Einarsson, *Hvalveiðar við Ísland*, pp 44–6. H. Bogen, *Linjer i den norske hvalfangts historie*, pp 40, 43–4, 46.

¹⁷³ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 46, 51–3.

¹⁷⁴ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 50–57.

¹⁷⁵ The particular unreliability of the Icelandic trade returns in the case of whale oil applies indeed to all products exported by Norwegians in Iceland. This is because of those who were

However, there are constructed series for the quantity of whale oil that was produced, and this can serve as approximation for exports. Production (and exports) rose almost constantly from the year 1883 until shortly after 1900, when it began to fall off.¹⁷⁶ But this is only half the story because new whale products were initiated.

The main objective of whaling through the centuries was to supply oil for lighting and industrial uses, and baleens for various manufactures.¹⁷⁷ In the 1880s, the price of whale oil presumably fell markedly, as other kinds of oils and fats did,¹⁷⁸ mainly because of greater use of mineral oil for lighting and lubrication.¹⁷⁹ After 1900, however, demand for whale oil rose again when a method was discovered to use it in the manufacture of soaps, margarine, and explosives.¹⁸⁰ On the other hand, the price of baleens had by the late 1900s fallen dramatically compared to earlier decades and they were not worth selling any more.¹⁸¹ The reaction of the whaling companies operating in Iceland to the reduced price varied. Some did nothing, but others chose at some point to increase productivity by utilising other parts of the whale as well, namely the meat and the bones. They were crushed to make meal, which could be used both as a fodder for animals and as a manure or fertiliser.¹⁸² This change in the whaling industry in Iceland is

due to return statements about their export, the ones from Norwegians in Iceland were always more or less lacking.

¹⁷⁶ Trausti Einarsson, *Hvalveiðar við Ísland*, p 65 (Table D).

¹⁷⁷ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 22–3.

¹⁷⁸ Prices of London market whale oil and Newfoundland animal oils moved in tandem at least during 1854–76 and 1888 to 1913, and it is plausible to conclude that it did so also inbetween the two periods of time. See S. Ryan, *The Ice Hunters*, pp 439, 440–41, and Trausti Einarsson, *Hvalveiðar við Ísland*, pp 64 (Table C).

¹⁷⁹ S. Ryan, *The Ice Hunters*, pp 83–4.

¹⁸⁰ Trausti Einarsson, *Hvalveiðar við Ísland*, p 66.

¹⁸¹ Trausti Einarsson, *Hvalveiðar við Ísland*, p 66.

¹⁸² Trausti Einarsson, *Hvalveiðar við Ísland*, pp 64–5, 82. There were three kinds of meal. One was bone meal, another was meat meal, and the third was guano which was made from one third of bone meal and two thirds of the worst meat meal. The first was used for animal fodder but the two other sorts as manure or fertilizers.

very clear in the export figures for meat meal (guano) and bone meal, both as fodder meal and fertiliser. The export quantities of meal for fodder and of bones and meal as fertiliser rose in the 1890s, appear to have reached a peak around 1906 and then fell off (Fig. IV.26 and IV.27).¹⁸³ The late peak in these export trades, compared to the whale oil, reflects how late the companies reacted in this matter.

It should be noted that growing exports of whale meal was not solely a financial issue for the companies. Criticism from Icelanders was mounting because the companies often let the bodies of the animals rot almost anywhere, sometimes at the shore beside the whaling stations. This waste and pollution antagonised people, and some blamed these rotting bodies for occasional deaths of sheep (farmers sometimes let sheep graze by the shore). This hostility was linked to another current in public opinion and debate. The whalers were from the start accused of spoiling the demersal fisheries by destroying their nets or driving off the fish; conversely other said the whaling helped in driving the herring towards land where it could be caught.¹⁸⁴ More important, while whaling created some employment many felt it contributed only marginally to the economy and that Icelanders were completely left out. Gradually, new laws were passed and other were amended to set stricter limits to the whaling activities. Taxes on the whaling companies were also increased. Some Icelanders wanted to ban whaling altogether as was done for the northernmost regions in North Norway in 1904. This position won public opinion, and law was passed in 1913 that banned all whaling off Iceland for ten years.¹⁸⁵ This ended the operation of all whaling companies, but they seem to have been slowing down their fishery anyway before the law was passed. For example, catches in 1912–13 were only round about one fifth of what they had been in 1906–11, and these were in turn less

¹⁸³ Table A.EXP/ALL-3.

¹⁸⁴ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 116–28.

¹⁸⁵ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 60, 115, 128–35.

Figure IV.26

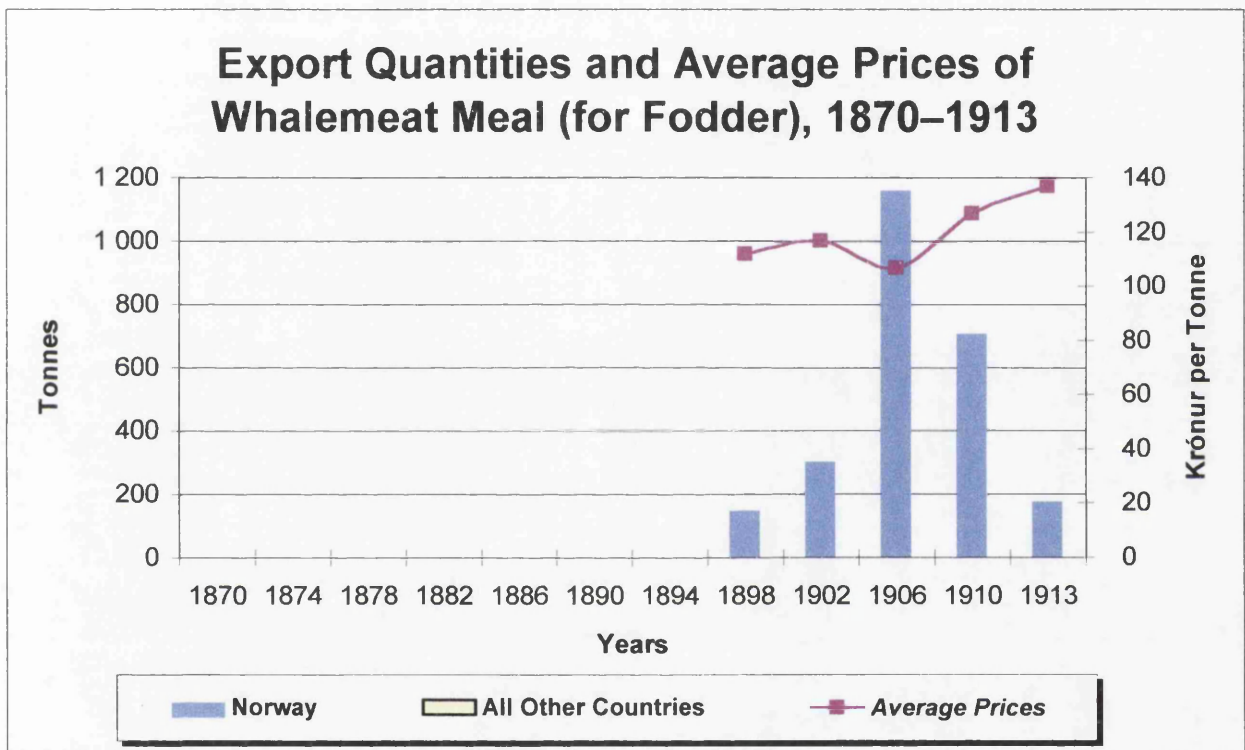
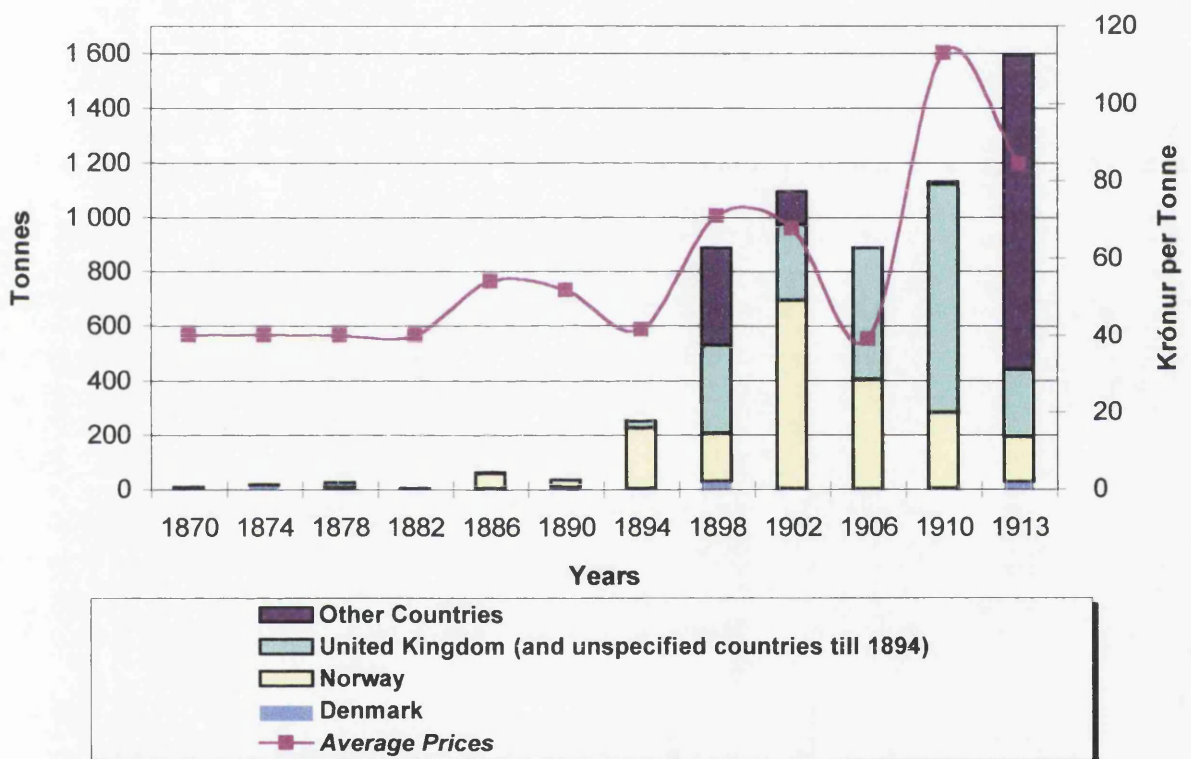


Figure IV.27

Export Quantities and Average Price of Bones, Baleens; Bone Meal, and Guano, 1870–1913



than in the peak years 1901–05.¹⁸⁶ One source says that the catches were becoming poorer.¹⁸⁷ The whaling fishery was certainly decelerating, whether from natural causes only for business reasons too. The whalers were probably being pressed harder in Iceland towards the end of our period than before, but on the other hand the whaling activities were increasingly being directed to the southerly regions in the world at the time.¹⁸⁸

Above we remarked that the Norwegian herring fishery had a particular important feature for the Iceland economy because of money in the form of wages it generated. This applied also to the whaling in a similar manner. Presumably the Norwegian whalers employed smaller numbers of Icelanders in this branch than the Norwegians doing the herring fishing. In spite of that, the whalers employed substantial numbers of Icelanders (men only) over time, and they paid them in hard cash. Apart from many indirect beneficial impacts from the whaling enterprises on the Iceland economy, these money payments presumably were of special importance in a money scarce economy like Iceland was (see Chapter VIII).

¹⁸⁶ Trausti Einarsson, *Hvalveiðar við Ísland*, p 65 (Table D).

¹⁸⁷ Magnús Gíslason, *Á hvalveiðastöðvum*, p 77.

¹⁸⁸ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 46, 59.

IV.4. Destinations of Iceland's Exports

IV.4.1. General Trends

The main trends in Iceland's exports by countries over time can be summed up in the term diversification, but there are two ways of looking at it. One aspect is the range of countries and their relative shares of Iceland's total exports. In 1870, the main country receiving Iceland's exports was Denmark, which had monopolised the foreign trade of the country for centuries. Denmark took more than 40% of Iceland's exports by value (Fig. IV.28). Then, its share fell generally — down to ca 30% — at which level it seems to have stabilised from 1890 to 1913. In terms of absolute values (Fig. IV.29), exports to Denmark increased, so the fall in share was due to even faster growing aggregate export values.

With the relative demise of Denmark as a market country, other countries entered the scene or increased their share. Norway, although Iceland's neighbouring country, was a relative newcomer in the foreign trade of the country in 1870. Some small trade though had been going on from the mid or early 19th century, but exports to Norway did not start to rise markedly until the late 1860s.¹⁸⁹ This is reflected in the small portion of Norway in 1870 — only 2% by value.¹⁹⁰ Albeit rising thereafter, it did so only gradually until the 1890s when it started to grow significantly (Fig. IV.28). It

¹⁸⁹ Norw., Dept for Int. Aff., *Tabeller vedkommende Norges Handel og Skibsfart 1867*, p 142; 1870, part 2, p vi.

¹⁹⁰ Table A.EXP/ALL-5.

Figure IV.28

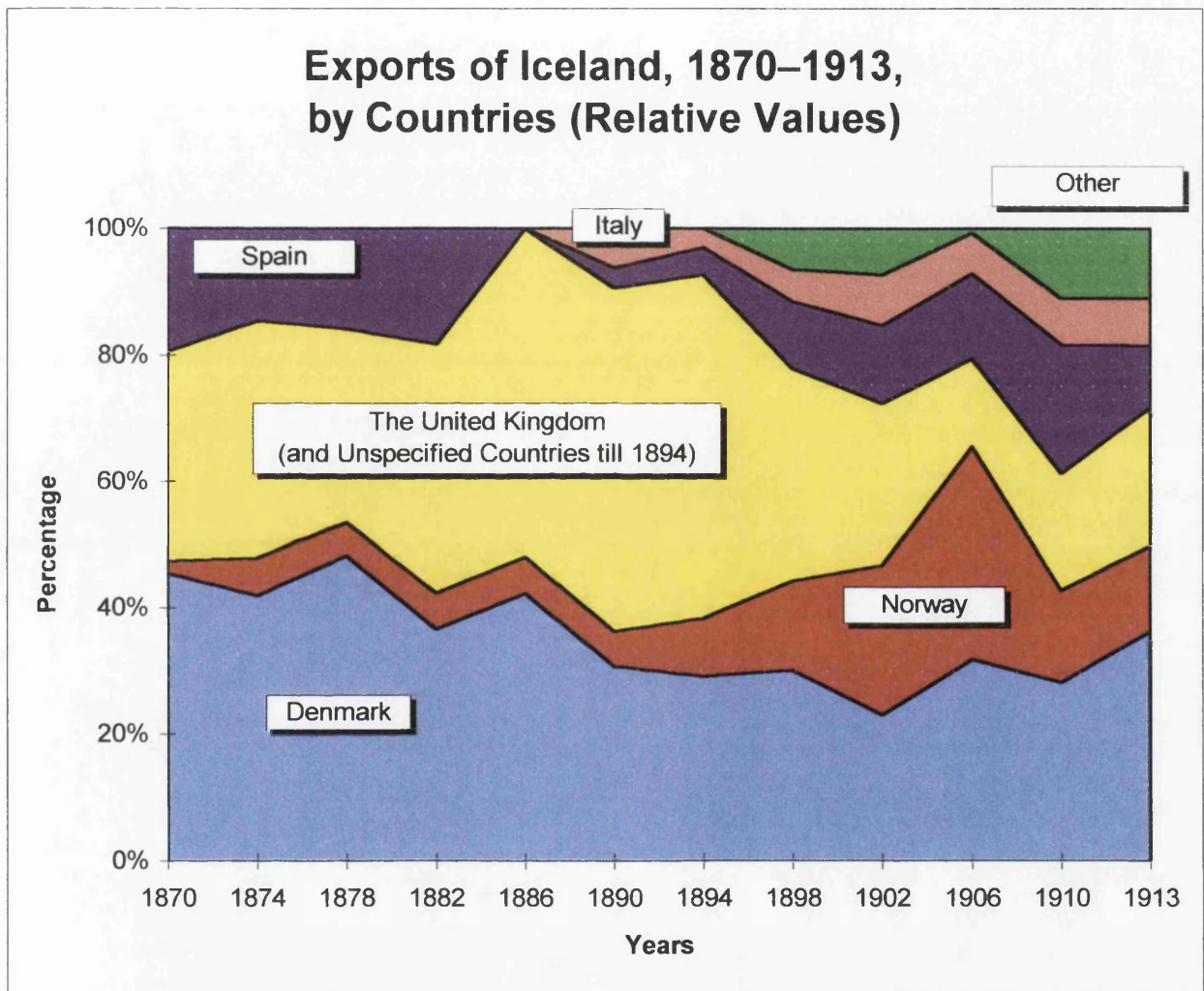
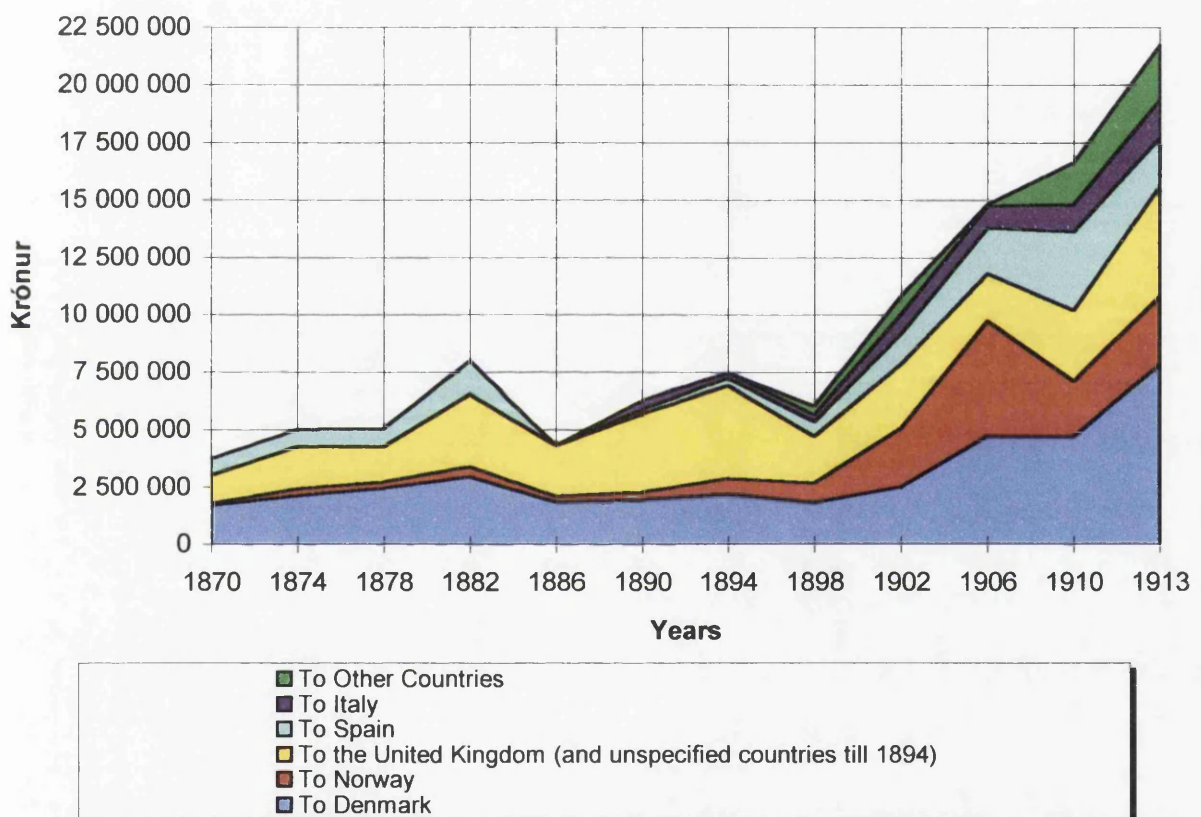


Figure IV.29

Exports of Iceland, 1870–1913, by Countries (Absolute Values)



reached its peak in 1906, when Norway took 33% of the total exports by value. Thereafter, Norway's share declined — to 14% in the end of the period.¹⁹¹

Incidentally, as we will become clear below, most of the shifts concerning the other markets countries were related to the saltfish branch. In 1870, Spain had some 20% share in Iceland's exports by value, and the remaining portion, about 35%, went to the United Kingdom and other, unspecified countries, which formed the category 'UK and others.' The shares of these countries and, in fact, of Norway and Denmark too, remained relatively stable until the mid 1880s. Due to termination of commercial treaties, the Spanish market was closed and the 'UK and other countries' temporarily took over Spain's share. Around 1890, Spain had started to buy saltfish again and Italy, which was a new market, became a market country for Icelandic saltfish as well. In the 1890s onwards, Spain and Italy, besides unspecified countries, increased their share in Iceland's exports while that of the UK fell very much. The outcome of all these changes was that instead of three relatively large market countries in 1870 where one had as much as 40%, Iceland had five main markets in 1913, besides the category Other countries. Then, all of them purchased sizeable portions of the exports values, and the share of none of them exceeded 30% by value.

The other way of examining this diversification in Iceland's exports by countries is to concentrate on the staple items one by one and see if and to what extent there were changes in the buyers' group over time. From this point of view, we can discern an interesting pattern. Initially, there was a substantial specialisation where each staple usually had one principal market country. In the case of saltfish, Spain was the main market (Fig. IV.23), while unspecified countries in the category 'UK and other countries' took the herring (Fig. IV.25). Also, Denmark was the principal market for

¹⁹¹ Table A.EXP/ALL-5.

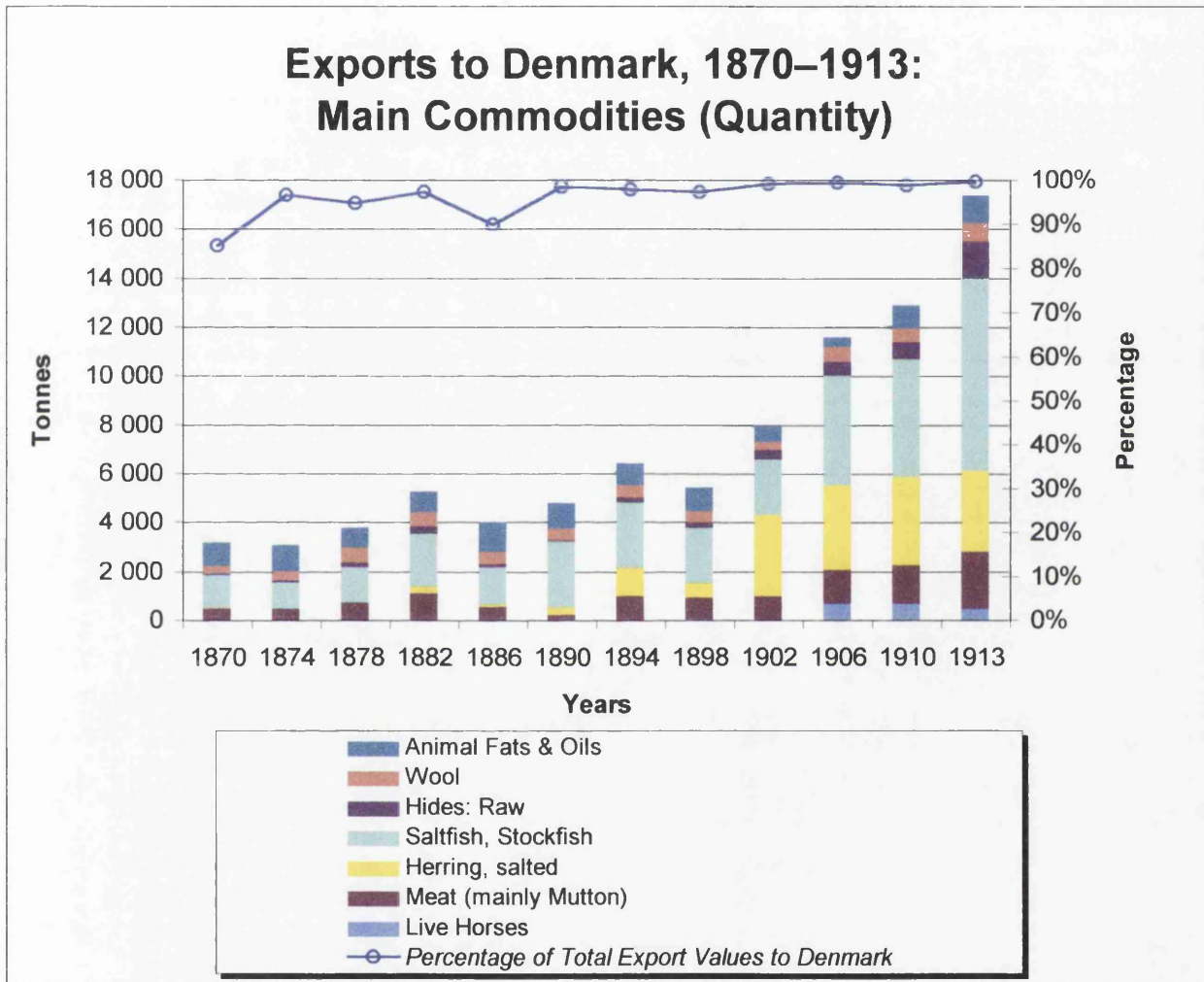
mutton (Fig. IV.14), and fish oil and tallow (Fig. IV.7), besides wool (although the UK was quite significant there; Fig. IV.12). However, over time a clear diversification took place where each staple was marketed to a significant extent to more than one market country. The timing of this change varied, because the circumstances were specific to each staple, but the turning point was between the mid 1880s and around 1900.

Looking across Iceland's staple exports, this diversification becomes clear. After 1886, Spain lost her dominant position in Iceland's saltfish exports, and ever increasing diversification in terms of market countries set in. By 1913, Denmark was the largest buyer but three other countries nearly as large. From 1900 onwards, the market countries for wool diversified, and although Denmark still was the largest buyer in 1913, the UK and Other countries had become considerable markets for wool too. In the case of fish oil and tallow, three countries were equally large buyers in 1913 instead of only one in 1870. Mutton export were much affected by live sheep sales in the 1880s, and Denmark became practically the only market for a short while, but from the early 1890s Norway became a noteworthy buyer too. Herring exports did not take off until after 1900, but the diversification was explicit there because the herring had three substantial markets in 1913 instead of only one around 1900 (Fig. IV.25).

IV.4.2. Denmark

From 1870 until the 1890s, the staple goods exported to Denmark were, in terms of quantity, saltfish, and, to a lesser extent, animal oils and fats (Fig. IV.30). Wool and mutton were minor items of the trade. Around 1900, this relative composition changed

Figure IV-30



considerably when exports of herring suddenly increased. Saltfish remained the staple export commodity but herring was second while other commodities, new (live horses) and previous, were relatively insignificant. The reason for the start of herring exports to Denmark is not clear in Matthías Þórðarson's work, the one and only major study of the herring industry in Iceland in our period. There are two or three plausible causes; maybe it was a combination of them. The herring that was caught with either drift nets or seine nets (also named ring nets) in the open sea was usually larger than the herring that had been caught with the barrier seine closer to land. Because of this the German market was lost for Icelandic herring after 1900. Also, the Icelandic herring was considerably cheaper than Dutch herring, which was consumed in Denmark among other countries. Lastly, new business patronage with Danish firms after 1900 may have been a complementary cause.¹⁹²

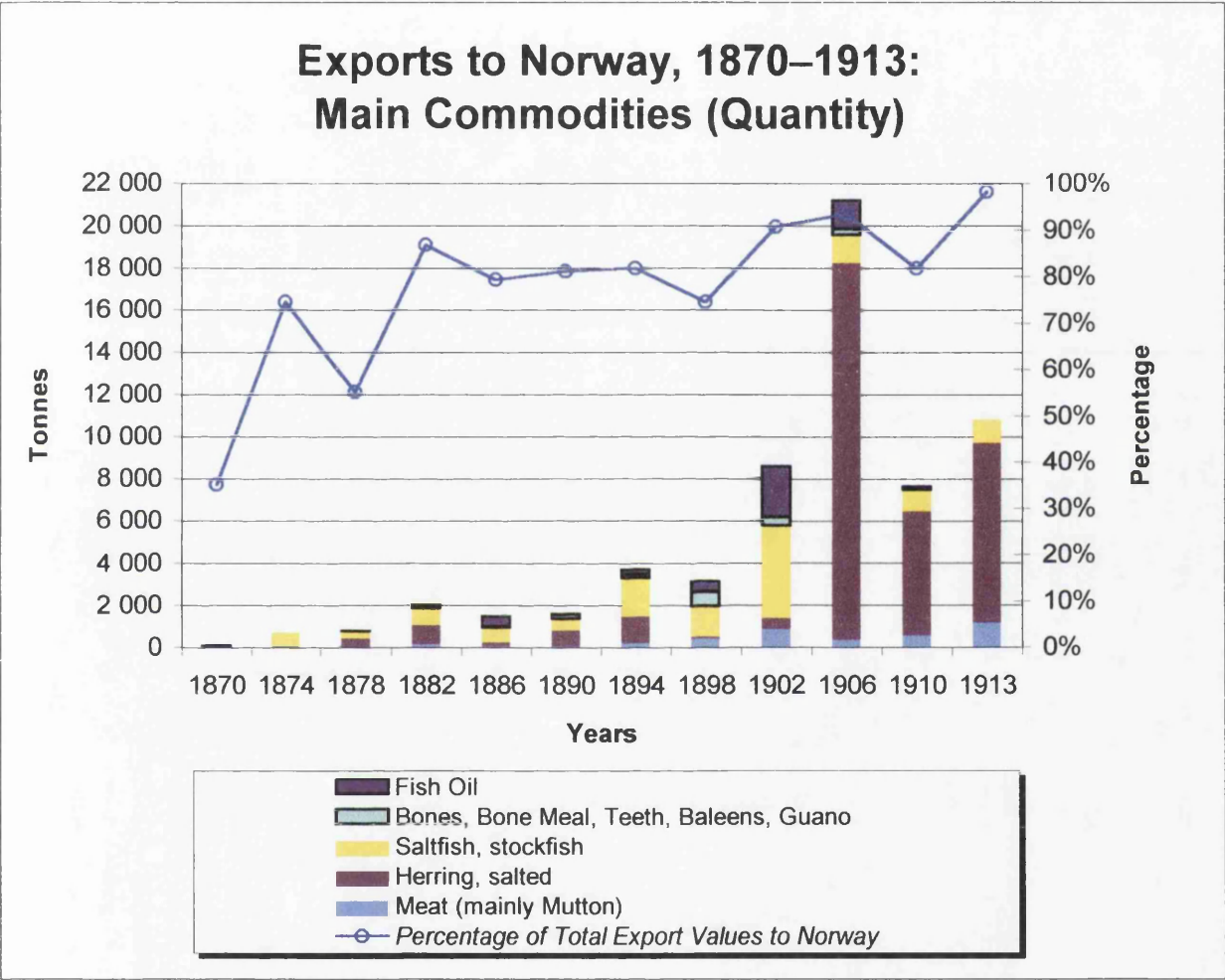
IV.4.3. Norway

Even though our information about the export trade with Norway until 1886 (and in the year 1898) is partly based on estimates and educated guesses, there is no doubt that the major exports to Norway from 1870 to 1902 were saltfish and, not surprisingly, herring (Fig. IV.31). However, the exact quantities of saltfish and herring involved are more difficult to ascertain before 1898.¹⁹³ For reasons that are not fully clear, the 1890s and early 1900s were a time of rapid changes in the export trade with Norway. In 1894–

¹⁹² Matthías Þórðarson, *Sildarsaga Íslands* (2nd ed.), pp 256–7, 265–7, 326–7.

¹⁹³ Norwegian trade returns (imports).

Figure IV.31



1902 the value of saltfish was suddenly many times larger than before. Thereafter, herring dominated the exports and the saltfish exports contracted.

The reasons for the unusually large exports of saltfish in the 1890s and the early 1900s were basically three. Icelandic saltfish had since the 1870s been imported to Norway (Fig. IV.31), because it was often of better quality¹⁹⁴ and it was always cheaper than Norwegian saltfish (Fig. IV.24). Also, Norway had better communication with Spain and by the early 1890s Norwegians had started buying Icelandic fish to sell at those times in Spain when there was no Icelandic fish available.¹⁹⁵ In 1893, Norway made a commercial treaty with Spain where the Spanish tariff for saltfish from Norway was reduced, certificates for origin of the saltfish were not demanded in Spain, and scheduled steamship routes between the countries started. As it happens, the tariff for saltfish from Norway was raised by one third and this made Icelandic saltfish in the Spanish market cheaper than Norwegian saltfish.¹⁹⁶ Because of this and since origin certificates were not needed, the Icelandic saltfish suddenly became much more attractive for Norwegian merchants than before. This and the improved communication with Spanish harbours clearly resulted in more exports of Icelandic saltfish to Norway and then to Spain. In a sense, increased purchases of Icelandic saltfish by the Norwegians eventually contributed to their loss of the best part of the Spanish market, namely Barcelona and the Catalonia region for in this way the Norwegian merchants introduced Icelandic saltfish to their consumers in the markets, and Icelandic saltfish was usually better cured than Norwegian saltfish. Also, Icelandic saltfish was of a type that was more to the taste of the consumers in Barcelona and the Catalonia region, and in both

¹⁹⁴ O. Vollan, *Den norske klippfiskhandels historie*, pp 264, 274, 275, 276, 333.

¹⁹⁵ D. Thomsen, 'Sala á íslenskri vöru,' pp 181–2.

¹⁹⁶ O. Vollan, *Den norske klippfiskhandels historie*, pp 311–13, 314, 315, 317, 336.

places quality, not price, was the main issue.¹⁹⁷ Hence, around 1900 the Icelandic saltfish was much more in demand than before in these places.

Around 1900 or shortly after, circumstances within the saltfish industry in Iceland changed for the worse for Norwegian merchants. Competition for saltfish increased within Iceland. Also, communication with Spain had improved very much since the mid 1890s, with cargoes of Icelandic saltfish being transported there more often and regularly over the season. Furthermore, Icelandic saltfish was sold in consignment, not in advance as the Norwegian saltfish, and its buyers in Spain were fewer than buyers of Norwegian saltfish. For a considerable time, the Norwegians had sold both to wholesalers and retailers in Spain, thereby upsetting the first. Icelandic saltfish had, conversely, long been sold to the wholesalers and continued to be so, although Icelandic exporters made attempts to bypass them.¹⁹⁸ All this made sales of previous quantities of saltfish from Iceland to Norway impossible and they decreased sharply between 1902 and 1906 (Fig. IV.31), suggesting that the main change happened then.

While the exports of saltfish from Iceland to Norway diminished after 1902, the herring exports soared and the year 1906 had by far the largest quantities of our sample years (Fig. IV.31). The main reason for the increased herring exports was the revived herring fishing with drift nets and, later, seine nets by Norwegians in Icelandic waters.¹⁹⁹ But many of the fishing vessels after 1900 were steam ships, which increased the catches also.²⁰⁰ Even though the export figures for Norway exaggerate the shift in herring

¹⁹⁷ O. Vollan, *Den norske klippfiskhandels historie*, pp 277, 335–6, 342, 344–5, 348. D. Thomsen, 'Sala á íslenskri vöru,' pp 184, 195.

¹⁹⁸ O. Vollan, *Den norske klippfiskhandels historie*, pp 266, 333, 342 (the latter table), 345–6, 348. D. Thomsen, 'Sala á íslenskri vöru,' pp 181, 184–5, 186, 193, 193–4.

¹⁹⁹ Matthías Þórðarson, *Síldarsaga Íslands* (2nd ed.), p 271. K. Shetelig Hovland, *Norske Islandsfiskere*, p 100.

²⁰⁰ Matthías Þórðarson, *Síldarsaga Íslands* (2nd ed.), p 197. See also K. Shetelig Hovland, *Norske Islandsfiskere*, pp 44–79, 84–90.

catches in the period before and after ca 1900 (cf. Fig. IV.25), the significance of the new techniques is well implied in the graph.

IV.4.4. Spain and Italy

Spain was a significant market country for Iceland from at least the late 18th century. This was not because Spain bought many commodities from Iceland. It only bought one item — and that was saltfish. Nearly all saltfish from Iceland in the 1870s and early 1880s was sold for final consumption in Spain, both directly and as re-exports through other countries.²⁰¹ Given this and the large proportion of saltfish within Iceland's exports, Spain was a very important country in foreign trade. According to our calculations, direct exports of saltfish to Spain (either shipped directly or transhipped without clearing customs in intermediate ports) appears to have been 16 to 20% of total export values in 1870–82 (Fig. IV.28).²⁰²

Throughout the 19th century in Spain, tariffs fluctuated considerably and usually were subject to bilateral treaties between respective exporting countries and Spain. In fact, tariff affairs were marked by a struggle between protectionist and liberal forces in the politics of Spain.²⁰³ In 1868 and 1869, when there was a liberal government in power in Spain, step were taken towards more liberal imports and customs treatment,

²⁰¹ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, various places, e.g., pp 22–3, 26, 32–3, 40.

²⁰² Table A.EXP/ALL-5.

²⁰³ S. Ryan, *Fish Out of Water*, ch. 4. O. Volla, *Den norske klippfiskhandels historie*, pp 270–73. Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, p 56.

namely with lifting a special due (*surtaxe*) on merchandise brought in other ships than Spanish and abolishing a due (differential tariff) on indirect exports, i.e., re-exports. Denmark and other countries shortly signed shipping and commercial treaties with Spain, which offered most-favoured nation treatment, etc. Even though the Danish-Spanish treaty from 1872 strictly speaking did not apply to Iceland, it did so in practice and it does not seem to have affected Iceland's exports to Spain adversely.²⁰⁴ Anyway, there were no apparent complaints by contemporaries and, moreover, exports of saltfish from Iceland to Spain clearly increased from 1870 to 1882 (Fig. IV.32).

By the late 1870s, protectionist forces had come to power in the Spanish government and the policy was to raise tariffs, which new tariff legislation in 1877 made explicit.²⁰⁵ Later, in 1881, all current Spanish treaties with other countries were terminated and in 1882 new and higher tariffs came into force unless individual countries made new treaties with Spain.²⁰⁶ Therefore, to reduce tariffs bilateral treaties were necessary and many countries managed to come to terms with the Spanish government. Most important for Iceland because of its saltfish trade, France and Norway did so in 1878 and 1882 respectively.²⁰⁷ After the Danish-Spanish treaty of 1872 was terminated

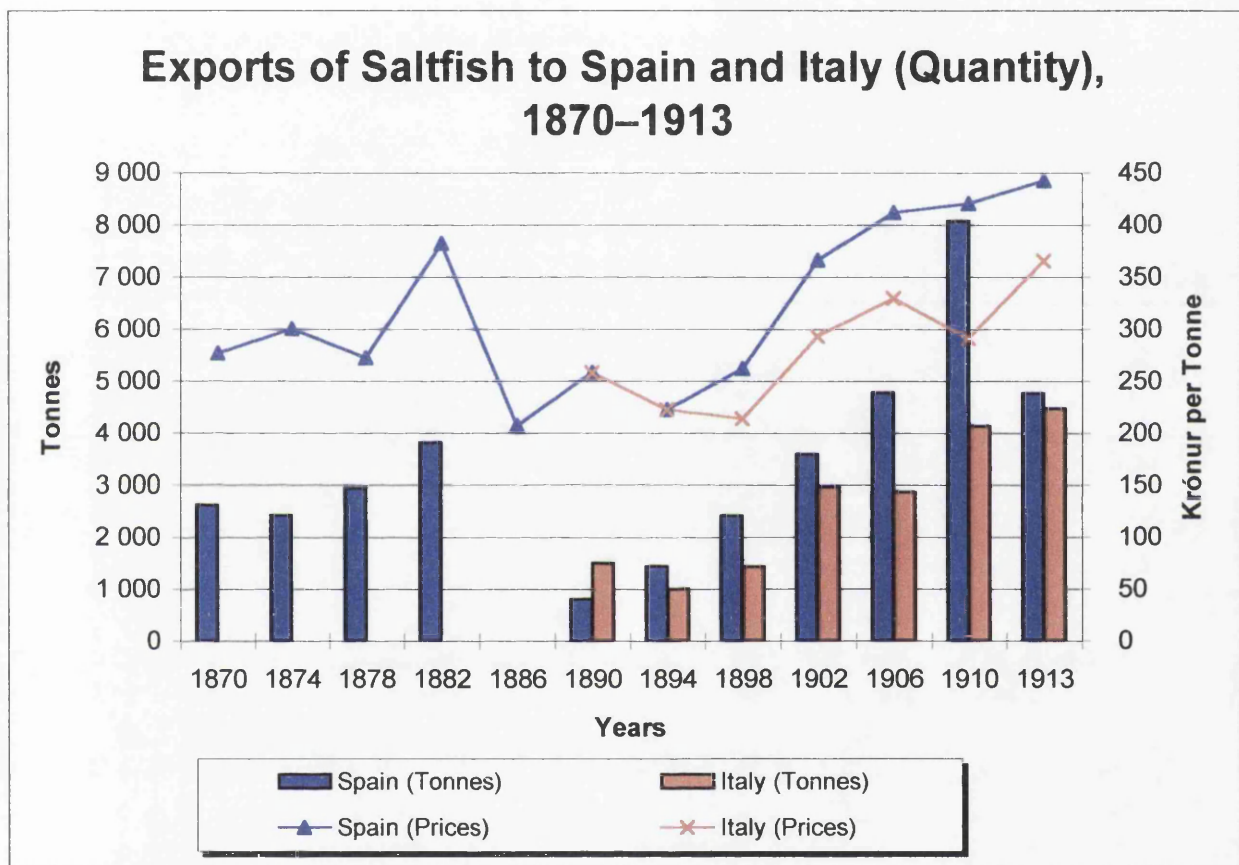
²⁰⁴ Fr. le Sage de Fontenay, 'De ældre Traktatforhandlinger,' pp 58–9. — In a letter to the governor general of Iceland (*landshöfðingi*) the Home Ministry of Denmark (*Indenrigsministeriet*) interpreted the treaty as applying to Iceland also, although colonies and dependencies were explicitly excluded in the treaty (Icel., Gov. Gen., *Stjórnartíðindi* 1879, sect. B, pp 161–2).

²⁰⁵ S. Ryan, *Fish Out of Water*, pp 132–4. — There seems to be a confusion in S. Ryan, *Fish Out of Water*, about the saltfish tariff in Spain before and after the new tariff legislation in 1877. After the reforms in 1868–69 it was 17.50 pesetas per 100 kg (Icel., Gov. Gen., *Stjórnartíðindi* 1879 B, p 161). With the protectionist legislation in 1877, it probably became 23.50 pesetas per 100 kg except for those countries that had a bilateral treaty, in that case it was 18.70 pesetas per 100 kg (cf. S. Ryan, *Fish Out of Water*, p 134). (This was certainly so in 1882 onwards, cf. O. Vollan, *Den norske klippfiskhandels historie*, p 272, and D. Thomsen, 'Sala á íslenskri vöru,' p 183.) This information runs counter to Ryan's claim that the saltfish tariff was 17.50 pesetas per 100 kg after 1877 (cf. p 133) because his sources estimate this tariff to be about 8s sterling per cwt which Ryan says was the ordinary tariff before 1877 (cf. p 132).

²⁰⁶ Fr. le Sage de Fontenay, 'De ældre Traktatforhandlinger,' pp 59–60.

²⁰⁷ S. Ryan, *Fish Out of Water*, pp 134–5, 144. O. Vollan, *Den norske klippfiskhandels historie*, pp 271–2.

Figure IV.32



in 1881, attempts were made to negotiate a new one but the Spaniards wanted in return a reduction in Danish tariffs for Spanish goods. The Danish government and Danish parliament disagreed on this point, partly due to a constitutional power struggle between them, and the negotiations ended in a stalemate.²⁰⁸

After 1882, with no Danish-Spanish treaty valid, Iceland's competitive position was weakened.²⁰⁹ Then, when France enjoyed a colossal expansion in its saltfish exports to Spain in the 1880s and into the 1890s, the situation was aggravated. France seriously squeezed Norway's share of the saltfish market, although both nations had the same tariffs for their fish. This was because the French government operated an extensive bounty system for fishing and saltfish export.²¹⁰ Iceland, being still worse off than Norway because of a higher tariff, thus had a very hard time in the Spanish market with its saltfish from 1882 onwards as the fall in the export quantities thereto in 1886 confirms (Fig. IV.32). Probably, the competition from France was more deleterious than the higher tariff.

The price of saltfish in Copenhagen, predominantly of Icelandic origin, automatically reflected this situation. During 1874–82 the price of saltfish was 0.30–0.40 kr. per kg, in 1884 0.28 kr, in 1885 0.25 kr., and in 1886 0.15 kr per kg.²¹¹ It is obvious that the year 1886 was catastrophic in terms of the saltfish price. The general causes for this downswing were both the higher tariff for Icelandic saltfish and,

²⁰⁸ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, p 61.

²⁰⁹ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 59–60.

²¹⁰ O. Volla, *Den norske klippfiskhandels historie*, pp 268–70, 275–6, 277, 334–5. S. Ryan, *Fish Out of Water*, pp 135–6, 138–42.

²¹¹ Danish trade returns (imports). See Denm., Bur. of Stat.: *Statistisk Tabelværk*, 3rd series, vol. 33, p 92; *Vare-Indførselen og Udførselen* 1880, p 118; *Kongerigets Vare-Indførsel og Udførsel* 1884, p 184, and 1885, p 186. — The years 1870 to 1873 are not included because imports and exports were not valued in the Danish trade returns until 1874 onwards; the values for 1870 I use in my Denmark dataset are reconstructed (see introductory text in Appendix A to the thesis).

presumably more importantly, the competition from France. But the Copenhagen price slumped so heavily in 1886 also because of unusually adverse conditions in North of Spain where Icelandic saltfish was mainly sold. In 1885 it was plagued with cholera and had a poor cereal harvest affecting both people's purchasing power and consumption level.²¹² But the slump was probably mainly a market reaction to news of a British agreement with Spain, as we shall see.

The Danish government was not the only one struggling with the Spanish government to reach more favourable tariff treatment for their imports to Spain. British products and manufactures, which included Newfoundland saltfish, were hard hit by discriminatory treatment of their goods and the British government tried for several years to negotiate with the Spanish government. In early 1886, a new commercial treaty was signed between the British and Spanish governments where they gave each other most-favoured nation treatment in terms of tariffs for the goods of both.²¹³ This was of importance because a few years earlier Spain had made a treaty with the United States where certificates of origin for goods from ports in the exporting country were not necessary.²¹⁴ Therefore, Icelandic saltfish, as any other non-British commodity, could be exported from Britain to Spain.

We do not know how large saltfish exports to Spain were between our sample years of 1882 and 1886, because of their relatively long (four years') intervals, but my calculation implies that direct exports from Iceland to Spain in the year 1886 were practically wiped out (see Table A.5 in Appendix A). Instead, the saltfish destined for Spain went to Britain. The quantities usually going directly from Iceland to Spain in

²¹² Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 64, 65. S. Ryan, *Fish Out of Water*, p 137. O. Volla, *Den norske klippfiskhandels historie*, pp 276–7.

²¹³ S. Ryan, *Fish Out of Water*, pp 134–5.

²¹⁴ S. Ryan, *Fish Out of Water*, p 135. O. Volla, *Den norske klippfiskhandels historie*, p 272.

1870–82 were now added to Britain's customary quantities, while the quantities to Norway and Denmark in 1886 were similar to those in previous sample years.²¹⁵ Hence, as if by stroke of fortune, Britain's commercial treaty with Spain in April 1886 provided an important outlet for Iceland's exports of saltfish to Spain for the very next years to come. This was because things were at standstill in negotiations between the Danish and Spanish governments and it was not until 1893, after the Danish political stalemate had been solved, that the two countries signed a new commercial treaty, similar to the one between Britain and Spain.²¹⁶

Saltfish exports from Iceland to Spain were no doubt relatively small while they were being discriminated against by Spain's tariff system and its commercial conventions with other saltfish producing nations.²¹⁷ Our calculation for 1890 supports this²¹⁸ and also the existence of substantial saltfish exports to Italy (Fig. IV.32), a new market country discussed later in this section. The new commercial treaty between Spain and the Danish Kingdom, signed in 1893, became valid in 1894 and consequently, saltfish exports to Spain increased once again, probably slightly at the expense of Italy (Fig. IV.32) and certainly at the expense of exports to Britain. Exports to Spain and Italy were higher in 1898 and still more so in 1902, when the situation was in a sense back to normal because the share of both countries was close to the 20% of export values that Spain had before 1886. Until the end of the period, direct exports of saltfish to the two

²¹⁵ Table A.EXP/ALL-3.

²¹⁶ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, p 63.

²¹⁷ D. Thomsen, 'Sala á íslenskri vöru,' p 182. — O. Vollan in his *Den norske klippfiskhandels historie*, p 278, says that Icelandic saltfish only amounted to 6% of Spain's imports of saltfish in 1887 as against 22% in 1882. It is probably indicative of the portions although they cannot be verified because Vollaen does not refer to his source here.

²¹⁸ My estimate is in line with O. Vollaen, *Den norske klippfiskhandels historie*, p 278 (table), although his figure includes saltfish imports from the Faroe Islands, Shetland, and Scotland as well.

countries remained rather stable in terms of aggregate export values, round about 20%, although in absolute terms exports were growing.

The reinforced commercial relations of Iceland with Britain in the late 1880s onwards proved helpful for the marketing of Icelandic saltfish in one particular way. According to a contemporary British consular report from Italy, Icelandic saltfish appeared as a new product in the Italian market in 1887.²¹⁹ It cannot be a coincidence that this happened immediately after the difficult year of 1886. Furthermore, this is probably a consequence of the British relations because the British definitely had more commercial communication with Italy than Denmark did. For instance, Genoa and Leghorn, the principal ports for Icelandic saltfish, were large importers of British produce, especially coal. This fact may have a connection with Iceland's trade with Britain. In any case, this evolution was fortunate for Icelandic saltfish industry because it was risky to depend on one saltfish market only, as the happenings in Spain had revealed. An Italian market not only spread the risk for saltfish producers, but it also helped them diversifying their product because the Italian market preferred a small size codfish, something for which there was not much an export market before that time. Consequently, the entry into Italy probably helped to start a new cure in Iceland, the Labrador Style curing.

In 1893, an export of a new type of saltfish was started on the initiative of an Englishman, Pike Ward. Until then, only the large and medium size codfish had been reserved for export and it was fully dried after salting. What Ward wanted was a small cod, split in slightly different way than was customary, and only dried up to three quarters. This cure was an imitation of one that was traditional in Labrador, Canada, and the Icelandic type soon got the name Labrador Style in the markets (usually called

²¹⁹ UK, FO, *Italy: Report for the Year 1888 on the Trade of Genoa* by M. Yeats Brown, p 7.

‘Labri’ or ‘Labradorfiskur’ in Iceland).²²⁰ It was cheaper than other salted codfish and was especially favoured in Italy. This trade grew slowly but from around 1910 onwards it soared, so that it amounted to about 27% of all saltfish exports by quantity in 1913.²²¹ Spain, indeed, also was importer of Labrador Style saltfish by 1910, but it is unclear to me when it started buying it.²²² At that time, the taste of consumers in Italy, especially, and in Spain was moving towards softer cures and, furthermore, exports of ‘ordinary’ saltfish only dried up to about 7/8 of the fish’s water content were started from Iceland to Spain in 1912.²²³

IV.4.5. The United Kingdom and Other (Unspecified) Countries

What was not exported to Denmark, Norway, Spain, and Italy went mainly to the United Kingdom. Although it is difficult in the present state of research to prove this decisively for the years down to the sample year 1898, contemporary qualitative sources in the 1870s and 1880s never mention other countries trading with Iceland other than those

²²⁰ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 200–201. Denm., Min. for For. Affairs, ‘Fiskimarkaðurinn í Genua 1911. Skýrsla ... eftir [J.] Ar[f]wedson konsúl,’ p 55.

²²¹ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 256–7, 262, 268. For prices of Labrador Style as against other kinds of Icelandic saltfish, see printed Icelandic trade returns (cf. bibliography).

²²² Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 255, 261.

²²³ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 201–02. Halldor Bjarnason, ‘Iceland’s Success in the International Saltfish Markets,’ pp 99–102.

above (although there were occasional shipments to other countries).²²⁴ The small share of other (unspecified) countries in Iceland's exports in 1898, when they are separated from the UK in our sources for the first time, also hints at this. At only 6% of total exports by value, they do not appear to have been particularly significant in Icelandic trade before 1898.²²⁵ However, because we cannot separate the UK from all the other countries in this group receiving exports from Iceland before 1898, we must consider all of them as a residual category that we will term as 'UK and others'. A further word of caution must be offered about this group. Its share of Iceland's trade for 1870–94 is partly estimated, and includes a declining rate of underreporting (see introductory text in Appendix). The estimated rate of underreporting was as high as 17% in 1870, from which it declined at an even rate down to 10% in 1898. While allowing for some margin of error, especially for the 1870s and 1880s, my calculations should be reasonably accurate for the proportions in trade between the main destinations of the exports but probably less so in the terms of individual goods in the export trade.

This group of countries — the United Kingdom and other countries — received a large part of Iceland's exports (Fig. IV.28). In 1870 this amounted to 30–35% by value and it stayed generally on that level until 1886–94 when it rose to more than 50% (ca 50–54%). Subsequently, however, the share of the UK and the unspecified countries fell rapidly although in absolute terms the export values remained fairly constant (Fig. IV.29). In 1902–13, the share of the UK ranged from 14 to 26% and this was notably lower than in the pre-1886 era, when it was between 31 and 41% by value.²²⁶ These

²²⁴ UK, FO, 'Denmark: Iceland: Report by Consul Crowe on the Trade and Fisheries of Iceland for the Years 1870–71,' p 647. UK, FO, 'Denmark: Iceland: Report by Consul Paterson on the Trade, Navigation, Industries, &c. of Iceland for the Year 1882,' p 2141.

²²⁵ Table A.EXP/ALL-5. This percentage is, moreover, probably too high because in this group were subsumed all unidentified exports from Iceland 1898–1913 (see introductory text in Appendix A).

²²⁶ Table A.EXP/ALL-5.

figures imply a certain decline in the export trade with Britain, something which is interesting because trade with that country was very much favoured by Icelanders and Britain was important, both for exports and imports. That turns the focus to the commodity composition of the trade.

In the 1870s, the single largest commodity exported to the 'UK and others' was saltfish and it dominated the exports thereto (Fig. IV.33). Then, from 1882 until 1894, exports of two items increased greatly, namely live sheep and saltfish, and we have discussed their causes in this chapter. Herring exports increased too but they were almost certainly exports to the unspecified countries in the group.²²⁷ Hence, Britain was not new as a saltfish market in 1886, when the extraordinary circumstances in the saltfish trade pertaining to Iceland and Spain made Britain still more important. In fact, the swift and absolute turn around in the export route from Spain to Britain would hardly have been possible if there had not had been well-established commercial relations with Britain.

Exports of live sheep and saltfish to Britain dwindled after 1894 as we have already discussed in the chapter. In the circumstances, some contraction in the overall export quantities was inevitable. Britain itself closed down the live sheep trade, and the saltfish was bound to revert to some extent to former pattern, i.e., with more direct exports of saltfish to Spain. Nevertheless, it is noteworthy that Britain generally kept its share in the saltfish trade compared to the pre-1886 period.²²⁸ The greater exports of animal oils and fats from 1894 onwards, however, did little to increase Britain's share in the total exports by value because their prices had fallen by then compared to the pre-1880s.²²⁹ Presumably, this applied mainly whale oil, for which Britain and Norway were

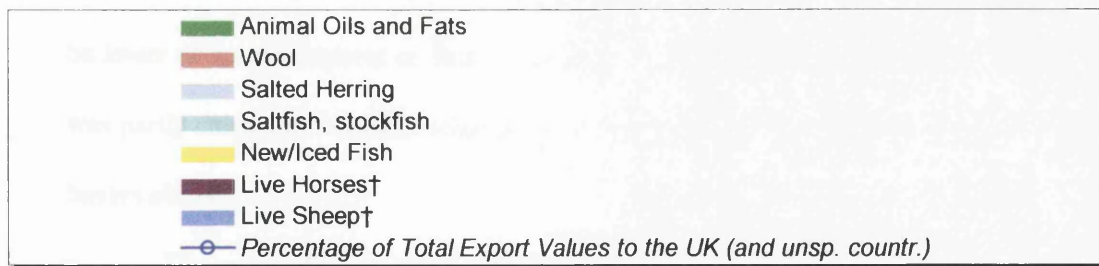
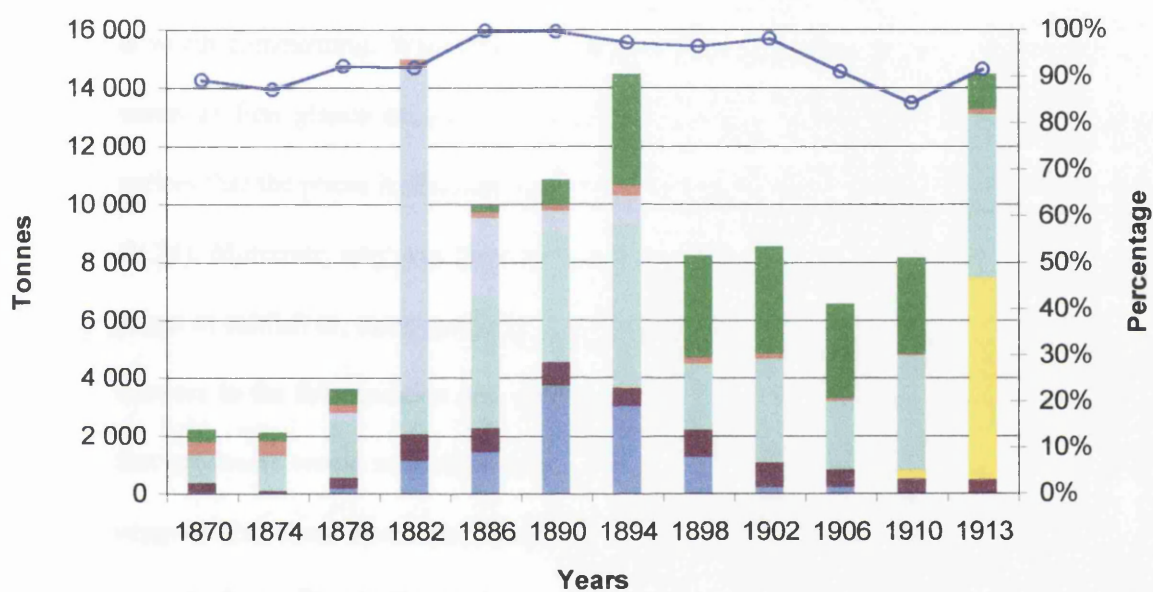
²²⁷ D. Thomsen, 'Sala á íslenskri vöru,' pp 236–7.

²²⁸ Table A.EXP/ALL-7.

²²⁹ Table A.EXP/ALL-9.

Figure IV.33

Exports to the United Kingdom, 1870–1913, and Unspecified Countries, 1870–94: Main Commodities (Quantity)



the main markets. Also, after the processing of whale meat and whale bones into meal started, it was mostly exported to Britain and Norway.²³⁰ But prices of meal were relatively low so this product did not either enlarge markedly Britain's share in the export values.²³¹ Our dataset for Britain reflects these meal exports to some extent at least, but it should not be taken as representative of the quantities or the years because information about these goods and others are not as reliable as the datasets for the other countries.

Before concluding our discussion about exports to Britain there is one issue that is worth commenting. Why Britain continued to receive saltfish after 1900, as before, seems at first glance an odd question but this becomes an interesting one when one notices that the prices it obtained in Britain were lower than in Denmark at the time (Fig. IV.24). Moreover, why was there in Britain a larger gap between the import and export prices of saltfish or, more precisely, 'cured fish,' than in Denmark or Norway? I have no answers to the first question and can only speculate about the second. One would think that producers would sell where they received the highest price, other things even. This suggests that there was some advantage selling to Britain, an advantage that was not present when selling to Denmark in spite of higher nominal prices, and this can possibly be lower prices on imports or better imports. A complementary explanation is that this was partly caused by business relations of the exporters, both to producers in Iceland and buyers abroad.

The unspecified group of 'Other countries' certainly had a relatively little share in Iceland's exports even in 1913 (Fig. IV.28), but exports thereto show two shifts that require explanation. The export quantities were rising fast from 1898 onwards but the

²³⁰ Trausti Einarsson, *Hvalveiðar við Ísland*, pp 63, 64–5. Tables A.EXP/ALL-2 and A.EXP/ALL-3.

²³¹ Table A.EXP/ALL-9.

year 1906 was very much out of trend, because the exports were negligible (Fig. IV.34) and this was caused by the practical disappearance of saltfish from past exports thereto.²³² Investigation of the trade datas implies that the main reason for this is that total exports of saltfish (fish catches) dropped in 1906 compared to the last sample year, 1902 (Fig. IV.23). This suggests that exports of saltfish to this category of countries were a residual and that the other countries were in a better position to buy saltfish.

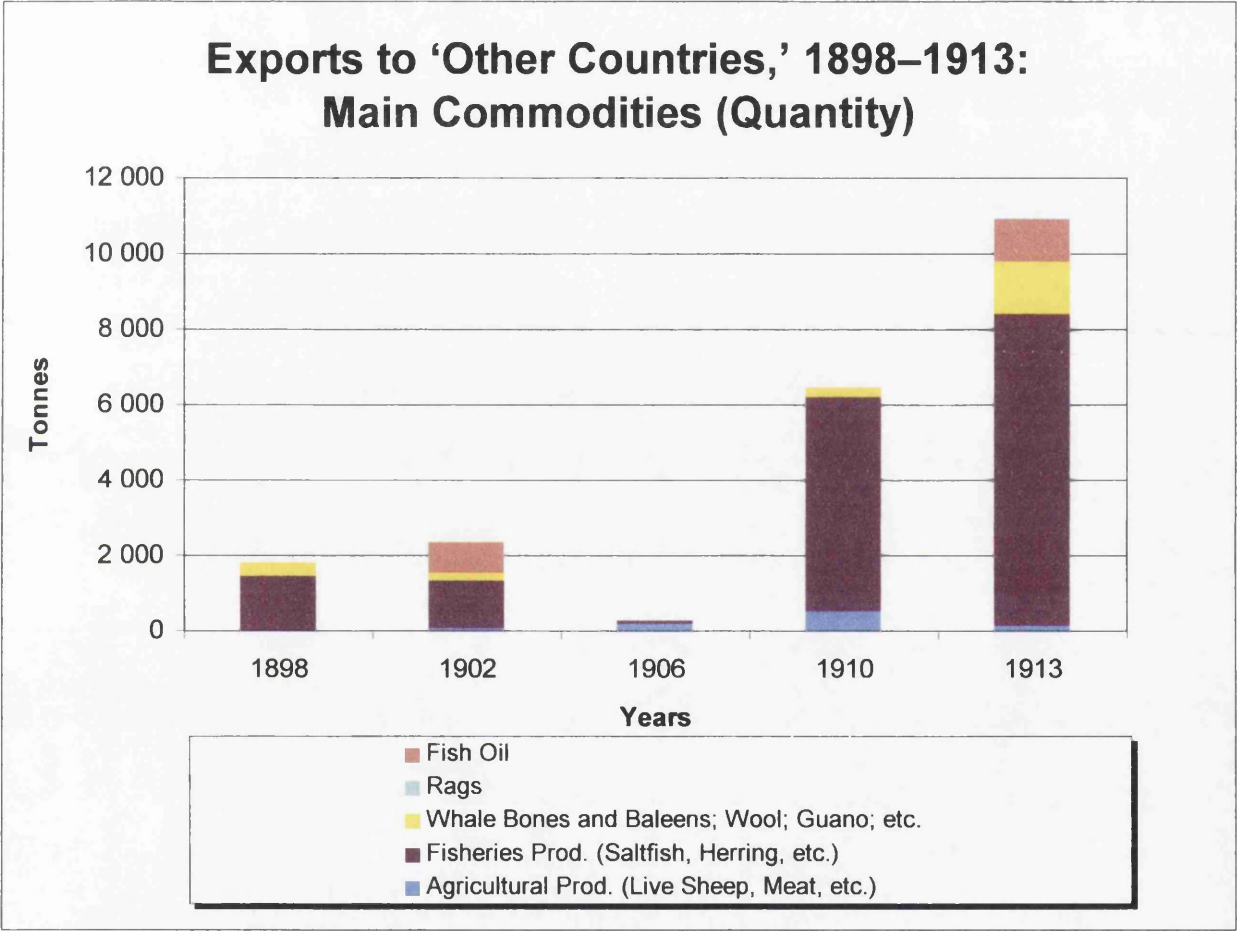
The other shift in exports to 'Other countries' is that the overall exports soared after 1906 and were on a much higher level in 1910–13 than before (Fig. IV.34). This was mainly caused by greater exports of fish products, more precisely exports of herring.²³³ The reason for this is obscure to me but it is possible that this rise in herring exports to 'Other countries' was partly at the expense of Norway's taking of herring from Iceland. Note that although exports of herring fluctuated in 1906–13, they were much greater in these years than before (Fig. IV.25). Norway dominated in these exports in 1906 but it appears that was subsequently checked by 'Other countries' rising share in these exports. But it is also possible that the larger share of this category is a statistical error. The trade returns show that the herring went to Sweden in 1910 and 1913 but it is possible that exports to Sweden were in fact grouped with exports to Norway in the returns before this time (Sweden is not specified individually until 1909).²³⁴ Hence, 'Other countries' or, more precisely, Sweden may have become a significant buyer before 1910, and almost certainly some of Norway's imports of herring from Iceland were re-

²³² Table A.EXP/OTH-2.

²³³ Table A.EXP/OTH-2.

²³⁴ See Icelandic trade returns for the relevant years. Note also that imports from Sweden were not distinguished from imports from Norway and all imports from these countries assigned to Norway (Icel., Min. of Icel., *Landshagsskýrslur fyrir Ísland 1905: Verzlunarskýrslur* 1904, p 9).

Figure IV.34



exported to Sweden and the Baltic countries, to which Sweden may also have re-exported some of its herring imports from Iceland.

**The Foreign Trade of Iceland, 1870-1914:
An Analysis of Trade Statistics and
a Survey of its Implications
for the Icelandic Economy**

by

Halldor Bjarnason, cand.mag.

A thesis submitted in partial fulfilment of the requirements
for the degree of Doctor of Philosophy

Volume Two

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Chapter V

Imports of Iceland, 1870–1913

V.1. Outlines of Iceland's Imports

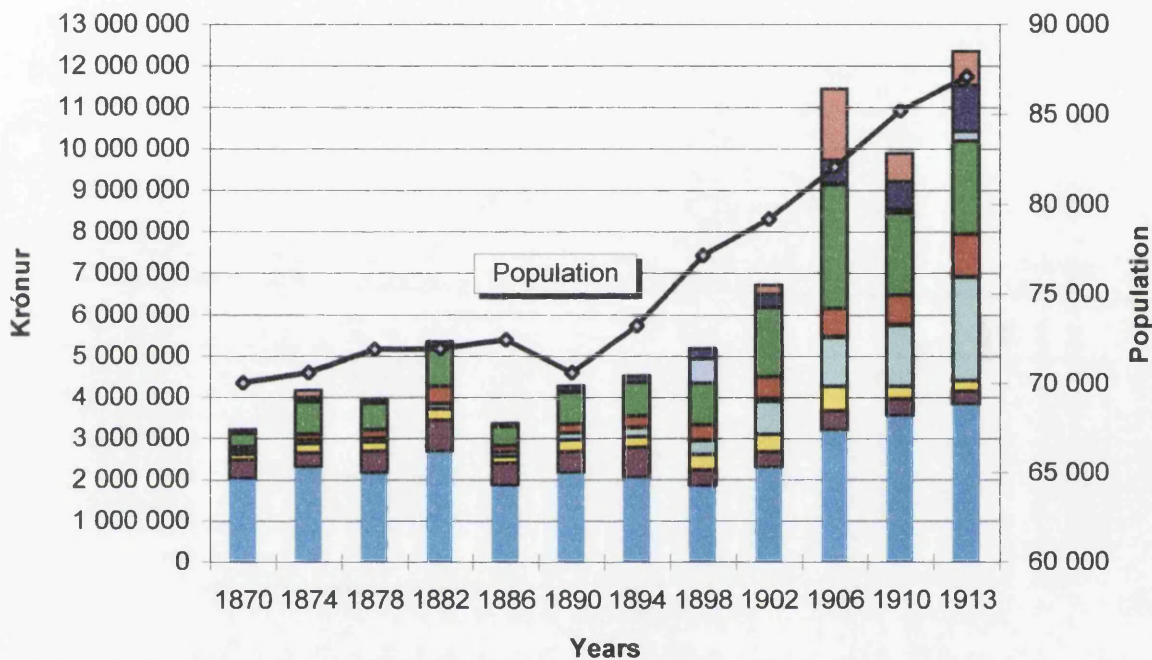
V.1.1. Quantities, Values, and Growth Rates: Levels, Shifts, and their Causes

Iceland experienced the same growth in imports (Fig. V.1) that took place in the export trade of the country and, for that matter, in world trade during the research period. By value, the increase in Iceland's imports was more than fourfold from the first year, 1870, to the last, 1913. In absolute figures, the imports were worth 3.3 million Danish kroner in the initial year and around about 13.9 million kroner in the last year, thus rising 4.3 times over (Table V.1). From 1870 to 1913 total import values grew by 3.4% per annum, and comparing the average of 1870–74 and 1910–13, the annual growth was only slightly less, 2.7% per annum.

Looking at the physical side, the quantity of imports increased by more than eleven fold — from more than 16,000 tonnes in 1870 to over 185,000 tonnes in 1913 (Table V.1). Even though the quantity figures represent only the aggregate weight of numerous and diverse goods, they are a witness in their own way to the trade vitality and the physical activities, such as shipping and port handling, that were required for

Figure V.1

Imports of Iceland, 1870–1913,
by SITC Groups (Absolute Values)



- 9 Misc. Transactions & Commodities, n.e.s.
- 8 Manufactured Articles
- 7 Machinery & Transport Equipment
- 6 Manufactured Goods
- 5 Chemicals
- 4 Animal and Vegetable Oils and Fats
- 3 Mineral Fuels, Lubricants and Rel. Mat.
- 2 Crude Materials, inedible, except Fuels
- 1 Beverages and Tobacco
- 0 Food
- Population

carrying on the import trade. It is very obvious that the scale of import quantities in the three decades of the 1870s to the 1890s was on a different level from that of the 1900s and 1910s (Fig. V.2). This in turn illustrates the increased vitality revolving around imports and the greatly increased need of, for example, harbours, transport equipment, warehouse storage, work people, etc. which occurred from about 1898 onwards

Table V.1. Imports of Iceland, 1870 to 1913: Values, Quantities, and Growth Rates
From 1870 to 1913

	1870	1913	Times over	Growth per annum
Absolute figures:				
Quantity (Tonnes)	16 219	185 325	11.4	5.8%
Value (Thous. kr.)	3 254	13 545	4.3	3.4%
Per capita:				
Quantity (Tonnes)	0.2	2.1	8.9	5.2%
Value (kr.)	46	160	3.4	2.9%

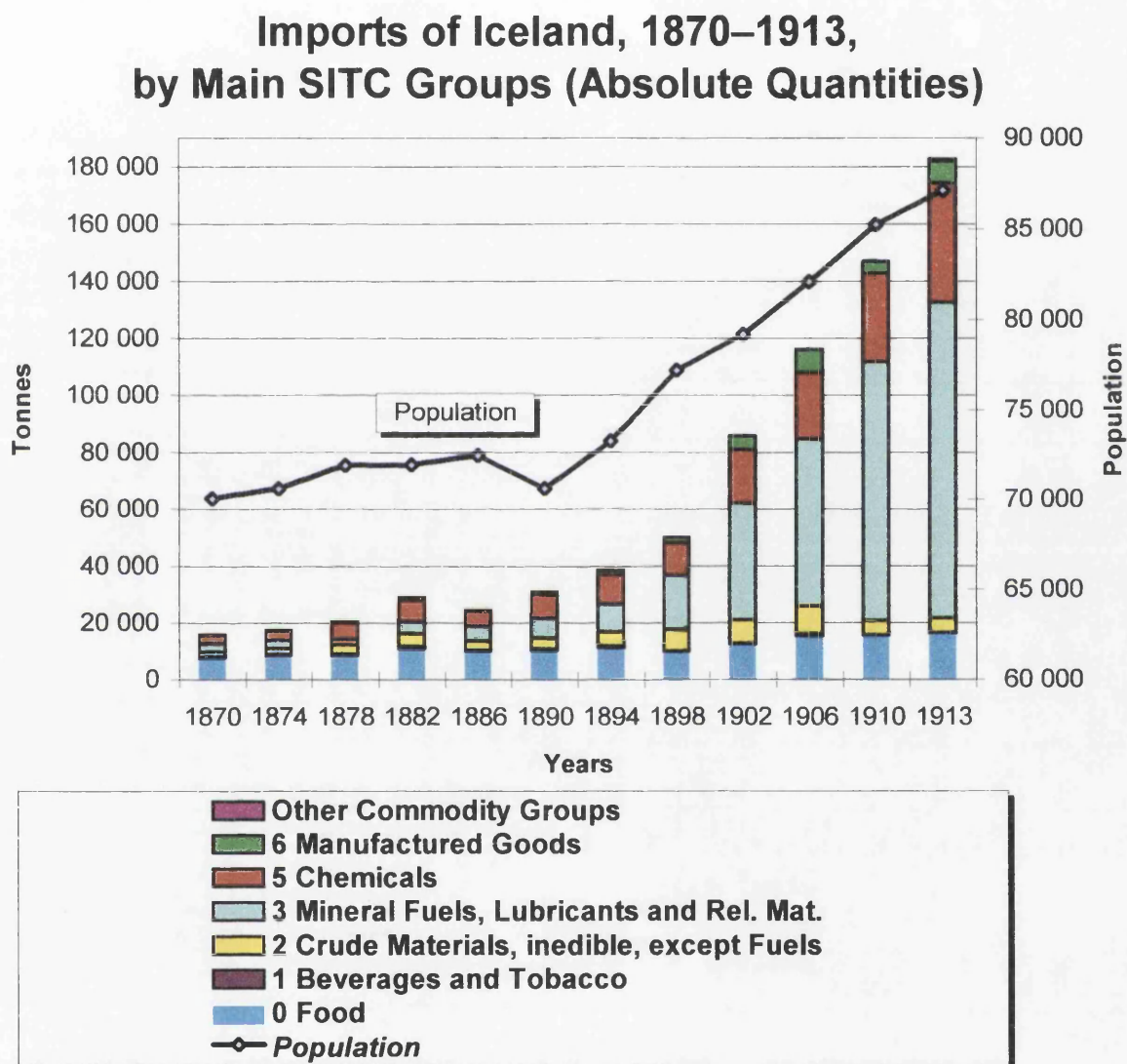
From 1870-74 to 1910-13

	1870-74	1910-13	Times over	Growth per annum
Absolute figures:				
Quantity (Tonnes)	16 954	165 826	9.8	5.4%
Value (Thous. kr.)	3 678	11 801	3.2	2.7%
Per capita:				
Quantity (Tonnes)	0.2	1.9	7.9	4.9%
Value (kr.)	52	125	2.6	2.3%

Sources: Tables A.IMP/ALL-1 and A.IMP/ALL-5.

To put the growth in the imports into a more meaningful context we need to look at the size of the population of the country. As already noted in Chapter IV, the population grew very slowly until the 1890s, after which the rate increased greatly. However, the annual growth in import values per capita from 1870 to 1913 was only marginally reduced (from 3.4% to 2.9%) as Table V.1 shows. Looking at how many times import values per capita had risen by 1913 compared to 1870, the outcome is similar (3.4 times over instead of 4.3 as noted above). Hence, even though the population growth after 1898 was substantial (Fig. V.1) it was insignificant for the overall import growth. This is not simply a case of more people consuming more imports, but of an

V. 2.



economy performing so well that it is capable of sustaining higher levels of imports per head. The growth in the imports, whether measured by quantity or value (cf. Fig. V.1 and V.2), occurred mainly after 1898. The period 1870 to 1913, therefore, clearly falls into two around 1900, just as in the case of Iceland's exports (Chapter IV).

Dramatic as this growth was it was not without interruptions. The four year intervals that are used to measure trade are of course much too long to identify trade cycles precisely, but because of their periodicity, they cannot help reflecting major or sustained downswings, as well as upswings. The period began well for the Iceland economy in that for ca twelve years, 1870–82, imports by quantity grew, and by 1882, the value of imports was 56% higher than in 1870.¹ On top of this, Icelanders benefited after 1874 from falling prices on many commodities.² Although average value per tonne is a crude measure, it has some meaning in that there were no significant changes in the structure of imports in 1882 compared to 1878 (see Fig. V.2). The average price per tonne was ca 8% lower in 1882 than 1878.³ The rising imports by value clearly point to a certain prosperity or rising purchasing power, and overall the years 1870–82 appear to be a consecutive era of increasing standards of living. This was in spite of several cold years and instances of occasional catastrophes, such as an eruption in 1874 that destroyed farm land in the eastern part of the country and drove many people off.⁴

The 1880s on the other hand have often been called the hardship decade in Icelandic historiography — because all sorts of calamities struck the population. Measles, increased mortality, very cold years that spoiled the haymaking, and consequent falling livestock numbers, reduced the living standards of people

¹ Tables A.IMP/ALL-1 and A.IMP/ALL-5.

² Table A.IMP/ALL-10.

³ Tables A.IMP/ALL-1 and A.IMP/ALL-5.

considerably.⁵ Emigration to America reached new peaks,⁶ and this was topped off by a grave situation in the fisheries' sector, which was discussed in Chapter IV. All this should have effected imports — and indeed by quantity, they fell by 15% in 1886 compared to 1882. The fall in the value of imports, however, was much larger (38%) because there was a trough in many European price levels around 1886. Consequently, average value of imports per tonne in 1886 was 38% lower than in 1882⁷ while the imports structure was generally similar in both years (Fig. V.2). Therefore, as it happens, contracting prices in Europe eased the situation in Iceland at this critical point of time, and the standard of living was not as adversely affected as import values suggest. If we may take imports as one legitimate measure of this hardship decade (the 1880s), then the fall in the quantities rather than values better reflects the worsening living conditions.

To what extent the fall in prices of saltfish, the main export staple, from 1882 to 1886 explain the reduction in Iceland's import capacity? As noted in Chapter IV, prices of saltfish were 36% lower in 1886 compared to 1882. Thus, we can compute how much more imports saltfish could have bought if its price in 1886 had been the same as in 1882. Total imports by value in 1886 were about 1,929 thousand kroner less than in 1882, but a 36% higher price for saltfish would only have provided ca 567 thousand kroner.⁸ Hence, higher priced saltfish would only have covered about 30% of the reduction in import value. But we must note that the reduction in quantities was much less or 15%, and we can use average value of total imports per tonne as a crude measure

⁴ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 899. Bragi Guðmundsson and Gunnar Karlsson, *Uppruni nútímans*, 2nd ed., pp 51–2, 57–8.

⁵ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 899, 902, 909.

⁶ Júníus H. Kristinsson, *Vesturfaraskrá 1870–1914*, p xviii (Fig. 6).

⁷ Tables A.IMP/ALL-1 and A.IMP/ALL-5.

⁸ Tables A.IMP/ALL-5 and A.EXP/ALL-7.

of how much was missing to reach the 1882-level in import quantities. Then it emerges that the value lost because of the fall in prices of saltfish exceeded the amount that was lacking to reach the 1882-level in imports.⁹ This shows that although lower saltfish prices had very much impacts on Iceland's purchasing power in 1886 we must remember that prices of many other exports also fell (Chapter IV), and we must allow for lesser production for exportation simply on grounds of the hardships of these years.

Imports rose again after the recession in the mid 1880s, but import values in 1890 and 1894 show that they had merely resumed to the 1874–78 level (Fig. V.1). Although imports by value continued to increase thereafter, they were still smaller in 1898 than in the record year 1882. On the other hand, imports by quantity were on the rise (Fig. V.2) and already in 1890, they practically equalled those of 1882. Hence, on the whole Icelanders had more import quantities in 1886–98 for less money than in any of the years during 1870–78 (cf. Fig. V.1 and V.2). Anyway, these years have gone down in Icelandic history books as relatively good ones. Weather was milder than in either the 1880s or in the 1900s, livestock rapidly growing, emigration less than in the 1880s, and there was a rise in the rate of natural increase of population.¹⁰

Around 1900, imports to Iceland evidently entered a new phase. The distinct, yet relatively slow, upward trend in imports by quantity from 1886 onwards gave way to a trend which soared upwards after 1898 and remained unabated until 1913 (Fig. V.2). Imports by value show this growth also but in a more uneven way (Fig. V.1) for several reasons. Price fluctuations presumably caused some of this, and changes in composition

⁹ With an average value of 131 kroner per imported tonne in 1886, the reduction in quantities compared to 1882 (4,104.8 tonnes) equalled to about 538,000 kroner (Tables A.IMP/ALL-5 and A.EXP/ALL-7). The fall in the value of saltfish (567,000 kroner) clearly well exceeded this.

¹⁰ Jónius H. Kristinsson, *Vesturfaraskrá 1870–1914*, p xviii. Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 899, 902, 909.

of imports possibly too. Also, the portion of 'Miscellaneous Transactions & Commodities, not elsewhere specified' in SITC group 9 (most of it in fact unidentified imports) is especially large in 1906–13 as the value graph shows; for logical reasons this does not show in the quantity graph. Hence, the growth in the imports was in fact slightly more than the quantity graph indicates.

Given the relatively even growth in import quantities after 1898 and similar overall distribution of imports across SITC groups, price movements are particularly evident. Between 1898 and 1902, prices seem to have risen only modestly, but then very fast between 1902 and 1906. By 1910, there had occurred a clear drop in prices, but they were up again in 1913. Focusing on extreme levels, prices seem to have been very high in 1906 while they were unusually low in 1910. This interpretation gets support from the fact that the year of 1906 was a peak year in the international economy in terms of prices.¹¹ Then, a short recession set in. In 1910, many European economies contracted compared to 1906, and price levels had fallen to a lower level.¹² In Denmark — a very important country in the import trade of Iceland — the years 1907–08 saw banks and saving funds going bankrupt because of a recession in the construction sector.¹³ The consequence of this was also felt in businesses in Iceland.¹⁴ This recession between 1906 and 1910 was far from being as severe for imports as the one in the mid 1880s according to the import values, which diminished 'only' by 3% per annum 1906–10 compared to 11% per annum in 1882–86.¹⁵ In short, with the evidence presented here, it is safe to conclude that the years from about 1900 until 1913 were

¹¹ James Foreman-Peck, *A History of the World Economy*, 2nd ed., p 156 (Fig.). Note that Germany and India have erroneously been crossed in the legend to the graph.

¹² James Foreman-Peck, *A History of the World Economy*, 2nd ed., p 156 (Fig.). Note that Germany and India have erroneously been crossed in the legend to the graph.

¹³ T. P. Andersen, *Produktion og samfund: Danmarks og Nordens historie*, p 201.

¹⁴ Hannes Jónsson, *Hið guðdómlega sjónarspil*, pp 74, 80.

marked by a huge and an unprecedented expansion in Iceland's imports, while the previous three decades were characterised by a relatively slow but even growth in imports. Although there was a clear fall in imports in the mid 1880s — 15% by quantity compared to 1882 — it was relatively short-lived.

V.1.2. The Commodity Structure in General

Imports into Iceland in the period were by every measure relatively simple, and consisted overwhelmingly of basic goods (Fig. V.3). By far the largest group by the SITC system in 1870 was foodstuffs, amounting to nearly half of the imports by quantity (47%). The second largest group was mineral fuels, lubricants, and related materials with 19% of the imports, and the third largest group chemicals (mainly salt) with 18%. Thereafter came crude materials (inedible) with 10%, and beverages and tobacco with only 4% of the imports' quantities.¹⁶ Looking at the groups by value (Fig. V.4), foodstuffs were even more significant and occupied 63% of the imports' value in 1870. The second largest group was beverages and tobacco with 14%, and next came all kinds of manufactures with 10%.¹⁷ These two last groups ranked much higher in the imports by value than by quantity, something that reflects their relatively high value in comparison with, for example, many foodstuffs. Conversely, mineral fuels (mainly coal) have a negligible value compared to their quantities and the same goes for salt. This shows that coal and

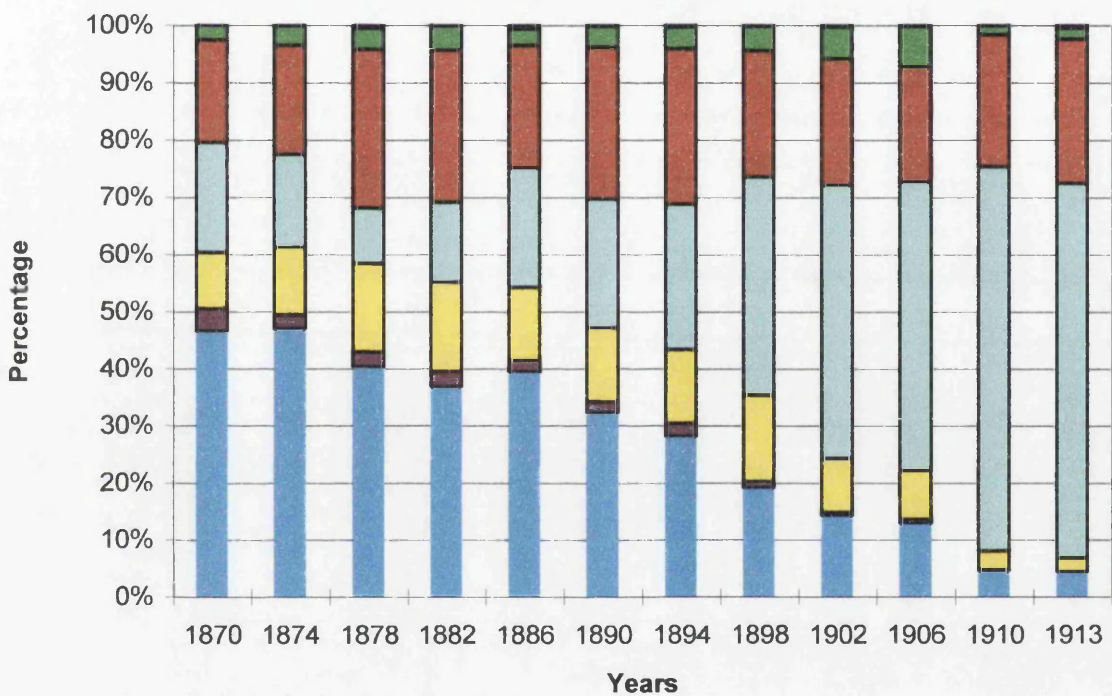
¹⁵ Table A.IMP/ALL-5.

¹⁶ Table A.IMP/ALL-1.

¹⁷ Table A.IMP/ALL-5.

Figure V.3

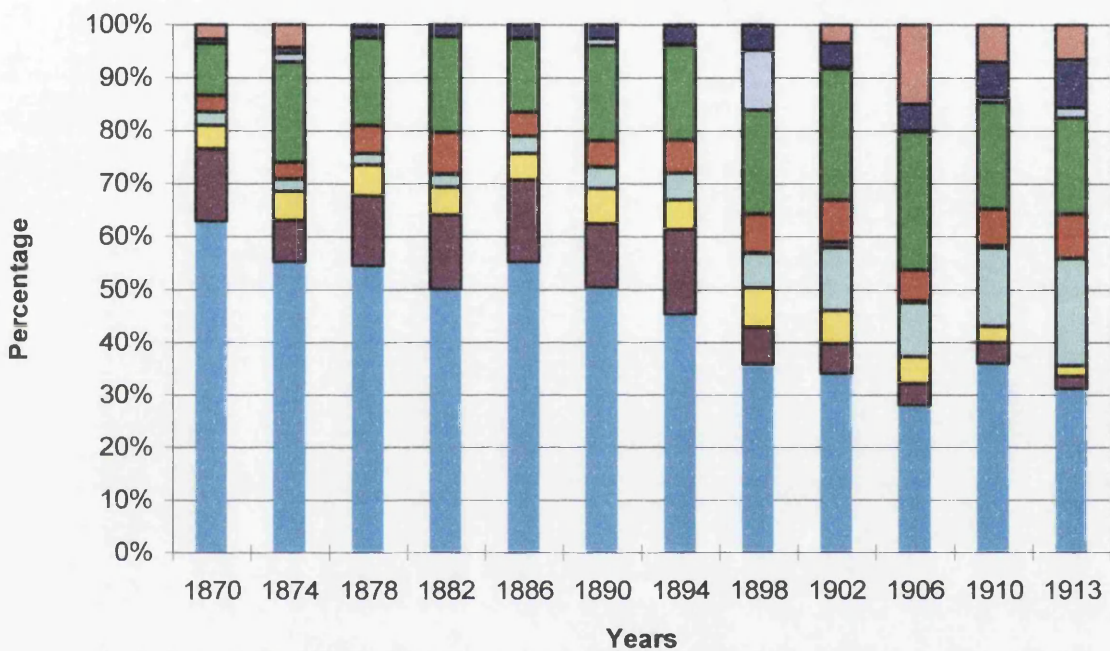
Imports of Iceland, 1870–1913, by Main SITC Groups (Relative Quantities)



- Other Commodity Groups
- 6 Manufactured Goods
- 5 Chemicals
- 3 Mineral Fuels, Lubricants and Rel. Mat.
- 2 Crude Materials, inedible, except Fuels
- 1 Beverages and Tobacco
- 0 Food

Figure V.4

Imports of Iceland, 1870–1913, by SITC Groups (Relative Values)



- 9 Misc. Transactions & Commodities, n.e.s.
- 8 Manufactured Articles
- 7 Machinery & Transport Equipment
- 6 Manufactured Goods
- 5 Chemicals
- 4 Animal and Vegetable Oils and Fats
- 3 Mineral Fuels, Lubricants and Rel. Mat.
- 2 Crude Materials, inedible, except Fuels
- 1 Beverages and Tobacco
- 0 Food

salt were particularly cheap in international markets.¹⁸ Also, it underlines that manufactures were very expensive in relation to weight.

Over time the composition of imports by quantity changed considerably. However, this was not so much a result of growth of the small groups (SITC 6-8) but rather of changes in the relative size of the larger commodity groups (Fig. V.3 and V.4). The most spectacular shifts were in foodstuffs, which by quantity fell below 10% of the total in 1913 (being 47% in 1870), and in mineral fuels that increased to ca 50% of total import quantities (from 19% before). Also, beverages and tobacco shrank from 4% below 1%.¹⁹ Other groups remained fairly constant proportionally. By value the shift over time looked somewhat different (cf. Fig. V.4). Foodstuffs' imports were certainly down by 1913 but 'only' by half (from 63 to ca 30%), and, hence, they were still the single largest commodity group. The beverages and tobacco group had diminished considerably (from 14 to 2%) while imports of manufactures had almost tripled in value (from ca 10 to 30%).²⁰ Coal and other mineral fuels now accounted for 19% of the imports' value instead of 3% in 1870; after all, the quantities had grown 35 times over.²¹ It is noteworthy that in spite of the rapid growth of manufactures, imports were still predominantly of basic commodities.

When studying these changes of the commodity groups in the imports' structure, it is necessary not to forget that the quantities of just about every group increased over time (cf. Fig. V.2). For example, even though the relative share of foodstuffs fell so rapidly their quantities doubled. It is also important to keep the population size in mind. As already remarked, it grew quite fast from 1890 onwards and was 24% larger in 1913

¹⁸ Tables A.IMP/ALL-9 and A.IMP/ALL-10.

¹⁹ Table A.IMP/ALL-1.

²⁰ Table A.IMP/ALL-5.

²¹ Tables A.IMP/ALL-3 and A.IMP/ALL-5.

than in 1890, but the foodstuffs' quantities grew by 79% at the same time.²² Therefore, the consumption of the shrinking as well as the stationary commodity groups, both in terms of relative shares in imports' quantities, could be increasing per capita all the same.

The account above shows that the consumption pattern as represented in imports into Iceland changed significantly over time, both as regards the relative shares of primary products versus manufactures and also within primary products. Focusing on changes within primary products first, the major change in terms of quantity was the rising consumption of the group 'Mineral fuels, Lubricants and Related Materials' (Fig. V.2 and V.3), which consisted primarily of coal and, to much less extent, mineral oils.²³ This overshadowed all other quantitative consumption changes — as we can see, for example, in the fact that imports of foodstuffs per capita were far larger in 1913 than in 1870 although relatively the quantities of foodstuffs consumed in 1913 were less (cf. Fig. V.3). The same goes for the commodity group 'Crude Materials' (predominantly wood) and further still for 'Chemicals' (almost exclusively salt).²⁴ By value, however, Iceland's consumption in imported primary products did not change as radically (Fig. V.4) for mineral fuels were relatively cheap.²⁵ But expenditure on mineral fuels rose nevertheless relative to all expenditure on primary products.

Substantial as was the change of consumption within primary products, the rise in imports of all kinds of manufactures relative to imports of primary products was more remarkable. Admittedly, missing imports, unidentified imports (the SITC group 'Miscellaneous Transactions & Commodities, not elsewhere specified'), and lack of

²² Table A.IMP/ALL-1.

²³ Table A.IMP/ALL-3.

²⁴ Tables A.IMP/ALL-1 and A.IMP/ALL-3.

²⁵ Tables A.IMP/ALL-5 and A.IMP/ALL-9.

either quantity or value data for manufactures skews comparisons of import levels of manufactures over time. However, the trend is nonetheless clear from the available data because imports of all kinds of manufactured goods, machinery and transport equipment, and manufactured articles (SITC groups 6-8) — whether measured by quantity or value — rose fast in 1870 to 1913 (Fig. V.3 and V.4). Measuring this growth in per capita terms, imports of manufactures probably rose some four times over by value and perhaps 21 times over by quantity. The growth of imports of manufactures was also significant when we measure their share relative to imports of primary products. While the relative portion of manufactures to primary products by quantity roughly doubled over time (from 2.5 to 4.7%), by value it tripled over time (from 10.4 to 29.9%).²⁶ Although we must remember that the figures for imports of manufactures in the datasets are far from definitive, they all support the view that the domestic consumption of manufactures was transformed during the period.

²⁶ Tables A.IMP/ALL-1 and A.IMP/ALL-5. — All these imports are underreported in the current datasets (see introductory text in Appendix A) but mostly those in SITC groups 7 and 8.

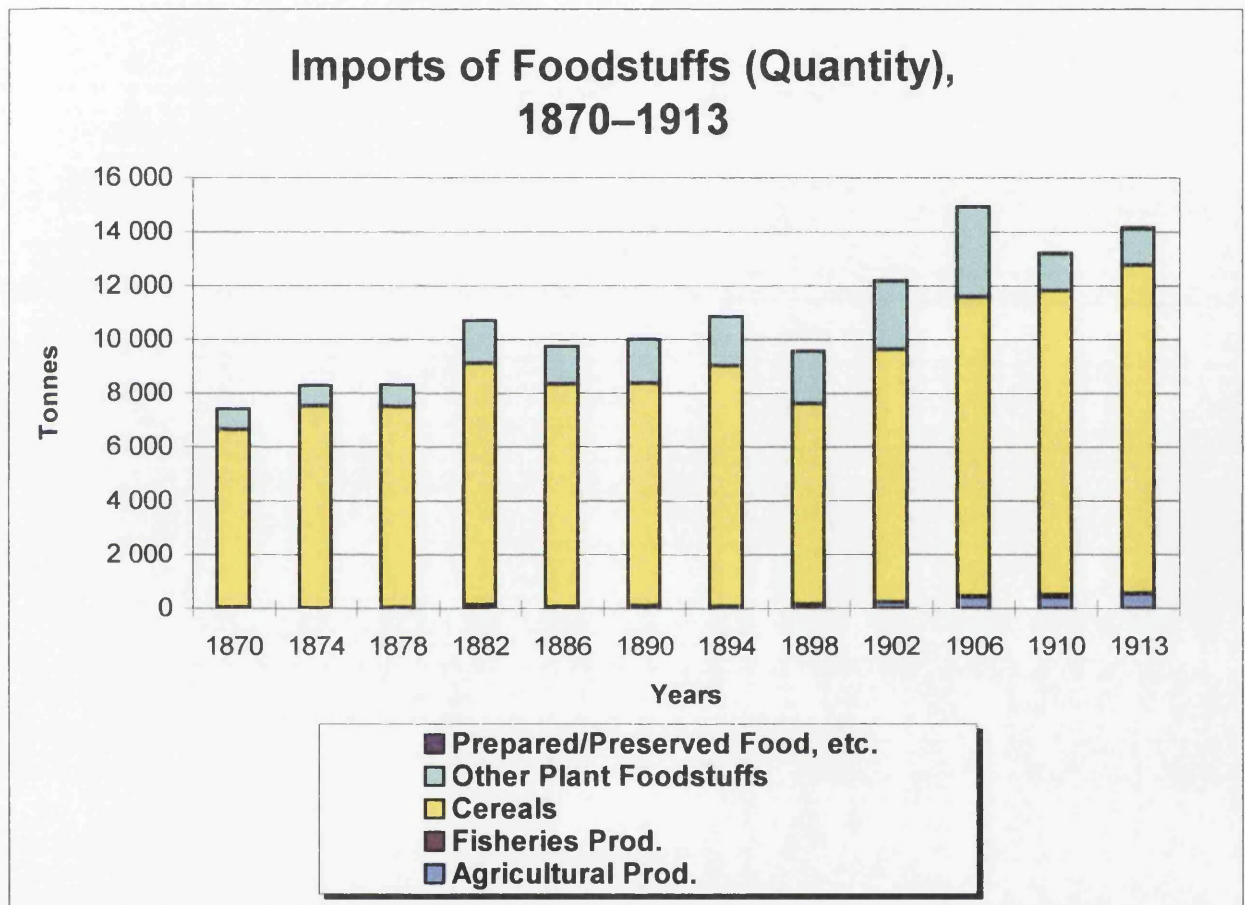
V.2. Imports of Iceland and their Context in the Economy

V.2.1. Primary Commodities

V.2.1.1. Foodstuffs (Cereals, Sugar, Potatoes, Coffee, etc.)

Clearly, there were substantial changes in Iceland's consumption as witnessed by imports, however we measure them. When considering the exact commodities in each commodity group, so as to detect changes in consumption, whether by domestic or by producing sectors of the economy, it is natural to start with the basic wants of human beings, i.e., food and edible liquids (SITC groups 0 and 1). Here we see that cereals constituted by far the largest part of imported foodstuffs (Fig. V.5). To put cereal imports into perspective we should note that cereals were wholly imported, because corn growing had become extinct in Iceland in the 16th century. In spite of some attempts in later centuries, regular corn growing was not started again until the 1900s — and then

Figure V.5



on a very small scale.²⁷ Around 1870, cereals were not a very important item in people's diet but this changed as time passed, so that around 1910 they were a significantly larger part of the diet. The graph for cereal imports shows that their consumption per capita increased only slowly and with some fluctuations until about 1900. Following a temporary drop in cereal imports in 1898, they rose fast until they halted around 1906 at which level the consumption remained stable until 1913. By then, cereals' consumption per capita had accelerated by ca 40% since 1870. But this was not the only change in cereal imports, for there was also a transition from unmilled cereals to milled ones (Fig. V.6), which were dearer.²⁸ This started in the 1880s, and the trend was at work right through until 1913, when the relative share of unmilled cereals was small in comparison with that of milled cereals.

Let us look at possible explanations for these changes in cereals' consumption, both in demand and in supply. World supply of cereals in the period increased in most cases and prices consequently fell although they rose again from the late 1890s onwards.²⁹ Looking at average prices of cereals imported to Iceland, milled and unmilled, they followed this pattern too (Fig. V.7). Around 1870, the difference in prices between milled and unmilled was considerable, but it decreased and in the 1880s there was hardly any. Evidently, this was conducive to a rising consumption of milled cereals instead of unmilled, because it simply was economical. In the 1890s onwards, when prices of milled cereals were rising again, their imports, nevertheless, continued to increase relatively to unmilled cereals. That particular trend is clearly a sign of rising incomes at the time.

²⁷ Steindór Steindórsson, 'Akuryrkja á Íslandi,' pp 39, 43. Sigurður Sigurðsson, *Búnaðarhagir*, pp 260–66. See also Steindór Steindórsson, 'Akuryrkjutilraunir á 17. og 18. öld'.

²⁸ Table A.IMP/ALL-10.

²⁹ W. Arthur Lewis, *Growth and Fluctuations*, pp 279–81.

Figure V. 6

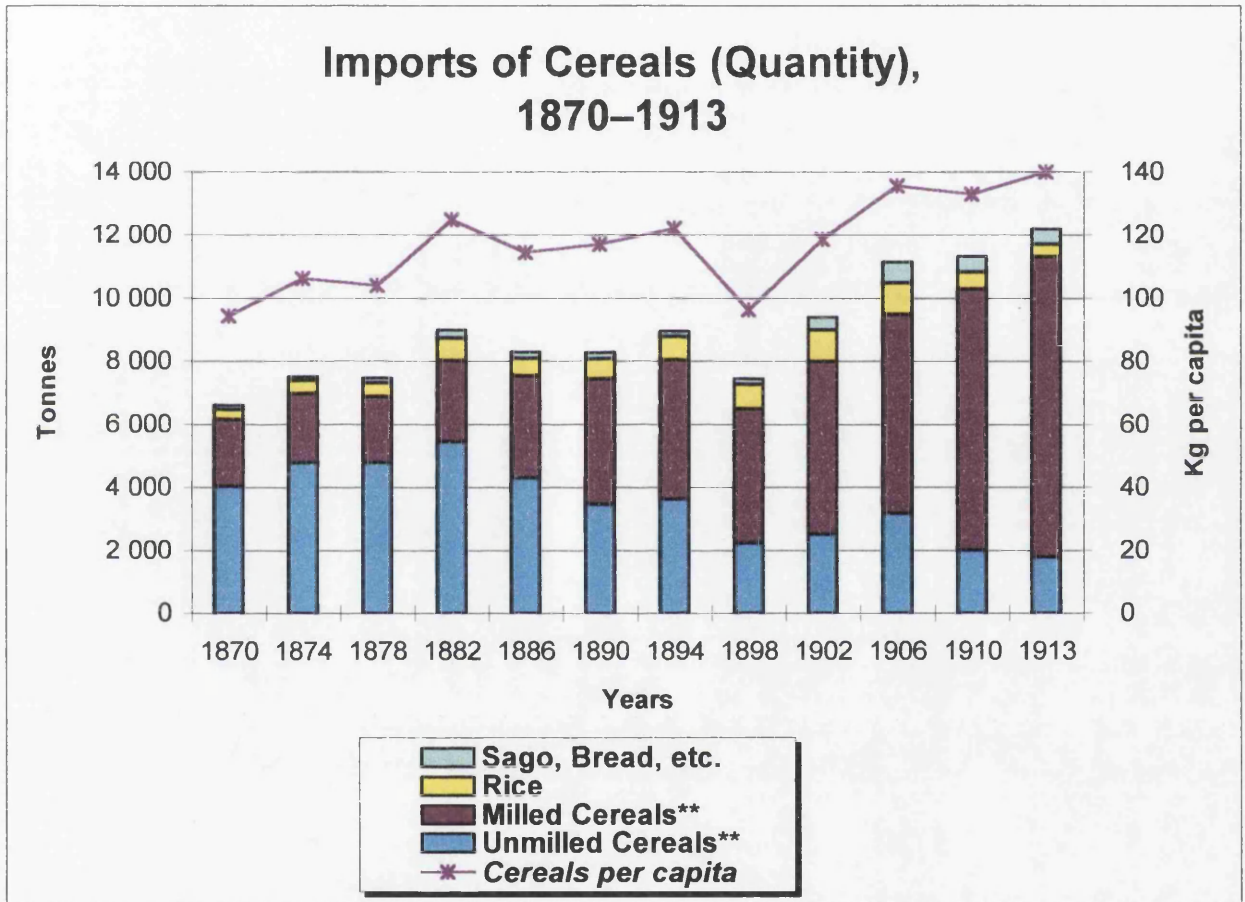
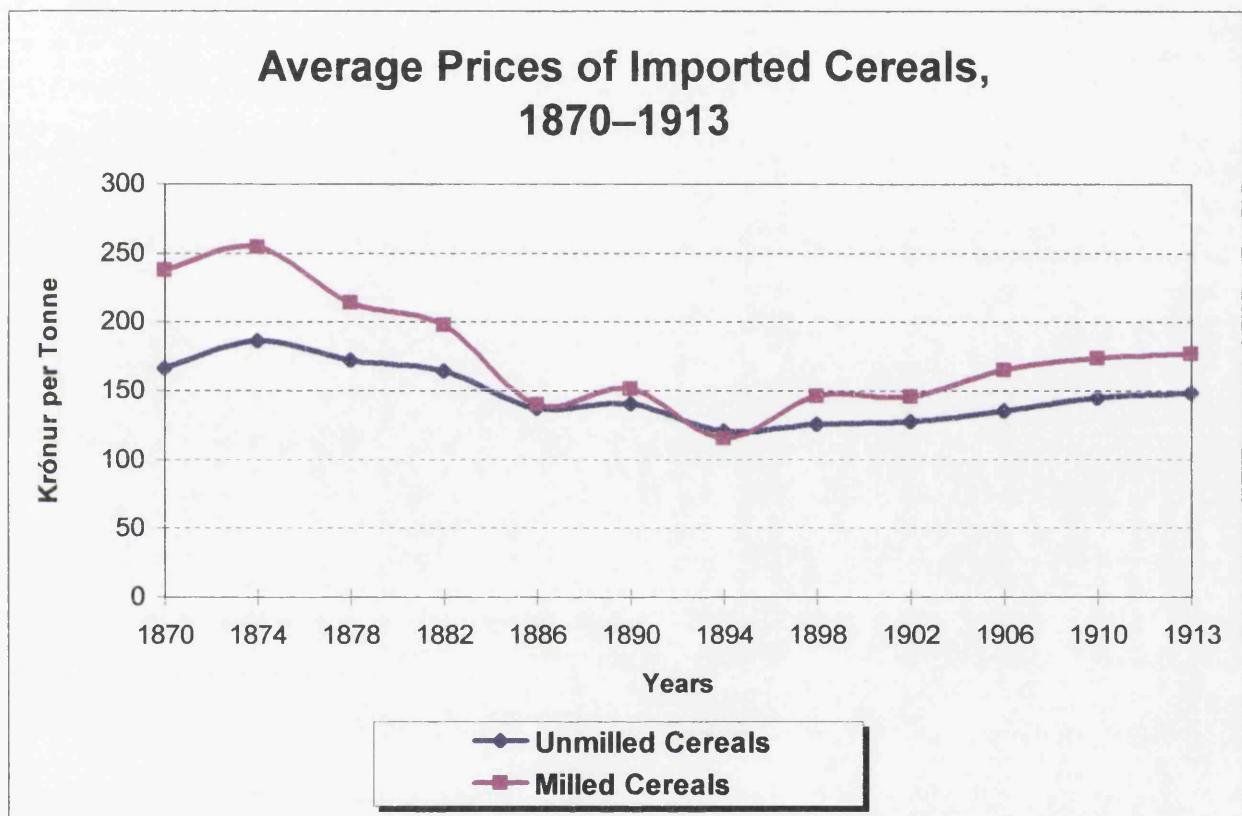


Figure V. 7



Considering the demand side or, more precisely, who used cereals, it must be pointed out that bakeries were run in Iceland. Nevertheless, they were only two in the early 1870 and probably between ten and fifteen in number around 1913.³⁰ Even though the quantity of their output may have increased more rapidly than their number implies, their consumption of cereals was probably marginal compared to consumption of homes or households. This is because people used cereals mainly for making porridge-like food — although bread baking in homes also grew, no doubt partly spurred on by larger imports of milled cereals.³¹ Besides, the products of the bakeries were mainly, albeit not wholly, consumed in villages and by seamen on decked vessels (ship biscuit).³² So, this rules more or less out the possible influences of bakeries on cereal imports and suggests that the demand for cereals came mainly from homes in the domestic sector.

There were several other important items of foodstuffs, albeit not as voluminous as cereals (Fig. V.8). The largest of these was sugar and various sugar preparations, imports of which increased greatly. In contrast with cereals, there were rapidly growing imports of sugar from as early as 1882 onwards, and with no fall in the consumption in 1898, as in the case of cereals. Prices of sugar and sugar preparations were constantly going down in the 1880s (Fig. V.9), and this no doubt spurred imports. But in line with cereal imports, sugar imports did not diminish after the prices began to rise, which happened in the late 1900s. That also implies generally higher incomes after 1900 compared to earlier decades.

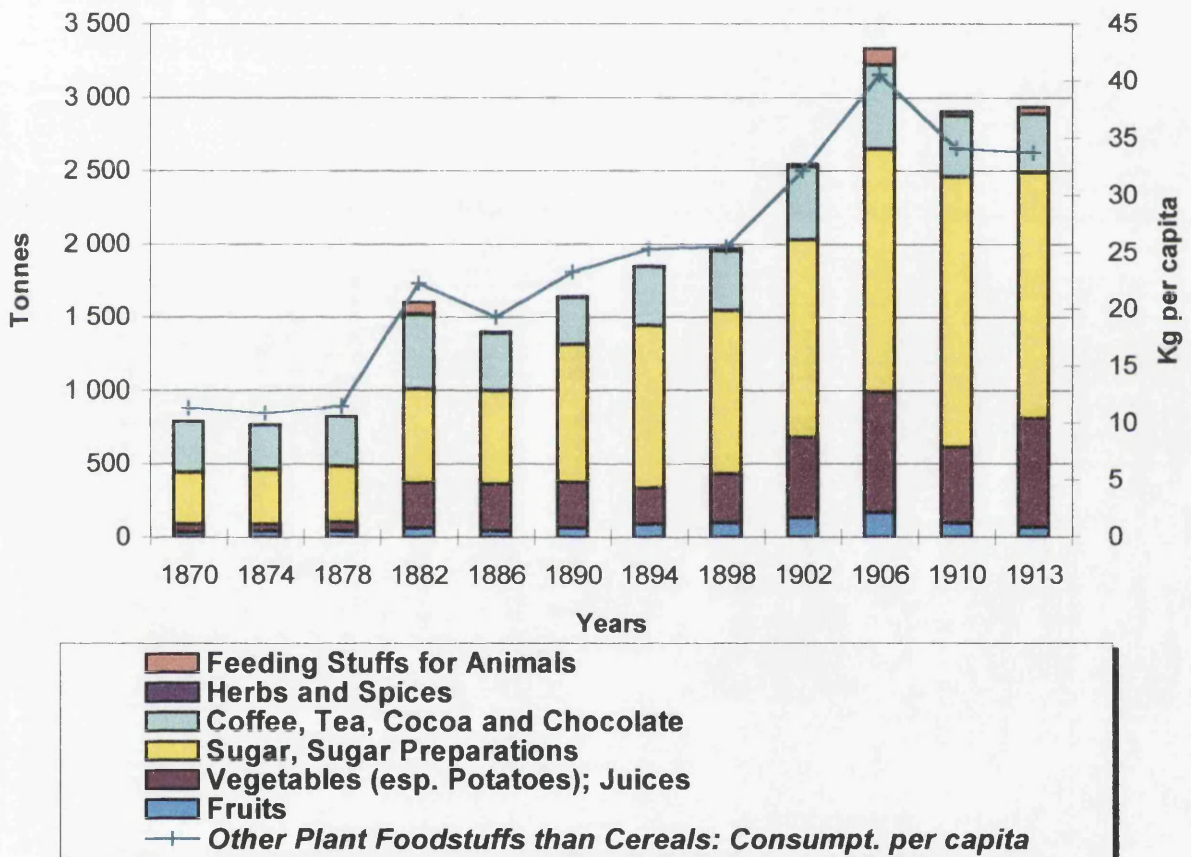
Another significant item among plant foodstuffs was vegetables, which consisted mainly of potatoes (Fig. V.8). Whereas sugar could not be grown in Iceland, for obvious

³⁰ [Guðbrandur Jónsson], *Aldarminning brauðgerðariðnar á Íslandi*, pp 89, 146–86.

³¹ Jónas Jónasson, *Íslenzkir þjóðhættir* (3rd ed.), pp 52–4, cf. pp 34–6. Guðmundur Þorsteinsson, 'Brauðgerð,' pp 120–25. Steindór Steindórsson, *Hlaðir í Hörgárdal*, pp 56, 57–9, 61, 63.

Figure V.8

Imports of Other Plant Foodstuffs than Cereals (Quantity), 1870–1913



environmental reasons, potatoes could and they were indeed grown in increasing quantities in our period.³³ This was, however, a recent development, commencing around 1870. Potato cultivation was first experimented with in late 18th century in Iceland, and in the early 19th century it had spread to some parts of the country, but it does not seem to have been very thrifty and some people were only starting growing potatoes in the mid 19th century.³⁴ The first reasonably reliable sources about potato crops, records of agricultural yield, date from the 1890s when the annual consumption was about 20 kg per capita.³⁵ This was probably about double the figure of 1870.³⁶ Clearly, to supplement domestic harvest, potatoes were also imported and their quantities increased over time (Fig. V.8). It is interesting to note that there was a sharp rise in potato imports by quantity about 1880, but the price of potatoes seem to have contributed little to this, because although there was a reduction in their prices, it was relatively small (Fig. V.10). Apart from that, the quantities of imports of potatoes were obviously stimulated by their import prices, which were generally falling until the late 1900s. Moreover, imports would have been even greater had merchants not held them in check, in case their imported potatoes were not sold before domestic crops were marketed. This was the case in Reykjavik until the 1900s and possibly elsewhere too. This situation no doubt encouraged more cultivation, so that potatoes grown in the neighbourhood of Reykjavik

³² [Guðbrandur Jónsson], *Aldarminning brauðgerðariðnar á Íslandi*, pp 84–5. Jónas Jónasson, *Íslenzkir þjóðhættir* (3rd ed.), p 36 fn.

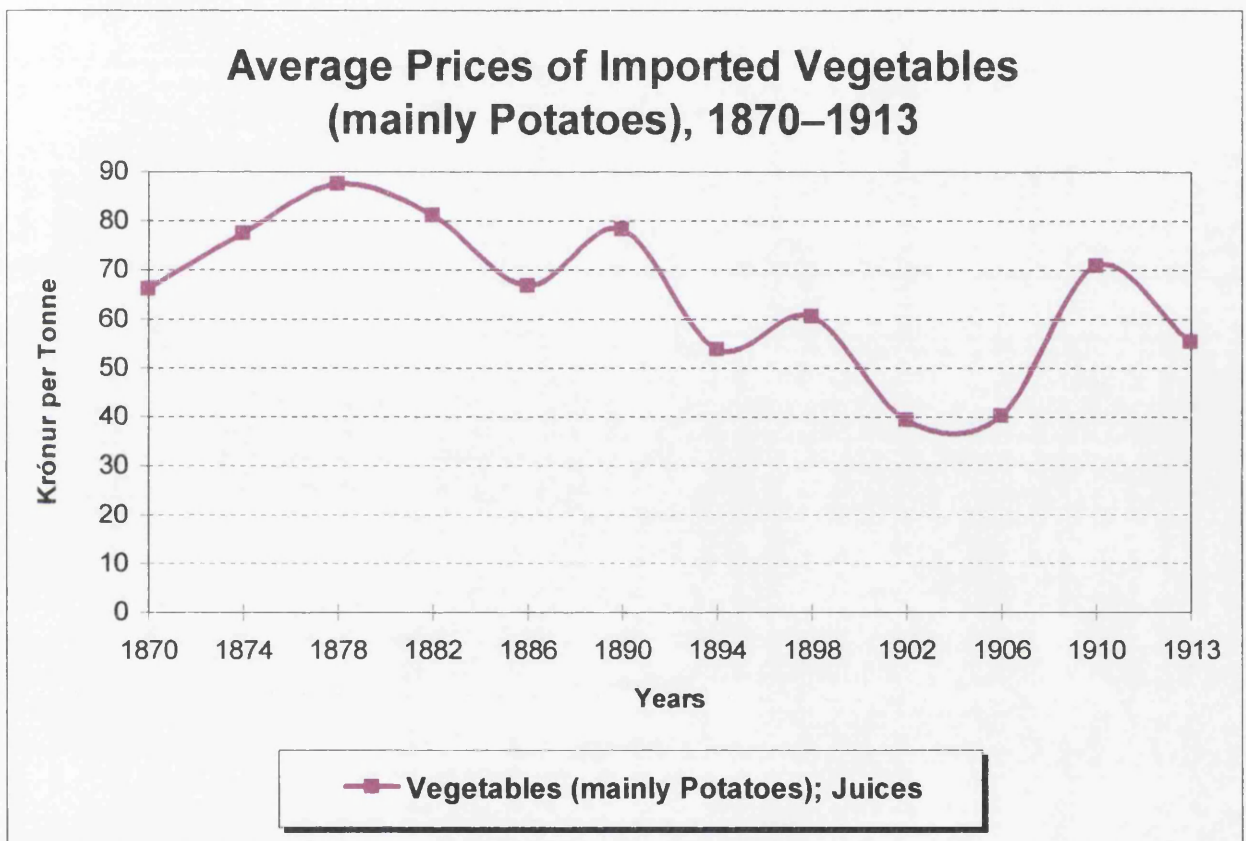
³³ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 267.

³⁴ *Búnaðarfélag Íslands*, vol. II by Sigurður Sigurðsson, pp 241–2. See also descriptions of counties and parishes (*sýslu- og sóknalýsingar*) in Iceland around the middle of the 19th century, made at the initiation of the Icelandic Literature Society (*Hið íslenska bókmenntafélag*). Some of them have been edited and published.

³⁵ These records in fact start in the late 1880s but the quantities of potatoes are suspiciously low. See Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 267, for potato yields. The annual average yield in the 1890s is estimated by me to be about 1,450 tonnes.

³⁶ Around 1870, the acreage of vegetable plots, according to Guðmundur Jónsson's and Magnús S. Magnússon's calculations, was about half the size of them in the 1890s, when they

Figure V.10



were sold to Reykjavik.³⁷ Domestic cultivation of potatoes fluctuated from one year to another, but there was an upward trend in output in the 1890s and the 1900s.³⁸ Hence, although imports of potatoes in our sample years happened to represent a rising portion of the potato supply in Iceland (according to records of domestic growing and our import figures) that is not an entirely truthful portrayal of the general situation.³⁹ Towards the end of our period, in 1910 and 1913 imports of potatoes by quantity had fallen, and this was due to a sharp rise in their prices. Moreover, 1910 saw a good domestic harvest.

V.2.1.2. Beverages and Tobacco

Amidst a growing consumption of most foodstuffs and edible liquids, imports of alcoholic drinks showed no clear trend, neither upwards nor downwards, and they were very irregular over time (Fig. V.11). It was only around 1910 that a clear trend emerged, namely when imports of wine and ale almost vanished. The irregularity of these imports is rather surprising, because there was no domestic production of alcoholic spirits to compete with imports, and prices of imported wines and ale were falling from the late 1880s onwards (Fig. V.12). Smuggling is not a plausible cause of the fluctuations because my data is based on foreign trade returns, not Icelandic. Hence, for these widely fluctuating imports I have no explanation. On the other hand, the cause for their

were roughly about 200 hectares on average per annum. See Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 264 (Table 4.6), 266.

³⁷ Þórunn Valdimarsdóttir, *Sveitin við Sundin*, p 265.

³⁸ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 267.

Figure V. 11

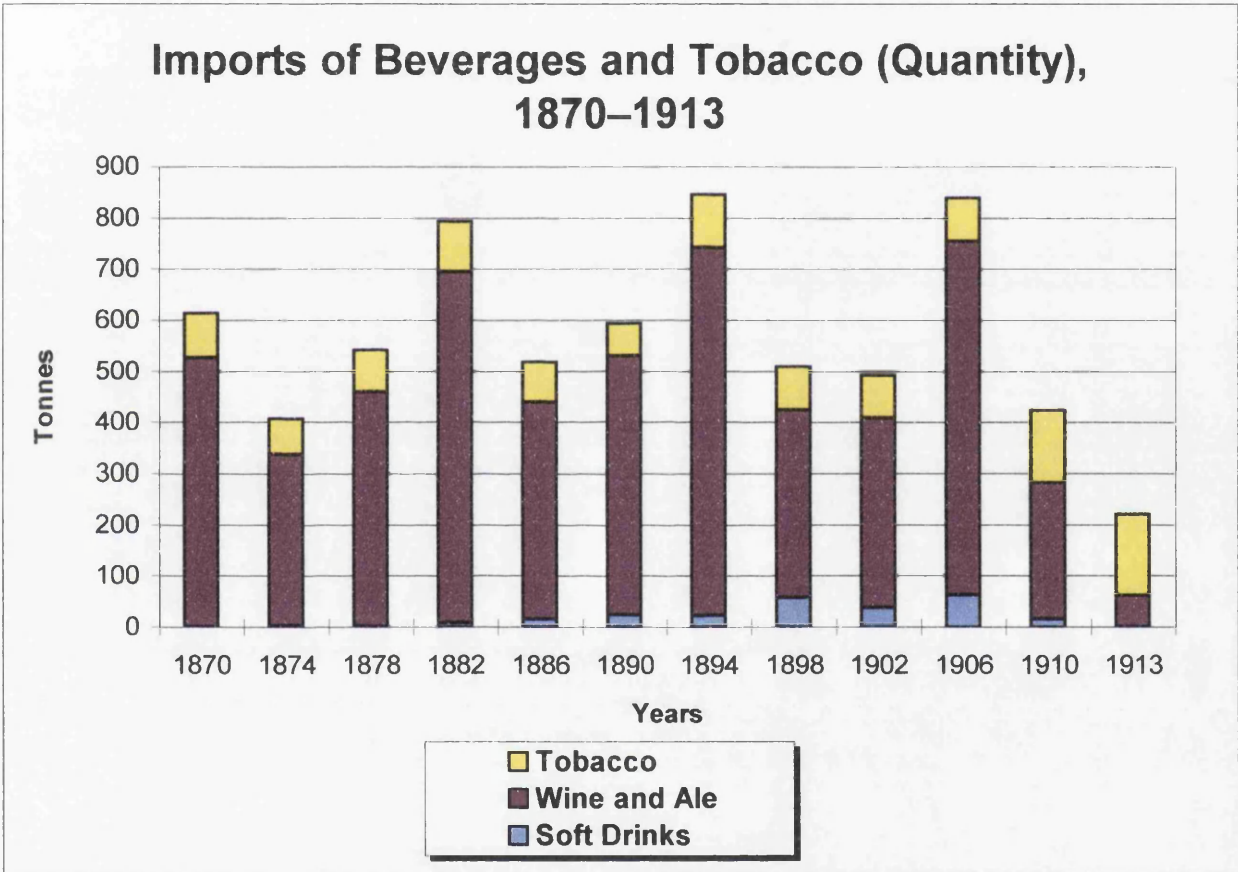
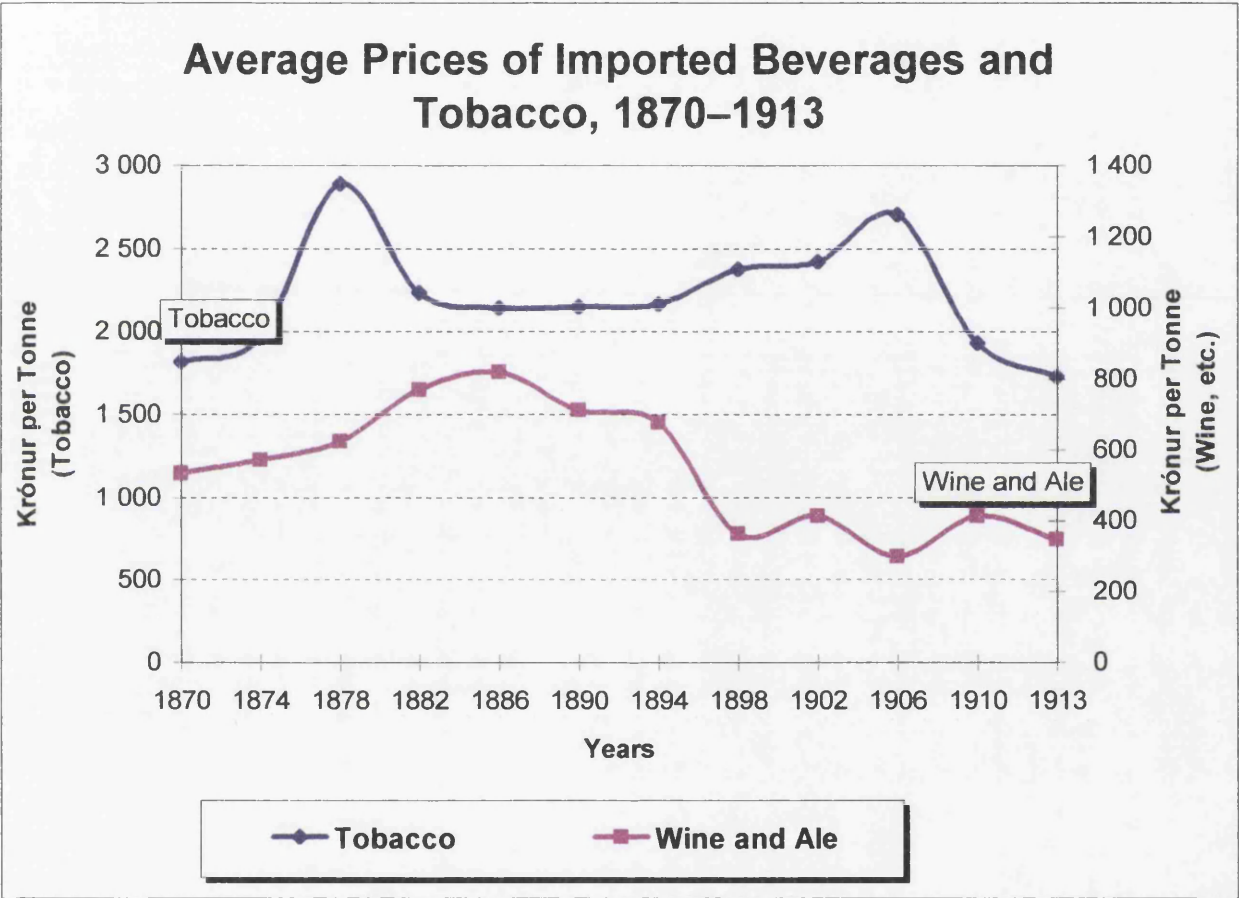


Figure V.12



eventual decline is clear, and it was of coercive nature. The temperance movement gained foothold in Iceland in the early 1880s and agitated against consumption of alcoholic drinks. After 1900, it won public opinion on its side and managed to influence the Icelandic parliament to pass a law in 1909 banning imports of all wines and spirits; this came into force in 1912.⁴⁰ These are the explanations for the declining relative share of beverages (and tobacco) in imports after 1906. It should, however, be noted that the bare quantity figures are a crude measure of the actual consumption of alcohol, because there were many types of such drinks, ranging from light beer to mixed spirits, although unmixed distilled drinks (gin-like) were most favoured.⁴¹

Tobacco was not outlawed like wines and spirits but its import quantities were remarkably stable during the whole period (Fig. V.11). Presumably, this is because, in contrast to beverages and most other goods, prices of tobacco went up in the long-term, although its prices stayed markedly steady in the 1880s and 1890s (Fig. V.12). Thus, it is difficult to identify any definite trend during the period in people's spending on tobacco per capita or their quantity consumption per capita.

³⁹ The relative share of imported potatoes rose from about 10% in 1894 to 30% in 1906. See Table A.IMP/ALL-3 and Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 267.

⁴⁰ See Stórstúka Íslands, *I.O.G.T. Tuttugu og fimm ára minningarrit góðtemplara á Íslandi*. Einar Laxness, *Íslandssaga a-k* (2nd ed.), p 44. Hannes Jónsson, *Hið guðdómlega sjónarspil*, p 94.

⁴¹ Danish trade returns (exports).

V.2.1.3. Crude Materials (Wood)

Imports of crude materials and raw materials consisted almost entirely of wood and, to a much lesser extent, cork, since Iceland had no natural supplies of these commodities.⁴² However, because of its geographical location and currents in the sea, some places around the coast were endowed with drift timber, which was both used by its owners and sold to others. This was a major asset for those who owned such coast land.⁴³ There were often complaints about shortage of wood, and merchants were criticised for being unwilling to import enough wood. Norwegian merchants, who began sailing to Iceland with timber around the mid 19th century onwards, eased the situation slightly, but probably not markedly before the 1870s (Fig. V.13). It is very difficult to estimate the quantity of drift timber in relation to imported wood, and in spite of the considerable amount of wood acquired in that way, there was presumably always an ample demand for imported wood — as indeed its imports over time suggest.

Wood was among those goods whose imports rose sharply over time (Fig. V.13) and although falling prices probably spurred that trend very much in 1870–82 (Fig. V.14), it is noticeable that vigorous imports continued from 1890 onwards, when prices were stationary. The general rise in wood imports over time confirms a constant and heavy demand for this commodity, irrespective of prices, and it certainly was a very flexible material for construction of houses and furniture. Wood imports seem to have accelerated in the mid 1900s and the reasons are, in the end, the larger demand of individuals and the producing sector. But a certain change in the processing or utilisation of imported wood may also have affected it. Because of the relatively tiny secondary sector in the Iceland economy from the 1870s to about 1900, most crude materials such

⁴² Tables A.IMP/ALL-2 and A.IMP/ALL-3.

⁴³ Gunnar M. Magnúss, *Byrðingur*, pp 15–16.

Figure V.13

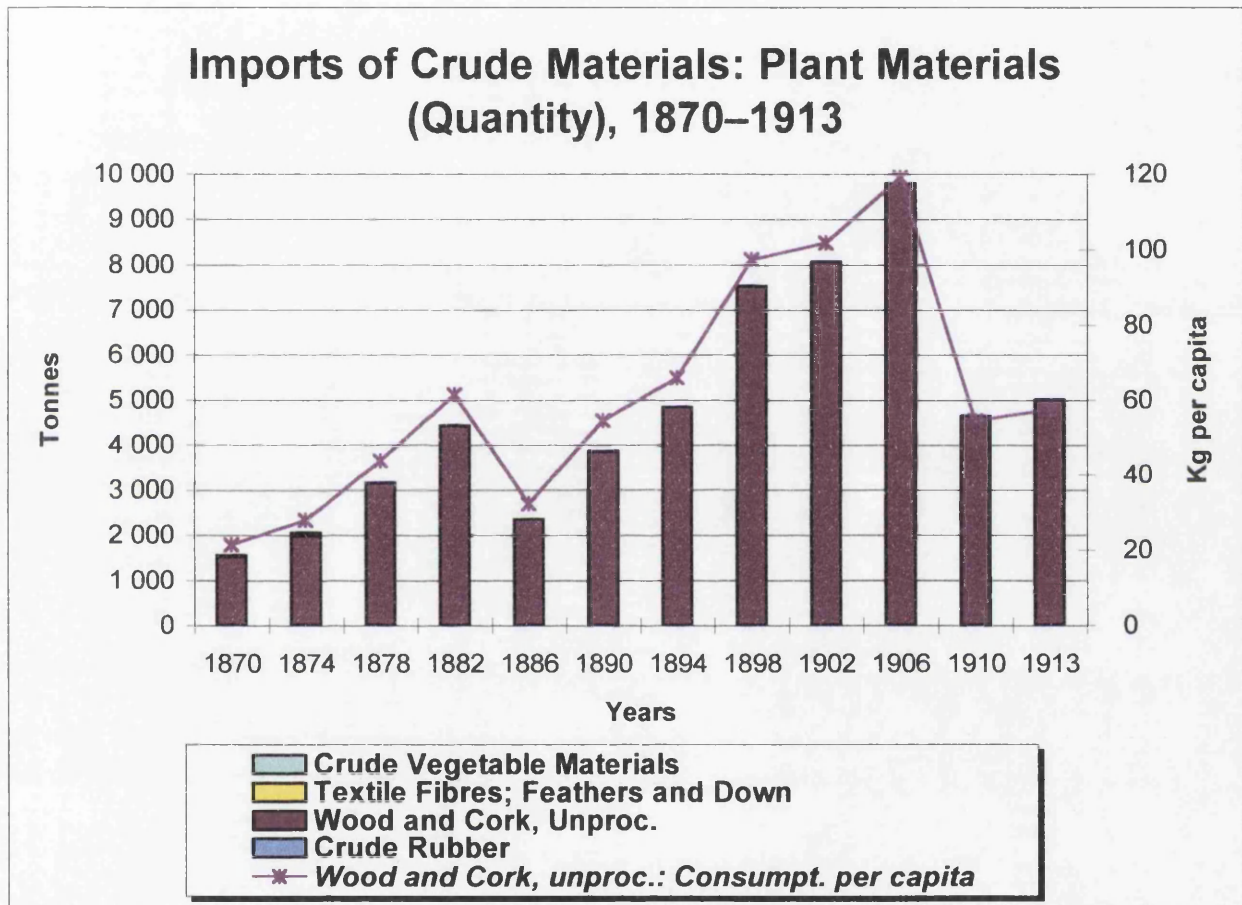
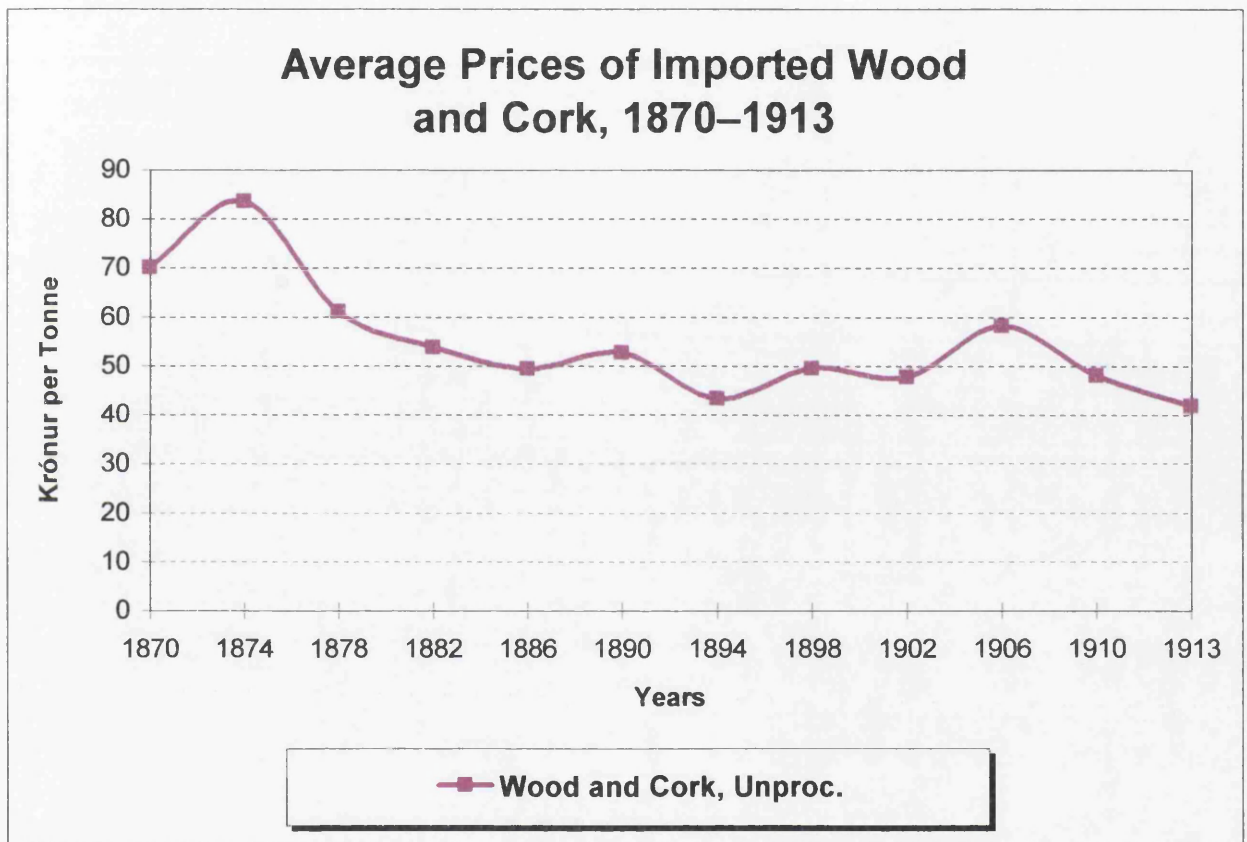


Figure V. 14



as wood were bought directly and consumed primarily by the common people. Manufacturing industries (secondary sector activities) were few and either in the form of travelling or stationary artisans (some of them with apprentices). Hence, wood was until approximately 1900 bought mainly by individuals who hired a carpenter or a joiner to process it and build from it or repair with it whatever it was meant for.⁴⁴ Only shortly after 1900 were the first proper timber-using workshops formed in Iceland, usually specialising in shipbuilding, carpentry and joinery, or furniture-making.⁴⁵ Their activity probably gave wood imports the extra spurt that seems to have taken place in the mid 1900s onwards.

In relation to the demand for wood, it is interesting to quote figures for the different types of residential buildings in Iceland in 1910. Then just over half of all houses were made of turf, the traditional building material in Iceland, 44% were made of timber, and only 4% of concrete and stone.⁴⁶ We lack accessible information or figures from earlier times for comparison, but it is safe to conclude that the nearly all the timber houses had been built in the past 40 years or so. Furthermore, the majority of the timber houses (63%) were located in the urban areas,⁴⁷ which had generally been growing substantially in our period. Given the relative expansion in those areas, compared to the countryside, the almost unabated demand for wood is more understandable.

⁴⁴ See, for example, Gunnar M. Magnúss, *Byrðingur*, pp 21–38. Also biographies of carpenters, such as Kristmundur Bjarnason, *Þorsteinn á Skipalóni I–II*; Tryggvi Gunnarsson, vol. I by Þorkell Jóhannesson; Gunnar M. Magnúss, *Dagar Magnúsar á Grund*; and Finnur Ó. Thorlacius, *Smiður í fjórum löndum*.

⁴⁵ Gunnar M. Magnúss, *Byrðingur*, pp 35–8. Th. Krabbe, *Islands og dets tekniske Udvikling*, pp 327–8. Brynleifur Tobiasson, *Hver er maðurinn*, vol. I, p 344.

⁴⁶ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 373.

⁴⁷ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 373.

V.2.1.4. Mineral Fuels (Coal, Petroleum Products)

As already remarked, there was a colossal growth over time in imports of mineral fuels, which were almost entirely of coal. Such minerals were imported right from the start of the period, in 1870, and they competed with domestic fuel materials. In the countryside, dried sheep dung (*sauðatað*) was used almost exclusively for cooking and heating although dried peat (*mór*) was also used if manure was scarce because it was a better fuel. Other materials, such as small wood, fish bones and wastes from fisheries, were also used where they were available. Until the end of the period, these were the most common fuels outside the villages, and uses of coal were small. On the other hand, in the hamlets, imported coal competed with domestic fuels already in the 1870s, and as time passed, coal became increasingly common in the hamlets and in Reykjavik, especially among the better to do. For instance, in these places ovens and radiators consuming coal (or peat) became more common over time.⁴⁸ There too, use of coal as an input in production was also increasing. Coal was consumed in blacksmithies, in the Norwegian whaling stations, and by the steams trawlers after their appearance in 1905.⁴⁹

Imports of coal, both by quantity and value, appear to have fallen by 40 to 50% in the 1870s, something which is slightly surprising given the concurrent general upwards trend in imports to Iceland.⁵⁰ This remains something of a puzzle, especially

⁴⁸ Þórunn Valdimarsdóttir, *Sveitin við Sundin*, pp 212–16. Guðmundur Þorsteinsson, 'Sauðatað,' pp 72–3. Guðmundur Þorsteinsson, 'Mótekja,' pp 74–7. Guðmundur Þorsteinsson, 'Hrístekja,' pp 78–81. Guðmundur Þorsteinsson, 'Skógarhögg,' pp 82, 84. Steindór Steindórsson, *Hlaðir í Hörgárdal*, pp 86–8. Guðmundur Eggerz, *Minningabók*, pp 23, 37.

⁴⁹ On blacksmithies, see Gunnar M. Magnúss, *Járnsíða*, and Sumarliði R. Ísleifsson, *Eldur í afli*. On the Norwegian whaling stations, see Trausti Einarsson, *Hvalveiðar við Ísland* (pp 46 and 82 on mechanisation). On steam trawlers, see Heimir Þorleifsson, *Saga íslenzkrar togaraútgerðar*.

⁵⁰ Tables A.IMP/ALL-3 and A.IMP/ALL-7.

because coal prices were going down at the same time (Fig. V.16). Apart from that ambiguous trend, imports of coal resembled imports of wood because there was a continuous growth in coal imports from 1886 onwards and a colossal one from about 1900 onwards (Fig. V.15).⁵¹ A practically constant decline in coal prices no doubt fuelled coal imports (Fig. V.16), but they would not have taken place unless that was significant demand for coal anyway. And the huge growth indicates that the driving force behind the imports was not primarily ever lower prices, for they were indeed decelerating only slowly in the 1890s and 1900s. The prime force was a rapidly rising demand for coal, the heat efficiency of which was much higher than of domestic fuels, approximately two or three times larger.⁵² Therefore, coals were absolutely necessary for many industries, for instance, in the whaling industry by Norwegians and in the outfitting of fishing trawlers.⁵³ For home consumption, coal was perhaps not an absolute necessity, both in terms of heat requirements and the type of radiators used, but the greater heat efficiency of coal was of course an advantage over alternative, domestic fuels.⁵⁴

Coal was useful for everyone, but presumably one of its most significant uses in terms of the producing sectors in the Iceland economy was in the outfit of steam trawlers, which made their entrance in the fishing industry in 1905 onwards. Their outfit was a wholly Icelandic enterprise and, thus, their economic linkages were bound to be stronger than those of, for instance, the whaling industry, which was on the margins of the Iceland economy. Although the novelty of the trawler needed time and practice to

⁵¹ Unlike most other imports, there was not a fall in coal imports in 1886 compared to 1882. The reason is no doubt whaling, which was started in Iceland in 1883 and was operated on the border of the economy (see Chapter IV on exports).

⁵² *The Economist Desk Companion*, 2nd ed., p 76 (table on 'Energy contents').

⁵³ For coal quantities used by trawlers, their number and size, see Heimir Þorleifsson, *Saga íslenzkrar togaraútgerðar*, pp 94–6, 122, 123, 141.

⁵⁴ A qualitative source on private consumption of coal in Reykjavik around 1910 is Þórunn Valdimarsdóttir, *Sveitin við Sundin*, p 216.

Figure V.15

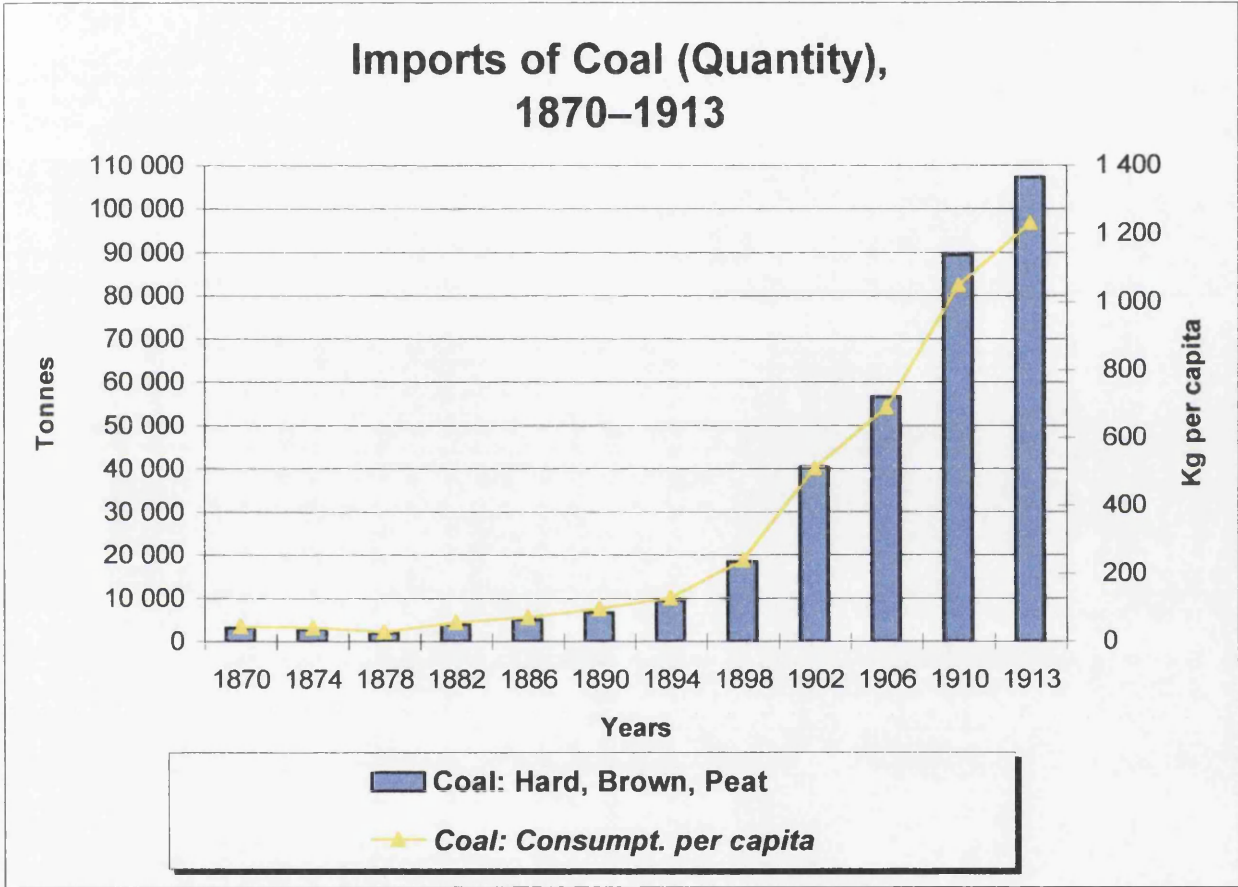
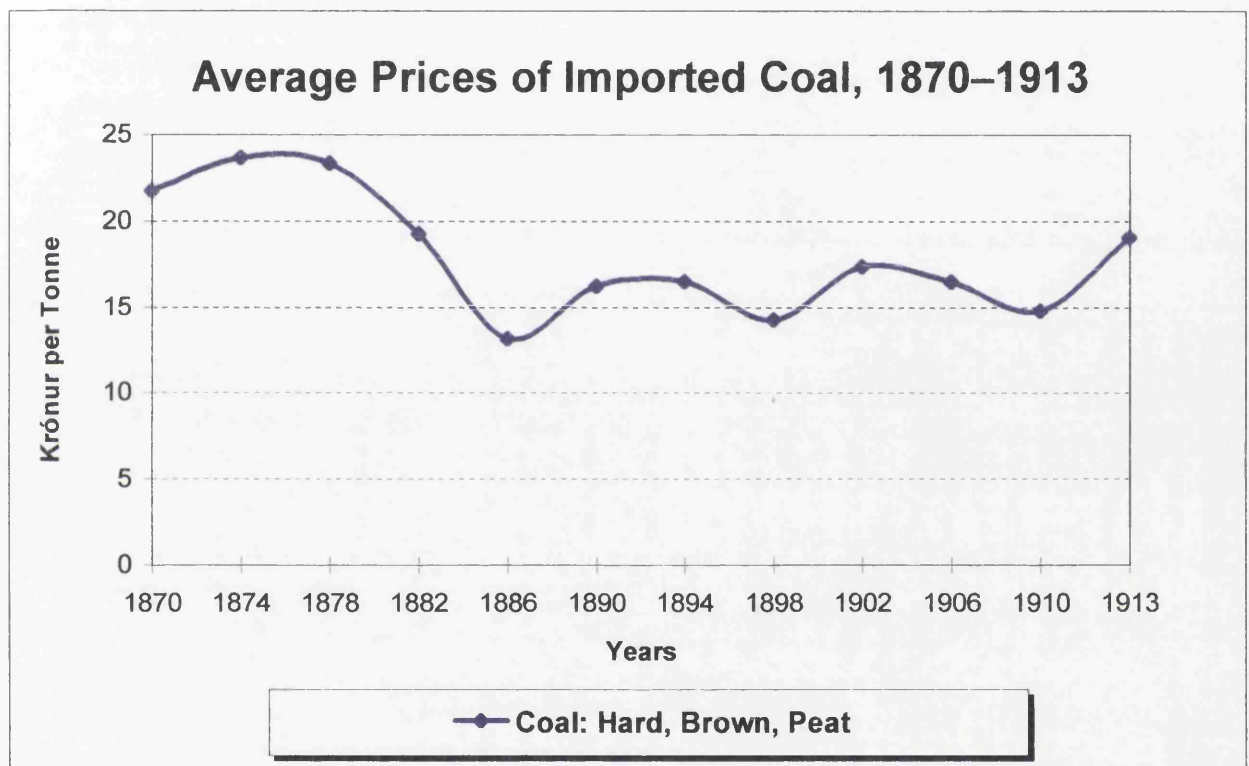


Figure V.16



prove its usefulness and efficiency, trawlers shortly increased in number and by 1913, they were eighteen in Iceland besides three other steam vessels.⁵⁵ By then, their relative share of demersal catches by Icelanders was about one quarter, but they took also part in the herring fishing where they had approximately 60% in 1913.⁵⁶ Finally, the trawlers initiated a new branch in the fishing, namely the production of fish on ice (cf. Chapter IV). All in all, catches of Icelandic trawlers was a large part of Iceland's total fishing by 1913, whereas it had been zero eight years earlier.

Consumption of petroleum products was very small in Iceland for decades (Fig. V.17) and mainly confined to the use of kerosene in small oil lamps, which gradually spread out in Iceland after 1870.⁵⁷ The price of petroleum fell significantly over time, and this no doubt spurred their use (Fig. V.18), but the spread of kerosene lamps probably owed more to the relatively comfortable and improved means of lighting it offered at homes, in workshops and elsewhere. Also, in a social history perspective, it has been argued that the kerosene lamp in Iceland and other countries provided a way to increase people's own command over their reading material and for writing.⁵⁸ However, after small boat engines were put in open fishing boats (rowing boats), the demand for petroleum products also grew further still as their import figures indicate.⁵⁹ Engines in fishing vessels were first experimented with in 1902–03⁶⁰ and ten years later nearly 400 open fishing boats had such engines, using either kerosene or benzene. That was a sizeable part of the small open vessels' fleet, because rowing boats (without engines)

⁵⁵ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 311.

⁵⁶ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 326, 331, 355. Cf. Heimir Þorleifsson, *Saga íslenzkrar togaraútgerðar*, p 107 (table).

⁵⁷ Gísli Ágúst Gunnlaugsson, 'Ljós, lestur og félagslegt taumhald,' pp 58–9.

⁵⁸ Gísli Ágúst Gunnlaugsson, 'Ljós, lestur og félagslegt taumhald,' pp 58–9.

⁵⁹ Table A.IMP/ALL-3.

⁶⁰ Árni Gíslason, *Gullkistan*, [1st ed.], pp 292–305. Jón Þ. Þór, *Ránargull*, pp 115–17. Ólafur T. Sveinsson and Bjarni Þorkelsson, *Leiðarvísir um hirðingu og meðferð á mótum*, pp 54–7.

Figure V.17

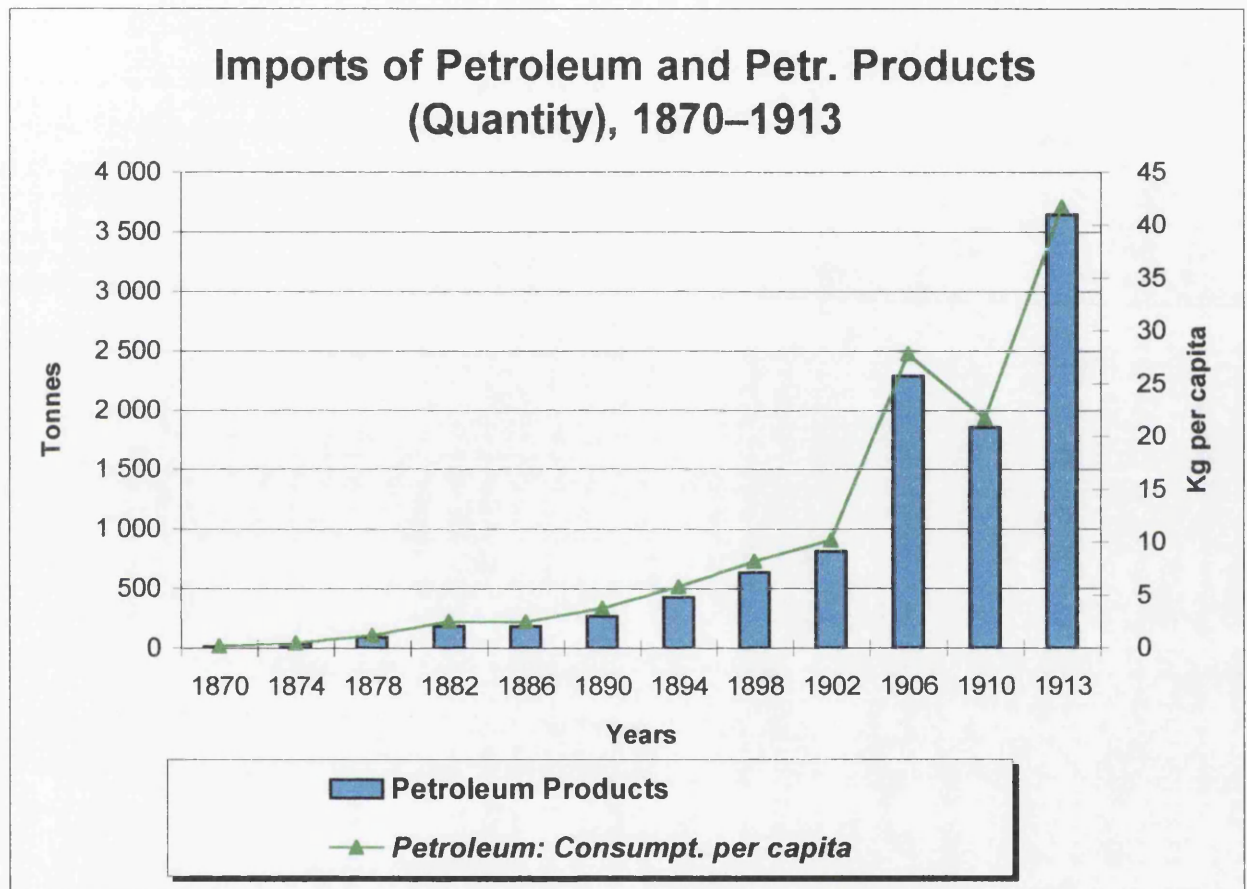
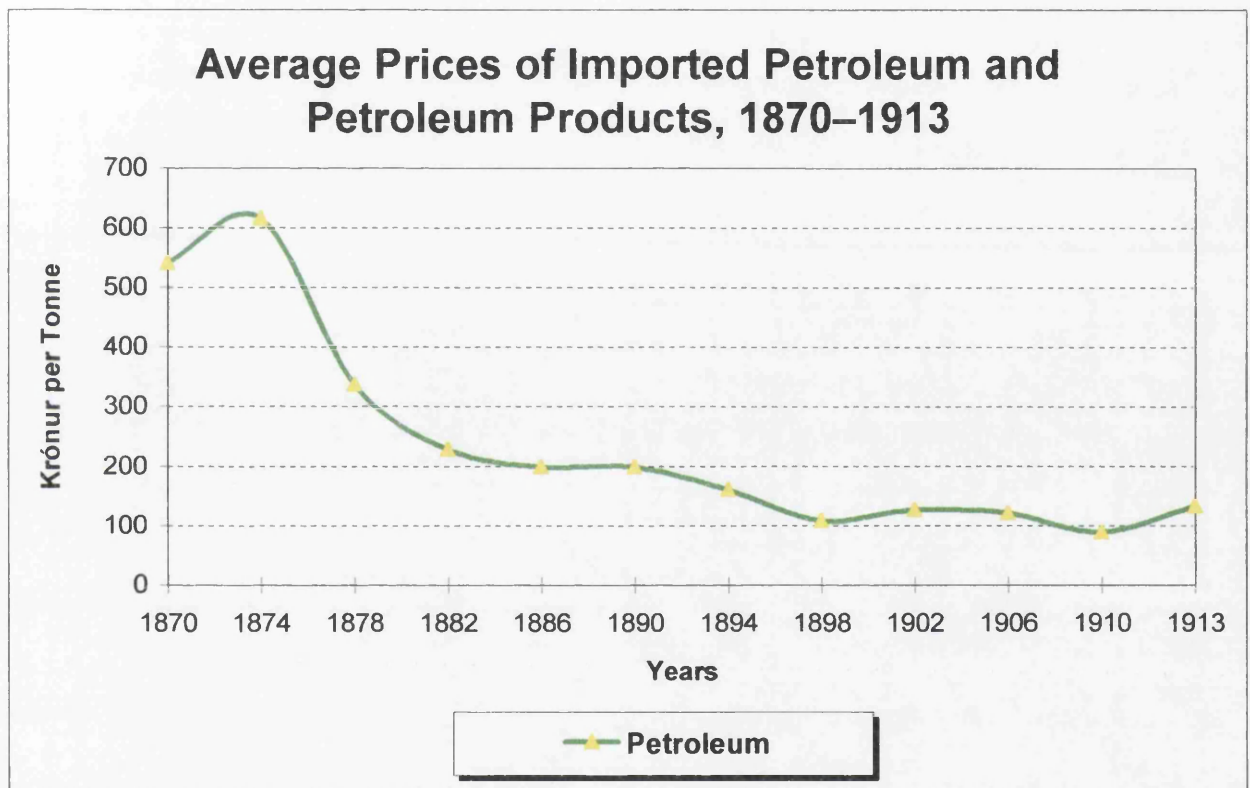


Figure V. 18



numbered close to one thousand in 1913, so there were four open boats with engines for every ten rowing boats. Also, in 1912–13 there was a sharp increase in the number of large motor vessels for fishing.⁶¹ This mechanisation was important for Iceland's fishing, for both domestic use and export, for in 1913 more than 60% of demersal catches by Icelanders were fished by motor vessels, mainly small ones.⁶²

It is safe to contend that coal and petroleum played a substantial role in the economic history of Iceland from the 1900s onwards. The motor engines and the steam trawlers have been hailed in Icelandic historiography as one of the most important steps towards dynamising the fisheries' sector and, ultimately, developing the economy. Furthermore, this technical improvement in fishing has sometimes been described as Iceland's industrialisation.⁶³ Although these claims are made with the benefit of hindsight, mechanisation in the fishing fleet definitely had a decisive impact in the fishing sector of that time. The rising relative shares of motor boats and steam trawlers in the demersal catches confirm this, and then there are the indirect influences on incomes and general standards of living. The alternative to machines in fishing was the manpower that had been used until then, and the choice was not difficult for fisherman and owners of fishing vessels — even although mechanisation demanded capital, which had usually been scarce in the Iceland economy. It seems plausible at this stage to suggest that these changes in the technology of fishing were linked to the pattern that we have been observing above, namely higher income levels and, possibly, higher standards of living too.

⁶¹ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 311. Ó[lafur] T. Sveinsson and Bjarni Þorkelsson, *Leiðarvísir um hirðingu og meðferð á mótorum*, p 13.

⁶² Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, p 326.

⁶³ Jón Þ. Þór, 'Vélvæðing í íslenskum atvinnuvegum,' p 38, 40, 42. Sigfús Jónsson, *Sjávarútvegur Íslendinga*, pp 21, 31, 32, 102, 263ff. Magnús S. Magnússon, 'Efnahagsþróun á Íslandi,' pp 153, 157–8. Guðmundur Jónsson, 'Formáli' to *Iðnbylting á Íslandi*, p 6.

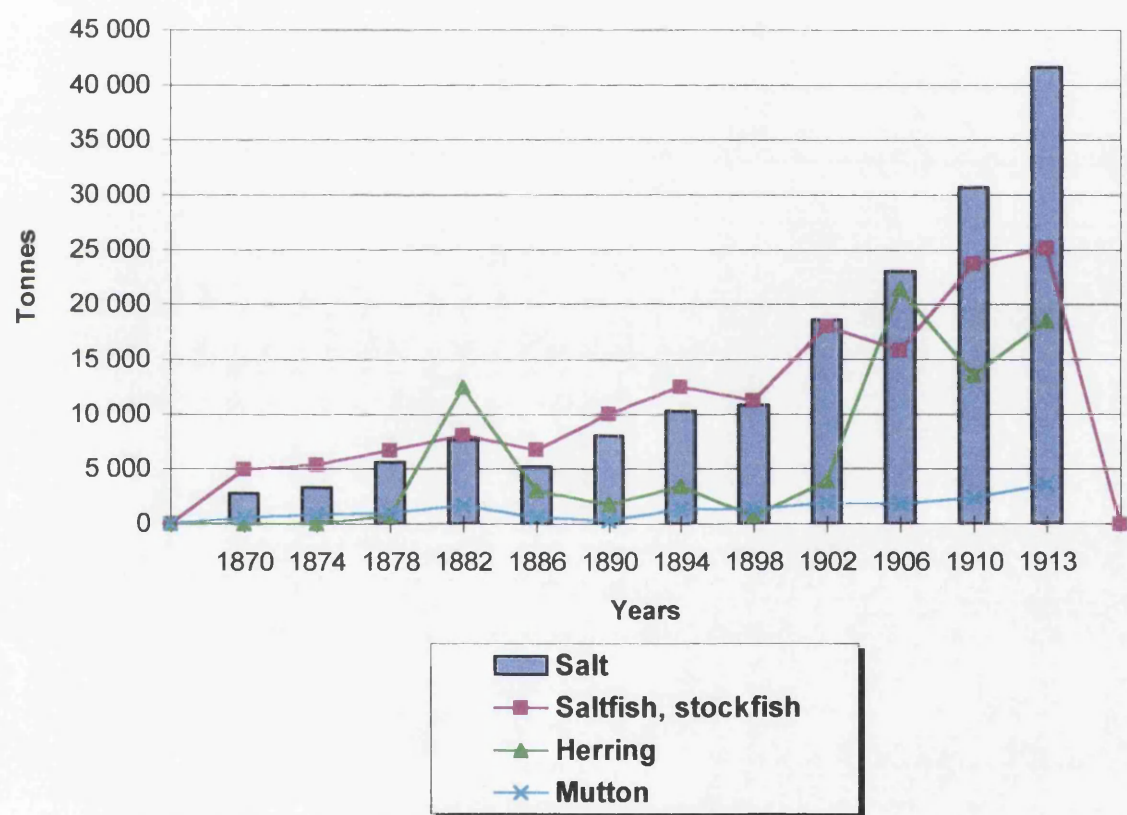
V.2.1.5. Chemicals (Salt)

Imports of chemicals comprised predominantly salt and, to a very small extent, vinegar. Salt was a commodity that was mostly used as a preservative. Although it was used for salting mutton in barrels for home consumption, by far the major part of salt consumption was for salting products for exports, i.e., cod, herring, mutton, and hides. Hence, there was a clear relation between imported salt quantities and these products as Fig. V.19 shows; hides are omitted because their export quantities were so small relatively.

Clearly, salt imports fall into two distinct periods — before and after 1900 — just like some of the other import commodities discussed above. Imports of salt were constantly rising from 1870 until 1898 (excluding a drop in 1886), but it was a steady and slow rise, and it was generally in line with the quantities of saltfish exported. The imports of salt relative to exports of saltfish particularly, show a certain ratio between the two commodities, because salt imports appear to be roughly 70–80% of saltfish exports. Mutton exports were stable and huge herring exports in 1882 do not seem to have affected salt imports very much. Shortly after 1898, imports of salt rose substantially — as their import quantities in 1902 to 1913 witness — and the link between these and saltfish exports was no longer so clear, because salt imports exceeded saltfish exports to ever greater extent from 1902 onwards. Incidentally, although exportation of herring required salt and it increased imports of salt somewhat, herring exports seem to have been quite insignificant as an influencing factor for the imports of salt, because herring exports and salt imports did not move in tandem. The explanation

Figure V.19

Imports of Salt to Exports of Salted Products (Quantity), 1870–1913



for the termination of previous ratio between salt imports and saltfish exports probably is that requirements for salt rose in the saltfish production. For example, saltfish sorters agitated against used salt (*úrsalt*) and producers probably were not as frugal in using salt as before. Also, salt for producing mutton for exportation may also have increased, especially because complaints had been made that Icelandic mutton was often lacking enough salt towards the end of the 19th century.

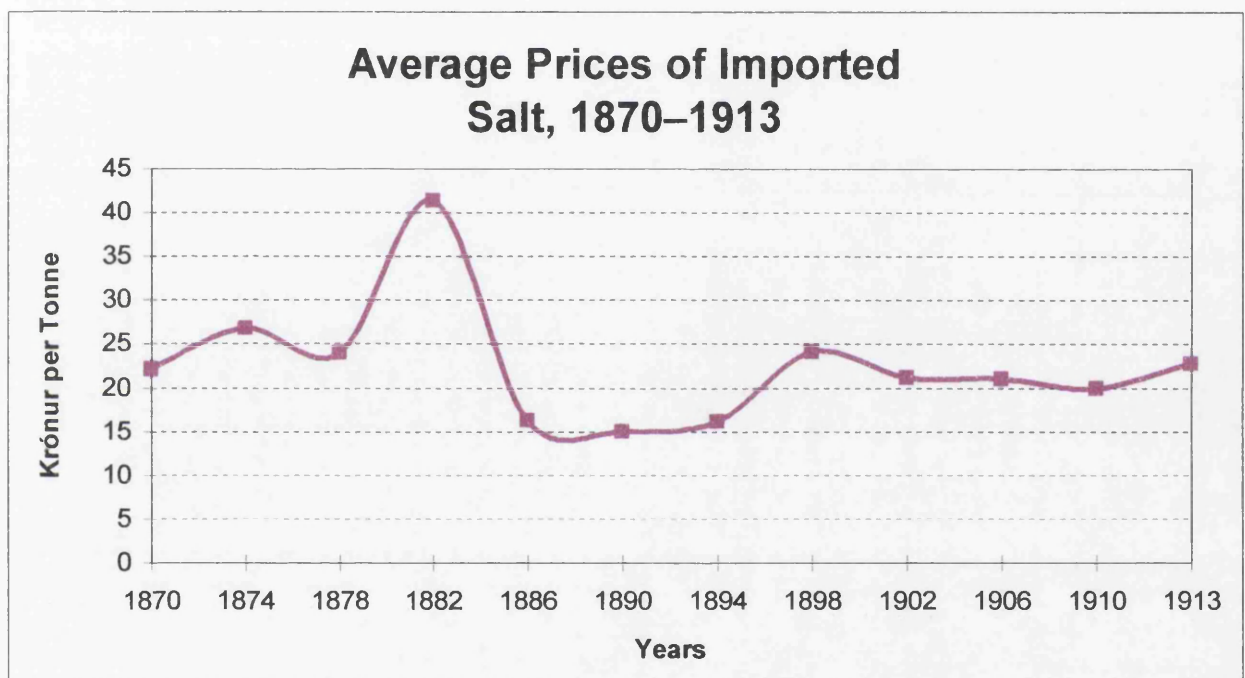
There cannot be any doubt that salt imports from 1902 onwards were not contingent on production purposes to the same extent as before, its importation increasingly was running independently of exports of those commodities for which salt was used. This in turn indicates that private consumption of salt was increasing, but prices of salt definitely were not spurring its imports, because in 1902 onwards they were generally higher than in ca 1886–94 (Fig. V.20). The rising import quantities, in spite of slightly adversely running prices, are a clear sign of rising incomes and salt imports, therefore, fall into this pattern we have observed above.

V.2.1.6. Conclusion

In the survey above we have covered round about 96–98% of Iceland's imports by quantity (cf. Fig. V.3) and ca 60–85% by value (cf. Fig. V.4)⁶⁴ — excluding all kinds of manufactures, which will be discussed later in the chapter. The basic nature of Iceland's imports stands out more clearly than before, and another feature is evident by now, namely the lack of domestic substitutes in most cases. Only in the cases of potatoes and,

⁶⁴ Tables A.IMP/ALL-1 and A.IMP/ALL-5.

Figure V.20



presumably, wood (drift timber) did imports compete with identical domestic commodities. In addition, coal competed with various kinds of domestic substitutes, although by heat efficiency none of them matched it. Hence, Iceland was dependent on external sources for the remaining staple imports cereals and salt, besides all the less significant commodities, such as sugar and sugar preparations; coffee, tea, cocoa, and chocolate; alcoholic beverages and tobacco; and petroleum products. Overall then, Iceland was very dependent on imports of primary commodities to substitute for a lack of internal resources, and a lack of entrepreneurship and skill in exploiting available domestic production possibilities. This import dependency made exports all the more important in the economy — because the capacity to import hinged crucially on the foreign exchange earnings generated by exporting.

Primary commodities among Iceland's imports were basically of two types. One was non-durable goods used in individual consumption. These were particularly foodstuffs, and beverages and tobacco. Remarkably, there were wide differences in the consumption of these consumer goods. While imports of cereals did not markedly grow until the turn of the century onwards, imports of other foodstuffs (sugar, coffee, etc.) rose substantially already in the early 1880s onwards. By contrast, imports of a similar type of merchandise, beverages (practically all alcoholic) and tobacco, were subject to irregular fluctuations with neither upwards nor downwards trend detectable. This pattern is at odds with imports of various foodstuffs that may be called luxuries by the standard of the time in Iceland, and I have no explanation for it. The other type of primary commodities among Iceland's imports was intermediate commodities used by industries. Some of these were non-durable (for instance coals, petroleum products, and salt) while other were durable (especially wood). From the point of living standards, both types are essentially of importance, but from a macroeconomic point of view, the second is mainly

of significance. Intermediate commodities were indeed both consumed by individuals and producing sectors, but their aggregate consumption is the focal point, and the trend was even more clear than in the case of consumer commodities, because overall there was a continuous growth in imports of intermediate commodities from 1870 onwards and a especially huge one from around 1900 onwards. Only the natural and economic hardships in the mid 1880s caused a drop in these imports (cf. the year of 1886), but that was common to the consumer commodities' imports too. Hence, there was more homogeneity in imports of intermediate commodities than in imports of consumer goods.

The conclusion to draw from different rates of growth of imports by commodities is not simple, even when they are aggregated into consumer goods and intermediate goods. Within consumer commodities, purchases of 'luxuries' increased but not of staple foods like cereals, even when prices of both were declining simultaneously. That is understandable *per se* but why did imports of beverages and tobacco not increase also? Imports of 'luxury' foods were publicly lamented by pillars of society no less than imports of alcoholic beverages. Did they manage to influence people to this extent? As for the intermediate commodities, the trend is more uniform, but then both homes and manufacturing sectors used these commodities, and the relative shares of each is impossible for me to estimate. Compared to imports of consumer goods among primary commodities, the expansion in imports of intermediate goods is far more impressive. Also, durable intermediate commodities contributed to the capital stock in Iceland, and non-durable ones were partly used for production purposes, thereby increasing Iceland's producing capacity.

V.2.2. Manufactures

V.2.2.1. Manufactures in General

Evidently, the groups containing manufactured goods, machinery and transport equipment, and manufactured articles (SITC group 6–8) are of special interest in terms of the semi-dynamic gains from trade discussed earlier in the thesis. But they also convey interesting trends in empirical terms. First, they were not at all negligible within Iceland's imports — as their 20–30% share by value after 1900 shows. Second, apart from mineral fuels (mainly coal) and chemicals (mainly salt) no commodity groups grew by quantity or value as fast as they did. Finally, these groups consisted of goods for consumption both by individuals and the producing sectors, and their investigation should, presumably, enable us to probe further into the questions of changes in purchasing power of the population and expansion in the economy after 1900.

To facilitate the understanding of the types of goods in these SITC groups, a few words about them in terms of Iceland's imports are needed. Group 6, 'Manufactured goods,' included a variety of goods, they were leather and leather manufactures; silk and woollen manufactures; wood and cork manufactures; paper, paperboard and articles thereof; ropes, mats, lines, and nets; fabrics from cotton, linen or hemp; cement and lime; manufactures from rock; glass and glass manufactures; pottery manufactures; unprocessed iron and steel, and manufactures of metals. Because of their diverse nature, they had a mixed consumption. Some of them were final goods that were purchased by homes and individuals, and some were semi-processed goods that needed further processing or to be used as intermediary commodities with other materials or for machines. SITC group 7, relatively a very small one in imports of Iceland, consisted of

machinery and transport equipment, that is capital goods, such as boats and ships. SITC group 8, 'Manufactured articles,' comprised a host of final goods intended often for personal use and, thus, bought mainly by Icelandic homes rather than the producing sectors. These included radiators and stoves, lamps and furniture, beds and mattresses, clothes and footwear, watches and clocks, ammunition, printed matter, articles for entertainment and decoration, and musical instruments.

Across the imports of the different kinds of manufactures listed above, the same general pattern that emerged in imports of primary commodities is also evident. More specifically, the pattern resembled largely the import pattern of those primary commodities that had the largest growth. By quantity, there was an overall long-term rise in imports of manufactured goods, i.e., goods in SITC group 6, from 1870 onwards, although there clearly was an unprecedented spurt around 1900 onwards (Fig. V.2 and V.21). By value, however, these particular imports were rather steady until about 1900, after which they soared (Fig. V.1 and V.22). Imports of machinery and transport equipment (SITC group 7) were small and irregular, so they do not tell us anything definite about Iceland's consumption of them. But similar to manufactured goods, imports of manufactured articles (SITC group 8), which were mostly goods for personal use (see above), grew almost unabated, being at least forty times larger by value in 1913 than in 1870. As of all imports, the relative shares of manufactured goods (SITC group 6) and manufactured articles (SITC group 8) rose from 10 to ca 25% and from 1 to ca 10% respectively between 1870 and 1913.⁶⁵

Although imports of manufactured goods (SITC group 6) by value increased very much in absolute figures from about 1900 onwards (Fig. V.22) as compared to previous decades, it needs to be stressed that these imports formed no break with past

⁶⁵ Table A.IMP/ALL-5.

Figure V.21

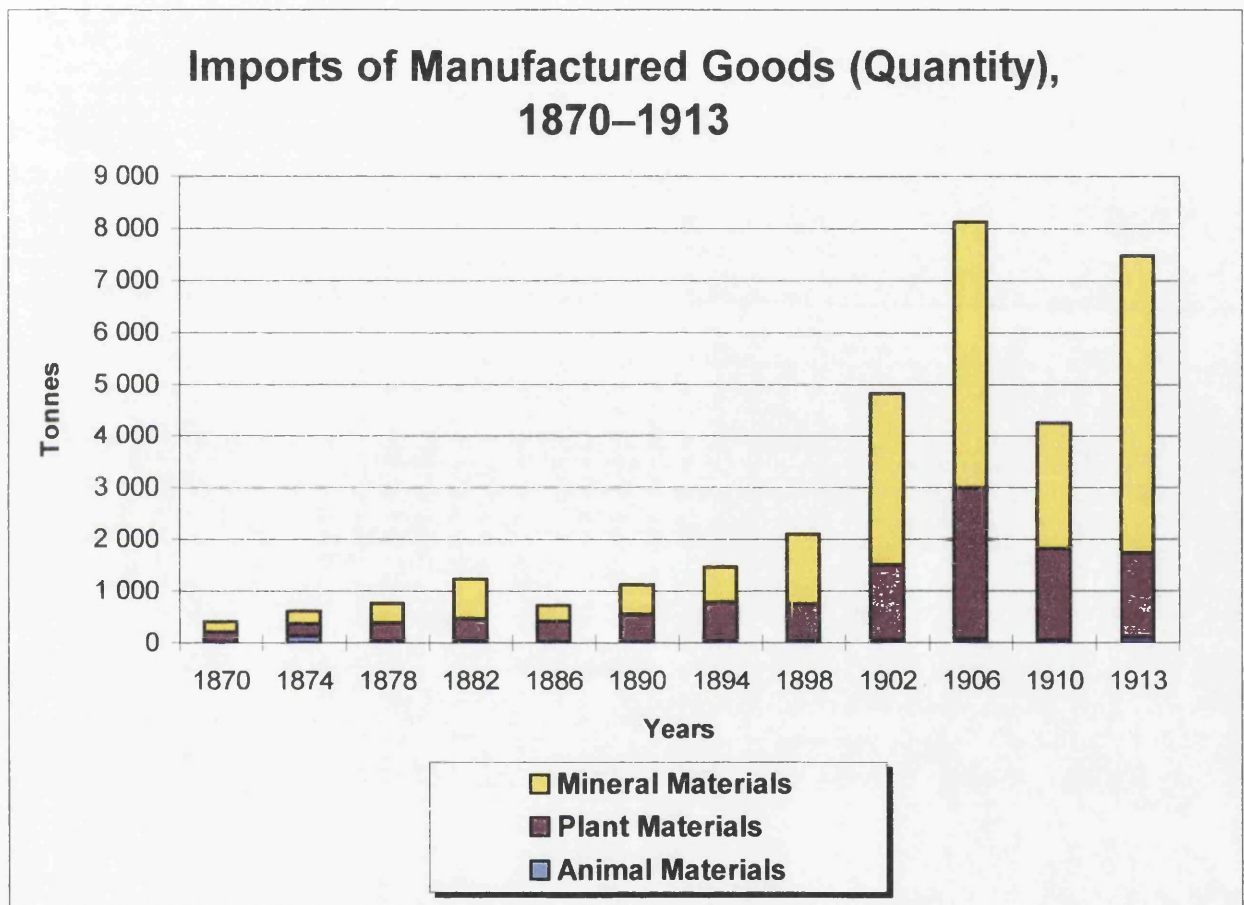
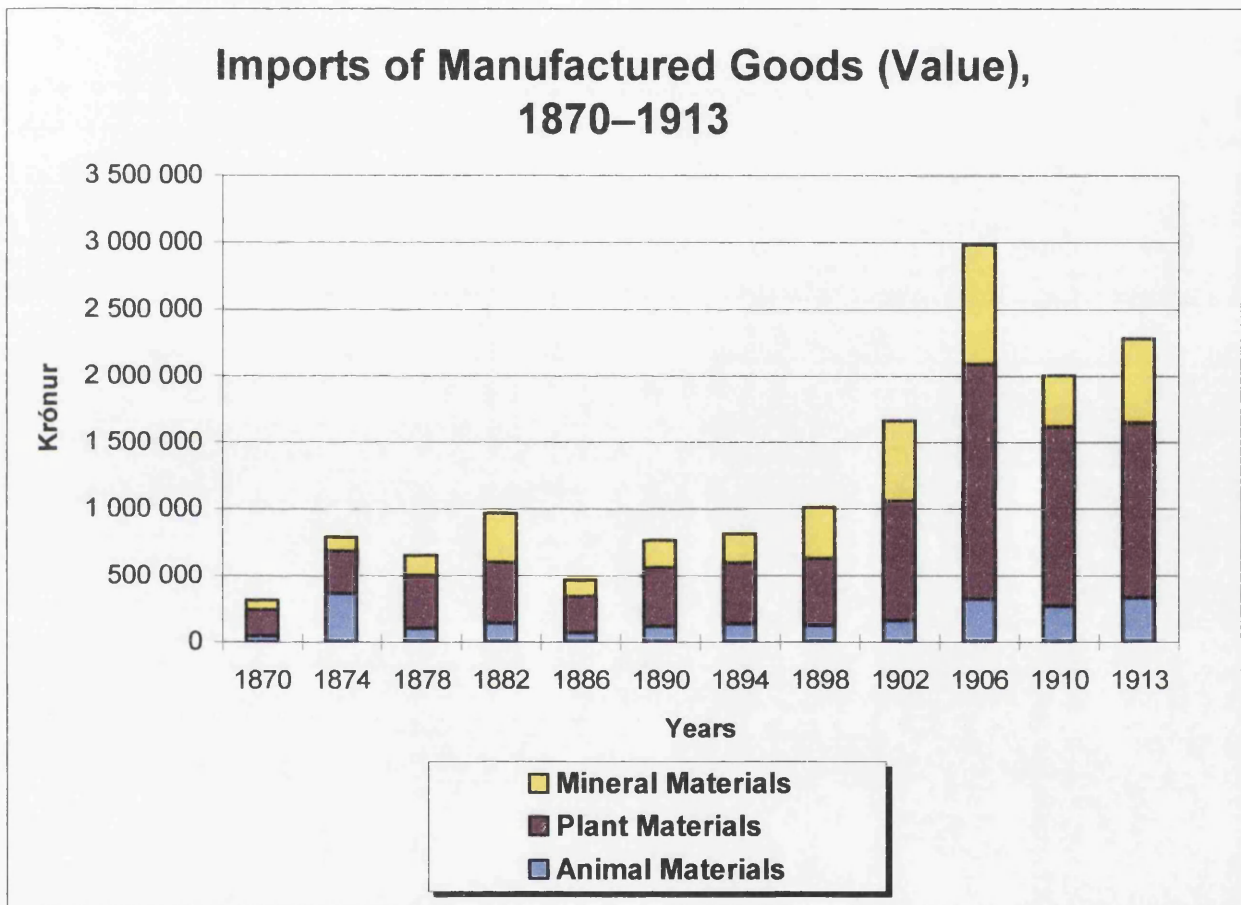


Figure V.22



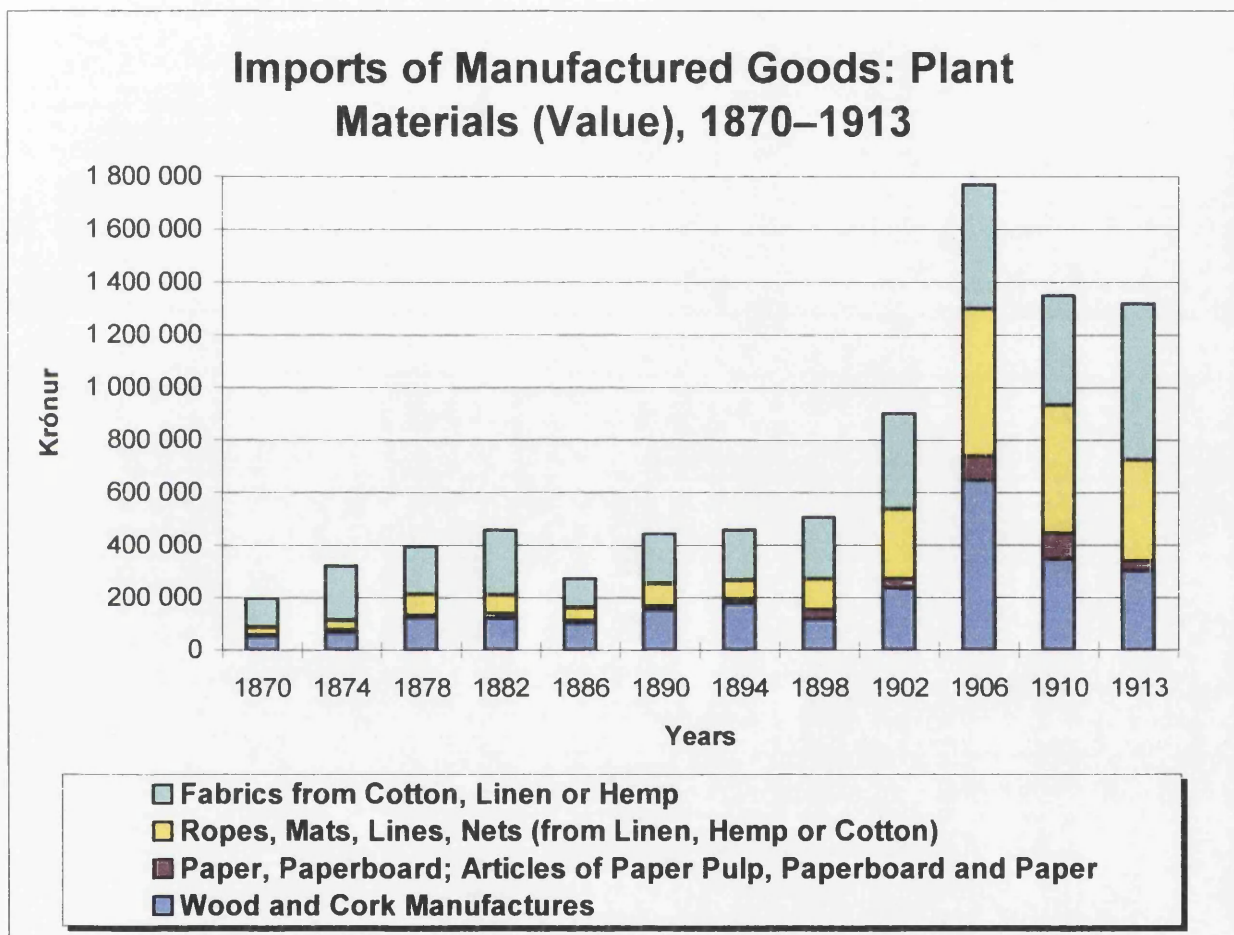
decades. This is because the share of manufactured goods as of total imports did not radically change after 1900, compared to earlier decades. Rather, the upwards trend before 1900 simply continued after 1900 although at a slightly faster rate. Hence, there was a gradual rise in the imports of manufactured goods from ca 10% of total imports by value in 1870 to about one quarter in 1902–06. This trend also applies to imports of manufactured articles (SITC group 8), for there was an even rise over time in their share relative to total imports.⁶⁶

V.2.2.2. Manufactured Goods (SITC Group 6)

The largest part of the goods in this import group (50–60% by value) consisted of manufactures of *plant materials* (Fig. V.22), and that ratio remained stable throughout the period 1870–1913. Within this sub-group, manufactures of plant materials, the two most important types of goods were (a) fabrics or textiles, along with made-up articles (clothes, etc.) from cotton, linen, or hemp, and (b) wood and cork manufactures (Fig. V.23), presumably mainly furniture, etc. Among manufactures of plant materials, the share of textiles and clothing, fell from ca 60 to 30% by value over time, while that of wood and cork manufactures remained largely the same. A third category — ropes, mats, lines, and nets from linen, hemp, or cotton —accounted for ca 15–20% by value of all manufactures of plant materials until after 1902, when its share rose to one-third. This rise was at the expense of fabrics and textiles. The fourth and the last category was paper and paperboard, and manufactures thereof; imports of this type were relatively

⁶⁶ Table A.IMP/ALL-5.

Figure V.23



insignificant throughout the period 1870–1913, although rising substantially in absolute figures.⁶⁷

The relative shares of the four different types of manufactures of plant materials indicate a larger than average rise in demand for fishing gear, and does not come as a surprise given the expansion in the fisheries' sector (see Chapter IV and section on mineral fuels above). Imported fabrics and textiles did not keep pace with the 'average' increase in imports by value or other manufactured goods from plant materials, namely wood and cork manufactures and of paper, etc. Even so, in spite of their relative fall within manufactures of plant materials, the import values of fabrics and textiles per capita were rising fast after 1900 compared to previous decades. They were nearly three times larger in 1913 than in 1890–94 while the population grew by ca 20%.⁶⁸ These figures are also indicative of the import quantities of fabrics because their prices remained relatively stable over time.⁶⁹ Because of this observation, we see that the 'average' rise in imports by value of wood and cork manufactures and of paper, etc. was in fact tremendously fast: Wood manufactures were used in construction, and their imports suggest an expansion there. Paper, etc. had numerous uses, for example in printing books and papers, and publishing of both increased substantially from about 1900 onwards.⁷⁰

The second subgroup within manufactured goods, manufactures based on *mineral materials*, formed a sizeable portion of imported manufactured goods — round about one quarter by value — although fluctuating over time. By far the most important type was metallic manufactures (Fig. V.24), which included, for instance, tools and

⁶⁷ Tables A.IMP/ALL-6 and A.IMP/ALL-7.

⁶⁸ Tables A.IMP/ALL-5 and A.IMP/ALL-7.

⁶⁹ Tables A.IMP/ALL-3 and A.IMP/ALL-10.

⁷⁰ Ólafur F. Hjartar, 'Íslensk bókaútgáfa 1887–1966,' table in a folded sheet.

implements of iron. Around 1900, however, imports of a new type of good began to rise rapidly in terms of value, viz. unprocessed iron (and steel). Shortly after, imports of cement and lime by value also increased significantly. Clearly, Iceland entered a new epoch with regard to consumption of iron and steel around 1900, and larger imports of construction materials (cement and lime) were another witness to expansion in the construction industry, besides imports of wood manufactures.

The third and last subgroup within manufactured goods, manufactures based on *animal materials* (mostly leather manufactures), was small in comparison to the others but imports of these by value were increasing, especially in the mid 1900s (Fig. V.22).⁷¹ By quantity, the imports seem to have round about doubled by 1913 compared to the period of the 1870s through to the 1890s. Much of these imports were shoe leather, which in turn suggests that shoe making and repairing entered a new phase in the 1900s.⁷²

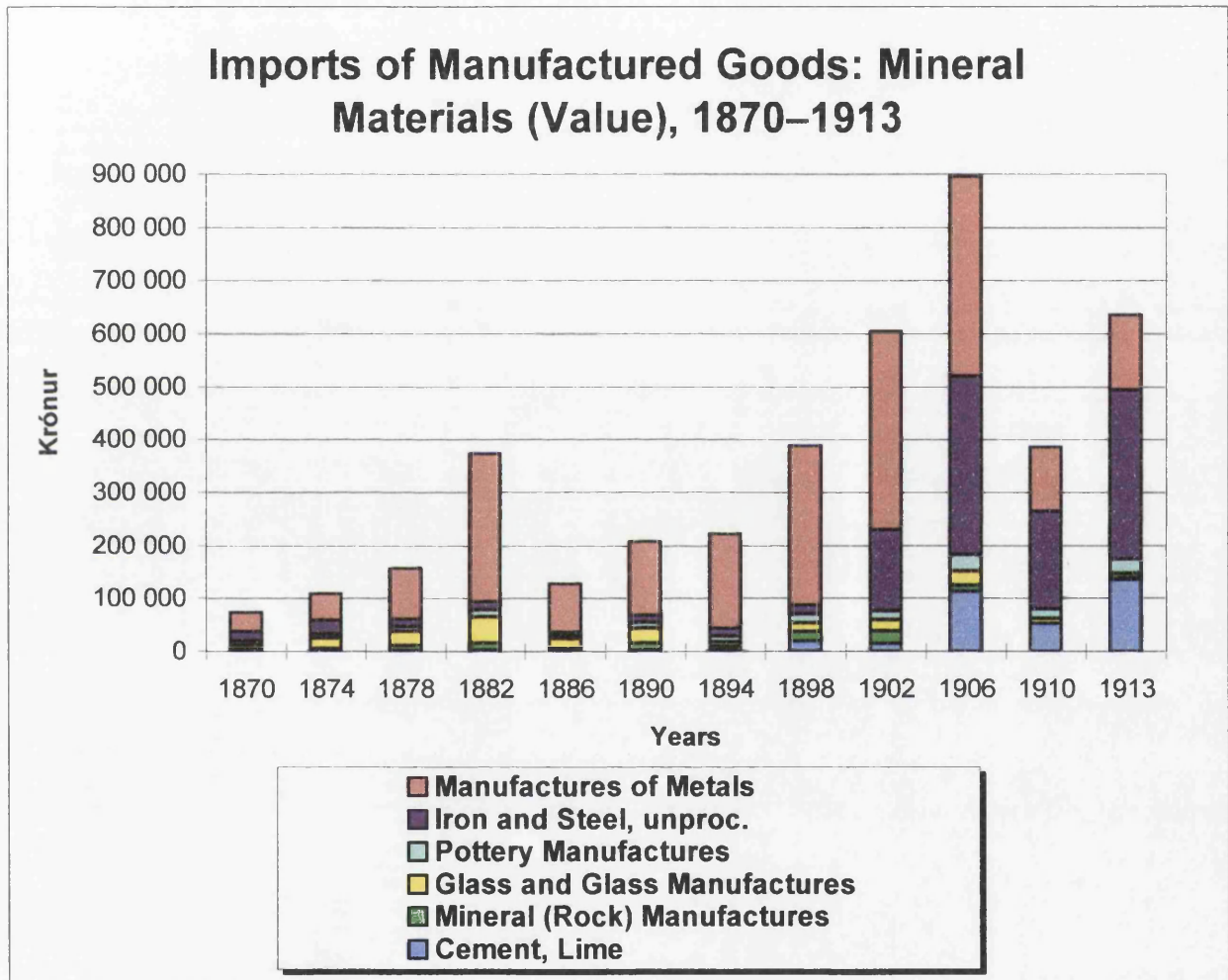
To get a fuller picture of manufactures imports and take out the price factor, it is useful to take a look at the quantities imported. By quantity, the two subgroups within manufactured goods understandably change places. Mineral materials were far more prominent and plant materials less so (Fig. V.21), something which is logical given the heavier mass (relative density) of minerals. Also, within the mineral materials, rock manufactures (millstones, etc.) along with unprocessed iron (and steel) and cement and lime characterised the imports of mineral manufactures, but not metallic manufactures, which were relatively expensive (Fig. V.25).⁷³ As for plant materials' imports, wood and cork manufactures with their relative heavy mass dominated while the lighter fabrics and

⁷¹ Tables A.IMP/ALL-6 and A.IMP/ALL-7.

⁷² Table A.IMP/ALL-3. Danish and Norwegian trade returns (exports).

⁷³ Information about the imports of these goods is not complete because imports from Denmark in 1910 and 1913 have not been fully accounted for (cf. first footnote).

Figure V.24



made-up textile articles, that had ranked so high by value, dwindled very much in significance (Fig. V.26).

It is quite clear that these manufactured goods, whether of mineral, plant, or animal materials, were consumed or used both in homes (by individuals) and in the producing sectors of the economy. There is not much point at this stage in trying to distinguish between the two end users, so as to conclude something about patterns of consumption in the economy. Such an approach would be convoluted, and, anyway, sources to do so are not readily available. Besides, the levels of aggregate imports are no less important for our study than their specific channels of consumption. But the perspective taken in our discussion about imports of manufactured goods above missed certain aspects of the relationship between the Iceland economy and these particular imports. We focused on increases in relative shares and tried to explain them with reference to upswings in economic activity in various fields in the economy. As it happens, increases in these particular imports sometimes affected former production and consumption patterns in the Iceland economy. To be sure, this was by no logic because some imports of manufactured goods were pure additions to former consumption patterns and did not affect production patterns either. Thus, when imports of these goods in ca 1900 to 1913 as compared to their imports in 1870-82 are studied in more detail, they suggest that in the 1900s two or three profound changes had taken or were taking place in the economy. First, instead of continuing to buy certain kinds of these goods in the form of raw or crude materials as before, Icelanders started buying them in semi-processed or even fully processed forms. Second, they chose foreign substitutes, in place of domestic goods that they formerly used. Hence, these changes in the type or kind of demand were affecting established production and consumption patterns in the economy and, thus, warrant special attention. So let us elaborate these points further.

Figure V.25

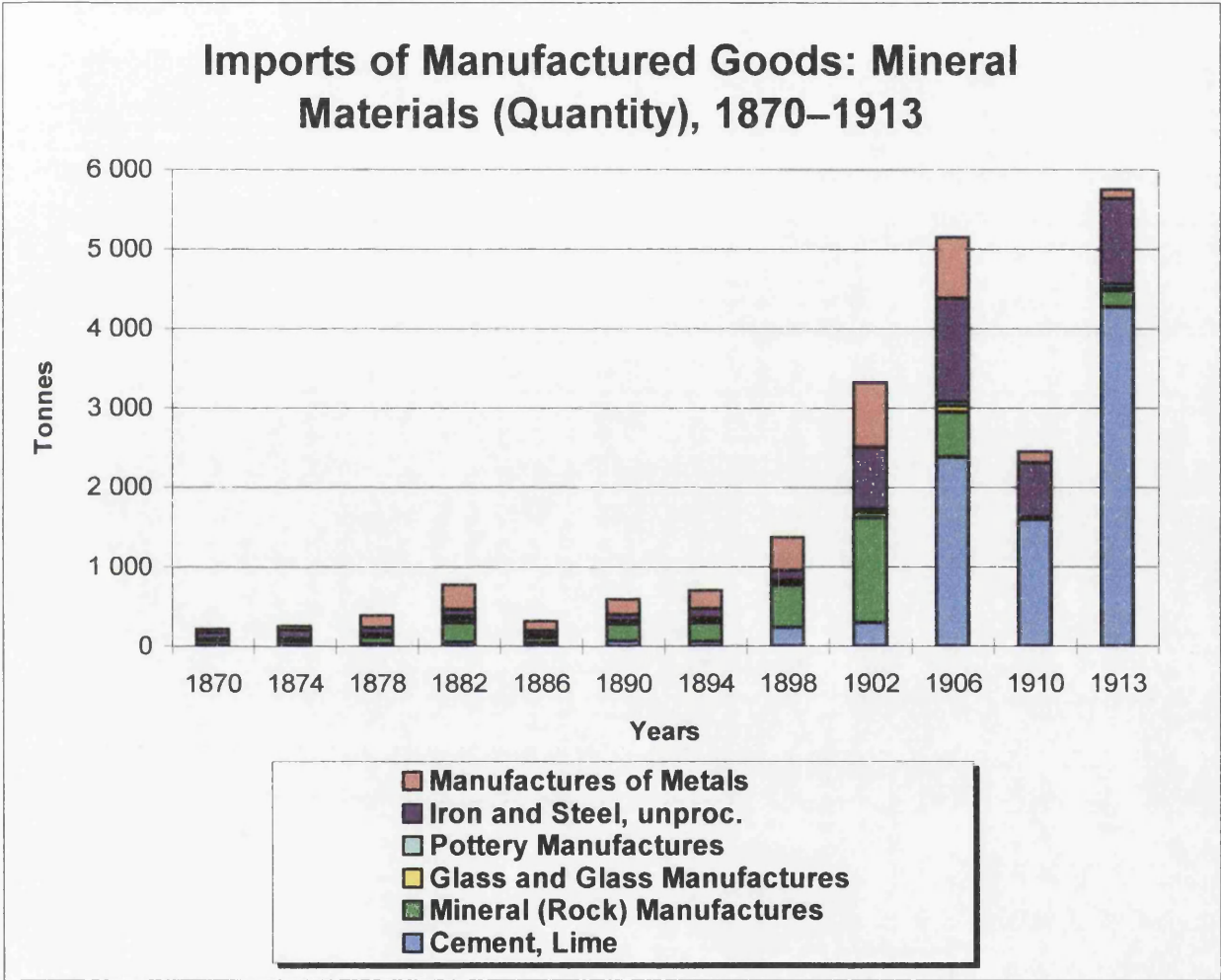
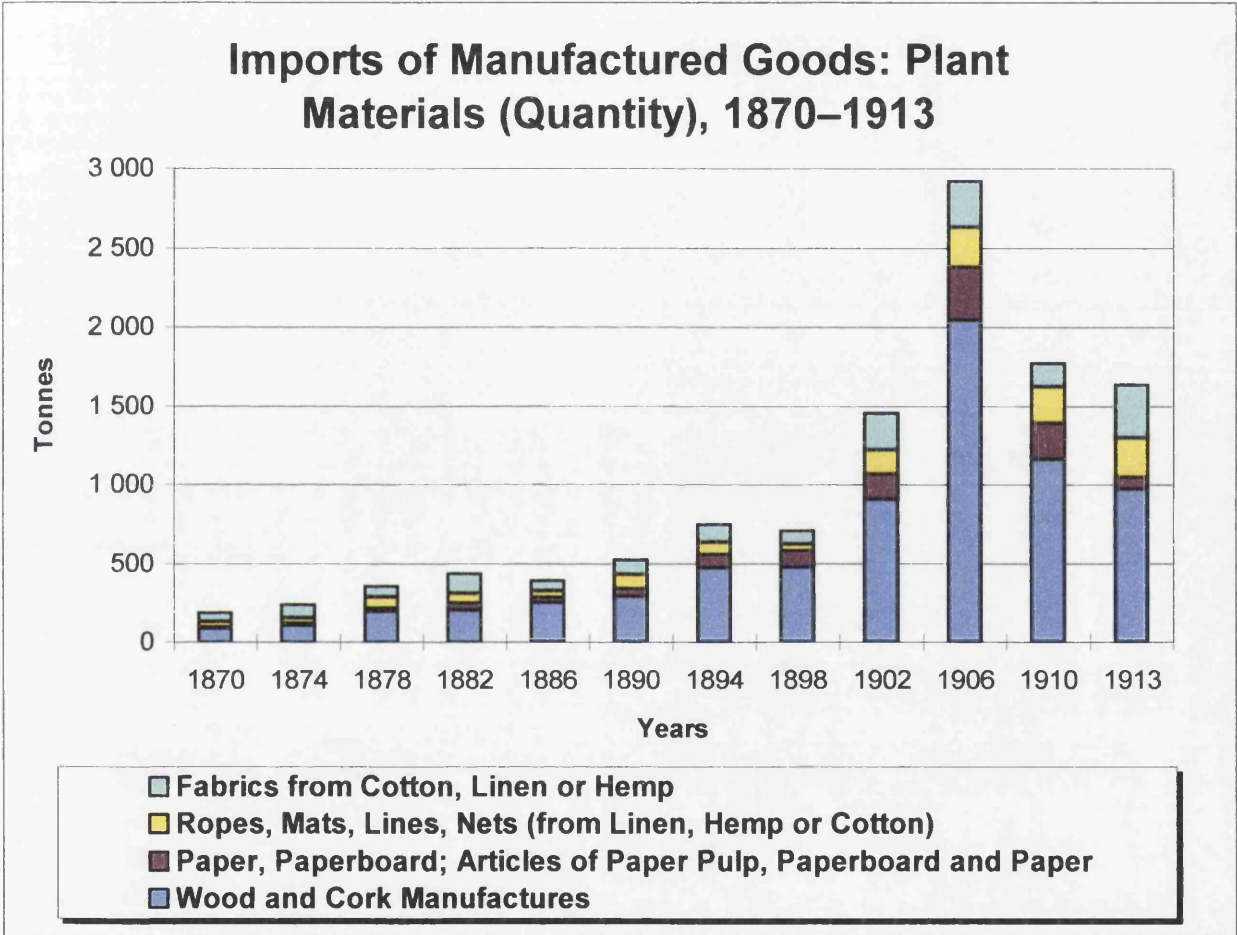


Figure V. 26



To avoid oversimplification, Icelanders always imported various manufactured goods, both semi-processed and fully processed, through the centuries. The level of these imports went up and down of course, even if such goods until the 19th century were mainly bought by the wealthy (i.e., high officials, large landowners, etc.) and institutions like the monasteries and the bishoprics. Furthermore, since the first half of 19th century common people more frequently acquired the means or yielded to their desires to spend a part of their small means to buy goods that had been rare or not customary in Iceland. For example, coffee imports are believed to have started only after 1760 and regular coffee drinking did not become common until after 1850 or later (except in villages and elsewhere by the seaside). Not all luxury items arrived so late to Iceland — tobacco imports started from as early as the 17th century.⁷⁴ To take more basic imports as examples, iron pots to cook in were indispensable, metallic blades were needed to cut the grass and turf, small millstones were needed to thresh the corn and whetstones also, blacksmiths and silversmiths needed metals for innumerable things, etc. Also, most grown-ups carried small foldable knives that were used when eating and, indeed, for many other things. Finally, new items such as the lamps, which came in use from the 1870s onwards, demanded glass bowls, kerosene, and wicks.⁷⁵ It, therefore, follows that importing of manufactured goods was already under way, and their quantities were rising by the mid 19th century. Nevertheless, it must be appreciated that these imports were usually additions or extras in people's survival and living, and not imports that were substituting domestically made goods (either from imported materials or domestic). True, there is not always a clear dividing line between a good that is replacing another and a good that is an addition. For example, coffee drinking certainly reduced the

⁷⁴ Jónas Jónasson, *Íslenzkir þjóðhættir* (3rd ed.), p 54. For consumption levels of people generally, see the last named source and a dispute by two 19th century Icelanders about consumption in that century, reprinted in Gils Guðmundsson, ed., *Þjóðlífsmyndir*, pp 7–175.

consumption of *mysa* that is a slightly sour liquid and a residual in butter making, but only a part of the coffee drinking was such substitution, a large part of it was a pure addition to previous consumption of drinks.⁷⁶

The purpose of illustrating this point is to show that there were of course consumption changes before our period. Nevertheless, what is special in our period is that by ca 1900 common people had started or were starting to buy from merchants goods that until then had wholly been made domestically or processed at home with imported raw (crude) materials. To take a few examples, ordinary made-up fabric articles (clothes, etc.) had not been imported, or imported in negligible quantity, because all day-to-day clothes had been made from Icelandic wool.⁷⁷ Imports of fabrics and textiles from cotton, linen, and hemp increased at least three or four times over by quantity from the 1870s to 1913, and so did imports of woollens.⁷⁸ Although a part of these import quantities were used for other purposes than clothing, there can hardly be any doubt that these imports were at the expense of traditional production of woollens for domestic use. Around 1870, ropes were made in Iceland by processing imported hemp amounting to ca 20 tonnes annually, but in 1913 imports of hemp were practically zero while imports of various fishing gear (largely of hemp), ropes included, was five times greater.⁷⁹ Around 1870 glasses in windows were rare because windows in houses were usually few and dried animal foetus-sacks were the customary material. By 1913, the import quantities were five times greater.⁸⁰ Also, pottery (dishes, etc.) was not

⁷⁵ Jónas Jónasson, *Íslenzkir þjóðhættir*.

⁷⁶ See, for example, Vilhjálmur S. Vilhjálmsson, *Sjógarpurinn og bóndinn Sigurður í Görðunum*, p 97, and Ásmundur Helgason, 'Vertíð og vertíðarsíðir,' p 196.

⁷⁷ Jónas Jónasson, *Íslenzkir þjóðhættir*.

⁷⁸ Table A.IMP/ALL-3.

⁷⁹ Vilhjálmur S. Vilhjálmsson, *Sjógarpurinn og bóndinn Sigurður í Görðunum*, pp 33–5. Table A.IMP/ALL-3 ('Textile Fibres' in SITC group 2).

⁸⁰ Jónas Jónasson, *Íslenzkir þjóðhættir*. Table A.IMP/ALL-3.

needed, because people used the traditional Icelandic *askur*, a box-like piece made of wood with a lid on it. There was neither need for metallic manufactures like cutlery, because a spoon made of animal horns was the handiest instrument to eat the food with from *askur*. Only among the higher classes did people use pottery and cutlery.⁸¹ In 1913, imports of pottery manufactures by quantity were at least three times larger, and imports of manufactures of metals presumably had tripled.⁸² These examples give a glimpse of the contrast between 19th century Iceland, especially in the countryside where the majority of people lived, the ordinary life of common people until the 1880s or even 1890s, and the new modes of consumption in the 1900s and the early 1910s.

The changes in production and consumption patterns exemplified above all revolved around the same thing, namely the reduction of labour input. Why and how it occurred is not clear to me, but possibly this was the outcome of a process where more than one factor was operating. Initially, this change may be been caused by two or three things. Emigration to North America naturally caused a reduction in the labour force, especially among the young generation who were very active economically. Also, new export industries, such as herring fishing and whaling, attracted labour from previous occupations (or at least reduced their time from previous activities), and growing branches like saltfish exporting required more labour drawn from previous activities. These new and expansionary branches may also have brought about rising purchasing power, but in any case these branches caused a reduction in the time that was allocated to domestic production. Hence, to maintain the same living standard, this reduction in time was compensated for by imports of substitutes for domestic commodities, imports of fully processed goods to replace semi-processed goods, and imports of semi-processed

⁸¹ Jónas Jónasson, *Íslenzkir þjóðhættir*.

⁸² Table A.IMP/ALL-3.

goods instead of raw materials. Also, if there was a rise in people's purchasing power, it enabled them to afford more expensive imports. Later on, imports of manufactures and intermediate goods began to grow faster than before, and these were, for instance, wooden manufactures, glass manufactures, and cement and lime. The growth in material for the construction industry show that it was booming, like various other activities in the economy, and for this expansion new and larger amounts of labour were necessary. This labour was possibly not only drawn from population increase but from previous activities as well, and, therefore, required more imports of substitution goods, ect. Hence, the process behind the overall change in production and consumption patterns may have been of a domino or a spiral type. Leaving the exact causes and their interplay aside, what is important to realise is that this change is a portrayal of economy that was reallocating its labour force from traditional patterns of production and consumption to new modes of production (including exports) and consumption (including imports).

Analysing the general character of imports through time to identify possible changes in production and consumption in the economy, as we have been trying, cannot of itself reveal the extent of such changes, or their rate and their timing. Moreover, such a detailed analysis cannot be undertaken within the present study — partly because the data does not always exist. Nevertheless, the inability of this research to give a full account of the processes sketched here does not undermine the central argument that a substitution of domestic production with foreign imports was taking place. The import commodities highlighted here serve as a proxy for economic and social change, and give a fair indication of the nature of the changes that were happening as a consequence of Iceland's importation of foreign goods.

V.2.2.3. Machinery and Transport Equipment (SITC Group 7) — Manufactured Articles (SITC Group 8)

The commodity groups 'Machinery and transport equipment' (SITC group no 7) and 'Manufactured articles' (SITC group no 8) are slightly problematic, because goods that fell into these groups were underreported to some extent — even though 'Manufactured goods' (in SITC group no 6) presumably did not completely escape this either. The reasons for under-reporting are, first, that goods in SITC groups 7 and 8 often were imported in very small quantities and, hence, information about their imports to Iceland in my sources are not always as detailed as for goods that were more significant by quantity or value. Second, classification of these goods was not as easy, constant, or systematic in my sources as of more simple goods. Thus, some of them are grouped with goods in other SITC groups, mainly in group no 6. Third, they were not always registered by physical attribute (usually weight) as well as value, but by value only. Hence, imports by value cover these goods better, but then price changes blur relative movements in this trade over time. Fourth, imports of these goods presumably more often went through personal hands, escaped ordinary customs control for some reason (e.g., parcel post), were outside ordinary channels of commerce (e.g., engines, boats and ships), or excluded in definitions of merchandise in terms of trade returns (e.g., ships) ; therefore, they do now show up in my sources.

This is not to say that available information about these imports is negligible or distorted to the point of being unsuitable for any conclusions about them. The quality of the information differs by countries and by points of time, and parts of them are quite trustworthy. Information on imports of these goods from Denmark is fairly extensive, and on those from Norway from at least 1902, possibly already from 1890. Imports from

the United Kingdom are generally speaking not so accurate or complete, and most goods in SITC groups 7 and 8 are usually not detailed at all. That applies to the whole period of research. In spite of these shortcomings, it is possible to draw some general conclusions from the available information, more especially about imports of manufactured articles. By contrast, because imports of machinery and transport equipment were small and very irregular,⁸³ it is impossible to detect any definite trends at all in these imports, which consisted mainly of boats and sailing vessels, and of machines and appliances.

Manufactured articles (SITC group 8) were mainly intended for personal consumption, not as inputs for production, as the following list of some of the main goods indicates: articles for entertainment and decoration, along with art works and musical instruments; printed matter; clothes and footwear.⁸⁴ Although my data on these imports is not complete, it should suffice to give a general impression of these imports. In line with imports of other manufactures, imports of 'manufactured articles' as a group got new momentum from about 1900 onwards. This was especially true of quantities, while there was more continuity in values.⁸⁵ However, when we look at imports of these goods before 1900 it is clear that they had been growing substantially since 1870. Even though the graph only shows imports from Denmark, it is representative of their total imports because Denmark was practically the only origin of these imports until 1898 (Fig. V.27). This early growth is rather remarkable because it was larger in the 1870s through to the 1890s than in the case of manufactured goods, i.e., goods in SITC group 6. Given this early and substantial growth, the types of goods in question deserve comment. The main types were clothes and footwear, printed matter, and a mixed bag of

⁸³ Tables A.IMP/DEN-3 and A.IMP/NOR-5.

⁸⁴ Tables A.IMP/DEN-3 and A.IMP/NOR-5.

⁸⁵ Tables A.IMP/ALL-1 and A.IMP/ALL-5.

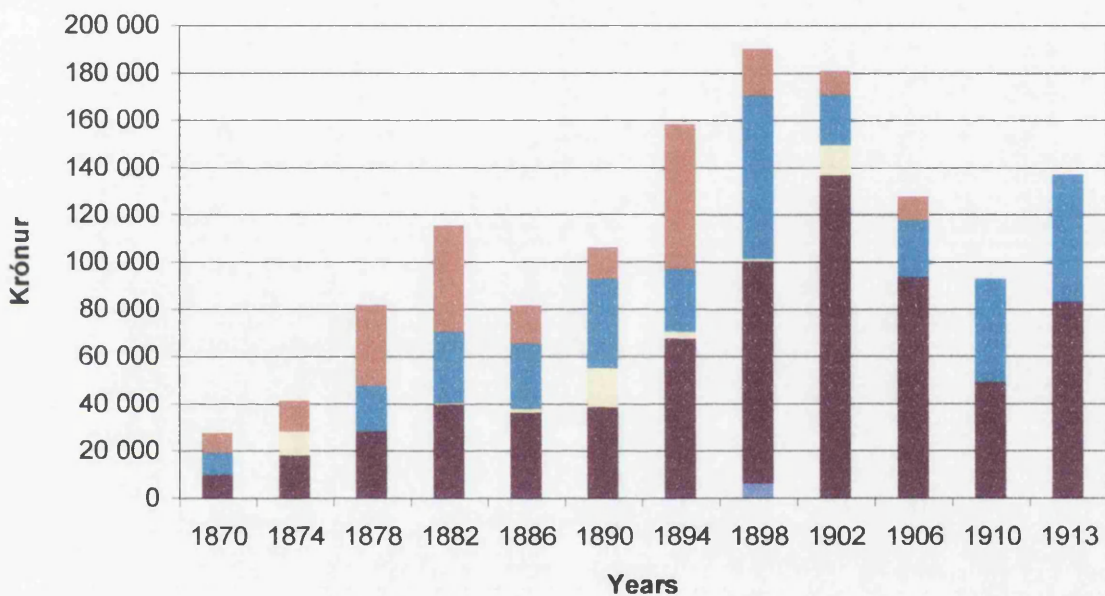
articles for entertainment and decoration, along with art works and musical instruments (Fig. V.27). The relative shares of each of these three major commodity groups grew roughly at the same rate for the years this graph represents total imports of these goods truthfully, in 1870 to 1894. While imports of articles for entertainment and decoration, etc. were largely dependent on fluctuations in people's incomes, clothes and footwear were more essential goods and it is noteworthy their imports were growing considerably in the 1870s through to the 1890s. Imports of manufactured articles, i.e., goods in SITC group 8, certainly suggest that incomes of people were growing in the three decades of the 1870s to the 1890s, and not only after about 1900.

Almost none of the goods in this commodity group were produced in Iceland, and they were not in any real way substituting goods produced in Iceland. The main exceptions to this were printed matter and, albeit to a much lesser degree, footwear. Printing presses had been run in the country for centuries but it seems that book publishing was not the main business, for the presses were usually small and were dependent on printing papers and weeklies, besides smaller items (receipt forms, etc.). Often, editor and owner of a printing press was the same person.⁸⁶ All major book printing had to be done abroad and was almost exclusively confined to Denmark. Although some of the printed matter that was imported was Danish books and papers, a substantial part of it presumably was Icelandic books and journals, especially towards 1900 onwards. In theory, printed matter was an item that was in competition with Icelandic presses. In reality, however, such book printing was probably too large to be made smoothly in Icelandic presses, and yet too irregular for any press owner to invest in machines and employ printers to manage larger works. As for footwear, there were

⁸⁶ Klemens Jónsson, *Fjögur hundruð ára saga prentlistarinnar á Íslandi*. Vilhjálmur Þ. Gíslason, *Blöð og blaðamenn*.

Figure V.27

Imports from Denmark, 1870–1913: SITC 8 Miscellaneous Manufactured Articles (Value)



- Articles for Entertainment and Decoration; Art Works; Musical Instruments
- Printed Matter
- Ammunition
- Watches, Clocks, Barometers
- Clothes, Footwear etc.
- Beds and Mattresses

several shoemakers in Iceland, and their number increased over time, but it would appear that they were mainly occupied with repairing. Thus, imported footwear was not really competing with any domestic production.

V.2.2.4. Conclusion

Imports of manufactures were overall characterised by the same pattern as imports of primary commodities in the sense that there was a huge expansion around 1900 onwards. Also, there was a substantial growth in imports of many manufactures in the 1870s through to the 1890s. Furthermore, there was not any marked break around 1900 in terms of the type of manufactures imported but rather a continuity. Hence, the demand for manufactures was mainly changing in terms of scale than in terms of kind or type. However, there were certain changes relating to imports occurring in the economy.

When imported manufactures in general are studied in terms of the Icelandic economy, it becomes clear that around 1870 Iceland had domestic alternatives to a number of imported manufactures (although they were not identical substitutes). Also, Iceland imported some raw materials that were processed and turned into manufactures. Both of these things changed over time because local alternatives to imports declined in importance, and imports of semi or fully processed manufactures increased at the expense of imports of corresponding raw materials. More important, it also emerged that changes in production and consumption patterns in Iceland were very much linked to the growth in imports of manufactures. In short, there was a shift from production of

manufactures in Iceland, whether using domestic or imported raw materials, towards imports of manufactures that replaced them.

Why these changes in production and consumption happened is still obscure. Two causes are likely, and possibly both were at work concurrently. One possibility is that terms of trade rose or living expenses fell while the division of labour in Iceland remained unchanged. For example, perhaps fishermen decreased their processing of hemp because their purchasing power grew, and they could better afford to buy imported fishing lines and ropes instead. The other possibility is that even if terms of trade were not rising and living expenses not falling, the employment of the labour force was changing. In that case, fishermen may have concentrated more on fishing or sold their labour to others, with their result that they had to use their wages to buy imported fishing lines and ropes because they did not have the time to make these products themselves. Speculation about these possibilities is premature because it rests partly on the outcome of terms of trade analysis, and we will resume to this discussion in Chapter VI on balances of trade.

V.3. Origin of Iceland's Imports

V.3.1. General Trends

Similarly to exports, it is useful to look at the main trends in Iceland's imports by countries from two perspectives. The first perspective is that of relative shares of the

countries providing Iceland with imports, and the outcome can rightfully be described as diversification. As might be expected, Denmark still had the lion's share in Iceland's imports in 1870, about 80% by value (Fig. V.28). Over time, Denmark's share of Iceland's imports fell dramatically, so that in 1913 it only had ca 30% of the import values. This fall was caused by the rise in Iceland's total imports over time, because imports from Denmark broadly remained on the same level in absolute terms (Fig. V.29). The decline for Denmark started already in the 1870s, but its pace was markedly faster after about 1890. Norway was a newcomer in the import trade of Iceland in 1870, and it only had a share of 4% by value at the time.⁸⁷ Imports from Norway were relatively stable by value into the 1890s, and this means that they rose in absolute terms (Fig. V.28). In the late 1890s, they boomed temporarily and then contracted in the 1900s onwards, falling down to 10% in 1913, although Norway's share remained constant in absolute terms.⁸⁸ In terms of Iceland's aggregate imports, however, the share of Norway was most of the time not very large.

The group 'UK and other countries' only provided about 10% of Iceland's imports by value in 1870, but over time its share expanded significantly, not only absolutely but also relatively (Fig. V.29 and V.28). In 1913, the share of the United Kingdom was round about 40% while that of 'other countries' was little over 20%.⁸⁹ Thus, there was a rapid growth in imports from this group of countries. Generally speaking, the preponderance of Denmark as a supplier of Iceland's imports in 1870, and its eventual demise as a market country in relative terms, caused still more diversification in the import trade than in the export trade. Instead of having one country supplying about 80% of the imports by value in 1870, there were three countries, besides

⁸⁷ Table A.IMP/ALL-5.

⁸⁸ Table A.IMP/ALL-5.

⁸⁹ Table A.IMP/ALL-5.

Figure V. 28

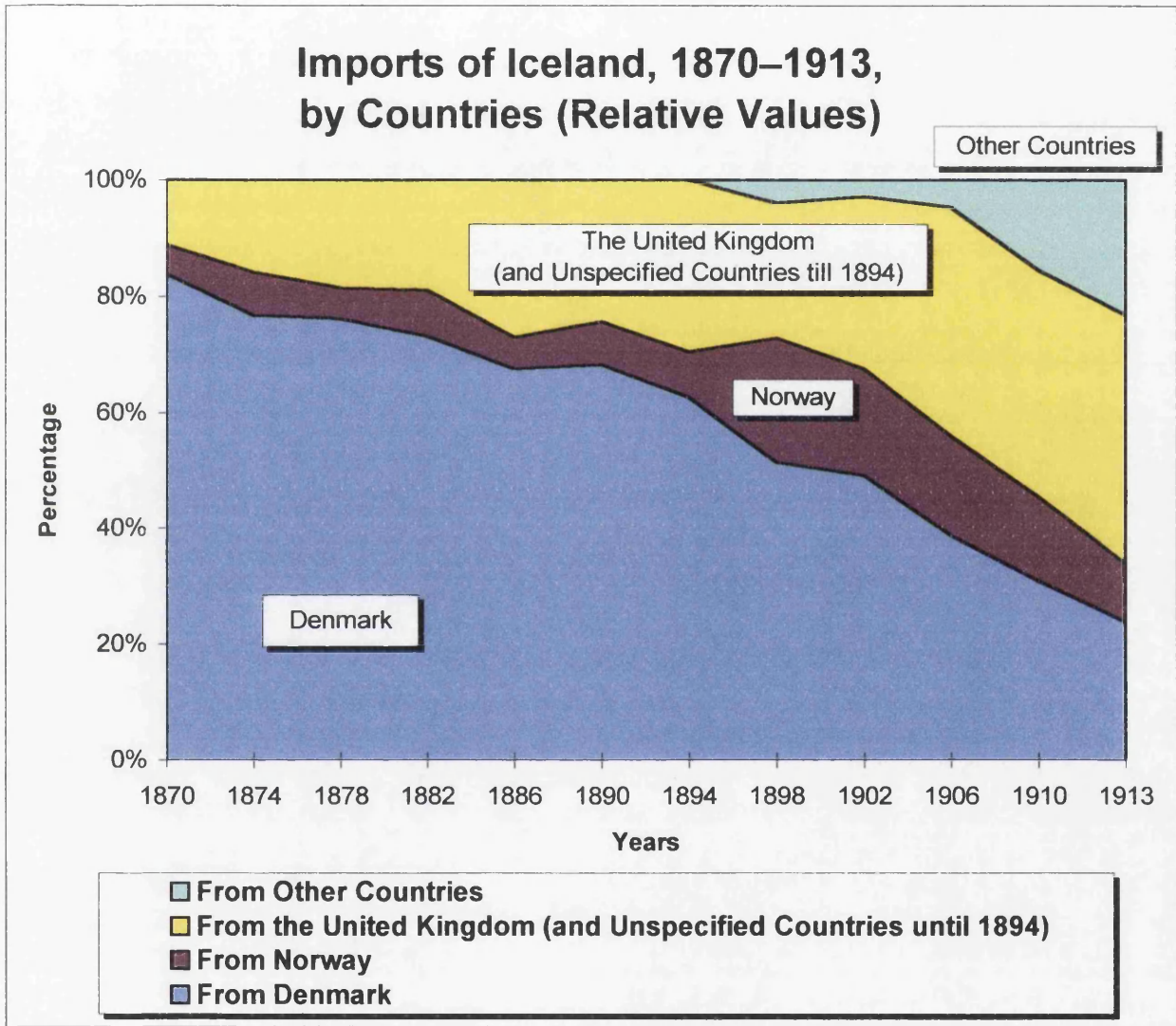
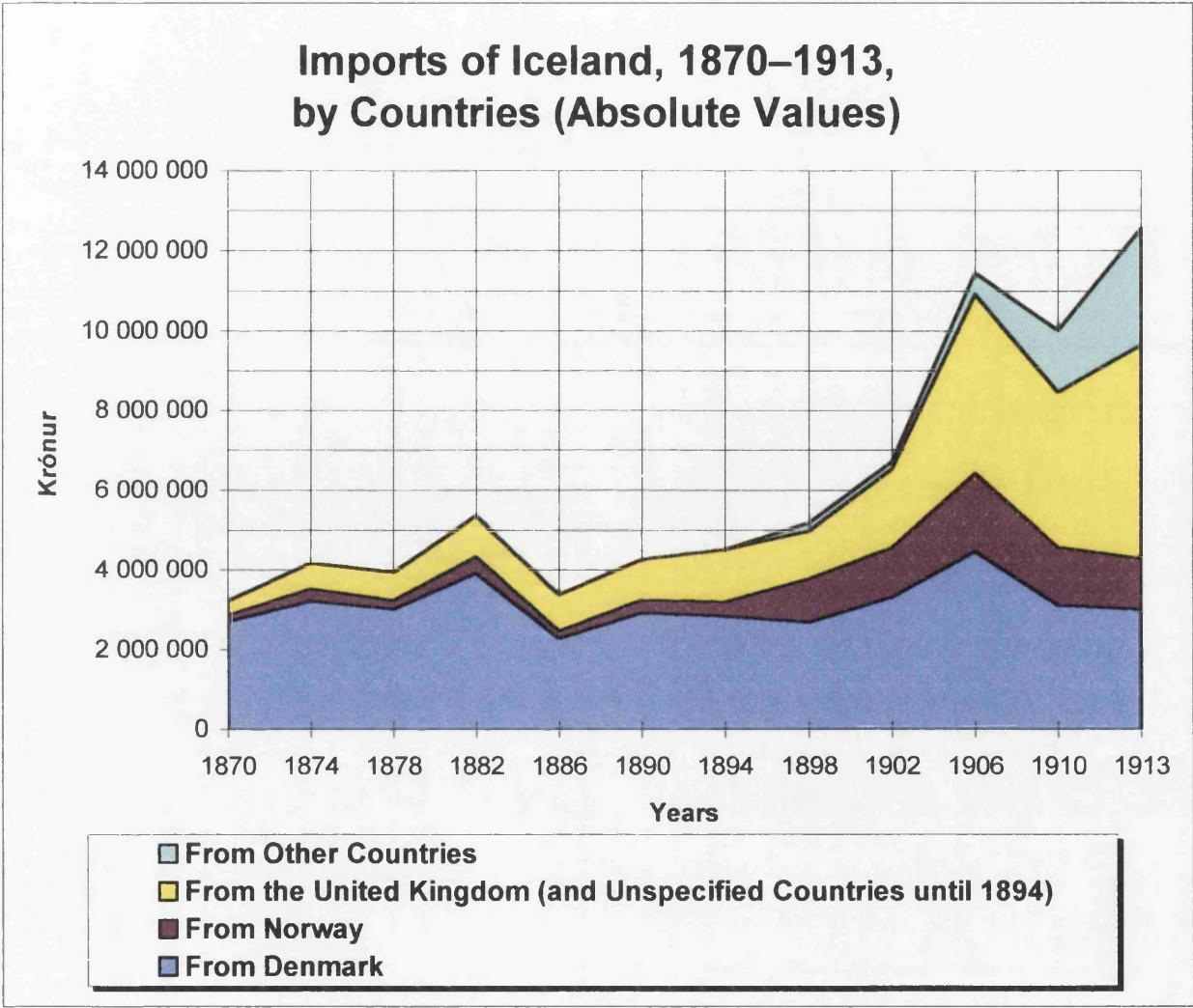


Figure V.29



the category 'Other countries,' which provided Iceland's imports in 1913, and none of them had a larger share than 40% by value.

The second perspective to perceive the main trends in Iceland's imports is to look at which countries supplied important categories in imports. It is useful to do this both by quantity and value, because in terms of quantities the bulky, unprocessed, and usually inexpensive part of the imports are in focus but in terms of values fully processed products and valuables are prominent. This provides conveniently contrasting perspectives at Iceland's imports. In the case of Iceland, the bulky commodities were timber, salt, coal, and foodstuffs. From this point of view, we see that during the 1870s through to 1890s there was a certain commodity specialisation among Iceland's importing countries. Food was imported from Denmark, timber was supplied by Norway, and the United Kingdom (and other countries until 1894) provided coal and salt. Then, around the turn of the century a kind of diversification took place in the salt imports. Salt exports from Norway now exceeded timber imports, and from the category 'Other countries' Iceland received primarily salt as well. By contrast, coal now overtook salt in imports from the United Kingdom (and other). The reasons for the change in salt imports in terms of the exporting countries are difficult to ascertain without further information. At this stage, we only know from our study that salt imports by quantity increased sharply when this diversification happened. In relation to this, we may also ask

why a similar development did not take place in imports of timber and coal to Iceland, because their quantities rose rapidly too after about 1900.⁹⁰

Moving on to imports by value we in turn are focusing on the relatively expensive merchandise in import. Here, a parallel diversification in a particular line of merchandise, namely manufactures, was also detected, and it happened largely after the turn of the century too. In the decades from the 1870 to ca 1900, there was a certain commodity specialisation among the countries exporting to Iceland. Within imports from Denmark, foodstuffs ranked high, as did manufactures and, to a lesser extent, wines and tobacco. The singularity of imports from Norway meant that the staple item, wood, was the most valuable item too. From the United Kingdom (and other countries until 1894) foodstuffs, besides wines and tobacco, had the largest values. After ca 1900, on the other hand, imports by value from Norway, the United Kingdom, and the category 'other countries' significantly changed character. In the case of Norway, manufactures replaced wood, which came second, and salt was third. In imports from the UK, manufactures took prime place and pushed coal and foodstuffs down. Similarly, manufactures dominated imports from 'other countries'.⁹¹ In other words, in the case of relatively expensive imports, a certain specialisation among countries existed before ca 1900, and incidentally, these imports consisted mainly of basic (primary) commodities, just as in the case of inexpensive imports at the same time. After the turn of the century, this pattern was replaced by another where there was less specialisation among countries, and manufactures were the principal imports from all the countries excluding Denmark.

⁹⁰ Precise figures are in tables A.IMP/ALL-5 and A.IMP/ALL-7. Graphical presentation of the shifts discussed is in the figures located in the main text below.

⁹¹ Precise figures are perhaps most conveniently found in the relevant country tables in Appendix A but tables A.IMP/ALL-5 and A.IMP/ALL-7 are also useful. Graphical presentation of the shifts discussed is in the figures located in the main text below.

Overall, these instances of diversification in imports suggests that competition increased in Iceland's import trade.

The changes described above applied to all countries and country groups exporting to Iceland — except Denmark. Incidentally, Denmark was the principal source of manufactures for Iceland all the way until the mid 1900s, so there was a tradition for Denmark to supply Iceland with manufactures. Even so, in contrast to other countries, there was no relative rise of manufactures in Denmark's exports to Iceland after ca 1900, and this begs for explanation. On closer examination, it is evident that Denmark was not well disposed to supply Iceland with most of its imports. In spite of growing industries in Denmark, it was not a significant producer of manufactures in comparison with the core economies of Europe, including Britain. Also, although a very large part of Iceland's imports from Denmark were re-exports, Denmark was no commercial centre but rather an outpost that was not conveniently located geographically for Iceland. Therefore, it was not surprising that Iceland's sources of manufactures and relatively expensive imports were being shifted from Denmark to Britain and other countries. Clearly, Iceland was increasingly dropping a mediator that was unnecessary in its import trade, but the timing of this shift and how it happened requires an explanation, and it will be forwarded later in the thesis.

V.3.2. Denmark

Iceland's import trade with Denmark had a couple of distinct features. One of them was the dominance of foodstuffs, something that is not surprising in the case of a

predominantly agricultural country (Fig. V.30). Furthermore, in terms of individual food imports it is no exaggeration to say that cereals were the staple item (Fig. V.31). Imports by quantity from all other commodity groups were small, in spite of increasing imports of manufactured goods and mineral fuels. By value, however, all kinds of manufacture imports or goods in SITC group 6 and 8 were much more prominent than their quantity figures would allow, although foodstuffs still remained by far the largest group (Fig. V.32). Beverages and tobacco were also less insignificant than the quantity implied. This reflects of course a higher value to weight than for the foodstuffs, which is logical since they were far more processed. Another striking feature in imports from Denmark was the relative stability. Even though the quantities increased after 1900, the commodity composition remained largely the same over time. In this respect, imports from Denmark differ very much from the overall structure or composition in Iceland's imports illustrated earlier in the chapter.

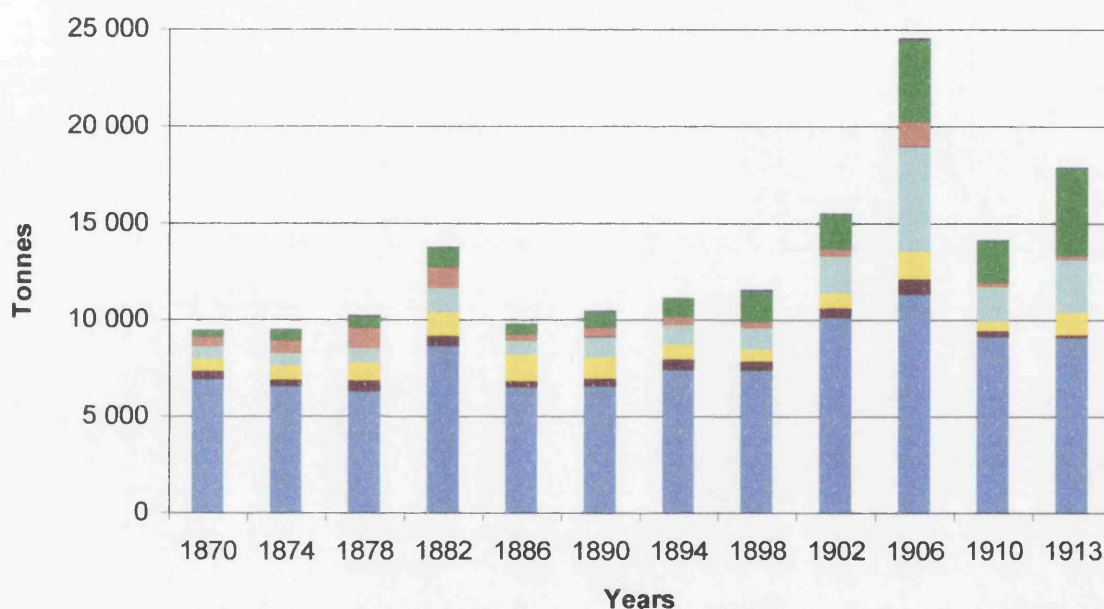
V.3.3. Norway

Imports of Iceland from Norway consisted mainly of crude materials (timber) and, later on, chemicals (salt) (Fig. V.33 and V.34). The former was of course an export staple for Norway and the second was a re-exported commodity.⁹² Measured by value the picture is a little different because both wood and salt were cheap in comparison with other commodities. Hence, relatively expensive merchandise such as manufactured goods (in SITC group 6) increasingly characterised imports by value from Norway (Fig. V.35).

⁹² Norwegian trade returns (exports).

Figure V.30

Imports from Denmark, 1870–1913, by SITC Groups (Quantity)



- 9 Misc. Transact. and Comm.
- 8 Miscell. Manufact. Articles
- 7 Mach. and Transport Equipm.
- 6 Manufactured Goods
- 5 Chemicals
- 4 Animal and Veget. Oils and Fats
- 3 Min. Fuels, Lubric., and Rel. Mat.
- 2 Crude Mat., ined., exc. Fuels
- 1 Beverages and Tobacco
- 0 Food

Figure V.31

Imports from Denmark, 1870–1913: Main Commodities (Quantity)

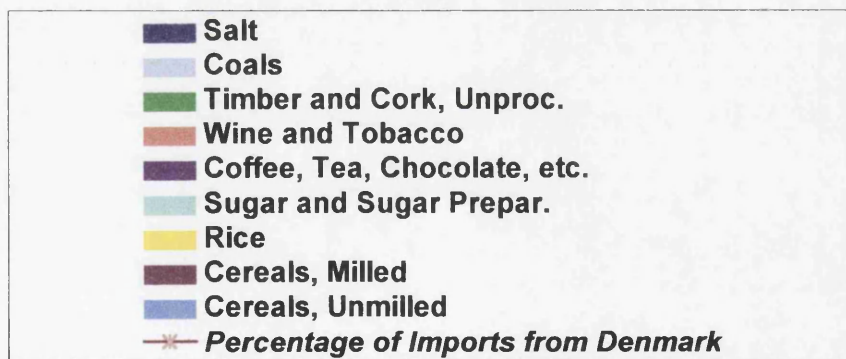
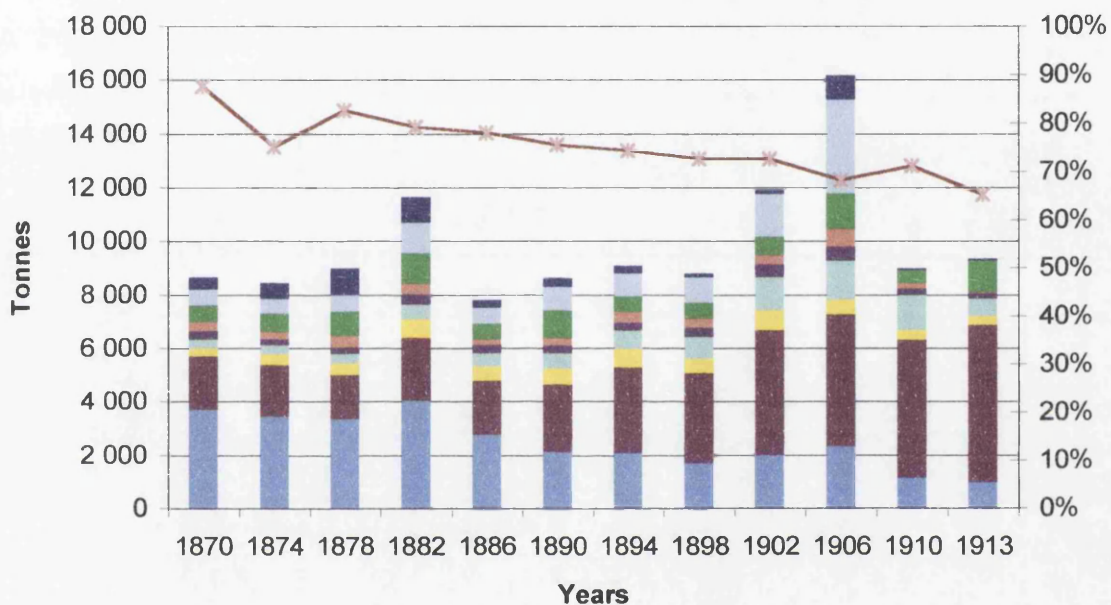
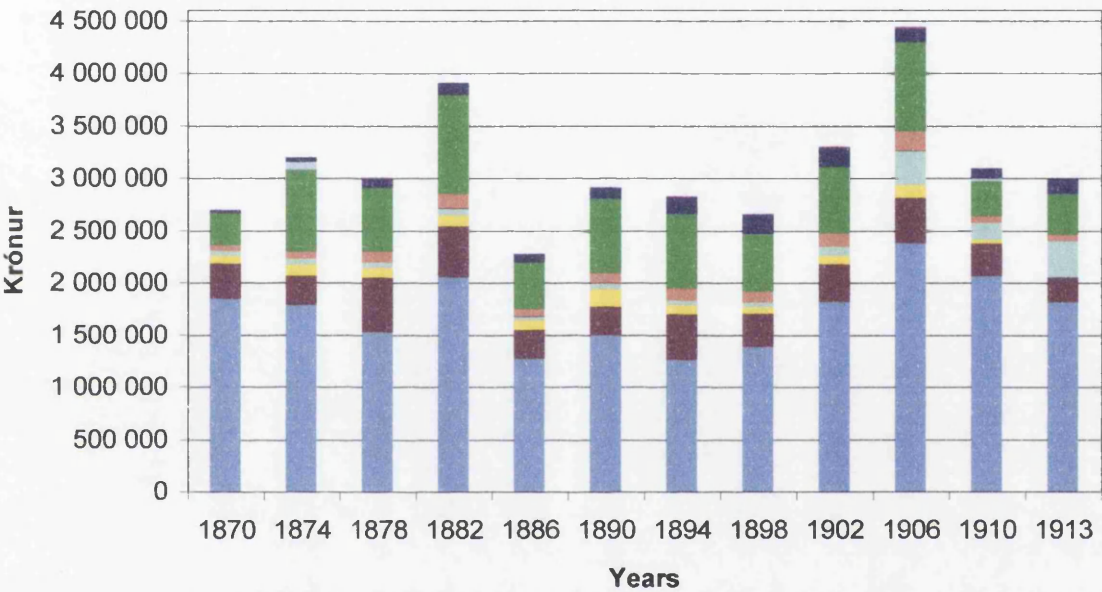


Figure V.32

Imports from Denmark, 1870–1913,
by SITC Groups (Value)



- 9 Misc. Transact. and Comm.
- 8 Miscell. Manufact. Articles
- 7 Mach. and Transport Equipm.
- 6 Manufactured Goods
- 5 Chemicals
- 4 Animal and Veget. Oils and Fats
- 3 Min. Fuels, Lubric., and Rel. Mat.
- 2 Crude Mat., ined., exc. Fuels
- 1 Beverages and Tobacco
- 0 Food

Imports of manufactures from Norway are interesting not only because imports of manufactures generally were so pertinent to important economic changes in Iceland. What is even more interesting is how rapidly they expanded in the imports from Norway. Although these imports started growing markedly around 1890 — the data for imports from Norway are relatively poor until 1890, so it is impossible to say anything definite about the imports before that time — they grew relatively slowly in the 1890s. Then, a great spurt occurred around 1900 and imports of manufactures remained a substantial item in aggregate imports by value from Norway. Of these Norwegian imports the main goods were manufactures of wood and cork — not surprisingly from this land of forests — besides ropes, lines, nets, etc., and some manufactures of iron and steel (Fig. V.36).

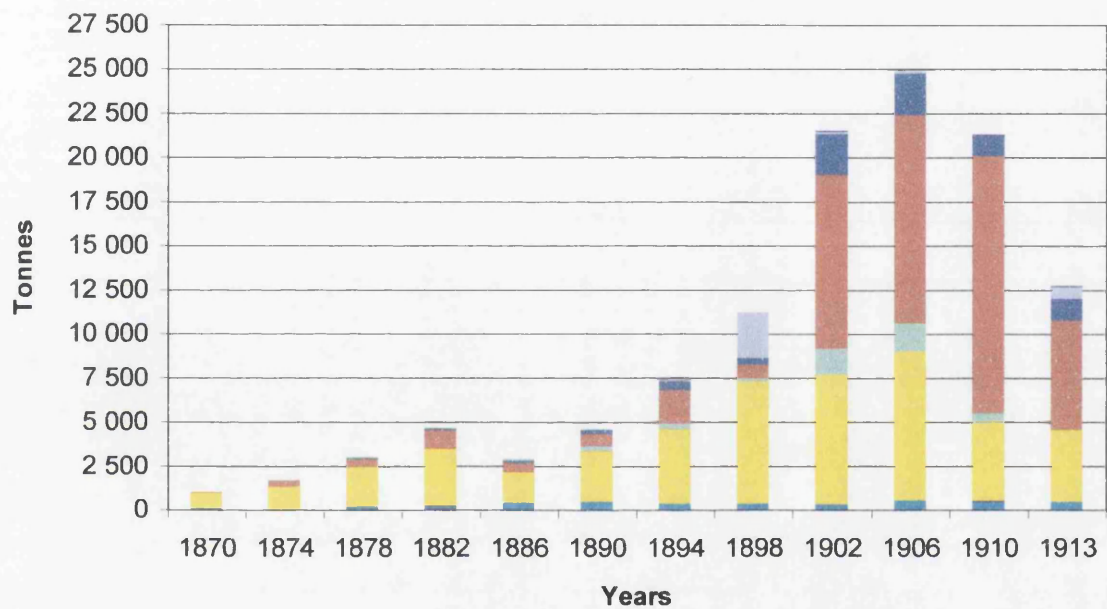
V.3.4. The United Kingdom and Other (Unspecified) Countries

As happens, my sources do not enable me to distinguish between 'Other countries' and the UK until 1898, but the UK was by far the largest supplier before then. Qualitative sources — including contemporary accounts — do not mention countries exporting to Iceland other than the United Kingdom, Denmark and Norway in the second half of the nineteenth century.⁹³ Also, when we can separate 'other countries' from the UK — in 1898 — their imports to Iceland were negligible, at 3% by quantity and 4% by value.⁹⁴ Therefore, imports from this group came for all intents and purposes from the United Kingdom, although that country forms part of a single 'residual' group for purposes of analysis in the period 1870–94.

⁹³ See, for example, Matth. Thordarson, *Dansk-Islandsk Samhandel*.

Figure V.33

Imports from Norway, 1870–1913,
by SITC Groups (Quantity)



- 9 Miscell. Transact. and Comm.
- 8 Miscell. Manufact. Articles
- 7 Mach. and Transp. Equipm.
- 6 Manufactured Goods
- 5 Chemicals
- 4 Animal and Veget. Oils and Fats
- 3 Min. Fuels, Lubric., and Rel. Mat.
- 2 Crude Mat., ined., exc. Fuels
- 1 Beverages and Tobacco
- 0 Food

Figure V.34

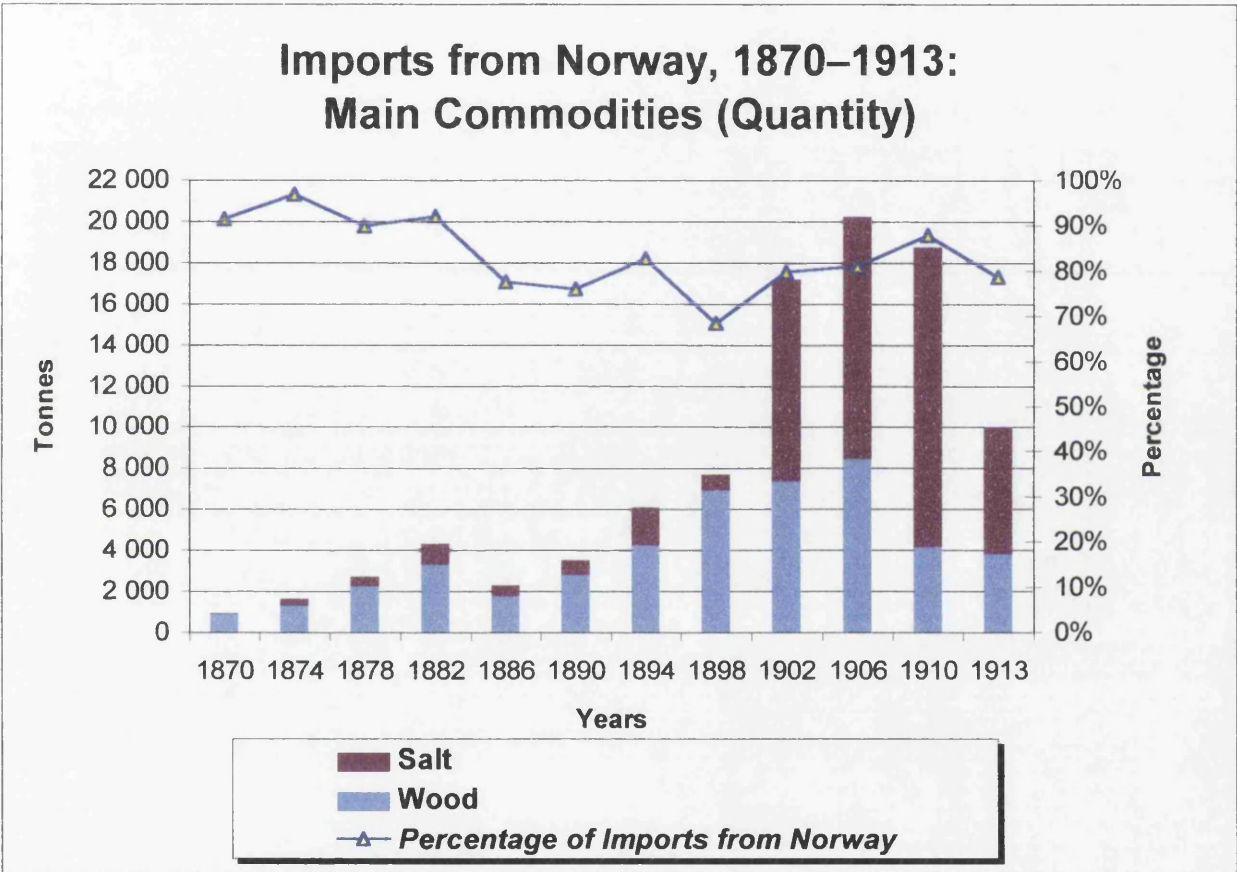
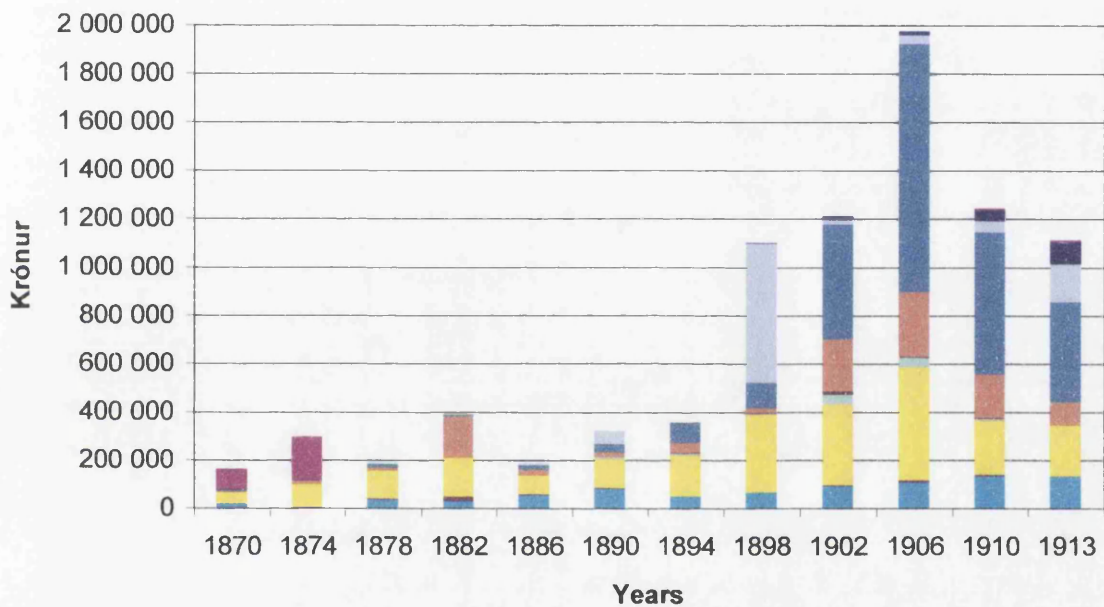


Figure V.35

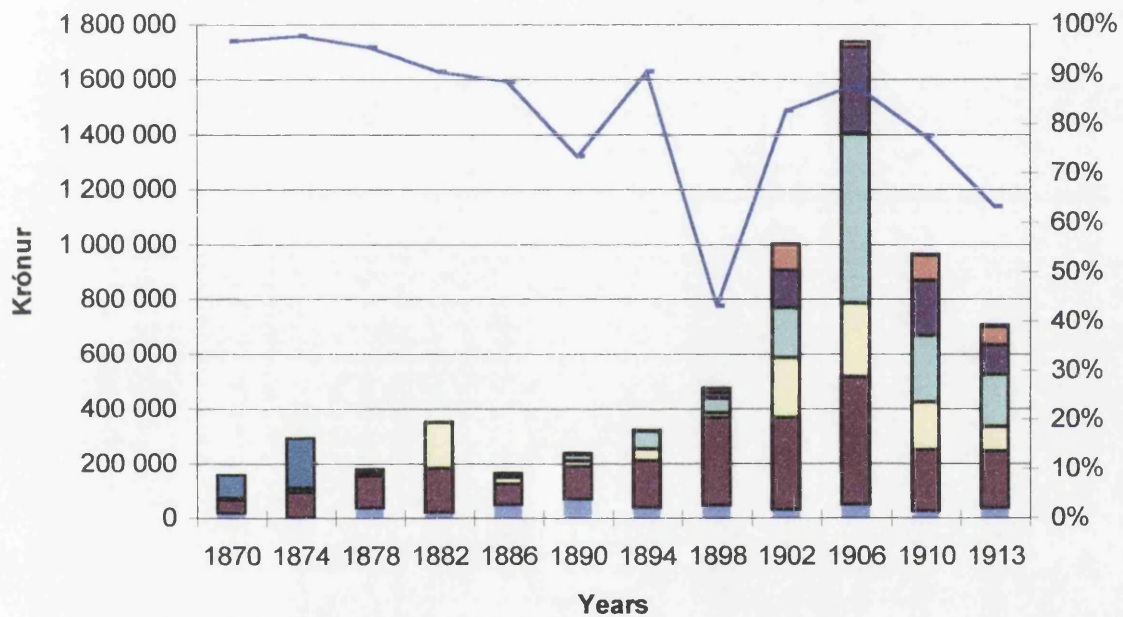
Imports from Norway, 1870–1913, by SITC Groups (Value)



- 9 Miscell. Transact. and Comm.
- 8 Miscell. Manufact. Articles
- 7 Mach. and Transp. Equipm.
- 6 Manufactured Goods
- 5 Chemicals
- 4 Animal and Veget. Oils and Fats
- 3 Min. Fuels, Lubric., and Rel. Mat.
- 2 Crude Mat., ined., exc. Fuels
- 1 Beverages and Tobacco
- 0 Food

Figure V.36

Imports from Norway, 1870–1913: Main Commodities (Value)



- Unidentified Imports
- Manufactures from Iron and Steel
- Ropes, Lines, Nets, etc.
- Manufactures from Wood and Cork
- Salt
- Wood
- Cereals and Cereal Products
- Percentage of Imports from Norway*

The principal imports by quantity from this combined category were mineral fuels, i.e., coal and petroleum products, and salt (Fig. V.37 and V.38). In fact, the UK (and other countries) supplied practically all the coal for Iceland, and small as their salt imports may seem, salt for Iceland came mainly from this country group, until Norway surpassed it around the turning of the century.⁹⁵ But just as in the case of Norway, the overall structure of imports from the UK (and other countries) looks rather differently when measured by value. Until the early 1890s all kinds of foodstuffs and, to a lesser degree, beverages and tobacco, dominated import by value therefrom (Fig. V.39). Only in the late 1890s did mineral fuels become a substantial item in their exports to Iceland.

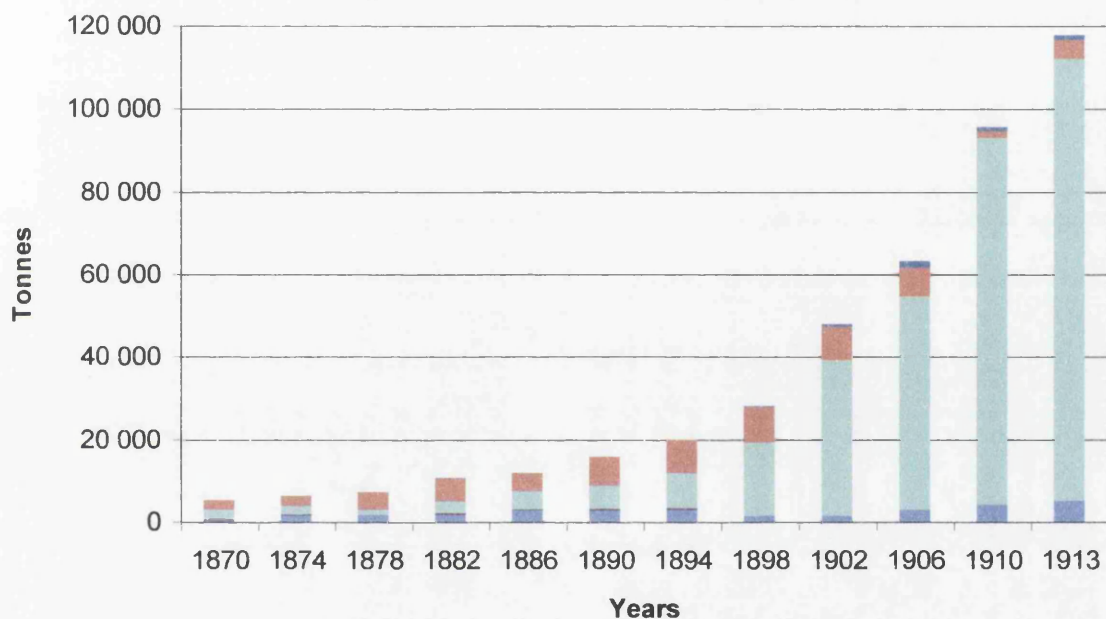
However, a relative rise in values of imports of manufactured goods (SITC group 6) from the UK in the mid 1890s was far greater than the relative rise in value of minerals fuels (Fig. V.37 and V.39). Imports of manufactured goods by value from the UK (and other countries) were negligible in 1894, but four years later they had risen to about 25% of all imports by value from there, and continued to be relatively large. Of these, textiles seem to have figured largely, as well as unprocessed iron and steel (Fig. V.40). True, imports of manufactures from the UK (and other countries) are underreported until and including 1898 in our dataset. Hence, they may have been more significant in the early 1890s, or even around 1890, than our data allow. It must also be recognised that, impressive as imports of manufactured goods from the UK are after 1898, they continue to be underreported in our datasets. (This is because my source only gives information about the principal goods imported and the group of miscellaneous and unidentified imports (SITC 9) is relatively large.) By and large, however, uncertainties in the British data do not refute the timing of the trend in imports of manufactures from the

⁹⁴ Tables A.IMP/ALL-1 and A.IMP/ALL-5.

⁹⁵ Tables A.IMP/ALL-2 and A.IMP/ALL-3.

Figure V.37

Imports from the United Kingdom, 1870–1913, and Unspecified Countries, 1870–94, by SITC Groups (Quantity)



- 9 Miscell. Transact. and Commodities
- 8 Miscellaneous Manufactured Articles
- 7 Mach. and Transport Equipm.
- 6 Manufactured Goods
- 5 Chemicals
- 4 Animal and Vegetable Oils and Fats
- 3 Mineral Fuels, Lubricants and Rel. Mat.
- 2 Crude Materials, inedible, exc. Fuels
- 1 Beverages and Tobacco
- 0 Food

Figure V-38

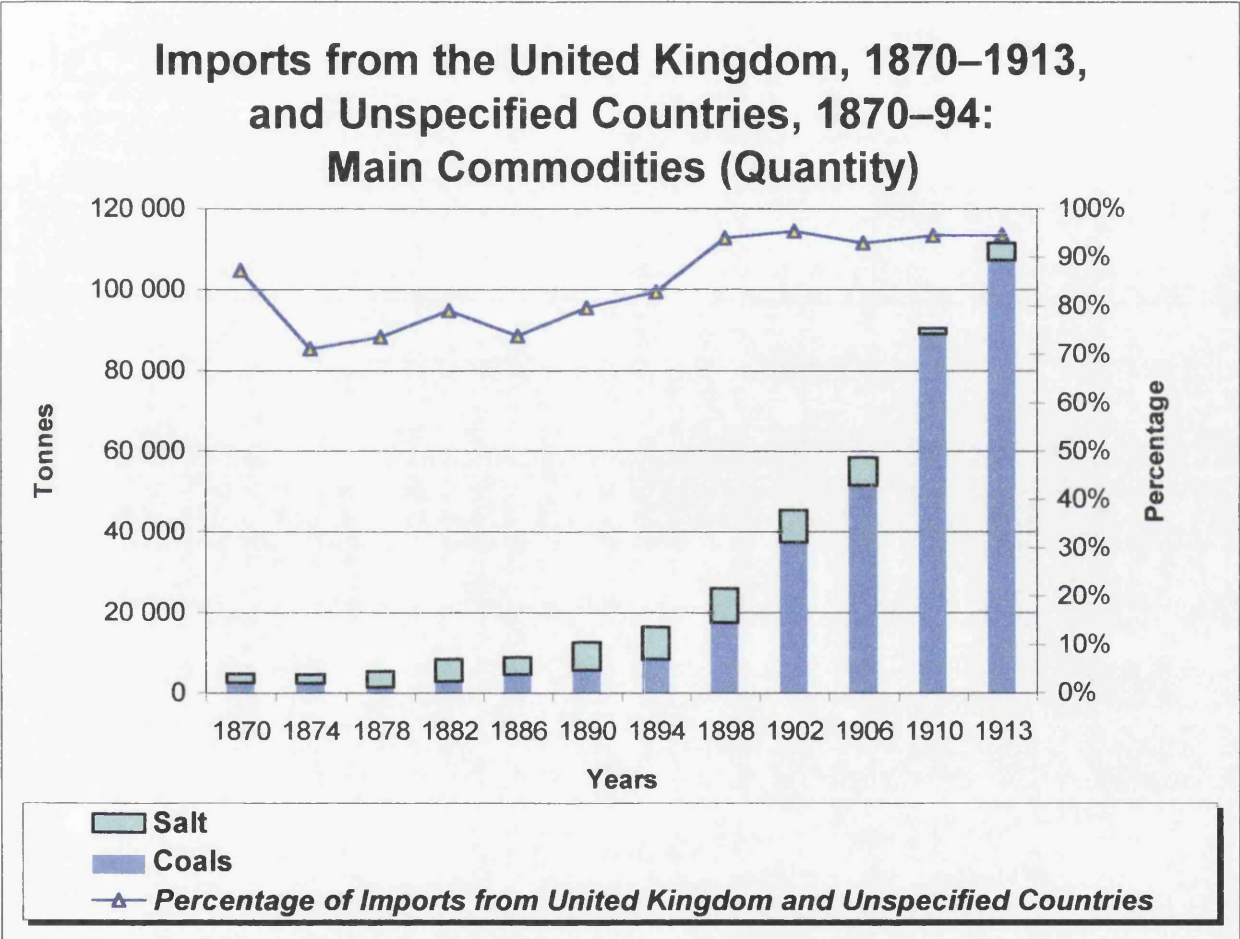
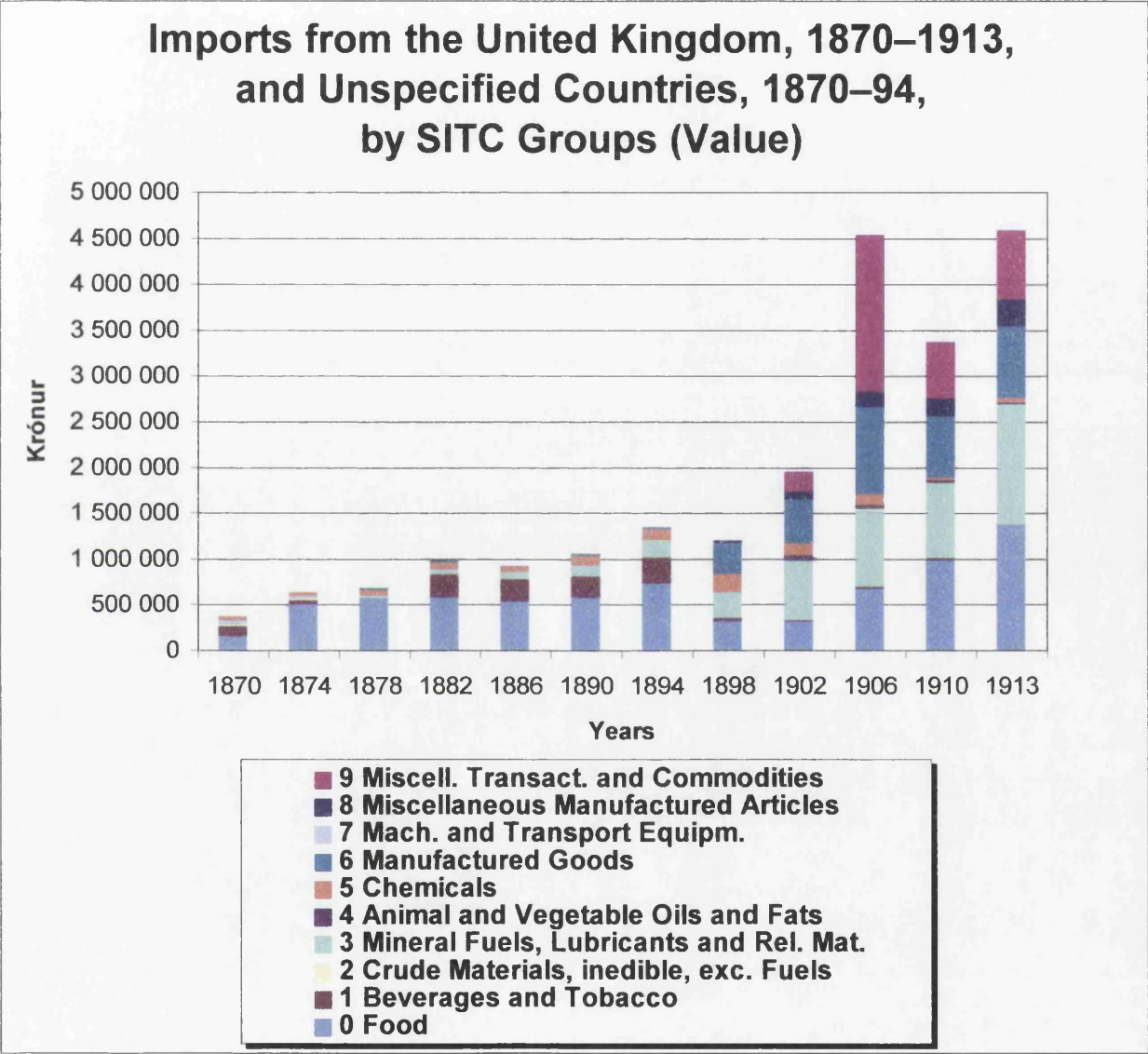


Figure V.39



Figure



UK (and other countries). The idea of there being a ‘turning point’ in these imports from the UK in the 1890s is not challenged.

Turning to the category ‘other countries’ (that is, other than Denmark, Norway, and the UK), imports from there increased considerably during 1898–1913 and probably were slightly greater than my datasets allow for.⁹⁶ Relatively speaking, however, they were small within Iceland’s imports. These imports consisted in quantity terms almost entirely of salt (Fig. V.41), but by value they were more diverse. Initially, foodstuffs were a fair part of the imports, but by 1902 manufactures of all kinds accounted for round about half of the imports or more (Fig. V.42). Since food and salt were still dominant in 1898, it appears that the rapid upward shift, which occurred in imports from the United Kingdom in the mid 1890s, did not take place in imports from other countries until a little later, from around 1900 — just as in the case of Norway. These goods were a mixture of manufactures to be used as inputs for processing in Iceland and as goods for personal consumption.⁹⁷

⁹⁶ I refer to the introductory text in Appendix A for a full explanation, but in brief, the explanation is the following. The source for ‘other countries’ probably misses some of the quantities, but, on the other hand, the values are overrated because they show the retail value of the imports, not the cif value as in the case of other countries.

⁹⁷ Tables A.IMP/OTH-2 and A.IMP/OTH-3.

Figure V.41

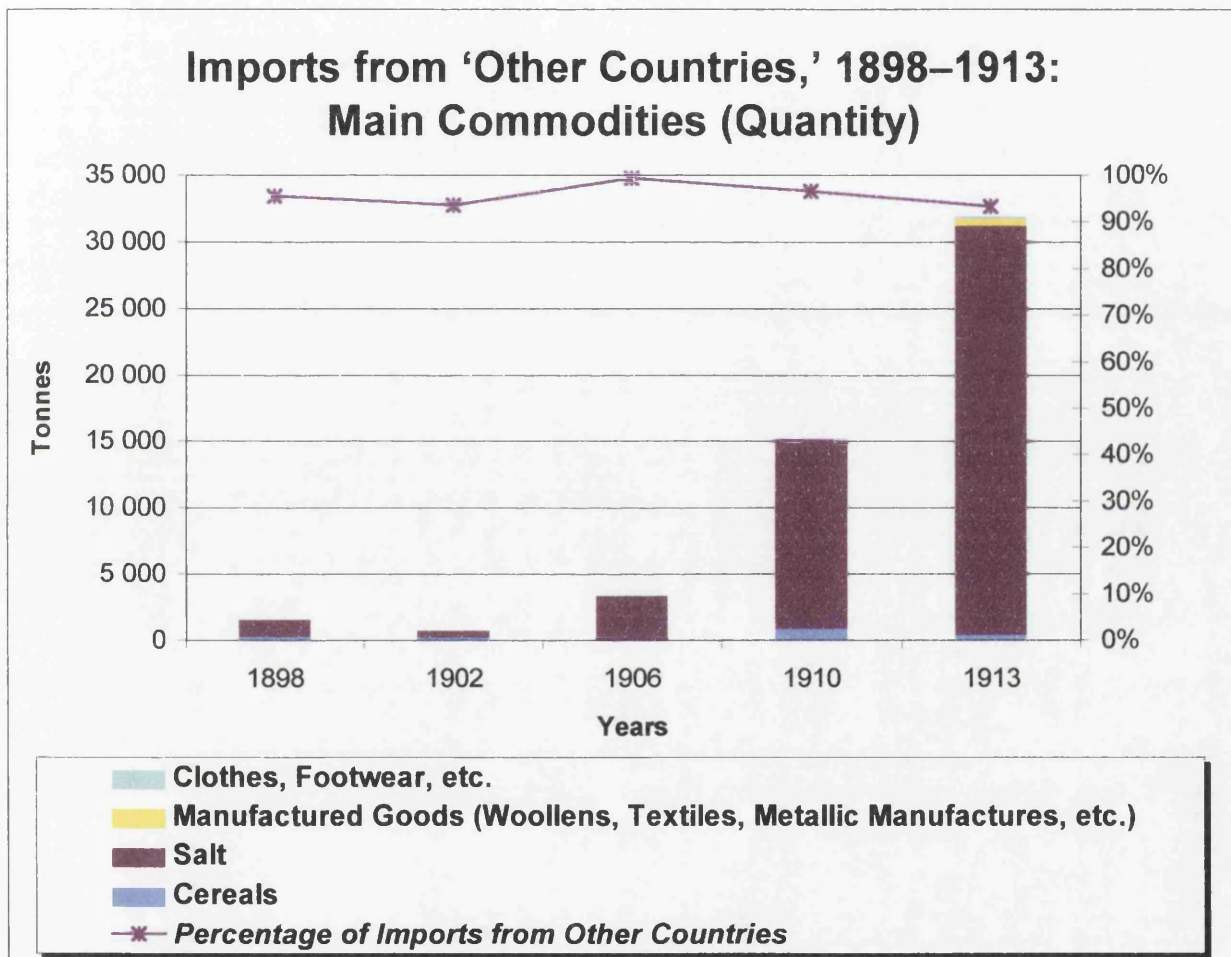
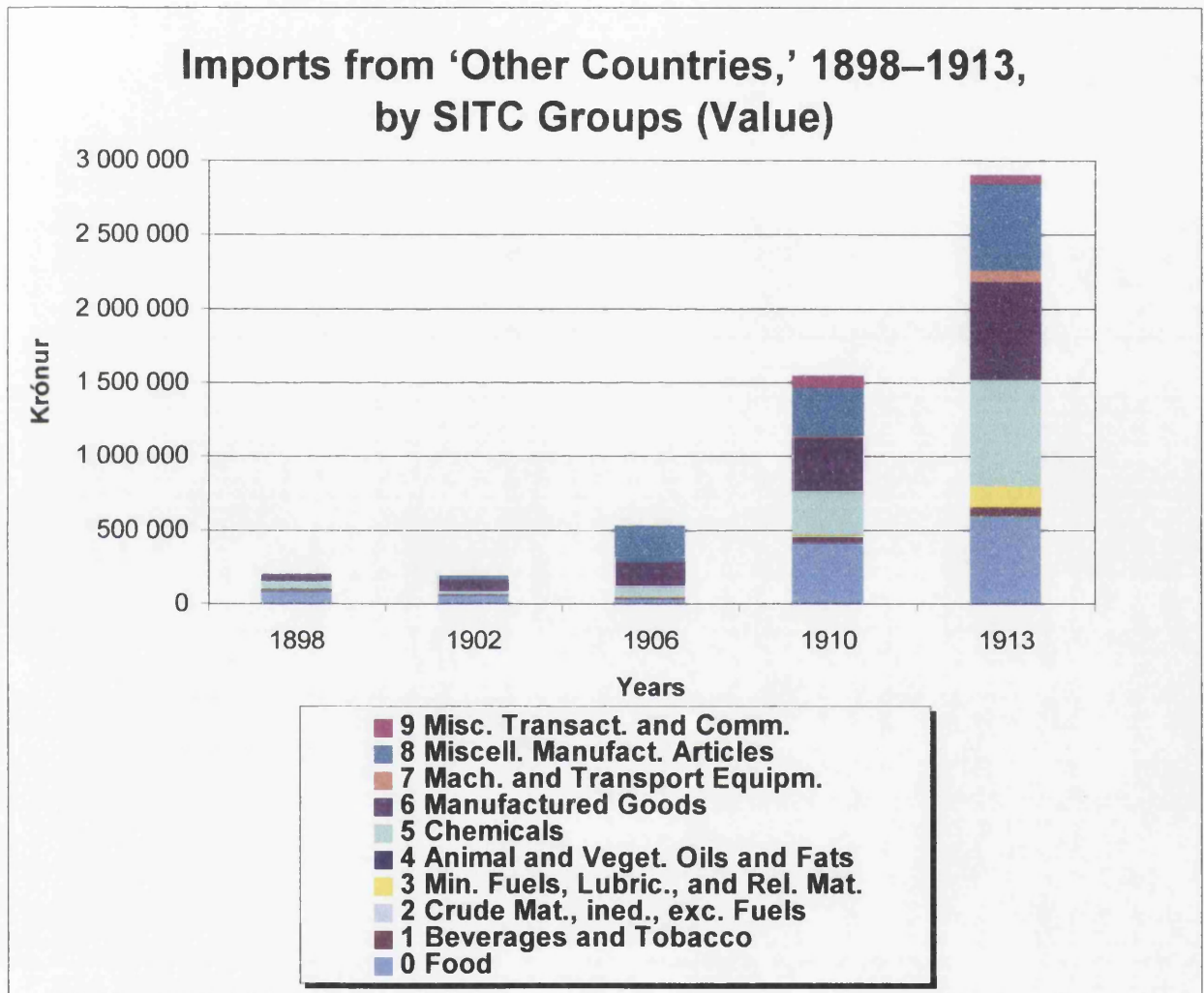


Figure V.42



Chapter VI

Iceland's Balance and Terms of Trade, 1870–1913

VI.1. The Overall Balance of Trade

VI.1.1. Total Exports and Imports

In all the sample years from 1870 to 1913, Iceland had a surplus on its balance of trade account (Fig. VI.1). This suggests that Iceland usually or perhaps always had a trade surplus during the research period. Furthermore, the surplus grew over time from about 600,000 kroner in 1870 to more than 6,000,000 kroner in 1913, that is, by ten times over. Measuring the trade surplus on a per capita basis, the same growth pattern

Figure VI.1



emerges although the overall growth was less. Hence, the surplus per capita grew eight times over.¹

The growth in the trade surplus was paramount, although showing some fluctuation around the long-term trend. The only year with an extraordinary large surplus over the previous year was 1882. This was caused by unusually large exports of herring owing to Norwegian enterprise. However, in three years, the trade surplus contracted from the previous year's figure. The first of the contraction years, 1886, was one of generally slack economic conditions in Iceland, when values of exports and imports were lower than they had been since 1874.² However, the year of 1898 was particularly out of line with the general trend in the growth of the trade surplus. Exports by value were low compared to earlier sample years, and this was caused by a reduction in exports quantities rather than a fall in prices.³ Perhaps most important, the advantageous live sheep business had practically come to an end. In spite of this situation, imports were unaffected and moved upwards as before, causing a very small trade surplus in 1898. Finally, in 1906 the trade surplus fell slightly, because imports were 70% larger by value compared to 1902 and exports by value were 'merely' 37% larger.⁴ What is noteworthy about these contractions in the trade surplus from the late 1890s onwards is that imports seem to run to some degree independently of exports. If exports fall, imports fall but less so; if exports are on the same level as before, there is a notable increase in imports; and if exports rise, imports rocket. True, this shows a certain connection between the relative sizes of exports and imports, but it refutes any

¹ Table A.BAL/ALL-1.

² Table A.BAL/ALL-1.

³ The drop in exports by quantity was 4% per annum from 1894 to 1898, and 5% per annum by value. See Tables A.EXP/ALL-1 and A.EXP/ALL-5.

⁴ Table A.BAL/ALL-1.

idea about levels of imports always being closely dependent on exports throughout the research period.

Measured as a proportion of export values, the trade surplus increased quite fast from 1870 to 1894, rising from 15% to over 40% of export values (Fig. VI.2). (Here, we ignore the year 1882 when the percentage exceeded the trend and 1886 when it clearly fell below it; both were abnormal years.) After 1894, the trend went downwards, ending in ca 30% in 1913. This downwards trend is quite apparent, even if we ignore the years 1898 and 1906, when the percentages dropped very much and were clearly out of line. Evidently, then, the late 1890s were a time when there began a shift in the size of the trade surplus relative to exports — that is, when Iceland started to spend ever larger share of its exports value on imports.

VI.1.2. Internally-Owned Exports and Imports

Where the exports and imports of a country are entirely owned by the local population, the use of domestic and imported imports in production, and the incomes generated by exports, affect the economy to a full extent because these activities are fully integrated into the economy. On the other hand, where part of export production is owned by foreign companies, the benefits of the exporting activities for the population or the economy tend to be more restricted. Much of the incomes generated, for example, may be moved out of the country, rather than being reinvested there. As for imports, the part owned by foreigners, i.e., purchased for use by external capital in production for export within the state boundaries of a country, is not consumed by the economy proper. This

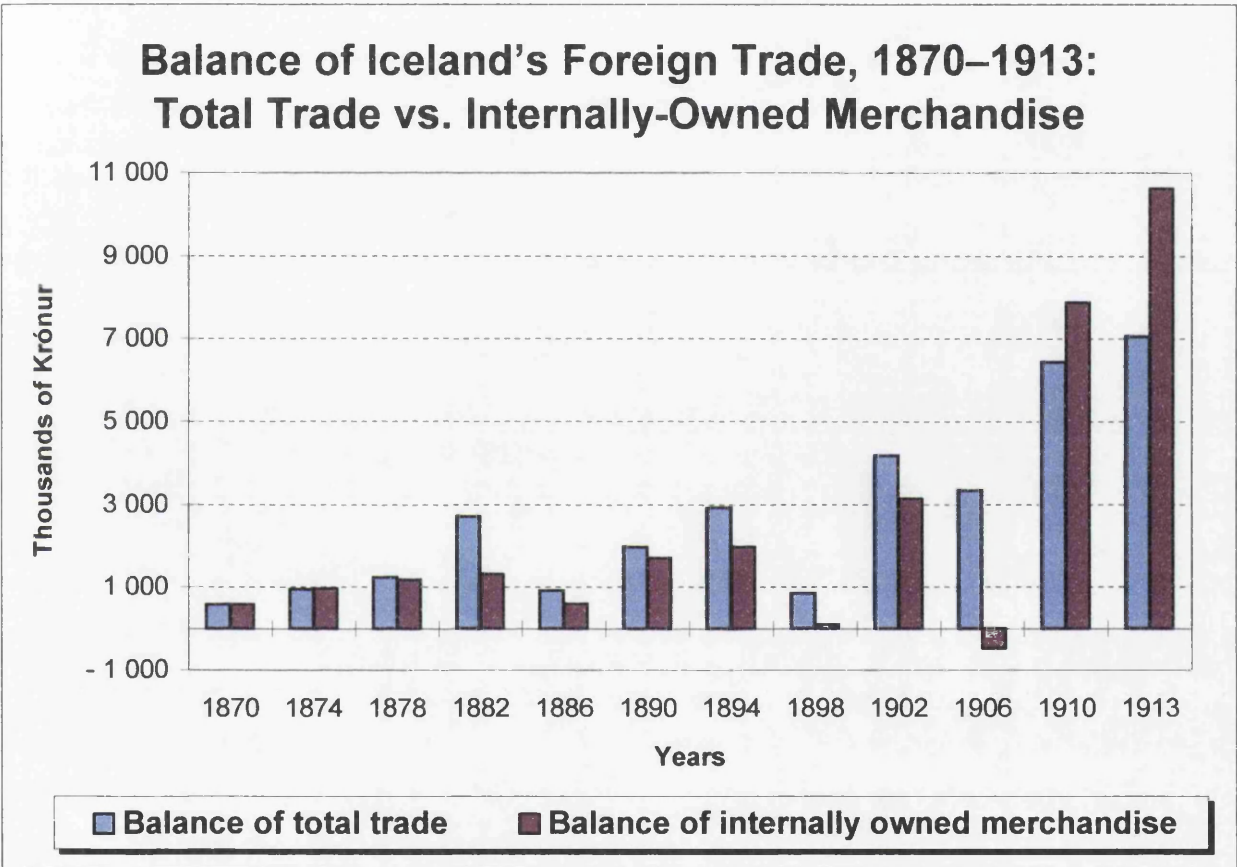
Figure VI.2



phenomenon is well known in economic history, for foreign-owned mining and oil-drilling, to take an example, have often tended to form enclaves in the respective economy, enclaves with a limited contact with the domestic economy. In these instances, indicators for total exports and imports cannot be an accurate measure of the real impact of a country's foreign trade on the domestic economy.

In the case of Iceland, some exports were owned by foreigners, primarily Norwegians, and this issue was discussed in Chapter IV on exports. These exports comprised all kinds of whaling products (whale oil, baleens, and meal) and herring, besides a few other insignificant exports. Some imports were also owned and used predominantly by foreigners. These types of imports are more difficult to define but include salt, barrels, staves, and coal. The quantity of imports and exports owned by foreigners operating in a relatively 'enclavistic' way within Iceland is most uncertain and difficult to estimate. However, a tentative attempt has been made (see Table B.BAL/ALL-2). For this purpose, all whaling products were subtracted from Iceland's exports. Because of the preponderance of Norwegians in foreign enterprise in Iceland, all herring that went to Norway was also subtracted from Iceland's export figures while herring going to other countries was considered to be owned by Icelanders. Similarly, all salt, barrels, staves, and coal from Norway were subtracted from Iceland's import figures. This method inevitably produces crude results, but if they are accepted as a plausible approximation of the actual proportion of externally-owned merchandise, it must be admitted that the share of foreigners in Iceland's foreign trade was substantial. According to this exercise, the exclusion of externally-owned exports and imports considerably affected Iceland's trade surplus in that it reduced it, sometimes substantially (Fig. VI.3). More precisely, the share of externally-owned surplus as of total trade surplus usually ranged from ca 30 to 50% between 1882 and 1913.

Figure VI.3



Furthermore, in spite of heavy fluctuations there was a long-term increase in the share of the surplus owned by foreigners (Fig. VI.4).⁵ Therefore, as the figures stand a substantial part of Iceland's trade surplus was in the hands of foreign enterprises, and this shows that it is important to distinguish between internally and externally-owned merchandise when assessing the impact of Iceland's foreign trade on its economy.

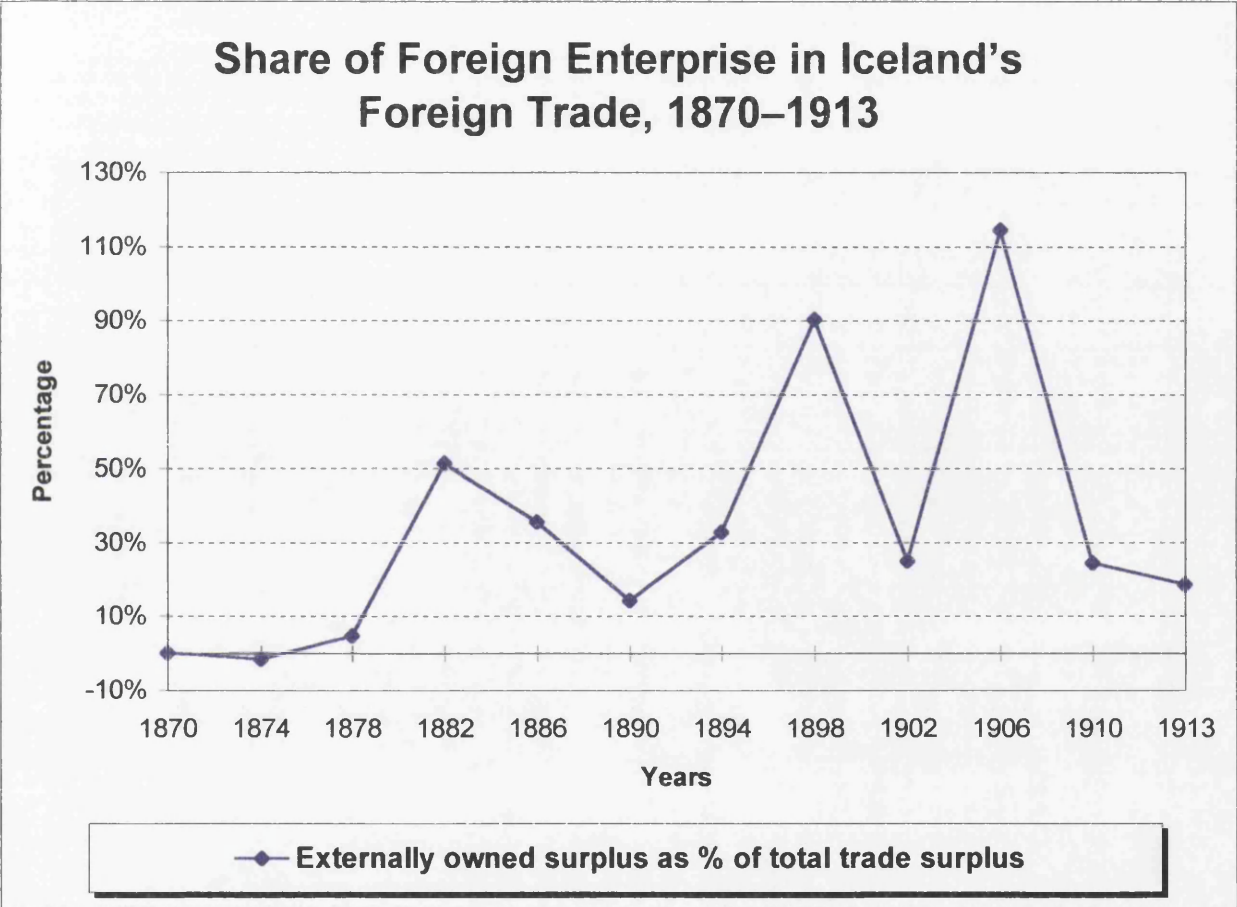
As Fig. VI.3 indicates, the exclusion of externally-owned exports and imports, as they were estimated here, in general did not alter in any significant way the general pattern discussed in previous section. Instead, the growth rates were affected, because in absolute terms, the surplus from internally-owned merchandise was 6.5 times larger in 1913 than in 1870 (instead of ten times larger), and on a per capita basis the growth was fivefold (instead of eightfold).⁶ Also, the relative size of the trade surplus was more stable initially, fluctuating from 15 to ca 20% of export values from 1870 to 1886 (Fig. VI.2). Then, the percentage rose to 30 and 35% respectively in 1890 and 1894, after which it gradually fell to 20% in 1913 (again ignoring the abnormal years 1898 and 1906 when the percentages were especially low).

Looking at internally-owned merchandise from the point of view of the contraction years, the outcome of the exercise is also noteworthy. As already noted, the unusually large trade surplus in 1882 was mainly due to foreign activities, and, therefore, the size of the surplus in this year is in line with the trade surplus in the years before and after 1882. Conversely, the very small trade surplus in 1898 becomes even smaller and is almost zero. This shows that the slump was largely an internal phenomenon and affected the domestic economy far more than the activities of the foreigners in Iceland. The outcome for 1906, on the other hand, is slightly surprising

⁵ Here, we omit the year 1906, because the outcome then is highly doubtful, see earlier discussion in the chapter.

⁶ Table B.BAL/ALL-2.

Figure VI.4



because there appears to have been a trade deficit in internally-owned merchandise although on a comparatively modest scale. However, on closer investigation, we may question the accuracy of this outcome. Herring is a key factor here because its export quantities to Norway at the time are subject to some uncertainty. According to a certain secondary source,⁷ which reproduces figures from Norwegian fishing statistics for 1903 onwards, there is a discord between my series for herring exports to Norway (which are based on Norwegian trade returns) and these fishing statistics *except* for the year 1906. For that particular year, the fishing statistics record just about the same amount as the trade returns do (see Table A.EXP/NOR-3), which is in contrast to 1910 and 1913 when the herring catches off Iceland are substantially larger than the herring imports from Iceland to Norway. My reasoning is that if Norwegians in 1906 exported some of their herring caught off Iceland to other countries than Norway, as they evidently did in 1910 and 1913, then an unknown quantity of the herring exports to Norway in 1906 was owned by Icelanders. But, as already explained, my method assumed that herring exported to Norway was solely the property of Norwegians. The explanation for this 'mismatch' is obscure to me, and the Norwegian fishing statistics will need to be studied more closely to resolve or explain this. Hence, because of lack of information we must let this deficit in 1906 stand as it does but, nonetheless, take due notice of the possibility that there was in fact a small surplus on internally-owned merchandise.

Before departing from the subject of trade balances in general, and the difference in balances between internally and externally-owned merchandise, I want to bring attention to one interesting aspect. From the point of view of the Norwegian enterprises in Iceland, the country was a resource base, which they exploited to their purposes. The main reason for venturing in Iceland was that they thought it would make good profit.

⁷ K. Shetelig Hovland, *Norske Islandsfiskere*, p 256.

On the basis of our exercise, we can offer a very rough estimate of how lucrative the business of the Norwegian concerns may have been. Looking at the difference between externally-owned imports and exports, and calculating the balance as percentage of the exports, the result is that there was a surplus in all the years except one (in 1874), and, moreover, the surplus appears to have been usually around 90% of their exports.⁸ Putting it differently, the foreign companies only had to spend in Iceland some 10% of their exports by value in order to produce these very same commodities. This is truly an impressive outcome compared to the one for internally-owned merchandise, i.e., owned by Icelanders, described above. This computation of the Norwegian trade surplus is not a measure of profitability — it leaves out many of their operating costs and some starting costs. Nevertheless, it suggests that the Norwegian herring and whaling fisheries in Iceland produced good returns for those engaged in it.

Even if our exercise in distinguishing between internally and externally-owned exports and imports is methodologically rather crude, nevertheless, it lays the foundation for a more reliable measure of the true impact of Iceland's foreign trade on its economy while also hinting at a certain kind of leakage in the foreign trade, both its size and its channel. Further to that, our exercise shows that the size of externally-owned surplus (exports and imports) is large enough to warrant attention and advises caution when interpreting or using indicators for Iceland's total foreign trade.

⁸ Table B.BAL/ALL-2.

VI.1.3. Missed Working Capital: Storage of Trade Surpluses

Persistent trade surplus in the research period, especially between 1870 and 1900, is interesting in the light of the understanding that merchants around 1870 were reluctant to pay their customers in cash, even if they were in credit in their accounts at the merchants (Chapter II). This raises the question if and for how long they continued this practice. The answer is important when discussion Iceland's trade balance because the portion of the trade surplus that was not paid out in cash evidently did not benefit the economy in any way. These were 'frozen' assets with regard to the economy, even if this was done with the consent of the owners (customers). The reason for this arrangement is that it was very advantageous for the merchants concerned, because they could use this money as a working capital in their business activities, paying possibly with small if any interests on the money. Note also that their business activities were mainly confined to Denmark until some of the merchants started to put money in fishing in Iceland in the form of decked vessels.

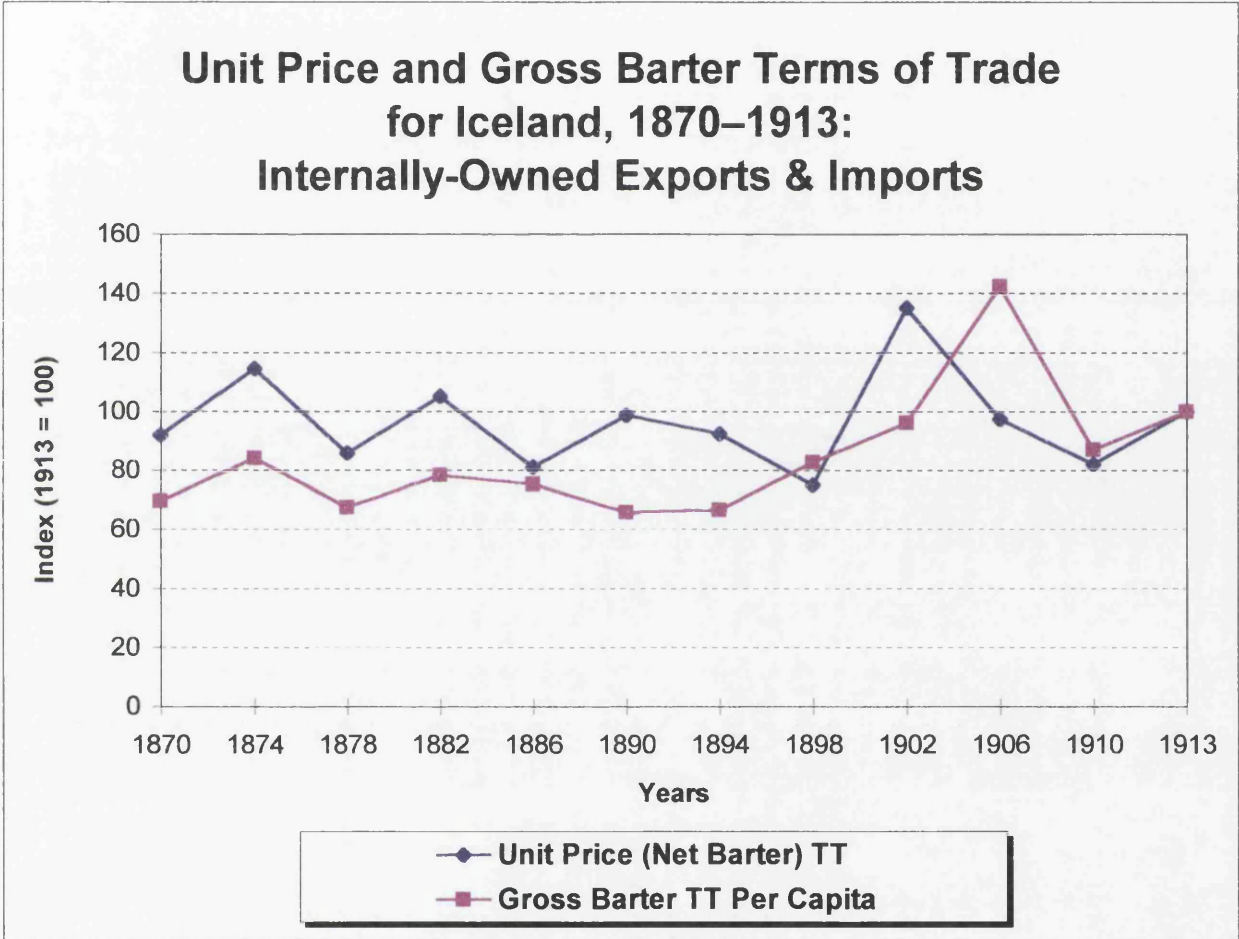
A purposeful examination of this matter clearly requires sources and methods complementary to those employed in the present research. But it happens so that there is a certain way to see when Iceland's trade surplus broadly started to become effective in that they were paid out to customers. This is possible by comparing the relative movements in gross barter terms of trade and unit price (net barter) terms of trade.⁹ A short explanation of this is in order before it is applied to Iceland's foreign trade. Gross barter terms of trade measures the ratio of the volume of imports to the volume of exports, that is, variations in the quantities of imports and exports exchanged at constant

⁹ The employment of this method in the present research owes to R. Findley, 'terms of trade,' p 624.

prices. If gross barter terms of trade stay at the same level over time, it means that volume of exports relative to volume of imports remains the same. But if gross barter terms of trade rise it means that imports increase relative to exports, and *vice versa* if gross barter terms of trade fall. Unit price terms of trade measures the relative movements of exports and import prices. If unit price terms of trade rise over time, then prices of exports have risen relative to prices of imports and *vice versa* if unit price terms of trade fall. Thus, instances when relative movements of gross barter and unit prices move upwards at the same time mean that rising imports relative to exports are financed with relatively rising exports prices. Conversely, when relative movements of both terms of trade are downwards, relative contraction in imports is understandable when exports prices fall relatively to import prices. Consequently, those periods of time when relative movements of both terms of trade diverge are usually more interesting in the terms of economic implications. Furthermore, in the context of the idea that trade surpluses were stored for a long time in Iceland's foreign trade, instances of rising gross barter terms of trade and falling unit price terms of trade would support the idea that trade surpluses actually were stored.

Since enclave activities used money in their transactions, it is necessary to look at internally-owned exports and imports only and focus on instances of upwards movements of gross barter terms of trade. It emerges that gross barter terms of trade and unit price terms of trade moved in tandem from 1870 to 1886, and the divergent trends until 1890 only indicate that although net purchasing power of exports rose, Icelanders decreased their imports (Fig. VI.5). All the while there were constant trade surpluses, and this is remarkable because had they been disbursed in cash, they probably would sooner or later have caused gross barter terms of trade to rise (caused imports to rise relative to exports), irrespective of the trend in unit price terms of trade. This is because if economy has a trade surplus, it usually is spent within the economy on internal

Figure VI.5



consumption, savings, or investments — unless it is exchanged for extra imports over exports later and this never seems to have been the case in Iceland. Possibly, some of the trade surpluses were spent internally but it is outside the scope of the present research to examine levels of consumption, savings, and investment in the economy to check these outlets. One thing, however, suggests that not much of the trade surplus was spent within the economy. If a trade surplus is spent within economy, then it tends to push up export prices and Laspeyres price index for internally owned exports is almost identical to the movements in the unit price terms of trade index in Fig. VI.5.¹⁰ It does not imply that the trade surplus between 1870 and 1890 — amounting to millions of Icelandic *krónur* — were injected into the economy. Possibly, some of the trade surpluses was spent abroad on consumption (for instance, travels), savings (mainly Danish state bonds), or investment (for instance, education). It is outside the scope of the research to probe into these aspects but it is safe to assume that they cannot account for the millions of *krónur* that accumulated as trade surpluses between 1870 and 1890. The only possibility left is a storage or expatriation of the trade surpluses.

After 1890, however, new trends emerged in the relative movements of unit price terms of trade and gross barter terms of trade. Between 1890 and 1894 volume of imports rose slightly relative to exports (gross barter terms of trade moved upwards) while prices of exports relative to prices of imports (unit price terms of trade) fell markedly. In other words, in spite of clearly decreasing net purchasing power of exports, people seemed to afford to buy slightly more imports relative to exports. Although the contrast is not very stark it nevertheless indicates that circumstances had changed, and in principle there can be several possible sources for such a shift. One is that hoarded money is being lent or given to other people, another is that the state (or an authorised

¹⁰ Table C.BAL/ALL-3.

bank) is printing money, third is that the economy is receiving net foreign credit (loans) or gift money (from state authorities or as private remittances), fourth is that the economy is having net transfers of factor rewards, fifth is that the economy is benefiting from a rise in unit price terms of trade, sixth is that the economy is using up concurrent or previous trade surplus, and the last is that people are entering into or increasing their short-term commercial debts with merchants. These possible explanation will be tentatively commented on below.

As for money printing and foreign credits or gift money, there is no ground for these possibilities. In the light of the general money shortage in Iceland, it is rather unlikely but conceivable that some money to buy more imports between 1890 and 1894 came from Icelanders themselves (hoarded money), probably then in the form of loans. However, it is well possible that Icelanders entered into or increased their short-term commercial debts with merchants. What is certain is that Iceland was receiving factor rewards from enclave activities, and part of the live sheep and live horses that were exported were paid for in hard cash.

The new trends that emerged in both indices between 1890 and 1894 were taken to their extremes between 1894 and 1898. Gross barter terms of trade soared while unit price terms of trade fell sharply. In other words, volume of imports rose substantially relative to exports although net purchasing power of exports fell. As before, it is rather unlikely that hoarded money was a significant source of money to buy imports, there was no money printing at the time, and no major gifts of money from abroad are known. The suggestion that Iceland was benefiting from net foreign credit cannot be precluded as a minor part of the explanation, because there was a very small foreign loan made by the National Bank of Iceland in 1897-98. But we know nothing about its allocation and the

sum is not large enough anyway to be a sufficient explanation.¹¹ In 1898 there was no or very small trade surplus and apart from trade surpluses from the immediate years preceding 1898, the most plausible explanations for the rise in gross barter terms of trade probably are two, although we know nothing about their relative significance. One is net transfers of factor rewards, and the other is that merchants extended extra credit.

For the next four years, 1898–1902, gross barter terms of trade (imports relative to exports) continued to rise. Incidentally, net barter terms of trade (net purchasing power of exports) rose too and in fact faster than gross barter terms of trade. The rise in net barter terms of trade is in itself a sufficient explanation for the rise in gross barter terms of trade, so no further comments are needed. However, between 1902 and 1906 the pattern from 1894 to 1898 was repeated: gross barter terms of trade soared while unit price terms of trade fell equally as much. Apart from the use of trade surpluses from previous years — the trade balance was negative or very small in 1906 — other explanations must be listed first. net foreign credit, net factor rewards, or money printing come to consideration. By this time, when a number of savings funds had been established and savings were increasing, hoarded money cannot be a serious explanation for the imports. However, net inflow of foreign credit and money printing in 1906¹² may conceivably explain more than half of the rise in gross barter terms of trade, which amounted to 5.2 million kroner.¹³ The remaining part can only be explained with inflow of factor rewards in 1906, credits from merchants, or with circumstances relating to previous years. Since externally owned exports were unusually large in 1906, inflow of

¹¹ This loan amounted to about 300 thousand kroner (Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 668–9), but the rise in gross barter terms between 1894 and 1898 meant that Iceland spent about 900 thousand kroner more on imports in 1898 than in 1894 (Table B.BAL/ALL-2).

¹² Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 663, 669, 672.

¹³ Table B.BAL/ALL-2.

factor payments probably was far greater than before. But the problem is that we still do not know anything about the amounts coming to Iceland that way. Hence, we cannot preclude that trade surplus from previous year(s) was used in 1906, but other causes relating to 1906 may go a long way in explaining the relative change in the gross barter terms of trade between 1902 and 1906.

From 1906 to 1910, gross barter terms of trade fell substantially and this fall in imports relative to exports can be fully explained with the concurrent fall in the net purchasing power of exports (fall in unit price terms of trade). But in addition, there was a substantial outflow of foreign credits.¹⁴ In the end of the research period, between 1910 and 1913, gross barter terms of trade rose markedly and concurrent rise in unit price terms of trade explains it.

The central message of this examination on the relative movements of gross barter terms of trade and unit price terms of trade is that the trade balance cannot be taken at face value. This is because the outcome of the examination suggests that Icelanders did not get their surplus from foreign trade disbursed between 1870 and 1890. Moreover, there is almost a perfect match of the relative movements of the indices until 1882 which means that all or practically all of the trade surpluses were stored. This entailed that the trade surpluses could neither be used for internal nor external consumption, savings, or investment, and the consequences for the economy are obvious. There possibly was a break in the storage of trade surpluses around 1890 but other explanations also come to consideration and have to be examined to see when trade surpluses generally started to be disbursed. Some of the other findings of the thesis imply that this possibly happened around 1900 or in the 1900s, but further comments about this will be saved for the conclusions (Chapter X).

¹⁴ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna*, pp 669–70, 672.

VI.2. Volume and Price Trends, Terms of Trade, and the Reallocation of Labour

The overall values and quantities of the trade flows, which were investigated in Chapters IV and V on exports and imports respectively, showed the actual values and quantities that were exchanged. But they suggest nothing about prices, and they inevitably are a crude indicator of the volume trade over time, that is, the actual quantities exchanged at fixed prices. Also, they say nothing about the economy's terms of trade, which can be measured in more than one way. Hence, I will discuss the outcome of my computations of price and volume indices, and the results of terms of trade calculations, to offer a more accurate picture of trends in the trade flows, and comment on their main implications.

VI.2.1. Volume of Trade, Importation for Enclave Activities, and Population Growth

The advantage of volume index over simple comparison of aggregate values and quantities is evident in the case of Iceland. According to Chapter IV, export values were

5.5 times higher in 1913 than in 1870 and quantities were about seven times higher in 1913 than in 1870 (Table IV.1). Neither figure is indicative because the volume index shows that the rise in exports was in fact about fourfold (Fig. VI.6) or 3.3% per annum.¹⁵ Also, according to Chapter V quantities of imports rose more than eleven times over and import values more than quadrupled in the period (Table V.1). Incidentally, the value measure gave a relatively precise estimate because the volume index for imports shows that imports rose nearly four times over (Fig. VI.7). These computations are based on total exports and imports, but they are also representative of internally-owned exports and imports (Fig. VI.6 and VI.7).

Concerning externally-owned exports and imports, it emerged that the indices for them diverged somewhat from those for internally-owned exports and imports. The rise in the volume index for internally-owned exports was not quite as much as for total exports, because the first 'only' rose about three times over (Fig. VI.6). By contrast, the volumes indices for total imports and internally-owned imports was identical (Fig. VI.7). Note that this does not mean that foreign, i.e., Norwegian, enterprises were less active in the import trade than in the export trade. Rather, it implies that fluctuations in imports of Norwegian enterprises coincided remarkably well with fluctuations in total imports. However, beforehand one would expect some fluctuations of the externally-owned index around the total imports index, as the case was in exports. Hence, it is legitimate to ask if the index for externally owned imports is realistic. All things considered, there is some reason to doubt this perfect match of the import indices. Although several imports were assumed as being owned by Norwegian enterprises and subtracted from total imports, they did not include capital goods that the Norwegians brought to Iceland for the whaling industry. My work on the Norwegian trade returns did not indicate any imports of capital

¹⁵ Table C.BAL/ALL-3.

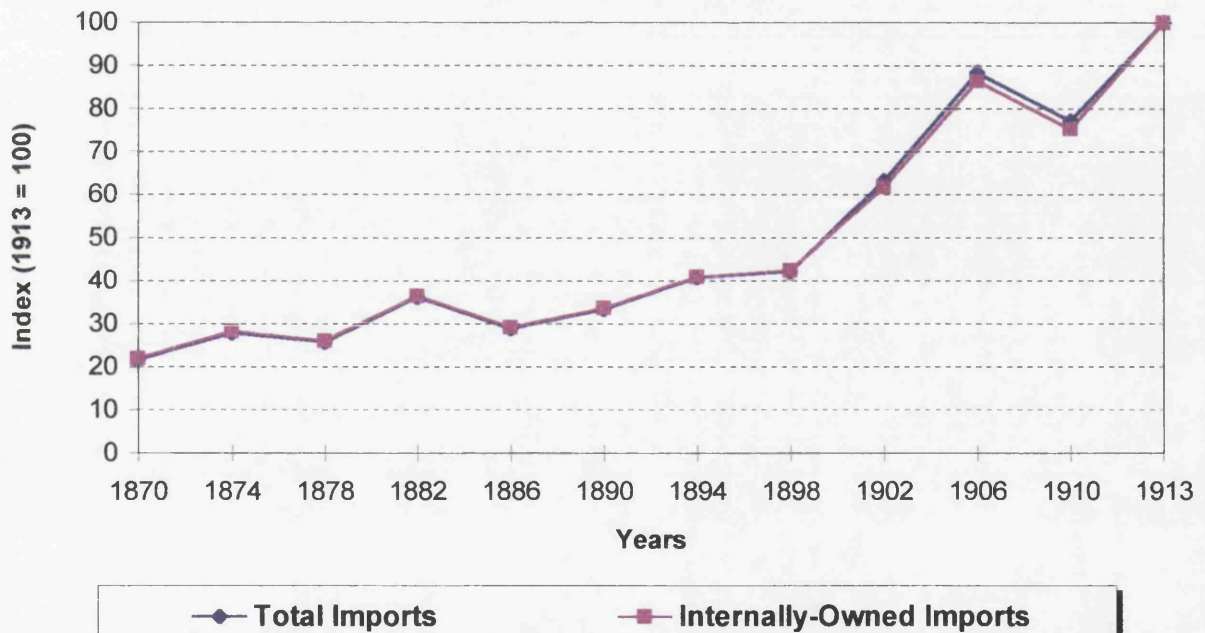
Figure VI.6

**Volume Indices for Exports of Iceland,
1870–1913:
Total vs. Internally-Owned Merchandise
(Total Population)**



Figure VI. 7

**Volume Indices for Imports of Iceland,
1870–1913:
Total vs. Internally-Owned Merchandise
(Total Population)**



goods, and this suggests that they are missing in the trade returns, or that they could not be identified there.¹⁶ In any case, there is a reason to believe that the perfect match of the import indices is not correct, and they must be understood in the light of that suggestion.

In spite of practically stationary population from 1870 to 1894 (70,000 to 73,000 people), volume of internally-owned exports per capita grew by about 80% between these two points of time, or at 1.4% per annum. Meanwhile, the volume of imports rose by almost 70% per capita.¹⁷ The trends of both trade flows was smoothly upwards in this sub-period, and, moreover, there was almost a perfect match between the movements of exports and imports (Fig. VI.8). By contrast, from 1894 to 1913 the population grew from 73,000 to 87,000 people, and exports per capita rose considerably less (close to 40% or 0.7% per annum) than imports per capita (nearly 80%).¹⁸ Therefore, it seems that the period from 1870 to 1913 cannot only be divided into two on the grounds of population growth — breaking about 1894 — but also in terms of the movements of the volumes of internally-owned exports and imports.

Evidently, between 1870 and 1894 volume of exports per capita rose twice as fast as between 1894 and 1913. This slowdown of the growth of exports per capita after 1894 is noteworthy, because rising imports at the same time indicate that there was no slowdown in the overall economic activity. Hence, the separate trends in export and imports suggest that economic resources were directed from export production towards greater production for the domestic market in the economy. This fits well with historians' understanding of an economic boom in Iceland in the 1900s. Then, the economy no doubt diversified much faster than before and its structure probably was reinforced, for

¹⁶ For a description of my work on the Norwegian trade returns, which were in many ways difficult to manage, see introductory text in Appendix A.

¹⁷ Table C.BAL/ALL-3.

¹⁸ Table C.BAL/ALL-3.

Figure VI.8



instance, in terms of infrastructure. Why this took place is not certain and what explains the timing of it is still less certain. The growth of the fishing sector and its economic impact presumably is a part of the explanation, but it does not explain very well the economy's need for so much imports and their diversification in terms of products. Neither does it explain the timing of this change in a satisfactory way. A more plausible explanation for the separate trends in export and imports is that the supply of money seems to have increased substantially around 1900, as my comments in the discussion about Iceland's gross barter terms of trade showed. Not only was printing of money greater than before, but also net inflow of foreign credit, and there was almost certainly a net inflow of factor payments. Possibly, trade surpluses started also to be paid out to some extent in cash. Some of the money was clearly spent on imports, but most of it no doubt was spent within the economy, rather than exported. Provided that this is correctly observed, this would explain why growing economic activities in the domestic sector meant a per capita decline in the export sector, because there was no marked under-employment in the economy as the substitution of imports for internal production shows (Chapter V).

The trend in exports raises the questions whether there was a rise in productivity too. This is impossible to answer with our data but it seems plausible to suggest that although productivity certainly increased over time, this huge rise in export production was effectively impossible without greater inputs, that is, switch of labour and capital from production for domestic consumption to export production. But the relative contributions of inputs vs. productivity in rising output in the exports sector are unknown.

VI.2.2. Price Trends in Exports and Imports

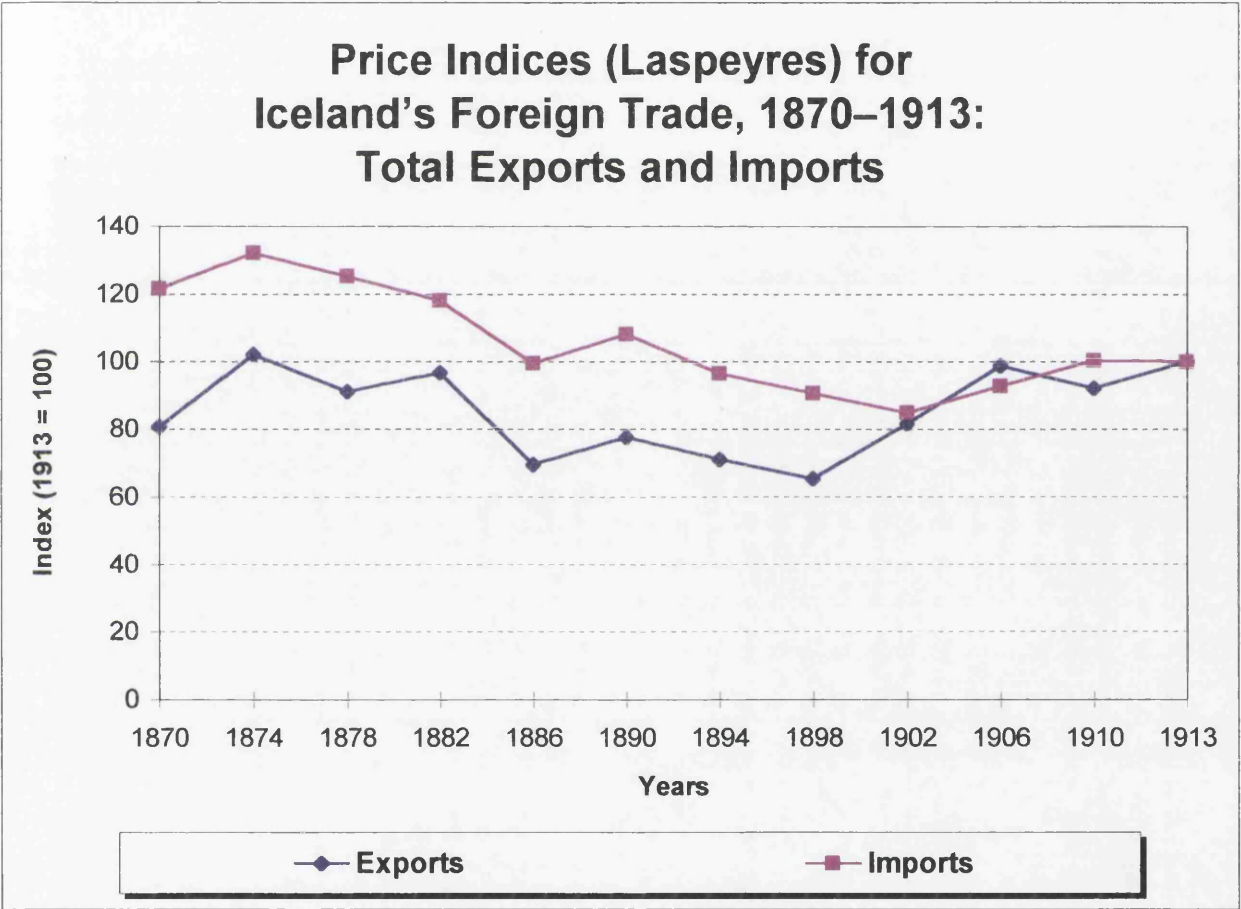
As far as the prices are concerned, there was practically no difference between total exports and imports on one hand and for internally-owned exports and imports on the other.¹⁹ Consequently, discussion of price movements can be confined to these relating to total imports and exports. Movements of the exports and imports price indices as measured by Laspeyres' method were very much in tandem until about 1900 (Fig. VI.9). Both were relatively stable from 1870 to 1882 after which both indices fell and remained at a distinctly lower plateau during 1886 to 1898. In 1902, the exports price index rose again, after which it kept rising and in 1913 it was higher than in any of previous sample years. By contrast, the imports index in 1902 dropped below the plateau of 1886-98 and subsequently only moved up to the reach former plateau level again. This discrepancy in the movements of export and import prices between 1902 and 1913 was very favourable for Iceland, and it is definitely one of the causes for the expansion in its foreign trade after 1900.

It is noteworthy that the great and widespread European price fall that began from the mid and the late 1870s onwards did not affect prices in Iceland's foreign trade until after 1882. However, prices in European markets generally went up from the late 1890s onwards, but import prices of Iceland did not do so to any significant extent. Clearly, these are examples of the variations in the international pattern of prices in the period, and Iceland apparently fared relatively well in this respect.

The indices also enable us to see more easily than before the main forces behind fluctuations in the trade surplus. For example, the downswing in 1886 compared to 1882

¹⁹ Table C.BAL/ALL-3.

Figure VI.9



was caused by a fall in both prices and volume of trade (Fig. VI.9 and VI.6-7 respectively). Why the outcome for the year 1898 was even worse is also very clear. Not only did prices of exports go down and prices of imports move upwards (compared to 1894), but the volume of exports went down too while the volume of imports went up. In short, our indicators for the foreign trade in 1898 had all moved adversely since 1894 and the results certainly bear this out. Or again, we suggested that the rise in absolute trade surplus in 1890, or some time between 1886 and 1890, was more caused by a greater volume of exports than higher export prices, and our price and volume indices bear this out. Evidently, this was also the case in 1894 when the price indices actually fell while the volume indices, especially the export index, rose. The causes for the era of prosperity after 1900 also stand out more clearly than ever. Prices of exports rose but prices of imports remained practically the same as in the 1890s. Other things being equal, these favourable circumstances were bound to lead to prosperity, and the slump in 1906 was simply a result of over-consumption, because the volume of imports far exceeded the volume of exports. Thus, the deficit in 1906 was not a sign of truly slack economic conditions as in 1898 or 1886.

VI.2.3. Terms of Trade: Purchasing Power of Exports

This brings us to discussion about terms of trade, which can be measured in more than one way. Earlier, we discussed the movements in gross barter and unit price or net barter terms of trade, so I will only recapitulate the main trend in the latter. From the 1870s through to the 1890s, the unit price or net barter terms of trade remained practically

constant. They neither improved nor deteriorated markedly, and this is true whether we look at total trade (Fig. VI.10) or internally-owned merchandise only (Fig. VI.5). However, from 1902 onwards the unit price terms of trade greatly improved, primarily because of the rising export price index, and the unit price terms of trade from 1902 onwards were substantially better than at any time before in our sample years. Other things being equal, this was conducive to prosperity because export production brought increasingly greater returns in units of imports.

However, the best measure of the purchasing power of exports is the income terms of trade, for it takes account of both prices and export quantities. This index is a measure of the variations in the incomes from exports, i.e., the fluctuations in quantity, given the prices of exports and imports at each point in time. Consequently, when multiplying the unit price terms of trade with the volume index for exports, we see that Iceland's income terms of trade was actually improving almost constantly from 1870 onwards and very much so after 1898, when it soared dramatically. Whether this is done for total exports and imports or for internally-owned exports and imports only, the result is the same (Fig. VI.11). Consequently, although the unit price terms of trade was stationary from 1870 to 1898, the purchasing power of exports rose because export quantities increased — suggesting in turn that the Icelandic economy obtained some benefit from foreign trade. After 1898, unit price terms of trade started to improve, and it no doubt spurred exports whose volume index grew at a faster rate than before (cf. Fig. VI.6–7), leading in turn to income terms of trade rocketing. The years between 1898 and 1913 were clearly a time when the Icelandic economy gained more from foreign trade than in any previous period in its history.

Figure VI.10

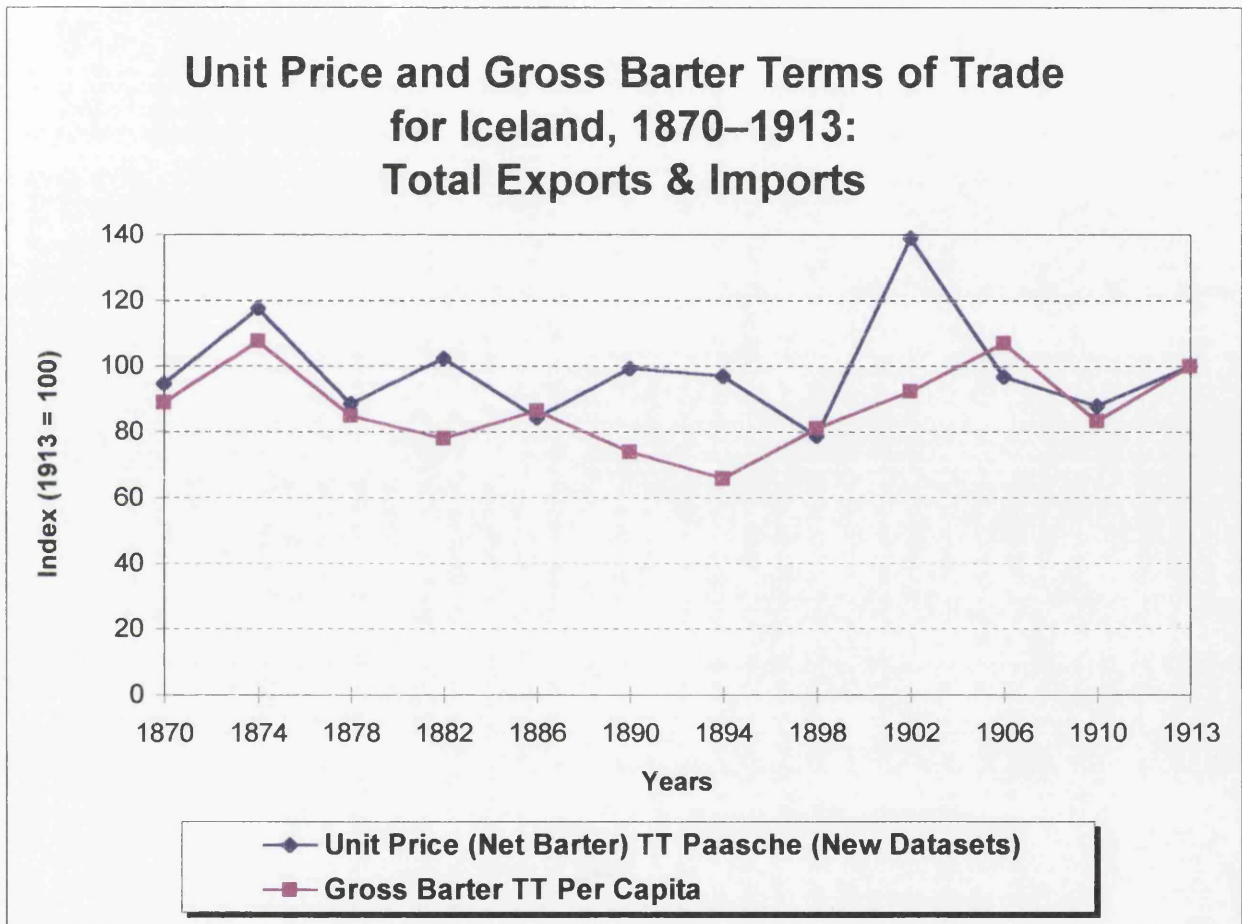
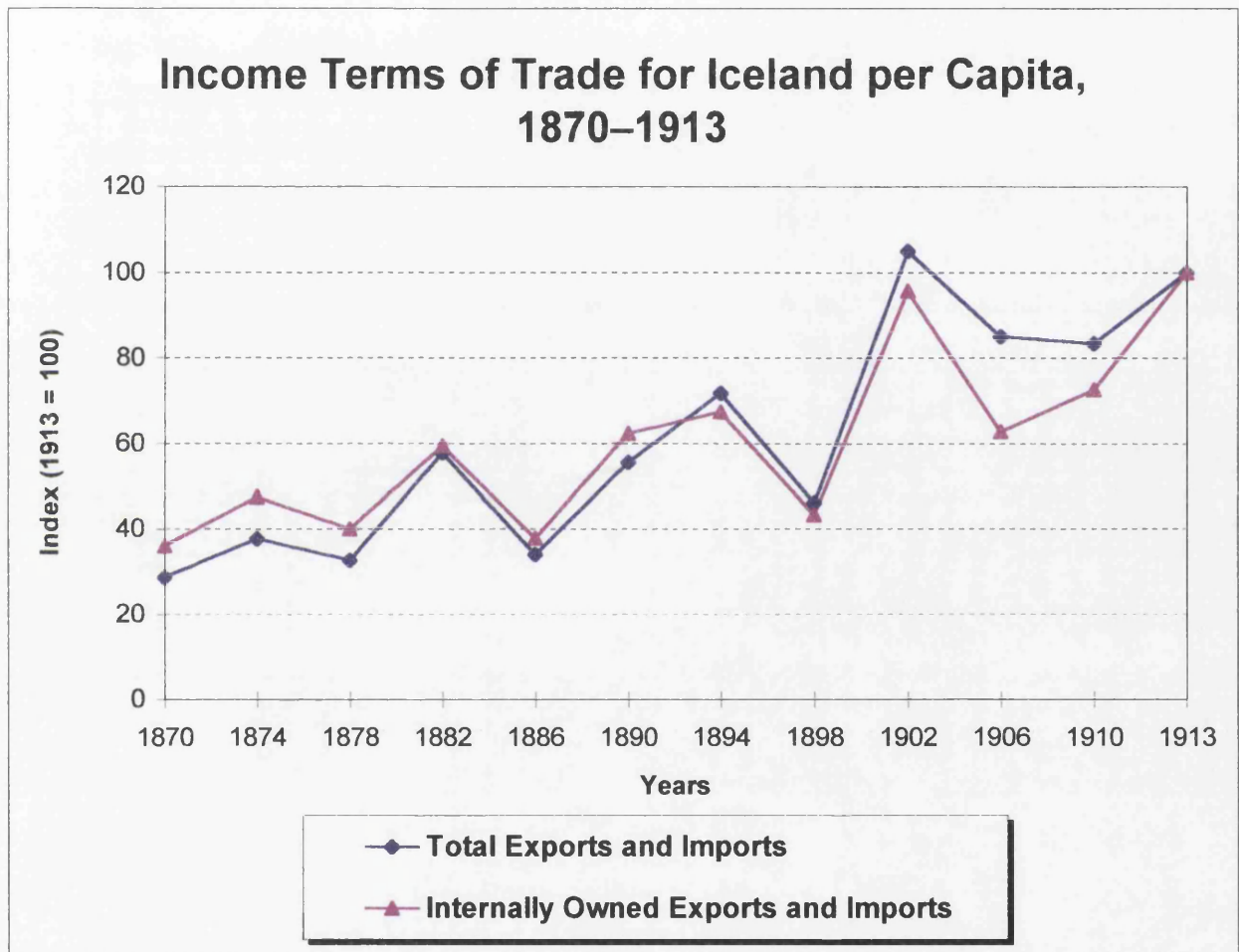


Figure VI.11



VI.2.4. Gains from the Labour Reallocation: Was the Trade-Off for Imports Advantageous?

Until now, we have commented on Iceland's advantages from her foreign trade over time, and we have done this from different points of view. However, we have not considered whether the reallocation of labour that took place in the economy (Chapter V) brought improvements in standards of living. This is an intriguing issue although it may be cumbersome and difficult to quantify such change, and we do not know yet whether this shift caused any change in the level of living standards. The core question is this: Did it pay off to produce exports instead of importing raw materials and semi-manufactured goods to process, or using domestic materials, and if so, how much was this advantage? A tentative attempt will be made to probe into this matter, if only to underscore the importance to examine Iceland's gains from trade from this perspective too. After all, the full implications of foreign trade for the economy have not been realised if the substitution of imports for export production is not discussed, because the rise in exports almost certainly was caused by foreign markets and foreign enterprise through trade. Furthermore, if this shift was markedly advantageous, then it would give foreign trade more weight and importance in the transitory process. Of course, the causal relations in the interplay between trade and the economic transformation would still be obscure, and I will examine this in Chapters VII and VIII.

First, internally-owned exports and imports per capita were calculated at three points of time, that is, in 1870, 1894, and 1913. Changes in the levels of these exports and imports in 1870–94 and 1894–1913 naturally reflected the change in export earnings and import expenditures respectively. The problem was to find out how much of the

imports was a compensation for the switch of time from production for internal consumption towards production of exports, and how much of the imports simply was an addition, resulting from a greater purchasing power because of the rise in exports quantities and possibly favourable terms of trade too. By subtracting expenditure on the first type of imports ('connected' imports) from exports earnings, it would emerge if and how great the advantage from this switch was. It would indicate the change in the standard of living as far as the export sector is concerned. Note that since the domestic sector is not included in this exercise, the outcome is not a measure of the overall standard of living, but only the part of living standard that pertains to external exchange.

In the case of Iceland and given the data at hand, any distinction between 'connected' and 'disconnected' imports necessarily is a crude one, and a measurement of the standard of living so far back in time should not be taken for a conclusive one. However, a crude attempt was made to split imports into two categories according to the definition above. It entailed that imports were put in the 'connected' category if they belonged to any of the commodity groups (raw materials and semi-manufactured goods) that were processed in Iceland in 1870 or were a substitution for goods made from Icelandic materials in 1870. The residual, 'unconnected' imports, was the addition in consumption or the net gain from the labour reallocation.

The results from this exercise are produced in Table VI.1 for examination. It shows that the relative share of 'connected' imports as of total imports fell over time from 40% to 30% between 1870 and 1913, although the economy's expenditure on 'connected' imports concurrently rose from 20 to 43 kroner per capita. Incidentally, the absolute increase in 1870-94 and 1894-1913 was the same, about 12 kroner per capita. When these amounts were subtracted from the economy's exports earnings in the same sub-periods, it emerged that the net advantage in absolute terms was about 30 and 23

kroner in 1870–94 and 1894–1913 respectively. Compared to the initial situation in each of these two sub-periods, the advantage amounted to about 60% and 25% improvement in export earnings. If these figures are converted into annual compound growth rate, the improvement was 2% and 1% in 1870–94 and 1894–1913 respectively.

Table VI.1. A Tentative Approximation of the Movements of Standards of Living in the Export Sector of Iceland, 1870 to 1913

	<i>Krónur/Kroner per capita (1870 prices)</i>				
	1870	1894	1913	1870–94	1894–1913
Exports (Internally Owned)	51	93	128	42	35
Imports (Internally Owned)	49	84	149	35	65
Connected* in %	40%	37%	29%		
Connected in kr.	20	31	43	12	12
Net advantage over period**					
Absolute rise				30	23
Total percentage rise				59%	24%
Annual percentage rise				2%	1%

Sources: The New Datasets.

* Percentage of imports connected to the domestic sector in the economy, i.e., raw materials and semi-manufactured goods for processing, besides substitution goods. Since the data is based on terms of trade calculations, levels of included exports and imports vary between years.

** Net advantage from the switch from processing for domestic consumption to export production, i.e., rise in exports over rise in connected imports.

Putting it differently, the outcome of this tentative exercise suggests that of the 42 extra kroner per capita gained from increased exports in 1894 (over 1870), about 12 kr. were a compensation for the switch towards more export production while about 30 kr. were a real increase in the standard of living or 60% compared with the situation in 1870. Measured by annual compound rate of growth, this meant 2% increase every year between 1870 and 1894. Similarly, of the 35 extra kroner per capita gained from increased exports in 1913 (over 1894), about 12 kr. were a compensation for the switch towards more export production while about 23 kr. were a real increase in the standard of living or 25% compared with the situation in 1894. Measured by annual compound

rate of growth, this meant 1% increase every year between 1894 and 1913. The overall conclusion from this exercise is that even if these levels actually were higher or lower, it suggests that the switch from production for internal consumption towards export production was very favourable for Iceland judging by the sub-periods 1870-94 and 1894-1913.

This outcome of this exercise must be interpreted with care and it needs much qualification, one of which is that the distinction between 'connected' imports and 'extra' imports is nowhere clear-cut. For example, some of the coal imported certainly was a substitute for domestic fuels, but almost certainly by the far largest part of it was a downright addition to previous consumption and not replacing of any internal fuels. Conversely, some of the imports assumed to be 'connected' partly were an addition to previous consumption. But on the whole, I would suggest that the increase in the standard of living was not over-estimated, rather on the contrary. Also, the exercise does not say anything about costs of production of the exports, which may have changed. If costs fell, the advantages was more, but if they rose, the advantages was smaller. Hence, when investigating Iceland's gains from trade, the next logical step from such an exercise as presented here would be to examine Iceland's (single) factoral terms of trade, which takes productivity changes into account when measuring export performance. This, however, required far more data than was readily available and more time than was for allocation here.

VI.3. Diversification in the Import Trade

VI.3.1. Iceland's Trade Surpluses and Deficits by Countries: A Shift in its Pattern

One aspect of Iceland's foreign trade which is of interest is the net balance of trade with individual countries. Its value does not only lie in showing the patterns in Iceland's trade surpluses and deficits over time, but rather in the way it reveals in effect an intriguing shift in the locus of Iceland's foreign trade. Apart from that, examining this aspect moves us one step closer towards an understanding of the actual transactions of trade, i.e., the organisation and change over time. It should, however, be emphasised that trade balances with individual countries give us only an elementary understanding of the matter. We still do not know how the transportation (shipping) was organised, what trading houses or trading associations were doing business with which countries, and how trade surpluses and deficits between Iceland's trading partners (countries) were balanced. Since the shipping issue and organisation of business operations abroad are beyond the scope of this research, we shall confine our discussion to Iceland's net balance of trade by countries. We shall focus on total exports and imports more than internally-owned exports and imports, for here we are concerned with the directions of trade flows and balances between them, regardless of the ownership of the merchandise. Sometimes, however, we can clarify our description by looking at internally-owned merchandise only, and this will be done where appropriate.

There was a clear pattern in Iceland's trade balance by countries for a long time in our research period, starting in 1870 and lasting until the 1890s.²⁰ In the trade with Britain and unspecified countries (the 'UK and other') there was always a surplus, and this applied also to Spain and Italy. By contrast, there was always a deficit in Iceland's trade with Denmark. Initially, trade with Norway brought a deficit to Iceland, and its duration varies by our definition of the trade flows. Measuring total trade, there was a deficit in both 1870 and 1874, but measuring internally-owned merchandise only, a deficit was merely in 1870. Anyway, from 1870/1874 until 1890 Iceland always had a surplus in its trade with Norway, but both the deficits and the surpluses from 1870 to 1890 were small in any comparison.²¹ The category 'other countries' constitutes an interesting case because Iceland's total trade with these countries produced surpluses for Iceland in 1898 to 1902 — before 1898 'other countries' were in the group the 'UK and other'. However, in the three sample years from 1906 to 1913, there was a deficit in the first and last year and a surplus in the middle year (in 1910). On the other hand, if externally-owned exports and imports are excluded, there was always a trade surplus for Iceland in 1898–1902.

This general trade pattern meant that the trade surplus with Britain (by far the most important country within the group the 'UK and other'), 'other countries,' and with Spain and Italy, was transferred in some form over to Denmark to cover the deficit there. In the case of Spain and Italy, it is highly probable that the surplus was transferred at least partly through Britain to Denmark as well as directly from the two Mediterranean countries to Denmark. The remaining net balance, which produced a surplus for Iceland, and the small surplus from Iceland's trade with Norway was transferred to Iceland, at least nominally as our discussion on the storage of trade surpluses showed.

²⁰ Table A.BAL/ALL-1.

However, this trade pattern went through a radical change, of which the earliest signs can be found in 1894. Then, the former trade pattern between Iceland and Norway clearly was undergoing change, because this year suddenly produced a relatively large surplus for Iceland (over ten times larger than in 1890), which was followed by a substantial deficit in 1898. In 1902 the trade with Norway had entered a new era and until 1913 total trade was marked by higher surpluses for Iceland than ever in the trade between the two countries. Admittedly, by excluding externally-owned merchandise, the surpluses become smaller and there was a deficit in 1906. Nevertheless, in the long run the internally-owned surpluses from 1902 to 1913 clearly were larger than before 1894, and the deficit in 1906 is highly doubtful as we argued above. The second sign of the overall shift was that Iceland's total trade surplus with Britain was far smaller in 1898 and 1902 than before this time. Moreover, when excluding externally-owned merchandise, the year of 1902 showed a significant trade deficit in Iceland's trade with Britain. By 1906 the surplus on Iceland's total trade with Britain had shifted to a deficit. In the case of 'other countries' the timing of this change is problematic and varies depending on whether we include or exclude externally-owned merchandise. Since internally-owned merchandise was more important for the Iceland economy, it seems perhaps best to use them as a measure. Then, the change happened between 1902 and 1906, when surplus shifted to deficit for Iceland. Of all the countries trading with Iceland, this overall shift emerged latest in Iceland's trade with Denmark, and its first sign was that in 1906 the usual deficit was only a fraction compared to previous deficits. In 1910 it had turned to a surplus for Iceland. In contrast to all these countries, the trade balance with Spain and Italy continued to be favourable for Iceland until the end of the research period.

²¹ See Table B.BAL/ALL-2.

Evidently, no later than in 1894 the circulation of trade flows started to re-allocate, and this shift was fully completed in 1910. Consequently, the new surplus with Denmark, as well as the former surplus with Spain and Italy, was moved over to Britain and the category 'other countries' to cover Iceland's deficit with them. Also, what was needed of the new surplus in Iceland's trade with Norway was used to cover the deficit with Britain, and the rest was transferred to Iceland.

VI.3.2. The Nature of the Shift

So far, we have not asked what was the essence of this overall shift in Iceland's pattern of trade balances by countries from the mid 1890s to the mid 1900s. Were mainly destinations of exports changing or was it the origin of imports? To facilitate an understanding of this shift, Table VI.2 was produced, and it shows in a schematic form when and where the change took place, year by year. With the help of this table, the trade flows in each instance were examined on the basis of material presented in Chapters IV and V, and the following emerged. Norway stood quite apart among the countries trading with Iceland in that the change in net trade balance meant rising exports from Iceland. In the case of Britain and the category 'other countries,' the change meant a relative rise in imports from these countries over exports thereto. Also, although the overall rise in imports of Iceland was spectacular after 1900, this relative growth in imports over exports from new sources understandably was partly at the expense of Denmark, which necessarily had to import a large part of what she re-exported to Iceland.

Table VI.2. Points of Timing in the Shift in Iceland's Trade Pattern by Countries, 1894 to 1906

	1870-90	1894	1898	1902	1906	1910-13
Norway	Surplus	Surplus up	Deficit	Surplus	Surplus	Surplus
Britain	Surplus	Surplus	Surplus down	Surplus down (Deficit)	Deficit	Deficit
'Other Countries'	?	?	Surplus	Surplus	Deficit	Deficit
Denmark	Deficit	Deficit	Deficit	Deficit	Deficit down	Surplus

This information suggests that the essence of this shift in Iceland's trade pattern was that the sources of imports diversified. For instance, they clearly shifted from being mainly catered for in Denmark and were moved to other countries that were better suited to provide Iceland's imports in a more direct and less expensive way. After all, since the mid 19th century Britain had been a kind of European centre for marketing and transporting commodities and buying goods that came practically from all over the world. The cities of Britain had regular communication with market places in and outside Europe, and huge, world-wide, financial transactions were made there.²² Also, Germany, which had advanced manufacturing industries, was included in the category 'other countries,' and rising salt imports from this category raises the question whether Spain was not starting to supply Iceland with this commodity (see Fig. V.41).

Although the diversification in the import trade partly consisted of more direct business connections with the producers of Iceland's imports, this is not the only conceivable type of diversification that possibly took place in Iceland's import trade. Assuming that composition of demand remains the same, import trade of a country can diversify when existing foreign producers enter new markets or when new foreign

²² S.B. Saul provides a lucid illustration of Britain's central role in world trade in my research period in his *Studies in British Overseas Trade*, pp 43-5.

producers simply enter the scene. If composition of demand changes in economy, an additional source of diversification is the emergence of existing or new producers penetrating a market with their new products. It is plausible to assume that in the case of Iceland, where demand partly remained the same and partly became more multifarious after 1900, these three types of diversification were also at work in the import trade of Iceland. In any case, the possible sources of diversification are many, and in the light of this, the new trend in Iceland's import trade is no wonder.

Given this trend towards diversification in the sources of Iceland's imports and clear tendency towards trading more directly with the producers of Iceland's imports, it is noteworthy that about half of Iceland's imports from Denmark in 1910 and 1913 still

were re-exports.²³ Unfortunately, there is not information about this for previous years, but the relative share of re-exports probably was higher still. In any case, the saltfish finally went its customary route to Spain and Italy, and the transportation of the saltfish from Iceland to Denmark rather than Britain must have been a considerable cost increasing factor, because geographically Denmark was not on the shipping route from Iceland to the Mediterranean countries. This suggests that although Iceland made a progress in her import trade with the introduction of this shift in her trade pattern, there was some way to go until she had efficiently re-allocated her sources of imports.

Furthermore, given the diversification in Iceland's import trade, it is noteworthy that the same change did not happen in Iceland's export trade. The most conspicuous example of this is the saltfish sales where Denmark substantially increased its share in the saltfish exports from Iceland after 1902. Knowledge of the final markets for other commodities, such as wool and fish oil and tallow, prevents me from saying anything about whether or not the trend was similar there. But given the importance of saltfish among Iceland's export staples, this rise in saltfish exports to Denmark is of major significance and suggests that most other exports were subject to similar trend. In any case, the reason why saltfish exports, and presumably the entire export trade, did not undergo the same change as the import trade probably is that existing business relations and those who had vested interests in maintaining status quo were too strong for potential newcomers in the saltfish branch to compete with them or attract business. On the other hand, established producers or merchants always had the possibility of entering new markets with Icelandic saltfish, for instance, Greece, Portugal, or the South American markets. Why this did not happen in our research period was probably caused by effective control through existing business relations and vested interests in the

²³ See Denm., State Bur. of Stat., *Danmarks Vareindførsel og -Udførsel* 1910, pp 206-7, and

middlemanship. This barrier was difficult for Icelanders to overcome because of lack of experience, knowledge, and capital, and no doubt also because of ignorance of lucrative business potentials. Besides, saltfish for South America and Portugal, and possibly Greece too, required different drying and packaging. This probably is a part of the explanation too.

The dissimilar trends in Iceland's export and import trade raise the question whether this shift in Iceland's trade balances by countries simply was diversification in the import trade, or whether it also meant a kind of division between these two principal branches in Iceland's foreign trade in that they started to be run by different different merchant houses. This is remarked because the trends can be interpreted as suggesting the emergence of very different business interests and objectives among owners of firms in the export trade on one hand and in the import trade on the other hand. Of course, it is possible that existing merchants and merchant houses in the Iceland trade simply diversified their purchases of imports while they continued their customary practices when selling exports. On the other hand, it is possible that the established merchant houses started to concentrate more in exports than imports, and that the diversification in the import trade is mainly due to the emergence of new competitors who used new sources in their purchases of imports. Unfortunately, it seems impossible to produce any hard and fast evidence to support either of the two suggestions. Similarly, neither the economic history literature nor the findings in the thesis so far suggest or imply any plausible explanation for this diversification in Iceland's import trade. Nor do they offer any explication of the implications for Iceland's foreign trade and the economy. Hence, we know nothing definite about the causes or the timing of this shift. However, Chapter VIII will cast some light on this matter, and further discussion will be saved until then.

VI.4. Conclusions

My examination of some of the main trends in the overall trade flows in the present chapter shows that a substantial change happened in Iceland's foreign trade in the research period. More important, however, the findings suggest that a considerable shift happened in the economy also. It seems to have started in the late 1890s, and while some of its impact was felt immediately, the shift was not fully over until the late 1900s, when a new era clearly had begun. The key element of this shift seems to be a kind of reorientation of economic resources and revenues. The fall in the rate of growth of the volume of exports per capita is perhaps the clearest indication of this, because it means that resources were directed from production of exports towards the domestic sector. But decreasing trade surpluses relative to value of exports also shows that the economy was using its surplus increasingly on imports rather just accumulating it over time. Further to this, judging by investigation of the movements in Iceland's gross barter terms of trade it appears that before the shift Iceland's trade surplus was stored away from the economy, but there are signs that it may have been increasingly paid out in hard cash after the shift began.

All of these trade indicators show a very important reorientation in the economy and a major shift in economic policy. Why this happened is, however, obscure as of yet. However, it is highly unlikely that the economy was in some way pushed into this new pattern, so one has to search for pull factors within the economy. Foreign markets

possibly contributed to this shift in that price trends were very favourable after 1900 as Iceland's net barter terms of trade show. Nevertheless, this improvement was of little use unless the economy benefited from trade surplus in some form. Rising imports certainly were one way to carry the benefits of trade into the economy, but given the suggestion that the trade surplus was not paid out in cash until possibly the late 1890s onwards, it raises the question if rising imports thereafter were a way to get the surplus transferred into the economy because merchants still largely refused to pay the surplus out in cash.

Be it as it may, these explanations are, nevertheless, far from satisfactory, and they do not explain the timing of this shift. Concerning the timing, the diversification in the imports trade immediately comes for consideration, but this diversification rather was a consequence than a cause of the reorientation in the economy. The most plausible explanation for this reorientation of economic resources and revenues is of monetary nature, in particular printing of money, and net inflow of foreign credit and of factor payments. These elements were found to influence the movements in Iceland's gross barter terms of trade in the late 1890s onwards, and they offer a highly relevant and satisfactory explanation. However, it remains to be established whether or not they were circulating in the economy in large enough quantities and that there was a definite shift in their levels before and after the shift that was identified in the present chapter. My examination did not produce any systematic information about these issues, and some of them will be examined in Chapter VIII where the discussion will be continued.

Chapter VII

The Impact of Foreign Trade on the Icelandic

Economy 1: Main Effects of Trade Flows

VII.1. Methodological Remarks

In Chapters IV to VI, I surveyed exports and imports from a variety of perspectives. In this present chapter and the next, I will offer a basic examination of the impact of foreign trade on the Iceland economy. At the outset, I would like to restate that the main purpose of the thesis is to test the relevance of foreign trade for the economic transition of Iceland. In doing so, I chose to focus on the implications of trade for the economy, rather than trying to explain the economic transition with reference to trade. The outcome of the two approaches may not necessarily be entirely different, but the method of investigation is. In any case, by placing the viewpoint from within foreign trade, I am not necessarily explaining the economic transition as such. After all, this is only one of other possible viewpoints. To analyse the economic transition in its entirety and incorporate the findings and conclusions of the present research is a second stage. The first stage is to see what foreign trade can tell us about the transition. Since there has been no proper research on the foreign trade, this must be the first step and it is taken in this present thesis. Nevertheless, in the conclusions chapter I will discuss the key findings and offer a

preliminary assessment of the relative significance of trade for the economic transition on the basis of existing knowledge about it.

In the examination of the impact of foreign trade, two main aspects will be discussed — first the material content or substance of trade (the trade flows), and second the informal and formal institutional framework of trade. The next chapter, however, will focus on the institutional impact of trade, that is links from institutions of foreign trade (tacit and written rules, and legislation) to changes in prices (competition) and to macroeconomic changes. This present chapter will deal with the material impact of trade, that is links from trade flows to changes in patterns of production, consumption, and exchange in the economy. Although I touch on living standards here, I shall do so indirectly only, because I do not employ any particular measure for them. Consequently, macroeconomic changes will be in focus.

VII.2. Potentially Strategic Trade Flows in Terms of the Economic Transformation of Iceland

In my examination of exports in Chapter IV, I suggested that saltfish exports and live sheep sales had possibly been of strategic importance for the economy. This was because live sheep exports were intrinsically linked to the supply of various other exports (mutton, wool, and woollens), besides food and materials for domestic production. Also, live sheep exports meant new business patronage, usually better terms of trade, and considerable inflow of money into a money-scarce economy. As for saltfish, a shift in the

division of work in cod fishing and curing was considered potentially important. Of all the exports of Iceland, these two export trades were identified as requiring further investigation in relation to the economy, and this will be done below. Of the most important finding concerning imports in Chapter V was that they witnessed labour reallocation in the economy in the 1880s onwards. This was evident in the decline in imports of raw and crude materials for processing in Iceland, while semi and fully processed products were increasingly imported, some of which replaced Icelandic products made of domestic materials.

In the previous chapter, I claimed that there were almost certainly strong causal links between the rise in exports and shifts in the composition of imports. In this chapter, I hope to demonstrate that patterns of exchange in the economy were radically altered, and that marked shifts in production and consumption occurred too. Furthermore, I hope to show that these changes were caused primarily by changes in the export sector, and precisely these changes in turn activated the new patterns in imports. So, there was a causal sequence from exports to the economy and back to imports. The demonstration of these links entails an examination of changes in two of the export trades that we suggested might be influential, namely the live sheep trade and the saltfish trades.

VII.3. The Live Sheep Trade and its Economic Implications

The economic implications of the live sheep sales are perhaps best explained by shortly describing the linkages of pre-existing purposes of raising sheep, namely to slaughter them and use the food and materials for export and domestically. For background information about my research method, which involves a synthesised employment of the general linkages approach and the economic determinants model, I refer to Chapter III. I recommend Fig. III.3 and III.5 in that chapter for consultation, because they give a succinct diagrammatic presentation of the method.

The breeding of sheep did not produce any backwards linkages in the economy because there were no major domestic industries providing inputs for peasants. Given the level of technology and prevailing methods in farming at the time, there was no need for much producer goods or services in sheep breeding, and peasants reproduced their sheep with lambs that they bred themselves. Similarly, there were neither backwards linkages of the outwards type. Forwards linkage from sheep breeding did not exist, because the most of the slaughtering and all the processing of food and materials for domestic use was done at the homes of peasants and by themselves and their work people. Hence, no industries existed taking care of this activity. Consumption linkage did of course exist, because peasants needed a suitable type of land and location for the sheep breeding, labour in the form of hired work people or own family members, and they themselves comprised the entrepreneurial element. Requirements for money capital were not doubt small, but peasants needed other types of capital, mainly in the form of buildings or some kind of shelter, besides food (hay). When peasants sold the products individually to

their merchant, they had to drive the sheep on foot to the port of trade where the merchant had his station, sometimes over long distances that took its toll on the animals. Then they had to slaughter the sheep and take back those items of the animal that the merchant did not want but the peasant could use. All this demanded, among other things, time, the services of several men and food for them, as well as horses. On top of this, there were no proper facilities for slaughtering, and the mutton could never be a good quality merchandise.¹

Analysing the live sheep sales in a similar way, they understandably did not mean any change in backwards or forwards linkages, that is, they did not entail their formation. However, it emerges that exportation of live sheep required some change in consumption linkage. What was identical in previous practices of sheep raising and in the live sheep sales in terms of this type of linkage was the use of the entrepreneurial element and utilisation of 'land.' But there was some difference in labour and capital utilisation. This is because selling the sheep alive was a much less troublesome and cheaper way of disposing of these assets of peasants. Instead of taking all the trouble just described, they could drive their sheep to an arranged place that the prospective buyers had advertised in time. There, they would take the dealers' bids if it suited them, provided that they were not forced to sell because of some urgent need for income. The buyers usually took care of the sheep after the purchase, driving them to shore and putting aboard ship.² Thereby, farmers saved themselves expenditure in terms of labour and capital (money, use of horses, etc.).

From the point of view of this research and with reference to the linkages approach, live sheep sales had certain interesting consequences, because the sales meant

¹ Jón Sigurðsson, *Sigurður í Yztafelli*, pp 116–17. Cf. Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 37.

² Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 37.

that if the sheep were exported live, peasants missed materials and food which they otherwise would have had from the animal. They could counter the situation by increasing the stock of sheep, and it did indeed grow in the long run (see Chapter IV). But there was a fall in the stock in the mid 1880s, and the live sheep exports were irregular so there was no perfect match between the stock and the exports. Therefore, it is logical to assume that there were times when the local supply of materials from sheep was small, or contracted. Their shortage presumably tended to push up imports for compensation. The loss of wool and, indirectly, woollens may have been substituted for by imports of textiles from cotton and linen, imported cereals may have come in place of mutton to some extent, and margarine probably was increasingly consumed instead of tallow. In fact, the trade data in the new datasets clearly bears this out in 1890 and 1894, both of which had comparatively very large live sheep exports.

Furthermore, if there were occasional shortages of traditional exchange goods, then inland peasant people were likely to reduce their barter with coastal people to keep enough for themselves. However, since coastal people were still a relatively small fraction of the population in the 1880s and around 1890, any change in their consumption of imports does not come through in my trade data. One would need to examine household expenditures or imports of coastal people specifically to test this suggestion. In theory, inland peasants could have continued domestic barter if they had used the money they acquired from live sheep sales to pay for the fish from seaside people. But this may not have been feasible for either inland peasants, because money was a scarce good, or coastal people if sheep products became more expensive in absolute terms or relative to imported substitution products. Note that this was the general trend of prices for each group of people. Whichever the case was, it inevitably pushed both parties into more imports than before. Furthermore, since greater imports

required greater exports in return, the outcome no doubt tended to push up exports of fish products by coastal people and agricultural products by inland people. Incidentally, this trend in exports and imports, and declining traditional domestic barter, was catalysed by shifts in the fisheries' sector, and they will be discussed below in relation to the saltfish trades.

Analysing the live sheep sales with the economic determinants model, it is safe to say that the sales brought two novelties in the institutional context of foreign trade and, thereby, the economy. One novelty was that the sheep were partly paid for in hard cash whereas regular merchants in the Iceland trade used to credit sheep owners' accounts at their shops. For many a sheep owner this no doubt was the main attraction of the live sheep trade. For example, for people who wanted to emigrate, selling live sheep was perhaps the only way to acquire money to pay the fare to America. However, the general rule of money exchange for live sheep needs to be qualified, because sometimes live sheep were exchanged for goods. Most live sheep were exported through British merchants or merchants based in Britain. Their role in the live sheep trade had one of two forms. Initially, the British merchants who started this business bought sheep at their own risk and for their own account, and they continued to do this until the business was terminated effectively. Fairly quickly, Icelandic peasants began to take part in this business by various means, and they soon contracted British-based merchants as agents for them to sell the sheep abroad. The British merchants buying for their own account usually paid in money (seldom in goods), but the Icelandic peasants quickly began to use their agents to buy their imports from the revenues of the sheep sales in Britain. Danish merchant houses operating in Iceland sometimes participated in the live sheep business too, but they probably always paid with credits in the customer's account, not money. Incidentally, Icelandic historians do not agree how important the money inflow was for the Iceland economy. Sveinbjörn Blöndal, who has examined the live sheep trade more

extensively than any other historian, claims that it was not as important for increasing the supply of money in Iceland as some older historians maintained. However, this remains an unsettled issue and I will come back to this matter in the next chapter when I discuss inflows of money generally.

The acquisition of money was important for a money-scarce economy, but the barter exchange in the live sheep trade should not be underestimated, for in terms of the institutional framework of foreign trade it formed the other novelty of the live sheep trade. The reason is that goods from Britain proved to be 20–30% cheaper and often of better quality than goods sold by Danish merchant houses in Iceland. Therefore, whether the sales values of sheep were instantly converted to goods in Britain or ordered separately later, people made bargain purchases by taking their returns in British goods. This practice truly was a novelty of some importance because this way of getting imported goods meant an effective competition with regular merchants in the Iceland trade. The significance of this practice was that it supplied the Icelanders and the Icelandic trading associations engaged in this exchange both business and good-will that tended to undermine the hegemony of the Danish merchant houses, because they lost custom.

In conclusion, the analysis of the live sheep sales with the general linkages approach and the economic determinants model shows that the effects on the economy were noteworthy, and in fact somewhat greater than customarily believed judging by the literature. The change in the intensity of labour and capital utilisation was small in comparison with other implications of the live sheep sales, and it seems to have been broadly recognised. However, their impact on the pattern of consumption in imports and on traditional domestic barter have been identified in the literature. On balance,

therefore, the live sheep sales had somewhat greater implications for the economy than realised hitherto.

VII.4. The Economic Impact of the Influential Fall in Prices of Saltfish in the 1880s

VII.4.1. The Start of the Fresh Fish Trade

In Chapter IV, the rise of the fresh fish trade was commented upon in relation to saltfish exports. The innovation meant that merchants bought the fish fresh, and took over its salting and curing, instead of buying it already cured from fish owners. As will be argued below, the fresh fish trade was influential for the development of the economy. Therefore, it is of some relevance to ascertain why it started. In contrast to the live sheep trade, whose origin is clear, a convincing explanation of the start of fresh fish trade has been wanting in the literature. Recently, historians have tried to explain it and identified somewhat different causes. In the light of my findings based on the new trade data, these suggestions have missed the key cause, and this new explanation will be advanced here. So, before I analyse the implications of the fresh fish trade, I must shortly digress and discuss the origins of this innovation.

Until recently, historians have been curiously uninterested in the matter and Gísli Kristjánsson in 1985 was probably the first to pay attention to this problem. He referred to the economic difficulties of Icelanders in the 1880s and, thus, concluded that the fresh

fish trade had been caused by the need of merchants to ensure that they would get Icelandic products in return for imports that they had supplied in advance.³ Valdimar Unnar Valdimarsson and the present author, in a work on saltfish production, did not concede to Gísli's explanation for the start of the fresh fish trade. Instead they pointed out that the fresh fish trade exemplified a growing specialisation in Icelandic economy. All the while a few Icelandic firms were getting larger and diversifying their activities.⁴ Merchants had increasingly started to enter the business of fitting out fishing ships and to get involved in the saltfish production. Along with a general expansion in the foreign trade of Iceland, this had been conducive for a growing interest among merchants in curing fish that was independently caught by fishermen.⁵ Also, it had made economies of scale for merchants to cure not only their own fish but also to buy fresh fish from others.⁶ Finally, they claimed that a growing competition among merchants pushed them into fresh fish trade.⁷

³ Gísli Kristjánsson, 'Verslunarbylting 19. aldar,' p 27. I quote: 'Í upphafi spruttu blautfiskkaupin af þörf verslana fyrir að taka gjaldvöru bænda sem tryggingu fyrir útlánum þegar hagur þeirra þrengdist. Kaupfélagsmenn töldu þessi nýstárlegu viðskipti dæmigerð fyrir verslunarlögið í héraðinu og litu á þau sem neyðarúrræði, sem leiddi af harðindunum.' By 'harðindi' he does not seem to be referring to domestic circumstances only or mainly, because a few lines earlier he says: 'Blautfiskverslunin og Kaupfélagið lýsa ólíkum viðbrögðum kaupmanna og bænda við erfiðleikum í versluninni á 9. áratugnum. Kaupfélagið átti að bæta hag bænda með því að færa þeim ágóðann af versluninni. Blautfiskviðskiptunum var hins vegar ætlað að bæta hag kaupmanna með því að færa þeim fiskinn.' There, Gísli seems to be referring just as well to market difficulties as to domestic circumstances. He may implicitly be referring to, for instance, the heavy fall in prices of fish oil in the early 1880s (see my trade data).

⁴ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, pp 77, 170. This statement may seem contradictory in terms but the correct understanding rests on the viewpoint taken. Companies that grew and took over more steps in the process did not preclude that they sub-contracted others for certain tasks that meant specialisation for them in turn.

⁵ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, pp 75, 185–6.

⁶ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, pp 75, 77.

⁷ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, p 77.

Plausible as these observations are, they do not explain the timing of the fresh fish trade. Why did it start in the late 1880s, but not earlier or later? Gísli's reference to the general hardships in the 1880s does not fully qualify as a proper explanation for the timing, because he speaks rather vaguely about the exact causes. The question of timing is all the more interesting because the beginning appears to be rather abrupt. The first evidence about this arrangement dates from 1887, and it is commented on as a brand new practice.⁸ Gísli says that the first evidence for the western part of Iceland dates from the winter 1886–87.⁹ This suggests that the cause was relatively sudden and that it emerged right in the mid 1880s. The only unusual or new development in the saltfish branch that can be identified at that time is a massive price fall. If the selected market prices of saltfish that were graphed in Fig. IV.24 in Chapter IV are examined over time, something remarkable comes through, as will be explained.

Focusing first on the pre-1886 period, we see that import and export prices of saltfish in Denmark, of which 75–80% came from Iceland, were remarkably close to the fob prices in Iceland. Since freight and insurance, besides export duty, are included in the import prices, this suggests that the Iceland merchants made negligible profits or even outright losses on the saltfish business. Although merchants were keen on saltfish and Icelandic producers tried to push up their prices, it is not clear how producers managed to fetch such high prices from merchants. Also, how merchants coped with these high prices is an interesting question, and a part of the explanation probably is that Icelandic saltfish almost certainly was usually merely transshipped or temporarily put in bonded warehouses before being shipped to the Mediterranean countries. The small difference in import and export prices of saltfish in Denmark supports this explanation.

⁸ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar I*, pp 75–6.

⁹ Gísli Kristjánsson, 'Verslunarbylting 19. aldar,' p 27.

Hence, merchants could engage in the saltfish trade with relatively small margins. However, in case they lost on the saltfish business, they could take it out on either lower purchase prices of other exports or higher margins on imports (see a discussion about over-pricing in Chapter VIII). This pattern, however, changed in 1886 when the situation became very abnormal. Then, both Denmark's import and export prices fell far below fob prices of saltfish in Iceland. Taking freight, insurance, and export duty into account, merchants made huge losses, at least 35% of the DMW price in Iceland, which is roughly fob price less export duty (see Appendix A). On top of this, Icelanders were going through hardships in the 1880s owing to epidemics and natural disasters, which almost certainly increased their debts with merchants.¹⁰ This meant that merchants' net balance of exchange with Icelanders was negative, or unusually negative. Consequently, this aggravated the financial losses from the saltfish business.

Moving on to the post-1886 period, a new pattern emerges, because import and export prices of saltfish in Denmark usually were considerably higher than the fob prices in Iceland. Clearly, the pre-1886 situation was altered and there usually was a 'natural' price gap between fob prices of saltfish in Iceland and its import and export prices in Denmark. Indeed, export and import price levels of Denmark are out of line with other price series in 1894. But this no doubt is linked to the fact that Icelandic saltfish already in 1892 became subject to lower import duty than, for instance, Norwegian saltfish, and this seems to have benefited Danish saltfish exporters greatly. This leaves the question what happened around 1886 that produced the 'natural' price gap in the case of Icelandic saltfish, because the price fall in itself does not explain that. This will be commented on shortly below, but the main point for my argument is this: If the start of the fresh fish trade was associated with the price fall of 1886, how exactly were the two

¹⁰ S. Thomsen, 'Thomsensverslun,' part 2, p 10 (graph).

phenomena related? If the situation of merchants is considered, it is obvious that the fresh fish trade was a perfectly understandable reaction on their behalf to the price fall. They had every good reason to resort to it, because when they bought the fish fresh instead of cured, merchants in fact solved several problems at a time and gained an additional advantage.

- First, merchants produced a far larger price range for them to operate within because wet fish had a much lower price than cured fish. Thereby, they reduced their risk of net losses in case market prices went significantly down (as in 1886).
- Second, they escaped the situation of being put up to the wall by fish owners (mainly seaside peasants) in terms of *price* and *quantity* as had often happened before. Possibly, this may explain why export prices of Icelandic saltfish were so close to Danish import and export prices. Even though fish owners wanted to sell their fish, sources suggest that they may have had a better bargaining position than merchants.¹¹ In any case, with their own production merchants not only became more independent from Icelandic fish owners in getting fish to sell, they could now steer the curing and influence the point of *time* when the fish was fully dried, and they also got more control of the *quality* of the fish curing.
- Third, they were able to manage their credit extensions more effectively than before. They got fish in return much sooner in the calendar year, and possibly extended less credit because of lower value of the wet fish. Thus, they could reduce the period of credit advances and lower the maximum amount of such advances. Also, the merchants now avoided taking the risk of a bad drying season, depending on others for the curing and extending credit all the time. Previously, merchants extended

¹¹ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I,

credits in hope of some future return (fish) that sometimes, e.g., on grounds of a bad weather, turned out to be of less value than the advances. Now, the issue of credit extensions did not mingle with affairs of the curing.

- Fourth, they avoided more easily cartels, which could be a double-edged sword. While they paid lip service to agreements for keeping the purchase price at a fixed point, to get fish and outsmart the others in the cartel, some broke it secretly by offering higher bids or accepting higher offers. If they were loyal to the cartel, those who broke the agreement would outsmart them. True, provided that the cartels held, there were advantages to be gained, and merchants formed cartels from time to time, but they seem not have been very successful always.¹²
- Finally, as a result of the fresh fish trade, they took over the curing which in turn demanded more capital in their business. On the other hand, they transferred the value added from the curing from their customers into their own hands. That was one the main asset of the fresh fish trade for merchants.

When these advantages are considered, is understandable why so many merchants became keen about this arrangement. Its abrupt beginning and the efficiency of merchants in introducing this novelty may come as a surprise, but merchants merely had to deny selling salt to fishermen to compel them to deliver the fish wet. Gísli Kristjánsson describes how merchants in Vestfirðir seized the opportunity and put up facilities to improve their access to the fish in uncured state.¹³ And the eagerness of some merchants

¹² Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 73–4.

¹³ Gísli Kristjánsson, 'Verslunarbylting 19. aldar,' p

in Reykjavík for fresh fish launched one of the first criticism of a socialist (an intellectual) in Iceland on merchants (capitalists).¹⁴

VII.4.2. The Economic Implications of the Fresh Fish Trade

Having established the principal cause of the fresh fish trade, I now turn to its economic implications. The change with the advent of the fresh fish trade is perhaps best grasped by shortly describing the initial circumstances with reference to the economic determinants model, and I will do so before plunging into the implications of the change. The utilisation of the 'land' element for curing the saltfish was dispersed in that fish owners among fishermen were spread unevenly along the coast of Iceland, and so was the location of the curing process (see also Chapter IV). In the urban areas, however, the people who owned the fish usually deployed small plots, often nearby their houses, for drying the fish. Utilisation of the labour element was usually on a small scale because the fish owners with assistance of their family members took care of the curing themselves. In some of the urban areas, at least in Reykjavík, there also existed a putting-out system where the fish owner, usually a merchant or a fishing ship owner (often one and the same person), contracted people on the basis of piece work. In those cases, the fish was brought to the homes of the people who was hired, cured in these small plots by the family members, and when the fish was fully cured, it was returned back to the fish owner who remunerated the person in charge of the curing process. Consequently, this required a low level of technology (perhaps a wheelbarrow and/or a

¹⁴ See Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar* I, pp 75–

horse), and negligible investments in terms of money capital. From the point of view of the institutional element, this arrangement evidently harmonised well with the general low level of technology and capital in the economy, traditional social relations in rural and urban areas, and posed no threat whatsoever for the farming sector.

In terms of the general linkages approach, the introduction of the fresh fish trade understandably made small difference compared to previous arrangement in curing saltfish. This was because the fresh fish trade essentially meant a 'mere' involvement of a different agent in the curing process, that is, merchants instead of fishermen. Hence, backward linkages of the industry did not change (making of lines, ropes, and nets, etc.), and since saltfish was and remained an export commodity above all, the fresh fish trade brought no change in forward linkages, that is, did not initiate further processing of saltfish after drying. The main impact of the fresh fish trade in terms of the general linkages approach was in consumption linkages, and given the nature of this shift, the economic determinants model is far better suited to analyse the nature of the fresh fish trade and the novelty it presented.

From the point of view of the economic determinants model, the fresh fish trade constituted a substantial novelty in the economy. Starting with the 'land' element, there occurred a location concentration in the curing. Since merchants were located in the ports of entry (hamlets or small villages), they wanted to have the fish cured in their vicinity, usually in the ports of entry. Furthermore, as time passed and their activities in the curing process increased, spatial concentration within the ports grew. Merchants needed large and relatively good fields to dry the fish in the sun, and some space for their storage buildings, preferably close to the shore. This was a considerable change from the small plots described above.

With regard to the labour element, there also happened as substantial change. As long as merchants merely cured fish from fishermen already living in or nearby the respective ports of entry, their population growth rate was not much affected. But the fact that urbanisation accelerated greatly around 1890 onwards suggests that merchants catalysed urbanisation in Iceland. When merchants involved themselves with fishing by decked sailing vessels, this trend was accelerated. But probably more important than involvement of merchants in fishing was the stimulus that their expansion into the curing process, that is, the introduction of the fresh fish trade, had on attracting people (not least women) to the respective ports of entry. True, people was partly pushed out of the countryside at the time because of low living standards (see the discussion about the ecological crisis in Chapter II), but the mass emigration to America fell in the early 1890s, which is a witness to improving livelihood in the fishing sector. Hence, the introduction of merchants into the curing process meant a substantial location concentration (urbanisation) in the population distribution, as Valdimar Unnar and the present author have pointed out. Incidentally, Magnús S. Magnússon seems to focus predominantly on the role of decked sailing vessels in breaking the umbilical cord between the farming and the fishing sector, that is creating urban proletariat, but in our view, the fresh fish trade was far more important. Although we have no estimates of the number of people in the curing process and on board the vessels, sources suggest to us that the curing process occupied larger numbers.¹⁵

After the fresh fish trade began, merchants no doubt employed more men to work for them on permanent (annual) basis, but most of the people they wanted for saltfish curing were hired on the basis of piece work. Even so, this relatively unstable

¹⁵ As co-author and editor of Valdimar Unnar Valdimarsson's *Saltfiskur í sögu þjóðar*, vol. 1–2, I read through all the primary sources and literature used in the work. My impression concerning the relative importance of the fresh fish trade and the decked sailing vessels in creating urban labour is based on that reading.

employment offered many people considerable, if not stable, income. As merchants expanded their activity in the curing process, this gave ever more people a chance to seek a comparatively viable livelihood in the ports of entry. Effectively, merchants moved the single most important barrier to rapid urban growth (see the discussion about the labour bondage in Chapter II). After all, community authorities did not object to in-migration as long as people could sustain themselves, and the outright demand of merchants for work people plainly reduced the chance of people falling on poor relief or being sent to their home communities. Even if local authorities in the largest urban places were sometimes in trouble controlling such an inflow of people and establishing whether they could sustain themselves or not, there is no doubt that the demand of merchants for work people contributed to the growth of urban areas and decline of the farming sector. Note that although the merchants' need for labour was seasonal, they needed people for the curing process in the spring and summer, which was the high season in the farming sector. Hence, people's migration, temporary or not, to the coast meant a break away from the farming communities to interchangeable urban work and rural day labour (Icel. *kaupamennska*). In other words, the population element in arrival of the fresh fish trade was to create a significant pull factor in the coastal urban areas, thus removing the principal barrier to urban settlements and, thereby, pose a serious threat to the farming sector in terms of labour requirements.

Concerning the capital element, including the technology determinant, we can identify considerable changes there too. Saltfish production on a larger scale than before was bound to produce some economies of scale sooner or later, especially where merchants were suitably located, both locationally and spatially. This is the reason for the introduction of various technical improvements in terms of facilities in the saltfish curing. Besides having drying fields of various sorts adjusted or prepared, the largest

merchant houses made facilities to assist the use of fresh water or sea for fish washing, had rail tracks laid on their premises for manually-driven fish carriages, built business offices and storage houses, and sometimes piers too. The first telegraphic wire in Iceland was put up by merchants to improve communication between their locations and a fish washing-machine was even experimented with, but it did not prove economical. All this investment in technological facilities in saltfish curing was unthinkable until big businesses (merchants) involved themselves into it. Furthermore, these investments required not only labour but skilled craftsmen, both for the building of these facilities and their maintenance. Evidently, the investments demanded money capital that was either taken from merchants' own deposits or as loans, almost certainly in Denmark. But with the progress of banking in Iceland over time, capital requirements of merchants were increasingly satisfied in Iceland and rise of banking no doubt was partly spurred by these developments in the fishing sector.

The merchants' step into saltfish curing and their business-related investments caused considerable alterations in the institutional setting in Iceland, the fourth element of the economic determinants model. This was because the social the hegemony of merchants grew further still. As the largest, if not the only, employers in their places, they possessed an extraordinary strong social and economic power after the fresh fish trade began. Their power was as much a consequence of being the largest employers as being in the position to control people's consumption and living standards through truck system. The huge difference between them and the foreign enterprises in Iceland, especially herring businessmen who hired a lot of people, was that the foreigners paid in hard cash. By contrast, merchants in Iceland paid for all day work and piece work with goods in their stores, and it was no secrecy that imports were exchanged at a higher rate in return for labour than for goods (Icelandic products). As happens, the truck system

probably existed before in Iceland, but the rise in the importance of this system, which has been described as the deployment of unscrupulous business methods, was concomitant with the start of the fresh fish trade.¹⁶

The rise in the importance of the truck system not only had implications for social division, because traditional exchange patterns in the Icelandic economy were substantially changed too. Already in the early 1890s, urban working people was complaining that the truck system prevented them from engaging in customary exchange with inland peasants. Instead, the people were compelled to buy Icelandic products as well as imports from their employers (merchants) whatever their price, and it usually was higher when exchanged for labour than for Icelandic products for export.¹⁷ Evidently, because of their employment duties, people was unable to engage in making traditional products, for instance, stockfish. When fishermen hired themselves as labourers on decked vessels or other boats, they only owned their pre-contracted part of the catches. But this arrangement was partly in name only because employers of fishermen obliged them to put their fish into their shops, and credited their accounts, so they could not even allocate their lot of the catches as their pleased. Since no money could be had from merchants, the overall results were that urban people had neither products nor money to exchange for Icelandic products from inland peasants. Consequently, the traditional barter between coast and interior gradually ebbed out, much to the dismay of the people concerned. To compensate for the loss of traditional inland products coastal people started buying imported substitutes from merchants. Textiles (mainly cotton and linen), cereals, and margarine replaced the customary products. Similarly, processing of raw and crude materials like hemp decreased. Instead,

¹⁶ G.W. Hilton, *The Truck System*, pp 1–7.

¹⁷ Contemporary sources quoted in Jón Guðnason, 'Greiðsla verkkaups í peningum,' pp 12, 14.

imported semi or fully processed goods were bought, and imported manufactures replaced domestic manufactures.

Incidentally, the only major change that has been associated with the fresh fish trade in the literature is the transfer of the value added from the curing — from coastal people and farmers to merchants. Significant as this redistribution of incomes or revenues was for those who lost them, this change had no major macroeconomic implications equivalent to those I have identified here. Consequently, the significance of the fresh fish trade in the economic transition of Iceland has been vastly underrated, and many of its consequences have been linked solely to the second outcome of the 1880s fall in prices of saltfish, namely merchants' involvement in cod fishing with decked sailing vessels.

VII.4.3. Entrance of Merchants' Capital into Fishing

As discussed in Chapter I, Magnús S. Magnússon claims that the involvement of merchants in fishing was important for the development of the fisheries' sector and, indeed, for the whole economy in the long run. This step he dates roughly about 1880. However, neither he nor any other historian has put a finger on the cause of this. Just as in the case of the fresh fish trade, we may ask why this did not happen sooner or later. Merchants' capital investments in fishing have customarily been identified with merchants' outfit of decked sailing vessels on cod fishing. Unfortunately, the data on the number of sailing vessels over time contain a serious lacuna in the 1890s, and ownership of sailing vessels has not been systematically examined in the literature. Consequently, it

is not possible to be very specific about these matters. However, various sources suggest that the outfit of decked sailing vessels on cod fishing mainly took off in the late 1880s and the 1890s. This calls for an explanation why Magnús and other scholars have supported 1880 as the starting point of the decked sailing era. On the basis of the Suðurland region, which was most dedicated to cod fishing, it appears that the number of decked sailing vessels grew markedly around 1880. But the rise in their number in 1887 onwards was proportionally larger, and figures from Reykjavík in the Suðurland region suggest that the biggest spurt came from the mid 1890s onwards.¹⁸ Additionally, qualitative information indicate that there was a marked increase in the instances of merchants owning decked sailing vessels in the late 1880s onwards.¹⁹

The rise in decked sailing vessels around 1880 is probably not a statistical error, but the later increases are clearly greater and in our view, their broadly concurrence with the start of the fresh fish trade is unlikely a coincidence. Merchants' involvement in cod fishing almost certainly was as much a consequence of the fresh fish trade as the price fall of the saltfish. The fresh fish trade was merchants' reaction to their heavy losses on saltfish in 1886, and their step into fishing was an extension of this move. Note, however, that investment in fishing was not necessarily a part of the fresh fish trade because merchants could well involve themselves in the curing process although they did not enter into fishing. But once they had stepped into curing, the next logical step was into fishing. It entailed more risk for their capital, but also (more) profits if the operation was successful. In fact, this meant that mainly Icelandic merchants entered in fishing (and curing), while Danish merchants tended to keep themselves to mercantile operations only for a considerable time. As it happens, any definite outline of merchants'

¹⁸ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 299, 308–10. Magnús S. Magnússon, *Iceland in Transition*, p 271 (Table D.3).

¹⁹ See Gils Guðmundsson, *Skútuöldin*.

involvement into saltfish curing and fishing is difficult to make because information is lacking, but this seems to be the general trend.

VII.4.4. The Economic Implications of Merchants' Fishing Ship Operation

As in the case of the fresh fish trade, the implications of the advent of merchants in cod fishing is perhaps best understood by saying a few words at the outset about the initial situation, and the economic determinants model is suitable for this purpose. The very few peasants who owned decked sailing vessels and operated them for cod fishing before the mid 1880s were unevenly spread around the coast of Iceland, but they tended to be located in the southern and western part of the country. Good havens were important because the ships could not lie tied to land or piers, and this confined the operation of decked vessels to a limited number of places in Iceland. Most peasants owning vessels relied predominantly on fishing for their subsistence, rather than farming. Hence, they were usually distinguished from ordinary farmers, that is *bóndi* (sing.) with the name *útvegsbóndi* or a 'coastal farmer.' Since they needed to hire most of their labour outside their families, they tended to form stable exchange relations with inland farmers. Hence, they recruited their ships in the winter with bonded labour (men) from inland farmers, and reciprocally took care of the curing of their fish, sent their own bonded labour (men and women) to inland farmers during the summer, and sometimes went themselves to the interior to work for farmers. Outstanding balances in this exchange between inland and coastal peasants were paid up in Icelandic products.

Peasants operating decked vessels almost certainly did not build terrestrial facilities of any kind, and this suggests that this business was subject to a kind of unstableness in terms of location and endurance over time. Hence, the operation of the ships was not supported with productivity increasing measures, no doubt partly because of costs. In fact, the ships themselves probably were a formidable investment for peasants, and the circumstances for ordinary peasants (whether coastal or not) to do so were far from favourable. Peasants had small access to loans and their chances of acquiring and using their own money were also small, because merchants predominantly credited them for their goods instead of paying in hard cash. Therefore, peasants usually had small money in their hand although they possibly had sizeable credits in their account at the merchant. This inevitably was a very serious hindrance to the operation of relatively capital intensive producer goods like decked sailing vessels certainly were. With reference to all these facts, there is small wonder why only very few well-to-do coastal peasants had operated decked sailing vessels for cod fishing before the mid 1880s. With this background information, I now move onto the implications of the arrival of merchants in fishing.

Similarly to the fresh fish trade, the involvement of merchants into operation of fishing ships caused a limited change if measured by the general linkages approach. Backwards linkages remained the same in that they created negligible stimulus for formation of separate industries in the Icelandic economy. After all, the need for handlines and hooks, ropes, wood, etc. (backwards linkage) was mostly satisfied with imports. Forwards linkage, that is, curing of the fish, remained unaltered, and consumption linkage was little affected, because rewards to factors of production were essentially the same. However, measured with the economic determinants model, merchants entrance into fishing had considerable implications for the economy.

Concerning the 'land' element, the utilisation of the relevant resource (the sea) did not radically change, but there was locational concentration in the operation of the decked fishing vessels. Merchants understandably tended to base the operation of their fishing ships from their own location, which was the ports of entry. Hence, as their share in fishing and, especially, in the operation of decked vessels increased, so did fishing start to be concentrated in fewer places than before, mostly the urban areas. The effects on the population element varied because labour intensity was the same but the distribution of the population was affected in a similar way as in the case of the fresh fish trade. Clearly, both stimulated concentration of the population in urban areas, that is, the ports of entry. Although crewmen sometimes were migratory workers, the growth of merchants' fishing ship operation stimulated crewmen no doubt to settle down where the vessels were operated from, especially if they had a family. Their wives and possibly children too most likely did day or piece work for the merchant owning the vessel or some other merchant, if there was one. In any case, it seems plausible to assume that the growth of fishing outfit by merchants and their involvement into the saltfish curing was conducive to families settling down in the ports of entry, especially if the members of the family were hired for work by merchants. In turn, better prospects of livelihoods because of merchants' fishing operation added to the removal of the barrier to coastal settlements, namely local authorities' resistance to much inflow of people to the coast. Thereby, merchants' fishing operations affected the distribution of the population, as they did in the case of the fresh fish trade.

The impact of merchants' operation of fishing sailing vessels on the use of the combined elements of capital and technology in the economy was considerable. Concerning technology, some of the more energetic merchants improved harbour facilities by having new or better piers built on their land, as we briefed above. These

piers and other constructions on land, discussed in relation to the implications of the fresh fish trade, certainly were an improvement over existing facilities and premises. But the decked sailing vessels were a greater improvement in technology, pertinent managerial skills, and productivity because the alternative in the Icelandic fishing fleet was open rowing-boats. Concerning capital requirements, the terrestrial facilities required modest investments compared to the sailing vessels, which evidently were far more capital intensive than the open rowing-boat alternative. True, sailing vessels were extraordinary cheap in Britain in the 1890s and 1900s because they were an outdated technology and being replaced by steam trawlers.²⁰ Even so, these vessels were a risky investment, as the history of shipwrecks in Icelandic waters witnesses, and overall they had to return good returns on the investment. Hence, only wealthy merchants, or well-to-do coastal peasants who had good knowledge of seamanship, endeavoured to buy sailing vessels.

It is obvious that when merchants assumed entrepreneurship in the operation of decked fishing vessels, the institutional setting was also affected. As in the case of the fresh fish trade, merchants' entrance in this branch of activity buttressed their powerful position in society through (a) use of truck system which (b) tended to reduce traditional inland-coastal barter trade and push up imports instead, while as employers they (c) effectively removed one of the most important hindrances to urbanisation.

Evidently, merchants engagement in fishing with decked sailing vessels meant a substantial change from previous utilisation of the four elements of the economic determinants model when coastal peasants were in the entrepreneurial role. In terms of the elements of 'land,' population, and technology and capital, their arrival had dynamic effects in the economy, just as in the case of the fresh fish trade. The decisive factor in

²⁰ R. Robinson, *Trawling*, p 112.

making merchants so influential in the operation of fishing ships was that their relatively easy access to money capital, because all the other effects of their activities in this field were a result of their ability to purchase a sailing vessel. The vital difference between coastal peasants and merchants lay in their potentials of raising the necessary amount of money, either with loans or own money. Merchants not only had better access than peasants to money capital in Iceland and abroad, they also had some chance to produce capital with their margins. In other words, a rise in margins increased their revenues when the Icelandic products were exchanged for money in foreign markets. This produces the key difference between merchants and those peasants fitting out decked sailing vessels. In turn, merchants' involvement in fishing was bound to be of at least considerable economic importance, because merchants were putting money back into productive use in the Iceland economy instead of retaining them abroad as they had done before.

It is clear that the economic impact of merchants' operation of fishing ships has been recognised in the literature. But on balance, this impact has been overestimated in the literature, and the reason for this is that the implications of the fresh fish trade have been overlooked. According to my rudimentary examination, acceleration of urbanisation and rise in terrestrial investments was more an outcome of the fresh fish trade than merchants' fishing operation. Similarly, social or institutional changes were no less an outcome of the fresh fish trade than merchants' fishing outfit.

5. Conclusions

The findings of the chapter have identified a new and important cause of the economic transition, altered and substantially clarified our understanding of the internal relationship of events in the transitory process, and cast a new light on the relationship of foreign trade and the economic transition of Iceland. As far as the central theme of the thesis is concerned, it is possible to assert that foreign trade clearly had much to do with the economic transition as it has been defined in the literature. In fact, on the basis of this definition and my findings here, foreign trade seems to have actually initiated the transitory process, which started for real in the 1890s although the first steps were taken in the 1880s.

Chapter VIII

The Impact of Foreign Trade on the Icelandic Economy 2: Main Effects of Institutional Change

VIII.1. Methodological Remarks

This chapter continues the discussion of the impact of foreign trade on the Iceland economy. Now I focus on the institutional framework of trade. By 'institutions' I refer to established or conventional methods, ways and procedures, formal and informal, that were used or built for the task of exchanging exports for imports in the foreign trade. People usually settle themselves down to specific patterns that are not only voluntary decided but also moulded by external forces, such as legislation or norms. Using institutions as a collective term for the components of these patterns, I will focus on the most influential institutions that were used to conduct foreign trade activity in Iceland. It goes without saying that institutions need human agency to exercise their purpose or role, and a full-scale examination of the impact of foreign trade on the economy would require equally as much attention to be paid to this factor as to the trade flow. Owing to the nature of the topic, such examination of human agency would revolve around issues of competition in the Iceland trade. Circumstances did not allow an extensive

examination, but I, nevertheless, believe that my main goal is achieved — to identify those actions that were so influential as to affect the institutional framework of trade.

My procedure in this chapter will be to (a) identify important changes in the institutional framework of foreign trade, (b) discuss their implications for the economy at large, and (c) relate and assess the impact of these changes for the economic transition. It should be remarked at the outset that the institutional impact of foreign trade on the economic transition of Iceland can only be broadly examined below. Assessment of the full economic implications of institutional change in foreign trade was not possible. Hence, a much fuller examination of the topic of this chapter would be desirable to test the findings of our broad findings and to fill out missing parts. Even so, my treatment hopefully provides a general idea of the relationship between institutional changes in foreign trade and the economic transition. As for central theme of the thesis, my examination should give a fair indication of the overall relevance of this particular aspect of foreign trade for the economic transition. The main objective with the chapter is to provide hard evidence to answer that question.

VIII.2. Main Shifts in the Institutional Framework of Foreign Trade

In Chapter II on the economy of Iceland, I sketched some of the main characteristics of the institutional framework of trade. This serves as my main account of the state of affairs around 1870, although it is supplemented below. Consequently, this present

chapter will mainly be concerned with subsequent changes in the institutional framework of trade. It emerged in Chapter IV on exports that live sheep sales, which started for real around 1880, meant a significant novelty in the institutional framework of trade as will be explained in some detail in section VIII.2.1 below.

Although the history of the foreign trade of Iceland is an under-researched field, the historical literature suggests that in addition to the live sheep business, at least one more significant new practice was introduced in terms of the institutional framework of trade. This novelty was cash payment. One business firm in the foreign trade started this practice in 1895 and as time passed, some other merchants houses gradually followed in its steps. The significance and the effects of this practice have not been explored by any scholar, but we suspect that it was a potentially important change in the institutional framework of trade in our research period. This matter is examined, although relatively broadly only, in section VIII.2.2.

Apart from these two novelties, no other definite breaks with tradition were discovered in the institutional framework of trade. The two influential developments discussed in Chapter VII, the fresh fish trade and entrance of merchants into fishing outfit, do not qualify because they only meant an expansion of the roles merchants played, and not any change in how they as merchants conducted their general mercantile activities. The same goes for those foreign enterprises, mainly Norwegian, that were involved in particular branches in Iceland, like herring fishery and whaling. They do not qualify because they were usually not in general trading, and as for the minority who did, we have no evidence about or knowledge of that they operated differently from the Danish merchant houses. By contrast, the live sheep sales and the Edinborg firm were so important because they were engaged in general mercantile activities.

VIII.2.1. Live Sheep Era, ca 1880 to the Mid 1890s

As explained in Chapter II, there was little competition between merchants in Iceland around 1870. Nearly all of them belonged to Danish merchant houses or were dependent on Danish wholesalers. Moreover, even though merchants dealt in both exports and imports, not all of the early newcomers in the Iceland trade were serious competitors for them. This is because much of the initial competition the merchants had to face was confined to exports of 'unusual' or new commodities — such as live animals, herring, and whaling. Presumably, traditional merchants did not regard these trades (which meant production of the commodities too in the case of herring and whaling) as their proper domain. As long as the newcomers did not expand into traditional exports, the Danes retained their stronghold in the Iceland trade. This was because traditional exports were the primary means by which Icelanders bought imports, and as long as the established merchants had the lion's share of exports in their hands, they did not need to fear losing their position in the Iceland trade.

Therefore, until about 1880, Denmark-based merchants in the Iceland trade did not need to worry — even although exports of live horses had started and there was an emergence of herring fishing and whaling of Norwegians.¹ However, they were rightly concerned about the live sheep exports that took off about 1880. The problem was not that newcomers were entering their traditional domain, but rather that live sheep exports reduced the supply of wool and woollens, mutton, and tallow. Given that people did not reduce their consumption of these commodities, this new export inevitably bore down on

¹ True, herring fishing off Iceland started earlier, but not for real until the 1880s.

the quantities of these particular commodities that were exported. There is little doubt that merchants reacted by raising the prices of these commodities to some extent.

But this was a minor issue compared with the real threat for many regular merchants. Live sheep were exported almost exclusively to Britain, and the income from sales was increasingly used by peasants to buy imports from there. This requires a brief pre-history of indigenous attempts to relate to the foreign merchant community. In various places in the thesis, I have commented on combines of peasants, purchasing societies, firms, and co-ops among Icelanders. The earliest of these date back to the 1830s, and they all represent attempts by Icelanders to consolidate their bargaining position against merchants in order to improve their terms of trade. While the first of these attempts were informal combines to try to get merchants to offer better terms, the later ones were formal societies or firms that were in competition with merchants because they themselves ordered imports from abroad and sold their exports there. However, these societies and firms did not initially pose a very great threat for merchants. They were regionally based, had to fight many difficulties in rallying people's participation, had to acquire knowledge of business conditions abroad through trial and error, and needed time to prove their worth. Hence, they tended to be short-lived. What finally put a foundation under the purchasing societies of peasants and the producers' firms was the introduction of the live sheep trade.

In the beginning of the live sheep trade, around 1880, and to a large extent thereafter, the sheep were bought at the risk and for the account of foreign merchants, almost exclusively British. First they took care of all arrangements in Iceland themselves, but later on they contracted Icelandic agents (private persons, associations, firms) to deal with that. Soon the foreign merchants began to hold markets to buy sheep, and on the initiative of peasants in the northeast part of the country (from the county Þingeyjarsýsla) markets were started there in 1881. One of their leaders became an agent

for a British sheep merchant. This was a success, and a year later, in 1882, the peasants formed an purchasing society of their own (Kaupfélag Þingeyinga), and the society charged their British merchant with supplying them with merchandise in 1882 and 1883. These transactions were separate in the sense that the farmers received money for their sheep, although the one and same buyer supplied them with imported merchandise later. Things developed fast and in 1883 this purchasing society made experimental sales of live sheep in Britain on its own account. This went well and the society terminated the contract with the British firm. It exported all live sheep in 1884 onwards for its own account and used thereafter agents in Britain to sell the sheep and supply them with imported merchandise instead.² With this change the ordering society became a producers' co-operative society, the first in Iceland.

This history has been told because the start of Kaupfélag Þingeyinga is of double importance. The first is that all later co-operative societies in Iceland were modelled on it, and it paved the way for them. The second is that the live sheep trade became their engine of growth, because the co-ops were all rural based and were formed by peasants. As we described in Chapter IV, live sheep exports were substantial, and even though regular Danish merchants engaged in this trade, offering only credit in return, the imports generated by the live sheep trade were significant, specially because they often were cheaper and better (Chapter VII). It is safe to conclude that the live sheep trade with its import generating effects, imposed on the merchants more pressure in terms of competition that they had had to face for a long time.

To highlight the deviation that the live sheep sales presented, compared to the customary institutional framework of trade, and to support the claim that they signified a distinct shift in the institutional framework of foreign trade, it is useful to look at them

² Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, pp 25, 28–9, 30, 31, 45.

from an abstract point of view. Using an insight from sociological debate about the interaction between structure and human agency, the unique characteristics of the live sheep trade can be summed up in the following way. First, live sheep sales were built on a form of business activity (collective enterprise) different from the prevalent Danish merchant houses operating in Iceland (private enterprise). Second, in terms of the human agency factor those who conducted or engaged in the live sheep business came from different social group (peasants) and some were foreigners of an 'exogenous' (British) nationality.

The activities of the Norwegian enterprises in Iceland also deserve brief consideration. Strictly speaking, their exports of herring and whale products formed a break with the existing institutional framework in foreign trade in two ways, and the certain affinities between the live sheep sales and the Norwegian enterprises are clear. First, they presented an innovation because the Norwegians engaged in production of exports unlike the Danish merchant houses, which largely refrained from doing so until the 1890s. Second, the Norwegians were an 'exogenous' group in terms of the composition of the mercantile community in Iceland. Apart from their nationality, they very often were industrialists (producers) rather than just merchants, and they almost certainly based their mercantile (and industrial) activities far more on cash payments than the Danish merchants did.

However, the enterprises of the Norwegians did not pose nearly as much threat to the hegemony of the Danish as the live sheep sales, because the Norwegians engaged in branches that the Danish had not entered into and the Danish presumably did not feel that the Norwegians were reducing the lot of Danish by starting the herring and whale industries and exporting the products themselves. Besides, the Norwegians inevitably were influential only in those places where they were located and their vicinity. They

were based along the coast and yet in relatively few places only, and this confined their area of influence to a small number of coastal hamlets by the coast and selected inland regions as well. True, it seems likely that the Norwegians offered better terms of trade than the traditional Danish merchant houses in these places and parts of the country. Also, their very existence witnesses that they attracted some business from Danish merchants. Nevertheless, it seems safe to conclude that the activities of the Norwegians were a relatively limited threat to the established merchant houses in the Iceland trade.

VIII.2.2. The Edinborg Firm and Spread of Cash Payments, the Mid 1890s Onwards

Important as the live sheep trade was, it effectively ended in 1896 and became less advantageous because prices fell. Nevertheless, from the 1890s onwards new developments took place that undermined the hegemony of the traditional institutional framework of trade. The co-ops in the 1880s and 1890s gradually began to sell other agricultural products than live sheep. Then, too, Norwegian merchants in Iceland began to generate a large export production from the 1880s onwards, by starting cod fishing and curing of saltfish. The start of the Labrador Style cure in Iceland in the early 1890s was not at the expense of traditional exports, because small cod had not been an export commodity until then.

More severe competition than ever for the Danish merchant houses in Iceland's export trade started in 1895. Then, a general trading business called Verzlunin Edinborg (The Edinburgh Shop) was opened in Reykjavik. The firm was owned by Scottish

merchants, George Copland and Norman Berrie, from Leith or Edinburgh, and also possibly its manager, Ásgeir Sigurðsson. He was an Icelandic who was brought up and educated in Edinburgh and Iceland, later had engaged into mercantile service for an Icelandic firm (Gránufélag) and then for a business in Edinburgh. The operation of the Edinborg firm was different from the Danish merchant houses in Iceland at the time, because its policy was to make all transactions in money. In other words, to pay for all Icelandic products in money, demand payments in money for imports, and pay for all wage labour in money.³ Here, Edinborg was a pathbreaker, and it was to have a remarkable record in general trading in our period. Over time it also expanded its activities into the outfitting of fishing ships and the production of saltfish. The history of this trading company has not been examined, but the key to its success was the policy of cash payments and its quick turnover.

The advantages of offering cash to producers and sellers of Icelandic goods, instead of credit, does not need much elaborating, and it explains a lot of its success. We know nothing about the prices it paid. Strategically, Edinborg was not forced to offer higher prices — it could even offer lower prices, because for many customers cash instead of credit no doubt was worth a slightly lower price. But even if the firm offered similar or higher prices to attract customers immediately, it no doubt could make profits all the same, because of its policy of quick turnover.⁴ Furthermore, Edinborg broke new ground in the marketing of saltfish, to cut down costs. The Danish merchant houses had always sold their saltfish in Copenhagen to Danish commission agents (consignees) or

³ *Fra Islands Næringsliv*, p 65.

⁴ Cf. its motto: 'Lág álagning — fljót skil' that may be translated as 'Small margins — Quick return.' The phrase 'quick return' probably means that Icelandic producers were not instantly cashed for their products, rather that they had to wait for their products to be sold abroad. But because of its quick turnover policy, the Edinborg firm could offer a payment in cash within a short time. Granted that this was so, it shows that the firm needed a small initial capital stock and its operation involved little risk.

agents of importers in Spain. Edinborg, however, started direct collaboration with Spanish importers and shipped the fish to Spain. By doing this, Edinborg cut down intermediary costs, unnecessary cost in Copenhagen (unloading, loading, shrinkage, etc.), and transportation costs. Before this time, the Danish merchant houses sometimes had shipped the fish directly to Spain, but always through intermediaries in Copenhagen who took their share.

As for the import prices the firm offered, again we do not know much. However, they almost certainly were lower than those prevailing among its competitors, because the Edinborg firm prided itself of low margins. This was not merely a trick to attract new business in the beginning, but reflected its policy of a quick turnover. The logic was that smaller margins might pay if the goods could be sold quickly enough. Note that the Danish merchant houses turned their money over only once or twice a year, so they were not very hard to beat in this respect. With a slightly lower price on imports to attract customers and a slightly faster turnover than the Danish merchants to compensate for this, Edinborg probably managed to make the transactions worthwhile. Anyway, Edinborg's success in the import and export trade rested on a balance between margins and turnover, and in this matter, its new policy paid off for it.

From the point of view of the common people, the cash payments for exports were probably the most attractive aspects of trading with Edinborg. But working for the firm was equally as beneficial, because another component of Edinborg's cash policy was the payment of all wages in money. When the firm entered the scene, the truck system was the rule in Icelandic employment arrangements. Hence, Edinborg's policy in this matter was not only a unique break with tradition but a very welcome one too. Naturally, there were limits to the number of people the firm could hire, both as permanent staff and on daily basis. But because of the firm's cash policy, it could set a standard, choose the best people from prospective employees, and make demands in

return. The staff generally showed more expertise than was customary, and exercised a more positive and polite attitude towards its customers. The firm was novel in advertising, and in a word, Edinborg was a hugely successful business.

To sum up the innovation that the introduction of the Edinborg firm represented, compared to the customary institutional framework of trade, and support the claim that it signified a distinct shift in the institutional framework of foreign trade, it is useful to look at the matter from the same abstract point of view as the live sheep sales. In terms of the 'structure and human agency' dichotomy, the unique characteristics of the Edinborg firm can be summed up in the following way. Cash payments for goods and labour, instead of the customary bookkeeping barter and truck system, was a break with traditional institutional framework of trade. The 'alien' ownership of the firm, i.e., neither Danish nor Icelandic (except perhaps for the Icelandic manager), was a break with the traditional human agency factor in foreign trade. Of course, the institutional deviation owed to the human agency deviation, because the owners had a more modern outlook and came from a very different society than the Danish merchants.

VIII.3. Impact of Institutional Shifts on Competition:

Levels of Gross Margins

The two novelties discussed above formed in one way or another important breaks in the institutional framework of foreign trade. Their economic implications, which we now turn to, did however not rest on their originality, but rather on their weight or power to

influence the economy in some way. It is evident that both the live sheep sales and the operation of the Edinborg firm, possibly along with other lesser-known Icelandic firms, posed a potential threat to the Danish merchant houses in Iceland. But we need to establish whether these novelties did have any marked effects on economic phenomena, and if so, how much they were. The effects of these novelties can be measured in more than one way, but to give some indication of their power I choose to consider only two aspects, the impact on gross margins on exports and imports (section 3) and the impact on money supply (section 4).

VIII.3.1. Gross Margins in Iceland's Trade with Denmark

There are several complications, pertaining to the method of measurement and to the sources, in estimating the overall influences of the new competitors on margins on exports and imports. However, there is evidence to maintain that the Icelandic enterprises engaged in the live sheep trade did their business mainly in Britain, i.e., outside Denmark, while the Danish merchant houses did their mainly in Denmark. Therefore, margins on exports to and imports from Denmark should reflect in its way the impact of competition from newcomers. As explained in Appendix A to the thesis, it is possible to calculate gross margins on exports and imports in the Iceland trade, and consideration of this quantitative information throws some light on the response of the Danish merchants. By gross margins we mean the differences in the prices paid for Icelandic exports and the prices they were sold for in Denmark, and conversely the differences between the cost of imports in Denmark and what they were sold for in

Iceland.⁵ A calculation of gross margins on exports and imports in the trade with Denmark produces both intriguing and unexpected results.

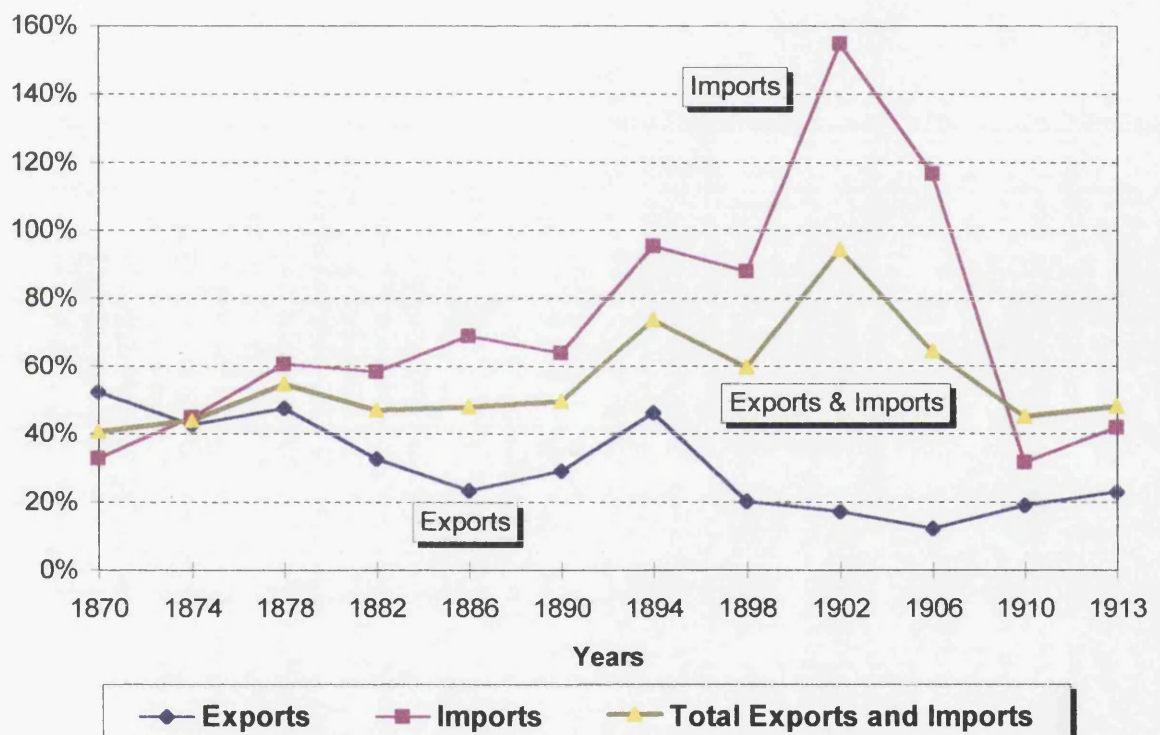
Focusing on the general trends first, they contrasted very much. The gross margins on exports clearly fell between 1870 and 1913, because they amounted to over 50% of purchase prices initially and then fell almost invariably to about 20% in the end (Fig. VIII.1). Indeed, the general fall in freight rates exaggerates the fall in operating costs, but even if we try to exclude the fall in freight rates by arbitrarily putting the 1870 gross margin level at, say, 40% there was a conspicuous fall all the same over time. By contrast, gross margins on imports showed a radically different pattern. They were on a lower level than the margins on exports in 1870, just over 30% of purchase prices, and they rose almost constantly until 1902 (reaching about 150% gross margins), after which there was a dramatic fall down to a level about 45%. Since exports to and imports from Denmark largely were in the hands of the same merchant houses, a calculation of aggregate gross margins is justifiable. Then, we see that they rose but in fact relatively modestly over time, except for the year 1902 when they soared. Thereafter, a fall in the margins was evident.

How do we interpret these trends in a meaningful way? Although fluctuations in the levels of transportation costs blur the trends, it seems safe to suggest that the research period can be divided into five sub-periods. The first period was from 1870 to 1878, when competition in foreign trade seems to have been slight. Gross margins on

⁵ The examination of margins in fact meant that DMW values of exports (Delivered at Merchant's Warehouse) were compared with their cif values, and fob values of imports were compared with their retail values. Consequently, both calculations include freight, insurance, and other costs, besides net margins (merchants' profit). Optimally, it would be desirable to subtract at least the freight cost because it no doubt fell considerably over time and, thus, skews the outcome. Also, the value series involve average prices which do not necessarily reflect the exact purchase or selling prices of goods in the trade between Denmark and Iceland. But these imperfections should not obscure the trends, although the freight has to be taken into account, when interpreting the outcome.

Figure VIII.1

Gross Margins on Goods in Iceland's Trade with Denmark, 1870–1913



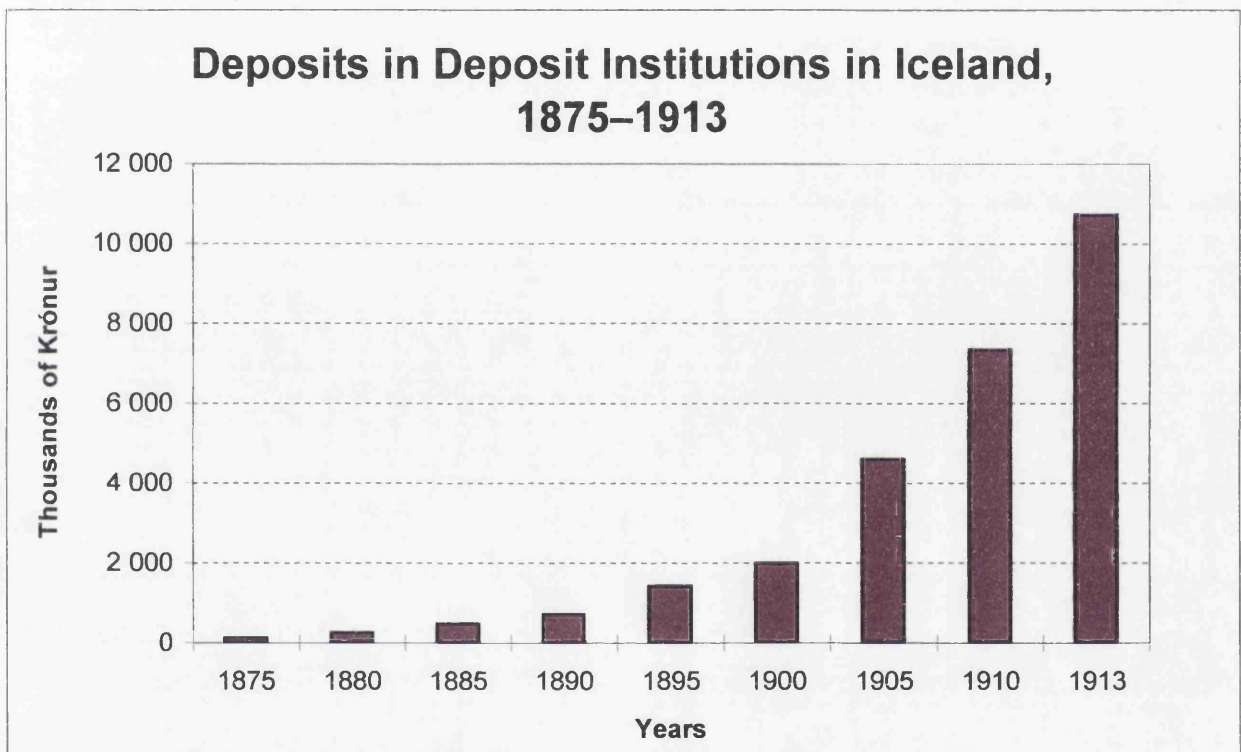
exports remained very stable, while those on imports rose fast, and consequently, the relative size of aggregate margins rose in these years. The difference between margins on exports and imports shows that purchase prices of exports were harder to manipulate than sales prices of imports. This was because sales prices of exports were quoted in the Icelandic press and were better publicised than the original purchase prices of imports. The latter presumably varied more, and it was impossible to know at what prices merchants bought the imports, so they could easily adjust margins on imports at their will. However, the very reason for the rise in margins on imports is not clear to me, because there was no change in the level of margins on exports. However, it is noticeable that constructed national income account indicate that gross domestic production per capita was growing, and possibly merchants used the opportunity to raise their margins on imports.⁶

The period from 1878 to 1890 seems to witness a considerable competition, because margins on exports went down at a relatively fast rate while margins on imports rose comparatively slowly. The reasons for these trends are obvious, because the live sheep trade took off at this time and more vigorous trade with Britain followed, and competition increased with the involvement of new importers and exporters. Furthermore, the divergent trends in the gross margins on exports and imports shows that the established merchant houses offered higher prices for exports while the competition also forced them to keep the overall margins on imports at the same level. Overall, merchants' margins on exports and imports remained stable (at about 50%), and this implies that they were equally well off as before.

The third sub-period lasted from 1890 to 1902, because the trends in the margins indicate new developments. Apart from 1894, margins on exports were falling

⁶ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, pp 155 (table 15.1), 370.

Figure VIII.2



markedly, and when the trade data for 1894 is examined more closely, gross margins on all exports except saltfish were considerably less than before. Clearly, saltfish stands quite apart, and the reason for the jump in aggregate margins on exports in 1894 was exceptionally high sales prices of saltfish, which were discussed in Chapter VII. The very high margins on saltfish in 1894 require an explanation, and although information for adjacent years is wanting, the explanation probably is the new commercial treaty between Spain and the Danish kingdom where the tariff on Icelandic saltfish was significantly reduced (Chapter IV).

In contrast to exports and here is where the break with previous sub-period is, margins on imports generally rose sharply between 1890 and 1902 (reaching the level of 150%), and this is something one would perhaps not expect given the competition with imports from Britain through the live sheep exports and new competitors after the practical termination of the live sheep sales. However, this can be explained in the following way. Merchants tried to be competitive in the export trade by raising their prices of Icelandic products (especially wool, mutton, and hides), and this necessarily meant lower margins on the exports for them. Once they managed to attract people's custom in exports, they were at liberty to put whatever margins on the imports. According to one consular report, Icelandic customers were more fixed on nominal prices of exports than their real prices, that is, prices of exports relative to prices of imports.⁷ Note also that many customers of merchants were in debt to them and had small alternative but to do business with them, whatever the price was. Also, those merchants fitting out fishing ships (increasingly common in the 1890s) paid the wages of the fishermen in goods (the truck system) and obliged them to put their share of the

⁷ UK, FO, 'Report on the Trade and Commerce of Iceland for the Year 1896' by W.G. Spence Paterson, p 5.

catches into their shop too. It is noteworthy that margins on exports were becoming very low, and possibly merchants had to compensate for this with higher margins on imports. The outcome of those divergent trends in the gross margins in the trade with Denmark was that the aggregate margins rose over the sub-period from about 50% to 95%. This suggests that merchants prospered between 1890 and 1902, and they possibly used these years of growing gross domestic production to raise their margins on imports above what they needed to compensate the concurrent fall in the margins on exports.⁸

In the fourth sub-period, between 1902 and 1910, gross margins on imports fell greatly (from 150% to 35%) while margins on exports rose hardly at all (from a little less than 20% to just over 20%). What evidently happened was that high margins on imports from Denmark could no longer be sustained, no doubt because of competition from merchants that traded with other countries. Margins on exports from Denmark, however, remained the practically same, because they were already by 1902 low, and normal profits in the export trade simply could not be generated below this level. By 1910, however, competition clearly had reached a balance but in new circumstances, and the years 1910–13 form the last sub-period.

My examination on gross margins was based on macro-level data (trade returns), but the few micro-level sources about margins that I am aware of (mainly based on accounting books) do not diverge very much from the levels described.⁹ In any case, the macro-level outcome does not suggest any upwards or downwards bias vis-a-vis the micro-level evidence. In turn, this implies that the trade data is just as fair an indicator of the actual margins as micro-data. Apart from that, reviewing the research period from 1870 to 1913, it is clear that the years between 1902 and 1910 meant the introduction of

⁸ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, pp 155 (table 15.1), 370.

⁹ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, p 111.

new practices in foreign trade and a substantial shift in its institutional framework. Then, competition that had long prevailed to varying extent over time in the export trade finally entered the import trade. What caused this is no doubt the start of the monetisation of the economy, and this will become more clear when the monetisation will be discussed later in the present chapter.

VIII.3.2. The Theory of Over-Pricing of Icelandic Exports

Overall, the data for Iceland's trade with Denmark suggests that the gross margins on Icelandic products were not too low to enable merchants to sell them with profit in foreign markets. Furthermore, although gross margins on Iceland's exports to Denmark fluctuated over time and also by commodities, there were at least some margins on most goods in trade, according to the new datasets for Denmark.¹⁰ Nevertheless, the prevailing view in Icelandic historiography is that Iceland's exports usually were over-priced. In other words, their purchase prices in Iceland plus costs of freight, insurance, etc., did not cover their sales prices.¹¹ This theory of over-pricing of Icelandic exports was first forwarded by Gunnar Karlsson in his doctoral thesis in 1977, and the theory

¹⁰ This does not show in the tables that accompany the thesis, but this can be seen in the underlying base tables in my datasets, but these tables are too voluminous to reproduce.

¹¹ In Icel.: 'Verð á íslenskum vörum til útflutnings hefur verið of hátt. Ókleift hefur verið að selja þær erlendis á hærra verði en þær gengu á hér [in Iceland]. Kaupmenn hafa lagt á erlendu vörurnar *allan* kostnað, *alla* álagningu sína og jafnvel tap á sölu íslensku varanna ...' (italics mine, HB). Gunnar Karlsson, *Frelsisbarátta suður-þingeyinga*, p 262.

and conclusions based on it have been accepted since by other historians or, at least, not been challenged.¹²

In support of this theory, Gunnar Karlsson referred to qualitative sources from 1850 to 1890 complaining about Icelandic products being too highly priced to be sold with normal profit abroad (presumably mainly in Denmark). He suggested that this might partly be due to regional combines among peasants (Icel. *verðkröfufélög*), who often collectively put pressure on merchants, and refused to do business with them unless they agreed to the prices demanded for the exports. Gunnar did not doubt the existence of over-pricing, but he was not too sure of the explanation for it. In relation to this problem, it must be pointed out that sources suggest that over-pricing actually existed around 1830 and probably as early as the late 1810s. The most unambiguous evidence is the fact that the Danish silver mint was sold by merchants in Iceland at a considerably higher price than either nominal or real price — on the grounds that Icelandic products were over-priced. Therefore, the loss from buying the products and shipping them to Denmark and selling there was taken out on the sales of minted cash. Note that the selling rate of the silver mint was unofficial and arbitrary and varied from one merchant to another and by regions in Iceland. On the other hand, when imports were sold in return for exports, the loss was taken out on higher margins on imports.¹³

Granted that there usually were margins on Iceland's exports to Denmark in the research period, how then can this be complied with the claims of over-pricing in the sources Gunnar Karlsson referred to? Does the evidence simply contradict, or is there a

¹² Gunnar Karlsson, *Frelsisbarátta suður-þingeyinga*, pp 261–3. Examples of support to Gunnar's view are, for instance, Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 36, Sverrir Jakobsson, 'Um verzlun og verzlunarsamtök: Inngangur,' 221, and Bragi Guðmundsson and Gunnar Karlsson, *Uppruni nútímans*, 2nd ed., p 75.

¹³ Jón Jóhannesson, 'Formáli' to *Brandsstaðaannáll*, by Björn Bjarnason, p 12. Björn Bjarnason, *Brandsstaðaannáll*, pp 75, 83, 101, 105, 107. [Baldvin Einarsson], 'Annad bréf til ansvars því undangeingna um Peníngaverdid á Íslandi.'

way to interpret Gunnar's sources so that they comply with my trade data? In relation to this, it should be observed that rumours is not the same as first hand knowledge (experience), and even if the individual sources witness over-pricing it may have occurred temporarily and varied by merchants and commodities. In other words, it may never have been the usual case. Furthermore, it is also possible that the evidence can be interpreted in a different way. I will shortly discuss Gunnar's sources and in addition a similar evidence that I have come across. Gunnar's first source dated from 1850, and it merely states that the margins on exports were low, so it does not imply any over-pricing. The second source dated from 1876, where the manager of the Gránufélag, which was a peasants' purchasing society formed in 1870, complained about purchase prices of Icelandic products, saying that they were too high to sell profitably, when costs were included. This he claimed had been so for the past years. The complaint can be explained in two ways. First, the new datasets show that prices of many important agricultural exports had fallen in 1878 compared to 1874 (but they were higher than in 1870). So, there was a general price fall in markets from the early and mid 1870s onwards, and peasants may have been reluctant to accept lower prices than before, especially because regular merchants could take a fall in prices of Icelandic exports out on imports to Iceland. Second, the Gránufélag competed with Danish merchant houses in the north of Iceland, and it had to offer as good or better prices than the Danes (other things equal). This could be difficult because the Danes could afford to push up export prices temporarily to beat the Gránufélag. Together these two explanations probably go a long way in explaining the difficulties of the Gránufélag manager in 1876.

Further complaints about the over-pricing of Icelandic products in 1879 and 1885, when market prices had fallen considerably since 1876, may have similar explanations. Also, the 1879 evidence is probably more based on rumours than first hand

knowledge. But note also that gross margins on exports fell after 1878, reaching a very low level in 1886 (just over 20% of purchase prices), and the small rise in the gross margins on imports did not compensate for this. In 1891, when Gunnar referred to his last source, gross margins on exports had increased so this claim is based on either outdated information or circumstances in trade peculiar to the north of Iceland. Clearly, these price trends and the special historical circumstances in foreign trade in northern Iceland explain why complaints about over-pricing of Icelandic products were called forth. More important, however, my remarks show that the qualitative sources Gunnar Karlsson quotes can be interpreted differently, and they can be accommodated within the overall pattern of margins and prices in Iceland's trade with Denmark.

Incidentally, there are noteworthy comments on over-pricing in one of the British consul's reports from Iceland in the research period. In early 1897, the Foreign Office received a report stating:

'15 to 20 years ago [i.e., ca 1877–1882] there was very little cash in circulation in the Island [sic]. ... the merchants, to attract customers, often gave more than the market value for Iceland produce, buying the native products, in fact, at a loss, which they made good by the high profit on the foreign goods. ... This system still obtains to some extent, because for wool the Iceland merchant often pays 1*d.* to 2*d.* per lb. more than he can get for it in England, and the fisherman frequently receives rather more for his fish here than the exporter can get for it from Spain or Great Britain, but the merchant counts on covering his loss by the prices he charges for the foreign goods which he supplies in exchange.'¹⁴

Concerning the consul's claim about the situation around 1880, it is important to note that it refers to a past situation, and it possibly is more based on rumours than first hand knowledge. The Consul, W.G. Spence Paterson, arrived to Iceland in 1877 and did not engage into trade until 1892 though he became British consul in 1882.¹⁵ Even so, this

¹⁴ UK, FO, 'Report on the Trade and Commerce of Iceland for the Year 1896' by W.G. Spence Paterson, p 5.

¹⁵ Guðni Jónsson, *Minningarrit Flensborgarskólans*, pp 47, 157.

does not preclude that he had a solid source for his claim, and that there actually were instances of over-pricing at the time. Note that he lived in Hafnarfjörður, a neighbouring hamlet to Reykjavík, and also in Reykjavík itself, which definitely had more mercantile competition than anywhere in Iceland. Hence, if there was any place in Iceland where over-pricing occurred, then it was most likely to happen in Reykjavík. Paterson's statement about the contemporary situation cannot be refuted, since I have no evidence to do so. However, in the case of wool he probably is referred to Danish merchants and while the live sheep sales lasted, they presumably had to make higher bids than was profitable for them to do in order to get wool to export. In fact, this complies with existing research on the live sheep sales.¹⁶ In the case of saltfish, there almost certainly was more competition for saltfish than ever, because the Edinborg firm had arrived on the scene and was located in Reykjavík. But given its policy it is highly unlikely that the firm exceeding profitable sales price in its bids. Therefore, Paterson's remark about the saltfish probably refers to Danish merchants, and they could afford to overbid because they could cover themselves on the imports prices. My conclusion, therefore, is that Consul Paterson's comments can be explained in such a way that they comply with my understanding that over-pricing was rather an exception than the usual practice in Iceland's foreign trade in the research period. Nevertheless, a further study of prices in the trade with Denmark, besides Britain, would be desirable to explore our argument further. Also, the quality of my macro-level trade data can be improved, and micro-level examination of accounting records would be desirable to shed a further light on this matter.

With reference to his over-pricing theory, Gunnar argues that there was an inflation in Icelandic products. The fact is that neither my observation about the early

¹⁶ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, pp 34, 36.

19th century over-pricing, nor the sources Gunnar refers to, imply anything about inflation in Iceland. They only relate to purchase prices of Icelandic products relative to their foreign market prices, and my price index for exports shows that there was in fact a secular fall in prices of exports between 1874 and 1898 (see Chapter VI). If only for this downwards trend in export prices, Gunnar's argument that the alleged inflation of Icelandic products partly explains why merchants were reluctant to pay for exports in cash is disproved.¹⁷ But it is also another reason why his argument does not stand scrutiny. Danish merchants were in business to make money, but most of them did not see any other way to do this than in old mercantilist style by extracting money from Iceland instead of circulating them back into the economy for productive and profitable purposes by paying for exports in cash, if only to pursue a policy that they suited to their own interests.

¹⁷ Gunnar Karlsson, *Frelsisbarátta suður-píngeyinga*, p 262.

VIII.4. Impact of Institutional Shifts on Levels of Money Supply: The Start of Monetisation of the Economy

VIII.4.1. Shifts in Net Mercantile Money Inflow to Iceland

Our chief aim with the examination of the supply of money in Iceland is to find out whether the live sheep sales and the Edinborg firm did have much impact in this matter. To answer that question with confidence would require statistical data on gross inflow of money and its sources or channels into the economy. However, owing to scarcity of sources and literature the situation is that identifying major shifts in the gross inflow of money to Iceland is difficult enough, and estimating the approximate levels over time is a formidable task. This has two consequences. One is that lack of information about aggregate levels of money inflow over time prevents an efficient use of quantitative data about individual sources or channels of money coming to Iceland. The other is that to say something with certainty about the topic, I will mainly describe the shifts on the basis of qualitative sources, with occasional references to quantitative data. Evidently, I cannot support my findings and conclusions statistically, but much can be inferred from my sources about the timing of the main shifts in money inflow and which developments were important in this respect. To see this matter in perspective, I will survey our whole period in terms of mercantile sources or channels of money flowing to Iceland. In doing so, I comment on those export activities that brought cash to Iceland and were discussed in Chapter IV on exports. Therefore, I do not confine myself to the principal sources or

channels of money only but offer a more comprehensive, yet tentative, picture of the topic.

VIII.4.1.1. Era of Money Scarcity, the Early 1850s to the mid 1890s

As I described in Chapter II, cash was almost absent in foreign trade, because of its relative scarcity in Iceland. Apart from the practical refusal of merchants to pay out in cash, this scarcity was partly due to small inflow of money from other sources. Possibly the largest inflow of money around 1870 was through salaries of officials in Iceland from the central administration in Copenhagen. Hence, only a small group of merchants' customers, particularly salaried officials and some well-to-do peasants, had money besides commodities to sell. So, instead of denying to sell them imports in return for money, merchants of course accepted them.

Around 1870, there were very few other channels for cash apart from salaries. Tourism was a growing service industry, although tiny, when shipping with Iceland became more frequent in the 1860s onwards.¹⁸ Also, separate enterprises such as attempts to mine sulphur and tin salmon (Chapter IV), brought some money into the country. But possibly the largest and most stable channel of money was the exportation of live horses. This started in the early 1850s when British travelling merchants were granted special permission by Danish authorities to buy live horses in Iceland and ship to Britain. This business continued into our period and prevailed beyond it. However, the amount of money this business brought to Iceland is difficult to measure, because it

¹⁸ Heimir Þorleifsson, *Póstsaga Íslands 1776–1873*, pp 500–501.

seems that Danish merchants took part in this trade and they did not pay in cash. Another source of money transfers to Iceland was herring fishing by Norwegian businessmen. This started first in the late 1850s but was irregular until the late 1870s (Chapter IV). Icelandic work people were no doubt hired to salt the herring in barrels for exportation, but since even the export quantities involved are uncertain, it is very difficult to speculate about how much money the herring fishing generated into the country before 1880.

From about 1880 onwards, new channels of money transfers to Iceland were added. The first of these was the live sheep trade, and during its heyday it no doubt was more important as a source of cash incomes than any of the above mentioned activities. Although there are various problems associated with estimating the amount of money flowing into Iceland for live sheep, Sveinbjörn Blöndal in his study on this trade made an attempt to estimate this and his figures have not been superseded. Probably second and third in importance to the live sheep exports were activities of Norwegian enterprises. The herring fishing gained a temporary momentum in the 1880s, but there is much uncertainty about the amounts of money brought into Iceland by it. The whaling started in the early 1880s and produced several products (whale oil, meal, bone meal, and baleens) as time passed. The whalers hired unskilled Icelandic labour to work in the whaling stations. Again, the amounts of money time injected into the economy are uncertain, although partial and rough estimates have been made by Trausti Einarsson. Apart from that, it does not appear that any specific changes in the foreign trade or the economy can be assigned to this phase of money inflow.

VIII.4.1.2. Monetisation of the Economy Starts, the Mid 1890s Onwards

The mid 1890s witnessed changes in the influx of cash into the Iceland economy. First, the main source of money, the live sheep trade, came to a practical halt after 1896. There was no agricultural product to replace it, although exports of butter started shortly later as a reaction to the loss of the live sheep market in Britain. Second, the Edinborg firm started its operation in 1895. In comparison to these events, other changes in the decade were of smaller significance. Exports of herring fell during the 1890s, compared to either the 1880s or the 1900s onwards. However, exports of Labrador Style saltfish started, and whaling exports diversified in the decade. Norwegian merchants, living in Iceland, are an empty box in this picture but they presumably contributed to the monetisation of the Icelandic economy that now started for real.

The mid 1890s was a turning point in transfers of money into Iceland, mainly because of the activities of the Edinborg firm. Information about the sums of money put in circulation by the firm over time are not available, but I have figures about its exports, imports, and costs from a few years to base our reasoning on. Understandably, the firm started small in 1895 as the following table indicates, but it was a large business already in the 1900s. While all exports were paid for in cash, Edinborg appears to have been lenient in demanding cash payments for imports.¹⁹ This was quite natural in the beginning, but it, of course, was also designed to attract business. Because of this practice, we do not know how much of the imports to deduct from the exports values, but it is clear that net inflow of money through Edinborg's trade exchange was no less

¹⁹ It is noteworthy that the firm clearly states that all exports in 1903 were paid for in cash, but it makes no mention of money in relation to the imports. See *Handbók fyrir hvern mann*, 2nd ed. (1904), back cover (inside). Also, a contemporary source from 1905 says that in Ísafjörður, Edinborg is heavily engaged in loans to its customers. See Jón Guðnason, 'Greiðsla verkkaups í peningum,' p 56 (backnote 7). Whether these were loans to help customers temporarily or

than 600,000 to 700,000 kr. in 1903 and one million kr. in 1905. Furthermore, since the largest part of the operating costs were probably wages, it is safe to conclude that the net inflow of money through Edinborg's activities in Iceland was 700–800 thousand kr. in 1903 and no less 1.2 million kr. in 1905 (see Table VIII.1). Compared to Sveinbjörn Blöndal's estimates of money generated by the live sheep exports, these were huge sums. Only in four years out of 21 (1876–96) did cash incomes from live sheep exports exceed 500,000 kr.²⁰ So the Edinborg firm quickly surpassed the live sheep trade as the principal source of cash injections into the Iceland economy.

Table VIII.1. Inflow of Money Through the Trading Activities of the Edinborg Firm in 1895, 1903, and 1905

Year	Exports	Imports	Thousands of krónur			
			Operating Costs		Total	Net Transfers of Money
			Wages	Other Costs		
1895	—	43	...	...	9	...
1903	1,143	525	121	...	...	700–800
1905	1,750	750	...	...	197*	1,200 ?

Sources: *Handbók fyrir hvern mann*, 2nd ed. (1904), back cover (inside). *Fra Islands Næringsliv*, p 65.

* In source the figure applies to 1903, but it presumably is an error and should be 1905.

To comprehend the relative significance of the figures in Table VIII.1, we can take a look at the total value of exports and imports. Comparing 1903 and 1905 with the closest sample years, 1902 and 1906, it suggests that Edinborg had 10–12% share in total exports, while in total imports it was 6–8%.²¹ After only eight to ten years in business, this was a significant achievement. Edinborg started in Reykjavík and had by

long terms loans, meant to hold on the custom of people, is not clear (cf. Jón Guðnason, 'Greiðsla verkkaups í peningum,' p 46).

²⁰ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, p 39 (table).

²¹ Table A.BAL/ALL-1.

1904 opened outlets in three other places in the southern and western parts of the country (Keflavík, Akranes, and Ísafjörður).²² In 1914, it had outlets in Vestmannaeyjar, Hafnarfjörður, and Ísafjörður.²³ Consequently, it had little if any trade with the northern and eastern parts of the country, and its share in those places where it operated was far larger than the figures for Iceland as a whole indicate.

True, total exports and imports had increased since 1895 and the population had grown. Also, Edinborg no doubt easily managed to attract the custom of many of those who had not standing debts at their merchant's account. Even so, Edinborg's success clearly was at the expense of the older, established merchant houses. They in turn were left with customers in standing debts, and although it was good for the respective merchants to retain customers to do business with, it was a mixed blessing because those customers in constant or seasonal debt were stuck unless they could pay up their debts. Perhaps the best measure for the success of the Edinborg firm and its competitiveness, is that according to one source the firm effectively forced other merchants in Reykjavík to start money payments.²⁴ Given that, the firm's indirect effects on the monetisation of the economy were huge.

As happens, reports of British consuls in Iceland confirm the inflow of cash into the economy from the late 1890s onwards. Their testimony is of unique significance and needs to be cited in full, since I attempt a quantitative interpretation of the sources below. For the sake of convenience, the citations are summed up in Table VIII.2 below.

²² *Handbók fyrir hvern mann*, 2nd ed. (1904), advertisement on the inside of the back cover.

²³ *Fra Islands Næringsliv*, p 65.

²⁴ Vilhjálmur S. Vilhjálmsson, *Sjógarpurinn og bóndinn Sigurður í Görðunum*, p 133.

Table VIII.2. References to the Spread of Cash Payments for Exported Saltfish and Wool, 1898 to 1906

<i>Apply to</i>	<i>References to saltfish</i>	<i>Date from</i>
1898 or 1899	'Two or three years ago [i.e., starting in 1898 or 1899] merchants from Scotland and Denmark began to buy salt fish for cash. ... This cash trade for salt fish has been increasing very fast in the south of Iceland during the last years and has never been greater than in 1901. It may be foretold that almost all the salt fish produced in the south of Iceland will be bought for cash some years hence.' (1)	late 1901
1903	'The old barter system is rapidly vanishing owing to the fact that British merchants are buying salt fish for cash on a large scale, a single merchant at Reykjavik having last year bought salt fish for 60,000/. by cash ... Other British merchants are working in the same way in the west of Iceland. A few years hence all the salt fish in the south of this island will no doubt be bought for cash.' (2)	early 1904
1904	'The barter system is rapidly vanishing, owing partly to the fact that British and other merchants are buying salt fish for cash. A few years hence all the salt fish in south and west Iceland will be bought for cash.' (3)	early 1905
1905	'The greater part of the salt fish of all kinds is now bought for cash ...' (4)	early 1906
1906	'The greater part of the salt fish ... are now being bought here for cash.' (5)	early 1907

<i>Apply to</i>	<i>References to wool</i>	<i>Date from</i>
1903 & 1904	'During the last two years American ageents have bought wool in great quantities for cash.' (3)	early 1905
1905	'last year Americans ... bought [wool] in the island for cash.' (4)	early 1906
1906	'a good deal of the exported wool are now being bought here for cash.' (5)	early 1907

(1) UK, FO, 'Report on the Trade and Commerce of Iceland for the Years 1898–1900,' p 8.

(2) UK, FO, 'Report on the Trade and Commerce of Iceland for the Years 1900–02,' p 9.

(3) UK, FO, 'Report on the Trade and Commerce of Iceland for the Years 1901–03,' p 8.

(4) UK, FO, 'Report on the Trade and Commerce of Iceland for the Years 1903–05,' p 9.

(5) UK, FO, 'Report on the Trade and Commerce of Iceland for the Years 1905–06,' p 9.

Evidently, it is difficult to interpretate these statements into estimates of the quantities of saltfish and wool exported for cash. However, the significance of the matter justifies an attempt to do so, although it is bound to be tentative. The outcome of my interpretation is produced in Table VIII.3 below, and it implies that the sums of money

involved were of greater importance for the economy than Table VIII.1 suggested. The Edinborg firm exported numerous commodities apart from saltfish, and this fact indicates that the sums of money injected into the economy through exports of domestic production were higher still than Table VIII.3 suggests. In any case, although the Edinborg firm probably was the largest exporter in the saltfish branch that paid in cash, other parties paid in cash as well, and the inflow of hard cash was definitely larger than Table VIII.1 indicates.²⁵

Table VIII.3. Estimates of Inflow of Money Through Exports of Saltfish and Wool, 1898 to 1906

Year	Saltfish				Wool			
	Saltfish referred to in source		Estimates of fish bought for cash		Wool referred to in source		Estimates of wool bought	
	As of total saltfish exports	Approximate values	In relative terms	In absolute terms	As of total saltfish exports	Approximate values	In relative terms	In absolute terms
1898	34%	908	5%	45	.	.	.	.
1899	26%	869	10%	87	.	.	.	.
1900	38%	1 477	20%	295	.	.	.	.
1901	34%	1 323	30%	397	.	.	.	.
1902	41%	2 465	40%	986	.	.	.	.
1903	81%	3 565	45%	1 604	100%	802	10%	80
1904	77%	3 765	50%	1 883	100%	948	20%	190
1905	100%	5 455	55%	3 000	100%	1 346	20%	269
1906	100%	5 892	60%	3 535	100%	1 459	20%	292

Sources: Table VIII.2. Table A.EXP/ALL-7. Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar*, vol. 1, pp 271, 273–5. Icel., Gov.Gen.: ‘Verzlunarskýrslur 1898,’ pp 166–9; ‘Verzlunarskýrslur 1899,’ pp 379–82; ‘Verzlunarskýrslur 1900,’ pp 309–13; ‘Verzlunarskýrslur 1901,’ pp 334–7. Icel., Min. of Icel.: ‘Verzlunarskýrslur 1902,’ pp 343–6; ‘Verzlunarskýrslur 1903,’ pp 214–17, 255; *Landshagsskýrslur fyrir Ísland 1905: Verzlunarskýrslur 1904*, pp 30–31, 76–94; *Landshagsskýrslur fyrir Ísland 1906: Verzlunarskýrslur 1905*, pp xxviii–xxix.

However, this is not all, because in the early 1900s herring fishing, which was largely an enclave activity, revived and became yet another important source of money

²⁵ In fact, there seems to be a reference to the Edinborg firm in the 1904 consular report (see Table VIII.2). Also, the figure complies the firm’s own statement about its exports in 1903 (see Table VIII.1).

inflow to Iceland. Cash payment of wages was the customary practice in herring fishing, where Norwegian businessmen operated. With the revived interest of Norwegian enterprises in this fishing in Icelandic waters, salting of herring on land became a significant source of money for common people. When purse seine or ring nets replaced drift nets in the herring fishing in the mid 1900s onwards, catches increased greatly. The incomes of people often sky rocketed, not least because there often were long working hours in the herring trades. Indeed, because of the huge income generating opportunities, those places where herring was salted had a Klondyke character to them. Unfortunately, however, no scholar has attempted any quantification of the sums of money generated by the herring fishing in Iceland — either as wages or as the profits to those Icelandic businessmen engaged in the herring fishery. Therefore, the relative significance of this source of monetisation is unclear, but there cannot be any doubt that its impact was considerable.²⁶

From 1907 onwards, still another new channel of money inflow to Iceland was opened. This happened when steam trawlers, which Icelandic companies had started to fitted out, began to sail to Britain and sell fish on ice.²⁷ Although catches fluctuated, it is probably safe to assume that increasingly more fish was sold this way, and provided hard cash that was brought back to Iceland. From trade data one may speculate that this amounted to less than 100 thousand kr. annually. However, the revenues were larger in 1912 and 1913, and it is estimated that it amounted to 1.4 million kr. in 1913, which was

²⁶ Ole O. Tynes gives a first hand account of the impact of herring salting on ways of living and the supply of money among people in Siglufjörður, which was the principal place for herring salting in Iceland. See his 'Skyggnt um af sjónarhóli.' See also a secondary source by Ingólfur Kristjánsson, *Siglufjörður*, pp 157, 165–6, 167–8.

²⁷ Heimir Þorleifsson, *Saga íslenzkrar togaraúngerðar*, pp 114–15.

a record year.²⁸ In any case, it was not a particularly important source of money for the Iceland economy, compared to either Edinborg's activities or the herring branch, until the very end of our period.

VIII.4.2. Introduction of Banking

The important direct and indirect impact of the Edinborg firm on money supply and the monetisation of the Icelandic economy have been completely overlooked by scholars.²⁹ Furthermore, the sums of money from the herring fishing entering into the economy after 1900 have been substantially ignored in Icelandic historiography, although they have been mentioned occasionally.³⁰ Instead, historians traditionally have stressed the importance of the foundation of Íslandsbanki (Bank of Iceland) which started operation in 1904. To be sure, this step was important, because the bank had a relatively large working capital, compared to the existing state-owned Landsbanki Íslands (National Bank of Iceland). The latter is generally assumed to have increased its lending in the 1890s, but it is believed to have been relatively conservative in its lending policy, and it opened its first outlets outside Reykjavík only in 1902 and 1904 (in Akureyri and

²⁸ Table A.EXP/UK-15. Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 513–14. See also Heimir Þorleifsson, *Saga íslenzkrar togaraútgerðar*, pp 124–5.

²⁹ To my knowledge, only one historian has realised that Edinborg had some importance for progress in the foreign and domestic trade. This is Guðjón Friðriksson in his broadcasting programmes.

³⁰ Since Matthías Þórðarson's *Síldarsaga Íslands* in 1939 (2nd ed.), who was a amateur historian, no historian has placed any emphasis on the importance of the money generated by the herring fishing for money supply in Iceland. But there are sporadic references to some relevance of the herring fishing for the supply of money in Iceland, see, for instance, Jón Guðnason, 'Greiðsla verkkaups í peningum,' p

Ísafjörður respectively). Íslandsbanki, however, instantly opened three outlets outside Reykjavík (in Ísafjörður, Akureyri, and Seyðisfjörður). All in all, Íslandsbanki is considered far more important for the economic progress of Iceland, and its formation customarily has been hailed as one of the significant events in the economic history of Iceland. Furthermore, it is usually linked to the Home Rule in 1904, another major event in the traditional perception.

The Íslandsbanki had its origin in a request made by two Danish businessmen to the Icelandic Alþingi to grant them permission to put up a bank in Reykjavík. This was in 1899, and the reason for the request and the ongoing interest of foreign businessmen in the matter, has received little attention from Icelandic historians. In the light of our account of the increasing monetisation of the Iceland economy through foreign trade and rise of the fishing sector (Chapter VII), it seems plausible to suggest that the reasons for the initial approach were basically two. One is that already by 1899 there had taken place significant changes in the supply of money in Iceland as we have described above. The other is that the entrance of merchants into the fishing sector meant a rising need for investment capital. After all, it would be hardly feasible for foreign capitalists to put up a bank in Iceland as long as cash savings were small, and profitable investment opportunities in Iceland were limited. Concerning the first, the live sheep trade had injected some money into the economy, although a part of this was used to pay for imports, and some of the money was used to emigrate. This first phase of monetisation coexisted with the emergence of savings funds and a bank established in 1885 (Landsbanki Íslands). From 1895, however, Edinborg began to transfer huge net sums of money to Iceland. This increased the amounts of disposable incomes of people and was conducive to greater savings. These could be tapped by a new financial institution waiting to offer prospective customers equal or better terms than the competitor

(Landsbanki Íslands). Concerning the latter cause, the fresh fish trade and, later, merchants' fishing ship outfit presumably increased their need for short and long-term capital which an Iceland based bank was better equipped to supply, rather than an external (Danish) bank which was bound to be unfamiliar with Icelandic circumstances and being far from location.

Altogether, it seem plausible to suggest that both the accelerated monetisation of the economy in the late 1890s and the economic impact of the growth of the fishing sector in the 1890s were the soil from which the proposal of a bank in 1899 sprouted. Both developments continued to expand into the 1900s, and with addition of a revived herring fishing the circumstances for a commercial bank became even more favourable. It is against this background that we must perceive the foundation of the Íslandsbanki, and it has little to do with the Home Rule, which is another over-estimated event in terms of the economic progress of Iceland.

VIII.5. The Economic Implications of the Shift in Money Supply: Modernisation of the Economy Initiated

Above I have been working on first two of my aims — to identify important shifts in the institutional framework of trade and to discuss their economic implications. To assess the importance of these implications for the economic transition of Iceland, I optimally would like to examine two broad issues. One issue would be the impact of shifts in

margins, i.e., prices that Icelanders customers were offered over time. In doing so, I would be focusing on their effects on and their importance for standards of living in Iceland. Unfortunately, I am unable to do such a survey because of a number of reasons, both practical and scholarly. The other issue would be the impact of inflow of cash on the Iceland economy over time. Vast and complicated as this issue is, I nevertheless will try to offer a rudimentary assessment of the importance of the monetisation for the economic transition. This happens to be a subject where there is some literature available on relevant issues and it will be supplemented with my observations and insights. Therefore, the remainder of the chapter will be devoted to this matter.

Since every economy is composed of both form (institutional framework) and content (economic activity), and we are interested in the overall impact of shifts in money supply on the economy, I face two questions when embarking on my assessment. How do I study the effects on the institutional framework of the economy, and how do I study the effects on economic activity? To study aspects of such widely different nature, one must approach them in separate ways. For the institutional aspect of the economy, I use ordinary historical analysis to identify the links from shifts in the institutional framework of trade to institutional changes in the economy, including foreign trade. For economic activity, I basically use an economic analysis to identify the links from shifts in the institutional framework of trade to major changes in the level and type of economic activity. My economic analysis essentially is a standard or conventional macroeconomic analysis, but it perhaps is best explained with reference to the general linkages approach in Chapter II, where the method is conveniently laid out. Through the combined effort of the two approaches, where I deal both with the 'content' and 'form' aspects of the economy, I intend to provide a rough assessment of the impact of institutional shifts in foreign trade on the economic transition of Iceland.

VIII.5.1. Institutional Changes in Foreign Trade

VIII.5.1.1. Barter, Truck, and Price Policies

Given that I broadly am correct in my interpretation of the shifts or phases in mercantile inflows of money to Iceland, their impact should be able to detect in the economy. At least, one would expect that the seemingly great money transfers from the 1890s onwards should be identifiable. Also, the apparently abnormal situation in prices around 1900 suggests that something much was happening among firms in the foreign trade branch. Incidentally, we can identify further changes around 1900 that relate to the use and supply of money. Since these changes seem to offer some explanation of later developments, both in the institutional framework of the foreign trade and in the economy at large, we will start with them.

Shortly before 1900, merchants in at least Reykjavík started a policy of dual prices for imports. This meant that merchants quoted a certain price if it was paid for in exports (Icel. *vöruverð*) and a significantly lower price if it was paid for with cash (Icel. *peningaverð*). The origin of this practice is somewhat obscure and also the levels of these prices with respect to previous price levels. Also, we do not know for long this policy lasted, but there are certain clues about this matter. It appears that this dual price policy was the reaction of the established merchant houses in Reykjavík towards the competition from Edinborg. Note that traditionally there had only been one price, which was used when Icelanders came with their products to merchants. But the fact that the

cash price (*peningaverð*) was significantly lower than the produce price (*vöruverð*), and this took mainly place in Reykjavík, suggests that merchants were reacting to much lower prices that Edinborg offered. In other places in Iceland, merchants seem to have held on to the single price policy, and quite naturally so because Edinborg was a competitor for them in few places only (in Keflavík, Akranes, and Ísafjörður, besides Reykjavík, before 1904).

It also appears that prices of merchants in other places in Iceland than Reykjavík were approximately midway between the produce and cash price. Given the rocketing margins around 1900 in the trade with Denmark, this also suggests that merchants in Reykjavík were in fact taking at least a part of the fall in import prices out on margins on other imports. Even if that was true, how can this be reconciled? How could merchants raise margins on imports, if they were trying to beat their competitor who offered far lower prices on imports? In principle, this could be done three ways. One was to raise margins on those imports that the competitor did not sell, to compensate for the price fall of those imports both parties sold. The other way was to raise import prices to those customers who could not pay with cash and had to settle for the price decided by the merchant. This was possible, if the customer was in debt and had no choice but to take his imports at his merchant, even if he had added sky high margins on the imports. The third way was that if the merchant owned and fitted out a fishing vessel too, fishermen were by custom obliged to take their wages out in goods at the merchant's shop. Irrespective of whether the merchant fitted out a ship or not, he compensated for the price fall on those imports that he sold to customers with cash. Possibly, merchants practised all three methods. In any case, the second and third method would explain the difference between produce and cash price. Note that the fall in import prices did not have to be levelled out on customers in Reykjavík, because the more powerful merchants

usually had outlets in several ports of entry. Therefore, a heavy price fall on imports sold in Reykjavík could be taken out on imports sold in the respective merchant's shops elsewhere in Iceland, where people usually did not have money. Of course, this is only a hypothesis which must be tested against appropriate sources, but there can hardly be any doubt that there was a connection between the abnormal rise in margins around 1900 and the dual price policy that seems to have started then.

Along with the spread of cash payments, which took place at least in Reykjavík and Edinborg presumably had an influential impact on, another change in monetary affairs occurred in the 1900s. This was a locational abandonment of the truck system, which mainly concerned merchants and fishing ship owners, the main urban employers at the time. Jón Guðnason, who has studied the truck system in our research period, claims this and lists the largest urban areas in Iceland, viz. Hafnarfjörður, Reykjavík, Ísafjörður, Akureyri, and Seyðisfjörður. Granted this is a correct assessment, the question is what caused cash payments in these places to become the rule. Jón attributes this mainly to the start of motor boat fishing and trawling, besides better access to bank loans.³¹ On the basis of my discussion so far, it is hard to see how the motor boat fishing was important in this respect. Owners of motor boats were dependent on merchants (including foreign enterprises) for cash in return for their fish, because the owners usually were not exporting themselves. Trawler owners, however, paid their people in cash according to Jón, and that probably was a general practice. But their relative importance in terms of the overall economy was limited, so their influence may be somewhat doubted in this matter, at least outside those places where they were fitted out (Reykjavík and Hafnarfjörður). Also, in my view it is debatable if the introduction of Íslandsbanki in 1904 was influential. Even though it offered far better chances of loans,

³¹ Jón Guðnason, 'Greiðsla verkkaups í peningum,' pp 39–40.

there was a strong opposition among influential men in society to ban the prevailing truck system. Hence, it took nine years (1893–1901) and four bills in the Alþingi to fight for a legislation concerning the prevailing truck system. And the initial *requirement* that all wage labour was to be paid in cash was changed into a *permission* only, and other conditions were eased. Thus, the purpose of the bill, which was passed into law in 1902, effectively was nullified.³³ On the basis of my discussion above, it seems plausible to assume that the impact of the legislation on the abandonment of the truck system was comparatively small. However, another legislation probably was more effective and it was passed into law practically simultaneously (1901). It banned the use private tender in exchange for goods from mid year 1902.³⁴ For some reason that is obscure at present several merchants in the 1890s (and possibly already in the 1880s) had started to issue private notes and coins to use in their shops. This private tender was handed over to those customers who were not in debt, but it is not clear whether this was to hold on to their custom or simply out of the merchants' temporary money shortage. In any case, this private tender was used and it was only redeemable against goods in the respective merchant's shop.³⁵ The aggregate nominal value over time of this private tender, which was counted in krónur, is unknown so we do not know about their relative quantity compared to official, legal tender in circulation. It presumably was not great, but its abolition certainly aided to the spread of cash payments.

³³ Jón Guðnason, 'Greiðsla verkkaups í peningum,' pp 10–23, 54.

³⁴ Icel., Gov. Gen., *Stjórnartíðindi* 1901, sect. A, p 198.

³⁵ Jón Guðnason, 'Greiðsla verkkaups í peningum,' p 33. Lúðvík Kristjánsson, 'Pétur J. Thorsteinsson,' pp 62–4.

VIII.5.1.2. Division of Labour in the Import Trade

The introduction of cash payments for goods (at least exports) and wage labour from about 1900 onwards was a certain kind of institutional change in the economy, even if it was restricted to certain locations only. But we can also detect another change in the institutional framework of the import trade, namely in growing specialisation. Traditionally, merchants in the Iceland trade were simultaneously in the export and import trade, and they acted both as wholesalers and retailers. Neither commissionership nor agency did not exist. Until the end of our period, production of agricultural goods remained largely in the hands of peasants in the countryside, while fishing became a big business and partly merged with the export trade in the urban areas (Chapter VII). Furthermore, many merchants continued to export and import. However, there occurred an acceleration in the division of labour in the import trade after 1900. In the early 1900s, the first wholesale business in Iceland was opened, and in the mid 1900s the first business in consignment (commissionership) and agency was started. By 1913, they numbered fifteen in total.³⁶ Concurrently, retailers grew rapidly in number. The success of retailers on one hand and of wholesalers and commissioners and agents on the other hand were, of course, interrelated since none of them could effectively thrive without the other. But on top of this, specialised shops emerged too, limiting themselves to particular types of imported goods (textiles, shoes, hardware, etc.).³⁷

To be sure, there were special shops before ca 1900, mainly in Reykjavík.³⁸ But unless the goods were paid for in Icelandic products, their operation rested on the

³⁶ *Fra Islands Næringsliv*, pp 68–72. Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 397.

³⁷ Klemens Jónsson, *Saga Reykjavíkur*, vol. 2, pp 244–6. Vilhjálmur Þ. Gíslason, 'Upphaf sérsverslunar í Reykjavík,' p 196–8.

³⁸ Vilhjálmur Þ. Gíslason, 'Upphaf sérsverslunar í Reykjavík,' pp 190–95.

customary bookkeeping barter where the customer's account was debited and the shop owner's account credited with the same amount. Since their accounts could be at two different merchants, the merchants had to finish the transaction with actual transfers of values between themselves. Evidently, this was a cumbersome system compared to cash exchange on the spot. But more important, merchants largely barred off transfers of this type. Naturally, a merchant welcomed a credit on his customer's accounts, but it inevitably meant the debiting of someone else's account, even at his own firm, about which he perhaps was not so pleased with. The merchant always wanted to control debiting on the account of their customer, to be sure he could pay for all the goods taken out in his store. Transfers of this kind broke down the surveillance tool of merchants, so they were against such transfers. Not least because of this, the monetisation naturally acted as a catalyst for specialisation in the import trade.

It is customary in Icelandic historiography to attribute the advent of wholesalers in Iceland to the laying of telegraphic cable in 1906 (Chapter II) or even to the start of Íslandsbanki in 1904.³⁹ Although the greatly enhanced communication and access to capital no doubt facilitated their operation, as of all business activities in Iceland, the cable played a small part compared to the monetisation of the economy, and the role of the bank is only speculations. As for the cable, specialisation in wholesale or retail business would have been impossible if the firms would have had to receive all payments in Icelandic products. After all, if they would have done that, the business would not have been wholesale or retail sale but general trading as all other businesses in the Iceland's foreign trade had been. Therefore, specialisation of whichever kind in the import trade rested primarily on the condition of widespread cash exchange in the economy. Clearly, this was happening in Reykjavík and other places from about 1900.

³⁹ Helgi Skúli Kjartansson, 'Reykjavík sem verzlunarmiðstöð,' pp 177, 187 (note 8).

onwards, and the time was prime as their growth shows. Admittedly, it can be claimed that monetisation only was a necessary but not a sufficient condition for specialisation in the import trade. Even if that was so, then this vital prerequisite has been overlooked until now. However, shipping (postal) communications were hardly a serious retarding factor for wholesalers in the mid 1900s. Until 1904, there were 20 trips a year, after which they became 30 annually.⁴⁰ Of course, the telegraphic cable enabled faster orders from abroad and shorter delivery time, which was a clear advantage. But essentially the cable was an improvement in technology that consequently accelerated things rather than made them suddenly possible by removing barriers.

If the cable was far from being all-important as it is generally believed, what about the Íslandsbanki? As happens, the role of the bank for the start of wholesale business in Iceland is only speculative, because this has never been examined. Furthermore, one of the founders of the first wholesale concern did not make any mention of the bank as being important for their initiative, only the telegraphic cable.⁴¹ This evidence, documented over thirty years later, does not prove the insignificance of the bank, but it does not lend a support to its alleged role for the import trade.

⁴⁰ Guðni Jónsson, *Eimskipafélag Íslands*, p 29.

⁴¹ Vilhj[álmur] S. Vilhjálmsson, 'Guðspekinemi og bankastjóri,' p 182.

VIII.5.2. Impact on Economic Activity

VIII.5.2.1. Levels of Savings

To support the interpretation above of the different phases of money inflow to Iceland, I will offer a preliminary assessment of their significance for the economy, focusing now on the allocation of money incomes and macroeconomic changes that can be attributed to money transfers to Iceland. In principle, money income could be allocated by immediate consumption, direct investment, and savings. Because of lack of research, the present knowledge of these matters varies. We know relatively little about direct investments in our period, although I will offer a few remarks about them below. But we know more about savings from financial data, and we have various sources about consumption. So, in spite of incomplete and partial knowledge, I will try to outline the trends in each of these fields in our research period.

As one might expect, savings in Iceland did greatly increase in the third phase of mercantile money inflow, compared to earlier periods (Fig. VIII.2). The trend shows an even rate of growth of savings from 1875 to 1890, after which the savings evidently rose very fast for a few years (until 1895). After that, the growth of savings until 1900 was similar as before, cf. the practically identical slope of the inserted line on the figure. However, between 1900 and 1905, there was a complete shift in savings. Then, they more than doubled and after 1905, the growth of savings was much faster than before. Of course, savings are not an accurate measurement of the sums of money people put aside, because they can hoard them too. Evidently, hoarding presumably was considerable relative to savings for a part of our period, because financial institutions were only just being introduced in the 1870s onwards in Iceland. But even if we allow

for a greater degree of hoarding until about the 1890s than after that, it would not change the conclusion that savings rocketed in the 1900s onwards.

VIII.5.2.2. Levels of Consumption: Services and Manufacturing Industries

Consumption of people was spread among domestic products and service, besides imports. It goes without saying that it is practically impossible to detect any special change in imports that is specifically associated with money rather than barter purchases. Importers supplied the same kind of imports to Iceland, whether they received cash or goods in return. But it is possible to detect any changes in consumption of domestic services and products? Given the traditional base of the economy, pure service industries were practically non-existent for a long time after 1870. But from about 1900 onwards, urban services started to emerge (for instance, barber's) or become larger (for instance, photographers and lawyers).⁴² Skilled workers like blacksmiths and carpenters were not very numerous in Iceland in the last decades of the 19th century. Carpenters travelled around but blacksmiths ran workshops only and processed items on order, besides repairing and fixing. Hence, they did not produce goods for unspecified sales later. However, in the 1900s onwards, it appears that some skilled workers (like blacksmiths) began to manufacture items for subsequent sales, and they ran a shop along with their workshop. Also, some cobblers and shoemakers started retail sale of imported shoes.⁴³ Services and the activities of skilled workers often were on small scale, but a

⁴² Klemens Jónsson, *Saga Reykjavíkur*, vol. 2, pp 248, 250–2.

⁴³ Klemens Jónsson, *Saga Reykjavíkur*, vol. 2, p 245.

few trades that emerged were on a relatively large scale, at least for Iceland. Presumably among the largest of these were a dockyard (Slippfélagið) in 1902, timber store (Völundur) in 1904, and cabinet workshop (Jón Halldórsson & Co.) in 1905, all in Reykjavík.

Moving on to pure manufacturing (machine type) for the domestic market, it did not emerge until the 1890s onwards. But the growth of this type of manufacturing industry appears to have been slower than in the case of skilled workers, because very few firms that lasted for some time were formed until about 1910 onwards. These were, for instance, a brewery (Ölgerðin Egill Skallagrímsson) in 1913, and a confectioner (Magnús Th.S. Blöndahl) in 1912. However, it is interesting to note that Reykjavík and other urban places in the southern and western part of the country were not at the forefront here, as in the case of other industries. Some of the first experiments with manufacturing took place in the eastern part of the country. The reason for this is obscure, but possibly the activities of Norwegian herring and whaling businessmen, besides Norwegian merchants in Iceland, influenced this. In other words, perhaps the money the Norwegians generated in their surrounding regions caused the monetisation effects to take place a little earlier there than elsewhere in Iceland. In general, their activities were conducive to the distribution of mechanical knowledge among Icelanders in these regions, and it was no doubt of help when motor boats and all kinds of machines spread out later.

Even though our discussion about services and manufacturing industries in the domestic sector is highly tentative, it, nevertheless, shows that these particular industries and trades did not start to grow effectively until the 1900s onwards. Slow as it was in parts and sporadic, this growth was a witness to diversification and specialisation which was, as in the case of the import trade, practically impossible while the bookkeeping

barter prevailed. True, the firms in the new industries could have accepted Icelandic products instead of their services or goods, but it was inconvenient, to say the least, for all concerned. But if that was so, then why did the new industries not emerge in the 1890s or before? Besides, people's chances to take their products to other places than to their merchants were somewhat restricted, because merchants wanted to have the products to export them and let people pay their imports for. So, whichever way we speculate about this, the emergence of the new industries and firms clearly supports the argument of a decisive break in money supply in Iceland around 1900 onwards.

VIII.5.2.3. Levels of Investments

At present, there is no comprehensive information available about investment over time in Iceland in our research period. Therefore, a few general remarks about state expenditure, infrastructure, and private investment waves will have to suffice. After Iceland received financial autonomy in internal affairs in 1874, the Icelandic Alþingi kept to a conservative policy in the expenditure of the treasury. Not until the early 1890s onwards did Alþingi shift to a relatively progressive economic policy, when it increased markedly and permanently its expenditure on infrastructure and projects or funds to stimulate advances in the economy. As happens, the fishing industry was largely bypassed in the allocation of the money, and most of it was spent on agricultural affairs. Also, the building of infrastructure that benefited trades and industries was not fast in our period. Bridges, roads, lighthouses, etc. were built but slowly. Therefore, it is safe to assume that this construction was hardly decisive for economic growth or development

of the economy although it helped. For instance, Reykjavík did not have a pier where ships could lie until 1917.⁴⁴

Understandably, private initiative in the building of infrastructure was limited and irregular over the period. Private investments no doubt were considerable in the private sector, but information about this is thin-spread and only some of the main investment waves are easily discernible. For instance, since the state supported land improvements in the countryside, and private and public sources cannot be separated by the type of improvements, they cannot be used as a measure for conceivable impact of fluctuations in money supply. Information about an important issue, housing in urban areas, is absent before 1910 so no comparison can be made there either. It really is only in the fishing branch that we have some indication of different levels of private investment. The first major investment wave in our period was in decked sailing vessels, because there was a great surge in their outfit from the 1890s into the 1900s, after a period of many decades where their number had been comparatively stable.⁴⁵ With reference to our discussion about them in Chapter VII, it seems safe to conclude that their introduction was not much related to the increased money supply in the economy from the mid 1890s onwards. The buyers of the ships were either merchants or relatively well-do-to men, originally coming from the group of rowing boat owners and coastal peasants. Merchants had access to capital abroad, and the well-to-do boat owners used different ways. Probably some had acquired enough wealth over time to buy a vessel, while other bought in partnership, sometimes with loans as well.⁴⁶ We should also note that the decked sailing vessels were very cheap in Britain in the 1890s. All in all, the

⁴⁴ Jón Helgason, *Árbækur Reykjavíkur*, 2nd ed., p 318.

⁴⁵ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 310. Magnús S. Magnússon, *Iceland in Transition*, p 271.

⁴⁶ Vilhjálmur S. Vilhjálmsson, *Sjógarpurinn og bóndinn Sigurður í Görðunum*, pp 132–8.

investments in decked vessels in the 1890s did not necessarily make heavy demands on internal supply of money, and that complies with our interpretation.

By contrast, the advent of boat engines and motor boats, besides trawling, no doubt was linked to the greater money supply in Iceland. The first engine was put in a boat in 1903 and in a few years these engines spread out remarkably fast. Soon, boats specially designed for using engines started to be built in Iceland, if they were not purchased abroad. The issue of self-financing versus public loans in the purchase of decked vessels and, especially, trawlers is an unsettled issue in Icelandic economic historiography. But there can hardly be any doubt that the comparatively inexpensive boat engines and boats, even if they grew larger over time, at least partly owed to far greater sums of money than before injected into the economy from the late 1890s onwards. Even so, there also was a pent-up demand for more efficient fishing gear on the behalf of fishermen and owners of rowing boats. As Gísli Kristjánsson and Jón Ólafur Ísberg have pointed out, when people increasingly moved to the coastal urban areas, coastal peasants had growing difficulties in manning their rowing boats. The motor boats solved this problem because they were more efficient in catching fish and required less arduous labour from the crew. Besides, whereas the outfit of decked vessels and trawlers was a large scale business and somewhat risky, and confined to relatively few places in Iceland, the motor boats provided a vent for small scale enterprise in many places around the country. Hence, its multiplier effects in the economy should not be deprecated, or its attendant ‘democratic’ distribution of revenues in the society, as in the case of herring salting.

VIII.6. Conclusions

It is evident that institutional shifts in foreign trade were very influential in the Iceland economy. This is so, even if we could not assess the economic implications of shifts in prices that were caused by institutional changes in foreign trade. Indeed, our claim rests on the understanding that the effectual start of monetisation of the economy, through the institutional novelty of cash payments in foreign trade, was the principal cause of the changes sketched in this chapter. However, there can be no doubt that inflow of money to Iceland grew at an unprecedented rate from the mid 1890s onwards and these changes coincided with that shift. Besides, inspection of the logical and empirical relations between the two processes shows that the retreat of barter and decline of consequent money scarcity in Iceland opened up the way for precisely those changes that happened in the economy and we described. Since the concurrent timing of these changes is hardly an coincidence and these processes are necessarily connected, we cannot but conclude that this start of effective monetisation of the economy was the principal cause of these changes.

Given all this, foreign trade continued to exercise its impact on the economy and did not only initiate the economic transition as we showed in the last chapter, but also propelled it onwards to the end of our research period. In turn, our analysis in this chapter and the last has revealed that the economic transition was a far more complicated process and more wide-ranging than hitherto realised in the literature. Hence, we have a richer understanding of the origins, nature, and timing of this change that transformed not only the economy but the entire Icelandic society.

Chapter IX

Iceland and the International Context:

Comparative Discussion on Foreign Trade and Economic Development

IX.1. The Historical Evidence Among Peripheral Economies in the Late 19th and Early 20th Century

IX.1.1. The Real Gains from Trade

According to the theory of gains from trade, economies could reap economic growth or development, possibly both, from engaging in international trade. But what was the actual experience of contemporary transitory economies in the late 19th and early 20th century? Was there an economic growth or development, and can it be linked to foreign trade? Concerning economic growth, there is little knowledge about this aspect, partly because of scarcity of contemporary data or information. In any case, owing to little research on this, the main trends are obscure and the literature has relatively little definite to say about this. Perhaps the most extensive comparative examination on economic growth is that by V. Bulmer-Thomas in his book about the economic history of

Latin America.¹ There he employs an indirect method, based on the expenditure method in national income accounting, to produce interesting computations on the economic growth of Latin American economies.

In his exercise, Bulmer-Thomas first determines the size of two independent variables. He decides a certain target growth rate of domestic production at 1.5% per capita per annum in 1850–1912 (same as for the USA at the time), and further assumes that the value added in the non-export sector was 0.5–1% per annum. Granting this and by using the appropriate population growth rate, and making educated guesses about the relative sizes of the export and non-export sector, he is able to compute for each country the rate of growth of exports that was needed to achieve this target GDP growth rate. Using a matrix form to narrow down the number of likely target growth rates, he comes to the conclusion that for individual countries in Latin America, the value of their exports had to grow by 3.2% to 13% per annum. Furthermore, only two countries, Argentina and Chile, achieved large enough export growth rates to sustain 1.5% growth of domestic production per annum over the period from 1850 to 1912. Remarkably, the necessary export growth rate in Latin American countries fell insignificantly even if the desirable economic growth rate (1.5% per annum) was lowered or if other adjustments were made. For instance, using volume rather than value of exports would be more just because prices of exports fell and, thus, Latin American countries in fact could achieve the desired outcome with lower export growth rates. However, the price fall amounted to perhaps 0.5% per annum according to Bulmer-Thomas, and this lowering of the growth target growth rate of exports only marginally affected the overall outcome.²

¹ V. Bulmer-Thomas, *The Economic History of Latin America*.

² V. Bulmer-Thomas, *The Economic History of Latin America*, pp 50–53, 61–4, 66–7, 137 (fn 49), 139. About Argentina and Chile, see also W.A. Lewis, *Growth and Fluctuations*, pp 197–9, and L.G. Reynolds, *Economic Growth in the Third World*, pp 85–8, 108–10.

The conclusion to draw from Bulmer-Thomas' computations is that very few Latin American economies achieved even a modest economic growth, that is, 1.5% per capita per annum or more. Furthermore, some economies possibly had negative growth and experienced a fall in domestic production, at least for shorter periods of time. Hence, their economic growth over the entire research period may have been none.

Concerning economic development and major changes in the economic structure, there is an abundant literature. However, it is not very systematic in that it differs by purposes, research or analytical methods, qualities, and extensiveness. Occasionally, it even produces conflicting conclusions. Therefore, it is difficult to discern and reproduce any definite findings and clear trends. Bulmer-Thomas has perhaps produced the most extensive survey on this in his study on the economic history of Latin America. He found that export demand could produce three patterns or models in Latin American economies, depending on the circumstances. One pattern was an additive model where 'the export sector was grafted onto the existing structure of production with very little change' in the domestic sector. Another pattern was the destructive model where 'expansion of new exports was achieved by attracting resources from existing activities ...' in the economy but the structure of the domestic sector remained largely unaltered.³ The third pattern was the transformative model in which the domestic sector was substantially affected by a pull of resources into the export sector. Markets operated more efficiently, factors received higher rewards, and technological changes were marked.⁴ Bulmer-Thomas admits that most countries showed a mixture of elements from the models, but he nevertheless finds this distinction helpful. These observations for Latin America show that the outcome in terms of economic development could be just about any, and this implies that development was very unevenly spread among peripheral

³ V. Bulmer-Thomas, *The Economic History of Latin America*, pp 83–4.

economies in the world, both by scale and nature. For instance, some of the changes that had developmental potentials were in the form of foreign enclave activities, which tended to have limited links to the domestic sector in the economy.

As happens, scholars have focused more on explaining those instances where economic development happened, than on why its absence was so widespread as it was. Economic stasis seems to have been more frequent than change, and in their search for answers, scholars have until recently concentrated more on identifying the elements initiating economic development (and growth), than on its constraints.⁵ Leaving aside the question which of the two approaches is more fruitful and suitable, I will consider the problem in a way that cuts across these boundaries. The growth and development potentials among peripheral economies were influenced by a number of elements. Circumstances in product and factor markets, both in the industrialising and the primary producing countries changed over time and influenced the type and scale of demand, as well as the supply. But it was not only the commodity lottery, as Bulmer-Thomas phrases the coincidental demand for individual exports from the periphery, that had an impact on the demand for primary products. The level of the infrastructure in peripheral countries, their external relations, and geographical location was also influential. Since all these elements can be regarded as largely external and relating to foreign trade on one hand and mainly internal and relating to factor markets on the other hand, I will briefly discuss them each in turn.

⁴ V. Bulmer-Thomas, *The Economic History of Latin America*, p 84.

⁵ J.L. Anderson, *Explaining Long-term Economic Changes*, pp 66–7, 69.

IX.1.2. Relevant External Elements: Foreign Trade and Related Preconditions

Until relatively recently it was a conventional perception among economic historians that the growth of industrialising countries in the late 19th and early 20th century generated a substantial demand for primary products (foodstuffs and raw materials) from traditional economies in the world. Furthermore, it was believed that this export stimulus was large enough to pose a challenge or an option for them to generate economic growth which, under adequate circumstances, could be turned into a development over time.⁶ It was recognised that the experience of economies stretched over a wide range from success to failure, but failure was considered owing to either lack of 'rational' economic response or adverse, internal economic, social, and political elements rather than insufficient export demand.⁷ The internal scene and factor markets will be considered later in the chapter, but the significance of foreign trade for economic growth and development will first be discussed shortly. Recent findings suggest that the stimulus for exports was not as strong as customarily believed, neither in terms of aggregate demand nor product range. The reason for this revision is that historians' conventional understanding of 19th century world trade was based more on inference and individual cases than an extensive study of third world trade statistics.⁸

The best way to measure the purchasing and income power of exports is by using income terms of trade, which multiply net barter terms of trade with the volume index of exports. However, information about the terms of trade for most peripheral

⁶ J. R. Hanson II, *Trade in Transition*, pp 4–5, 6.

⁷ B. Ingham, *Tropical Exports and Economic Development*, pp 1–8, 28–38, 88–96. W.A. Lewis, *Growth and Fluctuations*, pp 169–70, 175, 181–224.

⁸ J. R. Hanson II, *Trade in Transition*, pp 6, 10–12.

economies in my research period is lacking, and volume of exports is usually employed instead.⁹ According to a comparative statistical study by J.R. Hanson II on a number of third world economies in the 19th century, their volume of exports was on the rise but the growth rate slowed down in the second half of the century from ca 4% to ca 3% per annum. Also, export diversification was limited in the last decades of the century. Why was the demand not stronger? Hanson notes that share of Europe in third world exports fell over time, especially that of Britain, and other Western European countries did not compensate for this although they were increasing their share in these exports. In turn, trade between third world countries increased. On the basis of this, Hanson argues against the common explanation that the slowing down of growth was a result a 'depression' from the mid 1870s to ca mid 1890s. Rather, he maintains that on top of the decline in British demand, which had competitive causes owing to basic changes in the world economy, other markets were not so keen about third world products because of their rising domestic production, substitution with synthesisers, etc. In other words, the demand of the industrialising countries for primary products was on the whole slowing down because of growing production internally and new trends in their demand patterns.¹⁰

Bulmer-Thomas' findings for Latin America support Hanson's observation, because the rate of growth of Latin America's export values slowed down to 2.7% per annum in 1870–90 compared to 4.5% per annum in 1850–70, but it rose again to previous level in 1890–1912. A somewhat similar trend seems discernible in the growth rate of volume of exports for a few selected Latin American countries.¹¹ This does not

⁹ J. R. Hanson II, *Trade in Transition*, p 120. V. Bulmer-Thomas, *The Economic History of Latin America*, pp 79, 81.

¹⁰ J. R. Hanson II, *Trade in Transition*.

¹¹ V. Bulmer-Thomas, *The Economic History of Latin America*, pp 65 (Table 3.4), 441 (Table A.2.3).

contradict with Hanson's findings, because he observed a very similar trend in the rate of growth of export volumes in the third world although his periodisation was different.¹²

Given the existing export stimulus, much depended on the utilisation of this potential that was offered. Unfortunately, according to Hanson there is very little information about import patterns among peripheral economies.¹³ In these circumstances, it is practically impossible to test empirically the theoretical proposition of the semi-dynamic gains from trade where capital and service imports are clearly most important. In want of information about whether or to what extent import patterns changed, the utilisation of this potential provided with exports remains obscure. Apart from that, however, the relative size of the export sector in the economy is indicative of the significance of foreign trade in the economy. Assuming that net capital transfers and foreign investment in the form of capital goods imports were negligible, the relative size of the export sector would effectively set the upper limits for imports.

According to Hanson, Asia's export sector possibly was 1–2% of her domestic product (GDP) in 1870, while it was probably 5–6% for the United States and other European countries than the UK, France, and Germany. For the UK and France, the shares were about 16% and presumably 20% respectively. For Germany, the proportion of exports to GDP was 16% in 1880. At the turn of the century, the size of the export sector in Asia had doubled, but for the other countries and regions it had not much grown and sometimes fallen. Assuming that the relative size of the export sector in Central America was broadly as large as in South America, Hanson's and Bulmer-Thomas' estimates coincide in the same upwards trend where the export sector broadly was somewhere between 10 and 14% in 1870, and rose to about 18% in 1900 and 25%

¹² J. R. Hanson II, *Trade in Transition*, pp 14, 28 (Table 2.7).

¹³ J. R. Hanson II, *Trade in Transition*, p 134.

in 1912.¹⁴ These figures indicate that even if capital goods and important services were a high portion of the imports of Asia and most European countries, they could hardly matter much for the economy because of the small portion of foreign trade in their economies. However, in the case of Latin America relatively large imports of capital goods and services could be of substantial importance, especially after 1900.

Useful as it was to expend export revenues on imports of capital goods and services of developmental significance, a balance on trade (a trade surplus) was important for any economy. After all, foreign trade was not only means to provide goods and services, but also money income and working capital for productive purposes in the economy. As long as foreign trade was a relatively small part of the economy, this income generating potential usually could not be very significant. In any case, a sizeable trade surplus inevitably reduced the importation of important products. Again, the comparatively large exports sectors in Latin American economies seem to have provided them a larger potential than other peripheral countries in the world had. However, there seems to be little information about the relative size of their trade surplus and its allocation. Hanson briefly investigated the allocation of trade surpluses in his study, and it emerged that a little less than half of the countries had cumulative surpluses, and a small majority had in fact cumulative trade deficits. Also, the trade surpluses ranged from almost zero to almost 40% of the sum of cumulative exports. Furthermore, only some of the surpluses were actually transferred to the respective economies but repatriated instead.¹⁵ All this evidence shows that in spite of the existence of foreign trade, a trade surplus and its actual transfer into the respective economy was by no means self-evident.

¹⁴ J. R. Hanson II, *Trade in Transition*, p 23 (Table 2.5). V. Bulmer-Thomas, *The Economic History of Latin America*, p 439 (Table A.2.1).

¹⁵ J. R. Hanson II, *Trade in Transition*, pp 123–6.

IX.1.3. Relevant Internal Elements: Factor Market Observations

The efficiency of the links between the export and the domestic sector rests on a number of issues, both economic and social. With reference to the economic determinants model used in the present research, these links are affected, for example, by the location of the resource bases for export and home industries, the locational distribution of the population in the economy, the level of infrastructure, the level of technology in home industries, human capital, and social institutions such as existing social stratification and power relations that social institutions form. Even mentality can affect the links, for instance, attitude towards work and innovation. Also, shifts in demand and supply affect, among other things, income distribution, which is important for the scale and type of demand in the domestic market.

This broad approach that the economic determinants model offers is useful, but internal causes affecting economic growth and development are customarily examined in the literature on a lower, yet identical, level of abstraction, that is, with reference to markets for factors of production.¹⁶ This is natural because growth and development rest on efficient and operative factor markets. Since export production always or at least predominantly rests on the utilisation of internal or endogenous factors, the efficiency of the links from the export sector to the domestic sector depends on the operation of

¹⁶ R. Cameron uses the economic determinants model in a certain way in his *A Concise Economic History of the World* (3rd ed.). Most other authors of general economic histories, however, apply factor market approach, see books by W. Ashworth, J. Foreman-Peck, and A.G. Kenwood and A.L. Loughheed (see bibliography).

effective factor markets. Therefore, examination of factor markets is in fact a suitable way to study the efficiency of these links. It identifies obstacles and bottlenecks that deter production and may override an favourable export stimulus.

On the basis of factor market observations, there has emerged a certain interpretation of the economic history of the world in my research period, and W.A. Lewis provides perhaps the best account of it in his book, *Growth and Fluctuations, 1870–1913* (1978).¹⁷ According to him, the Extra-European world can roughly be grouped into two. Apart from Japan, which provides a special case because it industrialised much earlier than other Asian economies, the two main parts are the tropical economies and the temperate settlements. Lewis analyses the economic performance of both the tropics and the temperate settlements largely on the basis of their factors of production, and he claims that the situations in their factor markets were widely different.

The tropical economies, among other things, had a high ratio of population to 'land' and much inflow of people ready to work for low income. This tended to suppress wage levels and partly because of this, there was small incentive for labour saving methods or technology (imports of capital goods), and comparatively small capital was attracted to the tropics. The temperate settlements, on the other hand, had a low ratio of population to 'land' and much inflow of labour wanting to raise their already higher standards of living than prevailed in the tropics. This tended to push up wage levels and in turn, it stimulated mechanisation of work to save labour, which was relatively easy because of much inflow of capital, and created buoyant markets. Comparatively high living standards in turn were conducive to all kinds of imports (consumer goods, capital

¹⁷ Scholars that share this perception with Lewis include J. Foreman-Peck, and A.G. Kenwood and A.L. Loughheed, as their general economic histories show (see bibliography).

goods, and services). Compared to other temperate settlements, United States was by far most successful as indicated by their early industrialisation. However, Australia, New Zealand, Canada, Argentina and even Uruguay all experienced rapid economic changes, for example, fast rising exports, urbanisation, rise of manufacturing industries, high national income, etc., although varying by countries and over time.

The tropical countries had a very different story. Often being colonies, they underwent social and economic changes, and in spite of economic growth among some of them, it often was haphazard and structural changes negligible, denying them development in terms of improved living standards or structural change. Some of the tropical economies had fast growing exports, for example, because of mining that foreign companies started. But this economic activity usually was located in enclaves in the economy, lacking spillovers and integration with the traditional, domestic sector, which usually was much larger.¹⁸ Lewis does not deal with the periphery of Europe (including the northern parts) in his analysis, but it probably stood halfway between the two groups concerning their factor markets and with view to the timing of their industrialisation.¹⁹ With regard to social structure, the European periphery is more difficult to locate and no attempt will be made to do so here.

¹⁸ W. A. Lewis, *Growth and Fluctuations*.

¹⁹ On Southeast Europe, see, for example, I.T. Berend and G. Ránki, *Economic Development in East-Central Europe in the 19th and 20th centuries*, and C. Trebilcock, *The Industrialization of the Continental Powers*, pp 292–384.

IX.1.4. Trade and Development: Two Strands of Explanatory Frameworks

The discussion of the experiences of economies towards the export stimulus of industrialising countries has been slightly sketchy and tentative. However, it shows that although the outcomes stretched over a wide range, certain regularities have been observed in the literature, especially on the basis of the factor market approach. As to the relative importance of foreign trade, which is largely influenced by external circumstances, and factor markets, which are predominantly moulded by internal elements, a certain suggestion has been made. Evidently, trade was no panacea for economic growth or development, and Hanson claims in his study that third world export performance was more influenced by supply conditions than demand conditions. Also, Bulmer-Thomas found that there was not a lack of export demand and stressed the importance of hindrances in domestic linkages (in factor markets) in utilising the export stimulus. Granted that Hanson's and Bulmer-Thomas' notions stand up scrutiny, they imply that internal circumstances were more important than the trade stimulus.

Although the historiography has produced this suggestion and, in any case, moved towards a more balanced perception of both internal and external elements, there is not a consensus in this field. The numerous examples of economies gaining little from trade for longer or shorter periods of time since the 19th century, and also before that time, have prompted broadly two different schools of explanations among scholars and politically oriented writers. One set is that dependence on primary exports is bound to produce meagre results in the long run. The lines of argument vary, and one is that dependence on a single or few commodities is risky because of fluctuating demand and alternative sources for these commodities in other countries. This is especially likely

where the exports sector is large, because then fluctuations in international commodity markets are more consequential for the respective economy. Another argument is that because of relatively huge price fluctuations in primary products, export revenues are much affected and, thereby, chances of importing goods and services necessary for starting and sustaining economic development are reduced. A third argument is that static gains from trade will in fact work against primary product countries because the initial comparative advantages are self-perpetuating and will remain the same. Enclaves and examples of backwash effects are said to be cases in point. Fourth, there is the doctrine of unequal exchange which is based on the contention that the theory of comparative advantages is fundamentally incorrect. Finally, there is the terms of trade argument that supposes ever-declining terms of trade for primary producers because the industrialised countries are bound to gain the upper hand in their exchange with less developed countries.²⁰

The other school of explanations focuses on internal circumstances and tries to identify the problems in carrying over the possible benefits of trade to other sectors in the economy.²¹ The internal circumstances are often examined on the basis of factor markets to observe structural hindrances in the employment of the factors of production. Even so, the links between the export sector and the domestic sector are conveniently examined within this approach because both sectors are dependent on the same factor markets. Furthermore, the economic impact or significance of foreign trade can also be examined in empirical way — devoid of the pessimism and determinism inherent in the school above — by scrutiny of the issues that semi-dynamic gains from trade highlight.

²⁰ A.G. Kenwood and A.L. Lougheed, *The Growth of the International Economy*, 3rd ed., p 132. J.S. Hogendorn, *Economic Development*, pp 337ff. T.J. Barnes, 'staples theory,' p 590.

²¹ A.G. Kenwood and A.L. Lougheed, *The Growth of the International Economy*, 3rd ed., p 132.

In any case, the first set of explanations deals with the operation of the world economy and the general effects of international trade on individual economies in a somewhat deterministic and pessimistic way, while the second set takes the international context as given and tries to locate the impact of trade, for what it was, on the respective economy and explain how and why it influenced the economy, for good or worse, in this particular way. In my view, the insight that the first school offers is blocked by its pessimism and determinism, and this is mainly caused by scholarly onesidedness and political convictions of its exponents than the perspective as such. Therefore, if the international context would be investigated in a more analytical and critical way, one set of explanations would by no means preclude the other. Instead, they should be thought of as necessary complementary explanatory frameworks. However, scholars usually employ only either one of the two, and since the purpose of the thesis is more concerned with the latter set of questions and explanations, its theoretical and empirical base has been in focus in the discussion above.

Concerning my initial point of departure in this present chapter — the empirical relation between trade and economic development — the literature has little to say. Extensive comparative research seems to be lacking on the significance of static, dynamic, and semi-dynamic gains from trade as sources of economic development.²² However, it is safe to conclude from my discussion that economic development depended on a host of other elements in the economy than shifts in relative prices of exports and imports, the level of utilisation of economic resources, or imports of consumer goods, capitals goods, and services. Lewis' analysis suggests that levels and distribution of income, circumstances in factor markets, and international movements of capital and

²² Dynamic gains from trade have perhaps mainly been examined by H. Myint (see B. Ingham, *Economics and Development*, p 127 and J.S. Hogendorn, *Economic Development*, p 334). However, concerning semi-dynamic gains from trade, J.R. Hanson II in *Trade in Transition*, remarks that there is no survey on the imports of third world countries (p 134).

labour mattered no less. Furthermore, Lewis stresses the importance of social structures in understanding divergent paths when 'economic' variables are identical.²³ The findings by Hanson and Bulmer-Thomas broadly support this also.

These observations are backed up in general by a series of studies by I. Adelman and C.T. Morris since the 1960s. Through statistical analyses of a host of social and economic variables, they have tried to identify correlation between seemingly strategic factors for economic growth and development. Since they have been searching for statistical correlation rather than location of causal relationships, they have not been able to provide general answers to the questions *why* development starts and *what* are the decisive factors in its process. Rather, they have managed to demonstrate that institutions are significantly more important than purely economic factors for growth and development. Furthermore, they have demonstrated that suitable institutional framework is only a prerequisite but not a sufficient condition, because favourable economic circumstances and stimulus is also needed.²⁴ Hence, it is safe to conclude that relevant as trade is to economic development in theory, the empirical evidence suggests that the causal relationship is a whole complex of economic and social factors and elements, both internal to economies and in their external relations, that must be studied simultaneously.

²³ W. A. Lewis, *Growth and Fluctuations*, for instance, pp 31, 165, 166–7, 176, 195–6.

²⁴ See B. Ingham, *Economics and Development*, pp 36–7, 92–6.

IX.2. The Icelandic Case

IX.2.1. Iceland's Gains from Trade in Terms of Economic Growth and Development

As I remarked in Chapter I, it is clear that Iceland underwent economic development in the research period, mainly with the advent of mechanisation in the fishing sector shortly after 1900 although a progressive step was taken after 1887 with the rise of decked sailing vessels in the fishing fleet. This leaves us with the question of economic growth, which admittedly is outside the scope of the thesis. However, the matter is pertinent for the discussion about the gains from trade among other peripheral economies in the world, and it is in fact a relevant introduction to the central theme of the thesis, the economic development of Iceland and the role of foreign trade. According to newly constructed national income accounts, Iceland's economic growth at constant prices was 1.7% per annum per capita between 1870 and 1913, which is slightly more than the benchmark that Bulmer-Thomas used for Latin America 1850–1912 and he based on the economic growth of the US.²⁵ However, the economic growth of Iceland fluctuated over time and three sub-period can be discerned. The first era, from 1870 to 1881, was marked by considerable expansion, because the growth was 2.2% using the same measure. Then, years of contraction followed and economic growth was equally as negative as it had been positive before (-2.2% per annum). After 1887 and through 1913, economic growth

²⁵ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, p 370.

was considerable again. Over this sub-period, it was 2.4% per annum, but it was slower initially (2% until 1899) and then rose markedly (2.7% until 1913).²⁶

These approximations of Iceland's gross domestic production over time are very important not only in terms of the estimates of the levels of economic growth but also because of the vast source material that has been exploited and basic computations that now have been forwarded for historical analysis. Nevertheless, the series are an approximation of the actual domestic production, and the quality of the results inevitably depends on one hand on the accuracy and extensiveness of the sources and on the other hand on various estimates that have been necessary for the construction of the national income accounts. With regard to gross domestic production in the import trade and quantities of exports, the present research has produced more reliable data on imports and exports than was exploited for the construction of the national income accounts. According to the new datasets used in the present research, exports are always under-estimated (usually by 10–20% by value) and imports are under-estimated initially (by about 25% by value) but over time the level of the under-estimate declines and in 1913 imports are in fact slightly over-estimated (by about 5% by value).²⁷ Evidently, the quantities that are lacking in the trade data used for the construction of the national income accounts affect the new estimates of the levels of domestic production. However, a calculation of the difference this makes and a production of new estimates of the domestic production will not be attempted here for a variety of reasons. Rather, the purpose of this observation is to remark that if only for this reason, the new series about the economic growth of Iceland is by no means conclusive.

²⁶ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, pp 155 (tafla 15.1), 157.

²⁷ See Fig. A.1 in Appendix A.

IX.2.2. Foreign Trade and Related Preconditions in Iceland

It is safe to say that in international comparison, Iceland's foreign trade supplied a considerable capacity for delivering imports and income in the form of a trade surplus. Between 1870 and 1913 the volume of total exports per capita grew at 2.8% per annum. Incidentally, however, in contrast to the findings of Hanson and Bulmer-Thomas for peripheral economies around the world, the growth rate for Iceland was much faster until the mid 1890s than after this point of time. But since Iceland's net barter terms of trade export concurrently started to rise significantly, the purchasing power of exports in fact remained unaltered. This is indicated by Iceland's income terms of trade, the most suitable measure for the purchasing power of exports, because it rose just as much as the volume of exports (by 2.9% per capita per annum) between 1870 and 1913.²⁸ From the scanty information available about income terms of trade among peripheral economies, it appears that Iceland was uniquely well disposed in this respect.²⁹

Clearly, a considerable developmental potential for the economy was provided by foreign trade, but how was it used? Rising imports in SITC groups 6–8 both in absolute and relative terms suggest that this potential was increasingly used from 1870 onwards. A part of the imports was consumer goods, and the datasets (and the sources) are aggregated in such a way that distinction between manufactured consumer goods and capital goods is sometimes unclear. But the trade data implicitly indicates that the share of capital goods increased, and imports of the largest capital goods (ships) are lacking in

²⁸ Table C.BAL/ALL-3.

²⁹ V. Bulmer-Thomas, *The Economic History of Latin America*, p 81.

my datasets, as I explain in Appendix 1, so they were in fact greater than the my trade data indicates. Consequently, there was a clear shift in capital imports from the early 1900s onwards, when imports of important capital goods such as trawlers and boat engines commenced.. Given this, imports clearly were used to provide the Icelandic economy with capital goods, although this opportunity was perhaps relatively modestly used until after 1900.

Iceland's rate of growth of volume of exports trade was on a similar level as among other peripheral economies, but what about the relative importance of foreign trade in the economy? According to the new national income accounts, the exports were 24% in 1870 and 41% in 1913.³⁰ Although this share fluctuated over time and the new trade data produced in the present research may alter this outcome, it indicates well the secular rise in the relative importance of the export sector in the economy. With reference to my discussion about the relative size of the exports sector among peripheral economies above, a share of this size was comparatively large in international comparison, but this is to be expected since Iceland was a very small country. This large exports sector meant that foreign trade necessarily influenced very much the Icelandic economy, and although it had a modest growth of volume of exports in international comparison, its income terms of trade imply that Iceland had unusually good opportunity to benefit from foreign trade. We know nothing about service imports (see the semi-dynamic gains from trade argument), but its imports of capital goods clearly were of considerable significance for the economy. Compared to countries with relatively small exports sectors, they were much more important and this adds to their historical significance in terms of Iceland's economic history.

³⁰ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, p 384.

Concerning the income generating potential of Iceland's exports, Iceland was rather badly disposed as my discussion about the storage of the trade surplus indicates (Chapter VI). However, it is unlikely that Iceland was unique in this respect, and Hanson's discussion about the trade surplus of peripheral countries and its allocation suggests that it usually was exported to a varying extent. Lack of information prevents me from forwarding any suggestion about the usefulness about Iceland's almost perennial trade surplus, but it possibly was paid out in cash to some extent after 1900. Even so, it is safe to say that Iceland for most of the research period did not benefit much from its trade surplus, so the usefulness of exports was mainly confined to imports of products.

IX.2.3. Comments on Iceland's Factor Markets

If we consider the circumstances over time in Iceland's factor markets and their relative scarcities, it seems obvious that we must divide the research period into two. Until about 1890, Iceland was scarce in terrestrial land and money capital relative to the supply of labour. The emigration from Iceland in fact outright proves the relative scarcity of land to labour, and almost constant complaints about money shortage indicate the same relative scarcity. From about 1890 onwards, however, the constraints from the supply of terrestrial land relative to the demand was solved by exploiting off-shore land, that is, the fishing ground off Iceland. Furthermore, the acute money shortage probably was largely eliminated by the flow of money from various new sources from the late 1890s onwards. It seems that effective money market was formed with the rise in the number of savings

funds, and, especially, with the operation of two commercial banks and relenting of foreign capital. Overall, these changes imply that the initial conspicuous relative scarcities disappeared, and that much more effective factor markets were established.

It is clear that the initial situation in Iceland's factor markets was unlike both that of the temperate settlements and tropical countries. The relatively scarcity of the temperate settlements was in labour (population) to land (and capital), and this attracted labour to them. The scarcity of the tropical countries, however, was mainly in capital to labour (and land), but they did not attract very much capital since the population to land relatives were so unfavourable, according to W.A. Lewis. It appears that Iceland was much more like other European peripheral regions, which tended to be scarce in land and capital to labour, and this caused emigration from these regions just as in Iceland. But whereas most of them were fenced off by other countries, Iceland could overcome its lack of land by exploiting an off-terrestrial resource, the sea. This step, however, was not taken with very productive outcome until about 1890, and with the rising net inflow of money later on, Iceland's relative scarcities in factor markets became very similar to those in the temperate settlements. They had favourable man to 'land' ratio, that is, abundant natural resources for utilisation relative to its populations, and so did Iceland when its greatest natural resource, the fishing banks, started to be efficiently utilised. Furthermore, it seems that the similarities between Iceland and the temperate settlements in terms of the capital factor are greater than between Iceland and the tropical countries. The temperate settlements almost certainly had greater capital relative to its labour, but Iceland after 1900 and presumably the other European peripheries were in a similar situation as Iceland concerning capital.

Given this, it is safe to conclude that Iceland had the potential of overcoming its natural resource ('land') factor already in 1870, but social institutions, not least the

institutional framework of foreign trade, prevented the economy from exploiting this potential. From the point of view of Iceland's developmental potentials, this particular factor abundance, although masked initially, was a decisive advantage, because it was an immobile factor while the other two main factors of production, labour and capital were mobile, and their scarcities could be overcome once social constraints were removed. These constraints seem to have been present in the factor markets of 'land' and money, but essentially they were only in the money market. With reference to my general description of the Icelandic economy around 1870 (in Chapter II) and the findings of the thesis, it seems safe to suggest that the principal constraints to the economy were in the market for money capital. After all, it was only with the advent of the fresh fish trade and the employment of new technologies in the cod fishing that the existing stasis in the economy was broken. Hence, legal constraints in the market for labour (the labour bondage) were not among the most serious ones, as Icelandic scholars have often claimed. Whether we consent with Björn S. Stefánsson that the labour bondage in effect did not obstruct the growth of fishing and urban areas, or that it was a barrier to such development and people simply started to disobey the law in the last decades of 19th century, the outcome is the same. When the demand for urban labour grew and greater capital was put in the fishing in the late 1880s onwards, the labour bondage law, which was not legally abolished until 1894, was made irrelevant anyway, and this suggests that it never was a barrier to urbanisation and the growth in the fishing sector. In any case, it was practically irrelevant compared to the net drain of money from Iceland in upholding the economic stasis, as in fact my interpretation of Guðmundur Hálfðanarson's findings in Chapter I had implied.

IX.2.4. Trade and Development in Iceland

Overall, foreign trade was very advantageous for Iceland in my research period, and in international comparison it probably was unusually beneficial for the economy. The export sector clearly was comparatively very large, net barter terms of trade seem to have moved more favourably than for many economies, and Iceland possibly had larger capital imports than other countries. My comments on Iceland's factor markets indicates, however, that all of this was of little use as long as the institutional complex that comprised the economy and its external relations around 1870 persisted. According to my understanding, most detrimental of all for the development of economy's industries was the net capital outflow, and this did not change until merchants started to invest in the fishing sector. It emerged in Chapter VIII that this was an indirect consequence of a shift in market conditions (the fall in the prices of saltfish), and as such it qualifies as a result of foreign trade.

This observation may seem to run counter to Hanson's and Bulmer-Thomas' inference that for most peripheral economies internal elements mattered more than the trade stimulus. But it does not, because they were only speaking of the relative impact of these two sources of impact on the export performance of the respective economies, and I am speaking about another aspect, namely development. Note that it seems evident that Iceland's export performance was mainly a function of internal circumstances than the trade stimulus. But in terms of the economic development of Iceland, it seems equally clear that the economic stasis was only broken with developments within the realm of foreign trade. As I tried to show in Chapters VII and VIII, a major change in the economy was initiated with the advent of the fresh fish trade and the start of

unprecedented amounts of capital investments in the fishing sector. Later, the monetisation of the economy followed. These events were caused by changes in foreign markets and shifts in the institutional framework of foreign trade.

The usefulness of Bulmer-Thomas' findings about the three possible types of export sectors in Latin American economies can be disputed, but it is relevant to consider them in relation to Iceland. In fact, it seems that the three models broadly describe the evolution of the Iceland economy. If the initial situation around 1870 is considered as the benchmark, the first significant change, the live sheep trade, was integrated into the economy without any change in its structure, and this is an example of the additive model. With the start of the fresh fish trade and the rise of the operation of decked fishing vessels, economic sources were drawn to a considerable extent from previous occupation. It is debatable whether this change presented an example of the destructive model or the transformative model, but the latter definitely is a proper description of the economy after the monetisation had begun.

IX.3. Major Historical Patterns Relevant for Iceland

IX.3.1. Iceland: A Colony?

The principal conclusion from my discussion about the Icelandic economy in terms of its factor markets was that certain barriers in the capital market had been decisive for the initial economic stasis in my research period. This situation was an outcome of a power

imbalance in Iceland's external relations and pertained to its foreign trade. Merchants had assumed the position where Iceland's trade surplus was stored and used as cheap working capital for merchants abroad. Furthermore, they refrained from paying exports in money and, moreover, sucked out money capital that came into Iceland by accepting money in return for imports. This conspicuous and highly detrimental power imbalance for the development of the economy deserves examination, but this matter can only be tentatively discussed here.

If this power imbalance in the case of Iceland's external relations is viewed in international perspective, imperialism and colonialism immediately come to consideration. Occasionally, Icelandic historians have remarked that Iceland was a colony in the early modern period, that is from the 17th to the 19th century.³¹ Also, Icelandic communists in the early 20th century frequently spoke of alleged colonial position of Iceland in past centuries.³² But the origin of this idea among communists is unclear to me, and how they supported this notion has not been examined to my knowledge. By contrast, other historians have either purposely or by custom and under the influence of Danish term '*biland*' rejected the idea, and Iceland usually is called a dependency (Icel. *hjálanda*) in Icelandic historiography.³³ Anyway, it is evident from these contrasting views that the question of Iceland as a colony is an interesting and unsettled issue in Icelandic historiography. With reference to the stasis of the economy until the late 1880s, we may ponder whether the colony perspective can aid us in understanding the economy. It is outside the scope of the thesis to explore this idea in any detail but it is relevant to our discussion about stasis, if not stagnation, and

³¹ Björn Sigfússon, comp., *Neistar*, p 188 footnote. Jón Ólafur Ísberg, *Milestones in Icelandic History*, p 35.

³² J.F. Horrabin, *Lönd og ríki*, p 157. Since the author did not include Iceland in his text, a section on Iceland was added to the Icelandic edition by the publisher, cf. p 8.

transition in the economy and their respective causes. Hence, I will briefly discuss the colony idea to deepen our understanding of the different phases from stasis to the realisation of development potentials.

First, a definition of the term colony is in order. For the sake of clarity, some scholars wish to distinguish between (a) expansion of capitalism, (b) imperialism, and (c) colonialism. The first is simply a spread of the capitalist method of production and voluntary (at least not coercive) adoption of it within societies. However, imperialism is confined to an informal kind of dominance over other regions while colonialism entails formal dominance.³⁴ This definition requires two remarks. First, note that neither informal imperialism nor colonialism (formal imperialism) is necessarily linked to capitalism, cf. ancient times. Second, much as it is convenient to have a specific term for informal imperialism, it means that we are in want of a common term for both formal and informal imperialism. Not surprisingly, many scholars use colonialism and imperialism interchangeably but try to eschew the polemical flavour of the latter. In our discussion, colonialism and informal imperialism will be referred to as two components of imperialism proper. Concerning the content of the definition, the term ‘dominance’ implies that informal imperialism and colonialism are marked by unequal relations of power which usually cover economic, political, social, and cultural aspects. In economic sense, this relationship predominantly consists of one-way transfers of goods (and services), rather than proper exchange.³⁵ The kernel of this relationship surely is what

³³ Guðmundur Jónsson, ‘The State and the Icelandic Economy,’ p 2. Guðmundur Hálfðanarson, ‘Íslensk þjóðfélagsþróun,’ p 30.

³⁴ A. Porter, *European Imperialism*, p 10, cf. pp 2–3, 12.

³⁵ K.E. Boulding, ‘Introduction’ to *Economic Imperialism: A Book of Readings*, p xi–xii. A.H. Amsden, ‘imperialism,’ pp 728–9. G.E. S[mith], ‘imperialism,’ pp 274–5. — A.H. Amsden adamantly stresses the importance of power relations in defining imperialism, see her ‘imperialism,’ pp 731–3. See also M. W[atts], ‘colonialism,’ p 75; R.J. J[ohnston], ‘power,’ pp 469–71.

K.E. Boulding called “‘a threat-submission’ system’ which is legitimised and not necessarily legalised, when he spoke of imperialism proper.³⁶ Defining imperialism in this way, it usually was practised directly and formally (i.e., as colonialism) by European powers from at least 1500 onwards, but it changed nature over time. It started with downright plunder and later moved to a mercantilist phase that centred on trade. It was followed in the 18th century by the penetration of industrial capital and production, which intensified in late 19th century in a scramble for colonies that was based more on ethnocentrism in various disguise rather than economical reasons.³⁷

According to the terminology above, Iceland clearly was a colony because Denmark exercised an explicit formal dominance over Iceland from at least 1662 when Iceland was subsumed in the monarchy and ancient rights given up. Moreover, before that time, Denmark had *de facto* for a considerable time ruled Iceland.³⁸ For a long time, the governance of Iceland in the early modern period was marked by the mercantilist phase of imperialism.³⁹ This is because trade rather than investment for production was its hallmark, and the Icelandic economy was wholly untouched by penetration of ‘home’ (Danish) or foreign capital until the late 19th century. When Danish subjects were granted monopoly to the Iceland trade, in the 17th century, the locus of Iceland’s foreign trade shifted from being internally based and was moved to Copenhagen where it remained until 1900. The Danish king even contracted out his revenues from Iceland for a while to powerful men in Denmark. Both practices were in the spirit of feudal times, although the mercantile system also was an step towards modern state operation. In a

³⁶ K.E. Boulding, ‘Introduction’ to *Economic Imperialism: A Book of Readings*, p x.

³⁷ M. W[atts], ‘colonialism,’ pp 75–7. H. Magdoff, ‘Imperialism,’ 13–19. R. Cameron, *A Concise Economic History of the World*, 3rd ed., pp 92–4, 99–106, 120–29. G.V. Scammell, *The First Imperial Age*.

³⁸ Magnús Hauksson, ‘Einveldisskuldbindingin 1662,’ pp 76–8, 80.

³⁹ A useful discussion of the different expressions of mercantilism (or ‘economic nationalism’) is in R. Cameron’s *A Concise Economic History of the World*, 3rd ed., pp 130–62.

word, the general management of Iceland, both in internal and external affairs, in as late as the 19th century witnesses an enduring mercantilist policy (Chapter II).

The position of Iceland as a colony becomes clearer still if we look at developments in the late 19th century. The projects that were initiated by foreign enterprises in Iceland, mostly in the field of herring fishing and whaling, signified Iceland's first contact with the growing integration of the world economy and increasing penetration of foreign enterprises in traditional, peripheral societies. For our context here, they meant the first penetration of industrial capital in Iceland. When merchants started putting capital in fishing after 1886, it signified a major turn in the policy of Danish towards Iceland because these investments were the first ones of 'home' (Danish) capital in Iceland. In turn, it meant the entrance of merchant capital in the Iceland economy. But in spite of the significance of this step regarding sustainability, among other things, the impact on the Iceland economy was, nevertheless, somewhat restricted. This was because the three main factors of production were tied to merchants and the fourth factor, entrepreneurship, necessarily was embodied in themselves. Land was owned by merchants, they were the owners of capital (or supplied it in Denmark), and labour was tied to them through the truck system, which was all-pervasive in urban areas where merchants were about the only employers. The concentration of all the factors of production in one and the same group, on top of the impact of bookkeeping barter, gave them extraordinary powerful position to influence the Iceland economy. How they used this power depended on the respective persons, but the economic outcome was the same, namely a restricted economic development, expatriation of profits (capital), and excessive concentration of power which blocked other groups in society to challenge their hegemony.

If Iceland ever was a capitalist colony, then it was in this phase from 1886 to the early or mid 1900s. This phase was characterised by capitalist production and Danish

monopolistic exploitation of Iceland at the same time so the term colony is truly apt for Iceland during this time. But since it was done with Danish merchant capital, this arrangement only meant an extension of the era of Danish imperialism in Iceland. Evidently, this phase was relatively not very long in its pure form, because after 1900 the hegemony of merchants was challenged with the impact of monetisation and the penetration of industrial (and banking) capital from Denmark and other countries. In other words, this phase was the era of non-merchant capital in Iceland, breaking the stronghold of merchants in the economy. Unlike the foreign enterprises in late 19th century, the foreign investments in this era did not form enclaves or operated on the boarder of the economy because it entailed the use of domestic factors of production and co-ownership with Icelanders. With the waxing of monetisation and foreign capital in Iceland, the waning of Danish economic subjugation of Iceland set in.

As it happens, since the beginning of the 20th century, imperialism has often been associated with the rise of capitalism, and the prime example has usually been the late 19th century scramble for colonies. This has mainly been the stance of marxists, but other scholars, for instance, K.E. Boulding, D.K. Fieldhouse, and D.S. Landes, have increasingly disputed this and argued that imperialism and capitalist are two distinct phenomena.⁴⁰ Evidently, our discussion above refutes marxist claims. Furthermore, J.A. Schumpeter has relevance for our argument because he maintained that imperialism was, in the words of K.E. Boulding and T. Mukerjee, 'a product of pre-capitalist ideas. It was an alliance between a small group of highly selfish capitalists [sic] and the members of a small group of people who retained a feudal outlook.'⁴¹ Incidentally, this broadly

⁴⁰ See extracts from their writings in K.E. Boulding and T. Mukerjee, eds, *Economic Imperialism: A Book of Readings*.

⁴¹ K.E. Boulding and T. Mukerjee, eds, *Economic Imperialism: A Book of Readings*, p 34. Cf. J.A. Schumpeter, 'On Imperialism,' pp 58–9.

coincides with the Icelandic experience according to our interpretation above. In conclusion, the term colony is certainly apposite for Iceland in the early modern period and long into our research period. Furthermore, our tentative discussion has demonstrated that Iceland experienced different phases of imperialist policy at some time or another.

The fact that there are many resemblances between colonies in different parts of the world and Iceland further supports my notion that Iceland was a colony, at least economically. Understandably, the other *de facto* colonies of Denmark (the Faroes, Greenland, and Danish West Indies) received similar treatment as Iceland. But it is slightly remarkable that mercantilist policies of Spain and Portugal in their colonies in Latin America seem to have been similar to those used for Iceland.⁴² Furthermore, Iceland does not appear to have been the only colony in as late as 19th century to have been governed in mercantilist ways, because India is claimed to have been treated similarly until 1870.⁴³ In fact, S. Amin maintains that some African colonies were 'trade or trading post economies' with indigenous ruling class and peasant production, and this also suggests resemblance with Iceland.⁴⁴ In all the cases, the locus of the foreign trade of the countries in question almost certainly was external, in the formal empires, as in Iceland. To be sure, this no doubt also was the case where a peripheral country was a part of informal empire in the 19th century.

⁴² V. Bulmer-Thomas, *The Economic History of Latin America*, pp 22–7.

⁴³ R. Robinson and R. Gallagher, 'The Imperialism of Free Trade.' Brought to my attention by A.H. Amsden, 'imperialism,' p 729.

⁴⁴ S. Amin, *Unequal Development*. Cited in M. W[atts], 'colonialism,' p 76.

IX.3.2. Dualism and Enclave Activities

When Iceland is examined from international perspective, the issue of enclave activities calls for attention. Incidentally, the enclaves that existed in Iceland have not been put in this international context, and, therefore, many question concerning them have not been answered. For instance, were they beneficial or detrimental for the development of the economy? Did they support or challenge the hegemony of Danish merchants in Iceland? What was their significance in relation to Iceland's money market? These questions will be touched on below and provisionally answers offered.

Sometimes, the dual economy model or the idea of dualism is used to describe a situation or a certain stage in the transition from a traditional to a modern society. Implicitly, transition means that basically two elements are operating in the society, one traditional and the other modern. What dualism adds to this understanding is that the two elements are only marginally integrated owing to some social, political, or economic hindrances. In fact, the idea can apply to almost every aspect in society, including economic activities, spatial location, technology, subsistence versus market production, financing, etc. Often, dualism is confined to economic activity and discussed in terms of a two sector model, and used to explain the transfer of labour from the agricultural sector to urban based industrial sector. The model is usually presented as a stylised, neoclassical model, and it is common in textbooks in development economics, but that is where its relevance starts and ends because it has been found problematic in real-life circumstances.⁴⁵ However, the general idea of a dualism is a useful concept, albeit

⁴⁵ R. L[ee], 'dual economy,' pp 140–43. D. Colman and F. Nixon, *Economics of Change*, 3rd ed., pp 35–42. B. Ingham, *Economics and Development*, pp 109–20. M.P. Todaro, *Economic Development*, 6th ed., pp 75–80, 84–5.

simple.⁴⁶ Furthermore, its application to economic activity can be illuminating if it is not put into a neoclassical straitjacket.⁴⁷ For instance, M. Santos, appears to have proffered a sensible and constructive analytical framework of a dual economy, which is basically composed of a lower circuit with traditional activities and a upper circuit where modern activities operate, although there are also relations between the two circuits.⁴⁸ Without going into details, we can add that in dual economies, the modern element is confined to spatial enclave activities where new products or new technology is used, but without much impact on the overall economy which continues its traditional course. The reasons for lack of impact can be many, for instance, use of external factors. But even if factors are partly endogenous, linkages tend to be small and the modern economic activity has negligible multiplier effects. Not surprisingly, enclave activities have often received a bad press in the development literature and development debate.⁴⁹ The reason for this is not only that enclaves almost by definition feed comparatively little back into the economy.⁵⁰ The reproach is no less caused by great expectations that nation leaders and policy advisers tended to have for the new manufacturing activities as a path-breaker for modernisation, generating strong linkages and large multiplying effects. When the modern element failed to deliver all this, it was condemned.

⁴⁶ Some criticise dualism for expressing European ethnocentrism (R. L[ee], 'dual economy,' pp 140–43), but that is a political reading of it, which does not alter the fact that the idea is sometimes useful.

⁴⁷ A classic example is H. Myint, quoted by B. Ingham, *Economics and Development*, p 119, and B. Ingham, *Tropical Exports*.

⁴⁸ M. Santos, *The Shared Space*. Cited in R. L[ee], 'dual economy,' pp 141–2.

⁴⁹ J.S. Hogendorn, *Economic Development*, pp 339–43. M. Gillis et al., *Economics of Development*, 4th ed., p 475. M.P. Todaro, *Economic Development*, 6th ed., p 446–7. H.W. Singer and J.A. Ansari, *Rich and Poor Countries*, 4th ed., p 293.

⁵⁰ Even if we can subscribe to Hogendorn's view (*Economic Development*, p 342) that enclave activities were important in the economic development of Japan, the United States, Canada and Britain, they can hardly be regarded as enclaves as time passed and in contrast to 'standard' enclaves, they had relatively strong linkages and multiplying effects.

Reflecting on dualism in the Icelandic economy, particularly Santos' framework, it is safe to conclude that it is not a relevant idea or a meaningful one in Icelandic context. In spite of explicit enclaves in the form of foreign enterprises which were geared towards exports, at least two reasons can be identified why they did not produce dualism in Iceland. First, the enclaves almost certainly constituted a very small part of aggregate economic activity in Iceland, and they, furthermore, only partly used Icelandic factors and imported themselves their inputs and goods for consumption. This was bound to minimise their overall impact on the economy. Second, even though enclave activities were located on the coast, rather than inland, they were spread along the coast in many places. Furthermore, they were situated in those parts of the country where the staple urban industry, cod fishing and saltfish processing, only started to grow in the 1880s onwards and remained on a smaller scale than elsewhere.⁵¹ Hence, they in a way balanced the huge growth of the saltfish industry in the other parts of the country. In turn, they often generated a base for a rise of urban areas in their respective districts, and there they implicitly and explicitly were conducive for indigenous activities in fishing, including herring fishing. Note that although a disparity emerged between urban and rural areas, it was not caused by enclave activities but by the overall rise of urban based marine utilisation at the expense of agriculture in terms of work force.

On balance, the foreign-owned enclave activities in Iceland have gone down in Icelandic history with a good name. This is in contrast to many countries and begs an explanation. Above, we touched upon one reason, that is, stimulating effects on the economy in districts where saltfish industry was non-existent or on a small scale. Earlier in the thesis, we discussed another reason, namely money which the enterprises paid as factor rewards in Iceland. Two additional reasons will be advanced here. One is that the

⁵¹ See maps of saltfish production by places from 1873/75 to 1893/95 in Valdimar Unnar

revenues generated by the enclave activities were like a bonus or lottery winning. They were uncontrollable like good catches or favourable weather for farming, and appreciated as such. In other words, Icelanders had no expectations whatsoever over the foreign enterprises so they could not 'fail' in any respect. The other reason is less obvious but no doubt a part of the explanation. Here I am referring to various beneficial impact on Icelandic society broadly speaking. The foreign enterprises often improved infrastructure for their own advantage but this was useful for others too, at least in the long run. Even more important was the significance of new technology and new ideas they brought to Iceland, besides the example they set for energetic Icelanders.⁵² For instance, Icelanders were introduced to machines in the herring stations, and the first mechanical workshops in Iceland were usually formed by men having acquired their skills or basic knowledge there.⁵³ Ironically, the foreign entrepreneurs even taught Icelanders to catch herring, which was of considerable economic significance after 1900. We can also list social and cultural influences on Icelandic society, and they should not be deprecated. Finally, there were fiscal linkages because the foreign enterprises increased revenues of the Icelandic treasury through their exports. To be sure, Iceland only was a base to make profits for the foreign enterprises, which often trespassed the law, and it was claimed that the morals of their work people were not particularly good at times. Nevertheless, the overall impact of foreign enclave activities on the economy itself were no doubt far more beneficial than detrimental. In any case, Icelanders had no

Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar*, vol. 1, pp 174–5.

⁵² In the case of whaling, this point is discussed in Trausti Einarsson, *Hvalveiðar á Íslandi*. The relevance of new ideas in general for economic development is lucidly briefed in J.S. Hogendorn, *Economic Development*, p 336.

⁵³ Learning by doing and learning by using is always important in economic activity (cf., for instance, G.N. von Tunzelmann, *Technology and Industrial Progress*, pp 38, 73, 117–19), but it becomes even more important when formal education or vocational training is missing as in the case of Iceland at the time.

expectations towards the foreign enterprises, and it seems safe to conclude that Icelanders felt on balance that their gains were larger than the disadvantages.

Chapter X

Foreign Trade and the Icelandic Economy:

Conclusions and Implications

X.1. Interpretation of the Findings

X.1.1. The Economic Transition: A Historiographical and

Methodological Note

The contrasts in the current perception of the economic transformation and my interpretation of it are significant. Given the historical importance of the subject, the contrasts deserve some consideration, and there is a double reason to spend a few words on them here. First, a discussion of the sources of the current understanding among historians not only explains its emergence but also underscores more clearly the methodological difference between the present research and past historiography. Second, in consequence of this difference a few methodological caveats must, however, be made to avoid misunderstanding of my stance.

To a certain extent, the divergence between the two interpretations stems from the new findings in the present thesis. For instance, there has no specific explanation in the literature for the arrival of merchants into fishing in the late 1880s onwards, as I

noted in Chapter I. Even if historians knew that merchants had advantages of the fresh fish trade and this indirectly led a number of them to start operating decked sailing vessels, that did not explain the timing of this sudden interest. Also, the rise in investment in fishing (decked sailing vessels, motor boats, and trawlers) has long been considered as being the primary explanation for the division of labour in the economy, urbanisation, and spread of market economy.¹ In the light of our findings, this is a misleading and most unsatisfactory understanding of the nature and the causes of the economic transition. Of course, these instances are just classic examples of the advancement of knowledge when new perspectives are applied or new information is discovered, because they inevitably alter previous perceptions among scholars. But the reasons for this advance in knowledge is telling in terms of the present research topic. Note that some of my individual observations are reproduced from the existing literature, and, furthermore, my original observations are mainly based on readily accessible printed primary sources and not on any obscure archival material as my Bibliography shows. The main reason for the divergence between the current view and my interpretation lies in the novelty of the research method, which reveals two kinds of oversight among Icelandic historians and they have little to do with the new findings forwarded here.

As happens, Icelandic historiography has laid much stress on the importance of technical advancements in the fishing industry. In retrospect, the emphasis on the fishing industry as the basis of Iceland's industrialisation is natural, and this will in fact been supported more firmly later in the present chapter with reference to sustainability. But the overemphasis on technological progress and mechanisation in this process has blocked historians' view, from whichever stand they have written. For instance, in

¹ 'Félagsleg verkaskipting, hröð þéttbýlisþróun og útbreiðsla markaðshagkerfis hélst í takt við

Magnús' view the importance of the period between 1880 and 1905 lies in the merchant capital that was put in the fishing (capitalist modes of production starting) and in the formation of wage labour (proletariat) when people gradually withdrew from farming to urban activities by the coast. In other words, the focus is on those who owned or supplied capital in fishing and how labour was integrated in capitalist modes of production. This view necessarily ignores the overall economic and social relations of labour, the mass of people, and misses the form and nature of the remuneration of labour. As my findings show, the start of retreat of the truck system and of the bookkeeping barter was of utmost importance for the people involved, and this is a vital link in understanding the overall context of the economic transition. To sum up, it is shifts in people's economic and social relations *in toto* which provide the key to the modernising element in the Icelandic transformation, not changes in technology. The origins of this belief in the all-importance of mechanisation in the transformatory process are not evident, but it probably owes partly to the importance of machines in general for processes of industrialisation in the past. Possibly, this stance can also be traced to the common belief among influential mid 20th century contemporaries in enterprising initiatives and capital investments, rather than institutional frameworks, as the principal source of economic prosperity.

The other misconception that has blocked historians' view concerns the nationalistic outlook, which still haunts Icelandic historiography. In the early 20th century, a particular, nationalistic interpretation of history asserted itself among scholars and public alike. The history of Iceland was perceived as a series of eras that shifted with changes in the constitutional status of Iceland — running from an independent, free state in the early middle ages through a union with Norwegian and, later, Danish kings,

hraðar þjóðfélagsbreytingar, ekki síst í krafti sjávarútvegs sem leiðandi atvinnuvegar.' Magnús S. Magnússon, 'Innreið nútímans,' p 361.

reaching is lowest ebb in a dependency or colonial status within the Danish kingdom, but rising again as Iceland step by step gained more political freedom and increased constitutional rights from the mid 19th century onwards, finally reaching its climax in an independent republic in 1944.² Thus, historians and other scholars tended to favour a periodisation based on constitutional and political perceptions. After all, periodisation is meant to serve the purpose of expressing historians' perception of vital shifts in history — the social structure as Magnús S. Magnússon correctly notes.³ Partly because of the nationalistic tendencies in the historiography, much stress has been laid on endogenous rather than exogenous sources of motion in Iceland's history, especially if they can be linked with the rise of Icelandic nationalism and indigenous initiative.

The nationalistic understanding of history has been waning for the past decades, but its periodisation tends to persist although it does not always coincide with historians' interpretation of what was taking place elsewhere in Icelandic society. The reason for this persistence is that a few events, supposedly having economic implications, coincide with the political periodisation. In my research period the year of 1904 (and, more broadly, the mid 1900s), besides interchangeably 1871 and 1874, have become effectively canonised in historical writings. Apart from the Home Rule in 1904, which often is linked to the concurrent growth of the economy, the most important ones include the opening of the Íslandsbanki in 1904, the arrival of the first steam trawler in 1905, and the laying of the telegraphic cable in 1906.⁴ As the historical analysis in the present research witnesses, none of these events seem to be among the most decisive ones for the economic development of Iceland — at least when they are compared with the impact of

² Ingi Sigurðsson, *Íslenzk sagnfræði*, ch. VIII. Gunnar Karlsson, *Hvarstæða*, pp 32–3. Guðmundur Hálfðanarson, 'Takmörkun giftinga,' p 457.

³ Magnús S. Magnússon, 'Innreið nútímans,' p 359.

⁴ For example, in the view of Magnús S. Magnússon all these events excluding the cable constitute the reasons for his break around 1905. See his 'Innreið nútímans,' p 362.

monetisation. The Home Rule was in fact a relatively small step forwards constitutionally or politically, and it appears that the system shift was of minor economic importance. The Íslandsbanki almost certainly was not as important for the generation of capital as often assumed. Also, the first steam trawler in 1905 was so small it only could fish inshore, and the next trawler (which could fish in ocean banks) only came in 1907. Besides, several attempts had been made with sailing trawlers before 1905 so this year is not so significant in the history of fishing. Similarly, the cable presumably was not of such importance for business in Iceland as often alleged. To sum up, the fundamental shifts in the economic history of Iceland and in the economic transition were neither in the mid 1900s nor around 1880. Incidentally, this conclusion coincides with Guðmundur Jónsson's findings that the 1890s form a break in the rate of Iceland's economic growth and his interpretation that Iceland's industrialisation, as he puts it, started in this decade.⁵ Although there is no inherent or necessary direct causal relationship between economic growth and economic development, these findings give support to the claim that, to paraphrase S.B. Saul, the sooner the customary artificial, nationalistic shifts in Iceland's history are banished from the literature, the better.⁶

In spite of my criticism and the fact that my understanding of the economic transition is radically different from the present one, it does not mean that I am rejecting historical materialism, or any other approach, as an analytical tool. I am only saying that in the case of historical materialism it is unsatisfactory as an overall explanatory framework for the economic transition of Iceland, and this is something that Magnús S. Magnússon might even concede to. To explain this further, I should add that in my view historical reality cannot be encompassed within a single one-dimensional or linear

⁵ Guðmundur Jónsson, *Hagvöxtur og iðnvæðing*, pp 170–72.

⁶ S.B. Saul, *The Myth of the Great Depression*, p 55.

account. Any account is based on a selection of approaches or research methods, limited range of sources, and certain way of presentation. It is a simplification of a multi-dimensional process that, moreover, spans over time. Given this, one approach is equally valid in itself as the other, because each approach looks at the process from a certain angle, dealing with certain elements and teasing out certain facets, while leaving out other elements and facets. Therefore, employment and comparison of competing perspectives in the academic community is much more fertile and productive in analytical terms than choice of a single research method on which the researches bestowes all-importance.⁷

With reference to this basic historical methodology, I consider my particular viewpoint just one way of looking at the economic transformation of Iceland, and it misses, partly or altogether, issues and aspects that other viewpoints catch. For instance, it cannot analyse the formation of wage labour in the same way as historical materialism. On the other hand, historical materialism is open to the criticism of developmentalism which treats historical processes indigenously, i.e., as autonomous units and sometimes following the same sequence of stages.⁸ Note that this is not a dispute of one viewpoint being 'correct' and other being 'wrong' in some absolute sense. Rather, the point is that historical research is about explaining the past and choosing that or those viewpoints that explain the problem at hand in the most satisfactory way. In this context, it is useful to quote J.L. Anderson when he remarked: 'A model is neither 'right' nor 'wrong', except in the rigour of its logic, the accuracy of its facts, and the realism of its assumptions. Assessment should focus on the extensiveness of the model and on its explanatory

⁷ A similar stance is taken by G.N. von Tunzelmann in his *Technology and Industrial Progress*, p 421, and by H.D. Evans in his *Comparative Advantage and Growth*, pp 311–12.

⁸ P.J. T[aylor], 'developmentalism,' pp 130–31. — Note that developmentalism does not preclude the use of the linkages approach, see J. Sender and S. Smith, *The Development of Capitalism in Africa*.

power.⁹ To be sure, current understanding of the transformation among Icelandic historians has not been wrong or false, for historical interpretation is always correct from its point of view. Also, my understanding is not more logical or realistic in its assumptions. Rather, the difference lies in the extensiveness and explanatory power of the viewpoints for the problem at hand, namely the economic transition of Iceland.

For instance, current viewpoint cannot or does not explain the timing of (a) merchants' engagement into fishing (with decked sailing vessels), and (b) the trawler outfit and the arrival of motor boats. Also, current viewpoint leaves out some of the aspects of the economic transition and cannot integrate them into its framework (bookkeeping barter and truck system), besides ignoring external influences on the economy. Although I have omitted many issues, especially concerning agriculture, my interpretation (viewpoint) does a better job in terms of extensiveness and explanatory power. Therefore, I am bound to conclude that my research method can produce a fuller and richer understanding of the nature and the origin of the economic transition than the prevalent line of inquiry.¹⁰ Furthermore, it appears that my overall interpretation qualifies as a 'general theory of the causal relationship in that great economic transformation' of Iceland, that Guðmundur Jónsson calls for in a recent survey of the existing Icelandic economic history literature.¹¹ In any case, my interpretation offers a more convincing overall explanatory framework than hitherto forwarded. However, it has to be emphasised that my research method has no pretensions of explaining the economic transition *in toto*. Like any other method or a general theory, it can only explain so much and other aspects, such as social issues and the quality of life, have to be dealt

⁹ J.L. Anderson, *Explaining Long-term Economic Changes*, p 69, cf. pp 4–5.

¹⁰ Here, we define theory as a statement of a causal relationship between observed variables. Model, however, is built on an abstraction of reality or variables that the model purports are related so their causal relationship can be tested with theories or theories generated on the basis of the outcome. Hence, theory and model may coincide, at least partly, as in our case.

with in different ways and at the same time in a interdisciplinary manner. Furthermore, while later research probably will change in some ways individual conclusions of the thesis, I believe that the overall interpretation is more likely to stand further scrutiny.

X.1.2. Entrance of Merchants in the Fishing Sector:

Termination of the Crisis in Utilisation of Economic Resources

In my view, the findings of the present research have comparatively wide-ranging implications for the historical analysis of Icelandic history, and this applies not only to the years between 1870 and 1914, but also for the times before and after this period. Only some of these implications can be outlined here and, furthermore, in a broad way. Concerning the research period itself, there are several aspects or perspectives that immediately command attention, and one is how the Icelandic economy escaped from its stagnation that prevailed in 1870. Evidently, the historical importance of this achievement is great, but it also reveals a more fundamental significance of the economic transformation than my previous discussion has managed to portray. The transformation was not merely a shift from traditional to modern ways of living, and it did not only generate a rise in standards of living and in the quality of living, all of which are topics that I will shortly comment on later in the chapter. The transformation literally enabled the economy to escape from a man-made ecological crisis that had emerged around 1870. As I perceive it, this escape happened in two separate stages, quite unrelated,

¹¹ Guðmundur Jónsson, 'Sagnaritun um hagsögu,' p 180.

although both had their origins in shifts in foreign trade. The first stage was a shift of economic resources from farming to fishing, and the second stage was a shift in the net inflow of money to Iceland.

With reference to the general crisis in the farming sector around 1870 (see Chapter II), it seems plausible to claim that Iceland experienced in fact an ecological crisis at the time. By this I mean that the present population could not sustain the same living standards (and quality of life) as before within the framework of former social practices and previous ways of utilising the land. Rising population put an ever increasing pressure on the ecosystem and this had to lead to deteriorating standards of living and quality of life. Such a situation had emerged around 1870, but Iceland temporarily escaped the full consequences of this crisis with mass emigration in the 1870s onwards. However, this outlet was only a temporary solution to the problem, and the emigration only masked the problem. New ways were needed to sustain a population over the existing level, and a permanent solution was at hand, because Icelandic waters could support far greater population if the economy was given the opportunity to implement more efficient ways to harvest them. In my judgement, the lack of capital was the main cause for this unfortunate situation because money shortage blocked investments in technological improvements. Therefore, the involvement of merchants in the fishing sector (the fresh fish trade and the merchants' operation of decked vessels) provided the initial solution to Iceland's ecological crisis. This is because the technological level in the fishing sector moved up one step with greater fishing effort on decked sailing vessels, and it is noteworthy that the social structure did not block transfers of people into this growing industry, as the growth of coastal urban areas in the late 19th century onwards witnesses. Furthermore, it is noteworthy that shortly after (in the mid 1890s onwards), the population began to rise again.

Although the advent of the fresh fish trade and entrance of merchants into operation of fishing ships meant the start of an important reallocation of economic sources and a move towards a more sustainable economy, a second and perhaps more decisive step was taken in the 1900s with the advent of steam trawlers and motor boats. Both presented advancements in technology, and precisely because of their different sizes and power, their impact in the fishing sector was all the more pervasive. This is because the motor boats were suitable for small scale fishing and entrepreneurs with relatively small means, but the trawlers suited large scale fishing and those with access to greater capital. Therefore, the motor boats very much replaced the open rowing boats and the trawlers competed with the decked sailing vessels. This step firmly shifted economic resources towards fishing, presented a decisive break with the farming sector, and put the fishing sector as the leading sector of the economy.

The discussion in Chapter II touched on a long-term deterioration — stretching over centuries — not only in natural circumstances but also in human society (for instance, loss of practical knowledge and fall in technological level). In the long run, Icelanders had supported themselves with rapacious instead of sustainable ways of living. What seems obvious, therefore, is that with greater fishing effort towards the end of the 19th century onwards, the pressure on terrestrial land was eased and the walk along rapacious ways of living reverted. Granted that this is a plausible conclusion, then merchants' fishing outfit signified an important long-term achievement in terms of survival and livelihood prospects in Iceland.

X.1.3. The Start of Monetisation: Modernisation of the Icelandic Economy Initiated

The second stage in the escape from stagnation lay in shift from perennial money shortage in Iceland, mainly caused by merchants, to an ample supply of money. The relevance of this shift for the escape from economic stagnation lay in the fact that merchants' drain of money from Iceland caused an acute shortage of working capital in the economy. Note that this was found being one of the stagnant forces in 1870. However, it was concluded in Chapter VIII that there happened a significant long-term rise in the net inflow of money in the late 1890s onwards, and the sources were several. Rewards to Icelandic factors of production became far greater than before, mainly because of growing Norwegian enterprise in Iceland. The use of hard cash in general trading started, most significantly by and at the initiative of the Edinborg firm. The spread of cash payments in foreign trade meant that a growing part of Iceland's trade surplus was not stored (or exported) anymore but injected into the economy. Also, relenting of foreign credit emerged as a significant new source in the capital market in Iceland with the arrival of the Íslandsbanki in 1904.

All this meant that the economy's demand for money could be satisfactorily met, and this had huge impact on the economy as Chapter VIII shows. The more fundamental significance of this shift, however, was that the economy escaped from the stagnant trap that the capital shortage caused. The money could now be put into productive uses in the economy, for instance, to expand its infrastructure, improve housing, start new industries, increase consumption, all of which is outlined in Chapter VIII. The importance of this shift in money supply in Iceland becomes more evident if one thinks back to the situation in the early and mid 1890s. Then, merchants certainly had started to

allocate their resources into fishing, but the money shortage prevailed and they continued to export trade surpluses and profits abroad. In other words, in the absence of adequate money supply in Iceland, the economy would have moved more into fishing but it would have been unable to expand its infrastructure, improve housing, start new industries, etc., except to the extent that the relatively tightly concentrated merchant elite in Copenhagen would have given room for. Therefore, it was concluded in the discussion about the different phases of imperialism proper in Iceland in Chapter IX that investment of merchant capital in the fishing sector offered Icelandic society a very restricted development potential and certainly not modernisation in its full sense, thereby including not only structural changes in the economy but also higher living standards and better quality of life. Given the institutional framework of foreign trade, the early and mid 1890s situation could only be improved with the introduction of new sources of capital, outside the control of merchants, or with new practices in foreign trade such as those the Edinborg firm started. With reference to these arguments, I am bound to conclude that the rise in net inflow of money to Iceland was equally as important as the shift of economic resources into the fishing sector in helping the Icelandic economy to escape from its economic stagnation.

X.1.4. The Social and Welfare Implications of the Transformation: A Sketch

So far, only economic aspects of the transformation of Icelandic society have been examined. Evidently, however, it had pervasive and profound implications for social

relations of people, standards of living, quality of life, and Icelandic culture in many ways. Saving for cultural impact, these implications will be taken for consideration and tentatively sketched to underscore that the economic changes had substantial impact on social and welfare matters.

In Chapter III, I defined economic development as more than a change in economic structure, because the real test of economic development is whether it allows greater living standards and a higher quality of life. Clearly, the effects of the bookkeeping barter were oppressive for people economically and socially, but they effected rather different groups in society. The bookkeeping barter came mainly down on those who had products to sell, especially peasants, and deprived them of potential capital (money). By contrast, the truck system prevented those who had nothing to sell but their labour to take full advantage of their income, so the system came down hard on propertyless people. But in both cases, people was denied much freedom, because they were forced to exchange their products or labour for goods at their merchant's shop, whatever terms he offered. Therefore, the retreat of the bookkeeping barter and the truck system through spread of money payments meant a huge extension of people's freedom. People could not only distribute their money between savings, investments, and consumption of domestic goods and services, and adapt this to their changing requirements when they wanted, but they were also free to buy their imports where they wanted. Hence, cash payments were no less an issue of living standards (and quality of life) than a macroeconomic progress.

The spread of money payments was of particular importance for urban people, who were not any longer forced to do their business with their employer. Also, it offered men and women opportunities to build homes and have families instead of stay single and serve peasants until their thirties or so. It offered large numbers of women greater

opportunities than ever to earn money and allocate them according to their own preferences. Also, cash payments no doubt gave wage earning wives more independence in marriage, and allowed women to postpone marriage temporarily or stay single and yet live a better life than in the countryside. These facts in turn enhance our understanding of the pull effects of urban areas, especially those where money payments were most common. It also helps us to understand why people (not least women) endured there deplorable working conditions and amounts of work, by modern standards. People were given a choice of a new urban livelihood with its distinctive restrictions and oppression, and they voted with their feet.

The start of monetisation also gave entrepreneurs from all walks of life chances to try out their luck and the introduction of motor boats is a point in case. As it drew into the late 1900s, more money were being circulated in the economy, and many had gained experience and knowledge of the new situation, larger scale projects and firms were started by entrepreneurs. The arrival of entrepreneurs outside the group of merchants was important too in the sense that it helped to balance the hegemony of merchants in the urban areas. Before the monetisation started, merchants were by far the most powerful men in their places, because they usually were the only and certainly the largest employers, and they provided people with their subsistence goods and means of income (products). As a result of the spread of cash payments and entrance of newcomers in the business community, power relations were shifted in such a way that the dominance of the Danish merchants in urban affairs, small and large, was effectively eroded.

It is evident that in many respects, not only standards of living but also quality of life rose with the start of the monetisation and attendant changes. However, this also entailed economic and social costs. The traditional barter exchange between inland peasants and coastal people declined and practically disappeared, much to the dismay of

many (but to the advantage of merchants). Peasants did not get labourers unless paying higher wages than before, and this was detrimental for the farming, it was said. Some felt that good, traditional ways of life were abandoned for urban trivialities and money making. Morals, it was claimed, were low among some in the urban places, such as disregard for law, drunkenness, dishonesty in business, etc. Also, the new industries, not least the herring fishing and the whaling, confronted Icelanders with a waste of resources and money, besides pollution, that offended them. Frugality and complete utilisation of materials, owing to poverty (and parsimony), among other things, almost certainly declined. All of this is difficult to estimate now, since we do not know how people themselves perceived the changes in terms of their own lives.

As Björn S. Stefánsson has pointed out in his writings about the labour bondage, there were some mutual duties between people who worked as domestic labourers and their master, the head of the household. For instance, the master had to supply food and clothes, if it was not a part of the wages, and if the work people fell ill the master had to take minimum care of their health, without deducting it from their wages in any way. However, people was under the management of their master, and they had to work as much as the master required, and the master was free to charge them with whatever works he wanted, wherever he saw fit. By contrast, when merchants hired people to work in the fish curing (largely women), it usually was piece work, even at the premises of the merchant. Hence, people had to supply clothes and food, and they had to work long hours with only a few and short breaks. Usually, they worked outside whatever the weather was. In case of illness, people was without income, and they or their family had to take care of themselves. During winter, work was only occasional and incomes tended to be irregular. However, outside working hours, people was free to allocate their own time without the interference of their employer.

These remarks are intended to show that I do not take a Panglossian view to the economic transition, because the fact remains that it did not mean costless or unambiguous improvements for everybody in Iceland, whether they lived in the countryside or in the urban areas by the coast. Just as in the traditional society, interests conflicted also in the urban areas but along other lines. Therefore, a net assessment of the pros and cons is impossible. But even if we can quantify more easily changes in people's standards of living than their quality of life, a treatment of the quality of life clearly is equally as important.

X.1.5. The Relevance of the Findings for Earlier and Later Periods of Time

In my judgement, the findings in the thesis have considerable implications for historical research outside the period under study. Starting with the period before 1870, the findings concerning sustainability, which was a very pressing matter in the economy around 1870, reiterate more forcefully the need for a proper study of this aspect in Icelandic history. When was vegetation eradicated with ensuing restrictions on livelihood in the country, and what were the most influential factors in that process? Is it linked to a seemingly general regression in technology, practical knowledge, and cultivation in Iceland over the centuries? What about the role of foreign trade in this process? This entails not only an examination of natural conditions over time, but also of social structure, foreign trade, and the causal relationship between internal and external factors. To be sure, the matter has been commented on before in the Icelandic economic history

literature, but it has not been examined seriously with view to the long-term development of the economy.¹²

Furthermore, some of earlier conclusions relating to the era of ‘classical’ monopoly trade, 1602–1787, need readjusting. For instance, it has been claimed as a fact that merely an energetic and far more lively foreign trade was needed to break the vicious cycle of economic stagnation in Iceland, step out of the poverty caused by small returns in farming, and exploit the riches of the sea.¹³ In whichever way these words are understood, they are not correct because more energetic foreign trade was of limited use in terms of true development of the economy as my discussion about the phase of merchant capital in the colonial history of Iceland shows. Instead, my findings indicate that only a demolition of the age old bookkeeping barter, which upheld merchants’ monopoly of capital among other things, and a release of labour from the urban truck system was capable of truly advancing the Iceland economy and, in particular, raising living standards and quality of life. Furthermore, the economic drain caused by merchants’ exports of profits and the storage of trade surplus, insofar as there was a surplus, had to be reverted. In other words, expansion in scale was useless, because only through a radical reorganisation of the institutional structure of foreign trade could any positive change in terms of economic development take place.

Also, the stress on indigenous elements in upholding the vicious cycle of inequality, poverty, low technology, conservatism, risk aversion, etc. tends in my view to obscure and underestimate the primordial cause of it, namely the detrimental impact of the foreign trade monopoly system and, more generally, of the colonial policy of

¹² Gísli Gunnarsson, *Upp er boðið Ísaland*, pp 15–17, 250–68.

¹³ ‘Sú staðreynd er eigi að siður óhöggðuð, að aðeins kraftmikil utanríkisverslun gat rofið vítahring efnahagslegrar stöðnunar á Íslandi; aðeins stórefling utanríkisverslunar skapaði Íslendingum möguleika að brjótast út úr þeirri fátækt, sem lítill jarðargróði hafði skapað þeim.

Denmark towards Iceland. This is not to deny that evaluation of the relative importance of internal versus external factors rests on the research questions that are asked, the research methods that are used, and the sources utilised. However, although my viewpoint is perhaps more externally located than in the most recent and authoritative work on the 'classical' monopoly trade era, my criticism seems to be valid and apply to this work.¹⁴ Note also that the linking of internal social forces to the alleged dismal state of affairs in Iceland in the early modern period was a new and intriguing idea in the 1980s, and it was a long needed counterbalance against the nationalistic historiography which blamed the Danes for everything that went wrong. However, it seems necessary to go over the matter again to increase our understanding of the complex causal relationship between internal and external elements over time. In that re-examination, the colony idea discussed in Chapter IX is bound to come to investigation, which no doubt could be fertilised greatly with a comparative study of other colonies in the early modern period. In any case, historians studying Iceland's history at this time cannot any longer shun Iceland's colonial past, if they are to produce rigorous and up-to-date studies of the period.

Apart from the 17th and 18th centuries, the findings also have a bearing to historians' understanding of Iceland's economic history in the early 19th century. For example, the findings suggest more definite explanations than before for the economic stagnation of Iceland. Since fish owners and fishing boat owners in Iceland received practically no cash from merchants for their products, they consequently had no means

Þá fyrst var mögulegt að nýta hin miklu auðæfi hafsins umhverfis landið í ríkum mæli.' Gísli Gunnarsson, *Upp er boðið Ísaland*, pp 17.

¹⁴ This is Gísli Gunnarsson's *Upp er boðið Ísaland*, which borrows heavily from the ideas of Karl Polanyi although it also draws on marxist ideology, among other sources. Incidentally, there is no explicit exposition of research questions and no theoretical disposition either in the original thesis or the Icelandic translation (see his *Monopoly Trade* and *Upp er boðið Ísaland*). Hence, its ideological and methodological positioning can be disputed.

to build decked vessels in Iceland or buy them from abroad. True, drift timber of suitable quality and type could be and was used, but it was a commodity that was relatively scarce and it was costly anyway to build large ships. As for merchants, who could have entered the fishing sector earlier than they did, they were mostly of Danish birth and origin and considered Iceland only as a hinterland to trade with and make secure profits. Hence, they did not find it feasible to risk their money in hazardous ocean fishing on banks that very few Icelanders knew about anyway since they only could go a relatively short distance from land in their rowing boats. True, French fishermen flocked to Icelandic waters on decked vessels to fish, but that was too remote for Danish entrepreneurship. If we omit decked vessels that were used in shark fishing, which was a lucrative business in its heydays, it seems that relatively few vessels were operated for cod fishing. Furthermore, those men that did so were nearly always a) merchants (not coastal peasants), b) of Icelandic nationality, c) living in Iceland, and d) in regions where cod landings were substantial.¹⁵ Naturally, very few eligible persons were left to meet all the conditions, and the outcome was a tiny and irregular outfit of vessels on cod fishing. In effect, the economic situation during most of the 19th century witnessed a kind of stalemate where status quo was the only logical outcome.

Concerning the following decades after our research period, especially until about 1940 when the occupation of Iceland radically altered economic conditions, there is much to say. For instance, most Icelandic capitalist (businessmen) and firms took over from the Danish merchants the truck system and the bookkeeping barter.¹⁶ But the long-drawn-out shift from the bookkeeping barter and truck systems to cash payments in the first half of 20th century appears not to be prominent in Icelandic labour history. Have

¹⁵ Gils Guðmundsson, *Skútuöldin*, 2nd ed., vol. 1–2.

¹⁶ Jón Guðnason, 'Greiðsla verkkaups í peningum.'

historians not overlooked the relevance of these practices, not only in terms of the welfare of common people, but for the economy at large?¹⁷ It seems to me that their persistence forms a vital link, among others, in explaining the huge gap that existed between the Icelandic labour class and the upper classes, their conflicts in the economic and political sphere, the growth of the communist movement in Iceland, and other matters.

This oversight among Icelandic historians in their study of early 20th century also has an ideological or intellectual aspect, besides being a historiographical issue. Almost certainly this oversight can be linked to nationalist tendencies and the social and scholarly background of those historians that have reproduced Icelandic history. If so, this instance would reveal a certain discourse within Icelandic historiography and be a prime example of how 'repressions and power relations ... underlie scientific claims to truth rather than reproduce them.'¹⁸ Given the rise of postmodernism in Icelandic scholarship, it is noteworthy, however, that the discussion about Icelandic nationalism has very much focused on the birth of national conscience in Iceland and how this idea was used to consolidate the Icelandic people into a single force against Danish rule and for an independent nation state. True, it has been pointed out how this idea implicitly ignored internal friction and tensions between social groups, and how nationalist history used to exalt the unity of Icelandic people in past centuries. But it has much less been considered how nationalism has influenced scholars' interpretation of Iceland's 20th century history and to what extent it has blurred the perception of lay and learned of their contemporary history. The oversight among historians concerning the importance of

¹⁷ The only exception is Jón Guðnason in his article on the truck system ('Greiðsla verkkaups í peningum').

¹⁸ D. G[regory], 'discourse,' p 136. G. P[ratt], 'poststructuralism (including deconstruction),' p 468 (quotation).

the two oppressive systems discussed seems to be a point in case of the inevitable misconceptions. In any case, my findings suggest that there is a need for a critical analysis of 20th century Icelandic historiography, broadly based on the key concepts of poststructuralism or postmodern method. Such examination would also be an intriguing contribution to the ideological, intellectual, and cultural history of Iceland in the 20th century.

X.2. Methodological Remarks

It is fair to say that the research method employed in the thesis was partly an experiment, which was successful and yielded results far beyond what I expected initially. True, Hirschman's linkages approach has been used by some scholars, although their application of the approach has varied. And the staples theory has been tested relatively widely in the economic history literature. But it appears that the two constructs have relatively seldom been tested in a synthesised way on historical evidence, although M.H. Watkins demonstrated this theoretical potential as early as 1963.

The successful application of the research method is partly due to the seamless compatibility of the general linkages approach and the economic determinants models that was derived from of the staples theory. But it owes more to the economic determinants models, simple as it is. Note that the linkage approach is an innovative way to study the interplay between production (supply) and consumption (demand). But it turned out that very few changes in the economy could be captured with the linkages

approaches. This is no defect of the approach. Rather, the initial state of the economy, the nature of changes over time, and the analytical level used in the present research all meant that this was bound to be so. Being concerned not only with product flows but also with static institutional and organisational aspects of the economy, I needed a research method to analyse them. Since a host of shifts in the economy happened in the institutional complex and the economic determinants model was highly useful for the analysis of these shifts, it turned out that of my two basic research tools it was more useful.

In the light of my experience, it is my conviction that the two methodological constructs provide powerful tools in economic history analysis, when the focus is not only on the interaction between production and consumption but also on static organisational and institutional aspects. Also, the linkages approach offers a rather novel way to study external relations of an economy, for instance, leakages, although this was not done here. Furthermore, the economic determinants model neatly solves a certain methodological problem in the kind of economic history research where social institutions are analysed too. Instead of leaving the social context cut off from the economic context, the tool conveniently have a place for it within their formal frameworks. Through consumption linkages, social relations are linked to the overall linkages approach, and there the social context can be approached alternatively as entrepreneurial factor or as institutional factor, depending on how deep the researcher wants to go into its source. In other words, social context can be viewed on two levels, one economic and the other social, like the other components of the consumption linkages. This is a crude sociology and it is bound to be so, because this issue is only a small part of our synthesised research method and economic history is not properly equipped to analyse sociological issues. However, economic history has to be informed

by social theory and possess awareness of social context so it can analyse and interpret response to economic variables not only from material perspective but also social perspective. I have tried not to neglect this aspect in my research.

The usefulness of the economic determinants model also was felt in my discussion about factor markets. As happens, factor market analysis has a propensity to gloss over the implications of purely social elements, such as power relations, for economic growth and development. Clearly, one of the reasons for this is that social elements can be very difficult to quantify. However, they cannot be dismissed without distorting historical analysis, and the economic determinants model is of some help in this respect as my application of it for Iceland showed (Chapters VII and VIII). Also, elements such as infrastructure does not fit very easily into the capital component of the factor market analysis, and the economic determinants model is useful as a supplementary tool to the factor market approach. Clearly, examination of factor markets does not produce perfect results, but it has yielded valuable insights into some of the main trends in the history of world economies, and its usefulness in comparative research is substantial.

The choice of sources and their exploitation formed a part of the overall research methodology, no less than the research tools. Similarly to application of the synthesised research tools, my utilisation of the sources does not appear to have many parallels, and this calls for a few evaluative comments. To be sure, trade statistics have and are widely used in economic history research, but it appears that they have seldom been used in the way I did. First, the choice of basic sources was rather unusual, because trade statistics of Iceland were only a complementary source, and the bulk of the material came from the statistics of the countries trading with Iceland. The task of harmonising many and different trade statistics from this time was fraught with difficulties. However, this

clearly is manageable, and the datasets provided an opportunity for much more rigorous analysis than the Icelandic source alone would ever have offered. Second, the use of Icelandic trade statistics along with the foreign statistics provided a unique opportunity to compare price levels, which is impossible using only one set of trade statistics as is usually done. Overall, therefore, both these practices can be recommended if the state of source material is similar to that in the Iceland case.

X.3. Further Research

It seems that the present thesis has to a considerable extent recast the research agenda for the transformation of Icelandic society in the late 19th and early 20th century. This is because the overall context in my interpretation is relatively different from the present perception of historians. Although it has incorporated findings and insights from other scholars, the conclusions suggest a reorientation in the study of the nature and origins of this influential shift in the history of Iceland. Nevertheless, when the main findings and conclusions of the thesis are reviewed, it is obvious that there is much need for further research, and they might well alter some of my findings and conclusions. We need more information and knowledge not only about the economy but almost every aspect of Icelandic society in the research period to increase our understanding of its transformation. In the hope that a sketch of my proposed research agenda will prove helpful in encouraging further research among scholars, and to point out how important and interesting these topics are, a few words will be spent on this.

On the most basic level, in the field of trade data, a number of things await to be worked on. Although relatively large datasets were built up and they proved very helpful in my examination, they need to be improved (see introductory text in Appendix A). The trade series partly rest on estimates, sometimes they present minimum quantities and values, and they have lacunas and anomalies that all need to be addressed if the trade data is to be used in any detail, for instance, in small scale studies in Icelandic context. This applies especially to data for the trade with Britain and, less importantly, with Norway. However, as an indicator of the approximate quantities of the trade flows, their general composition, Iceland's trading partners, price trends, etc., the trade data in the new datasets is a comparatively reliable source and free of the limitations of the Icelandic trade data. Concerning the implications of the trade data, however, it is of some importance to know to what extent the new datasets affect the newly constructed national income accounts, because exports and imports are underestimated in them (see Appendix A). For instance, given the apparently pervasive and profound impact of the start of the monetisation, one might expect that economic growth accelerated faster from about 1900 onwards than the accounts suggest.

Most of the important research questions raised in the thesis relate to Iceland's foreign trade, which has been sadly neglected, and its links to the economy. Apart from reiterating the need for examination of a few topics already identified in the literature, the thesis has located a number of new complications and issues that have never been considered and need to be cleared up. Given the long-term historical importance of the two principal conclusions of the thesis, that is, the shift to sustainable ways of living and the start of the modernisation of Icelandic society, they clearly need much further research. First, the state of the economy in terms of sustainability around 1870 has to be examined properly. How serious was the situation by different measures? Is it reasonable

to believe that this the first time Iceland experienced such ecological crisis? Was this crisis realised as such or merely as the latest example of hardships by the administration in Iceland and high authorities in Copenhagen? To what extent was the mass emigration from Iceland a reaction of this economic situation? Who owned the decked fishing vessels from the time they started to increase in number (the significance of merchants versus coastal peasants)? To what extent did the fresh fish trade and the operation of decked fishing vessels ease the crisis? What was the relative importance of the fresh fish trade versus merchants' operation of fishing vessels in easing this situation?

Equally important questions can be asked about the significance of the money shortage. Is it possible to forward an estimate of the total money inflow to Iceland over time by its sources and its types (goods versus factor rewards)? Is it possible to approximate how much money was exported from Iceland over time as (a) factor rewards, including trade and business profits, and payments for imports of services, and (b) payments for ship provisions (mainly coal) abroad? How large a share of the trade surplus over time was paid out in hard cash and how much was stored or 'frozen' by merchants? Did the stored surplus carry interest? Does the net inflow of money to Iceland around 1870 support my conclusion that it caused a very serious barrier to the development of the Iceland economy at the time? What were the broad levels of net money inflow of Iceland over time? Does the outcome support my conclusion that there was a huge rise in the net inflow from the late 1890s onwards? What advantage did merchants gain with the issue of token money, how large was this coinage relative to valid official currencies in Iceland, and how does it relate to the monetisation of the economy?

My tentative conclusions concerning the different phases of imperialism in Iceland, which ended with the start of modernisation, also require a scrutiny. In terms of

the research period, the era of merchant capital that started with the entrance of merchants into the fishing sector is perhaps most interesting. Although it was relatively short, it caused a significant reallocation of economic sources (mainly labour and capital), and it had considerable social and welfare implications. These issues require proper examination and there remains a number of questions that was not possible to answer in the present research. For instance, would closer examination suggest anything that would significantly challenge my claim that the entrance of merchants into the fishing sector offered the economy actually very limited developmental potentials? Also, several issues regarding this shift need clarification, such as the impact on production and consumption patterns in Iceland, patterns of traditional barter, the substitutive role of imports for domestic production, and urbanisation versus emigration. Furthermore, how and in what ways were people's standards of living and quality of life affected with new urban employment, both in the countryside and by the coast?

My claim about the modernisation of Icelandic society throws up a host of intriguing questions about its timing, process, and implications, both in terms of individuals and classes as well as the overall economy. For instance, since that the start of effective monetisation, which initiated the modernisation process, probably is fluid, is it possible to link the beginning of modernisation with any particular point of time? What was the role of Íslandsbanki in the monetisation? Given that cash payments eroded the hegemony of Danish merchants in Iceland's economy and foreign trade, how exactly did this process take place step by step? Are the declining influences of merchants in some way linked to the diversification in Iceland's import trade? How can the monetisation explain the shifts in the levels of margins in Iceland's trade with Denmark in the 1890s and 1900s? To what extent did greater money supply and more frequent cash payments influence levels and patterns of consumption and investments? Compared to the era of

merchant capital, how were standards of living, quality of life, social relations, and power relations affected? Since the modernisation process introduced a number of new elements into Icelandic society, many questions relate to political and ideological conflicts, including the rise of the labour movement.

My theoretical and comparative discussion showed the relevance and usefulness of analysing the Iceland economy and its economic transformation from an international perspective. Hence, it would be interesting to carry out a survey of existing literature or, better still, a co-ordinated research to find similarities and dissimilarities, and their respective causes, among other societies and communities in and around the North Atlantic Ocean. Here I am referring to the Faroes Islands, Northern Norway, the Hebrides and Shetland (even other northerly parts of Scotland), Newfoundland, and Greenland. Almost certainly, a number of important similarities and parallels could be found in spite of contrasts and specific settings.¹⁹ On a broader basis, analogous comparison with other traditional societies and transitional economies over the world in the 19th and 20th century would no doubt produce useful findings and show that such comparative research is fruitful empirically and methodologically. The mercantilist era seems to be a point in case. Incidentally, the farther parts of the world have more often been cited in the thesis than peripheries in East and South Europe. This owes mainly to the fact that this is an under-researched field, especially from a comparative perspective. However, the history of the European periphery should provide an interesting material for comparison with Iceland, because Europe, after all, rests on a common heritage which is basically different from, for instance, Asian or African societies. It is only with

¹⁹ In fact, the present author has observed several such instances during this research although they have not come to discussion in the thesis.

European expansion in the modern period that Africa and Asia became subject to European influences and, thereby, provide a historical record for comparative study.

**The Foreign Trade of Iceland, 1870-1914:
An Analysis of Trade Statistics and
a Survey of its Implications
for the Icelandic Economy**

by

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for the degree of Doctor of Philosophy

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APPENDICES

Meaning and Use of Symbols

0	Less than half of the unit used
–	Nil
...	Information wanting
. (in a cell)	Information should not appear in this place given the respective context
. (in a figure)	Decimal distinction

Totals may not equal sums of individual figures because of rounding

See also Technical Note at the front of the thesis

Appendix A

Construction of the Trade Datasets:

Sources and Methods

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1. Icelandic Trade Returns and Records

1.1. A Short Description

As it happens, there is no comprehensive, statistical examination and analysis on the foreign trade of Iceland in our research period (see Chapter I).¹ Therefore, much effort had to be put in systematic collecting and digesting of trade statistics, the analysis of which constitutes the backbone of the thesis. Regular trade returns for Iceland were published from the mid 19th century onwards and later aggregated in statistical handbooks, published by the statistical bureau of Iceland from time to time. Being useful as such, the level of aggregation, however, was so high until 1974 that it prevented all specific studies of the trade flows. Besides, the series only ran back to 1895.² The historical trade statistics were more disaggregated in 1984, but the situation was not radically altered until 1997. Then, the data in the trade returns had been restructured and was published in a printed form, with exports checked and supplemented to a certain extent, and the material (especially exports) aggregated on a country-wide level by

¹ Here, I am referring to studies such as the following for Britain: R. Davis, *The Industrial Revolution and British Overseas Trade*; S.B. Saul, *Studies in British Overseas Trade*; and W. Schlote, *British Overseas Trade*.

² As far as the years 1870 to 1913 are concerned, see the following works from Icel., StatIce: *Árbók* 1 (1930–31), pp 46–7, 56; *Tölfræðihandbók. Statistical Abstract of Iceland* [1967], pp 178–80; *Tölfræðihandbók. Statistical Abstract of Iceland* 1974, pp 120, 122, 128–9.

various criteria.³ Simultaneously, the trade data for the research period under study here was published in greater detail, but on a national level, on a CD-ROM disc.⁴ Hereafter, these trade statistics for our research period will be referred to as the IceStat datasets after Statistics Iceland, the statistical bureau of Iceland, which published the historical statistics.

The publication of the trade data in 1997 was a giant leap in facilitating the use of Icelandic trade returns. However, the Icelandic returns are somewhat limited in scope in the late 19th century, and they have several drawbacks until the 1910s.⁵ While they offered elementary information about the distribution of Iceland's trade with other countries until 1872, there was no information at all about this during 1873 to 1894. Also, the returns only had indirect information about values of merchandise until 1895 onwards.⁶ Instead of direct information about the value of goods, there were collected separate information about their average prices. These were retail prices on imports and merchants' purchase prices of exports, both as during the summer. By multiplying the export and import quantities with the average prices, a general idea of the values could be gained, and the trade returns included such calculations for the years 1880 to 1894. In 1895 onwards, these calculations were replaced by information about the actual value of exports and imports. However, export values remained on what I term DMW basis

³ Icel., StatIce, *Tölfræðihandbók. Statistical Abstract of Iceland 1984*, pp 122–4. Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, sect. 10.

⁴ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, compact disc (CD-ROM), sect. 10, s.v. 'Ítarefni'.

⁵ For a complete list of the trade returns and their location in printed form, see Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar*, vol. I, pp 291, 294, 295. The trade returns are shortly discussed in Halldór Bjarnason, 'Töfluviðauki,' part 1, pp 235–7, and in Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 406.

⁶ Indeed, a few goods were enumerated by value only.

(Delivered at Merchant's Warehouse) and only moved on to fob basis in 1922.⁷ Also, imports were valued at retail prices until 1909, when they moved on to cif basis.⁸

More important than the lack of information about the distribution of trade by countries and the somewhat uncertain estimates of the actual values of goods in trade, the data about the quantities exchanged is of questionable reliability. This comes from the way the underlying records were made. To obtain information about the goods exchanged in the Iceland trade, the central administration in Copenhagen ordered in 1813 and 1815 that merchants in Iceland annually gave the local sheriffs information about the quantity of exports and imports (hereafter called merchants' records). The local sheriffs were responsible for this data collecting, and they seem to have been inefficient in doing this, because they were repeatedly pressed for these records by the administration in Copenhagen during the early decades. Some records still survive from the first half of the century, but it only was with more determined efforts and a new data collecting method in the early 1860s onwards that the central administration in Copenhagen managed to obtain this data from the sheriffs (and merchants) on a regular basis.⁹ To facilitate the collection of data and get it more uniformly registered, it was decided that instead of annual reports from sheriffs, a report should be filled out each time a cargo of a ship entering or leaving Iceland was being unloaded or loaded. These new blankets should be handed in from 1864 onwards.¹⁰ Unfortunately, the records tended to be filled out hastily and with carelessness by the respective staff of merchants. This made the

⁷ There is no standard term for exchange between seller and buying at this particular point, see ICC/CCI's *Incoterms*. Hence, DMW is my own terminology. In Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 406, DMW prices are effectively equalled to fob prices, but it is important not to do so, see the discussion about value computations and merchant's margins in the chapter.

⁸ Icel., Gov. Gen., *Stjórnartíðindi* 1895, sect. A, p 130. Icel., Min. of Icel., *Stjórnartíðindi* 1909, sect. A, p 118; 1922, sect. A, p 12.

⁹ Halldór Bjarnason, 'Töfluviðauki,' part 1, pp 232–3.

records slightly less reliable than otherwise and, hence, more difficult to work on and aggregate for the printed trade returns.¹¹ In 1895, the administration reverted to annual records, and this arrangement remained to the end of our research period. Simultaneously, the obligation to return reports about mercantile activities was extended to all those engaged in exportation or importation in Iceland.¹²

Besides late returns of reports, and omissions and inaccuracies in those that were obtained, these accounts sometimes were completely lacking from merchants and others that were engaged in the foreign trade.¹³ For example, Sveinbjörn Blöndal demonstrated with the use of contemporary papers that the trade returns (i.e., the merchants' records) sometimes under-reported heavily the exports of live sheep in our research period. That is natural, because live sheep were mostly exported by British travelling merchants.¹⁴ Also, there is no doubt that some exports and imports by small exporters and importers, besides commission agents, never was reported. Partly, this causes a slight general under-reporting and partly a specific under-reporting when it comes down on imports of goods not sold by regular merchants, such as capital goods, whether for agriculture, fishing, or manufacturing industries. Imports of these increased significantly over time. Hence, imports of, for instance, agricultural implements and tools, and small boat engines, besides boats and ships, are vastly under-reported.¹⁵

¹⁰ *Lovsamling for Island*, vol. 18, p 640.

¹¹ There are frequent complaints about this in the printed trade returns. See, for example,

¹² Icel., Gov. Gen., *Stjórnartíðindi* 1897, sect. B, p 73. Only seasonal merchants and other travelling merchants were required to hand in reports after each journey instead of annually.

¹³ See, for instance, Halldór Bjarnason, 'Töfluviðauki,' part 1, p 252.

¹⁴ Sveinbjörn Blöndal, *Sauðasalan til Bretlands*, pp 13–14 and Appendix.

¹⁵ In the case of the smaller items, this is evident when the Icelandic trade returns are compared to the trade returns of the countries trading with Iceland, see the new datasets. See also remarks about this in Jón Sigurðsson, 'Um verzlun og verzlunarsamtök,' p 229, and Icel., Min. of Icel., *Verslunarskýrslur* 1908, p ii. As for the larger items, namely ships, this is self-evident because probably none of the sailing ships bought from Britain in the 1880s and the

Furthermore, a comparison of a number of selected exports and imports with another Icelandic source, customs records, shows that the merchants' records were subject to a constant and considerable, albeit variable, under-reporting from the 1880s into the 1910s.¹⁶ As it happens, in Iceland there was no customs control until 1872 and thereafter only partially so for decades. In 1872, a law came into force stipulating so that imported alcoholic drinks be subject to tariff. Later, in 1882, a new legislation demanded export duties be paid on a number of fisheries' products. Over time, more exports and those imports that were called luxuries at the time became subject to levies, which were specific, not *ad valorem*. The sheriffs in the country were charged with carrying out the necessary control on exports and imports, and collecting levies on commission.¹⁷ A comparison of the quantities of the particular goods subject to levies as reported in customs records and merchants' records over time shows that there was not only a constant under-reporting in the exports of commodities produced by Norwegian enterprises. This was to be expected because they tended to live in Norway and pay small attention to reporting to Icelandic authorities about their imports to and exports from Iceland. The under-reporting also was substantial, yet variable, in the case of saltfish, which was mainly exported by permanent merchants.¹⁸ All this suggested that under-reporting was not only slight or specific, but that all exports and imports were subject to a general under-reporting. Nevertheless, it presumably was proportionally larger in the case of travelling merchants, small exporters and importers, and

1890s are listed and neither are the steam trawlers in the 1900s onwards. Similarly, sales of ships from Iceland are missing.

¹⁶ A comparison was made between the customs records (Icel. *útflutningsgjaldareikningar* for exports and *tollreikningar* for imports) and the merchants' records from the 1880s to the 1900s. See the printed trade returns in these decades.

¹⁷ For a discussion about the introduction of the export duty on saltfish, see Halldór Bjarnason, 'Töfluviðauki,' part 1, pp 234–5. For a list of imports brought under tariff over time, see Icel., Gov. Gen., *Stjórnartíðindi* 1901, sect. A, p 178 (parag. 14).

¹⁸ On the saltfish, see Halldór Bjarnason, 'Töfluviðauki,' part 1, p 239.

commission agents, all of which probably returned seldom if any reports about their mercantile activities.

1.2. Attempt of Exploitation

In spite of all the deficiencies of the Icelandic trade returns, my original intention was to build my trade analysis on them. Incidentally, the publication of the historical trade statistics was being prepared then, and the national data had all been keyed into computer datasets with a spreadsheet programme. This data was available to me, and it

seemed feasible because its exploitation would save very much time for me.¹⁹ Also, since my purpose with the research was to test the general relevance of the foreign trade for the economic transition of Iceland, the deficiencies seemed not to undermine seriously my study. However, to get some overview of the distribution of trade by countries before 1895, and the merchants' records were the most obvious choice. This is because the information about the countries trading with Iceland was always there in the records, although this information was dropped in the extraction of data for the printed trade returns. When I commenced this work, it was on the understanding that these sources would be available and manageable to supplement and extend the printed trade returns. At that point, my intention was to start the research in 1855.

However, an attempt to exploit these sources in the National Archives of Iceland (Þjóðskjalasafn Íslands) from the late 1850s to the early 1890s proved practically fruitless and very frustrating. Research carried out in the Archives for over a month to locate the records, extract data, and put it in schematic computer form — I do not believe this has previously been attempted by any other student or scholar — established not only that these records are voluminous in quantity (after 1864), but also, and more important, that they have been so inconveniently sorted, catalogued, and stored by the National Archives that they cannot be used productively for any extended period of time by the individual scholar, on the national level at least. Besides, many of the administrative officials' archives, where the pre-1864 records are stored, are in complete disorder, and even if there are piles of post-1864 records in one place, it is impossible to know what and how much is lacking.²⁰ It would take a well funded and substantially staffed project to reorganise the documents, and to extract and aggregate the data, for

¹⁹ The datasets were made available to me by kind permission of Magnús S. Magnússon, one of the editors of the historical statistics.

this potentially rich source of information on Icelandic trade to be rendered into a useful format.²¹

The negative outcome of the attempt to exploit the merchants' records before 1895 is most unfortunate. True, the under-reporting problem cannot be overcome with these records, but their main potential asset is that they should be useful to get a more accurate idea of the quantity of trade with certain countries over time. Of particular importance in this respect is the trade with Britain, which had to be estimated from 1870 to 1894. This potential usefulness is significant, because accessible and aggregated British series on the trade with Iceland specifically seem to be scarce for the period from 1870 to 1900. Also, information about a substantial part of the imports of foreign goods from Norway is lacking from 1870 to 1878, and the Icelandic merchants' records possibly have some information about this. Finally, Iceland's saltfish exports by countries are very interesting, and since they had to be estimated from 1870 to 1894 for all the countries except Denmark, an examination of the merchants' records might prove useful until 1882, when Icelandic customs records for exports came into existence.

After the Icelandic merchants' records proved unmanageable for any meaningful use, there was small point in working on the customs records, because they contained a relatively small number of goods, and they require a substantial time to be exploited. Nevertheless, these documents are well organised and they might prove useful in certain instances (see the discussion below). But in the circumstances, the only way forward was to consider using trade returns of the countries trading with Iceland.

²⁰ After 1864, there is one sheet for each unloading or loading of ship, making it impossible to see how many sheet there should be for a particular year.

²¹ This view echoes Magnús S. Magnússon's experience, who felt in 1985 that 'the state of the National Archives (Þjóðskjalasafn) in the field of modern economic history was disastrous ...' (Magnús S. Magnússon, *Iceland in Transition*, p 22).

2. The Use of Foreign Trade Returns for Iceland

Using as a basic source the trade returns of countries trading with the one under study is possibly a slightly unusual procedure, but in the circumstances it was necessary. Incidentally, comparative examination of trade returns of the country of origin and the country of destination does usually show discrepancies in the quantities stated of individual commodities. On the other hand, when the aggregate trade between any pair of countries is compared, it usually is in a relatively good harmony and plausible explanations can be offered for remaining differences.²² Disagreements between trade statistics of countries have many perfectly logical causes. These can be shrinkage in goods during voyage or at loading and unloading, different methods of measuring the goods, ship losses, variations in documentation of transit goods, intentional or unintentional errors in records, and change in the country of destination or buyers after departure in the selling country. Apart from these causes, countries have had different definitions of what exchanges or transfers of goods belong to foreign trade. Some employ the special trade principle while others use the general trade principle. Essentially, the difference between the two principles is about how goods deposited in customs storage are reported. According to the special trade principle, goods are not imported until they have entered the domestic economic zone, whether directly from abroad or from customs storage. By contrast, according to the general trade principle, all goods are considered imported when they enter the customs zone, irrespective whether they are put in customs

²² G. Federico and A. Tena, 'On the Accuracy of Foreign Trade Statistics (1909–1935).'

storage or cleared for consumption in the country. Evidently, the way imports are defined affects both the amounts of goods reported as imported and exported.²³

This listing shows that no trade returns necessarily possess the one and only truth, and they often measure trade at different points in the transportation from producer to consumer. Hence, there is no surprise if the new datasets do not always coincide with the best available Icelandic source, the customs records. Besides, caution must always be made when using past statistical sources. In the case of trade returns, one must (a) examine the compilation and the making of the available returns, (b) select the best source(s) if there is any choice, and (c) remedy, if possible, any major shortcomings in the source material.

It should be clear by now that the method of using foreign trade returns in the case of Iceland's foreign trade is not necessarily inferior in theory. More important though, it certainly is not inferior in practice because of the substantial deficiencies of Icelandic returns. In general, the foreign trade returns used for this research were superior to the Icelandic returns, but in some cases the Icelandic source had more detailed or additional information, allowing me to produce better and more comprehensive statistics than by using only either one of the two types of sources. However, the potential of this merging was far from exhausted in the production of the new datasets. The first advantage of the foreign trade returns was that they were not only accessible in printed form, but they also were more extensive and reliable as well, because in contrast to Iceland, there was a proper and relatively effective customs control in the neighbouring countries, producing reliable statistics based on customs records.²⁴ Hence, they eliminated the problem of under-reporting, which persisted in the

²³ *The Economist Desk Companion*, 2nd ed., pp 67–8.

²⁴ It is relatively clear from the Danish and Norwegian trade returns that they were based on customs records. There is no introduction or explanatory text in the British returns, stating this

Icelandic trade returns to the end of our research period, and that is why the foreign returns eventually were used for the whole period. Also, the foreign returns sometimes had more detailed information than the Icelandic returns on Iceland's exports but, especially, Iceland's imports.²⁵ On top of this, information about values of the exports and imports in the foreign returns enabled me to extend the research with an examination of margins of merchants.

Of course, standards in the making of trade returns have increased considerably since the late 19th century, and all trade returns from that time do have problematic aspects, no matter how well they were made. Even the best trade returns today, which are all based on customs records, have their small errors and inaccuracies.²⁶ Hence, no one can expect to avoid all source problems when using past trade returns, and the following sections will be devoted to clarifying the main complications and describing how the datasets were built up.

explicitly, but they were also based on customs records. See the archive of Board of Trade, where the British returns were made, in the Public Record Office.

²⁵ Note that apart from the under-reporting problem, a comparison of the merits of the Icelandic and the foreign returns is slightly difficult. This is because the foreign returns tend to classify goods by way of defining their characteristics (origin, substance, etc.), and it is sometimes difficult to identify the goods in question. The Icelandic returns, on the other hand, have several categories of specific goods, well identifiable, and then put the rest of merchandise in miscellany.

²⁶ See, for example, Halldór Bjarnason, 'Töfluviðauki,' part 2, pp 340, 343, 352, 353, 354.

3. The Building of Datasets: Sources, Problems and Solutions

3.1. General Remarks

When starting to build the datasets, one of the first considerations was to decide what information to key in, i.e., how extensive the extraction of material should be. If a selective approach was employed, where should the dividing line between ‘main’ and ‘minor’ items be drawn? Apart from that, it was not so easy to use quantity as a measure for this, because the trade returns not only used old units of weights and measures, but also to a large extent their individual systems of measurements, different by countries. Values were of limited help in drawing a dividing line, because in the case of Denmark they had to be calculated each time, and in the case of Norway information about the goods in trade and their quantities often had to be acquired first. Only British returns in 1902–13 provided very accessible information about values of the goods in trade. These difficulties together effectively made the drawing of a dividing line impossible. But even if one would have settled for inconsistencies in the dividing line, price swings would have skewed the picture, and the exports and imports quantities of some goods would have crossed the dividing line with information lacking either before or after, distorting the calculation of indices. Also, the merchandise classification gradually became more disaggregated over time. This undermined the logic behind a dividing line and moving it later would have been impossible out of practical reasons, etc.

Apart from a frustrating experience of the Icelandic merchants’ records and significant difficulties lined up along this road, an economical use of my time relative to

the prospective quality of the data produced, suggested that it was not feasible to draw a dividing line between 'major' and 'minor' goods in the trade. Therefore, soon the decision was made to include all goods in trade. Although demanding more time in keyboard work and new problems had to be tackled, this eliminated all the difficulties listed above. Most important, this increased the accuracy of the datasets and, thereby, the trade analysis. For example, the many smaller items of trade increased substantially in quantity over time, and they formed together an indispensable feature of the overall change in the commodity composition. In retrospect, it was a sensible decision to include all the items of trade, although they were aggregated later to get a summary of the main trends.

Having decided the extent of the data extraction, other considerations were relatively easy. One was which years I should select as my sample years. Taking every fifth year or so seemed suitable, but since I wanted to keep open the possibility of increasing later the number of sample years by adding a year in-between, it was not a sensible decision, because that would have produced uneven intervals. Using every fourth or sixth year solved the problem, and the first choice offered more sample years so it was opted for. Although time did not allow for adding later the mid year in-between, this decision conveniently offers scholars to do so in future research. A more important consideration was to decide the taxonomy that should be used to classify the goods in trade. It seemed relevant to consider systems that had been used in Icelandic trade returns in 20th century to facilitate a long-run comparison with the new datasets. However, this was not simple because the Icelandic trade statistics had gone through the same sequence of evolution as foreign trade returns. First, the Brussels List had been employed, then the Minimum List of the League of Nations, and finally the United Nations' Standard International Trade Classification (SITC), which is now used in its third revision. Furthermore, since these taxonomies were much too broad to describe

Iceland's exports, limited in scope as they were, a special system (Icel. *Hagstofuflokkun*) was adopted by the Statistical Bureau of Iceland in the 1950s and used thereafter. It has been amended over time, but it is based on the SITC system, which has been used for the exports side by side with the *Hagstofuflokkun*. Finally, the historical trade statistics before 1914 that were published in 1997 were based on the Brussels List for imports and on *Hagstofuflokkun* for exports.²⁷

In the view of this, it was desirable that the taxonomy used in the new datasets would be either of those two systems already employed for our period and the succeeding years, i.e., the *Hagstofuflokkun* or the Brussels List. However, it was decided to use the SITC system, 3rd revision (abbreviated SITC Rev3 in the thesis and the datasets). The Brussels List was rejected because it is an outdated system, and it can only be a matter of time, not whether, Icelandic trade data will be reclassified according to the SITC system, whichever version it will be. Besides, the major part of existing trade statistics for Iceland in 20th century, both by number of years and quantity of data, is already classified with some version of the SITC. Since our taxonomy had to accommodate both exports and imports, the SITC system rather than the *Hagstofuflokkun* was preferred. Owing to the source material and the objective of the research, it was neither practical nor necessary to use the detailed *Hagstofuflokkun*.

After these considerations, some of which had to be revised after the extraction of data started, a prolonged and laborious statistical work began. This entailed keying of relevant material into computer files, the construction of data, conversion of old measurement units into the metric tonne, creation of links between files, and computation of various aggregate figures in a host of tables. Amounting to more than 20 MB now, the

²⁷ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 408.

datasets are kept in a number of spreadsheet files in the Excel programme, version 5. In the building of the datasets, there were several problems that had to be dealt with in the exploitation of these past trade returns and sources of error that is necessary to be aware of. Some of the general issues pertaining to this will be commented on below, but problems specific to individual trade returns by countries will be discussed when the datasets for each country will be described.

First, a few words about what is included in the foreign trade returns and what is not included. Perhaps most important is that ships and probably most boats too are missing. Although these goods nowadays are included in trade returns, ships and aircraft frequently are put aside, so as to locate regular exports and imports. However, these items belong to other goods in trade and they can affect the balance of payments considerably. In the case of Iceland in our research period, there were increasing imports of ships and boats, practically all of which is missing. At the other end of extreme is parcel post. It usually was not included in trade returns, but with the introduction of commission agents in the Iceland trade in the end of the century, this channel for small item merchandises no doubt increased in quantity and value. Also, with foreign merchandise catalogues, which seem to have been distributed in Iceland in the 1890s or 1900s onwards, people could order goods in post. Parcel post, however, does not alter in any way the general picture of Iceland's foreign trade, and it only underscores the increase in the quantities and values of trade that is already evident in the new datasets.

Concerning the material that is in the new datasets, there are several issues that need to be kept in mind when using the series. The possibility of misclassification cannot be precluded, and it can have two causes. One is that my understanding of the nature or the making of the good was wrong, but this no doubt is a negligible error because the specification of the goods usually was accurate enough. However, there is at least one instance of this, and it may act as a word of caution. According to Icelandic trade

returns, no later than in the late 1900s, several cereals (oats, barley, and maize) were used as fodder. The foreign trade returns offer no indication of the use of these cereals, so they were assumed to be for human consumption (with a different SITC Rev3 number). Of course, this is an insignificant error for the overall trade, but as an agricultural issue, this is of relevance. Another possible source of misclassification is the problem of compound groups. Usually, the break-down of goods in trade was sufficient for the precision employed in the classification (two to three digit SITC Rev3 numbers). But sometimes in the case of foodstuffs and manufactured goods, there was some uncertainty. It does not matter when the trade is studied in general, but when series for specific goods are scrutinised, this can be a problem, and would be a larger problem if the commodity groups in the new datasets were to be disaggregated in detail.

Related to the problem of compound groups of goods is that often do the Icelandic trade returns offer a more detailed break-down of exports and, occasionally, of imports too. Plagued with under-reporting as the Icelandic returns are, this is a valuable asset if consumption of individual goods is to be studied. For example, when exactly and in what quantities did small oil lamps spread out or sewing machines in Iceland? Or, from what species did the exported fish oil come? A possible solution would be to rework the figures in the Icelandic trade returns to percentages of an aggregated compound group and then transpose them to the respective compound groups in the new datasets. This would be relatively easy for many of the exports, but presumably a little harder for the imports, because of classification problems in the different sources. However, when examining specific aspects of production or consumption in the Iceland economy, exercises of this kind could potentially prove useful in conjunction with use of qualitative sources.

When examining the exports or imports of particular goods in the datasets, a care must be taken not to rely on quantity or value series only. Usually, this is not a problem because there is information both about quantities and values. But sometimes, especially in the case of manufactured items (SITC Rev3 groups 7 and 8), the goods were only reported or registered by value. Therefore, looking at the imports of manufactured goods and articles by quantity only can be deceiving and make one underestimate the actual quantities traded. Related to the issue of quantities is the question whether the exports and imports are weighted inclusive or exclusive of packaging. The trade returns do not say anything about this, but presumably goods measured by non-volume units were reported alternatively gross or net, depending on the nature or the type of packaging. In those cases when goods were reported by volume, it is of course net.

Converting all measurements in the foreign trade returns into the metric tonne (or kg) in the datasets was not an absolute necessity in itself. However, it was deemed that it facilitated a comparison of the quantities across goods, and this proved helpful in estimating broadly the outcomes of the new datasets when comparing their aggregate series to the Icelandic returns and their revision (the IceStat datasets). Besides, it is the modern practice to use the metric tonne, and since these old units in the trade data no doubt eventually will be converted to the metric system, a start is made here. Anyway, a minimum standardisation was necessary, if only because of the different national systems of measurements used in my sources. However, it is a well known fact that old units of measurement can be difficult to convert into a standardised system. In our case, the tough ones were primarily volume units, because the relative density of goods varies and affects the weight. Also, conversion of piece units, which sometimes were used, into weights is subject to estimates than can vary from one study to another. Therefore, the conversion constants that were used here can be disputed, and they do not always

coincide with those conversion ratios used in the IceStat datasets.²⁸ This partly owes to different, and sometimes conflicting, sources used, but possibly also to different views about the gross-net issue. Apart from that, varying precision in the sources employed and in the calculation of the respective scholar can affect the outcome. Although our conversion of measurements almost certainly is a minor source of error, it is, nevertheless, important to remember this if using or comparing the series in much detail.

3.2. Value Computations of the Exports and Imports

Although the conversion of the units of measurement to the metric tonne or kg would be an ample subject for explication, the calculation of the values of trade required so special methods, that it is important to be aware of how who they were. For the first, it was decided not to produce the values of imports on balance of payments basis. To be sure, balance of payments basis is useful in modern national accounting when transportation between countries usually is to some extent in the hands of the country under study. Then, incomes from transportation conveniently are entered in the invisible balance sheet. In the case of Iceland in our research period, there was small point in this practice, because no ships for inter-country transportation were owned by persons or companies in Iceland until 1914 onwards. Incomes from shipping were nil, and freight and insurance was paid to externally resident parties. Hence, imports were best produced on

²⁸ As it happens, there is no standard work or compendium on units of measurements used in Iceland since the early modern period. Probably the most comprehensive examination of this is a special appendix to Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 921–5.

cif prices, instead of fob prices, which are used when the trade is on balance of payments basis; exports were on fob prices as usual.²⁹ However, this method required estimates of freight and insurance costs because of the foreign trade returns that were used, and also because the Icelandic returns did not use fob and cif prices for exports and imports respectively (until 1909 and then only for imports).

To explain the situation and show what adjustments were made, we have conveniently laid out a table of the value basis of the exports and imports in the sources. The table also shows what cost items optimally would have to be subtracted or added to the value of merchandise to get the exports on a fob basis and the imports on a cif basis. Note that some of these adjustments could not be made for the thesis. Hence, the 'optimal adjustments' in the title must be stressed.

²⁹ *The Economist Desk Companion*, 2nd ed., p 68. Icel., Nat. Ec. Inst., *Þjóðhagsreikningar 1945–1992*, pp 42–3.

Table A.1. Optimal Adjustments for Producing the Values of Exports on Fob Basis and Imports on Cif Basis, 1870 to 1913

	<i>Exports</i>				<i>Imports</i>			
	Initial Value Base ^{††}	Add [†]	Subtract [†]	Event. Value Base	Initial Value Base ^{††}	Add [†]	Subtract [†]	Event. Value Base
Denmark	‘cif’		Fr. & Ins.	fob	‘fob’	Fr. & Ins.		cif
Norway	cif		Fr. & Ins.	fob	fob	Fr. & Ins.		cif
Spain and Italy	DMW	Marg. & Duty		fob	.	.	.	.
UK and ‘others’*	cif		Fr. & Ins.	fob	fob	Fr. & Ins.		cif
Other countries **								
1898–1906:	DMW	Marg. & Duty		fob	retail pr.		Marg. & Tariff	cif
1910–13:	DMW	Marg. & Duty		fob	cif			cif

* United Kingdom 1870 to 1913 and other (unspecified) countries 1870 to 1894

** Other countries than stated above 1898 to 1913

† Margins include packaging, warehousing, shrinkage, loading and unloading, etc., besides profit.

— Fr. & Ins. stands for freight and insurance costs

†† DMW stands for Delivered at Merchant’s Warehouse

When calculating the fob and cif value of trade with Denmark, Norway and Britain (in fact UK and ‘others’), there were two ways to do this. One was to work from the values stated in the foreign trade returns, which offered cif values for Iceland’s exports and fob values for the imports. As the table indicates, this required estimates of freight and insurance costs. The other way was to work from the values in the Icelandic trade returns, which were DMW values and retail values respectively for exports and imports. This demanded knowledge of margins of merchants and levies paid on exports and imports. While information about levies could be accessed and calculated (with some estimates though and cumbersome calculations), margins of merchants were an empty box. Incidentally, the move of imports from retail values to cif values in 1909 offered a unique opportunity to speculate about margins, and this was done in the contemporary Icelandic trade returns to produce standardised series for the imports. The

IceStat datasets have revisions of these estimates, and there a 20% margins rate was transposed backwards for the imports series.³⁰ In other words, the equivalence of 20% margins, besides tariff, was subtracted from the retail values of imports to produce them on cif basis. This, of course, involved a gross assumption about merchants' margins over time, and for our study it was considered feasible to approach this from the other end. Therefore, it was decided to work from the values in the foreign trade returns and estimate freight and insurance costs, which probably were on a firmer ground than merchants' margins. Unfortunately, this was not possible for the remaining countries, i.e., Spain, Italy, and Other countries (1898 onwards), because the only source of value information was the Icelandic trade returns. In the case of exports to these countries, either the DMW value had to suffice or the margins of merchants be estimated, adding them and export duty to the value. In the case of imports from them (until 1906), either the retail price had to do or margins be estimated and they subtracted along with tariff from the retail price (Table A.1).

As the new datasets stand now, the values of the goods in trade are calculated with a mixture of both approaches. In the case of Denmark, Norway, and Britain, the values of exports and imports are approximated fob and cif prices respectively, because the costs of freight and insurance were estimated. However, for Spain, Italy, and Other countries, DMW and retail prices stand behind the values of their exports and imports respectively. Note that exports and imports levies are not included, because of their relative small importance and difficulties in calculating them (see Appendix B). It would, of course, be desirable to make estimates of the merchants' margins in the trade with Spain, Italy, and Other countries. However, there is no information available to do this,

³⁰ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 406.

and, consequently, the share of these countries has to be considered as a minimum. The only information that might give a clue about the level of margins is an exercise that was carried out on the trade with Denmark (see Appendix B). But this has to be checked further before these margins can be applied to other countries.

The estimates about the cost of freight and insurance were based on freight earnings in Norwegian shipping returns for our period. While the extent of information in the shipping returns changed over time, there always was some information about voyages of Norwegian ships between Iceland and other countries. Unfortunately, I did not have a full access to these returns, so I could not examine them as much as I would have liked, and sometimes I had to use returns lying near to the sample years instead of returns from the sample years themselves. Furthermore, the returns do not provide a uniform and consecutive data about the Iceland voyages of the Norwegian ships. Therefore, the series on freight are partly estimated and sometimes extrapolated, but they are always based on freight information about voyages between Iceland and the neighbouring countries. Perhaps the major source of uncertainty in the freight estimates is the country specification, because as yet it is not absolutely clear to me. Nevertheless, shipping statistics show that ships did not come from the Mediterranean countries to Iceland. Iceland's imports, whether re-exports or not, mainly came from Scandinavia and Britain so we know that the ships came therefrom, and the freights apply to these countries. Since the distance between Iceland on one hand and Norway and Britain on the other is roughly similar, but about twice as long between Iceland and Denmark, the freight rates for Denmark were doubled. Note that the freight earnings in the Norwegian shipping returns applied only to ships entering Iceland, but it seems safe to assume that the freight rates were not very different on the outward voyage.

Getting plausible estimates of the freight rates was only half a victory because information was also needed about the amount of goods that could be accommodated in

a register ton or a *Kommercelæst* (1 *Kml.* approximately 2 reg. tons). Here, a gross assumption was made because a fixed ratio between a register ton and a metric tonne was set for this calculation. Acting as a point of departure, the amount of timber that could be put in a *Kml.* or reg. ton, according to the Norwegian trade returns, was calculated. It ranged from being 1,066 to 1,557 kg per reg. ton. The density of most timber sorts is relatively low, at least compared to goods that have similar density as water, and timber is a bulky good that probably did not use the cargo capacity particularly well. Therefore, it seems justifiable to assume that on average more weight could be put in per register ton. This varies, of course, across goods, but it was decided to equal two tonnes of weight to one register ton. Because of the conversion of all goods to metric tonnes, the calculation of freight costs was simple. Even if one accepts this ratio between a register ton and a metric tonne as a reasonable estimate, the problem of the utilisation of the cargo capacity was left. Here, another assumption was made and it was fixed at 80%.³¹ This utilisation was taken into account in the freight rate estimate, and also the share of sailing ships to steam ships in shipping to Iceland. First, two freight rates were calculated, one for each type of ship. Then, the relative share of both types of ships as of all ships to Iceland was calculated. Finally, these shares were used to calculate a single annual rate for all ships in cargo transportation to and from Iceland (Table A.2).

Clearly the calculation of freight and insurance costs is a mixture of hard and fast data, many estimates, and extrapolation. It requires to be improved later with more information and checked for the staples in export and import. Hence, it must be taken with great caution in terms of individual goods. In fact, it must mainly be regarded as an

³¹ In fact, the rate of utilisation was put at 100% for steam ships in 1870, because they were new on this route and the cargo space probably was expensive.

Table A.2. Estimated Freight Rates of All Ships Entering Iceland With Cargo, 1870–1913

Year	Freight rates (in <i>krónur</i>) per Reg. Ton										
	Computed freight rates of Norwegian ships coming from various countries				Estimated overall freight rates of all ships entering Icel.		Sailing ships and steam ships by tonnage entering Iceland				Estimated overall freight rates of all ships entering Iceland
	Sailing ships		Steam ships				Real shares		Real and estimated shares		
	Freight	Utilisation	Freight	Utilisation	Sailing ships	Steam ships	Sailing sh.	Steam sh.	Sailing sh.	Steam sh.	
1870	20	80%	24	100%	20	24	88%	12%	88%	12%	20
1874					31	22			70%	30%	28
1878					30	20			65%	35%	27
1882					20	18			45%	55%	19
1886					10	12	36%	64%	36%	64%	11
1890	14	80%	12	80%	14	12	39%	61%	39%	61%	13
1894					15	14	42%	58%	42%	58%	14
1898					23	14	30%	70%	30%	70%	17
1902	15	80%	16	80%	15	16	16%	84%	16%	84%	16
1906	...	...	...	...	15	16	6%	94%	6%	94%	16
1910	14	80%	14	80%	14	14	6%	94%	6%	94%	14
1913	28	80%	17	80%	15	17	7%	93%	7%	93%	17

Sources: Freight Rates of Norwegian Ships Entering Iceland With Cargo, 1870–1913: Base Data
Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 568.
Þorleifur Óskarsson, 'Siglingar til Íslands,' pp 62 (table), 64.

Note: Figures in bold are estimated.

approximation of total freight and insurance costs for exports and imports respectively. Nevertheless, it is believed here that this method provides a way to offer a more reliable picture of the real fob values of exports and cif values of imports than the method used in the IceStat datasets does.

3.3. Comparison of the New Datasets and the IceStat Datasets

In the light of the source material for the new statistical datasets and the methods employed to produce the value series, it is of some interest to compare the results with the revised Icelandic trade returns, i.e., the IceStat datasets. How much do our results alter the previous picture of the trade flows? A quick comparison of the commodity groups was not possible because of the different classification systems, and since the IceStat datasets (the Icelandic trade returns) do not have information about the trade by countries before 1895, a country-specific comparison of the period thereafter was dropped. Instead, an overall quantitative comparison of the values of trade is offered (Fig. A.1). In the case of exports, it shows that the new datasets report about 20% more values from 1870 to 1886 than the IceStat datasets do. After 1886, the extra values fall to a level showing roughly 10 to 15% higher exports values than the IceStat data (Table A.3). In the case of imports, the new datasets also report higher values in the beginning, but in contrast to the exports, the values actually fall below the values reported in the IceStat datasets and they reach a low point of 75% of the IceStat datasets in 1913 (Table A.4). In other words, according to the new datasets, there are always some exports

Figure A.1

**Comparison of New Datasets and IceStat
Datasets: Value of Trade, 1870–1913**

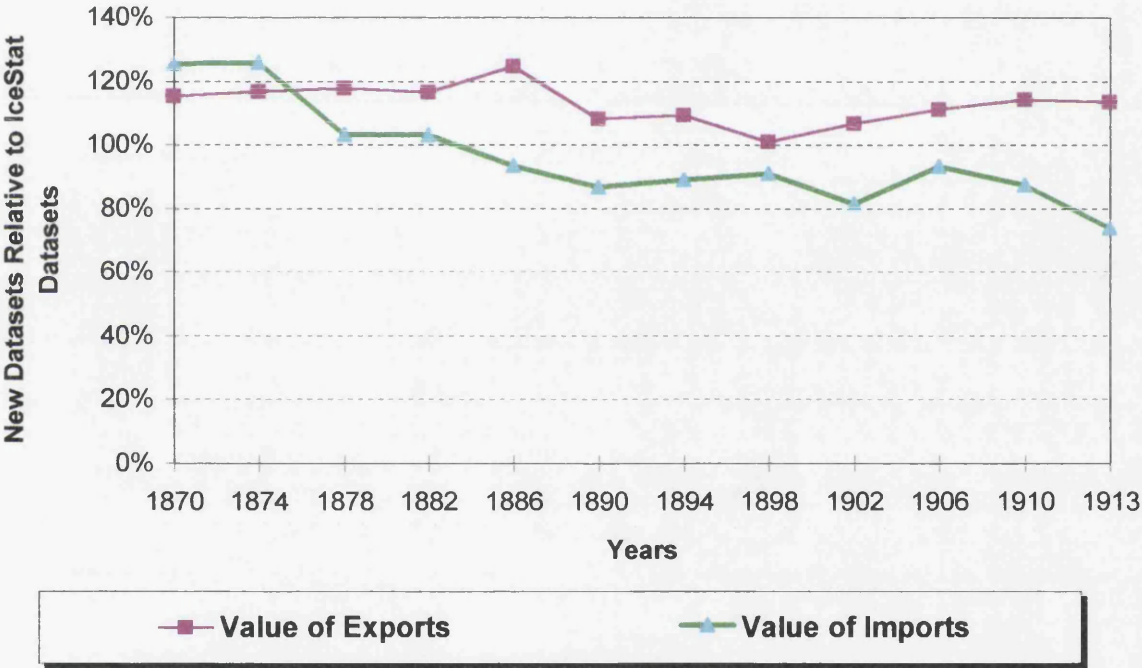


Table A.3. The Extensiveness of the Sources on Exports in New Datasets: A Few Comparisons

Year	Commodity Identification in the Trade Returns Used				Unrevised Icelandic Trade Returns as % of Foreign Trade Returns				Icelandic Trade Returns (IceStat Datasets)				New Datasets Against Revised Icelandic Trade Returns (IceStat Datasets)			
	Value				Tonnes*				Value**				IceStat Datasets			
	Denm.	Norw.	UK		Denm.	Norw.	UK		Denm.	Norw.	UK		Quantity†	Value††	Quantity†	Value††
1870	...	94%	...	...	?	?	...	...	?	...	...	...	7 310	3 232	8 741	3 726
1874	106%	100%	...	...	?	?	...	...	?	...	...	...	7 747	4 277	9 006	4 995
1878	104%	100%	...	...	?	?	...	...	?	...	...	...	9 886	4 288	11 906	5 048
1882	96%	102%	...	...	?	?	...	...	?	...	...	...	18 186	6 865	26 794	7 995
1886	119%	100%	...	...	?	?	...	...	?	...	...	...	12 496	3 452	15 331	4 304
1890	107%	99%	...	...	?	?	...	...	?	...	...	...	17 286	5 800	20 532	6 280
1894	98%	99%	...	...	?	?	...	...	?	...	...	...	23 733	6 822	27 434	7 458
1898	100%	100%	...	...	110%	161%	...	...	111%	104%	...	...	23 018	5 969	23 086	6 025
1902	102%	101%	98%	98%	103%	56%	98%	95%	120%	39%	95%	95%	31 044	10 153	33 595	10 834
1906	100%	100%	96%	96%	85%	11%	70%	70%	95%	15%	81%	81%	44 268	13 345	50 939	14 827
1910	100%	94%	91%	91%	82%	26%	91%	91%	96%	41%	84%	84%	48 397	14 572	52 051	16 652
1913	100%	97%	96%	96%	98%	103%	117%	117%	91%	75%	115%	115%	58 313	19 128	63 926	21 730

NB: Þessar verðmætisdálar passa ekki við fyrirsögnina. Taka þá út.

Sources: Table EXP/DEN-1 Table EXP/NOR-1 Table EXP/UK-13 Table EXP/ALL-1. Table EXP/ALL-5.
Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 505–14.

* The calculation is based on total exports, i.e., domestic produce and re-exports.

** The calculation is based on domestic produce only.

† Measured in tonnes.

†† Measured in thousands of *krónur*

Table A.4. The Extensiveness of the Sources on Imports in New Datasets: A Few Comparisons

Year	Commodity Identification in the Trade Returns Used				Unrevised Icelandic Trade Returns as % of Foreign Trade Returns				Icelandic Trade Returns (IceStat Datasets)				New Datasets Against Revised Icelandic Trade Returns (IceStat Datasets)			
	Value				Tonnes				Value				New Datasets			
	Denm.	Norw.	UK		Denm.	Norw.	UK		Denm.	Norw.	UK		IceStat Datasets	Quantity†	Value††	New over Prev. Dat
1870	...	41%	...	...	...	...	...	...	...	...	...	...	2 962	36 235	3 720	...
1874	...	35%	...	...	...	...	...	...	...	...	...	...	3 638	43 790	4 581	126%
1878	...	77%	...	...	...	...	...	...	...	...	...	...	3 828	20 622	3 948	103%
1882	...	113%	...	...	...	...	...	...	...	...	...	...	5 176	29 149	5 347	103%
1886	...	100%	...	...	...	...	...	...	...	...	...	...	3 606	24 751	3 371	93%
1890	...	98%	...	...	...	...	...	...	...	...	...	...	4 927	31 020	4 268	87%
1894	...	99%	...	...	...	...	...	...	...	...	...	...	5 070	38 600	4 514	89%
1898	...	99%	...	...	28%	63%	...	...	95%	51%	...	...	5 685	49 924	5 172	91%
1902	99%	96%	87%	...	30%	60%	69%	...	78%	106%	118%	...	8 237	85 858	6 717	82%
1906	99%	95%	57%	...	27%	51%	67%	...	90%	68%	86%	...	12 293	116 220	11 455	93%
1910	76%	99%	83%	...	99%	56%	77%	...	91%	73%	109%	...	11 323	132 968	9 902	87%
1913	56%	94%	83%	...	163%	104%	99%	...	87%	107%	127%	...	16 718	164 962	12 354	74%

NB: Þessar verðmætisdálfar passa ekki við fyrirsögnina. Taka þá út.
Sources: Table IMP/DEN-1 Table IMP/NOR-1 Table IMP/UK-13 Table IMP/ALL-1. Table IMP/ALL-5.
Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 479–83.

† Measured in tonnes.

†† Measured in thousands of krónur

values missing in the IceStat datasets, but the IceStat datasets first understate the imports values and then overstate them.

The outcome gives a reason to ask if this is a divergence in value only but not in quantity. Since there are no uniform (standardised) quantity series available for imports in the IceStat datasets, they cannot answer this question for imports. However, there are uniform quantity series for exports and a comparison of them and our quantity series support our trend in the exports values. It is not plotted on the graph in Fig. A.1 but the quantities of exports were always higher than the IceStat datasets state, and they were on the same level as the values of exports. It cannot be ascertained here, but it is probable that this broadly was the case in imports too. Now what explains the divergence in the value, and why are the trends in exports and imports so different? First, it has to be noted that the basis of the values in the two sets of data is not the same as we have already discussed. In the IceStat datasets, exports show DMW values while imports show retail values minus a transposed margins percentage and tariff. In the new datasets, exports are partly constructed fob prices and partly DMW values and the imports are partly cif values and partly retail prices. This is bound to produce different results to some extent.

There is also another source of difference between the two sets of data, although no doubt less important. Owing to the foreign trade returns used in the new datasets, their part of the exports and imports is reported as of in foreign port, not Icelandic port of entry. This is counter to standard practice where exports are reported in the port of departure and imports in the port of arrival. This means that no account is taken of shrinkage in handling (unloading and loading) and during voyages. While this is a negligible source of error, losses of ships and their cargo are more important. It is impossible to assess this marginal error with any certainty, but this causes a small

understatement of exports and overstatement of imports, and it also produces a smaller balance (or deficit) of trade than it was in fact.

But even when taking these differences into consideration, exports were under-reported in the IceStat datasets, which is not surprising given the source material. This is evident from the Denmark and Norway datasets. The extra imports values in the new datasets in the beginning also witness the same: an under-reporting in the Icelandic sources. Note, however, that estimates for under-reporting in the Britain datasets also add to the difference. But what is intriguing about the imports is that the new datasets report lower values than the IceStat datasets as time passed. Here, merchants' margins evidently come to play. The exports suggest that the level of margins on exports broadly remained stable over time, but the imports indicate that the margins on imports rose substantially. In other words, there seems to have occurred a medium to long term change in the level of margins, and this will be probed into in chapter VII. Until now we have discussed general issues concerning the new datasets. However, the building of datasets for individual countries required various estimates and supplements to make up for lacunas and to extend the usefulness of the data. For details about these matters, I refer to the following sections, but first a short mention of the countries trading with Iceland in our period is in order.

During the second half of 19th century, only a few countries traded with Iceland. Because of the Danish monopoly of Iceland's foreign trade until 1855, all countries that took up trade with Iceland after 1855 were doing so after 250 years of Danish dominance, and they had to compete with age-old trading relations. The first ones to do so were Norway and Britain. Norway had in fact had a special permission to bring timber to Iceland since 1836 and even before that time in name. But the British were relatively new in 1855, although they also had had a special permission to engage in the Iceland trade, but only for the past few years and it had been confined to exports of live

horses.³² First after 1855, there were expectations that Spaniards would take up trade with Iceland and buy their traditional saltfish more directly, but this did not come true.³³ In the late 1880s, saltfish exports started to Italy (see Chapter IV), but other countries did not markedly enter Iceland's foreign trade until about 1900 onwards. Trade with countries other than those five was negligible in the late 19th century, although we have no figures to support it with until 1895, but this trade grew quickly over time. Incidentally, there was some contraband trade, mainly with French fishermen who flocked to Icelandic waters and came ashore for provisions and out of other reasons. Icelandic woollens were particularly favoured by them although they bought other goods too.³⁴ Evidently, the quantity of this trade is impossible to measure, and it makes no difference for the trade statistics analysis.

3.4. The Denmark Datasets

The datasets on Iceland's trade with Denmark were predominantly based on Danish trade returns, which were straightforward and perhaps the easiest of all the foreign returns to work with. They gave quantity information about practically all goods, had a comparatively disaggregated commodity classification, and very detailed country-by-country distinctions until 1910. Then, the category 'Other countries' was started in the returns, and Iceland no doubt sometimes was put in this group in the case of relatively

³² Þorkell Jóhannesson, 'Brot úr verzlunarsögu,' part 1, pp 236–7, 249.

³³ Valdimar Unnar Valdimarsson and Halldór Bjarnason, *Saltfiskur í sögu þjóðar*, vol. I, p

³⁴ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 404.

small imports and exports from the point of view of Denmark. Furthermore, there are unique accounts among the foreign trade returns used here of the definitions of trade in the Danish returns, and these can be found in the introductory text. The definition of the Danish customs zone changed over time, and there is nothing one can do about it, but it is useful to know of this.

On the other hand, the Danish trade returns had limited information about the values of the goods in trade. Before 1874, there were no direct information about values of trade, only national calculations using official prices, which were not market prices. From 1874 to the mid 1890s, the Danish returns offered two kinds of value information about trade. On one hand, there were national totals of the value of each good or commodity group in exports and imports individually. On the other hand, there were figures about the total value of imports to Denmark by countries, but there were no break-downs of these values and no information about exports of Denmark by countries, neither national figures nor disaggregated. In the mid 1890s onwards, information gradually became more extensive when there were offered total values of Denmark's exports by countries and break-downs of exports and imports by countries.

The values in the Danish returns from 1874 onwards broadly were equal to cif prices on Iceland's exports and fob prices on Iceland's imports, but presumably not completely so. This is because exporters and importers were not required to give information about the value of goods. Instead, the Danish statistical bureau collected all kinds of information from wholesalers, auctioneers, and others, and the bureau composed on the basis of this information some kind of average prices, which were held to be typical of the actual prices of exports and imports. These prices were used for the value calculations in the new datasets but in 1870, a different approach had to be employed. Here, I used an index of retail prices in Denmark to work out the country's export and import prices. Therefore, the values in Iceland's trade with Denmark in 1870 must be

regarded as rough estimates only. The use of Danish national values to calculate the value of Iceland's trade with Denmark inevitably levelled out any country-specific differences in prices in the Danish data. But nothing could be done about it until a summary of the trade with each country was included in the Danish returns from the late 1890s onwards. It specified the main items only, but some corrections to the average prices could be made for 1898–1913. Indeed, average prices of some exports and imports before 1898 were also modified on the basis of this information, although those alterations were bound to be a guesswork.

Useful as the value information in the Danish trade returns were to estimate values in Iceland's trade with Denmark, ample evidence suggests that the value data calls for a revision, in particular until the late 1890s. Apart from the corrections in values made from the late 1890s onwards, there are both qualitative and quantitative sources, which show that the average prices composed by the Danish statistical bureau do not always reflect prices in the Iceland trade. In the case of imports, Jón Sigurðsson quotes instances of this from about 1870, and in the case of exports there is sometimes a curious mismatch of merchants' purchase prices in Iceland and the sales prices of these commodities in Copenhagen. This mismatch emerges in a very small, if any, range between the two price levels, and sometimes in a negative range, which means that the purchase prices were lower than the sales prices.³⁵ This is of direct relevance for the theory commented on in chapter II about merchants' purchase prices of exports to Denmark exceeding their sales prices there. If the theory is to be tested seriously in future research, then it requires accurate and reliable value data not only for exports, but also imports, because of their intrinsic connection in the trade of Iceland with Denmark.

³⁵ Concerning imports, see Jón Sigurðsson, 'Um verzlun og verzlunarsamtök,' p 229. As for exports, I refer to the underlying base tables in my datasets, but these tables are too voluminous to reproduce.

The price movements of Danish imports to Iceland presumably can only be identified with precision by examining the accounting records of merchant houses in the Iceland trade, if there is any workable information about this there.³⁶ But in the case of Iceland's exports to Denmark, there is a tolerably accessible and probably a workable price data. Incidentally, the Danish broker firm Simmelhag & Holm had a substantial part of the Iceland exports in its hands for a long time. More important, the firm published an annual summary report of their business activities where fluctuations in prices over the year are briefed and the quantities involved are stated. In fact, the reports are a very interesting newsletter about exports of Iceland generally, because comments on exports to other countries are included.

In spite of the potential usefulness of the Simmelhag & Holm reports, they could not replace the value information in the Danish returns. Therefore, this supplementary source of information was not used, and perhaps the main problem is accessing the reports. According to a commemorative booklet about the firm on its centenary in 1934, the Danish newspaper *Berlingske Tidende* published these reports for some time.³⁷ They were also published separately, but it is not clear to me whether they were off-prints from the newspaper or copied by the newspaper. Unfortunately, the *Berlingske Tidende* is not in Iceland, and enquiries about the separate issues in the Danish and Icelandic national libraries and the Danish business archives have had no positive results.³⁸ The existence of these separate issues is, however, evident from a few copies kept in the

³⁶ Archives of a number of merchant houses in the Iceland trade is kept in the National Archives of Iceland, Economic History Department (hagsögudeild), but they often are incomplete. Some, but probably few, archives of merchant houses trading with Iceland are kept in the Danish National Business Archives (Erhvervsarkivet) in Århus.

³⁷ D. Petersen, *Simmelhag & Holm*, p 6.

³⁸ These are the Royal Library, Pamphlet Department (Det Kongelige Bibliotek, Småtryksafdeling), in Copenhagen, the Danish National Business Archives (Erhvervsarkivet) in Århus, and the National and University Library of Iceland, National Department (Landsbókasafn Íslands – Háskólabókasafn, þjóðdeild), in Reykjavík.

Library of the Central Bank of Iceland. Consequently, any work on the reports by Simmelhag & Holm will have to take place in a Danish library holding the newspaper.

The use of the foreign returns after 1895 gave an opportunity to test more extensively the suggestion made in the beginning of the chapter that the general under-reporting in the Icelandic merchants' records continued well into the 1900s and even longer. This suggestion was made by the examination of the exports quantities of several goods, most notably saltfish because it was mainly in the hands of permanent merchants. The comparison of the new datasets with the IceStat datasets supported it (see above), but it did not say anything about Iceland's imports by quantity or whether the under-reporting was country-specific. In the case of Denmark, this suggestion holds true because about 21–33% by quantity was missing in the imports therefrom in 1898–1906, but it fell down to 1–2% in 1910–13 (Table A.4). By contrast, examination of the exports to Denmark produced conflicting results. In 1898 and 1902 the Icelandic returns over-reported the quantity to Denmark by 10% and 3% respectively. In 1906 and 1910, 15–18% by quantity were missing in the Icelandic source, but only 2% in 1913 (Table A.3).

3.5. The Norway Datasets

In contrast to the Danish source, the Norwegian trade returns were in many ways problematic to use. This owed mainly to the partial and slightly haphazard disaggregation of trade generally, and the trade returns were not as extensive and uniform over time as the Danish returns. Although the total value of trade with Iceland

(exports and imports) always was stated, the breakdown of the goods varied considerably. Even large items of trade sometimes had to be located by way of exclusion and with calculations of quantities, values, and prices backwards and forwards. In the case of Iceland's exports, this came mainly down on saltfish and herring, which were put in a combined group of 'salted or dried fish' (Norw. *Fisk, saltet eller tørret*) during 1886 to 1906. In the case of imports to Iceland, this emerged in a complete lack of specification of foreign goods (Norway's re-exports) from 1870 to 1886. Since they were particularly large in Iceland's imports from Norway in the beginning (60–70% in 1870–74), this is a drawback, although the trade with Norway was not relatively large.³⁹ Another peculiarity of the Norwegian trade returns, and possibly linked to the non-specification of foreign goods, is that ship provisions seem to be included in the trade returns right from 1870. Anyway, this was the case around 1900 and must be the explanation for occasional exports of salt and coal from Iceland to Norway, besides tiny exports of, for instance, coffee, sugar, and barrels.⁴⁰ Salt and coal were imported to Iceland from Norway, and it is highly doubtful, to say the least, that those commodities were sold to Norway like any other exports of Iceland. Besides, there are qualitative evidence that salt at least was brought back to Norway by fishing ships if the fishing in Icelandic waters had failed.⁴¹

The combined group of saltfish and herring was dissolved by some guesswork and estimates on the basis of known or plausible facts in the Norwegian and Icelandic trade returns. Also, the lack of specification of imports in 1870 onwards was partly

³⁹ I refer to the base tables in my datasets for imports from Norway, but they do not accompany the thesis, because they are too voluminous to reproduce.

⁴⁰ I refer to the base tables in my datasets for exports to Norway, but they do not accompany the thesis, because they are too voluminous to reproduce. The inclusion of ship provisions in the Norwegian trade returns around 1900 is commented on in Icel., Min. of Icel., *Landshagsskýrslur fyrir Ísland 1905: Verzlunarskýrslur* 1904, p 9.

⁴¹ K. Shetelig Hovland, *Norske seilskuter*, pp 50 (twice), 88, 92, etc.

reduced by certain estimates for salt.⁴² As for the peculiar salt and coal exports to Norway, both commodities were removed from Iceland's exports, and the quantities subtracted from the quantities imported from Norway. Thereby, we located net imports of salt and coal from Norway to Iceland. Apart from saltfish and herring, guesswork sometimes had to be used in locating other exports and imports too, and because of all the guesses and estimates in the datasets for Norway, it would be desirable to check the most important series. That can only be done by consulting Norwegian customs records, if they exist, and, for certain commodities, the Icelandic customs records. Notwithstanding, even if there are errors and lacunas in the datasets for Norway, we have a picture of the main outlines of Iceland's trade with Norway.⁴³ As the datasets stand now, 94–100% of Iceland's exports to Norway by value were identified with reasonable certainty. For imports, the rate is only 41–77% in 1870 to 1882, but 94–100% after that.⁴⁴ True, this is not an accurate measure, and some of the values presumably would need revision. But they do not undermine the identification of the goods, rather they show that the values remain to be adjusted. This, however, tends to be

⁴² The imports of salt from Norway to Iceland were estimated on the basis of logic that there had to be some correlation between the amount of imported salt and the amount of exports where salt had been used. These exports primarily were saltfish and herring, because salted mutton was comparatively insignificant and domestic consumption presumably was not great or changing substantially. On the premise that herring and cod (for saltfish) caught by Norwegians mainly was exported to Norway, the salt imports to Iceland from Norway were compared to the exports of herring and saltfish thereto. According to the new datasets for Norway, salt imports by quantity from 1890 to 1912 (when the figures are relatively reliable) usually equalled to 50 to 64% of the exports of saltfish and herring by quantity. Hence, the salt imports from Norway to Iceland from 1870 to 1886 were estimated by working out 60% of the herring and saltfish quantities.

⁴³ Indeed, the Faroe Islands are included with Iceland in the Norwegian trade returns until 1889. But in that year, no exports were reported from the Faroes to Norway (if they were any, they clearly were negligible), and imports to the Faroes from Norway were a fraction of 1% (Norw., Centr. Bur. of Stat., *Tabeller vedkommende Norges Handel* 1889, pp 64, 72). Therefore, it seems safe to conclude that the Norway's trade with the Faroes not of no importance for the accuracy of the new datasets for Norway.

⁴⁴ I refer to the base tables in my datasets for exports to and imports from Norway, but they do not accompany the thesis, because they are too voluminous to reproduce.

difficult because the national and commodity values and prices provided in the Norwegian returns obscure variations in prices by countries.

Although at present the datasets for Norway are somewhat less accurate than the datasets for Denmark, the series for Norway excel over the Icelandic returns. They were particularly poor here because 37–49% by quantity of the imports were missing in 1898 to 1910. In 1913, however, the Icelandic source over-reported the imports slightly (by 4% by quantity, see Table A.4). As for Iceland's exports to Norway, the Icelandic returns were far from the right, because in 1898 they over-reported the exports thereto by 61% by quantity, while they under-reported it by 44–89% in 1902–10. By contrast, in 1913 the Icelandic source over-reported the quantity slightly (by 3%, see Table A.3).

3.6. The Spain and Italy Datasets

Compared to Denmark, Norway, and the United Kingdom, the trade returns of Spain and Italy presumably were relatively poor in our research period. For some reason at least, they are never used to study the saltfish imports of Spain and Italy in late 19th and early 20th century. Instead, consular reports are extensively used, although they tend to have lacunas and incomplete information. Therefore, it presumably makes small difference for the research although the trade returns of Spain and Italy were not available to me for consulting.

At it happens, saltfish was practically the only export commodity from Iceland to Spain and Italy in our period, and imports therefrom to Iceland non-existent to the best of my knowledge. This simplified matters and in the circumstances, two methods

Table A.5. Estimation of Saltfish Exports from Iceland to Spain and Italy (Quantity and Value), 1870–94

Quantity: Optional calculations							Tonnes			
Year	UK, Spain and Italy (Method B)		UK (Method A)		Spain and Italy					
	Saltfish	Saltfish+ Herring	Saltfish+ Herring	Saltfish+ Herring	At Minimum	At Maximum				
1870	3 564	3 570	946	2 618	2 623					
1874	3 670	3 671	1 241	2 429	2 430					
1878	4 892	5 206	1 958	2 934	3 248					
1882	5 165	16 448	1 352	3 813	15 096					
1886	4 575	7 253	4 594	- 19	2 659					
1890	6 844	7 521	4 545	2 300	2 976					
1894	8 069	9 057	5 633	2 436	3 424					

Quantity and Value					Krónur/Kroner		
Year	Quantity Tonnes to		Aver. Pr. per Tonne ("DMW")	Value ("FAMW")		Value of Exports To Spain	To Italy
	Spain	Italy*					
1870	2 618	—	277	724 245	—	—	—
1874	2 429	—	301	730 164	—	—	—
1878	2 934	—	273	800 253	—	—	—
1882	3 813	—	382	1 457 020	—	—	—
1886	0	—	207	0	—	—	—
1890	800	1 500	259	206 889	388 153	—	—
1894	1 436	1 000	223	320 007	222 831	—	—

Sources: Table EXP/UK-1
Table EXP/UK-8

Sources: Table EXP/DEN-1
* The quantities to Italy in 1890 and 1894 are estimated on the basis of export quantities to Spain and Italy 1895 onwards (cf. V.U.V. and H.B.: *Saltfiskur í sögu Þjóðar*, vol. 1, pp 255-56.

were used to estimate direct saltfish exports to Spain and Italy, one for 1870-94 and another for 1895–1913. The method employed for 1870-94 was the following (see Table A.5). From Iceland's total exports of saltfish, as reported in the Icelandic customs records, I subtracted the quantities going to Denmark and Norway, as reported in their respective trade returns. From this figure I subtracted what Britain, according to its trade returns, had imported of saltfish and herring. Here, herring was included because the British returns put saltfish and herring in one group. To be on the safe side, I ran this calculation including herring, but this exercise produced absurd figures, which showed that herring was a negligible part of the British imports of cured fish. Hence, the residual outcome of this calculation with saltfish only showed what Spain and Italy had imported directly from Iceland. As for the individual share of each country, this was easy from 1870 until the late 1880s, when only Spain was buying Icelandic saltfish. From the late 1880s onwards, when Italy started buying saltfish from Iceland, the figures for both Spain and Italy are partly a guesswork. But they are based on estimated exports of saltfish and herring to Norway (as far as the Norwegian trade returns could be squeezed to give information about this) and the fact that owing to a discriminatory tariff in Spain, direct saltfish exports from Iceland to Spain were much smaller than before 1886 and after 1893, when a new tariff convention was reached. The values of the saltfish exports to Spain and Italy were calculated by multiplying the quantities with the average purchase prices of saltfish reported in the price reports of merchants in Iceland.⁴⁵ Since these prices only produced DMW values, they are too low (below fob values) but they had to serve as a plausible estimate in the circumstances.

The method used for establishing the saltfish exports to Spain and Italy from 1895 to 1913 was much simpler, and it had already been carried out in a published

⁴⁵ In fact, the prices for saltfish were weighted average prices, based on unpublished

work. First, the actual shares of countries in the saltfish exports, as reported by the merchants' records, were calculated. Then, these shares were transposed to the higher figures in the customs records, thereby producing plausible estimates about the quantity of saltfish going to each country.⁴⁶ The values, however, remained on the DMW basis, but they now were actual values, not average price values.

It goes without saying, that the calculation of saltfish exports to Spain and Italy from 1870 to 1894 in the new datasets is not conclusive. It would be desirable to work through the Icelandic customs records to obtain more reliable information about the saltfish exports, not only to Spain and Italy, but also to Norway and Britain. Therefore, the Icelandic customs records pose a great opportunity to get a more accurate picture of Iceland's saltfish exports by countries, than the foreign trade returns or the Icelandic merchants' records can offer, even after 1894. But while the customs records no doubt are the best source, it is a laborious task to work on them, and it was not considered possible to do this for the research.

calculations of the present author.

⁴⁶ Halldór Bjarnason, 'Töfluviðauki,' part 1, pp 244.

3.7. The Britain Datasets⁴⁷

3.7.1. First Attempt

The United Kingdom was influential in the development of Iceland's foreign trade and its economy during 1870–1913.⁴⁸ Therefore, it was most unfortunate that the UK trade returns turned out to be of limited use for a considerable part during the research period, extensive and informative as they are. The problem was that during 1871–1900, Iceland's exports and imports were included in the UK trade returns with those of Denmark proper, the Faroe Islands, and Greenland. Before 1871, Iceland was stated along with the Faroe Islands and Greenland, but after 1900, Iceland was put with Greenland in the trade returns. The inclusion of Greenland after 1900 caused only a relatively small error for Iceland, but the figures during 1871–1900 constituted a real problem.

The first solution, which was attempted, was to use British and Danish trade returns jointly to locate the trade of Britain with Iceland. In the Danish trade returns, only exports and imports of Denmark proper with the United Kingdom were listed. If we

⁴⁷ In the years 1870 to 1894, the datasets for Britain include, besides Britain herself, unspecified 'other countries,' i.e., all other countries than Denmark, Norway, Spain and Italy, and Britain. However, the category 'Other Countries' had a negligible share in the Iceland trade until about 1900 onwards. The share of this category was only 0.2% and 2.3% by value of Iceland's exports and imports respectively in 1895, according to the Icelandic trade returns. Note that even though the returns are inaccurate about the quantities and values of trade, they are tolerably correct about the share of each country. Anyway, a bias in this matter does not refute the fact, that 'other countries' until after 1895 were insignificant in Iceland's trade, and, hence, the discussion in this section will only deal with Britain. For an account about the share of 'other countries' after 1895, see a special section.

⁴⁸ In the thesis, the terms United Kingdom and Britain are used alternatively. The British trade returns applied to the United Kingdom (Northern Ireland included), but trade between Northern Ireland and Iceland hardly existed. Therefore, and because of linguistic felicity, Britain is usually preferred.

subtracted the imports of Denmark from Britain, as reported in the Danish returns, from the total exports of Britain, as reported in the British returns, to the Kingdom of Denmark, as reported in British returns, one could get Britain's exports to Iceland, the Faroe Islands, and Greenland as a group. Similarly, if we subtracted the exports of Denmark proper to Britain, as reported in the Danish returns, from the imports of Britain from the Kingdom of Denmark, one could get Britain's imports from Iceland, the Faroe Islands, and Greenland as a group. Since Britain's trade with the Faroes definitely was insignificant and with Greenland almost certainly negligible, the British residual figures should give a relatively good proxy of the trade between Britain and Iceland.

This method was attempted but the results were far from satisfactory. The quantities that were supposed to be exported from or imported to Iceland were of a much higher level than was conceivable, sometime many times higher than Iceland's total imports or exports of the commodities in question as presented by the Icelandic trade returns (even allowing for a generous under-reporting). Furthermore, some of the alleged commodities may have been exported or imported in small quantities, but since they are never listed in Icelandic trade returns, the quantities produced with this method were a mere fiction. All in all, this set of data as a measure of Iceland's trade with Britain was completely invalid.

Why did this exercise turn out to be so unrewarding? The explanation is mainly the following. It is obvious that many of Britain's exports that were reported in the British returns as going to Denmark went onwards from Danish territory to other countries (Norway, Sweden, etc.) without being cleared through Danish customs. And *vice versa* for Britain's imports: Goods reported in the British trade returns as coming from Denmark were only passing Denmark on their way from other countries and not cleared by Danish customs. To be sure, this was in no way a strange practice by the standard of the day. A long established practice in the making of trade returns was

precisely this. In the case of exports, they were assigned to the country where the ship would next touch harbour (when it was cleared). Analogously, imports were assigned to the country where the ship had last touched harbour before entering. Hence, the country that was buying or selling the commodity was not necessarily registered. However, that principle was in our period gradually replacing the older practice just described.⁴⁹ With the benefit of hindsight, this was a hit or miss attempt because of the way trade returns were made. However, its advantage was that sources were printed and accessible, the British Board of Trade possibly had started using the buying/seller-country principle early on, and provided that transshipments and other stop-overs in Denmark were not very many proportionally, its results could be trustworthy. But, alas, it did not turn out to be that way.

3.7.2. Second Attempt

Since the attempt to use Danish and British trade returns jointly proved futile, a new method had to be applied for the sample years from 1874 to 1894. The trade in 1898 was stated in the Icelandic trade returns, and they had to be used although the trade no doubt was under-reported. Two ways were possible to produce series for 1874 to 1894. One was to look for the originals of the British trade returns, or the underlying records, or some trade sources in Britain that had the necessary information. Another way was to

⁴⁹ This transition in the making of trade returns was happening in Denmark, Norway and Iceland in the last decades of the 19th century and the beginning of the 20th. See the introductory text in the Danish and Norwegian trade returns, and legislation concerning Icelandic trade returns. Due to lack of explanatory text in the British returns, it is not clear when the buying/selling-country practice replaced the first/last-harbour principle.

use the Icelandic trade returns as a base and subtract from the figures there the quantities stated in the Danish and Norwegian returns. That would give us all exports to and all imports from countries other than Denmark and Norway. Effectively, this meant that trade with the United Kingdom, Spain, Italy, and ‘other countries’ formed the residual.

Since there was no certainty that alternative British figures might be found, the second approach was selected. It was not without disadvantages, but it presumably would give a satisfactory proxy of the trade with Britain. The inclusion of Spain and Italy would cause no error in estimating Iceland’s imports from Britain because there were no imports therefrom, as far as is known. Exports to Spain and Italy were just about one commodity, saltfish, and a special method, described above, would enable us to separate the direct saltfish imports to the Mediterranean countries from the saltfish exports to Britain. As for the unspecified group of all other countries than Denmark, Norway, Britain, Spain, and Italy — namely ‘other countries’ — trade with them was negligible, even until the 1890s, and did not pose any problem. Last but not least, there was no chance this approach would fail in the same manner as the first attempt, because goods definitely were not transhipped in or passing through Icelandic ports.

This method was applied to locate goods exchanged between Britain and Iceland except for two: Exports of live sheep and live horses. This is because there was an easy way to improve the series for those two exports. Incidentally, Sveinbjörn Blöndal had produced more accurate figures for live sheep exports with contemporary papers, but his figures, nevertheless, only stated quantities that he could document with his sources, so his series remained minimum figures in spite of their great improvements.⁵⁰ In the case of British live animal imports, what was registered in the British trade returns as coming from the Kingdom of Denmark was almost certainly coming therefrom, but not by-

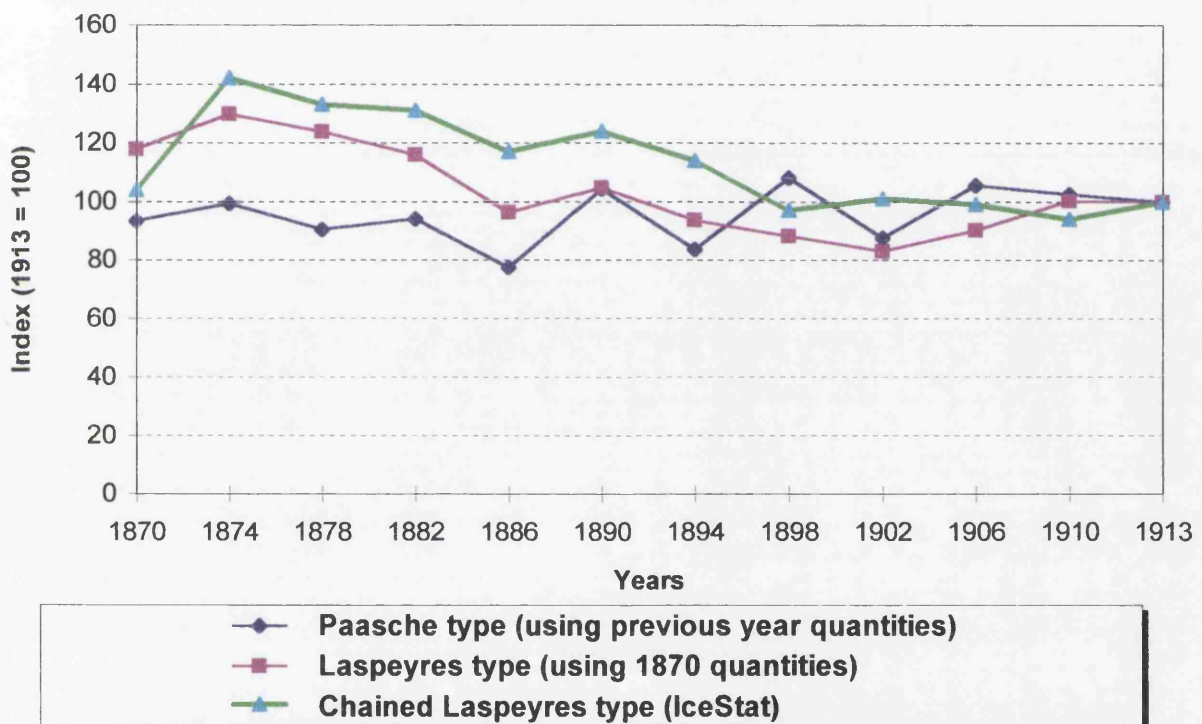
⁵⁰ Sveinbjörn Blöndal: *Sauðasalan til Bretlands*.

Figure C.1



Figure C.2

Price Indices for Total Imports of Iceland, 1870–1913



passing it. Hence, by subtracting exports of live sheep and horses from Denmark to Britain (according to Danish returns), the residual figure in fact applied to Iceland only; the Faroes and Greenland did not export live sheep and horses at all. The outcome of this exercise was that the figures for live sheep were nearly always slightly higher than Sveinbjörn's — in spite of the number of sheep that died on the voyage. However, when Sveinbjörn reported a higher figure, it was to be preferred, of course.⁵¹ In the case of live horses, the exercise always gave higher figures than when simply subtracting Denmark's and Norway's imports of live horses (according to their respective returns) from the total exports quantities stated in the Icelandic returns.

The results of this second attempt were rather satisfying, because evidently they could not violate known or plausible facts about the trade between Britain and Iceland in 1874 to 1894. There are, nevertheless, some sources of error and one is the fact that imports from Norway in 1870 and 1874 are substantially under-estimated in the new datasets, as we discussed above, and considerably too in the year 1878.⁵² Therefore, owing to our calculation method, these imports from Norway — insofar as they were reported at all by the Iceland merchants in their reports to local sheriffs — are ascribed to Britain. This, however, is a small weakness compared to the under-reporting in the Icelandic trade returns. Essentially, it can emerge in two ways, one of which is a more or less constant under-estimate of the quantities of goods reported, while the other is called

⁵¹ Sveinbjörn Blöndal says in his *Sauðasalan til Bretlands* that the British trade returns are not accurate, and that they report lower imports of live sheep than Icelandic and Danish returns register exported thereto (p 12). Judging from the majority of the sample years in the new datasets, i.e., 1870, 1874, 1878, 1882, and 1886, Sveinbjörn's claim is not correct. Only in 1890 and 1894 was Sveinbjörn able to document higher figures than my second attempt produced, and there was a substantial difference in 1890 for which I have no particular explanation. Either a part of the live sheep reported as coming from Denmark (according to the British returns) were in fact from Iceland, or there is some double-counting in Sveinbjörn's study.

⁵² This is not a problem in the case of exports, because there is a full account of the exports of Iceland to Norway from 1870 and throughout the period.

Figure C.3

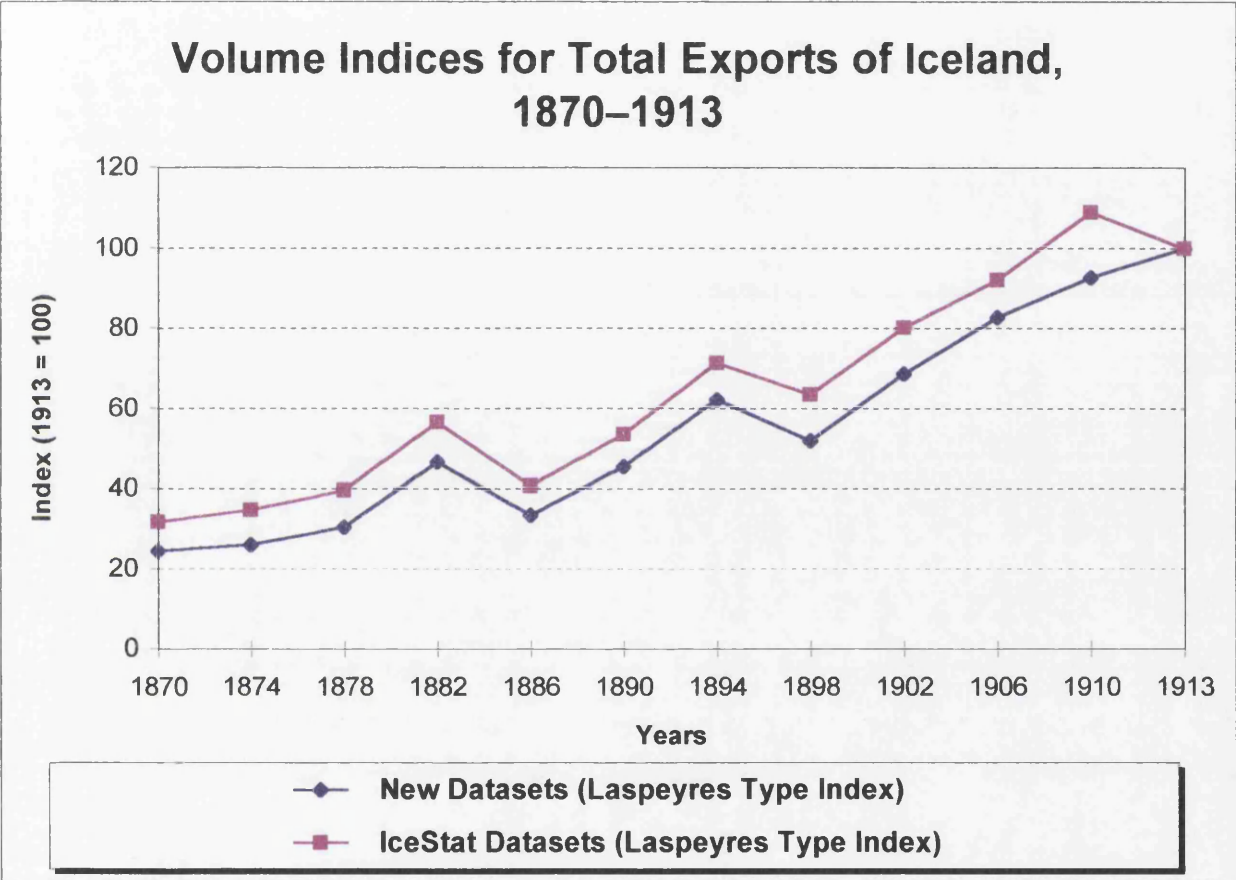
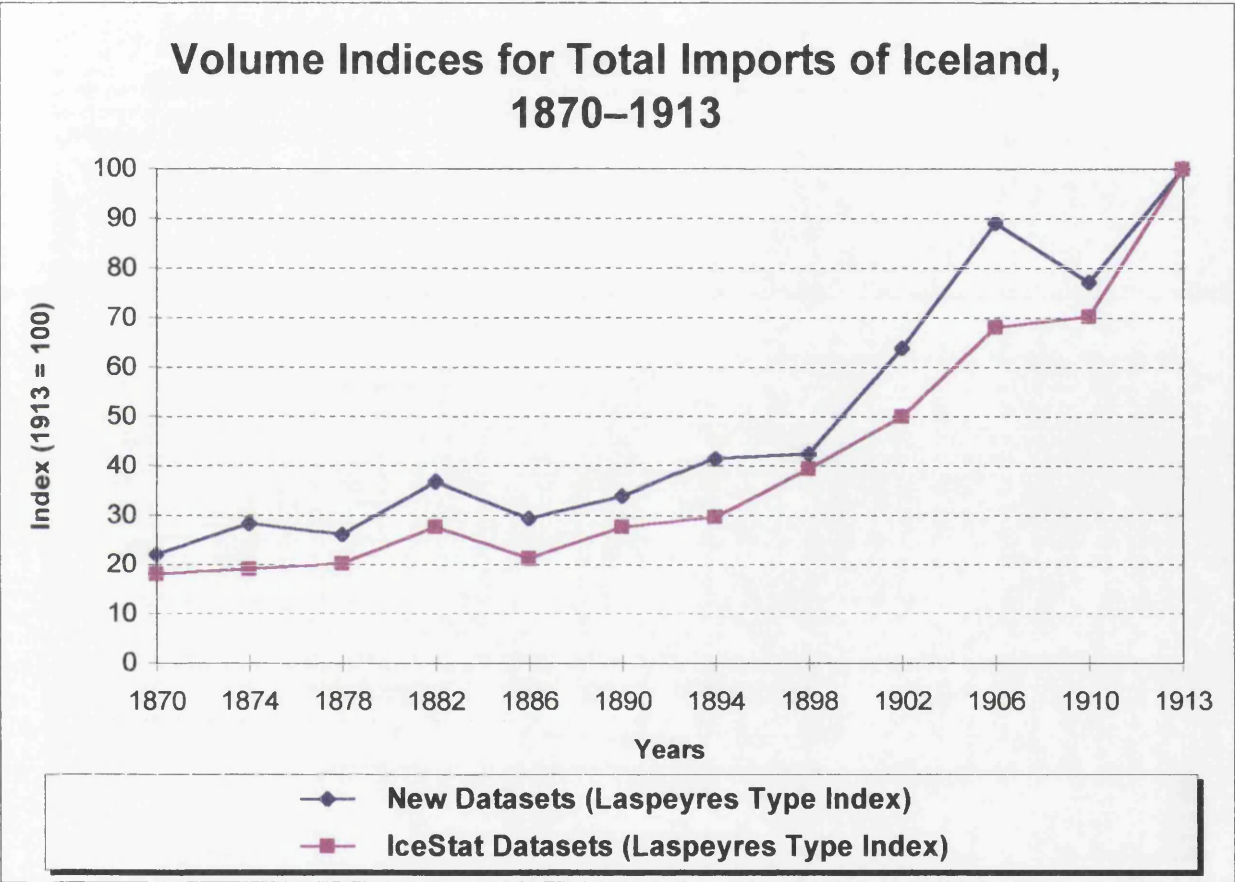


Figure C.4



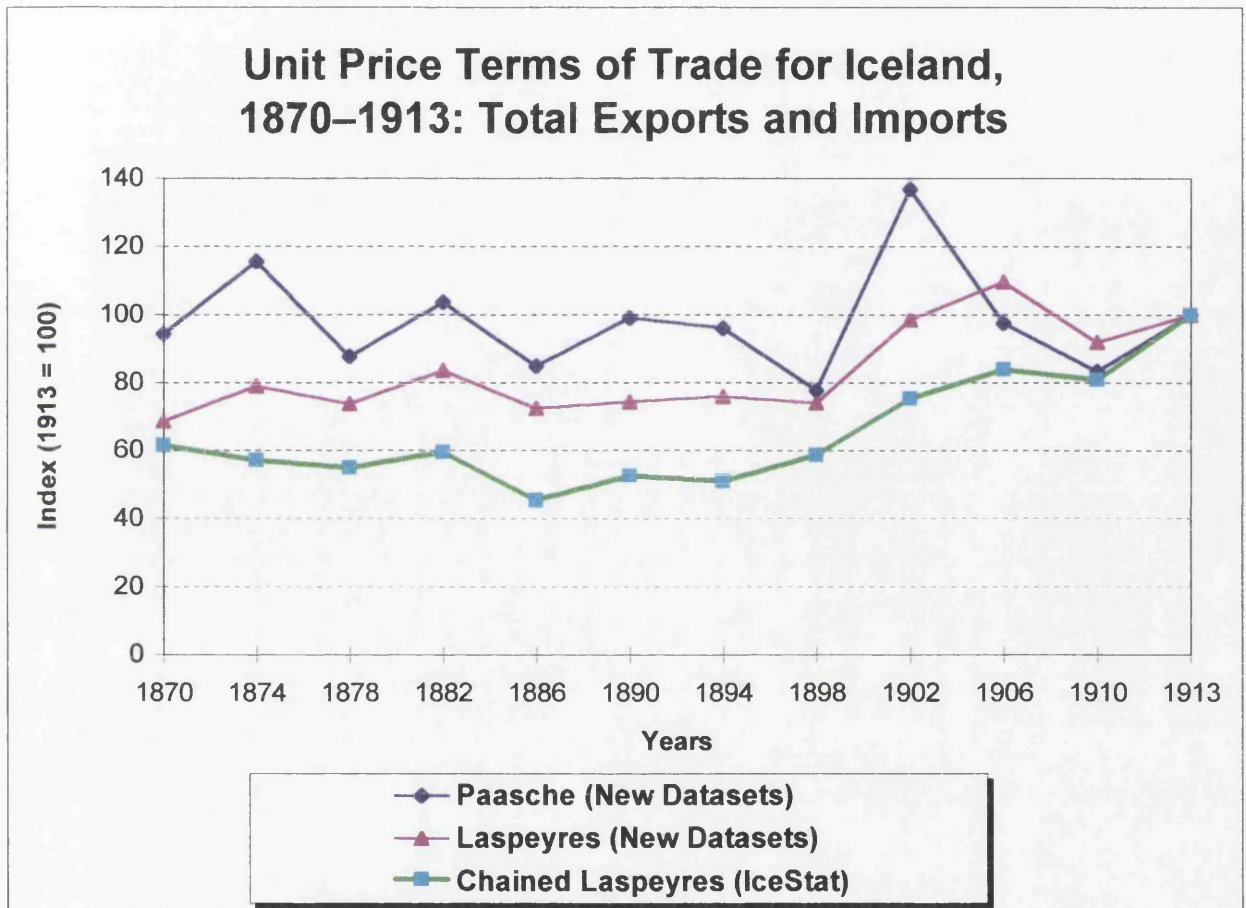
forth through individual and irregular lacunas because of non-reporting. Filling in gaps from non-reporting is bound to be a considerable guesswork, and this was not done for any of the imports or exports, although this fault inevitably causes an occasional underestimate of individual figures. Incidentally though, exports series of saltfish had in an earlier work been improved in this respect and these series were used here.⁵³ Besides, a more important question was how much the general underreporting was, namely how much larger approximately the imports and exports really were. Fortunately, there are several clues to this and partial information that we may use to suggest the level of under-reporting in the exports and imports.

3.7.3. Under-Reporting in the Imports

When customs records for imports started in 1872, only alcoholic drinks were subject to tariff. Unfortunately, the import quantities of this type of good were not worked out until 1883 onwards. Hence, this potentially useful source could not for this research provide a proxy of the under-reporting in the 1870s. However, there is an interesting clue to be observed in the extent of under-reporting in Iceland's imports from Denmark in the year 1870. Then, the elementary country distinction was still provided in the Icelandic trade returns, and Denmark formed an individual category, while all other countries formed another category. I did not make an exhaustive account of the imports from Denmark for 1870, as they were reported by merchants in Iceland, but I examined ca 85% of it (measured by quantity). When the quantities of these particular commodities were

⁵³ Halldór Bjarnason, 'Töfluviðauki,' part 1, pp 238–40, 252.

Figure C.5



compared to the quantities stated as going to Iceland in the Danish trade returns, some 24% of the total sum was missing in the merchants' records. The median was 31%, mean 35%, and standard deviation 25. Different measurements of these commodities in the two countries may explain some of the difference, but the largest part is probably due to the usual causes of under-reporting, i.e., to hastiness and carelessness in the making of the reports, and downright lacunas (non-reporting) owing to negligence of permanent and seasonal merchants.

After the data in the customs records for imports started to be aggregated and published (in the Icelandic trade returns), this source provided our second hint of under-reporting in the imports. An unpublished statistical examination of these particular imports, which were so-called luxuries at the time, was kindly made available to me by the author, Magnús S. Magnússon, and it applied for the years 1886–1907. There, he had converted the different units of measurement into tonnes, and if we add the quantities of these goods up every year from each of the two sources, merchants' records and customs records, the under-reporting in the first was on average 9% in this period. It is noteworthy that there was a gradual decrease from one level to another in the under-reporting as time passed. It was greatest in the early years, 1886–91 (15–20%), fluctuated somewhat in 1892–94 (8–14%), after which it dropped notably (3–7%).⁵⁴ The last phase in this development can probably be attributed to the new law in 1894 on official statistics recording (taking effect in 1895), where the standard was increased and the administration became stricter on the preparation of the merchants' records and their return.

The third hint is the level of under-reporting by countries from 1898 onwards. A comparison of the foreign trade returns and the series in the Icelandic trade returns,

⁵⁴ Magnús S. Magnússon, 'Tollreikningar og vsk 1886–1907' (table).

unadjusted for the extra quantities in the Icelandic customs records for imports, allows a speculation about the level of under-reporting before 1898. In line with the under-reporting by value (see the comparison of the new and the IceStat datasets above), it was also evident by quantity and it varied from about 30% to 70%. Incidentally, these are exaggerations of the under-reporting because often goods are reported by value only in the Icelandic returns in this period, not quantities. A quick examination of the discrepancy between quantities and values in the Icelandic source suggests, however, that as much as 20–50% by quantity or more is missing from the imports in the Icelandic returns.⁵⁵

How do we interpret in a meaningful way these instances of under-reporting for the Britain imports dataset? The instance of Denmark in 1870 suggests that the general under-reporting was no less than ca 25%, possibly higher (see the median and the mean), though there were relatively huge swings, as the standard deviation witnesses (from zero to ca 50%). Magnús' examination on the imports of several luxuries from 1886 to 1907 indirectly supports this, because the under-reporting was as high as was 15–20% in the late 1880s. However, then it went down to 3–7% after 1894, which is in stark contrast to the huge under-reporting for Denmark, Norway, and Britain in 1898 onwards. The explanation probably is that while the under-reporting of goods subject to tariff decreased, the under-reporting of other goods increased because of rapidly growing diversification in imports from the 1890s onwards, both in terms of goods and mercantile channels between Iceland and other countries. Since it is impossible to say if there were

⁵⁵ For example, in 1898 about 72% by quantity is missing in the Icelandic returns of the imports from Denmark (as reported in the Danish returns). However, in the Icelandic returns, ca 40% by value of the imports from Denmark had no quantity information. The 60% that had value information amounted to 9,450 tonnes. By assuming that the other 40% had similar weight as the 60%, the total import quantities from Denmark were 15,750 tonnes. This was only 45% of what the Danish returns reported as exported to Iceland in that year, so about 65% of the import quantities from Denmark are missing in the Icelandic returns.

any secular changes in the level of under-reporting over time, it was decided to assume that it remained broadly similar and fixed at 20%. Thus, before subtracting the imports from Denmark and Norway from the Icelandic national figures, they were increased by a constant equivalent to 20% under-reporting. After 1898, the British trade returns became workable, and they were used instead of the Icelandic trade returns.

The estimated under-reporting level for the period from 1870 to 1898 is bound to produce uncertain imports series for Britain, but there are two other issues creating marginal error. First, some goods in the Icelandic trade returns had to be omitted because they were measured by value only instead of quantity. This is because figures in the other trade returns could not be subtracted from them for they are almost invariably based on quantity (weights or numbers). Furthermore, since the results were bound to be subject to some uncertainty, I used for the sake of convenience a summary table in Guðmundur Jónsson and Magnús S. Magnússon's (editors), *Hagskinna. Icelandic Historical Statistics*, instead of a full account of the imports on the CD-ROM disc (see above). Hence, the smaller items of trade were omitted from 1870 to 1894. Because of these two reasons, the imports data in the Britain dataset probably reports the minimum quantities imported from Britain, although the estimated under-reporting rate no doubt creates a greater margin of error, either upwards or downwards, from one year to another.

The British trade returns, which became workable for the sample years 1902 to 1913, are not subject to any under-reporting, but since the overall trade with Iceland was relatively insignificant for Britain, there is not a full account of Iceland's trade with her. The total values of exports to Iceland were reported, but then only the main items were listed separately (with quantity and value data), and the extent of this break-down varies by years. The share of identified imports was 83–87% by value in 1902–13 except for

1906 when it was only 57%.⁵⁶ Nevertheless, in comparison with the Icelandic trade returns, the British returns excelled because 23–33% by quantity was missing in the imports from Britain in 1902–10. In 1913, however, the Icelandic source became reliable (as in the case of Denmark and Norway too), and only 1% by quantity was lacking in the imports from Britain (Table A.4).

3.7.4. Under-Reporting in the Exports

A priori, one might expect that under-reporting would be the same in the exports of Iceland as in the imports. But it almost certainly was less in the exports, because they were relatively few and many of them exported in considerable quantities, while imports were numerous and many of them imported in small quantities that easily escaped reporting. Therefore, some clues were needed to ascertain a plausible under-reporting level for Iceland's exports from 1870 to 1898, because for 1902 onwards, the British trade returns were used. In the case of imports from Britain, we had information about the under-reporting in 1870. However, this source was of no use here. The reason for this is that for nearly every export commodity, merchants over-estimated the quantities that would be exported to Denmark. Overall, this over-estimation amounted to 12% of the quantities actually exported from Iceland to Denmark as reported in the Danish trade returns. Since all other countries, including Britain, formed the other category in the trade returns, there was no help from there either. The explanation for the over-estimation is this. When a ship was loaded in Iceland, it usually sailed to Denmark

⁵⁶ My new datasets for Britain.

(nearly always Copenhagen), and, hence, its whole cargo was ascribed to Denmark. But even if the ship did not change its course and sailed in fact to Denmark, it did not necessarily import into the country or clear through Danish customs the whole cargo. Instead, one of three things could happen: a) some of it was put in customs storage and later re-exported to other countries, b) the ship sailed onwards with a part of the cargo from Iceland, or c) part of the cargo was transhipped. This is way the Danish trade returns state lower figures than are reported in the merchants' export records in Iceland.

Fortunately, the customs records for exports became a useful source here, although not until the 1880s onwards. Only fisheries' products were subject to export duty, and the quantities reported in the merchants' records (i.e., trade returns) and customs records were compared. When we added the fisheries' products up every year, excluding saltfish though, and compared their quantities in both sources during 1886–1907, the total under-reporting turned out to be huge for most years, usually from ca 30 to over 70%. This stemmed mainly from exports of herring and whale products, which were overwhelmingly and wholly respectively in the hands of Norwegian merchants and businessmen. Reports from them were always difficult to obtain, so substantial quantities of these exports are missing from Icelandic trade returns. Due to the large share of herring and whale products in the overall fisheries' products, these under-reporting figures were not typical for other exports.

However, exports of saltfish, which was under an export duty, were largely in the hands of Iceland based merchants and, hence, are a more accurate measure of the under-reporting. During 1882–1910, the mean was 11%, but as in the case of imports to Britain, the ratio was comparatively high in the beginning (24–5% in 1882–83). Thereafter it was on a much lower level, moving from 8–15% in the late 1880s to 3–

12% around 1900, but then up again to 15–16% in 1909–10.⁵⁷ While 1909–10 seem to be a deviation from the trend, the high percentages in 1882–83 can be interpreted as reflecting initial difficulties in starting effective control of the saltfish exports. So, excluding the two initial years and two last, besides ca five extreme years in-between, the general trend seems to have been slowly downwards. In general, it seems plausible to assume that saltfish exports were better reported than non-duty exports, because of the incomes to sheriffs for keeping a close eye on its exports. Hence, the general under-reporting possibly was somewhat higher than for saltfish exports. Taking both these considerations into account, it was decided to set the initial under-reporting in Iceland's exports in 1870 at 17%, after which it fell by one per cent for each sample year, ending in 10% in 1898.

Of Iceland's exports to Britain in 1902–1913, 91–98% by value could be identified, which was a substantially better outcome than for Iceland's imports therefrom.⁵⁸ Incidentally, the Icelandic returns varied in their accuracy because only 2% by quantity were missing of the exports in 1902 and 9% in 1910, while 30% by quantity was missing in 1906, and the Icelandic source over-estimated the exports considerably in 1913 or by 17% by quantity (Table A.3). This was a notable exception to the general increasing accuracy of the Icelandic returns in the end of our research period.

⁵⁷ Halldór Bjarnason, 'Töfluviðauki,' part 1, p 239.

⁵⁸ My new datasets for Britain.

3.7.5. The Under-Reporting Problem: Possible Future Solutions

Of all the datasets, the greatest uncertainty is in those for Britain, besides Spain and Italy. Because of the significant share of Britain in the exports and imports of Iceland from 1870 onwards, it is of some importance to produce plausible data series about this trade. A few suggestions will be made here concerning this. One remedy might be to extract aggregate data from the customs records for imports from 1872 to the 1880s to underpin the estimated under-reporting level for Iceland's imports. But this would do nothing for the exports, of course.

Another option to improve the datasets for Britain in the 19th century would be to locate British sources. This is no problem for 1870 and the years preceding it, because the underlying records for the British trade returns are kept in Public Record Office. They contain a full account of both the exports and imports with Iceland (with which the Faroe Islands and Greenland are included). The period from 1871 to 1900 is a great problem because the records in the PRO group Iceland with Denmark proper, as the British trade returns do. Possibly, this could be solved by searching for relevant records from port authorities. A quick look at lists of port documents in the PRO did not produce positive results, and local archives might keep useful port records.

If archival sources cannot be found for all ports or are unmanageable for some reason, locating and extracting information from Bills of Entry might be worth considering as a supplementary source at least. Indeed, the Bills are a more workable type of source, because they are lists or papers that were published, although they are not kept in very many places in Britain. The Bills of Entry were issued weekly or more often, for some of the major ports of Britain, and they contain all kinds of information

about shipping, besides some data on imports and exports going through the port.⁵⁹ These are huge volumes, so it presumably would need a well-funded project with considerable staff to plough through them, but they offer a wealth of information.

The period 1901 to 1913 is also a bit difficult in terms of the underlying sources of the British trade returns. These records have for some reason not been returned to the PRO, as the records until 1900, and a short attempt to locate them outside the PRO had no positive results. Presumably, the records exist somewhere in the custody of HMS Customs and Excise and later search, if initiated, would have to start there. The size of unidentified imports and exports for 1902 onwards might conceivably be reduced by trying to fill in with the Icelandic trade returns, but they are problematic in use because of repeated changes in the classification and sometimes inadequate information, besides often having different definitions of the goods compared to the British returns.

3.8. The Datasets for ‘Other Countries’

Countries trading with Iceland from 1870 into the 1890s were practically none other than Denmark, Norway, Spain, Italy, and Britain. In 1895, the share of the category ‘other countries’ was only 0.3% and 2.3% by value of Iceland’s exports and imports respectively, according to the Icelandic trade returns. However, the share of ‘other countries’ grew fast in the late 1890s onwards, and in 1913 their share was 10.3% and 21.0% by value for exports and imports respectively. Of identified countries within the

⁵⁹ E. Carson, ‘Customs Bills of Entry.’

category 'other countries' in 1913, Sweden was the largest buyer of Iceland's exports but Germany was largest in Iceland's imports.⁶⁰ All information about 'other countries' were copied from the Icelandic trade returns, and they show DMW values for exports and retail values for imports until 1910, when the imports were put on cif basis. Hence, the exports values are below proper fob values while imports from 1898 to 1906 are above cif values. To produce proper fob and cif values, it would be desirable to locate the trade returns of the countries trading with Iceland, but it was not necessary for this research.

⁶⁰ Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 448.

Table EXP/ALL-1.	Exports of Iceland* by SITC Groups and Countries (Quantity), 1870-1913
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[illegible]

Table EXP/ALL-1. Exports of Iceland* by SITC Groups and Countries (Quantity), 1870–1913

SITC Groups	Countries	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity											
		Tonnes	1870	Tonnes	1874	Tonnes	1878	Tonnes	1882	Tonnes	1886	Tonnes	1890	Tonnes	1894	Tonnes	1898	Tonnes	1902	Tonnes	1906	Tonnes	1910	Tonnes	1913
4 Animal and Vegetable Oils and Fats																									
Grand Total	Denmark	963,0	1 078,5	786,9	849,1	1 185,9	1 036,6	863,4	965,8	598,0	378,7	926,3	1 118,4												
Grand Total	Norway	9,9	17,5	15,2	44,2	109,9	522,4	8,0	240,5	501,8	2 446,2	1 370,0	11,0												
Grand Total	United Kingdom (a)	432,5	300,1	559,5	1,5	227,0	870,1	3 830,5	3 522,1	3 698,7	3 258,1	3 326,8	1 199,8												
—	Spain	0	0	0	0	0	0	0	0	0	0	0	0												
—	Italy	0	0	0	0	0	0	0	0	0	0	0	0												
Grand Total	Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	800,0	0,0	0,0	1 130,6												
		1 405,3	1 396,1	1 361,7	894,8	1 522,8	2 429,1	4 701,9	4 728,4	5 598,5	6 083,0	5 623,0	3 459,8												
		16%	16%	11%	3%	10%	12%	17%	20%	17%	12%	11%	5%												
5 Chemicals																									
Grand Total	Denmark	75,7	0,0	0,3	0,0	0,0	0,0	0,4	17,8	0,0	37,2	0,0	0,0												
Grand Total	Norway	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0												
—	United Kingdom (a)	0	0	0	0	0	0	0	0	0	0	0	0												
—	Spain	0	0	0	0	0	0	0	0	0	0	0	0												
—	Italy	0	0	0	0	0	0	0	0	0	0	0	0												
—	Other Countries	0	0	0	0	0	0	0	0	0	0	0	0												
		75,7	0,0	0,3	0,0	0,0	0,0	0,4	17,8	0,1	37,2	0,0	0,0												
		1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%												
6 Manuf. Goods, by Material																									
Grand Total	Denmark	46,9	26,3	20,8	19,9	30,6	14,3	11,6	17,5	5,9	16,4	140,3	6,3												
Grand Total	Norway	0,0	0,8	2,0	4,0	4,4	0,0	0,0	0,2	0,9	7,5	4,5	0,8												
Grand Total	United Kingdom (a)	0,2	0,0	0,0	0,0	0,0	0,0	1,8	0,1	0,0	0,0	0,0	0,0												
—	Spain	0	0	0	0	0	0	0	0	0	0	0	0												
—	Italy	0	0	0	0	0	0	0	0	0	0	0	0												
—	Other Countries	0	0	0	0	0	0	0	0	0	0	0	0												
		47,2	27,1	22,7	23,9	35,0	14,3	13,4	17,8	6,9	23,9	144,8	7,1												
		1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%												
7 Machinery & Transp. Equipm.																									
Grand Total	Denmark	0,0	0,0	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0												
Grand Total	Norway	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,0	1,4	0,0	0,7	0,0												
—	United Kingdom (a)	0	0	0	0	0	0	0	0	0	0	0	0												
—	Spain	0	0	0	0	0	0	0	0	0	0	0	0												
—	Italy	0	0	0	0	0	0	0	0	0	0	0	0												
—	Other Countries	0	0	0	0	0	0	0	0	0	0	0	0												
		0,0	0,0	0,0	0,1	0,0	0,1	0,0	0,0	1,4	0,0	0,7	0,0												
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%												

Table EXP/ALL-1.	Exports of Iceland* by SITC Groups and Countries (Quantity), 1870-1913
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SITC Groups	Countries	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity
		Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
		1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913							
B	Miscell. Manuf. Articles																			
	Grand Total																			
	Denmark	0.3	0.3	0.4	0.3	0.8	0.5	0.2	0.5	0.4	0.5	0.2	0.0							
	Norway	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0							
	United Kingdom (all)	0	0	0	0	0	0	0	0	0	0	0	0							
	Spain	0	0	0	0	0	0	0	0	0	0	0	0							
	Italy	0	0	0	0	0	0	0	0	0	0	0	0							
	Other Countries	0	0	0	0	0	0	0	0	0	0	0	0							
		0.3	0.3	0.4	0.3	0.8	0.5	0.5	0.5	0.4	0.5	0.2	0.0							
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							
9	Misc. Transact. & Commod., n.e.s.																			
	Grand Total																			
	Denmark	25.7	4.8	16.8	39.4	84.6	36.3	59.8	143.0	98.9	43.5	0.0	1.3							
	Norway	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
	United Kingdom (all)	0	0	0	0	0	0	0	0	0	0	0	0							
	Spain	0	0	0	0	0	0	0	0	0	0	0	0							
	Italy	0	0	0	0	0	0	0	0	0	0	0	0							
	Other Countries	0	0	0	0	0	0	0	0	0	0	0	0							
		25.7	4.8	16.8	39.4	84.6	36.3	59.8	143.0	98.9	43.5	0.0	1.3							
		0%	0%	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%							
SITC Groups 0-9																				
	Absolute Figures																			
	To Denmark	3 405.7	3 203.5	3 905.9	5 387.0	4 168.0	5 332.8	6 539.3	5 682.4	8 142.0	11 759.2	13 303.0	17 610.2							
	To Norway	102.4	733.1	822.2	1 950.6	1 120.2	1 924.1	3 763.4	3 053.6	7 650.0	24 039.7	10 754.3	11 197.4							
	To the United Kingdom (and unspc.)	2 614.6	2 840.3	4 244.5	15 643.6	10 042.7	10 975.2	14 695.3	8 629.0	8 869.8	7 171.2	9 296.3	14 949.0							
	To Spain	2 618.0	2 428.9	2 933.9	3 812.6	0.0	799.5	1 436.1	2 492.7	3 625.8	4 825.7	8 086.7	4 771.5							
	To Italy	0.0	0.0	0.0	0.0	0.0	1 500.0	1 000.0	1 422.0	2 960.0	2 872.3	4 140.1	4 474.7							
	To Other Countries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 806.3	2 347.4	270.4	6 470.5	10 923.0							
Total Exports	8 740.7	9 005.9	11 906.5	26 793.8	15 330.8	20 531.6	27 434.1	23 085.9	33 595.0	50 938.5	52 050.9	63 925.8								
Percentage																				
	To Denmark	39%	36%	33%	20%	27%	26%	24%	25%	24%	23%	26%	28%							
	To Norway	1%	8%	7%	7%	7%	9%	14%	13%	23%	47%	21%	18%							
	To the United Kingdom (and unspc.)	30%	29%	36%	58%	66%	53%	54%	37%	26%	14%	18%	23%							
	To Spain	30%	27%	25%	14%	0%	4%	5%	11%	11%	9%	16%	7%							
	To Italy	0%	0%	0%	0%	0%	7%	4%	6%	9%	6%	8%	7%							
	To Other Countries	0%	0%	0%	0%	0%	0%	0%	8%	7%	1%	12%	17%							
	Total Exports	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						

Table EXP/ALL-2.	Exports of Major Commodity Groups from Iceland* by Origin and Country (Quantity), 1870-1913
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[illegible]

Countries	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
Denmark	0,0	0,0	0,0	0,4	0,1	0,1	0,0	0,1	1,1	0,1	76,2	19,9							
Norway	—	—	—	—	—	—	—	—	—	—	—	—							
United Kingdom (and unspec	24,5	0,0	0,5	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0							
Spain	—	—	—	—	—	—	—	—	—	—	—	—							
Italy	—	—	—	—	—	—	—	—	—	—	—	—							
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—							
Prepared/Preserved Food,	24,5	0,0	0,6	0,4	0,1	0,1	0,0	0,1	1,1	0,1	76,2	19,9							
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							
	6 259,8	6 447,7	9 306,7	24 454,4	12 752,2	16 751,2	21 120,5	16 258,0	25 703,7	42 497,9	43 389,0	56 156,5							
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%							
2 Crude Materials, inedib	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913							
Denmark	398,5	473,3	830,6	906,8	632,5	554,5	744,2	742,4	748,6	1 190,8	1 266,9	2 275,2							
Norway	19,2	38,3	40,9	48,4	76,8	55,6	295,4	204,2	738,6	435,7	303,2	177,3							
United Kingdom (and unspec	489,5	596,6	298,7	399,8	218,2	227,3	480,5	593,2	472,6	610,0	1 028,3	444,2							
Spain	0	0	0	0	0	0	0	2	0	3	14	1							
Italy	0	0	0	0	0	0	0	0	0	1	1	2							
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	361,9	224,1	5,8	272,4	1 396,5							
Animal Materials	907,2	1 108,2	1 170,3	1 354,9	927,4	837,4	1 520,1	1 903,7	2 183,9	2 246,3	2 885,6	4 295,9							
	99%	99%	99%	98%	99%	99%	99%	99%	100%	100%	100%	100%							
Denmark	5,3	5,3	0,9	7,1	3,9	3,6	10,7	10,2	1,6	4,4	8,6	2,0							
Norway	0,0	0,0	0,0	0,0	0,0	0,5	0,7	1,5	0,0	0,0	0,0	0,0							
United Kingdom (and unspec	0,0	0,0	0,1	0,4	0,0	5,1	4,8	2,8	0,0	0,0	0,0	0,0							
Spain	—	—	—	—	—	—	—	—	—	—	—	—							
Italy	—	—	—	—	—	—	—	—	—	—	—	—							
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,3	0,0	0,0	0,0							
Plant Materials	5,3	5,3	1,0	7,5	3,9	9,2	16,1	14,6	1,8	4,4	8,6	2,0							
	1%	0%	0%	1%	0%	1%	1%	1%	0%	0%	0%	0%							
Denmark	3,1	2,1	7,6	18,8	4,0	2,6	2,3	1,4	0,4	0,9	0,0	4,0							
Norway	—	—	—	—	—	—	—	—	—	—	—	—							
United Kingdom (and unspec	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0							
Spain	—	—	—	—	—	—	—	—	—	—	—	—							
Italy	—	—	—	—	—	—	—	—	—	—	—	—							
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—							
Mineral Materials	3,1	2,1	7,6	18,8	4,0	2,6	2,3	1,4	0,4	0,9	0,0	4,0							
	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%							
	916,7	1 116,6	1 179,9	1 382,2	936,3	850,2	1 539,5	1 920,6	2 187,1	2 252,6	2 895,2	4 302,9							
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%							

Countries	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
4 Animal and Veget. Oils	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	963,0	1 078,5	786,9	849,1	1 185,9	1 036,6	863,4	965,8	598,0	378,7	926,3	1 118,4
Norway	9,9	17,5	15,2	44,2	109,9	522,4	8,0	240,5	501,8	2 446,2	1 370,0	11,0
United Kingdom (and unsp	432,5	300,1	559,5	1,5	227,0	870,1	3 830,5	3 522,1	3 698,7	3 258,1	3 326,8	1 199,8
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	800,0	0,0	0,0	1 130,6
Off Animals	1 405,3	1 396,1	1 361,7	894,8	1 522,8	2 429,1	4 701,9	4 728,4	5 598,5	6 083,0	5 623,0	3 459,8
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Denmark	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Norway	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
United Kingdom (and unsp	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Off Plants	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	1 406,3	1 397,1	1 362,7	895,8	1 523,8	2 430,1	4 702,9	4 729,4	5 599,5	6 084,0	5 624,0	3 460,8
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Of Total Exports	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Agricultural Prod.	11%	10%	13%	14%	19%	24%	18%	15%	9%	7%	8%	8%
Fisheries Prod.	61%	61%	65%	77%	64%	58%	59%	55%	67%	76%	75%	80%
Cereals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other Plant Foodstuffs	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Prepared/Preserved Food, et	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0 Food	72%	72%	78%	91%	83%	82%	77%	70%	77%	83%	83%	88%
Animal Materials	10%	12%	10%	5%	6%	4%	6%	8%	7%	4%	6%	7%
Plant Materials	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mineral Materials	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2 Crude Materials, Inedible	10%	12%	10%	5%	6%	4%	6%	8%	7%	4%	6%	7%
Off Animals	16%	16%	11%	3%	10%	12%	17%	20%	17%	12%	11%	5%
Off Plants	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4 Animal and Veget. Oils a	16%	16%	11%	3%	10%	12%	17%	20%	17%	12%	11%	5%
Sum of these	98%	100%	100%	100%	99%	98%	100%	99%	100%	100%	100%	100%
Total Exports	8 740,7	9 005,9	11 906,5	26 793,8	15 330,8	20 531,6	27 434,1	23 085,9	33 595,0	50 938,5	52 050,9	63 925,8

Exports of Staple Commodities from Iceland* by Origin and Country (Quantity), 1870–1913																			
Countries	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity
	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
0 Food: Agricultural Products	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913							
Denmark	0,3	0,1	0,2	0,0	0,3	0,0	0,0	0,0	—	0,4	0,9	2,5							
Norway	0,4	1,4	—	0,8	4,1	—	—	0,5	0,3	—	—	—							
United Kingdom (and unspecified)	43,8	32,0	166,6	1 136,6	1 454,3	3 726,8	3 041,7	1 260,8	222,4	219,6	0,0	0,0	United Kingdom						
Spain	—	—	—	—	—	—	—	—	—	—	—	—							
Italy	—	—	—	—	—	—	—	—	—	—	—	—							
Other Countries	...	...	...	...	...	...	...	0,0	0,0	98,2	289,7	99,2	All Other Countries						
Live Sheep	44,4	33,4	166,9	1 137,5	1 458,7	3 726,8	3 041,8	1 261,3	222,7	318,1	290,6	101,7							
	5%	4%	11%	30%	51%	77%	61%	35%	7%	9%	7%	2%							
Denmark	1,4	1,4	0,7	28,4	23,1	15,1	1,4	52,2	37,5	685,7	672,0	468,0							
Norway	2,5	—	0,7	1,4	7,0	—	0,7	4,6	2,1	0,7	8,8	4,9							
United Kingdom (and unspecified)	339,2	48,3	376,6	929,6	826,0	810,3	596,1	940,8	856,1	606,2	498,8	486,2							
Spain	—	—	—	—	—	—	—	—	—	—	—	—							
Italy	—	—	—	—	—	—	—	—	—	—	—	—							
Other Countries	...	...	...	...	...	...	...	0,4	0,0	2,1	52,5	19,6							
Live Horses	343,0	49,7	378,0	959,4	856,1	825,3	598,2	997,9	895,7	1 294,7	1 232,0	978,6							
	37%	5%	25%	25%	30%	17%	12%	28%	30%	36%	30%	20%							
Denmark	—	—	1,2	—	0,1	—	0,0	—	—	—	—	—							
Norway	—	—	0,2	—	—	—	0,3	—	—	—	—	—							
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—							
Spain	—	—	—	—	—	—	—	—	—	—	—	—							
Italy	—	—	—	—	—	—	—	—	—	—	—	—							
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—							
Other Animals, Live	0,0	0,0	1,3	0,0	0,1	0,0	0,3	0,0	0,0	0,0	0,0	0,0							
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							
Denmark	487,1	472,7	736,1	1 076,2	519,3	216,4	1 010,2	878,3	936,4	1 379,8	1 601,8	2 362,6							
Norway	7,6	68,9	16,6	152,2	48,6	54,1	222,3	422,0	877,6	351,4	577,9	1 177,6							
United Kingdom (and unspecified)	57,6	292,0	222,5	441,5	0,0	11,3	93,2	8,6	0,0	0,0	0,0	0,0							
Spain	—	—	—	—	—	—	—	—	—	—	—	—							
Italy	—	—	—	—	—	—	—	—	—	—	—	—							
Other Countries	...	...	...	...	...	...	...	0,0	71,7	84,5	175,4	20,8							
Mutton	552,2	833,6	975,2	1 670,0	567,8	281,8	1 325,7	1 308,9	1 885,6	1 815,7	2 355,1	3 561,0							
	59%	91%	64%	44%	20%	6%	27%	37%	62%	51%	58%	73%							

Countries	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity	
	Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes	
Denmark	—	—	—	0,0	0,6	4,6	0,7	0,2	1,9	8,1	—	—	—	—	—	—	—	—
Norway	—	—	0,2	—	—	—	—	0,0	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecifie	0,0	0,0	3,5	0,8	0,7	2,5	—	0,1	29,9	117,8	168,0	216,2	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Butter	0,0	0,0	3,7	0,9	1,3	7,1	0,7	0,3	31,8	126,0	168,0	216,2	—	—	—	—	—	—
	0%	0%	0%	0%	0%	0%	0%	0%	1%	4%	4%	4%	—	—	—	—	—	—
Denmark	—	—	—	0,0	—	—	0,0	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecifie	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cheese	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	—	—
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	—	—	—	—	—	—
	940,7	917,7	1 526,1	3 768,6	2 885,0	4 842,0	4 967,7	3 569,4	3 036,8	3 555,5	4 046,8	4 858,5	—	—	—	—	—	—
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	—	—	—	—	—	—
0 Food: Fisheries Products																		
	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	—	—	—	—	—	—
Denmark	—	15,6	13,0	—	—	—	3,3	—	2,1	12,3	27,6	35,1	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	500,0	319,4	418,0	426,0	—	—	—	—	—	—	—
United Kingdom (and unspecifie	—	—	—	—	—	—	43,6	0,0	0,1	0,0	310,7	7 008,0	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Iced/Live Fish	0,0	15,6	13,0	0,0	0,0	0,0	46,9	500,0	321,6	430,3	764,3	7 043,1	—	—	—	—	—	—
	0%	0%	0%	0%	0%	0%	0%	4%	1%	1%	2%	14%	—	—	—	—	—	—
Denmark	4,3	0,0	0,2	284,2	120,1	309,6	1 161,9	595,6	3 358,2	3 490,0	3 632,4	3 327,7	—	—	—	—	—	—
Norway	14,7	1,5	391,2	900,0	200,0	750,0	1 250,0	75,0	500,0	17 882,2	5 844,9	8 518,2	—	—	—	—	—	—
United Kingdom (and unspecifie	5,9	0,6	314,5	11 283,2	2 678,5	676,9	987,6	0,0	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Herring	24,9	2,1	705,9	12 467,4	2 998,7	1 736,5	3 399,5	670,6	3 858,2	21 451,7	13 477,3	18 523,0	—	—	—	—	—	—
	0%	0%	9%	60%	30%	15%	21%	5%	17%	55%	34%	36%	—	—	—	—	—	—

[illegible]

Countries	Quantity Tonnes	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
2 Crude Materials, inedible													
Denmark	58,4	70,7	189,1	290,4	119,6	43,2	188,2	227,1	383,1	563,8	685,7	1 474,0	
Norway	2,5	8,9	5,8	20,3	6,9	0,8	31,5	0,4	3,3	8,1	12,2	3,2	
United Kingdom (and unspecified)	7,4	63,4	0,0	96,5	0,0	1,2	77,2	24,7	0,0	0,0	129,7	0,0	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	...	...	...	...	...	...	...	1,9	0,2	5,5	0,8		
Hides and Skins													
Denmark	68,2	143,0	194,9	407,2	126,5	45,2	296,9	254,0	386,6	572,1	833,1	1 478,1	
Norway	8%	13%	17%	30%	14%	5%	20%	13%	18%	25%	29%	34%	
Denmark	318,8	378,2	624,3	608,4	496,7	496,0	549,1	485,5	357,7	624,4	575,2	772,9	
Norway	16,5	29,1	35,0	28,0	14,3	26,0	40,6	27,0	44,0	25,8	12,4	5,3	
United Kingdom (and unspecified)	469,8	523,5	278,2	301,3	212,6	226,1	377,0	243,8	192,2	125,4	60,4	196,3	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	...	...	...	...	...	...	...	0,0	0,0	0,0	0,0	0,9	
Other Countries	...	...	...	...	...	...	...	0,0	104,1	5,6	251,7	218,3	
Wool													
Denmark	805,2	930,8	937,6	937,7	723,7	748,0	966,6	756,3	698,0	781,3	899,7	1 193,7	
Norway	89%	84%	80%	69%	78%	89%	64%	40%	32%	35%	31%	28%	
Denmark	17,6	10,0	12,3	5,1	13,4	9,0	3,9	2,3	5,1	2,1	3,5	3,8	
Norway	0,2	0,2	0,2	0,1	0,1	0,2	0,0	0,2	0,2	—	—	0,0	
United Kingdom (and unspecified)	6,3	4,8	—	1,0	—	—	1,7	0,7	—	—	—	—	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	...	...	...	...	...	...	...	0,0	0,0	0,0	0,0	20,0	
Feathers and Down													
Denmark	24,1	15,0	12,4	6,2	13,4	9,2	5,6	3,1	5,3	2,1	3,5	23,8	
Norway	3%	1%	1%	0%	1%	1%	0%	0%	0%	0%	0%	1%	
Denmark	3,7	14,6	5,0	2,9	2,7	6,3	3,0	27,5	2,7	0,5	2,5	24,5	
Norway	—	—	—	—	55,5	28,7	223,4	176,7	691,1	401,8	278,6	168,8	
United Kingdom (and unspecified)	6,0	4,9	20,5	1,1	5,6	0,0	24,6	323,5	280,4	484,6	838,2	247,9	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	360,0	119,8	0,0	11,2	1 151,0	
Bones, Baleens; Bone Meal and													
Denmark	9,7	19,5	25,5	3,9	63,8	35,0	251,0	887,7	1 093,9	886,9	1 130,5	1 592,2	
Norway	1%	2%	2%	0%	7%	4%	17%	47%	50%	39%	39%	37%	

Countries	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity	
	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Italy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Countries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Soundbladder	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Intestines	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bird Materials	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	908,2	1 109,2	1 171,3	1 355,9	928,4	838,4	1 521,1	1 904,7	2 184,9	2 247,3	2 886,6	4 296,9				
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%				
6 Crude Materials, inedible	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913				
Denmark	44,7	13,6	19,5	15,3	25,1	5,6	7,9	10,7	5,5	6,1	11,6	6,3	Denmark			
Norway	—	0,1	0,7	0,2	1,8	—	0,0	0,2	0,1	—	—	—				
United Kingdom (and unspecified)	0,2	—	—	—	—	—	1,8	0,1	...	...	...	...
Spain	—	—	—	—	—	—	—	—	—	—	—	—				
Italy	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—				
Woolleens	44,9	13,7	20,1	15,5	26,9	5,6	9,7	11,0	5,6							

[illegible]

Table EXP/ALL-5.	Exports of Iceland* by SITC Groups and Countries (Value), 1870-1913

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Table EXP/ALL-7. Exports of Staple Commodities from Iceland* by Origin and Country (Value), 1870–1913													
Countries	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.
0 Food: Agricultural Pro	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Denmark	90	30	75	14	75	15	13	15	—	144	—	250	
Norway	37	326	—	287	1 933	—	—	112	42	—	—	—	
United Kingdom (and unspe	14 605	10 665	70 357	419 030	429 183	1 428 593	974 030	336 374	79 370	90 996	—	—	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	...	...	...	...	...	...	...	0	0	36 624	113 829	43 916	
Live Sheep	14 732	11 021	70 432	419 331	431 191	1 428 608	974 043	336 501	79 412	127 764	113 829	44 166	
	6%	3%	14%	35%	59%	85%	64%	35%	7%	9%	7%	2%	
Denmark	228	228	120	3 402	3 098	2 322	210	10 280	8 692	128 167	161 053	129 210	
Norway	1 406	—	771	1 058	5 235	—	663	5 770	2 263	621	9 430	5 281	
United Kingdom (and unspe	55 233	7 866	64 560	111 552	110 778	125 010	89 408	139 839	138 519	104 575	115 872	133 580	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	...	...	...	...	...	...	...	175	0	900	15 152	5 950	
Live Horses	56 867	8 094	65 451	116 012	119 111	127 332	90 281	156 064	149 474	234 263	301 507	274 021	
	22%	3%	13%	10%	16%	8%	6%	16%	14%	17%	17%	9%	
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	
Norway	—	—	152	—	—	—	284	—	—	—	—	—	
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	
Other Animals, Live	0	0	152	0	0	0	284	0	0	0	0	0	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Denmark	158 430	160 845	280 061	409 215	158 426	87 663	343 680	308 489	392 925	592 455	670 837	1 401 538	
Norway	4 498	41 033	10 188	87 384	18 774	18 202	79 333	167 044	388 696	171 579	285 718	805 521	
United Kingdom (and unspe	18 521	99 275	84 549	168 112	0	4 985	31 816	3 692	0	0	0	0	
Spain	—	—	—	—	—	—	—	—	—	—	—	—	
Italy	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	...	...	...	...	...	...	...	0	31 035	32 570	72 552	12 599	
Mutton	181 449	301 152	374 797	664 711	177 200	110 850	454 828	479 225	812 656	796 604	1 029 107	2 219 658	
	72%	94%	73%	55%	24%	7%	30%	49%	75%	59%	59%	76%	

Countries	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
Denmark	—	—	22	746	5 602	880	—	2 641	12 911	—	—	—
Norway	—	—	—	—	—	—	30	—	—	—	—	—
United Kingdom (and unspe	0	0	1 255	858	3 056	—	134	38 754	188 637	295 731	382 996	382 996
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	...	...	...	...	...	...	0	0	245	0	0	0
Butter	0	0	5 236	1 604	8 658	880	164	41 395	201 793	295 731	382 996	382 996
	0%	0%	1%	0%	1%	0%	0%	4%	15%	17%	13%	13%
Denmark	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Cheese	0	0	0	0	0	0	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	253 050	320 268	516 070	729 107	1 675 449	1 520 318	971 955	1 082 938	1 360 425	1 740 175	2 920 843	2 920 843
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
0 Food: Fisheries Produ	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	—	10 270	8 575	—	—	—	228	—	—	—	—	11 598
Norway	—	—	—	—	—	—	—	141 954	92 232	120 692	123 002	—
United Kingdom (and unspe	0	0	0	0	0	0	3 055	0	20	0	52 818	1 408 781
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Iced/Live Fish	0	10 270	8 575	0	0	0	3 282	141 954	92 252	120 692	175 820	1 420 379
	0%	1%	0%	0%	0%	0%	0%	5%	1%	1%	2%	10%
Denmark	899	3	41	38 137	12 756	25 876	77 066	58 721	464 743	487 248	508 536	470 007
Norway	861	116	23 612	57 000	11 667	43 750	47 917	7 723	76 483	3 093 021	689 593	1 473 359
United Kingdom (and unspe	1 253	133	57 268	1 514 123	284 471	56 575	65 506	0	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Herring	3 014	252	80 921	1 609 260	308 893	126 202	190 488	66 444	541 227	3 594 021	1 798 129	2 827 830
	0%	0%	4%	35%	16%	4%	6%	2%	8%	37%	16%	20%

Countries	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.
2 Crude Materials, inedible	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	31 456	63 104	138 664	196 214	67 286	32 288	114 638	119 673	229 655	544 847	464 226	1 310 809
Norway	3 360	11 599	9 941	10 063	6 824	833	21 818	406	3 179	7 218	18 141	6 738
United Kingdom (and unspecified)	3 935	56 592	0	65 212	0	908	46 988	10 043	0	0	94 249	0
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	...	...	...	...	...	...	...	1 004	55	1 381	7 774	4 463
Hides and Skins	38 751	131 295	148 606	271 489	74 110	34 030	183 445	131 126	232 889	553 447	584 399	1 322 010
	3%	6%	8%	16%	7%	3%	13%	13%	19%	26%	28%	37%
Denmark	415 739	764 632	975 835	901 497	526 116	688 335	660 999	487 691	366 680	1 145 545	811 008	1 254 484
Norway	41 906	61 552	98 888	38 855	31 433	64 640	80 794	50 963	96 251	71 878	34 446	15 947
United Kingdom (and unspecified)	612 620	1 058 460	434 916	446 410	225 167	313 802	453 770	253 066	215 985	229 501	92 410	330 142
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	...	...	...	...	...	...	...	0	0	0	0	1 392
Other Countries	...	...	...	...	...	...	...	0	120 451	12 100	354 654	364 099
Wool	1 070 265	1 884 644	1 509 639	1 386 763	782 716	1 066 778	1 195 564	791 720	799 367	1 459 024	1 292 517	1 966 064
	87%	86%	85%	80%	76%	90%	82%	76%	66%	69%	61%	55%
Denmark	88 983	118 427	116 455	57 629	173 256	80 762	53 846	37 773	98 925	45 876	84 002	130 772
Norway	340	388	490	97	110	312	42	292	491	—	69	96
United Kingdom (and unspecified)	31 791	57 229	—	10 840	—	—	23 469	12 719	...	...	...	...
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	...	...	...	...	...	...	...	0	570	60	0	6 800
Feathers and Down	121 114	176 044	116 945	68 566	173 366	81 073	77 356	50 784	99 985	45 936	84 071	137 668
	10%	8%	7%	4%	17%	7%	5%	5%	8%	2%	4%	4%
Denmark	147	582	200	116	106	251	59	1 106	162	—	130	1 960
Norway	—	—	—	—	3 110	1 553	9 863	5 787	35 846	34 537	21 494	19 353
United Kingdom (and unspecified)	241	197	820	42	223	0	493	44 038	15 140	0	98 418	21 072
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0	0	0	0	0	0	0	12 130	23 000	0	7 725	92 096
Bones, Baleens; Bone Meats	388	779	1 020	158	3 439	1 804	10 415	63 060	74 148	34 537	127 767	134 481
	0%	0%	0%	0%	0%	0%	1%	6%	6%	2%	6%	4%

[illegible]

Countries	Value		Value		Value		Value		Value		Value		Value		Value		Value	
	Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.	
Of Total Exports	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Live Sheep	0%	0%	1%	5%	10%	23%	13%	6%	1%	1%	1%	0%						
Live Horses	2%	0%	1%	1%	3%	2%	1%	3%	1%	2%	2%	1%						
Other Animals, Live	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
Mutton	5%	6%	7%	8%	4%	2%	6%	8%	8%	5%	6%	10%						
Butter	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%	2%						
Cheese	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
0 Food: Agricultural Prod	7%	6%	10%	15%	17%	27%	20%	16%	10%	9%	10%	13%						

[illegible]

Table EXP/ALL-9. Average Prices of Major Commodity Groups Exported from Iceland* by Origin and Country, 1870-1913

[illegible]

Countries	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne
2 Crude Materials, inedible	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	1 346	2 000	1 482	1 274	1 212	1 446	1 115	871	929	1 458	1 073	1 186
Norway	2 372	1 921	2 670	1 013	540	1 212	381	281	184	261	245	238
United Kingdom (and unspe	1 325	1 965	1 459	1 307	1 033	1 384	1 092	540	489	376	277	791
Spain	—	—	—	—	—	—	—	900	—	1 694	938	1 134
Italy	—	—	—	—	—	—	—	—	—	1 726	1 327	1 478
Other Countries	—	—	—	—	—	—	—	36	643	2 321	1 430	340
Animal Materials (Wool, H	1 356	1 979	1 518	1 275	1 115	1 414	965	546	552	935	736	831
Denmark	60	54	3	21	60	11	51	75	114	103	43	184
Norway	—	—	—	—	—	179	179	174	—	—	—	—
United Kingdom (and unspe	—	—	0	0	—	0	0	80	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	100	—	—	—
Plant Materials	60	54	3	20	60	14	41	86	112	103	43	184
Denmark	0	0	0	0	0	0	0	0	78	0	—	0
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Mineral Materials	0	0	0	0	0	0	0	0	78	0	—	0
4 Animal and Veget. Oils	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	473	520	482	477	302	265	298	250	304	265	274	309
Norway	561	389	400	352	164	126	168	144	319	311	381	362
United Kingdom (and unspe	414	483	401	421	292	261	249	218	337	222	310	238
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	250	—	—	299
Animal Oils and Fats	455	511	448	471	290	233	258	221	319	261	321	281
Denmark	—	—	0	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	0	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Vegetable Oils and Fats	—	—	0	—	0	—	—	—	—	—	—	—

[illegible]

Table EXP/ALL-10. Average Prices of Staple Commodities Exported from Iceland* by Country, 1870–1913																								
Countries	1870		1874		1878		1882		1886		1890		1894		1898		1902		1906		1910		1913	
	Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne		Dan. kr./ Tonne	
0 Food: Agricultural Pro																								
Denmark	333		333		333		303		277		332		293		325		—		400		—		—	101
Norway	102		242		—		355		467		—		—		250		154		—		—		—	—
United Kingdom (and unspe	333		333		422		369		295		383		320		267		357		414		—		—	—
Spain	—		—		—		—		—		—		—		—		—		—		—		—	—
Italy	—		—		—		—		—		—		—		—		—		—		—		—	—
Other Countries	—		—		—		—		—		—		—		—		—		—		—		—	—
Live Sheep	331		330		422		369		296		383		320		267		357		402		392		434	443
Denmark	163		163		171		120		134		154		150		197		232		187		240		276	276
Norway	574		—		1 102		756		748		—		948		1 268		1 078		887		1 078		1 078	1 078
United Kingdom (and unspe	163		163		171		120		134		154		150		149		162		173		232		275	275
Spain	—		—		—		—		—		—		—		—		—		—		—		—	—
Italy	—		—		—		—		—		—		—		—		—		—		—		—	—
Other Countries	—		—		—		—		—		—		—		—		—		—		—		—	—
Live Horses	166		163		173		121		139		154		151		156		167		181		245		280	280
Denmark	—		—		—		—		—		—		—		—		—		—		—		—	—
Norway	—		—		946		—		—		—		948		—		—		—		—		—	—
United Kingdom (and unspe	—		—		—		—		—		—		—		—		—		—		—		—	—
Spain	—		—		—		—		—		—		—		—		—		—		—		—	—
Italy	—		—		—		—		—		—		—		—		—		—		—		—	—
Other Countries	—		—		—		—		—		—		—		—		—		—		—		—	—
Other Animals, Live	—		—		114		—		0		—		875		—		—		—		—		—	—
Denmark	325		340		380		380		305		405		340		351		420		429		419		593	593
Norway	593		596		615		574		386		336		357		396		443		488		494		684	684
United Kingdom (and unspe	322		340		380		381		—		440		341		427		—		—		—		—	—
Spain	—		—		—		—		—		—		—		—		—		—		—		—	—
Italy	—		—		—		—		—		—		—		—		—		—		—		—	—
Other Countries	—		—		—		—		—		—		—		—		—		—		—		—	—
Mutton	329		361		384		398		312		393		343		366		431		385		414		606	606
Denmark	—		—		—		1 480		1 280		1 220		1 220		—		1 383		1 599		—		—	—
Norway	—		—		1 515		—		—		—		—		1 484		—		—		—		—	—
United Kingdom (and unspe	—		—		1 400		1 480		1 280		1 220		—		1 424		1 295		1 601		1 760		1 771	1 771
Spain	—		—		—		—		—		—		—		—		—		—		—		—	—
Italy	—		—		—		—		—		—		—		—		—		—		—		—	—
Other Countries	—		—		—		—		—		—		—		—		—		—		—		—	—
Butter	—		—		1 406		1 480		1 280		1 220		1 220		609		1 300		1 601		1 760		1 771	1 771

Countries	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne
Denmark	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Cheese	—	—	0	—	—	—	—	0	—	—	—	—
	269	349	338	319	253	346	306	272	357	383	430	601
0 Food: Fisheries Produ	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	—	660	660	—	—	—	70	—	—	—	—	331
Norway	—	—	—	—	—	—	—	284	289	289	289	—
United Kingdom (and unspe	—	—	—	—	—	—	70	—	400	—	170	201
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Iced/Live Fish	—	660	660	—	—	—	70	284	287	280	230	202
Denmark	211	211	182	134	106	84	66	99	138	140	140	141
Norway	59	79	60	63	58	58	38	103	153	173	118	173
United Kingdom (and unspe	211	211	182	134	106	84	66	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Herring	121	119	115	129	103	73	56	99	140	168	133	153
Denmark	277	301	273	382	207	259	223	216	300	359	338	345
Norway	313	297	306	310	220	282	234	291	384	479	449	539
United Kingdom (and unspe	252	335	296	306	244	274	251	200	295	313	335	399
Spain	277	301	273	382	—	259	223	262	367	412	421	443
Italy	—	—	—	—	—	259	223	214	293	330	291	366
Other Countries	—	—	—	—	—	—	—	256	330	290	379	407
Saltfish, stockfish	272	308	281	363	233	267	237	237	333	373	365	391
Denmark	720	750	800	1 020	700	1 180	1 160	1 029	818	753	—	651
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Salmon	720	750	800	1 020	700	1 180	1 160	1 029	818	753	—	651

Countries	Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./	
	Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne	
Denmark	106	—	—	85	—	71	64	86	—	314	247	379	—	156				
Norway	—	—	—	—	114	—	87	137	—	137	137	337	—	—				
United Kingdom (and unspe	106	185	—	85	105	71	64	—	—	111	—	—	—	—				
Spain	—	—	—	—	—	—	—	—	—	117	357	268	—	—				
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	300	357	—	—	296				
Roe	106	185	—	85	105	71	64	135	150	288	241	346	261	—				
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Norway	—	—	—	—	—	—	—	—	112	117	107	127	137	—				
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Whalemeat Meal (for Fod	—	—	—	—	—	—	—	—	—	112	117	107	127	137				
	263	307	—	259	221	194	237	198	230	297	251	278	277	—				
2 Crude Materials, inedible																		
Denmark	539	893	—	733	676	562	747	609	527	599	966	677	889	—				
Norway	1 347	1 296	—	1 723	495	992	1 069	693	1 131	971	889	1 492	2 090	—				
United Kingdom (and unspe	535	893	—	—	676	—	748	609	407	—	—	727	—	—				
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Hides and Skins	568	918	—	763	667	586	752	618	516	602	967	701	894	—				
Denmark	1 304	2 022	—	1 563	1 482	1 059	1 388	1 204	1 005	1 025	1 835	1 410	1 623	—				
Norway	2 533	2 112	—	2 824	1 387	2 191	2 490	1 991	1 889	2 187	2 786	2 785	3 038	—				
United Kingdom (and unspe	1 304	2 022	—	1 563	1 482	1 059	1 388	1 204	1 038	1 124	1 830	1 530	1 682	—				
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Wool	1 329	2 025	—	1 610	1 479	1 082	1 426	1 237	1 047	1 145	1 868	1 437	1 647	—				
Denmark	5 054	11 899	—	9 506	11 204	12 956	8 967	13 773	16 669	19 518	21 553	24 001	34 414	—				
Norway	1 738	1 983	—	3 009	1 359	1 960	1 960	1 560	1 861	2 250	—	2 750	2 450	—				
United Kingdom (and unspe	5 054	11 899	—	—	11 204	—	—	13 773	19 501	—	—	—	—	—				
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Feathers and Down	5 027	11 769	—	9 420	11 091	12 910	8 845	13 715	16 514	18 812	21 556	23 850	5 775	—				

Countries	Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./	
	Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne	
Denmark	40	40	40	40	39	40	20	40	60	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	56	54	44	33	52	86	77	115	—	—	—	—	—	—
United Kingdom (and unspe	40	40	40	40	40	—	20	136	54	0	117	85	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	34	192	—	—	—	—	—	—	—	—	—
Bones, Baleens; Bone M	40	40	40	40	54	52	41	71	68	39	113	84	—	—	—	—	—	—
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Soundbladder	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Intestines	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Denmark	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bird Materials	1 355	1 977	1 516	1 274	1 113	1 412	964	545	552	934	735	831	—	—	—	—	—	—
6 Crude Materials, Inedi	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	—	—	—	—	—	—
Denmark	3 552	5 086	6 556	5 001	7 299	5 175	5 699	4 597	3 735	3 958	4 406	3 572	—	—	—	—	—	—
Norway	—	7 350	7 350	5 500	2 910	—	2 742	3 380	3 090	—	—	—	—	—	—	—	—	—
United Kingdom (and unspe	3 887	—	—	—	—	—	5 701	5 173	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Woollens	3 554	5 110	6 583	5 007	7 008	5 175	5 698	4 577	3 720	3 958	4 406	3 572	—	—	—	—	—	—

Table EXP/DEN-2		Exports* of Iceland to Denmark by SITC Groups and Origin (Quantity), 1870–1913	
SITC	Origin (estim.)	Commodities	In English
No		In Icelandic	
0	Food		
	<i>Division</i>	<i>Commodity Type</i>	0 Food
001-A	A Landbúnað.	Sauðfé, lifandi	Live Sheep and Goats
001-B	A Landbúnað.	Hross, lifandi	Live Horses
001-C	A Landbúnað.	Önnur dýr, lifandi	Other Animals, live
01	A Landbúnað.	Kjötmatur	Meat (mainly Mutton)
023	A Landbúnað.	Smjör	Butter
024	A Landbúnað.	Ostur	Cheese
025	A Landbúnað.	Egg	Eggs
	A Landbúnað. Total		Mutton (mainly), Live Horses, etc.
034	B Fiskaf.	Nýr/lsvarinn/lifandi fiskur	Fish, fresh/iced
035-A	B Fiskaf.	Sild, söltuð	Herring, salted
035-B	B Fiskaf.	Saltfiskur, skreidd	Saltfish, Stockfish
035-C	B Fiskaf.	Saltaður lax (sundmágj líka?)	Salmon, salted
037	B Fiskaf.	Hrogn, söltuð	Roe, salted
	B Fiskaf. Total		Saltfish and Herring (mainly), etc.
045-048	C Korn, -af	Korn, brauð	Corn and Grain
	C Korn, -af. Total		Cereals
05-A	D Plöntuaf.	Trjááxextir, sósur	Fruits
069	D Plöntuaf.	Kandi's, sykur, melassi, síróp	Sugar, Sugar Preparations
079	D Plöntuaf.	Kaffi og kakó	Coffee, Cocoa
	D Plöntuaf. Total		Other Plant Foodstuffs
098	E Tilbúnað matvöru	Matvöru, tilbúnað/níðursóðnar	Prepared Food
	E Tilbúnað matvöru Total		Prepared Food
	Grand Total		Fisheries Prod. and Mutton (mainly)
1	Beverages and Tobacco		
	<i>Division</i>	<i>Commodity Type</i>	1 Beverages and Tobacco
113		Drykkir, áfengir	Alcoholic Beverages
123		Tóbak	Tobacco, Tob. Manufactures
	Total		Alcoholic Beverages (mainly)
	Grand Total		

SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
2	Crude Materials, ined., exc. Fuels		
	Division	Commodity Type	2 Crude Mat., ined., exc. Fuels
21	A Dýraaf.	Húðir og skinn	Hides: Raw
268-A	A Dýraaf.	Hár af dýrum	Animal Hair
268-B	A Dýraaf.	Ull	Wool
268-C	A Dýraaf.	Fiður og dúnn	Feathers and Down
291	A Dýraaf.	Bein og tennur; fiskguano	Bones, Teeth; Guano
	A Dýraaf. Total		Wool (mainly), Hides and Skins, etc.
24	B Plöntuaf.	Timbur, óunnið	Wood, Unproc.
269	B Plöntuaf.	Tuskur, ónýtar	Rags
292	B Plöntuaf.	Önnar efnivörur jurtakyns	Crude Vegetable Materials
	B Plöntuaf. Total		Rags (mainly)
27	C Jarðefni	Jarðefni, óunnin	Crude Minerals (mainly of Stone/Rock)
28	C Jarðefni	Brotjárn og gamalt járn	Metal Scrap
	C Jarðefni Total		Crude Minerals
	Grand Total		Wool (mainly)
3	Mineral Fuels, Lubricants and Rel. Mat.		
	Division	Commodity Type	3 Min. Fuels, Lubric., and Rel. Mat.
321	A Eldsneyti og smu	Steinkol	Hard Coal
33	A Eldsneyti og smu	Steinolia	Mineral Oil
334	A Eldsneyti og smu	Smurningsollur (Ilklega)	Lubricants
	A Eldsneyti Total		Coals
335	B Þéttiefni	Tjara	Tar
	B Þéttiefni Total		Sealing Compounds (Tar)
	Grand Total		Coals
4	Animal and Veget. Oils and Fats		
	Division	Commodity Type	4 Animal and Veget. Oils and Fats
41	A Af dýrum	Felti, mör, tólg, spik, lifur (önnið)	Animal Fats (Fats, Tallow, Liver, etc.)
43	A Af dýrum	Lýsi	Animal Oils (Fish Oil of all kinds)
	A Af dýrum Total		Animal Oils & Fats
44	B Af jurtum	Jurtaollur	Vegetable Oils
	B Af jurtum Total		Vegetable Oils
	Grand Total		Animal Fats & Oils

SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
5	Chemicals		
	Division	Commodity Type	5 Chemicals
529		Söltunar- og pæklunarefni	Salt, Vinegar
53		Litunarefni; blek	Dyeing, Tanning and Colouring Materials
54		Lyfja- og lækningavörur	Medical and Pharmaceutical Products
592		Lím	Glue
	Total		Salt (mainly)
	Grand Total		
6	Manufactured Goods		
	Division	Commodity Type	6 Manufactured Goods
619	A Dýraaf.	Vörur úr skinni	Skins, Dressed; Leather, Leather Manufact
65-D	A Dýraaf.	Vörur úr ull og hári	Made-up Articles from Wool and Hair
	A Dýraaf. Total		Woolens
63	B Plöntuaf.	Vörur úr trjáviði	Articles of Wood
649	B Plöntuaf.	Pappír, pappi, pappírsvörur, veggfóður, litmyn	Paper, Paperboard and Articles thereof
65-A	B Plöntuaf.	Mottur, línur, net (úr líni, hampi eða baðmull)	Mats, Lines, Nets (from Linen, Hemp or Co
65-B	B Plöntuaf.	Vörur úr baðmulli, líni eða hampi	Fabrics and Made-up Articles from Cotton,
65-C	B Plöntuaf.	Silkiblandin efni	Fabrics and Made-up Articles from Silk
	B Plöntuaf. Total		Articles of Wood
669	C Jarðefnaaf.	Vörur úr steini, gleri og leir	Non-Metallic Manufactures
67	C Jarðefnaaf.	Járn og stál, óunnid	Iron and Steel
6999	C Jarðefnaaf.	Vörur úr járn, stáli og ódýrum málm	Metallic Manufactures
	C Jarðefnaaf. Total		Iron and Steel (mainly)
	Grand Total		Woolens and Mats, Lines, Nets (mainly)
7	Mach. and Transport Equipm.		
	Division	Commodity Type	7 Mach. and Transport Equipm.
790		Vélar og flutur	Machinery
793		Bátar	Boats
	Total		Machinery
	Grand Total		
8	Miscellaneous Manufactured Articles		
	Division	Commodity Type	8 Miscell. Manufact. Articles
899		Fullunnar iðnaðarvörur (fingerðar, vandasama	Various Manuf. Articles
	Total		
	Grand Total		

SITC No	Origin (estim.)	Commodities In Icelandic	In English
9	Miscell. Transact. and Comm.		
	Division	Commodity Type	9 Misc. Transact. and Comm.
99		Óflokkanlegt (aðallega vörubúðir)	Unenumerated (mainly Used Bags, Sacks,
	Total		
	Grand Total		
	Total Quantity		
Source:	Table EXP/DEN-1		

[illegible]

In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
2 Crude Mat., ined., exc. Fuels	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Hides: Raw	58,4	70,7	189,1	290,3	118,6	43,2	188,2	227,0	383,1	563,8	685,7	1 474,0
Animal Hair	0,0	—	—	0,1	1,0	0,1	0,0	0,1	0,0	—	—	—
Wool	318,8	378,2	624,3	608,4	496,7	496,0	549,1	485,5	357,7	624,4	575,2	772,9
Feathers and Down	17,6	10,0	12,3	5,1	13,4	9,0	3,9	2,3	5,1	2,1	3,5	3,8
Bones, Teeth; Guano	3,7	14,6	5,0	2,9	2,7	6,3	3,0	27,5	2,7	0,5	2,5	24,5
Wool (mainly), Hides and Skins, etc.	398,5	473,3	830,6	906,8	632,5	554,5	744,2	742,4	748,6	1 190,8	1 266,9	2 275,2
Wood, Unproc.	—	0,5	0,8	5,6	—	3,1	1,6	0,5	—	—	6,0	—
Rags	5,3	4,8	0,1	1,5	3,9	0,5	9,0	9,7	1,5	4,4	2,6	2,0
Crude Vegetable Materials	—	—	—	—	—	—	0,1	0,1	0,0	0,0	—	—
Rags (mainly)	5,3	5,3	0,9	7,1	3,9	3,6	10,7	10,2	1,6	4,4	8,6	2,0
Crude Minerals (mainly of Stone/Rock)	0,1	—	0,0	0,4	0,2	0,2	0,1	1,3	0,1	—	—	—
Metal Scrap	3,0	2,1	7,6	18,3	3,8	2,4	2,2	0,1	0,3	0,9	—	4,0
Crude Minerals	3,1	2,1	7,6	18,8	4,0	2,6	2,3	1,4	0,4	0,9	0,0	4,0
Wool (mainly)	406,9	480,7	839,1	932,7	640,4	560,7	757,1	754,0	750,6	1 196,1	1 275,5	2 281,2
	12%	15%	21%	17%	15%	11%	12%	13%	9%	10%	10%	13%
3 Min. Fuels, Lubric., and Rel. Mat.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Hard Coal	11,8	15,0	19,3	—	—	451,4	—	—	—	—	—	—
Mineral Oil	—	—	—	—	0,0	—	—	1,5	—	0,1	—	—
Lubricants	—	—	—	—	—	—	—	—	—	0,1	—	—
Coals	11,8	15,0	19,3	0,0	0,0	451,4	0,0	1,5	0,0	0,2	0,0	0,0
Tar	0,1	—	—	—	—	—	—	—	—	—	—	—
Sealing Compounds (Tar)	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Coals	11,9	15,0	19,3	0,0	0,0	451,4	0,0	1,5	0,0	0,2	0,0	0,0
	0%	0%	0%	0%	0%	8%	0%	0%	0%	0%	0%	0%
4 Animal and Veget. Oils and Fats	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Animal Fats (Fats, Tallow, Liver, etc.)	179,5	153,2	202,3	150,7	41,6	8,6	115,4	17,1	70,1	16,2	27,9	14,9
Animal Oils (Fish Oil of all kinds)	783,5	925,3	584,6	698,4	1 144,4	1 028,0	748,0	948,6	527,9	362,5	898,4	1 103,5
Animal Oils & Fats	963,0	1 078,5	786,9	849,1	1 185,9	1 036,6	863,4	965,8	598,0	378,7	926,3	1 118,4
Vegetable Oils	—	—	0,0	—	—	—	—	—	—	—	—	—
Vegetable Oils	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Animal Fats & Oils	963,0	1 078,5	786,9	849,1	1 185,9	1 036,6	863,4	965,8	598,0	378,7	926,3	1 118,4
	28%	34%	20%	16%	28%	19%	13%	17%	7%	3%	7%	6%

In English	Quantity Tonnes	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	Quantity Tonnes
5 Chemicals	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Salt, Vinegar	72.9	—	0.1	—	—	—	0.4	17.7	—	37.2	—	—
Dyeing, Tanning and Colouring Materials	2.8	—	0.2	—	—	0.0	—	0.1	0.0	0.0	—	—
Medical and Pharmaceutical Products	—	0.0	—	—	0.0	—	—	—	—	—	—	—
Glue	—	—	—	—	—	—	—	—	0.0	—	—	—
Salt (mainly)	75.7	0.0	0.3	0.0	0.0	0.0	0.4	17.8	0.0	37.2	0.0	0.0
	75.7	0.0	0.3	0.0	0.0	0.0	0.4	17.8	0.0	37.2	0.0	0.0
	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Manufactured Goods	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Skins, Dressed; Leather, Leather Manufact	—	—	0.1	—	—	—	0.0	0.0	—	0.0	0.5	—
Made-up Articles from Wool and Hair	44.7	13.6	19.5	15.3	25.1	5.6	7.9	10.7	5.5	6.1	11.6	6.3
Woolleens	44.7	13.6	19.6	15.3	25.1	5.6	7.9	10.7	5.5	6.1	12.1	6.3
Articles of Wood	1.2	6.9	1.1	2.7	3.2	3.6	0.2	1.1	0.1	4.9	128.2	—
Paper, Paperboard and Articles thereof	—	—	—	—	—	0.0	—	—	0.0	2.7	—	—
Mats, Lines, Nets (from Linen, Hemp or Co	0.1	—	—	—	0.0	—	—	0.0	—	0.0	—	—
Fabrics and Made-up Articles from Cotton,	0.7	—	0.0	0.1	0.2	0.1	0.1	—	0.0	0.1	—	—
Fabrics and Made-up Articles from Silk	0.0	—	—	0.0	0.0	—	—	—	—	0.0	—	—
Articles of Wood	2.0	6.9	1.2	2.8	3.4	3.7	0.3	1.1	0.1	7.7	128.2	0.0
Non-Metallic Manufactures	—	—	—	0.1	0.0	0.1	3.1	0.1	0.0	0.7	—	—
Iron and Steel	—	0.8	0.0	1.6	1.3	4.8	0.3	0.5	0.2	1.4	—	—
Metallic Manufactures	0.2	5.1	0.1	0.0	0.8	0.1	0.1	5.0	0.1	0.5	—	—
Iron and Steel (mainly)	0.2	5.9	0.1	1.8	2.1	5.0	3.4	5.7	0.3	2.6	0.0	0.0
Woollens and Mats, Lines, Nets (mainly)	46.9	26.3	20.8	19.9	30.6	14.3	11.6	17.5	5.9	16.4	140.3	6.3
	1%	1%	1%	0%	1%	0%	0%	0%	0%	0%	1%	0%
7 Mach. and Transport Equipm.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Machinery	—	—	—	0.1	0.0	—	—	—	—	0.0	—	—
Boats	—	—	—	—	—	—	—	—	—	—	—	—
Machinery	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8 Miscell. Manufact. Articles	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Various Manuf. Articles	0.3	0.3	0.4	0.3	0.8	0.5	0.2	0.5	0.4	0.5	0.2	—
	0.3	0.3	0.4	0.3	0.8	0.5	0.2	0.5	0.4	0.5	0.2	0.0
	0.3	0.3	0.4	0.3	0.8	0.5	0.2	0.5	0.4	0.5	0.2	0.0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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Table EXP/DEN-3			Exports* of Iceland to Denmark by SITC Groups and Origin (Value**), 1870–1913	
SITC	Origin (estim.)	Commodities		
No		In Icelandic	In English	
0	Food			
	Division	Commodity Type		0 Food
001-A	A Landbúnað.	Sauðfé, lifandi		Live Sheep and Goats
001-B	A Landbúnað.	Hross, lifandi		Live Horses
001-C	A Landbúnað.	Önnur dýr, lifandi		Other Animals, live
01	A Landbúnað.	Kjötmatur		Meat (mainly Mutton)
023	A Landbúnað.	Smjör		Butter
024	A Landbúnað.	Ostur		Cheese
025	A Landbúnað.	Egg		Eggs
	A Landbúnað. Total			Mutton (mainly), Live Horses, etc.
034	B Fiskaf.	Nýr/lisvarinn/lifandi fiskur		Fish, fresh/iced
035-A	B Fiskaf.	Sild, söltuð		Herring, salted
035-B	B Fiskaf.	Saltfiskur, skrelið		Saltfish, Stockfish
035-C	B Fiskaf.	Saltaður lax (sundmægi líka?)		Salmon, salted
037	B Fiskaf.	Hrogn, söltuð		Roe, salted
	B Fiskaf. Total			Saltfish and Herring (mainly), etc.
045-048	C Korn, -af.	Korn, brauð		Corn and Grain
	C Korn, -af. Total			Cereals
05-A	D Plöntuaf.	Trjáávéxir, sósur		Fruits
069	D Plöntuaf.	Kandís, sykurl, melassi, slróp		Sugar, Sugar Preparations
079	D Plöntuaf.	Kaffi og kakó		Coffee, Cocoa
	D Plöntuaf. Total			Other Plant Foodstuffs
098	E Tilbúnað matvöru	Matvöru, tilbúnað/níðursóðnar		Prepared Food
	E Tilbúnað matvöru Total			Prepared Food
	Grand Total			Fisheries Prod. and Mutton (mainly)
1	Beverages and Tobacco			
	Division	Commodity Type		1 Beverages and Tobacco
113		Drykkir, áfengir		Alcoholic Beverages
123		Tóbak		Tobacco, Tob. Manufactures
	Total			Alcoholic Beverages (mainly)
	Grand Total			

SITC No	Origin (estim.)	Commodities In Icelandic	In English
2	Crude Materials, ined., exc. Fuels		
	<i>Division</i>	<i>Commodity Type</i>	2 Crude Mat., ined., exc. Fuels
21	A Dýraaf.	Húðir og skinn	Hides: Raw
268-A	A Dýraaf.	Hár af dýrum	Animal Hair
268-B	A Dýraaf.	Ull	Wool
268-C	A Dýraaf.	Fíbur og dúnn	Feathers and Down
291	A Dýraaf.	Bein og tennur; fiskguano	Bones, Teeth; Guano
	A Dýraaf. Total		Wool (mainly), Hides and Skins, etc.
24	B Plöntuaf.	Timbur, óunnið	Wood, Unproc.
269	B Plöntuaf.	Tuskur, ónýtar	Rags
292	B Plöntuaf.	Óunnar efnivörur jurtakyns	Crude Vegetable Materials
	B Plöntuaf. Total		Rags (mainly)
27	C Jarðefni	Jarðefni, óunnin	Crude Minerals (mainly of Stone/Rock)
28	C Jarðefni	Brotajárni og gamalt járn	Metal Scrap
	C Jarðefni Total		Crude Minerals
	Grand Total		Wool (mainly)
3	Mineral Fuels, Lubricants and Rel. Mat.		
	<i>Division</i>	<i>Commodity Type</i>	3 Min. Fuels, Lubric., and Rel. Mat.
321	A Eldsneyti og smu	Steinkol	Hard Coal
33	A Eldsneyti og smu	Steinolla	Mineral Oil
334	A Eldsneyti og smu	Smurningsollur (líklega)	Lubricants
	A Eldsneyti Total		Coals
335	B béttefni	Tjara	Tar
	B béttefni Total		Sealing Compounds (Tar)
	Grand Total		Coals
4	Animal and Veget. Oils and Fats		
	<i>Division</i>	<i>Commodity Type</i>	4 Animal and Veget. Oils and Fats
41	A Af dýrum	Felti, mör, töl, spik, lífur (óunnið)	Animal Fats etc.
43	A Af dýrum	Lýsi	Animal Oils
	A Af dýrum Total		Animal Oils & Fats
44	B Af jurtum	Jurtaollur	Vegetable Oils
	B Af jurtum Total		Vegetable Oils
	Grand Total		Animal Fats & Oils

SITC No	Origin (estim.)	Commodities In Icelandic	In English
5	Chemicals		
	<i>Division</i>	<i>Commodity Type</i>	5 Chemicals
529		Söltunar- og pæklunarefni	Salt, Vinegar
53		Litunarefni; blek	Dyeing, Tanning and Colouring Materials
54		Lyfja- og lækningavörur	Medical and Pharmaceutical Products
592		Lím	Glue
	Total		Salt (mainly)
	Grand Total		
6	Manufactured Goods		
	<i>Division</i>	<i>Commodity Type</i>	6 Manufactured Goods
619	A Dýraaf.	Vörur úr skinni	Skins, Dressed; Leather, Leather Manufactu
65-D	A Dýraaf.	Vörur úr ull og hári	Made-up Articles from Wool and Hair
	A Dýraaf. Total		Woolens
63	B Plöntuaf.	Vörur úr trjáviði	Articles of Wood
649	B Plöntuaf.	Pappír, pappí, pappírsvörur, veggfóður, litmyndir	Paper, Paperboard and Articles thereof
65-A	B Plöntuaf.	Mottur, línur, net (úr líni, hampi eða þaðmull)	Mats, Lines, Nets (from Linen, Hemp or Cot
65-B	B Plöntuaf.	Vörur úr þaðmull, líni eða hampi	Fabrics and Made-up Articles from Cotton, L
65-C	B Plöntuaf.	Síklíbandin efni	Fabrics and Made-up Articles from Silk
	B Plöntuaf. Total		Articles of Wood
669	C Jarðefnaaf.	Vörur úr steini, gleri og leir	Non-Metallic Manufactures
67	C Jarðefnaaf.	Járn og stál, óunnib	Iron and Steel
6999	C Jarðefnaaf.	Vörur úr járn, stáli og ódýrum málni	Metallic Manufactures
	C Jarðefnaaf. Total		Iron and Steel (mainly)
	Grand Total		Woolens and Mats, Lines, Nets (mainly)
7	Mach. and Transport Equipm.		
	<i>Division</i>	<i>Commodity Type</i>	7 Mach. and Transport Equipm.
790		Vélar og íhlutir	Machinery
793		Bátar	Boats
	Total		Machinery
	Grand Total		
8	Miscellaneous Manufactured Articles		
	<i>Division</i>	<i>Commodity Type</i>	8 Miscell. Manufact. Articles
899		Fullunnar íðnaðarvörur (fingerðar, vandasamar, v	Various Manuf. Articles
	Total		
	Grand Total		

SITC No	Origin (estim.)	Commodities	
		In Icelandic	In English
9	Miscell. Transact. and Commod.		
	Division	Commodity Type	9 Misc. Transact. and Comm.
99		Óflokkanlegt (aðallega vörumbúðir)	Unenumerated (mainly Used Bags, Sacks, e
	Total		
	Grand Total		
Total Value			
Source: Table EXP/DEN-1			

[illegible]

In English	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
2 Crude Mat., ined., exc. Fuels												
Hides: Raw	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Animal Hair	31 456	63 104	138 664	196 214	67 286	32 288	114 609	119 673	229 655	544 847	464 226	1 310 809
Wool	415 739	764 632	975 835	901 497	526 116	688 335	660 999	487 691	366 680	1 145 545	811 008	1 254 484
Feathers and Down	88 983	118 427	116 455	57 629	173 256	80 762	53 846	37 773	98 925	45 876	84 002	130 772
Bones, Teeth; Guano	147	582	200	116	106	251	59	1 106	162	—	130	1 960
Wool (mainly), Hides and Skins, etc.	536 325	946 745	1 231 154	1 155 456	766 763	801 635	829 643	646 242	695 422	1 736 268	1 359 365	2 698 025
Wood, Unproc.	—	—	—	—	—	—	—	—	—	—	—	—
Rags	321	288	3	151	234	40	540	763	177	454	371	368
Crude Vegetable Materials	—	—	—	—	—	—	—	—	—	—	—	—
Rags (mainly)	321	288	3	151	234	40	540	763	177	454	371	368
Crude Minerals (mainly of Stone/Rock)	—	—	—	—	—	—	—	—	—	—	—	—
Metal Scrap	—	—	—	—	—	—	—	—	34	—	—	—
Crude Minerals	0	0	0	0	0	0	0	0	34	0	0	0
Wool (mainly)	536 645	947 033	1 231 157	1 155 607	766 997	801 675	830 083	647 005	695 633	1 736 723	1 359 736	2 698 394
	32%	45%	51%	40%	42%	42%	38%	36%	28%	37%	29%	34%
3 Min. Fuels, Lubric., and Rel. Mat.												
Hard Coal	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Mineral Oil	—	—	—	—	—	—	—	—	—	—	—	—
Lubricants	—	—	—	—	—	—	—	—	—	—	—	—
Coals	0	0	0	0	0	0	0	0	0	0	0	0
Tar	—	—	—	—	—	—	—	—	—	—	—	—
Sealing Compounds (Tar)	0	0	0	0	0	0	0	0	0	0	0	0
Coals	0	0	0	0	0	0	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4 Animal and Veget. Oils and Fats												
Animal Fats etc.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Animal Fats etc.	131 034	113 990	144 370	111 513	24 049	6 008	71 560	7 364	38 822	9 824	—	—
Animal Oils	324 448	446 986	234 586	293 860	333 698	268 295	185 983	233 940	143 144	90 520	253 588	345 810
Animal Oils & Fats	455 482	560 976	378 956	405 373	357 747	274 304	257 543	241 304	181 966	100 345	253 588	345 810
Vegetable Oils	—	—	—	—	—	—	—	—	—	—	—	—
Vegetable Oils	0	0	0	0	0	0	0	0	0	0	0	0
Animal Fats & Oils	455 482	560 976	378 956	405 373	357 747	274 304	257 543	241 304	181 966	100 345	253 588	345 810
	27%	27%	16%	14%	20%	14%	12%	13%	7%	2%	5%	4%

[illegible]

[illegible]

Table EXP/ITAL-2		Exports of Iceland to Italy by SITC Groups and Origin (Quantities in thousands of metric tons)	
SITC No	Origin (estim.)	Commodities In Icelandic	In English
0	Food		
035-B	Division	Commodity Type	0 Food
	B Fiskaf.	Saltfiskur	Saltfish
	B Fiskaf. Total		
	Grand Total		
2	Crude Materials, Ined. (exc. Fuels)		
	Division	Commodity Type	2 Crude Materials
268-B	A Dýraafurðir	Ull	Wool
291-A	A Dýraafurðir	Sundmagi	Soundbladder
	A Dýraafurðir Total		
	Grand Total		
Total Quantity			
Source: Table EXP/ITAL-1			
Table A.5. Estimation of Saltfish Exports from Iceland to Spain and Ita			

Table EXP/ITAL-3			Exports of Iceland to Italy by SITC Groups and Origin (Value),	
SITC No	Origin (estim.)	Commodities	In Icelandic	In English
0	Food			
	Division	Commodity Type		0 Food
035-B	B Fiskaf.	Saltfiskur		Saltfish
	B Fiskaf. Total			
	Grand Total			
2	Crude Materials, ined. (exc. Fuels)			
	Division	Commodity Type		2 Crude Materials
268-B	A Dýraafurðir	Ull		Wool
291-A	A Dýraafurðir	Sundmagi		Soundbladder
	A Dýraafurðir Total			
	Grand Total			
Total Value				
Source:	Table EXP/ITAL-1			
	Table A.5. Estimation of Saltfish Exports from Iceland to Spain and Ita			

[illegible]

Table EXP/NOR-3		Exports* of Iceland*** to Norway by SITC Groups and Origin (Quantity), 1870–1913	
SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
0	Food		
	<i>Division</i>	<i>Commodity Type</i>	0 Food
001-A	A Landbúnað.	Sauðfé og lömb, lifandi	Live Sheep and Lambs
001-B	A Landbúnað.	Hross, lifandi	Live Horses
001-C	A Landbúnað.	Önnur dýr, lifandi	Other Live Animals
01	A Landbúnað.	Kjötmat	Meat (mainly Mutton)
023	A Landbúnað.	Smjör	Butter
098	A Landbúnað.	Rúllupýlsur og tungur	Prepared/Preserved Food (Meat)
	A Landbúnað. Total		Mutton (mainly)
034	B Fiskaf.	Fiskur, nýr [ísvarin sild?]	Fresh Fish
035-A	B Fiskaf.	Sild, söltuð	Herring, salted
035-B	B Fiskaf.	Saltfiskur, skreið	Saltfish, stockfish
037	B Fiskaf.	Hrogn	Roe, salted
081 ?	B Fiskaf.	Hvalkjötsmjöl	Meal from Whalemeat
	B Fiskaf. Total		Fisheries Products
045-047	C Korn, -af.	Korn og hris	Cereals
	C Korn, -af. Total		Cereals
05-B	D Plöntuaf.	Grænmeti o.p.h.	Fruits
061	D Plöntuaf.	Sykur og siróp	Sugar and Syrup
071-074	D Plöntuaf.	Kaffi og te	Coffee and Tea
	D Plöntuaf. Total		Other Plant Foodstuffs
	Grand Total		Fisheries Products and Mutton (mainly)
1	Beverages and Tobacco		
	<i>Division</i>	<i>Commodity Type</i>	1 Beverages and Tobacco
112		Vín	Alcoholic Beverages
	Total		Alcoholic Beverages
	Grand Total		
2	Crude Materials, Inedible (exc. Fuels)		
	<i>Division</i>	<i>Commodity Type</i>	2 Crude Materials, Ined., exc. Fuels
21	A Dýraafurðir	Húðir og skinn, loðskinn	Hides and Skins
268-AB	A Dýraafurðir	Ull	Wool
268-C	A Dýraafurðir	Fiður og dúnn	Feathers and Down
291	A Dýraafurðir	Bein, beinamjöl, tennur, hvalskíði, gúanó	Bones, Bone Meal, Teeth, Baleens, Guano
	A Dýraafurðir Total		

SITC No	Origin (estim.)	Commodities In Icelandic	In English
269	B Plöntuafurðir	Tuskur	Rags
	B Plöntuafurðir Total		Rags
	Grand Total		
3	Mineral Fuels, Lubricants and Rel. Mat.		
	Division	Commodity Type	3 Mineral Fuels, Lubric. and Rel. Mat.
32	A Eldsneyti	Steinkol	Coals
33	A Eldsneyti	Parafínolia, jarðolia	Paraffin-Oil, Mineral Oil
	A Eldsneyti Total		Coals (mainly)
335	B Béttefni	Tjara	Tar
	B Béttefni Total		Sealing Compounds (Tar)
	Grand Total		
4	Animal and Vegetable Oils and Fats		
	Division	Commodity Type	4 Animal and Veget. Oils and Fats
41	A Af dýrum	Tólg	Tallow
43	A Af dýrum	Lýsi, hvers konar	Fish Oil
	A Af dýrum Total		Fish Oil, Tallow
42	B Af jurtum	Baðmolia	Cotton Oil
	B Af jurtum Total		Cotton Oil
	Grand Total		Fish Oil, Tallow
5	Chemicals		
	Division	Commodity Type	5 Chemicals
529		Salt†	Salt
554		Sápa	Soap
	Total		Salt
	Grand Total		
6	Manufact. Goods, Classif. chiefly by Mat.		
	Division	Commodity Type	6 Manufactured Goods
612	A Dýraaf.	Vörur úr skinni	Leather Manufactures
65-D	A Dýraaf.	Ullanvörur	Woolens
	A Dýraaf. Total		Woolens
63	B Plöntuaf.	Vörur úr trjáviði	Timber Manufactures
642	B Plöntuaf.	Pappi	Paperboard
65-A	B Plöntuaf.	Kaðlar	Cordage
65-B	B Plöntuaf.	Vörur úr lín, hampi, baðmull	Textiles off Linen, Hemp, Cotton
	B Plöntuaf. Total		Plant Manufactures

SITC No	Origin (estim.)	Commodities	
		In Icelandic	In English
669	C Jarðefnaaf.	Vörur úr gleri	Glass Manufactures
67	C Jarðefnaaf.	Járn, óunnib	Iron, unproc.
69	C Jarðefnaaf.	Vörur úr járn og stáli	Iron Manufactures
	C Jarðefnaaf. Total		Glass and Iron Manufactures, Iron
	Grand Total		
7	Mach. and Transport Equipm.		
	Division	Commodity Type	
74-75		Vélar, ýmiss konar	7 Mach. and Transport Equipm. Machinery
793		Skip	Ships (Steam and Sailing)
	Total		
	Grand Total		
8	Miscell. Manuf. Articles		
	Division	Commodity Type	
84-85		Fatnaður, skófatn.	8 Miscell. Manuf. Articles Clothing, Shoes
892		Prentað mál	Printed Matter
898		Hljóðfæri	Musical Instruments
	Total		
	Grand Total		
9	Miscell. Transact. and Comm.		
	Division	Commodity Type	
99		Óflokkanlegt	9 Miscell. Transact. and Comm. Unenumerated
	Total		
	Grand Total		
	Total Quantity		
Source:	Table EXP/NOR-2		
* Re-exports and at least some of the supplies of ships are included.			
** During the years 1870-88 imports from the Faroe Islands are included with those of Iceland.			
† Since ships' supplies are presumably included, salt was not a proper merchandise and should be omitted.			

<i>In (Quantity), 1870–1913</i>													
<i>In English</i>													
	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
0 Food	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Live Sheep and Lambs	0,4	1,4	—	0,8	4,1	—	—	0,5	0,3	—	—	—	
Live Horses	2,5	—	0,7	1,4	7,0	—	0,7	4,6	2,1	0,7	8,8	4,9	
Other Live Animals	—	—	0,2	—	—	—	0,3	—	—	—	—	—	
Meat (mainly Mutton)	7,6	68,9	16,6	152,2	48,6	54,1	222,3	421,6	877,0	351,0	577,9	1 177,6	
Butter	—	—	0,2	—	—	—	—	0,0	—	—	—	—	
Prepared/Preserved Food (Meat)	—	—	—	—	—	—	—	0,3	0,6	0,4	—	—	
Mutton (mainly)	10,4	70,3	17,6	154,4	59,7	54,1	223,3	427,0	879,9	352,1	586,7	1 182,5	
Fresh Fish	—	—	—	—	—	—	—	500,0	319,4	418,0	426,0	—	
Herring, salted	14,7	1,5	391,2	900,0	200,0	750,0	1 250,0	75,0	500,0	17 882,2	5 844,9	8 518,2	
Saltfish, stockfish	48,2	604,3	354,8	792,5	668,2	540,9	1 824,7	1 455,1	4 375,9	1 325,0	1 015,7	1 130,4	
Roe, salted	—	—	—	6,9	—	0,4	160,9	—	29,9	13,8	496,0	—	
Meal from Whalemeat	—	—	—	—	—	—	—	149,2	302,1	1 159,2	706,8	177,1	
Fisheries Products	62,9	605,8	746,0	1 699,4	868,2	1 291,3	3 235,6	2 179,3	5 527,3	20 798,2	8 489,3	9 825,7	
Cereals	—	—	—	—	0,4	—	0,1	0,4	—	—	—	—	
Cereals	0,0	0,0	0,0	0,0	0,4	0,0	0,1	0,4	0,0	0,0	0,0	0,0	
Fruits	—	—	—	—	—	—	0,0	—	—	—	—	—	
Sugar and Syrup	—	—	0,4	—	0,0	—	—	0,0	—	0,0	—	—	
Coffee and Tea	—	0,2	—	0,1	0,0	0,0	0,0	0,1	—	—	0,0	0,1	
Other Plant Foodstuffs	0,0	0,2	0,4	0,1	0,0	0,0	0,0	0,2	0,0	0,0	0,0	0,1	
Fisheries Products and Mutton (mainly)	73,3	676,2	764,0	1 853,9	928,3	1 345,4	3 459,0	2 606,8	6 407,3	21 150,3	9 076,0	11 008,3	
	72%	92%	93%	95%	83%	70%	92%	85%	84%	88%	84%	98%	
1 Beverages and Tobacco	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Alcoholic Beverages	—	0,3	—	—	—	—	—	0,3	—	—	—	—	
Alcoholic Beverages	0,0	0,3	0,0	0,0	0,0	0,0	0,0	0,3	0,0	0,0	0,0	0,0	
	0,0	0,3	0,0	0,0	0,0	0,0	0,0	0,3	0,0	0,0	0,0	0,0	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
2 Crude Materials, Ined., exc. Fuels	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Hides and Skins	2,5	8,9	5,8	20,3	6,9	0,8	31,5	0,4	3,3	8,1	12,2	3,2	
Wool	16,5	29,1	35,0	28,0	14,3	26,0	40,6	27,0	44,0	25,8	12,4	5,3	
Feathers and Down	0,2	0,2	0,2	0,1	0,1	0,2	0,0	0,2	0,2	—	0,0	0,0	
Bones, Bone Meal, Teeth, Baleens, Guano	—	—	—	—	55,5	28,7	223,4	176,7	691,1	401,8	278,6	168,8	
	19,2	38,3	40,9	48,4	76,8	55,6	295,4	204,2	738,6	435,7	303,2	177,3	

In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
Rags	—	—	—	—	0.5	0.7	1.5	—	—	—	—	—
Rags	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	19,2	38,3	40,9	48,4	56,1	296,1	205,7	738,6	435,7	303,2	177,3	177,3
	19%	5%	5%	2%	7%	8%	3%	10%	2%	3%	2%	2%
3 Mineral Fuels, Lubric. and Rel. Mat.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Coals	...	...	...	...	...	...	...	...	...	...	...	...
Paraffin-Oil, Mineral Oil	—	—	—	0,0	—	0,1	—	—	—	—	—	—
Coals (mainly)	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0
Tar	—	—	—	—	0,8	—	—	—	—	—	—	—
Sealing Compounds (Tar)	0,0	0,0	0,0	0,0	0,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	0,0	0,0	0,0	0,0	0,8	0,1	0,0	0,0	0,0	0,0	0,0	0,0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4 Animal and Veget. Oils and Fats	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Tallow	0,5	2,3	4,2	19,5	1,9	—	0,2	0,6	3,1	—	—	—
Fish Oil	9,4	15,2	11,1	24,7	108,0	522,4	7,8	239,9	498,8	2 446,2	1 370,0	11,0
Fish Oil, Tallow	9,9	17,5	15,2	44,2	109,9	522,4	8,0	240,5	501,8	2 446,2	1 370,0	11,0
Cotton Oil	—	—	—	—	0,0	—	—	—	—	—	—	—
Cotton Oil	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Fish Oil, Tallow	9,9	17,5	15,2	44,2	109,9	522,4	8,0	240,5	501,8	2 446,2	1 370,0	11,0
	10%	2%	2%	2%	10%	27%	0%	8%	7%	10%	13%	0%
5 Chemicals	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Salt	...	...	...	...	...	...	...	...	...	...	...	...
Soap	—	—	0,0	—	—	—	—	—	0,0	—	—	—
Salt	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Manufactured Goods	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Leather Manufactures	—	—	—	—	0,0	—	—	—	—	—	—	—
Woolens	—	0,1	0,7	0,2	1,8	—	0,0	0,2	0,1	—	—	—
Woolens	0,0	0,1	0,7	0,2	1,8	0,0	0,0	0,2	0,1	0,0	0,0	0,0
Timber Manufactures	—	—	—	—	0,4	—	—	—	—	—	—	—
Paperboard	—	—	—	—	0,1	—	—	—	—	—	—	—
Cordage	—	—	—	—	0,0	—	—	—	—	0,2	—	—
Textiles off Linen, Hemp, Cotton	—	0,4	0,0	0,0	—	—	—	—	—	—	—	—
Plant Manufactures	0,0	0,4	0,0	0,0	0,5	0,0	0,0	0,0	0,0	0,2	0,0	0,0

[illegible]

Table EXP/NOR-5			Exports* of Iceland*** to Norway by SITC Groups and Origin (Value), 1870-1913	
SITC	Origin (estim.)	Commodities		
No	In Icelandic	In English		
0	Food			
	<i>Division</i>	<i>Commodity Type</i>		
001-A	A Landbúnað.	Sauðfé og lömb, lifandi	0 Food	
001-B	A Landbúnað.	Hross, lifandi	Live Sheep and Lambs	
001-C	A Landbúnað.	Önnur dýr, lifandi	Live Horses	
01	A Landbúnað.	Kjötmat	Other Live Animals	
023	A Landbúnað.	Smjör	Meat (mainly Mutton)	
098	A Landbúnað.	Rúllupylsur og tungur	Butter	
	A Landbúnað. Total		Prepared/Preserved Food (Meat)	
034	B Fiskaf.	Fiskur, nýr	Mutton (mainly)	
035-A	B Fiskaf.	Sild, söltuð	Fresh Fish	
035-B	B Fiskaf.	Saltfiskur, skreidd	Herring, salted	
037	B Fiskaf.	Hrogn	Saltfish, stockfish	
081 ?	B Fiskaf.	Hvalkjötsmjöl	Roe, salted	
	B Fiskaf. Total		Meal from Whalemeat	
045-047	C Korn, -af.	Korn og hris	Fisheries Products	
	C Korn, -af. Total		Cereals	
05-B	D Plöntuaf.	Grænmeti o.p.h.	Cereals	
061	D Plöntuaf.	Sykur og siróp	Fruits	
071-074	D Plöntuaf.	Kaffi og te	Sugar and Syrup	
	D Plöntuaf. Total		Coffee and Tea	
	Grand Total		Other Plant Foodstuffs	
1	Beverages and Tobacco		Fisheries Products and Mutton (mainly)	
	<i>Division</i>	<i>Commodity Type</i>		
112	Vín		1 Beverages and Tobacco	
	Total		Alcoholic Beverages	
	Grand Total		Alcoholic Beverages	
2	Crude Materials, inedible (exc. Fuels)			
	<i>Division</i>	<i>Commodity Type</i>		
21	A Dýraafurðir	Húðir og skinn, löðskinn	2 Crude Materials, ined., exc. Fuels	
268-AB	A Dýraafurðir	Ull	Hides and Skins	
268-C	A Dýraafurðir	Fibur og dúnn	Wool	
291	A Dýraafurðir	Bein, beinamjöl, tennur, hvalskíði, guano	Feathers and Down	
	A Dýraafurðir Total		Bones, Bone Meal, Teeth, Baleens, Guano	

SITC No	Origin (estim.)		Commodities		In English
			In Icelandic		
269	B	Plöntuafurðir	Tuskur		Rags
	B	Plöntuafurðir Total			Rags
		Grand Total			
3		Mineral Fuels, Lubricants and Rel. Mat.			3 Mineral Fuels, Lubric. and Rel. Mat.
	Division	Commodity Type			
32	A	Eldsneyti	Steinkol		Coals
33	A	Eldsneyti	Parafínolla, jarðolla		Paraffin-Oil, Mineral Oil
	A	Eldsneyti Total			Coals (mainly)
335	B	Þéttiefni	Tjara		Tar
	B	Þéttiefni Total			Sealing Compounds (Tar)
		Grand Total			
4		Animal and Vegetable Oils and Fats			4 Animal and Veget. Oils and Fats
	Division	Commodity Type			
41	A	Af dýrum	Tólg		Tallow
43	A	Af dýrum	Lýsi, hvers konar		Fish Oil
	A	Af dýrum Total			Fish Oil, Tallow
42	B	Af jurtum	Boðmolla		Cotton Oil
	B	Af jurtum Total			Cotton Oil
		Grand Total			Fish Oil, Tallow
5		Chemicals			5 Chemicals
	Division	Commodity Type			
529			Salt		Salt
554			Sápa		Soap
		Total			Salt
		Grand Total			
6		Manufact. Goods, Classif. chiefly by Mat.			6 Manufactured Goods
	Division	Commodity Type			
612	A	Dýraaf.	Vörur úr skinni		Leather Manufactures
65-D	A	Dýraaf.	Ullarvörur		Woolens
	A	Dýraaf. Total			Woolens
63	B	Plöntuaf.	Vörur úr trjáviði		Timber Manufactures
642	B	Plöntuaf.	Pappi		Paperboard
65-A	B	Plöntuaf.	Kaðlar		Cordage
65-B	B	Plöntuaf.	Vörur úr lín, hampi, boðmull		Textiles off Linen, Hemp, Cotton
	B	Plöntuaf. Total			Plant Manufactures

SITC No	Origin (estim.)	Commodities	In Icelandic	In English
669	C Jarðefnaaf.	Vörur úr gleri		Glass Manufactures
67	C Jarðefnaaf.	Járn, óunnið		Iron, unproc.
69	C Jarðefnaaf.	Vörur úr járn og stáli		Iron Manufactures
	C Jarðefnaaf. Total			Glass and Iron Manufactures, Iron
	Grand Total			
7	Mach. and Transport Equipm.			
	Division	Commodity Type		7 Mach. and Transport Equipm.
74-75		Vélar, ýmiss konar		Machinery
793		Skip		Ships (Steam and Sailing)
	Total			
	Grand Total			
8	Miscell. Manuf. Articles			
	Division	Commodity Type		8 Miscell. Manuf. Articles
84-85		Fatnaður, skófatn.		Clothing, Shoes
892		Prentað mál		Printed Matter
898		Hljóðfæri		Musical Instruments
	Total			
	Grand Total			
9	Miscell. Transact. and Comm.			
	Division	Commodity Type		9 Miscell. Transact. and Comm.
99		Óflokkanlegt		Unenumerated
	Total			
	Grand Total			
	Total Value			
	Source:	Table EXP/NOR-4		
	* Re-exports are excluded.			
	* During the years 1870-88 imports from the Faroe Islands are included with those of Iceland.			

n (Value), 1870-1913													
In English	Value		Value		Value		Value		Value		Value		Value Norw. kr.
	Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.
0 Food	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Live Sheep and Lambs	37	326	—	287	1 933	—	—	112	42	—	—	—	
Live Horses	1 406	—	771	1 058	5 235	—	663	5 770	2 263	621	9 430	5 281	
Other Live Animals	—	—	152	—	—	—	284	—	—	—	—	—	
Meat (mainly Mutton)	4 498	41 033	10 188	87 384	18 774	18 202	79 333	166 718	388 145	171 181	285 718	805 521	
Butter	—	—	296	—	—	—	—	30	—	—	—	—	
Prepared/Preserved Food (Meat)	—	—	—	—	—	—	—	326	551	398	—	—	
Mutton (mainly)	5 941	41 359	11 407	88 729	25 942	18 202	80 281	172 956	391 001	172 200	295 148	810 802	
Fresh Fish	—	—	—	—	—	—	—	141 954	92 232	120 692	123 002	—	
Herring, salted	861	116	23 612	57 000	11 667	43 750	47 917	7 723	76 483	3 093 021	689 593	1 473 359	
Salifish, stockfish	15 112	179 442	108 719	245 794	146 968	152 561	427 443	423 599	1 679 310	634 325	455 760	609 009	
Roe, salted	—	—	—	790	—	34	22 060	—	4 099	1 892	167 203	—	
Meal from Whalemeat	—	—	—	—	—	—	—	16 688	35 309	123 887	89 725	24 241	
Fisheries Products	15 973	179 658	132 331	303 685	158 634	196 345	497 420	689 963	1 887 434	3 973 817	1 626 283	2 106 609	
Cereals	—	—	—	—	—	—	—	—	—	—	—	—	
Cereals	0	0	0	0	0	0	0	0	0	0	0	0	
Fruits	—	—	—	—	—	—	—	—	—	—	—	—	
Sugar and Syrup	—	—	—	—	—	—	—	—	—	—	—	—	
Coffee and Tea	—	—	—	—	—	—	—	—	—	—	—	—	
Other Plant Foodstuffs	0	0	0	0	0	0	0	0	0	0	0	0	
Fisheries Products and Mutton (mainly)	21 914	220 917	143 738	392 314	184 576	214 546	677 701	762 919	2 278 434	4 146 017	1 820 431	2 917 411	
	30%	73%	64%	86%	74%	62%	84%	89%	88%	83%	75%	98%	
1 Beverages and Tobacco	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Alcoholic Beverages	—	—	—	—	—	—	—	—	—	—	—	—	
Alcoholic Beverages	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
2 Crude Materials, ined., exc. Fuels	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Hides and Skins	3 360	11 599	9 941	10 063	6 824	833	21 818	406	3 179	7 218	18 141	6 738	
Wool	41 906	61 552	98 888	38 855	31 433	64 640	80 794	50 963	96 251	71 878	34 446	15 947	
Feathers and Down	340	388	490	97	110	312	42	292	491	—	69	96	
Bones, Bone Meal, Teeth, Baleens, Guano	—	—	—	—	3 110	1 553	9 863	5 787	35 846	34 537	21 494	19 353	
	45 605	73 539	109 320	49 015	41 477	67 339	112 518	57 448	135 766	113 633	74 149	42 133	

[illegible]

[illegible]

Table EXP/SPA-2		Exports of Iceland to Spain by SITC Groups and Origin (Quantity), 1870–1913	
SITC No	Origin (estim.)	Commodities In Icelandic	In English
0	Food		
	Division	Commodity Type	0 Food
035-B	B Fiskaf.	Saltfiskur	Saltfish
037	B Fiskaf.	Hrogn, söltuð	Roe, salted
	B Fiskaf. Total		
	Grand Total		
2	Crude Materials, Inedible (exc. Fuels)		
	Division	Commodity Type	2 Crude Materials
291-A	A Dýraafurðir	Sundmagi	Soundbladder
	A Dýraafurðir Total		
	Grand Total		
Total Quantity			
Source: Table EXP/SPA-1			
Table A.5. Estimation of Saltfish Exports from Iceland to Spain and Italy (Quan			

[illegible]

Table EXP/SPA-3			Exports of Iceland to Spain by SITC Groups and Origin (Value), 1870–1913	
SITC No	Origin (estim.)	Commodities	In Icelandic	In English
0	Food			
	Division	Commodity Type		0 Food
035-B	B Fiskaf.	Saltfiskur		Saltfish
037	B Fiskaf.	Hrogn, sóltuð		Roe, salted
	B Fiskaf. Total			
	Grand Total			
2	Crude Materials, inedible (exc. Fuels)			
	Division	Commodity Type		2 Crude Materials
291-A	A Dýraafurðir	Sundmagi		Soundbladder
	A Dýraafurðir Total			
	Grand Total			
Total Value				
Source: Table EXP/SPA-1				
Table A.5. Estimation of Saltfish Exports from Iceland to Spain and Italy (Quantities in thousands of metric tons)				

[illegible]

Table EXP/UK-14		Exports* of Iceland to the United Kingdom, 1870–1913, and Unspecified Countries, 1870–94, by SITC Groups and Origin (Quantity): Based on Source Material A, B, and C	
SITC	Origin (estim.)	Commodities	
No	In Icelandic	In English	
0	Food		
	Division	Commodity Type	0 Food
001-A	A Landbúnað.	Sauðfé, lifandi†	Live Sheep†
001-B	A Landbúnað.	Hross, lifandi†	Live Horses†
01	A Landbúnað.	Rjúpur	Ptarmigans
01	A Landbúnað.	Kjöt (ekki svína-)	Mutton
001-C	A Landbúnað.	Kjöt og rjúpur	Meat and Ptarmigans (mainly Mutton)
023	A Landbúnað.	Smjör	Butter
	A Landbúnað. Total		Agricultural Products (mainly Live She
03	B Fiskaf.	Fiskur, alls konar [saltfiskur aðallega]	Fish: of all sorts [Saltfish mainly]
034	B Fiskaf.	Nýr, kældur og ísvarinn fiskur	Fresh/Iced Fish
034	B Fiskaf.	Saltsild	Herring, salted
035-B	B Fiskaf.	Þorskur og ýsa, saltað (=blautfiskur eð	Saltfish, Stockfish, etc.
035-B	B Fiskaf.	Saltfiskur	Saltfish
035-BC	B Fiskaf.	Harðfiskur	Stockfish
035-BD	B Fiskaf.	Lax, saltaður	Salmon, salted
037	B Fiskaf.	Hrogn	Salted Roe
081	B Fiskaf.	Hvalkjötsmjöl	Meal from Whalemeat
	B Fiskaf. Total		Fisheries Products (Saltfish, Herring)
037/098	D Plöntuaf. Total	Matur, niðursoðinn	Prepared/Preserved Food
	E Tilbúnað matvöru Total		Prepared/Preserved Food
	Grand Total		
2	Crude Materials, inedible, except Fuels		
	Division	Commodity Type	2 Crude Materials
21	A Dýraaf.	Húðir, skinn, gætur	Hides and Skins
268-A	A Dýraaf.	Hrossháir	Horse Hair
268-B	A Dýraaf.	Ull	Wool
268-C	A Dýraaf.	Fíður og dúnn	Feathers and Down
291-A	A Dýraaf.	Hvalbein og -skíði, hvalbeinamjöl, gva	Whale Bones, Baleens, Meal from Whaleb
291-B	A Dýraaf.	Sundmagi	Soundbladder
291-C	A Dýraaf.	Garnir	Intestines
291-D	A Dýraaf.	Alftarafurðir	Bird Mat.
	A Dýraaf. Total		Wool (mainly)

SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
269	B Plöntuaf.	Tuskur	Rags
	B Plöntuaf. Total		Rags
282	C Málmur	Gamalt járn	Iron, Refuse
	C Málmur Total		Iron, Refuse
	Grand Total		Wool (mainly)
4	Animal and Vegetable Oils and Fats		
	Division	Commodity Type	4 Anim. & Veget. Oils and Fats
4	A Af dýrum	Lýsi, tólg, feiti	Fish Oil, Tallow, Fats
41 ?	A Af dýrum	Lýsi	Fish Oil
43	A Af dýrum	Tólg	Tallow
	A Af dýrum Total		Animal Oils and Fats
	Grand Total		
6	Manufactured Goods		
	Division	Commodity Type	6 Manufact. Goods
65		Ullarvörur	Woolens
	Total		Woolens
	Grand Total		
Total Quantity			
† Exports of Live Animals by number instead of tonnes:			
001-A		Sauðfé, lifandi	Live Sheep
001-B		Hross, lifandi	Live Horses
Source:	Table EXP/UK-10		
	Table EXP/UK-3		
	Table EXP/UK-11		
	Table EXP/UK-13		
* Re-exports are included.			

[illegible]

Table EXP/UK-15		Exports* of Iceland to the United Kingdom, 1870–1913, and Unspecified Countries, 1870–94, by SITC Groups and Origin (Value): Based on Source Material A, B, and C	
SITC	Origin (estim.)	Commodities	In English
No	In Icelandic		
0	Food		0 Food
	<i>Division</i>	<i>Commodity Type</i>	
001-A	A Landbúnað.	Sauðfé, lífandi	Live Sheep
001-B	A Landbúnað.	Hross, lífandi	Live Horses
01	A Landbúnað.	Rjúpur	Ptarmigans
01	A Landbúnað.	Kjöt (ekki svína-)	Mutton
001-C	A Landbúnað.	Kjöt og rjúpur	Meat and Ptarmigans (mainly Mutton)
023	A Landbúnað.	Smjör	Butter
	A Landbúnað. Total		Live Sheep and Live Horses, Agriculture
03	B Fiskaf.	Fiskur, alls konar [saltfiskur aðallega]	Fish: of all sorts [Saltfish mainly]
034	B Fiskaf.	Nýr, kældur og ísvarinn fiskur	Fresh/Iced Fish
034	B Fiskaf.	Saltsild	Herring, salted
035-B	B Fiskaf.	Þorskur og ýsa, saltað (=blautfiskur eða saltfisk, Stockfish, etc.	Saltfish, Stockfish, etc.
035-B	B Fiskaf.	Saltfiskur	Saltfish
035-BC	B Fiskaf.	Harðfiskur	Stockfish
035-BD	B Fiskaf.	Lax, saltaður	Salmon, salted
037	B Fiskaf.	Hrogn	Salted Roe
081	B Fiskaf.	Hvalkjötsmjöl	Meal from Whalemeat
	B Fiskaf. Total		Fisheries Products (Saltfish, Herring)
037/098	D Þöntuaf. Total	Matur, niðursóðinn	Prepared/Preserved Food
	E Tilbúnað matvöru Total		Prepared/Preserved Food
	Grand Total		
2	Crude Materials, inedible, except Fuels		2 Crude Materials
	<i>Division</i>	<i>Commodity Type</i>	
21	A Dýraaf.	Húðir, skinn, gætur	Hides and Skins
268-A	A Dýraaf.	Hrosshár	Horse Hair
268-B	A Dýraaf.	Ull	Wool
268-C	A Dýraaf.	Fíður og dúnn	Feathers and Down
291-A	A Dýraaf.	Hvalbein og -skíði, hvalbeinamjöl, gull	Whale Bones, Baleens, Meal from Whalebone
291-B	A Dýraaf.	Sundmagi	Soundbladder
291-C	A Dýraaf.	Garnir	Intestines
291-D	A Dýraaf.	Aftarafurðir	Bird Mat.
	A Dýraaf. Total		Wool (mainly)
269	B Þöntuaf.	Tuskur	Rags
	B Þöntuaf. Total		Rags

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[illegible]

[illegible]

Table IMP/ALL-1.	Imports of Iceland* by SITC Groups and Countries (Quantity), 1870-1913
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[illegible]

[illegible][illegible]

Table IMP/ALL-1.			Imports of Iceland* by SITC Groups and Countries (Quantity), 1870–1913																
SITC Groups	Countries	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
		1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Import Growth by Quantity																			
Annual Increase/Decrease			1870-74	1874-78	1878-82	1882-86	1886-90	1890-94	1894-98	1898-1902	1902-06	1906-10	1910-13						
Quantities			3%	4%	9%	-4%	6%	6%	7%	15%	8%	3%	6%						
Import Growth Per Capita																			
Population		1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Tonnes per Capita		70 031 0,227	70 595 0,249	71 901 0,287	71 942 0,405	72 449 0,342	70 607 0,439	73 230 0,527	77 177 0,647	79 181 1,084	82 086 1,416	85 221 1,560	87 137 1,893						
Annual Increase/Decrease			1870-	1874-	1878-	1882-	1886-	1890-	1894-	1898-	1902-	1906-	1910-						
Quantities			1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
			2%	4%	9%	-4%	6%	5%	5%	14%	7%	2%	5%						
Source for population:		Hagskinna , pp 58, 60.																	

Table IMP/ALL-2. Imports of Major Commodity Groups to Iceland* by Origin and Country (Quantity), 1870-1913

SITC Groups / Subgroups: Countries	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity	
	Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes	
0 Food	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Denmark	17,6	6,5	11,6	59,5	24,4	44,8	18,5	74,1	117,2	249,3	1,9	1,9						
Norway	0,1	0,0	0,0	1,3	0,7	2,7	10,5	12,6	59,6	32,1	67,7	42,6						
United Kingdom (and unspecified c	0,1	0,0	1,2	23,4	29,5	38,4	25,6	32,2	29,9	113,1	133,1	206,3						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,7	4,4	0,4	7,2	68,8						
Agricultural Prod.	17,8	6,6	12,8	84,2	54,5	85,9	54,7	121,6	211,0	394,8	209,9	319,6						
As of group total	0%	0%	0%	1%	1%	1%	1%	1%	2%	3%	3%	5%						
Denmark	0,1	0,5	0,3	37,5	0,6	0,3	1,8	18,2	1,0	9,9	0,0	0,0						
Norway	0,3	0,0	0,1	0,4	0,0	0,1	2,9	9,0	1,1	38,0	97,2	41,0						
United Kingdom (and unspecified c	—	—	—	—	—	—	—	—	—	—	—	—						
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—						
Fisheries Prod.	0,4	0,6	0,4	37,8	0,6	0,4	4,8	27,2	2,0	47,9	97,2	41,0						
As of group total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%						
Denmark	6 137,6	5 900,3	5 595,7	7 321,9	5 494,4	5 435,0	6 140,4	5 781,1	7 662,0	8 144,1	68,3	70,4						
Norway	74,0	4,8	159,0	53,7	232,8	386,3	283,0	253,3	171,0	246,5	152,9	206,8						
United Kingdom (and unspecified c	395,5	1 589,7	1 715,6	1 613,6	2 556,6	2 443,3	2 522,9	1 177,9	1 396,3	2 681,8	3 866,2	4 678,4						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	229,7	169,3	63,6	848,6	362,6						
Cereals	6 607,2	7 494,8	7 470,2	8 989,3	8 283,8	8 264,6	8 946,3	7 441,9	9 398,6	11 136,0	4 936,0	5 318,2						
As of group total	89%	91%	90%	84%	85%	83%	82%	78%	77%	75%	81%	75%						
Denmark	719,7	616,1	674,2	1 208,2	957,3	1 051,6	1 220,3	1 486,4	2 324,0	2 891,5	21,1	9,1						
Norway	0,0	0,3	4,4	120,7	150,1	91,3	63,4	94,1	95,2	198,4	109,8	106,4						
United Kingdom (and unspecified c	74,1	152,9	149,4	271,5	291,1	496,5	564,1	340,2	91,7	221,6	235,4	284,9						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	45,9	32,6	17,7	475,9	926,3						
Other Plant Foodstuffs	793,8	769,3	828,0	1 600,5	1 398,5	1 639,4	1 847,8	1 966,6	2 643,6	3 329,2	842,2	1 326,8						
As of group total	11%	9%	10%	15%	14%	16%	17%	21%	21%	22%	14%	19%						
Denmark	0,2	0,0	0,1	1,2	12,4	1,9	2,9	6,5	9,1	13,6	0,1	0,0						
Norway	0,0	0,0	0,0	0,0	0,0	0,0	0,3	1,5	8,4	12,1	38,7	57,7						
United Kingdom (and unspecified c	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0						
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—						
Prepared/Preserved Food, etc.	0,2	0,0	0,1	1,2	12,4	1,9	3,2	8,0	17,5	25,6	38,8	57,7						
As of group total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%						
Total for group (absol.)	7 420,4	8 272,2	8 312,5	10 714,0	9 750,9	9 993,2	10 857,8	9 566,3	12 173,7	14 934,6	6 125,0	7 064,2						
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						

SITC Groups / Subgroups: Countries	Quantity Tonnes	1870	1874	1878	Quantity Tonnes	1882	1886	1890	Quantity Tonnes	1894	1898	1902	Quantity Tonnes	1906	1910	Quantity Tonnes
1 Beverages and Tobacco																
Denmark	0,3	2,5	1,6	7,2	15,0	23,3	36,7	57,2	71,9	84,2	100,0	120,0	140,0	160,0	180,0	200,0
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified countries)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	—
Soft Drinks	0,3	2,5	1,6	7,2	15,0	23,6	22,1	57,2	36,7	62,6	82,6	98,9	120,0	140,0	160,0	180,0
As of group total	0%	1%	0%	1%	3%	4%	3%	11%	7%	7%	82%	82%	120%	140%	160%	180%
Denmark	357,8	273,2	452,8	422,6	215,3	290,2	365,5	452,8	542,1	631,4	720,7	810,0	900,0	990,0	1080,0	1170,0
Norway	2,5	2,2	4,8	32,2	7,6	1,5	0,6	0,6	0,4	0,4	0,6	0,5	0,5	0,5	0,5	0,5
United Kingdom (and unspecified countries)	164,7	58,5	—	232,3	201,2	213,5	291,3	367,4	452,8	542,1	631,4	720,7	810,0	900,0	990,0	1080,0
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Wine and Ale	525,0	333,9	457,6	687,2	424,1	505,2	631,4	720,7	810,0	900,0	990,0	1080,0	1170,0	1260,0	1350,0	1440,0
As of group total	86%	82%	84%	87%	82%	85%	85%	85%	86%	86%	86%	86%	86%	86%	86%	86%
Denmark	85,5	68,7	83,1	90,3	72,5	61,5	73,4	83,1	90,3	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Norway	—	—	—	—	0,1	0,0	0,0	0,0	—	—	—	—	—	—	—	—
United Kingdom (and unspecified countries)	2,6	1,4	—	9,1	6,8	3,3	1,7	10,3	17,9	29,1	46,6	73,4	100,0	126,0	152,0	178,0
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Tobacco	88,1	70,1	83,1	99,4	79,4	64,9	50,5	35,4	20,9	10,4	5,2	2,6	1,3	0,6	0,3	0,1
As of group total	14%	17%	15%	13%	18%	11%	11%	11%	12%	12%	17%	17%	120%	140%	160%	180%
Total for group (absol.)	614,3	407,4	543,1	794,7	519,4	594,6	734,1	810,0	900,0	1000,0	1100,0	1200,0	1300,0	1400,0	1500,0	1600,0
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
2 Crude Materials, inedible (except fuels)																
Denmark	6,1	16,5	11,6	13,4	13,0	40,3	39,3	16,9	24,9	24,9	16,9	39,3	20,3	20,3	0,3	0,0
Norway	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
United Kingdom (and unspecified countries)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Animal Materials	6,1	16,5	11,6	13,4	13,0	40,3	39,3	16,9	24,9	24,9	16,9	39,3	20,3	20,3	0,3	0,0
As of group total	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Denmark	632,2	709,7	890,1	1 143,8	607,4	1 041,3	699,5	599,2	589,0	589,0	599,2	699,5	1 336,8	1 336,8	0,0	0,0
Norway	897,8	1 324,5	2 263,9	3 295,2	1 754,2	2 813,6	7 362,3	6 926,7	4 249,1	4 249,1	6 926,7	7 362,3	8 456,3	8 456,3	4 163,0	3 818,3
United Kingdom (and unspecified countries)	22,3	21,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Plant Materials	1 552,4	2 056,0	3 154,1	4 438,9	2 361,6	3 855,0	8 061,8	7 531,4	4 838,0	4 838,0	7 531,4	8 061,8	9 793,1	9 793,1	4 163,0	3 828,5
As of group total	99%	98%	98%	98%	76%	96%	96%	96%	96%	96%	99%	99%	99%	99%	92%	93%
Denmark	8,2	24,2	40,0	95,5	789,0	95,5	95,5	170,8	170,8	170,8	16,5	43,1	69,1	69,1	0,0	0,0
Norway	0,0	0,0	0,0	0,0	0,0	0,0	0,0	36,0	2,8	2,8	6,5	3,3	14,7	14,7	356,9	298,7
United Kingdom (and unspecified countries)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mineral Materials	8,2	24,2	40,0	95,5	789,0	131,5	46,4	23,0	173,6	173,6	23,0	46,4	83,8	83,8	356,9	298,7
As of group total	1%	1%	1%	2%	26%	3%	1%	3%	3%	3%	0%	1%	1%	1%	8%	7%
Total for group (absol.)	1 567,6	2 097,8	3 206,6	4 548,8	3 164,3	4 027,7	8 148,5	7 572,3	5 037,5	5 037,5	7 572,3	8 148,5	9 898,2	9 898,2	4 521,2	4 128,1
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

SITC Groups / Subgroups:	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
Countries	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
3 Mineral Fuels, Lubricants and												
Denmark	603,9	578,2	673,9	1 196,3	646,8	965,5	954,3	1 044,2	1 818,0	5 294,1	17,7	27,3
Norway	0,0	0,0	0,0	0,0	0,0	289,1	327,7	183,8	1 464,7	1 609,8	482,3	15,0
United Kingdom (and unspecified countries)	2 414,7	2 211,0	1 255,7	2 839,1	4 466,2	5 664,1	8 479,6	17 773,1	37 793,3	51 774,9	88 883,5	107 071,5
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	18,2	9,8	4,8	0,0	1 098,4
Mineral Fuels	3 018,6	2 789,1	1 929,6	4 035,4	5 113,0	6 918,6	9 761,6	19 019,3	41 085,8	58 683,6	89 383,5	108 212,2
As of group total	98%	98%	97%	99%	99%	99%	99%	100%	100%	100%	100%	100%
Denmark	39,6	47,7	55,6	51,2	37,9	52,9	42,4	40,4	45,0	43,7	0,0	0,0
Norway	0,0	0,0	0,0	0,0	0,0	1,9	1,3	0,8	0,3	0,0	1,8	1,4
United Kingdom (and unspecified countries)	12,4	17,8	10,2	7,9	7,5	15,4	7,7	1,5	0,0	0,0	0,0	0,0
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,2	0,1	32,1	0,0
Sealing Compounds	52,0	65,5	65,9	59,1	45,4	70,3	51,4	42,8	45,5	43,8	33,9	1,4
As of group total	2%	2%	3%	1%	1%	1%	1%	0%	0%	0%	0%	0%
Total for group (absol.)	3 071,6	2 855,6	1 996,5	4 095,5	5 159,4	6 989,9	9 814,0	19 063,2	41 132,3	58 728,4	89 418,5	108 214,6
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
5 Chemicals	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	451,5	604,4	999,3	972,1	275,3	336,5	294,4	147,3	153,6	917,2	0,1	0,0
Norway	37,7	363,5	447,6	1 015,5	520,9	696,0	1 853,9	770,4	9 836,4	11 782,6	14 591,0	6 210,5
United Kingdom (and unspecified countries)	2 307,2	2 316,3	4 165,3	5 621,8	4 390,7	7 021,2	8 147,1	8 576,6	8 043,7	7 053,1	1 723,1	4 494,8
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1 303,9	533,8	3 262,4	14 293,1	30 812,0
Preservative Materials (mainly Sealing Compounds)	2 796,4	3 284,2	5 612,1	7 609,5	5 186,9	8 053,7	10 295,4	10 798,3	18 567,5	23 015,2	30 607,3	41 517,3
As of group total	98%	98%	99%	99%	98%	98%	98%	98%	99%	98%	100%	100%
Denmark	48,2	58,7	79,2	111,5	102,5	152,1	171,2	187,6	257,6	437,3	1,7	1,7
Norway	0,0	0,0	0,0	0,7	0,5	0,1	1,9	4,7	1,6	4,6	10,1	4,6
United Kingdom (and unspecified countries)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5	19,2
Other Chemicals	48,2	58,7	79,2	112,2	103,0	152,2	173,1	192,3	259,2	441,9	12,3	25,5
As of group total	2%	2%	1%	1%	2%	2%	2%	2%	1%	2%	0%	0%
Total for group (absol.)	2 845,6	3 343,9	5 692,3	7 722,6	5 290,9	8 206,9	10 469,5	10 991,6	18 827,7	23 458,1	30 620,6	41 543,7
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
6 Manufactured Goods	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	5,1	120,2	14,0	22,4	12,0	17,4	20,9	16,2	18,6	25,4	0,2	0,2
Norway	0,5	0,0	0,0	0,1	0,0	0,0	0,3	4,1	13,7	17,7	9,9	7,0
United Kingdom (and unspecified countries)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	7,6	14,4	2,7	2,6
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	55,1
Animal Materials	5,5	120,2	14,1	22,5	12,0	17,4	21,2	20,3	39,8	57,5	12,7	64,9
As of group total	1%	20%	2%	2%	2%	2%	1%	1%	1%	1%	1%	2%

SITC Groups / Subgroups: Countries	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity	
	Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes	
Denmark	180,9	235,5	322,5	403,6	308,6	378,1	397,9	431,3	366,1	506,9	5,5	4,4								
Norway	3,0	1,0	8,0	6,8	73,4	108,5	317,7	275,2	898,9	2 056,5	924,5	711,3								
United Kingdom (and unspecified countries)	0,0	0,0	24,7	24,2	7,2	36,6	31,1	0,0	187,3	357,1	278,2	204,6								
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	22,6	275,9								
Plant Materials	183,9	236,5	355,2	434,6	389,2	523,3	748,7	706,5	1 452,2	2 920,5	1 230,8	1 196,2								
As of group total	46%	39%	47%	35%	54%	46%	34%	34%	30%	36%	58%	40%								
Denmark	189,6	251,2	277,8	593,9	215,5	451,0	502,8	1 168,4	1 432,0	3 744,9	15,9	40,6								
Norway	7,2	3,6	70,8	124,1	53,8	131,6	199,9	76,1	1 401,9	287,0	177,2	479,9								
United Kingdom (and unspecified countries)	15,0	0,0	35,6	55,8	46,4	4,6	0,0	121,1	489,7	1 115,6	683,8	954,0								
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,2	2,3	0,2	0,0	255,5								
Mineral Materials	211,9	254,7	384,2	773,8	315,7	587,1	702,6	1 367,8	3 326,0	5 147,7	876,9	1 730,0								
As of group total	53%	42%	51%	63%	44%	52%	48%	65%	69%	63%	41%	68%								
Total for group (absol.)	401,8	612,0	754,0	1 231,3	717,5	1 128,3	1 471,1	2 094,9	4 818,3	8 126,1	2 121,0	2 991,5								
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%								
Of Total Imports	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913								
Agricultural Prod.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
Fisheries Prod.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
Cereals	42%	43%	36%	31%	33%	27%	23%	15%	11%	10%	4%	3%								
Other Plant Foodstuffs	5%	4%	4%	5%	6%	5%	5%	4%	3%	3%	1%	1%								
Prepared/Preserved Food, etc.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
Food	47%	47%	40%	37%	39%	32%	28%	19%	14%	13%	5%	4%								
Soft Drinks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
Wine and Ale	3%	2%	2%	2%	2%	2%	2%	1%	0%	1%	0%	0%								
Tobacco	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
1 Beverages and Tobacco	4%	2%	3%	3%	2%	2%	2%	1%	1%	1%	0%	0%								
Animal Materials	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
Plant Materials	10%	12%	15%	15%	10%	12%	13%	15%	9%	8%	3%	2%								
Mineral Materials	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%								
2 Crude Materials, inedible (exc.)	10%	12%	16%	16%	13%	13%	13%	16%	9%	9%	3%	3%								
Mineral Fuels	19%	16%	9%	14%	21%	22%	25%	36%	48%	50%	67%	66%								
Sealing Compounds	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
3 Mineral Fuels, Lubricants and F	19%	16%	10%	14%	21%	23%	25%	38%	48%	51%	67%	66%								
Preservative Materials (mainly Salt)	18%	19%	27%	26%	21%	26%	27%	22%	22%	20%	23%	25%								
Other Chemicals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
5 Chemicals	18%	19%	28%	26%	21%	26%	27%	22%	22%	20%	23%	25%								
Animal Materials	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
Plant Materials	1%	1%	2%	1%	2%	2%	2%	1%	2%	3%	1%	1%								
Mineral Materials	1%	1%	2%	3%	1%	2%	2%	3%	4%	4%	1%	1%								
6 Manufactured Goods	3%	3%	4%	4%	3%	4%	4%	4%	6%	7%	2%	2%								
As of total imports	100%	100%	99%	100%	99%	100%	100%	100%	100%	100%	100%	99%								
Total Imports	15 919,7	17 598,4	20 621,6	29 149,1	24 751,1	31 019,9	38 599,6	49 923,7	85 857,9	116 220,5	132 968,4	164 961,8								

[illegible]

Table IMP/ALL-3. Imports of Staple Commodities to Iceland* by Origin and Country (Quantity), 1870-1913													
SITC Groups / Subgroups / Subsubgroup: Countries	Quantity Tonnes	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
0 Food: Agricultural Products													
Denmark	—	—	—	0,1	—	—	—	0,4	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	0,4	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—
Live Animals	0,0	0,0	0,0	0,1	0,0	0,0	0,0	0,4	0,0	0,0	0,0	0,4	0,0
<i>As of subgroup total</i>	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Denmark	6,1	2,0	2,0	3,8	7,8	5,6	8,7	4,6	16,7	18,0	23,2	0,1	—
Norway	—	—	—	—	—	0,3	2,7	8,1	—	34,3	2,7	15,8	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	1,2
Meat	6,1	2,0	2,0	3,8	7,8	5,9	11,4	12,7	16,7	52,3	25,9	15,9	1,2
<i>As of subgroup total</i>	34%	30%	30%	30%	9%	11%	13%	23%	14%	25%	7%	8%	0%
Denmark	9,3	2,7	2,7	6,0	46,6	13,1	15,9	3,0	5,9	1,6	0,7	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	0,0	—	—	—	19,0	24,0	38,4	25,6	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—
Butter (and Margarine)	9,3	2,7	2,7	6,0	65,6	37,1	54,3	28,6	5,9	1,6	0,7	0,0	0,0
<i>As of subgroup total</i>	52%	41%	41%	47%	78%	68%	63%	52%	5%	1%	0%	0%	0%
Denmark	—	—	—	0,0	—	0,5	13,1	9,7	41,5	78,4	173,2	1,1	0,9
Norway	0,1	0,0	0,0	—	1,3	0,4	0,0	2,2	12,0	25,2	29,1	49,9	42,2
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	29,2	29,9	113,1	133,1	206,3
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5	4,3	—	6,6	64,0
Margarine	0,1	0,0	0,0	0,0	1,3	0,9	13,2	11,9	83,3	137,8	315,4	190,8	313,4
<i>As of subgroup total</i>	1%	1%	1%	0%	2%	2%	15%	22%	68%	65%	80%	91%	98%
Denmark	2,2	1,9	1,9	1,6	5,0	5,1	7,0	0,7	8,7	18,4	50,0	0,6	1,0
Norway	—	—	—	—	—	—	—	0,2	0,6	0,1	0,3	1,6	0,4
United Kingdom (and unspecified)	0,1	—	—	1,2	4,4	5,4	—	—	2,9	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,2	0,1	0,4	0,6	3,6
Cheese	2,3	1,9	1,9	2,9	9,4	10,5	7,0	0,9	14,4	18,6	50,7	2,8	4,9
<i>As of subgroup total</i>	13%	28%	22%	22%	11%	19%	8%	2%	12%	9%	13%	1%	2%

SITC Groups / Subgroups / Subgroup: Countries	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity	
	Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes	
Denmark	—	—	—	0,1	0,1	0,2	1,3	0,8	2,2	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	—	—	—	—	—	—	—	—
Eggs	0,0	0,0	0,0	0,1	0,1	0,2	1,3	0,8	2,2	—	—	—	—	—	—	—	—	—
As of subgroup total	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Total for subgroup (absol.)	18,8	7,6	13,8	85,2	55,5	86,9	122,6	212,0	395,8	210,9	320,6	100%	100%	100%	100%	100%	100%	100%
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
0 Food: Cereals and Cereal	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Denmark	3 698,1	3 445,4	3 345,1	4 022,7	2 754,4	2 126,5	2 097,8	1 700,5	1 990,9	2 335,9	11,4	7,3						
Norway**	65,7	3,3	153,1	7,8	63,3	80,9	68,9	35,0	33,8	2,0	2,4	0,2						
United Kingdom (and unspecified)	261,2	1 319,9	1 265,0	1 398,2	1 468,6	1 253,8	1 446,6	434,2	459,2	810,0	806,0	774,4						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	42,3	19,9	3,9	46,5	34,2						
Unmilled Cereals**	4 025,0	4 768,6	4 763,3	5 428,8	4 286,3	3 461,3	3 613,3	2 212,0	2 503,9	3 151,8	866,3	816,1						
As of subgroup total	61%	64%	64%	60%	52%	42%	40%	30%	27%	28%	18%	15%						
Denmark	1 984,3	1 912,9	1 636,6	2 353,7	2 017,4	2 508,5	3 159,4	3 357,5	4 667,5	4 930,2	51,7	58,9						
Norway**	—	—	—	6,8	131,4	270,0	180,0	210,2	113,2	190,0	141,8	203,0						
United Kingdom (and unspecified)	134,4	269,8	450,6	215,4	1 088,0	1 189,5	1 076,3	536,7	593,5	1 150,3	2 282,3	3 136,8						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	160,2	116,5	48,1	690,7	300,2						
Milled Cereals**	2 118,6	2 182,6	2 087,3	2 576,0	3 236,9	3 988,0	4 415,8	4 264,5	5 490,6	6 318,5	3 166,4	3 698,9						
As of subgroup total	32%	29%	28%	29%	39%	48%	49%	57%	58%	57%	64%	70%						
Denmark	315,1	425,8	452,5	717,5	561,0	612,9	724,9	557,5	760,5	551,0	3,8	3,4						
Norway	—	—	—	—	—	29,7	14,5	—	—	—	—	—						
United Kingdom (and unspecified)	—	—	—	—	—	—	—	207,0	202,3	443,2	443,0	372,3						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	27,2	32,9	11,7	106,9	28,1						
Rice	315,1	425,8	452,5	717,5	561,0	642,6	739,4	791,7	995,7	1 005,9	553,7	403,8						
As of subgroup total	5%	6%	6%	8%	7%	8%	8%	11%	11%	9%	11%	8%						
Denmark	140,2	116,2	161,4	228,0	161,6	187,1	158,2	165,6	243,2	327,1	1,5	0,9						
Norway	8,3	1,6	5,8	39,1	38,1	5,7	19,6	8,1	24,0	54,5	8,7	3,5						
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	141,3	278,3	335,0	394,9						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	4,5	0,1						
Sago, Bread, etc.	148,5	117,7	167,2	267,1	199,7	192,7	177,9	173,7	408,4	659,9	349,6	399,4						
As of subgroup total	2%	2%	2%	3%	2%	2%	2%	2%	4%	6%	7%	8%						
Total for subgroup (absol.)	6 608,2	7 495,7	7 471,2	8 990,2	8 284,8	8 265,6	8 947,3	7 442,9	9 399,6	11 137,0	4 936,9	5 319,1						
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						

SITC Groups / Subgroups / Subgroup: Countries	Quantity Tonnes	1870	1874	1878	Quantity Tonnes	1882	1886	Quantity Tonnes	1890	Quantity Tonnes	1894	Quantity Tonnes	1898	Quantity Tonnes	1902	Quantity Tonnes	1906	Quantity Tonnes	1910	Quantity Tonnes	1913
0 Food: Other Plant Foodstuffs																					
Denmark	31,2	37,0	38,4	58,8	38,4	62,0	84,5	94,9	129,3	164,7	0,1	—	—	—	—	—	—	—	—	—	
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Fruits	31,2	37,0	38,4	58,8	38,4	62,0	84,5	94,9	129,3	164,7	0,1	—	—	—	—	—	—	—	—	—	
As of subgroup total	4%	5%	5%	4%	3%	4%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Denmark	46,3	26,3	39,9	150,9	129,9	144,5	170,8	231,4	482,8	724,1	4,5	—	—	—	—	—	—	—	—	—	
Norway	—	0,3	4,4	120,7	146,1	78,4	61,6	76,7	68,5	98,7	63,3	34,3	—	—	—	—	—	—	—	—	
United Kingdom (and unspecified)	8,3	20,9	15,4	35,8	45,2	88,7	16,4	23,6	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Vegetables (esp. Potatoes):	54,6	47,5	59,7	307,4	321,2	311,6	248,7	331,7	551,2	823,1	70,8	35,5	—	—	—	—	—	—	—	—	
As of subgroup total	7%	6%	7%	19%	23%	19%	13%	17%	22%	25%	8%	3%	—	—	—	—	—	—	—	—	
Denmark	324,4	326,2	340,9	541,9	475,2	573,0	674,0	818,6	1 234,7	1 465,2	13,0	6,5	—	—	—	—	—	—	—	—	
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
United Kingdom (and unspecified)	29,5	53,9	46,1	97,5	160,3	360,1	432,8	261,5	74,0	165,9	17,4	21,0	—	—	—	—	—	—	—	—	
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Sugar, Sugar Preparations	353,9	380,1	387,0	639,4	635,5	938,4	1 107,1	1 119,3	1 347,1	1 658,1	560,8	1 041,3	—	—	—	—	—	—	—	—	
As of subgroup total	45%	49%	47%	40%	45%	57%	60%	57%	53%	50%	67%	78%	—	—	—	—	—	—	—	—	
Denmark	315,7	223,5	251,4	371,3	305,8	266,8	284,8	335,7	465,7	507,4	2,4	2,0	—	—	—	—	—	—	—	—	
Norway	—	—	—	—	0,3	3,0	0,8	1,9	10,0	3,2	4,0	1,1	—	—	—	—	—	—	—	—	
United Kingdom (and unspecified)	36,3	78,1	87,8	138,3	85,6	47,7	115,0	55,1	17,8	55,8	57,4	25,4	—	—	—	—	—	—	—	—	
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Coffee, Tea, Cocoa and Choc	352,1	301,6	339,3	509,6	391,6	317,5	400,6	406,5	500,7	571,1	183,0	199,3	—	—	—	—	—	—	—	—	
As of subgroup total	44%	39%	41%	32%	28%	19%	22%	21%	20%	17%	22%	15%	—	—	—	—	—	—	—	—	
Denmark	2,0	3,1	1,4	5,0	1,5	3,1	3,0	2,9	3,4	3,4	0,3	—	—	—	—	—	—	—	—	—	
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Herbs and Spices	2,0	3,1	1,4	5,0	1,5	3,1	3,0	2,9	3,4	3,4	0,3	0,0	—	—	—	—	—	—	—	—	
As of subgroup total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	—	—	—	—	—	—	—	—	
Denmark	—	—	2,2	80,2	6,5	2,3	3,3	2,9	8,2	26,7	0,0	—	—	—	—	—	—	—	—	—	
Norway	—	—	—	—	3,8	4,1	0,1	8,3	3,6	82,1	25,0	50,1	—	—	—	—	—	—	—	—	
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	—	—	—	—	
Feeding Stuffs for Animals	0,0	0,0	2,2	80,2	10,3	6,4	3,4	11,1	11,7	108,8	25,1	50,1	—	—	—	—	—	—	—	—	
As of subgroup total	0%	0%	0%	5%	1%	0%	0%	1%	0%	3%	3%	4%	—	—	—	—	—	—	—	—	
Total for subgroup (absol.)	794,8	770,3	829,0	1 601,4	1 399,5	1 640,4	1 848,8	1 967,6	2 544,6	3 330,2	843,1	1 327,7	—	—	—	—	—	—	—	—	
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	—	—	—	—	—	—	—	—	

SITC Groups / Subgroups / Subgroup: Countries	Quantity Tonnes	1870	1874	1878	Quantity Tonnes	1882	1886	1890	Quantity Tonnes	1894	1898	Quantity Tonnes	1902	Quantity Tonnes	1906	Quantity Tonnes	1910	Quantity Tonnes	1913
2 Crude Materials: Plant Ma																			
Denmark	0,7	0,1	0,3	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,1	2,3	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecifie	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Crude Rubber	0,7	0,1	0,3	0,0	0,0	0,0	0,0	0,2	0,1	0,1	0,1	0,1	0,1	0,1	2,3	0,0	0,0	0,0	0,0
<i>As of subgroup total</i>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Denmark	616,4	699,6	884,7	1 138,9	603,6	1 036,1	587,4	697,1	1 330,7	8 456,3	4 163,0	3 817,6	—	—	—	—	—	—	—
Norway	897,8	1 283,4	2 263,3	3 283,8	1 750,4	2 812,5	4 247,7	5,5	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecifie	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Wood and Cork, Unproc.	1 514,2	1 983,0	3 147,9	4 422,7	2 353,9	3 848,7	4 835,1	7 514,9	8 059,4	9 786,9	4 163,0	3 827,8	—	—	—	—	—	—	—
<i>As of subgroup total</i>	98%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Denmark	15,1	10,0	4,6	4,6	3,2	4,6	1,2	12,9	1,0	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	0,6	0,3	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecifie	22,3	21,8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Textile Fibres: Feathers and	37,4	31,8	4,6	4,6	3,2	5,2	1,5	12,9	1,8	1,0	0,1	0,7	—	—	—	—	—	—	—
<i>As of subgroup total</i>	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Denmark	0,0	0,0	0,5	0,3	0,5	0,3	0,3	1,1	0,5	2,8	—	—	—	—	—	—	—	—	—
Norway	—	41,1	0,7	11,3	3,8	0,5	1,0	2,4	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecifie	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Crude Vegetable Materials	0,0	41,1	1,2	11,6	4,4	0,8	1,3	3,5	0,5	2,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>As of subgroup total</i>	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total for subgroup (absol.)	1 553,4	2 057,0	3 155,1	4 439,9	2 362,6	3 856,0	4 839,0	7 532,4	8 062,8	9 794,1	4 164,0	3 829,5	—	—	—	—	—	—	—
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
3 Mineral Fuels, Lubric., and																			
Denmark	592,4	545,9	623,5	1 126,8	596,0	885,1	839,0	937,9	1 585,8	3 486,6	—	—	—	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecifie	2 413,8	2 211,0	1 217,9	2 729,2	4 337,2	5 483,5	8 183,6	17 288,5	37 280,1	51 425,9	88 823,8	107 088,1	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Coal: Hard, Brown, Peat	3 006,3	2 756,9	1 841,4	3 856,0	4 933,3	6 650,0	9 342,0	18 394,5	40 301,1	56 490,8	89 285,5	107 269,9	—	—	—	—	—	—	—
<i>As of subgroup total</i>	100%	99%	95%	96%	96%	96%	96%	96%	96%	96%	96%	96%	98%	98%	96%	100%	100%	99%	99%

SITC Groups / Subgroups / Subgroup: Countries	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
Denmark	11,5	32,3	50,4	69,5	50,8	80,4	115,3	106,3	232,2	1 807,5	17,7	27,3
Norway	—	—	—	—	—	7,6	8,3	15,7	29,5	31,5	20,6	13,2
United Kingdom (and unspecified)	0,9	—	37,9	109,9	129,0	180,6	296,0	484,6	513,2	349,0	59,7	3,4
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	18,2	9,8	4,8	—	898,4
Petroleum Products	12,4	32,3	88,3	179,4	179,8	268,6	419,6	624,8	784,8	2 192,8	98,0	942,3
As of subgroup total	0%	1%	5%	4%	4%	4%	4%	3%	2%	4%	0%	1%
Total for subgroup (absol.)	3 019,6	2 790,1	1 930,6	4 036,3	5 114,0	6 919,6	9 762,6	19 020,3	41 086,8	58 684,5	89 384,5	108 213,2
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
5 Chemicals: Preservative N												
Denmark	8,8	6,9	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	0,3	1,4	5,7	—	—	3,6	4,8	4,5	0,1	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	0,1	—	—
Vinegar	9,1	8,3	9,0	21,2	8,8	9,3	11,0	7,0	5,5	3,7	0,1	0,0
As of subgroup total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Denmark	442,7	597,5	996,0	950,9	270,1	332,0	287,9	140,5	148,2	913,5	—	—
Norway	37,7	363,5	447,6	1 015,5	520,9	696,0	1 853,9	770,4	9 836,4	11 782,6	14 591,0	6 210,5
United Kingdom (and unspecified)	2 306,9	2 314,9	4 159,5	5 621,8	4 387,1	7 016,4	8 142,6	8 576,5	8 043,7	7 053,1	1 723,1	4 494,8
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1 303,9	533,7	3 262,4	14 293,1	30 812,0
Salt	2 787,4	3 275,9	5 603,1	7 588,3	5 178,1	8 044,4	10 284,4	10 791,3	18 562,0	23 011,5	30 607,2	41 517,3
As of subgroup total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total for subgroup (absol.)	2 796,4	3 284,2	5 612,1	7 609,5	5 186,9	8 053,7	10 295,4	10 798,3	18 567,5	23 015,2	30 607,3	41 517,3
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
6 Manufactured Goods: Ani												
Denmark	3,1	111,9	5,7	12,7	8,0	9,1	11,3	11,2	14,2	18,7	0,1	0,1
Norway	—	—	0,0	0,1	—	0,0	0,1	0,6	1,7	6,5	3,3	3,6
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	7,7
Leather and Leather Manufac	3,1	111,9	5,8	12,8	8,0	9,1	11,4	11,8	15,9	25,2	3,3	11,4
As of subgroup total	56%	93%	41%	57%	66%	52%	53%	58%	40%	44%	26%	18%
Denmark	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,0	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	17,1
Silk Manufactures	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,0	17,1
As of subgroup total	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	26%

SITC Groups / Subgroups / Subgroup: Countries	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity	
	Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes	
Denmark	1,9	8,2	8,3	9,6	4,0	8,3	9,6	4,8	4,3	6,7	0,1	0,1						
Norway	0,5	—	—	—	—	0,0	0,3	3,5	12,0	11,2	6,6	3,4						
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	7,6	14,4	2,7	2,6						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	30,3						
Woolleins	2,4	8,2	8,3	9,6	4,0	8,3	9,8	8,3	23,8	32,2	9,4	36,3						
As of subgroup total	43%	7%	59%	43%	34%	48%	46%	41%	60%	56%	74%	56%						
Total for subgroup (absol.)	6,1	121,1	14,5	23,0	12,7	17,9	21,8	20,8	40,2	58,0	13,0	65,3						
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						
6 Manufactured Goods: Pl	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Denmark	83,1	103,4	183,8	194,5	176,6	189,2	160,3	218,0	91,4	137,2	4,0	4,3						
Norway	0,1	0,8	7,5	4,8	70,6	101,6	310,8	257,9	814,5	1 907,3	755,6	542,6						
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	1,0						
Wood and Cork Manufacture	83,2	104,3	191,3	199,3	247,1	290,8	471,1	475,8	905,9	2 044,6	759,7	547,9						
As of subgroup total	45%	44%	54%	46%	63%	56%	63%	67%	62%	70%	62%	46%						
Denmark	10,1	13,0	21,8	42,9	33,8	45,9	79,5	100,6	150,7	263,0	1,3	0,1						
Norway	—	—	—	1,3	—	1,6	3,1	2,3	6,7	8,8	47,7	57,4						
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	62,9	55,5	—						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	6,1						
Paper, Paperboard; Articles	10,1	13,0	21,8	44,3	33,8	47,5	82,6	102,9	157,4	334,6	104,5	63,5						
As of subgroup total	6%	6%	6%	10%	9%	9%	11%	15%	11%	11%	8%	5%						
Denmark	31,2	36,5	45,5	40,3	32,7	48,7	46,5	29,9	57,4	53,5	0,0	—						
Norway	2,8	0,1	0,5	0,6	2,8	4,7	3,5	14,7	77,7	139,2	120,9	110,3						
United Kingdom (and unspecified)	0,0	—	24,7	24,2	7,2	36,6	31,1	—	22,5	57,0	85,8	100,9						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	22,6	44,0						
Ropes, Mats, Lines, Nets (fro	34,0	36,7	70,8	65,1	42,8	90,0	81,1	44,6	157,6	249,7	229,4	255,2						
As of subgroup total	19%	16%	20%	15%	11%	17%	11%	6%	11%	9%	19%	21%						
Denmark	56,5	82,5	71,4	125,9	65,6	94,4	111,6	82,8	66,5	53,2	0,1	0,1						
Norway	—	—	—	—	—	0,6	0,3	0,3	—	1,2	0,2	1,0						
United Kingdom (and unspecified)	—	—	—	—	—	—	—	0,0	164,8	237,2	136,9	103,7						
Other Countries	0,0	0,0	0,0	0,0	0,0	0,0	0,0	—	—	—	—	224,8						
Fabrics from Cotton, Linen o	56,5	82,5	71,4	125,9	65,6	95,0	111,9	83,1	231,3	291,6	137,3	329,5						
As of subgroup total	31%	35%	20%	29%	17%	18%	15%	12%	16%	10%	11%	28%						
Total for subgroup (absol.)	184,6	237,1	356,0	435,4	390,1	524,1	747,5	707,4	1 453,1	2 921,4	1 231,7	1 196,9						
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						

SITC Groups / Subgroups		Quantity Tonnes	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
/ Subsubgroup: Countries		Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
6 Manufactured Goods: Min														
Denmark		0.2	0.6	—	—	0.7	1.0	62.5	37.9	189.6	287.3	2 375.7	15.9	40.6
Norway		—	—	—	—	—	—	2.2	17.7	—	—	—	—	207.6
United Kingdom (and unspecified)		11.1	—	25.6	50.1	36.6	—	—	—	34.0	—	—	—	—
Other Countries		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.3	0.2	—	—
Cement, Lime		11.3	0.6	25.6	50.8	37.6	64.8	64.8	55.6	225.4	289.6	2 375.9	15.9	248.3
<i>As of subgroup total</i>		5%	0%	7%	12%	12%	11%	11%	8%	16%	9%	46%	2%	14%
Denmark		53.0	55.8	64.1	137.4	22.7	93.2	70.6	440.8	363.4	356.5	—	—	—
Norway		—	—	19.6	102.5	44.0	116.0	167.9	16.3	959.9	216.1	—	—	202.5
United Kingdom (and unspecified)		—	—	—	—	—	—	—	—	83.3	—	—	—	—
Other Countries		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—	0.1
Mineral (Rock) Manufactures		53.0	55.8	83.6	239.9	66.7	209.2	238.5	238.5	540.4	1 323.3	572.6	0.0	202.6
<i>As of subgroup total</i>		25%	22%	22%	31%	21%	36%	34%	40%	40%	40%	11%	0%	12%
Denmark		7.3	12.2	16.1	27.4	19.5	23.0	29.0	31.6	61.7	—	—	—	—
Norway		—	2.2	3.7	21.0	7.8	1.7	0.5	0.6	17.1	0.4	17.1	33.9	7.6
United Kingdom (and unspecified)		—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—	27.2
Glass and Glass Manufactur		7.3	14.4	19.8	48.4	27.3	24.7	29.5	29.5	32.2	64.1	78.7	33.9	34.8
<i>As of subgroup total</i>		3%	6%	5%	6%	9%	4%	4%	4%	2%	2%	2%	4%	2%
Denmark		17.0	19.1	20.3	27.3	12.1	16.0	23.6	20.9	43.6	51.3	—	—	—
Norway		—	—	—	—	—	0.1	0.1	0.0	0.0	—	—	—	—
United Kingdom (and unspecified)		—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—	50.4
Pottery Manufactures		17.0	19.1	20.3	27.3	12.1	16.1	23.7	23.7	20.9	43.6	51.3	0.0	50.4
<i>As of subgroup total</i>		8%	7%	5%	4%	4%	3%	3%	3%	2%	1%	1%	0%	3%
Denmark		69.2	107.0	64.0	80.6	38.2	68.2	105.7	102.0	129.5	176.4	—	—	—
Norway		0.7	0.5	3.4	0.1	0.5	4.8	8.9	16.7	163.9	7.2	2.3	14.7	14.7
United Kingdom (and unspecified)		3.9	—	10.0	5.7	9.8	4.6	3.1	489.7	1 115.6	683.8	—	—	954.0
Other Countries		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	—	—	—	106.5
Iron and Steel, unproc.		73.9	107.5	77										

SITC Groups / Subgroups / Subgroup: Countries	Quantity Tonnes	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Of Total Imports													
Live Animals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Meat	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Butter (and Margarine)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Margarine	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cheese	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Eggs	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0 Food: Agricultural Products	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Unmilled Cereals**	25%	27%	23%	19%	17%	13%	11%	9%	4%	3%	3%	1%	0%
Milled Cereals**	13%	12%	10%	9%	13%	13%	13%	11%	9%	6%	5%	2%	2%
Rice	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	0%	0%
Sago, Bread, etc.	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	0%	0%
0 Food: Cereals and Cereal F	42%	43%	36%	31%	33%	27%	23%	23%	15%	11%	10%	4%	3%
Fruits	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetables (esp. Potatoes); Juic	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%
Sugar, Sugar Preparations	2%	2%	2%	2%	3%	3%	3%	3%	2%	2%	1%	0%	1%
Coffee, Tea, Cocoa and Chocoi	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	0%	0%	0%
Herbs and Spices	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Feeding Stuffs for Animals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0 Food: Other Plant Foodstuf	5%	4%	4%	5%	6%	5%	5%	5%	4%	3%	3%	1%	1%
Crude Rubber	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wood and Cork, Unproc.	10%	11%	15%	15%	10%	12%	13%	13%	15%	9%	8%	3%	2%
Textile Fibres; Feathers and Dow	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Crude Vegetable Materials	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2 Crude Materials: Plant Mate	10%	12%	15%	15%	10%	12%	13%	13%	15%	9%	8%	3%	2%
Coal: Hard, Brown, Peat	19%	16%	9%	13%	20%	21%	24%	24%	37%	47%	49%	67%	65%
Petroleum Products	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	2%	0%	1%
3 Mineral Fuels, Lubric., and	19%	16%	9%	14%	21%	22%	25%	25%	38%	48%	50%	67%	66%
Vinegar	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Salt	18%	19%	27%	26%	21%	26%	27%	27%	22%	22%	20%	23%	25%
5 Chemicals: Preservative Ma	18%	19%	27%	26%	21%	26%	27%	27%	22%	22%	20%	23%	25%
Wood and Cork Manufactures	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%	1%	0%
Paper, Paperboard; Articles of F	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Ropes, Mats, Lines, Nets (from	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fabrics from Cotton, Linen or H	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6 Manufactured Goods: Plan	1%	1%	2%	1%	2%	2%	2%	2%	1%	2%	3%	1%	1%

[illegible]

Table IMP/ALL-5.		Imports of Iceland* by SITC Groups and Countries (Value), 1870–1913											

Table IMP/ALL-5.	Imports of Iceland* by SITC Groups and Countries (Value), 1870-1913

[illegible]

Table IMP/ALL-5.	Imports of Iceland* by SITC Groups and Countries (Value), 1870-1913
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[illegible]

Table IMP/ALL-5.		Imports of Iceland* by SITC Groups and Countries (Value), 1870–1913									
SITC Groups	Countries	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
		Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.
		1870	1874	1878	1882	1886	1890	1894	1898	1902	1906
Sources:	Table IMP/DEN-3										
	Table IMP/NOR-8										
* Imports from other countries than Denmark and Norway are included with those from the United Kingdom during 1870-1894. As for Norway, imports to Iceland are included with imports to Faroe Islands during 1870-88. As for the UK, imports to Iceland are included with imports to Greenland during 1902-1913. In all three cases these inclusions make small difference.											
Import Growth by Value											
Annual Increase/Decrease		1870-74	1874-78	1878-82	1882-86	1886-90	1890-94	1894-98	1898-1902	1902-06	1906-10
Value		7%	-1%	8%	-11%	6%	1%	3%	7%	14%	-4%
Import Growth Per Capita											
Population		1870	1874	1878	1882	1886	1890	1894	1898	1902	1906
Danish. kr. per Capita		70 031	70 595	71 901	71 942	72 449	70 607	73 230	77 177	79 181	82 086
		46	59	55	74	47	60	62	67	85	140
Annual Increase/Decrease		1870-	1874-	1878-	1882-	1886-	1890-	1894-	1898-	1902-	1906-
Value		1874	1878	1882	1886	1890	1894	1898	1902	1906	1910
		6%	-2%	8%	-11%	7%	0%	2%	6%	13%	-4%
Source for population:		<i>Hagskinna</i> , pp 58, 60.									

Imports of Major Commodity Groups to Iceland* by Origin and Country (Value), 1870-1913

[illegible]

SITC Groups / Subgroups:

[illegible]

Table IMP/ALL-6. Imports of Major Commodity Groups to Iceland* by Origin and Country (Value), 1870-1913

SITC Groups / Subgroups: Countries	Value		Value		Value		Value		Value		Value		Value		Value		Value	
	Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.		Danish kr.	
Denmark	317	986	1 422	3 786	29 907	3 995	10 848	774	712	1 197	0	0						
Norway	0	0	0	0	0	2 120	165	390	64	144	3 904	3 855						
United Kingdom (and unspecified countries)	—	—	—	—	—	—	—	—	—	—	—	—						
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—						
Mineral Materials	317	986	1 422	3 786	29 907	6 115	11 014	1 164	776	1 341	3 904	3 855						
As of group total	0%	0%	1%	1%	18%	2%	4%	0%	0%	0%	1%	1%						
Total for group (absol.)	141 846	228 608	232 115	284 630	170 224	288 756	259 034	391 582	431 687	594 682	306 055	257 772						
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						
3 Mineral Fuels, Lubricants and other	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Denmark	32 516	42 373	40 922	50 937	27 715	48 103	36 966	35 426	64 962	284 128	142 142	322 218						
Norway	0	0	0	0	0	7 589	8 282	5 619	39 160	39 816	14 196	1 758						
United Kingdom (and unspecified countries)	39 553	42 737	31 800	64 310	73 208	105 126	174 813	284 684	688 129	849 471	1 320 327	2 041 460						
Other Countries	0	0	0	0	0	0	0	3 036	1 964	718	1 219	143 455						
Mineral Fuels	72 069	85 111	72 722	115 247	100 923	160 818	220 060	328 764	794 215	1 174 134	1 477 884	2 508 892						
As of group total	88%	87%	86%	92%	94%	94%	97%	98%	99%	100%	100%	100%						
Denmark	8 337	10 795	10 622	9 123	5 974	8 292	5 812	4 830	5 692	4 058	0	0						
Norway	0	0	0	0	0	277	179	50	13	0	69	88						
United Kingdom (and unspecified countries)	1 424	2 353	1 495	1 040	879	1 738	824	221	0	0	0	0						
Other Countries	0	0	0	0	0	0	0	28	90	30	7 200	0						
Sealing Compounds	9 761	13 148	12 117	10 163	6 853	10 307	6 815	5 129	5 795	4 088	7 269	88						
As of group total	12%	13%	14%	8%	6%	6%	3%	2%	1%	0%	0%	0%						
Total for group (absol.)	81 831	98 260	84 840	125 411	107 777	171 126	226 876	333 884	800 011	1 178 223	1 485 154	2 508 981						
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						
5 Chemicals	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Denmark	23 014	27 839	36 580	39 174	10 541	11 494	10 708	6 425	6 552	28 575	2 274	0						
Norway	1 554	15 027	14 809	188 780	22 465	18 321	42 376	18 210	227 551	264 281	288 186	149 170						
United Kingdom (and unspecified countries)	40 161	48 043	86 658	90 386	54 151	94 125	117 249	185 143	136 838	119 962	44 258	89 868						
Other Countries	0	0	0	0	0	0	0	51 563	23 649	73 532	281 024	708 128						
Preservative Materials (mainly Soap)	64 729	90 909	138 047	318 340	87 158	123 939	170 333	261 340	394 589	486 350	615 742	947 166						
As of group total	63%	68%	66%	76%	57%	59%	61%	68%	74%	71%	88%	92%						

Table IMP/ALL-6. Imports of Major Commodity Groups to Iceland* by Origin and Country (Value), 1870-1913

SITC Groups / Subgroups: Countries	Value		Value		Value		Value		Value		Value		Value		Value		Value		Value	
	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value
Denmark	37 964	42 694	70 373	100 524	65 537	86 653	107 688	101 938	135 753	194 487	65 304	66 013								
Norway	0	0	0	351	159	92	540	1 177	425	958	4 826	2 846								
United Kingdom (and unspecified countries)	—	—	—	—	—	—	—	—	—	—	—	—								
Other Countries	0	0	0	0	0	0	0	2 031	308	207	12 424	13 815								
Other Chemicals	37 964	42 694	70 373	100 875	65 695	86 746	108 228	105 146	136 486	195 653	82 553	82 675								
As of group total	37%	32%	34%	24%	43%	41%	39%	28%	26%	29%	12%	8%								
Total for group (absol.)	102 693	133 604	208 421	419 215	152 854	210 686	278 561	366 488	531 076	682 003	698 296	1 029 841								
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	96%	100%	100%	100%	100%								
6 Manufactured Goods	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913								
Denmark	37 549	359 843	98 310	138 514	66 117	114 010	132 676	66 922	73 240	119 751	100 406	110 001								
Norway	4 205	0	172	303	0	117	1 339	12 585	35 542	64 291	40 379	25 263								
United Kingdom (and unspecified countries)	0	0	0	0	0	0	0	28 443	36 695	71 024	20 768	20 390								
Other Countries	0	0	0	0	0	0	0	10 395	10 075	62 086	104 098	170 384								
Animal Materials	41 754	359 843	98 482	138 817	66 117	114 127	134 015	118 345	155 552	317 152	265 652	326 038								
As of group total	13%	46%	15%	14%	14%	15%	16%	12%	9%	11%	13%	16%								
Denmark	195 272	318 131	364 330	434 816	250 606	386 862	362 767	226 621	208 173	206 442	179 018	144 035								
Norway	2 676	1 181	7 562	2 138	16 829	29 103	69 849	73 597	322 796	932 510	484 126	337 697								
United Kingdom (and unspecified countries)	0	0	23 335	20 180	5 208	27 382	24 087	197 107	323 148	569 323	471 877	491 960								
Other Countries	0	0	0	0	0	0	0	8 431	47 805	59 569	210 247	341 494								
Plant Materials	197 948	319 312	395 227	457 133	272 643	443 346	456 703	505 756	901 922	1 767 844	1 345 269	1 315 187								
As of group total	63%	41%	61%	47%	59%	58%	56%	50%	54%	59%	68%	59%								
Denmark	70 245	106 865	145 906	365 350	122 633	202 641	216 550	250 012	345 992	513 551	36 127	96 325								
Norway	1 767	1 284	8 251	4 975	1 889	4 695	5 552	19 242	120 010	27 955	102 574	82 819								
United Kingdom (and unspecified countries)	1 131	0	3 053	2 850	2 765	741	0	100 319	123 832	311 042	183 637	272 724								
Other Countries	0	0	0	0	0	0	0	19 009	15 237	42 919	51 727	151 276								
Mineral Materials	73 143	108 149	157 210	373 175	127 287	208 076	222 102	388 582	605 071	895 467	374 064	603 144								
As of group total	23%	14%	24%	39%	27%	27%	27%	38%	36%	30%	19%	27%								
Total for group (absol.)	312 846	787 305	650 920	969 126	466 048	765 550	812 822	1 012 684	1 662 546	2 980 463	1 984 986	2 244 370								
Total for group (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%								

Table IMP/ALL-6.

[illegible]

Table IMP/ALL-7. Imports of Staple Commodities to Iceland* by Origin and Country (Value), 1870-1913

SITC Groups / Subgroups / Subgroup: Countries	Value		Value		Value		Value		Value		Value		Value		Value		Value	
	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value
0 Food: Agricultural Prod	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Denmark	—	—	51	—	—	—	610	—	—	—	—	—						
Norway	—	—	—	—	—	—	—	—	—	—	580	—						
United Kingdom (and unspc	—	—	—	—	—	—	—	—	—	—	—	—						
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—						
Live Animals	0	0	51	0	0	0	610	0	0	0	580	0						
As of subgroup total	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%						
Denmark	5 598	1 810	2 174	6 836	3 133	6 027	3 458	9 538	12 236	12 691	7 794	—						
Norway	—	—	—	—	411	1 217	3 525	—	17 790	2 403	9 615	—						
United Kingdom (and unspc	—	—	—	—	—	—	—	—	—	—	—	—						
Other Countries	0	0	0	0	0	0	0	—	—	—	—	—						
Meat	5 598	1 810	2 174	6 836	3 544	7 245	6 983	9 538	30 026	15 174	17 409	718						
As of subgroup total	20%	19%	22%	7%	6%	7%	10%	11%	17%	5%	5%	0%						
Denmark	20 358	6 571	5 092	45 596	10 136	13 165	5 166	10 459	3 031	1 385	—	—						
Norway	—	—	—	—	—	—	—	—	—	—	—	—						
United Kingdom (and unspc	0	—	—	29 589	40 246	63 605	42 073	17 588	—	—	—	—						
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—						
Butter (and Margarine)	20 358	6 571	5 092	75 186	50 382	76 770	47 239	28 046	3 031	1 385	0	0						
As of subgroup total	74%	70%	52%	82%	80%	77%	69%	32%	2%	0%	0%	0%						
Denmark	—	—	4	—	259	12 965	10 465	28 671	77 503	149 305	110 288	89 008						
Norway	276	106	—	2 053	527	41	2 539	9 812	26 655	29 209	52 824	43 139						
United Kingdom (and unspc	—	—	—	—	—	—	—	—	—	—	—	—						
Other Countries	0	0	0	0	0	0	0	420	4 435	87 357	123 304	204 430						
Margarine	276	106	4	2 053	786	13 007	13 004	38 904	130 985	265 981	291 934	395 313						
As of subgroup total	1%	1%	0%	2%	1%	13%	19%	45%	75%	85%	85%	88%						
Denmark	991	929	814	2 463	1 874	2 576	254	5 091	10 645	28 570	30 831	52 008						
Norway	—	—	—	—	—	—	209	610	95	356	1 817	522						
United Kingdom (and unspc	143	—	1 689	5 512	6 247	—	—	1 375	—	—	—	—						
Other Countries	0	0	0	0	0	0	0	1 651	54	446	955	3 220						
Cheese	1 134	929	2 502	7 975	8 121	2 576	464	8 726	10 794	29 372	33 603	55 750						
As of subgroup total	4%	10%	25%	9%	13%	3%	1%	10%	6%	9%	10%	12%						
Denmark	—	—	—	64	104	108	224	1 210	779	2 600	—	—						
Norway	—	—	—	—	—	—	—	—	—	—	—	—						
United Kingdom (and unspc	—	—	—	—	—	—	—	—	—	—	—	—						
Other Countries	0	0	0	0	0	0	0	—	—	—	—	—						
Eggs	0	0	0	64	104	108	224	1 210	779	2 600	0	0						
As of subgroup total	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	0%	0%						
Total for subgroup (absol.)	27 367	9 417	9 824	92 115	62 939	99 707	68 525	86 426	175 617	314 513	343 528	451 781						
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%						

SITC Groups / Subgroups / Subgroup: Countries	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
0 Food: Cereals and Cereals Products												
Denmark	606 146	593 794	471 426	597 440	321 599	268 652	203 458	238 118	299 252	135 958	1910	1913
Norway**	14 082	466	34 831	1 269	12 144	10 072	6 909	3 711	245	295	1910	1913
United Kingdom (and unspcified)	50 829	294 231	313 358	294 013	253 740	206 293	225 977	74 017	125 438	136 999	1910	1913
Other Countries	0	0	0	0	0	0	0	3 326	752	6 728	1910	1913
Unmilled Cereals**	671 056	888 490	819 614	892 722	587 483	485 018	436 344	319 172	425 688	279 979	1910	1913
As of subgroup total	51%	55%	57%	54%	49%	38%	39%	22%	23%	14%	1910	1913
Denmark	456 564	475 033	338 205	472 210	334 733	420 529	345 495	660 981	821 694	845 960	1910	1913
Norway**	—	—	—	1 642	20 736	48 901	23 242	17 777	30 734	23 248	1910	1913
United Kingdom (and unspcified)	47 088	80 264	108 663	35 655	97 723	131 674	141 530	99 673	181 823	411 733	1910	1913
Other Countries	0	0	0	0	0	0	0	22 271	9 324	117 254	1910	1913
Milled Cereals**	503 651	555 297	446 858	609 507	453 192	601 104	510 267	800 701	1 043 575	1 398 195	1910	1913
As of subgroup total	38%	34%	31%	31%	38%	47%	45%	56%	56%	68%	1910	1913
Denmark	68 692	100 482	108 663	123 977	92 789	107 510	98 157	132 846	94 408	88 030	1910	1913
Norway	—	—	—	—	—	7 030	3 118	—	—	—	1910	1913
United Kingdom (and unspcified)	—	—	—	—	—	—	—	37 587	82 353	85 533	1910	1913
Other Countries	0	0	0	0	0	0	0	7 398	2 484	22 402	1910	1913
Rice	68 692	100 482	108 663	123 977	92 789	114 540	101 274	177 831	179 245	195 966	1910	1913
As of subgroup total	5%	6%	8%	8%	8%	9%	9%	12%	10%	9%	1910	1913
Denmark	75 047	69 393	51 209	98 577	55 593	64 195	74 226	83 056	89 861	44 442	1910	1913
Norway	2 584	492	1 827	15 139	12 176	1 228	4 263	6 477	14 748	2 342	1910	1913
United Kingdom (and unspcified)	—	—	—	—	—	—	—	50 998	117 587	144 998	1910	1913
Other Countries	0	0	0	0	0	0	0	—	140	1 920	1910	1913
Sago, Bread, etc.	77 631	69 886	53 035	113 716	67 769	65 423	78 488	140 531	222 336	193 703	1910	1913
As of subgroup total	6%	4%	4%	7%	6%	5%	7%	10%	12%	9%	1910	1913
Total for subgroup (absol.)	1 321 032	1 614 156	1 428 191	1 639 923	1 201 233	1 266 086	1 126 375	1 438 235	1 870 844	2 067 844	1910	1913
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1910	1913
0 Food: Other Plant Food												
Denmark	14 240	18 716	16 038	30 633	17 220	21 605	23 305	51 351	66 969	47 227	1910	1913
Norway	—	—	—	—	—	174	165	27	18	—	1910	1913
United Kingdom (and unspcified)	—	—	—	—	—	—	—	—	—	—	1910	1913
Other Countries	0	0	0	0	0	0	0	—	667	803	1910	1913
Fruits	14 240	18 716	16 038	30 633	17 220	21 779	23 470	51 378	67 654	48 030	1910	1913
As of subgroup total	2%	3%	2%	3%	3%	3%	3%	8%	7%	4%	1910	1913
Denmark	2 985	1 681	3 287	10 836	7 768	8 535	7 348	18 637	28 991	28 137	1910	1913
Norway	—	25	248	10 019	8 257	5 075	4 030	3 039	4 103	3 303	1910	1913
United Kingdom (and unspcified)	628	1 972	1 693	4 107	5 417	10 821	2 035	—	—	—	1910	1913
Other Countries	0	0	0	0	0	0	0	—	24	1 674	1910	1913
Vegetables (esp. Potatoes);	3 613	3 678	5 227	24 962	21 441	24 431	13 413	21 676	33 118	33 113	1910	1913
As of subgroup total	1%	1%	1%	3%	4%	3%	2%	3%	3%	3%	1910	1913

SITC Groups / Subgroups / Subsubgroup: Countries	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.
Denmark	163 239	182 808	187 626	269 124	134 547	168 611	144 305	194 840	250 136	363 988	413 560	136 089
Norway	—	—	—	—	—	1 966	78	2 020	2 957	3 514	5 695	6 209
United Kingdom (and unspecif	16 189	26 903	20 571	34 413	41 671	95 407	116 785	70 826	17 525	39 497	58 722	123 261
Other Countries	0	0	0	0	0	0	0	15 610	10 675	5 922	142 675	259 743
Sugar, Sugar Preparations	179 428	209 712	208 197	303 537	176 218	265 984	261 168	283 295	281 293	412 921	620 652	625 301
As of subgroup total	27%	31%	29%	33%	31%	34%	31%	47%	43%	42%	57%	53%
Denmark	431 720	330 070	337 506	367 283	271 223	394 501	335 759	217 499	262 422	401 004	229 145	209 016
Norway	—	—	—	—	80	5 444	1 417	1 894	7 695	2 769	4 007	1 455
United Kingdom (and unspecif	40 669	105 865	139 533	178 345	84 742	65 768	203 213	34 261	16 273	43 902	46 574	31 807
Other Countries	0	0	0	0	0	0	0	13 304	6 846	6 062	99 739	194 416
Coffee, Tea, Cocoa and Cho	472 389	435 934	477 039	645 627	366 045	465 713	540 388	266 958	293 237	453 737	379 465	436 693
As of subgroup total	70%	66%	67%	59%	62%	60%	64%	44%	45%	46%	35%	44%
Denmark	2 138	3 353	1 443	4 262	1 009	1 594	1 824	2 775	3 278	3 479	188	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecif	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Herbs and Spices	2 138	3 353	1 443	4 262	1 009	1 594	1 824	2 775	3 278	3 479	188	0
As of subgroup total	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Denmark	—	—	217	9 124	653	241	264	277	883	2 834	490	—
Norway	—	—	—	—	277	339	5	737	309	7 126	1 947	3 766
United Kingdom (and unspecif	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0	0	0	0	0	0	0	—	—	2 741	—	—
Feeding Stuffs for Animals	0	0	217	9 124	930	580	269	1 015	1 191	12 701	2 437	3 766
As of subgroup total	0%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%	0%
Total for subgroup (absol.)	671 810	671 394	708 162	918 146	572 865	780 080	840 532	606 410	652 055	983 611	1 083 886	996 783
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
2 Crude Materials: Plant	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	3 084	134	299	28	3	26	75	431	8	501	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecif	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Crude Rubber	3 084	134	299	28	3	26	75	431	8	501	0	0
As of subgroup total	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Denmark	58 028	73 279	73 931	74 963	38 886	83 215	40 431	48 504	46 548	101 785	—	—
Norway	45 500	98 473	135 941	173 348	74 753	113 639	166 071	323 233	344 986	464 925	263 056	250 827
United Kingdom (and unspecif	—	—	—	—	—	—	—	505	—	—	—	—
Other Countries	0	0	0	0	0	0	0	—	—	—	949	1 730
Wood and Cork, Unproc.	103 528	171 752	209 872	248 311	113 639	196 854	206 502	372 242	391 533	566 710	264 005	252 557
As of subgroup total	78%	87%	98%	98%	98%	99%	99%	99%	99%	99%	100%	99%

SITC Groups / Subgroups / Subgroup: Countries	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
Denmark	8 607	6 337	2 717	2 362	2 095	2 220	670	982	1 721	805	—	—	—
Norway	—	—	—	—	—	350	175	—	—	—	142	1 359	—
United Kingdom (and unspcific)	16 695	14 758	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0	0	0	0	0	0	0	—	—	—	—	—	—
Textile Fibres; Feathers and	25 302	21 095	2 717	2 362	2 095	2 670	846	982	1 721	805	142	1 359	—
<i>As of subgroup total</i>	<i>19%</i>	<i>11%</i>	<i>1%</i>	<i>1%</i>	<i>2%</i>	<i>1%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>1%</i>	<i>—</i>
Denmark	6	23	496	569	324	261	327	1 178	440	1 798	—	—	—
Norway	—	5 421	65	1 284	288	35	65	157	—	—	—	—	—
United Kingdom (and unspcific)	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—
Crude Vegetable Materials	6	5 444	561	1 853	612	296	391	1 335	440	1 798	0	0	—
<i>As of subgroup total</i>	<i>0%</i>	<i>3%</i>	<i>0%</i>	<i>1%</i>	<i>1%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>—</i>
Total for subgroup (absol.)	131 921	198 426	213 450	252 556	116 350	199 747	207 815	374 991	393 704	569 815	284 148	253 917	—
<i>Total for subgroup (%)</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>—</i>
3 Mineral Fuels, Lubric.,	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	—
Denmark	26 131	22 495	19 955	32 887	15 715	28 541	24 236	26 074	42 194	88 946	—	—	—
Norway	—	—	—	—	—	6 447	7 351	3 933	36 074	36 707	12 238	52	—
United Kingdom (and unspcific)	39 242	42 737	23 017	41 405	49 363	72 421	122 361	232 738	623 779	806 082	1 313 760	2 040 942	—
Other Countries	0	0	0	0	0	0	0	—	—	—	—	5 000	—
Coal: Hard, Brown, Peat	65 373	65 233	42 972	74 292	65 078	107 409	153 948	262 745	702 047	931 735	1 325 999	2 045 994	—
<i>As of subgroup total</i>	<i>91%</i>	<i>77%</i>	<i>59%</i>	<i>64%</i>	<i>64%</i>	<i>67%</i>	<i>70%</i>	<i>80%</i>	<i>88%</i>	<i>79%</i>	<i>90%</i>	<i>82%</i>	<i>—</i>
Denmark	6 385	19 878	20 967	18 050	11 999	19 562	12 730	9 352	22 768	195 182	142 142	322 218	—
Norway	—	—	—	—	—	1 142	931	1 685	3 086	3 109	1 958	1 706	—
United Kingdom (and unspcific)	311	—	8 784	22 905	23 845	32 705	52 452	51 946	64 350	43 389	6 566	519	—
Other Countries	0	0	0	0	0	0	0	3 036	1 964	718	1 219	138 455	—
Petroleum Products	6 696	19 878	29 751	40 955	35 845	53 409	68 113	66 020	92 168	242 399	151 885	462 898	—
<i>As of subgroup total</i>	<i>8%</i>	<i>23%</i>	<i>41%</i>	<i>36%</i>	<i>36%</i>	<i>33%</i>	<i>30%</i>	<i>20%</i>	<i>12%</i>	<i>21%</i>	<i>10%</i>	<i>18%</i>	<i>—</i>
Total for subgroup (absol.)	72 070	85 111	72 723	115 248	100 923	160 819	220 061	328 765	794 216	1 174 136	1 477 885	2 508 893	—
<i>Total for subgroup (%)</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>—</i>
5 Chemicals: Preservativ	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	—
Denmark	3 003	2 645	686	4 395	1 310	936	1 333	1 696	1 420	1 228	2 274	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspcific)	105	645	3 122	—	1 461	2 160	2 253	28	—	—	—	—	—
Other Countries	0	0	0	0	0	0	0	—	29	—	—	—	—
Vinegar	3 107	3 290	3 808	4 395	2 771	3 096	3 586	1 724	1 449	1 228	2 274	0	—
<i>As of subgroup total</i>	<i>5%</i>	<i>4%</i>	<i>3%</i>	<i>1%</i>	<i>3%</i>	<i>2%</i>	<i>2%</i>	<i>1%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>	<i>—</i>

[illegible]

SITC Groups / Subgroups / Subgroup: Countries	Value		Value		Value		Value		Value		Value		Value		Value		Value		Value	
	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value	Danish kr.	Value
Denmark	5 453	9 325	11 664	16 444	10 119	13 312	17 931	23 920	32 472	60 736	60 010	11 000								
Norway	—	—	—	433	—	317	391	354	1 046	1 540	10 685	14 141								
United Kingdom (and unspc	—	—	—	—	—	—	—	—	—	—	—	—								
Other Countries	0	0	0	0	0	0	0	—	1 400	2 937	3 420	9 667								
Paper, Paperboard; Articles	6 463	9 325	11 664	16 876	10 119	13 629	18 322	36 372	34 919	91 837	98 877	34 809								
As of subgroup total	3%	3%	3%	4%	4%	3%	4%	7%	4%	5%	7%	3%								
Denmark	28 492	39 309	55 218	51 733	42 249	57 060	45 674	24 315	23 347	42 323	4 357	—								
Norway	2 465	330	532	636	4 236	3 921	2 705	19 190	137 923	314 313	212 976	116 112								
United Kingdom (and unspc	0	—	23 335	20 180	5 208	27 382	24 087	70 542	103 819	200 191	223 052	197 376								
Other Countries	0	0	0	0	0	0	0	4 801	2 614	3 656	47 784	72 524								
Ropes, Mats, Lines, Nets (fr	30 957	39 639	79 086	72 549	51 693	88 362	72 466	118 848	267 702	560 482	488 168	386 012								
As of subgroup total	16%	12%	20%	16%	19%	20%	16%	23%	30%	32%	36%	29%								
Denmark	112 039	205 725	182 497	246 566	110 570	187 757	190 582	121 173	125 692	73 085	34 619	37 001								
Norway	—	—	—	—	—	1 574	566	606	—	855	1 029	5 668								
United Kingdom (and unspc	—	—	—	—	—	—	—	—	—	—	—	—								
Other Countries	0	0	0	0	0	0	0	3 630	20 378	52 776	157 941	258 879								
Fabrics from Cotton, Linen c	112 039	205 725	182 497	246 566	110 570	189 331	191 148	235 670	365 399	469 224	417 653	596 132								
As of subgroup total	57%	64%	46%	54%	41%	43%	42%	47%	41%	27%	31%	46%								
Total for subgroup (absol.)	197 948	319 313	395 228	457 134	272 644	443 347	456 704	505 756	901 923	1 767 845	1 345 269	1 315 188								
Total for subgroup (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%								
6 Manufactured Goods: M	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913								
Denmark	7	266	—	72	48	2 561	2 311	15 308	14 152	112 415	36 127	96 325								
Norway	—	—	—	—	—	50	431	—	—	—	—	6 547								
United Kingdom (and unspc	261	—	970	1 811	1 257	—	—	2 847	—	—	—	—								
Other Countries	0	0	0	0	0	0	0	179	234	17	3 323	—								
Cement, Lime	268	266	970	1 883	1 305	2 611	2 742	18 334	14 386	112 432	39 450	102 872								
As of subgroup total	0%	0%	1%	1%	1%	1%	1%	5%	2%	13%	11%	17%								
Denmark	3 836	4 331	8 828	11 652	2 888	11 148	4 789	17 022	11 174	8 964	—	—								
Norway	—	—	387	2 048	637	1 544	2 137	259	12 118	2 739	—	2 983								
United Kingdom (and unspc	—	—	—	—	—	—	—	1 507	—	—	—	—								
Other Countries	0	0	0	0	0	0	0	—	—	—	23	38								
Mineral (Rock) Manufactures	3 836	4 331	9 214	13 700	3 525	12 692	6 926	18 788	23 292	11 703	23	3 021								
As of subgroup total	5%	4%	6%	4%	3%	6%	3%	5%	4%	1%	0%	1%								
Denmark	8 156	19 645	27 452	47 489	17 699	28 553	8 036	13 424	20 787	14 644	—	—								
Norway	—	447	574	2 404	844	281	77	101	48	2 578	4 759	1 027								
United Kingdom (and unspc	—	—	—	—	—	—	—	2 345	—	—	—	—								
Other Countries	0	0	0	0	0	0	0	—	100	10 147	5 190	7 101								
Glass and Glass Manufactur	8 156	20 092	28 027	49 893	18 543	28 834	8 113	15 870	20 935	27 369	9 949	8 128								
As of subgroup total	11%	19%	18%	13%	15%	14%	4%	4%	3%	3%	3%	1%								

SITC Groups / Subgroups / Subgroup: Countries	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
Denmark	6 552	7 564	7 982	12 429	5 806	9 926	11 117	8 875	16 795	29 468	—	—	—
Norway	—	—	—	—	—	19	22	7 226	—	—	—	—	—
United Kingdom (and unspc	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	0	0	0	0	0	0	0	167	249	1 217	16 887	27 070	—
Pottery Manufactures	6 552	7 564	7 982	12 429	5 806	9 945	11 139	16 269	17 044	30 685	16 887	27 070	—
<i>As of subgroup total</i>	<i>9%</i>	<i>7%</i>	<i>5%</i>	<i>3%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	<i>4%</i>	<i>3%</i>	<i>3%</i>	<i>5%</i>	<i>4%</i>	<i>—</i>
Denmark	16 291	25 991	10 881	14 420	5 148	11 795	12 992	14 941	17 677	24 694	—	—	—
Norway	163	183	805	13	24	266	640	1 325	11 520	1 433	904	1 807	—
United Kingdom (and unspc	870	—	2 082	1 039	1 508	741	—	753	123 832	311 042	183 637	272 724	—
Other Countries	0	0	0	0	0	0	0	103	—	425	126	46 070	—
Iron and Steel, unproc.	17 324	26 174	13 769	15 472	6 681	12 822	13 632	17 122	153 029	337 594	184 667	320 601	—
<i>As of subgroup total</i>	<i>24%</i>	<i>24%</i>	<i>9%</i>	<i>4%</i>	<i>5%</i>	<i>6%</i>	<i>6%</i>	<i>4%</i>	<i>25%</i>	<i>38%</i>	<i>49%</i>	<i>53%</i>	<i>—</i>
Denmark	35 404	49 069	90 762	279 288	91 044	138 659	177 305	180 442	265 407	323 366	—	—	—
Norway	1 604	654	6 485	510	384	2 513	2 246	17 556	96 324	21 205	96 911	70 456	—
United Kingdom (and unspc	—	—	—	—	—	—	—	85 641	—	—	—	—	—
Other Countries	0	0	0	0	0	0	0	18 560	14 654	31 113	26 178	70 997	—
Manufactures of Metals	37 008	49 723	97 247	279 798	91 427	141 171	179 651	302 199	376 384	375 684	123 089	141 453	—
<i>As of subgroup total</i>	<i>51%</i>	<i>46%</i>	<i>62%</i>	<i>75%</i>	<i>72%</i>	<i>68%</i>	<i>81%</i>	<i>78%</i>	<i>62%</i>	<i>42%</i>	<i>33%</i>	<i>23%</i>	<i>—</i>
<i>Total for subgroup (absol.)</i>	<i>73 144</i>	<i>108 150</i>	<i>157 210</i>	<i>373 175</i>	<i>127 288</i>	<i>208 077</i>	<i>222 102</i>	<i>388 582</i>	<i>605 071</i>	<i>895 467</i>	<i>374 065</i>	<i>603 145</i>	<i>—</i>
<i>Total for subgroup (%)</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>
Of Total Imports	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	—
Live Animals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Meat	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Butter (and Margarine)	1%	0%	0%	1%	1%	2%	1%	1%	0%	0%	0%	0%	0%
Margarine	0%	0%	0%	0%	0%	0%	0%	1%	2%	2%	3%	3%	0%
Cheese	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Eggs	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
0 Food: Agricultural Product	1%	0%	0%	2%	2%	2%	2%	2%	3%	3%	3%	4%	—
Unmilled Cereals**	21%	21%	21%	17%	17%	11%	10%	5%	5%	4%	3%	2%	—
Milled Cereals**	16%	13%	11%	10%	13%	14%	11%	12%	12%	9%	14%	13%	—
Rice	2%	2%	3%	2%	3%	3%	2%	2%	3%	2%	2%	2%	—
Sago, Bread, etc.	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	—
0 Food: Cereals and Cereal I	41%	39%	36%	31%	36%	30%	25%	22%	21%	16%	21%	19%	—
Fruits	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	0%	0%	—
Vegetables (esp. Potatoes); Ju	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	—
Sugar, Sugar Preparations	6%	5%	5%	6%	5%	6%	6%	5%	4%	4%	6%	4%	—
Coffee, Tea, Cocoa and Choc	15%	10%	12%	10%	11%	11%	12%	5%	4%	4%	4%	4%	—
Herbs and Spices	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	—
Feeding Stuffs for Animals	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	—
0 Food: Other Plant Foodstu	21%	16%	18%	17%	17%	18%	19%	12%	10%	9%	11%	8%	—

Table IMP/ALL-9.		Average Prices of Major Commodity Groups Imported to Iceland* by Origin and Country, 1870–1913															
Countries	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value	Value
	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.	Danish kr.
0 Food	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913					
Denmark	1 532	1 428	704	924	637	778	1 088	742	889	780	80 407	74 572					
Norway	1 883	2 161	—	1 532	1 414	465	598	826	748	997	958	1 026					
United Kingdom (and unspci	1 432	—	1 371	1 499	1 577	1 657	1 641	589	748	772	926	991					
Other Countries	—	—	—	—	—	—	—	772	1 031	1 733	899	911					
Agricultural Prod.	1 535	1 433	768	1 094	1 155	1 161	1 253	711	832	797	1 637	1 414					
Denmark	446	358	871	449	297	663	610	362	246	247	—	—					
Norway	1 015	839	637	471	—	243	115	99	215	119	91	195					
United Kingdom (and unspci	—	—	—	—	—	—	—	—	—	—	—	—					
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—					
Fisheries Prod.	833	384	834	449	297	581	306	274	230	146	91	195					
Denmark	197	210	173	176	146	158	117	148	146	160	16 309	16 545					
Norway	225	199	231	336	194	174	133	169	164	186	169	185					
United Kingdom (and unspci	248	236	246	204	137	138	146	148	188	189	202	225					
Other Countries	—	—	—	—	—	—	—	214	195	200	175	184					
Cereals	200	215	191	182	145	153	126	151	153	168	419	437					
Denmark	854	871	810	572	452	566	420	309	252	300	34 078	41 123					
Norway	—	78	56	83	57	142	90	94	147	88	136	123					
United Kingdom (and unspci	775	882	1 083	799	453	346	571	322	368	376	447	544					
Other Countries	—	—	—	—	—	—	—	630	538	871	515	492					
Other Plant Foodstuffs	846	873	855	574	410	476	455	308	256	295	1 287	751					
Denmark	6 317	7 067	2 015	1 667	1 700	1 512	1 526	1 370	1 108	788	115 767	—					
Norway	—	—	—	—	—	—	816	903	686	687	740	714					
United Kingdom (and unspci	—	—	—	—	—	—	—	—	—	—	—	—					
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—					
Prepared/Preserved Food, e	6 317	7 067	2 015	1 667	1 700	1 512	1 460	3 043	906	740	1 030	714					
1 Beverages and Tobacco	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913					
Denmark	307	336	415	413	410	410	410	410	408	415	40 276	—					
Norway	—	—	—	—	—	321	322	—	—	—	—	—					
United Kingdom (and unspci	—	—	—	—	—	—	—	—	—	—	—	—					
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—					
Soft Drinks	307	336	415	413	410	409	410	430	408	419	24 461	—					

[illegible]

[illegible]

Table IMP/ALL-10.		Average Prices of Staple Commodities Imported to Iceland* by Country, 1870-1913															
Countries		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./		Dan. kr./	
		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne		Tonne	
0 Food: Agricultural Products		1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913				
Denmark		—	—	1 015	—	—	—	1 742	—	—	—	—	—				
Norway		—	—	—	—	—	—	—	—	—	—	1 451	—				
United Kingdom (and unspecified)		—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries		—	—	—	—	—	—	—	—	—	—	—	—				
Live Animals		—	—	1 015	—	—	—	1 742	—	—	—	—	1 451				
Denmark	918	920	920	571	878	561	691	746	570	678	548	78 731	—				
Norway	—	—	—	—	—	1 371	456	437	—	519	890	608	—				
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—				598
Meat	918	920	920	571	878	602	636	550	570	574	586	1 094	598				
Denmark	2 190	2 445	2 445	842	979	775	830	1 732	1 783	1 906	2 005	—	—				
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—				
United Kingdom (and unspecified)	—	—	—	—	1 555	1 674	1 657	1 641	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—				
Butter (and Margarine)	2 190	2 445	2 445	842	1 146	1 357	1 415	1 650	4 780	1 906	2 005	—	—				
Denmark	—	—	—	704	—	519	988	1 084	690	989	862	97 085	94 790				
Norway	1 883	2 161	2 161	—	1 532	1 449	1 037	1 151	819	1 059	1 005	1 059	1 022				
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	748	772	926	991				
Other Countries	—	—	—	—	—	—	—	—	800	1 031	—	836	918				
Margarine	1 883	2 161	2 161	704	1 532	911	988	1 097	467	951	843	1 530	1 261				
Denmark	452	498	498	495	493	370	370	370	585	578	571	49 969	54 630				
Norway	—	—	—	—	—	—	—	952	953	953	1 163	1 162	1 373				
United Kingdom (and unspecified)	1 432	—	—	1 371	1 259	1 148	—	—	467	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	766	1 000	1 214	1 592	894				
Cheese	495	498	498	870	851	773	370	511	604	581	579	12 083	11 304				
Denmark	—	—	—	—	880	798	929	940	941	1 022	1 169	—	—				
Norway	—	—	—	—	—	—	—	—	—	—	—	—	—				
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—	—				
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	—				
Eggs	—	—	—	—	880	798	929	940	941	1 022	1 169	—	—				
	1 453	1 244	1 244	712	1 081	1 134	1 148	1 231	705	828	795	1 629	1 409				

Countries	Dan. kr./ Tonne	1870	1874	1878	Dan. kr./ Tonne	1882	1886	1890	Dan. kr./ Tonne	1894	1898	1902	Dan. kr./ Tonne	1906	1910	Dan. kr./ Tonne	1913
0 Food: Cereals and Cereals																	
Denmark		164	172	141	1878	1882	1886	1890		1894	1898	1902		1906	1910		1913
Norway		214	143	227	227	162	192	124		100	123	110		121	122		124
United Kingdom (and unspecified)		195	223	248	248	210	173	165		156	119	161		155	170		213
Other Countries		—	—	—	—	—	—	—		—	156	167		195	145		178
Unmilled Cereals																	
Denmark		230	248	207	207	201	166	168		109	145	142		167	163 72		16 041
Norway		—	—	—	—	240	158	181		129	175	157		162	164		184
United Kingdom (and unspecified)		350	298	241	241	166	90	111		131	123	168		158	180		193
Other Countries		—	—	—	—	—	—	—		—	217	191		194	170		178
Milled Cereals																	
Denmark		238	254	214	214	198	140	151		116	146	146		165	442		443
Norway		218	236	240	240	173	165	175		135	163	175		171	23 093		29 876
United Kingdom (and unspecified)		—	—	—	—	—	—	237		215	—	—		—	—		—
Other Countries		—	—	—	—	—	—	—		—	129	186		186	193		267
Rice																	
Denmark		218	236	240	240	173	165	178		137	156	179		178	354		516
Norway		535	597	317	317	432	344	343		469	387	342		275	30 069		36 308
United Kingdom (and unspecified)		311	315	314	314	387	319	216		217	218	270		270	270		271
Other Countries		—	—	—	—	—	—	—		—	—	361		423	433		469
Sago, Bread, etc.																	
Denmark		523	594	317	317	426	339	339		441	561	344		337	554		544
Norway		200	215	191	191	182	145	153		126	151	153		168	419		437
0 Food: Other Plant Foods																	
Denmark		456	506	417	1878	1882	1886	1890		1894	1898	1902		1906	1910		1913
Norway		—	—	—	417	521	448	349		276	340	397		407	52 069		44 312
United Kingdom (and unspecified)		—	—	—	—	—	—	331		297	323	270		302	—		—
Other Countries		—	—	—	—	—	—	—		—	—	—		—	—		—
Fruits																	
Denmark		456	506	417	417	521	448	349		276	340	397		411	21 762		44 323
Norway		65	64	82	82	72	60	59		43	49	39		40	6 239		—
United Kingdom (and unspecified)		—	78	56	56	83	57	65		65	55	44		42	52		49
Other Countries		75	94	110	110	115	120	122		124	195	—		—	—		—
Vegetables (mainly Potatoes)																	
Denmark		66	77	88	88	81	67	78		54	61	39		77	560		1 092
Norway		—	—	—	—	—	—	—		—	—	—		40	468		85

Countries	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne
Denmark	503	560	550	497	283	294	214	238	203	248	31 839	21 053
Norway	—	—	—	—	—	370	209	281	226	245	327	296
United Kingdom (and unspecified)	549	499	446	353	260	265	270	271	237	238	330	475
Other Countries	—	—	—	—	—	—	—	486	421	467	405	344
Sugar, Sugar Preparations	507	552	538	475	277	283	236	253	209	249	1 107	504
Denmark	1 367	1 477	1 342	989	887	1 479	1 179	648	564	790	96 584	105 724
Norway	—	—	—	—	320	1 825	1 738	1 000	769	868	999	1 276
United Kingdom (and unspecified)	1 119	1 356	1 589	1 289	990	1 379	1 767	622	916	787	811	1 252
Other Countries	—	—	—	—	—	—	—	963	945	1 289	837	1 138
Coffee, Tea, Cocoa and Choc	1 342	1 445	1 406	1 071	909	1 467	1 349	657	586	794	2 074	2 191
Denmark	1 068	1 086	1 020	849	683	520	607	959	961	1 030	679	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Herbs and Spices	1 068	1 086	1 020	849	683	520	607	959	961	1 030	679	—
Denmark	—	—	100	114	100	107	80	97	108	106	13 617	—
Norway	—	—	—	—	74	83	68	89	87	87	78	75
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Feeding Stuffs for Animals	—	—	100	114	90	91	80	91	101	117	97	75
Denmark	845	872	854	573	409	476	455	308	256	295	1 286	751
2 Crude Materials: Plant M	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	4 486	1 676	889	2 163	95	113	740	8 610	162	213	—	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Crude Rubber	4 486	1 676	889	2 163	95	113	740	8 610	162	213	—	—
Denmark	94	105	84	66	64	80	69	83	67	76	—	—
Norway	51	77	60	53	43	40	39	47	47	55	63	66
United Kingdom (and unspecified)	—	—	—	—	—	—	—	91	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	168
Wood and Cork, Unproc.	68	87	67	56	48	51	43	50	49	58	63	66

Countries	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne
Denmark	569	634	586	513	646	480	581	76	951	796	—	—
Norway	—	—	—	—	—	584	585	—	—	—	1 582	1 898
United Kingdom (and unspecific)	748	676	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Textile Fibres; Feathers and I	676	663	586	513	646	492	582	76	951	796	1 582	1 898
Denmark	914	2 856	1 011	2 081	602	789	1 132	1 090	867	641	—	—
Norway	—	132	95	113	75	69	63	66	—	—	—	—
United Kingdom (and unspecific)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	—
Crude Vegetable Materials	914	133	477	160	140	356	297	384	867	641	—	—
	85	96	68	57	49	52	43	50	49	58	63	66
3 Mineral Fuels, Lubric., a	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	44	41	32	29	26	32	29	28	27	26	—	—
Norway	—	—	—	—	—	23	23	23	25	23	27	29
United Kingdom (and unspecific)	16	19	19	15	11	13	15	13	17	16	15	19
Other Countries	—	—	—	—	—	—	—	—	—	—	—	25
Coal: Hard, Brown, Peat	22	24	23	19	13	16	16	14	17	16	15	19
Denmark	557	616	416	260	236	243	110	88	98	108	8 022	11 818
Norway	—	—	—	—	—	150	112	107	105	99	95	130
United Kingdom (and unspecific)	340	—	232	208	185	181	177	107	125	124	110	151
Other Countries	—	—	—	—	—	—	—	166	200	148	—	154
Petroleum	541	616	337	228	199	199	158	106	117	111	1 550	491
	24	31	38	29	20	23	23	17	19	20	17	23
5 Chemicals: Preservative	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	342	382	210	207	252	204	205	247	263	334	34 982	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecific)	376	462	545	—	408	454	500	278	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	289	—	—	—
Vinegar	343	395	423	207	316	332	325	248	263	334	34 982	—
Denmark	45	42	36	37	34	32	33	34	35	30	—	—
Norway	41	41	33	186	43	26	23	24	23	22	20	24
United Kingdom (and unspecific)	17	20	20	16	12	13	14	22	17	17	26	20
Other Countries	—	—	—	—	—	—	—	40	44	23	20	23
Salt	22	27	24	41	16	15	16	24	21	21	20	23
	23	28	25	42	17	15	17	24	21	21	20	23

Countries	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne
6 Manufactured Goods: A	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	6 445	2 556	3 333	4 028	3 640	4 350	4 087	2 393	2 469	2 822	666 675	467 750
Norway	—	—	3 513	3 369	—	4 206	2 480	2 526	2 379	2 647	2 824	2 574
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	3 082
Leather and Leather Manufac	6 445	2 556	3 334	4 023	3 640	4 350	4 078	2 606	2 649	2 956	19 068	7 959
Denmark	50 815	44 797	26 991	38 532	31 722	23 456	28 557	29 054	42 043	39 205	2 250 008	—
Norway	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	2 225
Silk Manufactures	50 815	44 797	26 991	38 532	31 722	23 456	28 557	110 759	58 415	212 390	#####	2 225
Denmark	7 356	8 673	9 446	8 973	8 961	8 906	8 925	7 666	7 899	9 499	444 065	825 405
Norway	8 599	—	—	—	—	6 831	4 576	3 170	2 633	4 208	4 732	4 733
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	4 860	4 932	7 837	7 996
Other Countries	—	—	—	—	—	—	—	—	—	—	—	3 579
Woollens	7 614	8 673	9 446	8 973	8 961	8 903	8 811	9 091	4 520	6 920	19 833	5 422
	6 827	2 970	6 794	6 027	5 202	6 373	6 154	5 679	3 868	5 471	20 500	4 993
6 Manufactured Goods: P	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Denmark	593	616	625	617	497	681	677	263	292	221	19 849	22 328
Norway	1 728	1 045	943	221	178	229	213	207	226	323	343	372
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	424
Wood and Cork Manufacture:	595	620	638	608	406	523	371	242	258	316	448	544
Denmark	539	715	536	383	299	290	226	238	215	231	47 030	215 694
Norway	—	—	—	324	—	196	126	153	156	176	224	246
United Kingdom (and unspecified)	—	—	—	—	—	—	—	—	—	423	446	—
Other Countries	—	—	—	—	—	—	—	—	—	—	—	1 593
Paper, Paperboard; Articles	539	715	536	381	299	287	222	353	222	274	946	548
Denmark	913	1 076	1 214	1 284	1 292	1 173	982	814	407	791	124 476	—
Norway	869	2 247	980	1 059	1 487	827	770	1 302	1 774	2 258	1 761	1 053
United Kingdom (and unspecified)	—	—	—	833	722	748	774	—	4 624	3 509	2 601	1 956
Other Countries	—	—	—	—	—	—	—	—	—	—	2 110	1 647
Ropes, Mats, Lines, Nets (fro	910	1 081	1 118	1 114	1 209	982	893	2 664	1 699	2 245	2 128	1 513

Countries	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne	Dan. kr./ Tonne
Denmark	1 984	2 494	2 557	1 958	1 687	1 989	1 707	1 463	1 890	1 373	280 317	451 228	
Norway	—	—	—	—	—	2 841	1 814	2 002	—	725	4 635	5 783	
United Kingdom (and unspecified Other Countries	—	—	—	—	—	—	—	—	1 331	1 444	1 636	2 841	
Fabrics and Made-up Articles	1 984	2 494	2 557	1 958	1 687	1 994	1 708	2 833	1 579	1 609	3 043	1 809	
	1 073	1 347	1 110	1 050	699	846	611	715	621	605	1 092	1 099	
6 Manufactured Goods: M	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	
Denmark	36	416	—	100	48	41	61	81	49	47	2 277	2 371	
Norway	—	—	—	—	—	23	24	—	—	—	—	32	
United Kingdom (and unspecified Other Countries	23	—	38	36	34	—	—	84	—	—	—	—	
Cement, Lime	—	—	—	—	—	—	—	101	102	81	—	—	
Denmark	24	416	38	37	35	40	49	81	50	47	2 486	414	
Norway	72	78	138	85	127	120	68	39	31	25	—	—	
United Kingdom (and unspecified Other Countries	—	—	20	20	14	13	13	16	13	13	—	15	
Mineral (Rock) Manufactures	—	—	—	—	—	—	—	18	—	—	—	—	
Denmark	72	78	110	57	53	61	29	35	18	20	—	380	
Norway	1 110	1 605	1 706	1 731	907	1 240	277	425	326	237	—	15	
United Kingdom (and unspecified Other Countries	—	203	157	114	108	170	162	161	117	151	140	134	
Glass and Glass Manufacture	1 110	1 391	1 418	1 030	678	1 168	275	493	327	348	293	233	
Denmark	386	397	393	456	482	619	471	424	385	574	—	—	
Norway	—	—	—	—	—	216	217	134	—	—	—	—	
United Kingdom (and unspecified Other Countries	—	—	—	—	—	—	—	—	—	—	—	—	
Pottery Manufactures	—	—	—	—	—	—	—	—	—	—	—	537	
Denmark	386	397	393	456	482	616	470	777	391	598	—	537	
Norway	235	243	170	179	135	173	123	147	136	140	—	—	
United Kingdom (and unspecified Other Countries	239	340	239	188	48	59	72	79	70	200	402	123	
Iron and Steel, unproc.	220	—	208	181	154	160	—	239	253	279	269	286	
Denmark	—	—	—	—	—	—	—	284	—	—	—	433	
Norway	235	243	178	179	138	165	119	140	195	260	269	298	
United Kingdom (and unspecified Other Countries	826	870	801	871	746	738	751	471	487	447	—	—	
Manufactures of Metals	246	787	147	1 020	256	370	467	413	347	455	687	1 485	
	—	—	—	—	—	—	—	138 522	—	—	—	—	
	—	—	—	—	—	—	—	341 176	555 076	—	—	996	
	749	869	617	872	740	725	746	708	458	488	873	1 191	
	344	423	409	482	402	354	316	284	182	174	426	348	

[illegible]

Table IMP/DEN-2		Imports of Iceland from Denmark by SITC Groups and Origin (Quantity), 1870*-1913	
SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
0	Food		
	<i>Division</i>	<i>Commodity Type</i>	0 Food
001-C	A Landbúnað.	Hross og önnur dýr, lifandi	Horses and Other Live Animals
01	A Landbúnað.	Kjöttmatur	Meat
023	A Landbúnað.	Smjör	Butter
091	A Landbúnað.	Smjörflíki	Margarine
024	A Landbúnað.	Ostur	Cheese
025	A Landbúnað.	Egg	Eggs
	A Landbúnað. Total		Agricult. Prod. (mainly Dairies); Margarine
035	B Fiskaf.	Fiskur, verkaður	Fish, Cured
036	B Fiskaf.	Ostrur, nýjar	Fish, Fresh; Tinned Food
	B Fiskaf. Total		Fisheries Products
045	C Korn, -af.	Korn, ómalað	Cereals, Unmilled
047	C Korn, -af.	Korn, malað	Cereals, Milled
045/047	C Korn, -af.	Hrisgrjón og -mjöl	Rice
049	C Korn, -af.	Sagó o.fl.; brauð; kornafurðir o.fl.	Sago; Bread; Cereal Preparations etc.
	C Korn, -af. Total		Cereals (and Cereal Products)
05-A, 059	D Plöntuaf.	Trjááavextir, safar/saft o.fl.	Fruits
05-B	D Plöntuaf.	Jarðáavextir (eink. kartöflur)	Vegetables (esp. Potatoes); Juices
06	D Plöntuaf.	Kandís, sykurl, melassi, siróp	Sugar, Sugar Preparations
071-074	D Plöntuaf.	Kaffi, te, kakó og súkkulaði	Coffee, Tea, Cocoa and Chocolate
075	D Plöntuaf.	Krydd	Herbs and Spices
08	D Plöntuaf.	Skepnufóður	Feeding Stuffs for Animals
	D Plöntuaf. Total		Other Plant Foodstuffs (mainly Sugar, Coffee)
098	E Tilbúinn mat	Niðursöðinn og tilbúinn matur	Preserved Foodstuffs
	E Tilbúinn matur Total		Preserved Foodstuffs
	Grand Total		Cereals (mainly)
1	Beverages and Tobacco		
	<i>Division</i>	<i>Commodity Type</i>	1 Beverages and Tobacco
111	A Gosdrykkir	Gosdrykkir	Soft Drinks
112	B Vin	Vín, öl, mjóður	Wine, Ale, and Mead
12	C Tóbak	Tóbak, önnið og unnið	Tobacco, Tob. Manufactures
	Total		Alcoholic Beverages (mainly)
	Grand Total		

SITC No	Origin (estim.)	Commodities In Icelandic	In English
2		Crude Mat., ined., exc. Fuels	
	<i>Division</i>	<i>Commodity Type</i>	2 Crude Mat., ined., exc. Fuels
21	A Dýraaf.	Skinn og húðir, óverkaðar	Hides and Skins, Raw
291	A Dýraaf.	Bein og tennur, horn og klaufir; ger	Bones, Teeth, Horn, Claws, Yeast
	A Dýraaf. Total		Off Animals (mainly Skins and Hides)
231	B Plöntuaf.	Viðarkvoða, togleður (gúmmi) o.p.h.	Crude Rubber
244-248	B Plöntuaf.	Timbur og korkur, óunnið	Wood and Cork, Unproc.
25-269	B Plöntuaf.	Trefjar, -efni, fíður og dúnn	Textile Fibres; Feathers and Down
292	B Plöntuaf.	Önnar efnivörur jurtakyns	Crude Vegetable Materials
	B Plöntuaf. Total		Plant Materials (mainly Wood)
27	C Jarðefni	Steinar og jarðefni, óunnin	Crude Minerals (mainly of Stone/Rock)
	C Jarðefni Total		Crude Minerals (mainly of Stone/Rock)
	Grand Total		Wood (mainly)
3		Min. Fuels, Lubric., and Rel. Mat.	
	<i>Division</i>	<i>Commodity Type</i>	3 Min. Fuels, Lubric., and Rel. Mat.
32	A Eldsneyti	Steinkol, viðarkol, mólkol, sindurkol	Coals: Hard, Brown, Peat
33	A Eldsneyti	Steinolla og smurolla	Petroleum
	A Eldsneyti Total		Mineral Fuels (Coal, Petroleum)
335	B Þéttiefni	Tjara og bik	Sealing Compounds (Tar and Pitch)
	B Þéttiefni Total		Sealing Compounds (Tar and Pitch)
	Grand Total		Mineral Fuels (mainly)
4		Animal and Veget. Oils and Fats	
	<i>Division</i>	<i>Commodity Type</i>	4 Animal and Veget. Oils and Fats
41	A Af dýrum	Féiti, mör, spik, lifur (óunnið?)	Fats, Liver: Unproc.
43	A Af dýrum	Lýsi, féiti, tólg (unnið?); vax	Fish Oils, Fats: Proc.; Wax
	A Af dýrum Total		Animal Oils and Fats
42	B Af jurtum	Jurtaolíur	Vegetable Oils
	B Af jurtum Total		Vegetable Oils
	Grand Total		Animal Oils and Fats

SITC No	Origin (estim.)	Commodities	In Icelandic	In English
5	Chemicals			5 Chemicals
	<i>Division</i>	<i>Commodity Type</i>		
51	A Pæklunarefni	Edik		Vinegar
52	A Pæklunarefni	Salt og saltpétur		Salt
	A Pæklunarefni Total			Preservative Materials (mainly Salt)
53	B Aðrar efnavör	Litunar- og sítunarefni; blek, sverta, lakk		Dyeing, Tanning and Colouring Materials
54	B Aðrar efnavör	Lyfja- og lækningavörur		Medical and Pharmaceutical Products
599	B Aðrar efnavör	Kemiskar efnablöndur		Chemical Materials
	B Aðrar efnavörur Total			Other Chemicals
	Grand Total			Salt (mainly)
6	Manufactured Goods			
	<i>Division</i>	<i>Commodity Type</i>		
619	A Dýraaf.	Skinn og húðir (verkaðar) og vörur þar úr		6 Manufactured Goods Skins, Dressed: Leather and Leather Manufactur
65-C	A Dýraaf.	Silkiblandin efni		Fabrics and Made-up Articles from Silk
65-D	A Dýraaf.	Vörur úr ull og hári		Made-up Articles from Wool and Hair
	A Dýraaf. Total			Skins, Dressed; Leather, Leather Manuf.; etc.
63	B Plöntuaf.	Trévörur, hálf- eða fullunnar; korkur, unninn; tágavinnr		Wood and Cork Manufactures
649	B Plöntuaf.	Pappir, pappi, pappirsvörur, veggfóður, litmyndir o.fl.		Paper, Paperboard; Articles of Paper Pulp, Pape
65-A	B Plöntuaf.	Kaðlar, mottur, línur, net (úr líni, hampi eða baðmull)		Ropes, Mats, Lines, Nets (from Linen, Hemp or
65-B	B Plöntuaf.	Vörur úr baðmull, líni eða hampi		Fabrics and Made-up Articles from Cotton, Liner
	B Plöntuaf. Total			Wood Manuf., Paper etc.; Textile Fabrics and
661	C Jarðefnaaf.	Kalk, steinlim o.þ.u.l.		Cement, Lime
662-663	C Jarðefnaaf.	Vörur úr steini		Mineral (Rock) Manufactures
664-665	C Jarðefnaaf.	Gler og vörur úr gleri		Glass and Glass Manufactures
666	C Jarðefnaaf.	Vörur úr leir		Pottery Manufactures
67	C Jarðefnaaf.	Járn og stál, óunnið		Iron and Steel, unproc.
699	C Jarðefnaaf.	Vörur úr járn, stáli og ódýrum málm		Manufactures of Metals
	C Jarðefnaaf. Total			Metals; Metallic and Non-Metallic Manufactur
	Grand Total			Plant Manuf.; Metals, Metallic & Non-Metallic
7	Mach. and Transport Equipm.			
	<i>Division</i>	<i>Commodity Type</i>		
71-78		Vélar og tæki ýmiss konar		7 Mach. and Transport Equipm. Machines, Mech. Parts
	Total			Machines, Mech. Parts
	Grand Total			

SITC No	Origin (estim.)	Commodities	
		In Icelandic	In English
8	Miscell. Manufact. Articles		
	<i>Division</i>	<i>Commodity Type</i>	8 Miscell. Manufact. Articles
82		Rúm og -dýnur	Beds and Mattresses
84-85		Fatnaður, ytri og tilbúinn; skófatn. o.fl.	Clothes, Footwear etc.
885		Úr, klukkur og mælar	Watches, Clocks, Barometers
891		Skotfæri	Ammunition
892		Prentað mál	Printed Matter
899		Hlutir til skemmtunar og skrauts, listmunir, hljóðfæri	Articles for Entertainment and Decoration; Art W
	Total		Various Manufactured Articles
	Grand Total		
9	Misc. Transact. and Comm.		
	<i>Division</i>	<i>Commodity Type</i>	9 Misc. Transact. and Comm.
99		Óflokkað og óflokkanlegt	Unenumerated
	Total		Unenumerated
	Grand Total		
Total Quantity			
Source:	Table IMP/DEN-1		
* 1870: 1 April 1870 to 31 March 1871			

Quantity, 1870*-1913												
	Quantity Tonnes	1874	1878	1882	1886	1890	1894	1898	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
In English	Quantity Tonnes	1874	1878	1882	1886	1890	1894	1898	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
0 Food	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Horses and Other Live Animals	—	—	0,1	—	—	—	0,4	—	—	—	—	—
Meat	6,1	2,0	3,8	7,8	5,6	8,7	4,6	16,7	18,0	23,2	9,9	—
Butter	9,3	2,7	6,0	46,6	13,1	15,9	3,0	5,9	1,6	0,7	—	—
Margarine	—	—	0,0	—	0,5	13,1	9,7	41,5	85,0	173,2	113,6	93,9
Cheese	2,2	1,9	1,6	5,0	5,1	7,0	0,7	8,7	18,4	50,0	61,7	95,2
Eggs	—	—	—	0,1	0,1	0,1	0,2	1,3	0,8	2,2	—	—
Agricult. Prod. (mainly Dairies); Margarine	17,6	6,5	11,6	59,5	24,4	44,8	18,5	74,1	123,8	249,3	185,2	189,1
Fish, Cured	0,1	0,5	0,3	37,5	0,6	0,3	1,7	18,2	1,0	9,9	—	—
Fish, Fresh, Tinned Food	—	—	—	0,0	—	—	0,1	—	—	—	—	—
Fisheries Products	0,1	0,5	0,3	37,5	0,6	0,3	1,8	18,2	1,0	9,9	0,0	0,0
Cereals, Unmilled	3 698,1	3 445,4	3 345,1	4 022,7	2 754,4	2 126,5	2 097,8	1 700,5	1 990,9	2 335,9	936,6	730,0
Cereals, Milled	1 984,3	1 912,9	1 636,6	2 353,7	2 017,4	2 508,5	3 159,4	3 357,5	4 667,5	4 930,2	5 167,1	5 887,8
Rice	315,1	425,8	452,5	717,5	561,0	612,9	724,9	557,5	760,5	551,0	3,8	3,4
Sago; Bread; Cereal Preparations etc.	140,2	116,2	161,4	228,0	181,6	187,1	158,2	165,6	243,2	327,1	147,8	85,4
Cereals (and Cereal Products)	6 137,6	5 900,3	5 595,7	7 321,9	5 494,4	5 435,0	6 140,4	5 781,1	7 662,0	8 144,1	6 255,3	6 706,6
Fruits	31,2	37,0	38,4	58,8	38,4	62,0	84,5	94,9	129,3	164,7	30,7	0,6
Vegetables (esp. Potatoes); Juices	46,3	26,3	39,9	150,9	129,9	144,5	170,8	231,4	482,8	724,1	451,0	—
Sugar, Sugar Preparations	324,4	326,2	340,9	541,9	475,2	573,0	674,0	818,6	1 234,7	1 465,2	17,1	6,5
Coffee, Tea, Cocoa and Chocolate	315,7	223,5	251,4	371,3	305,8	266,8	284,8	335,7	465,7	507,4	33,0	37,3
Herbs and Spices	2,0	3,1	1,4	5,0	1,5	3,1	3,0	2,9	3,4	3,4	0,3	—
Feeding Stuffs for Animals	—	—	2,2	80,2	6,5	2,3	3,3	2,9	8,2	26,7	3,6	—
Other Plant Foodstuffs (mainly Sugar, Coffee)	719,7	616,1	674,2	1 208,2	957,3	1 051,6	1 220,3	1 486,4	2 324,0	2 891,5	535,7	44,4
Preserved Foodstuffs	0,2	0,0	0,1	1,2	12,4	1,9	2,9	6,5	9,1	13,6	9,8	—
Preserved Foodstuffs	0,2	0,0	0,1	1,2	12,4	1,9	2,9	6,5	9,1	13,6	9,8	0,0
Cereals (mainly)	6 875,2	6 523,5	6 281,9	8 628,3	6 489,1	6 533,6	7 384,0	7 366,3	10 120,0	11 308,4	6 986,0	6 940,1
	72%	68%	61%	63%	66%	62%	66%	64%	65%	46%	95%	97%
1 Beverages and Tobacco	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Soft Drinks	0,3	2,5	1,6	7,2	15,0	23,3	21,9	57,2	36,7	62,6	15,1	—
W												

In English	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity
	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
2 Crude Mat., ined., exc. Fuels	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Hides and Skins, Raw	6,1	16,4	11,6	13,2	12,6	35,3	24,1	15,0	38,1	18,4	0,3	—						
Bones, Teeth, Horn, Claws, Yeast	0,0	0,1	0,1	0,2	0,3	5,0	0,8	1,9	1,2	1,9	—	—						
Off Animals (mainly Skins and Hides)	6,1	16,5	11,6	13,4	13,0	40,3	24,9	16,9	39,3	20,3	0,3	0,0						
Crude Rubber	0,7	0,1	0,3	0,0	0,0	0,2	0,1	0,1	0,1	2,3	—	—						
Wood and Cork, Unproc.	616,4	699,6	884,7	1 138,9	603,6	1 036,1	587,4	585,1	697,1	1 330,7	—	—						
Textile Fibres; Feathers and Down	15,1	10,0	4,6	4,6	3,2	4,6	1,2	12,9	1,8	1,0	—	—						
Crude Vegetable Materials	0,0	0,0	0,5	0,3	0,5	0,3	0,3	1,1	0,5	2,8	—	—						
Plant Materials (mainly Wood)	632,2	709,7	890,1	1 143,8	607,4	1 041,3	589,0	599,2	699,5	1 336,8	0,0	0,0						
Crude Minerals (mainly of Stone/Rock)	8,2	24,2	40,0	95,5	789,0	95,5	170,8	16,5	43,1	69,1	—	—						
Crude Minerals (mainly of Stone/Rock)	8,2	24,2	40,0	95,5	789,0	95,5	170,8	16,5	43,1	69,1	0,0	0,0						
Wood (mainly)	646,5	750,5	941,7	1 252,6	1 409,3	1 177,1	784,7	632,6	781,9	1 426,2	0,3	0,0						
	7%	8%	9%	9%	14%	11%	7%	5%	5%	6%	0%	0%						
3 Min. Fuels, Lubric., and Rel. Mat.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Coals: Hard, Brown, Peat	592,4	545,9	623,5	1 126,8	596,0	885,1	839,0	937,9	1 585,8	3 486,6	—	—						
Petroleum	11,5	32,3	50,4	69,5	50,8	80,4	119,6	116,4	255,3	1 900,4	17,7	27,3						
Mineral Fuels (Coal, Petroleum)	603,9	578,2	673,9	1 196,3	646,8	965,5	958,7	1 054,3	1 841,0	5 387,0	17,7	27,3						
Sealing Compounds (Tar and Pitch)	39,6	47,7	55,6	51,2	37,9	52,9	42,4	40,4	45,0	43,7	—	—						
Sealing Compounds (Tar and Pitch)	39,6	47,7	55,6	51,2	37,9	52,9	42,4	40,4	45,0	43,7	0,0	0,0						
Mineral Fuels (mainly)	643,5	625,9	729,5	1 247,5	684,7	1 018,3	1 001,1	1 094,6	1 886,0	5 430,7	17,7	27,3						
	7%	7%	7%	9%	7%	10%	9%	9%	12%	22%	0%	0%						
4 Animal and Veget. Oils and Fats	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Fats, Liver: Unproc.	—	1,3	0,2	1,1	0,8	1,4	0,4	1,1	2,3	4,9	—	—						
Fish Oils, Fats: Proc.; Wax	—	1,2	1,0	3,7	0,9	8,8	0,9	5,0	5,2	1,9	—	—						
Animal Oils and Fats	0,0	2,5	1,2	4,8	1,7	10,1												

In English	Quantity Tonnes	1870	1874	1878	Quantity Tonnes	1882	Quantity Tonnes	1886	Quantity Tonnes	1890	Quantity Tonnes	1894	Quantity Tonnes	1898	Quantity Tonnes	1902	Quantity Tonnes	1906	Quantity Tonnes	1910	Quantity Tonnes	1913
5 Chemicals	Vinegar	8,8	6,9	3,3		21,2		5,2		4,6		6,5		6,9		5,4		3,7		6,5		1913
	Salt	442,7	597,5	996,0		950,9		270,1		332,0		287,9		140,5		148,2		913,5		—		—
	Preservative Materials (mainly Salt)	451,5	604,4	999,3		972,1		275,3		336,5		294,4		147,3		153,6		917,2		6,5		0,0
	Dyeing, Tanning and Colouring Materials	14,9	15,5	27,0		40,7		34,6		53,9		51,6		43,2		52,1		39,1		—		—
	Medical and Pharmaceutical Products	8,9	7,6	7,6		8,2		4,4		7,6		9,2		8,5		9,7		11,9		—		—
	Chemical Materials	24,3	35,7	44,7		62,7		63,5		90,6		106,1		125,7		172,8		293,4		2,0		1,7
	Other Chemicals	48,2	58,7	79,2		111,5		102,5		152,1		166,8		177,5		234,6		344,4		2,0		1,7
	Salt (mainly)	499,7	663,1	1 078,5		1 083,7		377,8		488,6		461,3		324,8		388,2		1 261,5		8,5		1,7
		5%	7%	11%		8%		4%		5%		4%		3%		2%		5%		0%		0%
6 Manufactured Goods	Skins, Dressed; Leather and Leather Manufactures	1870	1874	1878		1882		1886		1890		1894		1898		1902		1906		1910		1913
	Fabrics and Made-up Articles from Silk	3,1	111,9	5,7		12,7		8,0		9,1		11,3		11,2		14,2		18,7		0,1		0,1
	Made-up Articles from Wool and Hair	0,1	0,1	0,0		0,0		0,0		0,0		0,0		0,1		0,1		0,1		0,1		—
	Skins, Dressed; Leather, Leather Manuf.; etc.	1,9	8,2	8,3		9,6		4,0		8,3		9,6		4,8		4,3		6,7		9,7		0,1
	Wood and Cork Manufactures	5,1	120,2	14,0		22,4		12,0		17,4		20,9		16,2		18,6		25,4		9,8		0,2
	Paper, Paperboard; Articles of Paper Pulp, Paper	83,1	103,4	183,8		194,5		176,6		189,2		160,3		218,0		91,4		137,2		4,0		4,3
	Ropes, Mats, Lines, Nets (from Linen, Hemp or	10,1	13,0	21,8		42,9		33,8		45,9		79,5		100,6		150,7		263,0		1,3		0,1
	Fabrics and Made-up Articles from Cotton, Liner	31,2	36,5	45,5		40,3		32,7		48,7		46,5		29,9		57,4		53,5		3,5		—
	Wood Manuf., Paper etc.; Textile Fabrics and	56,5	82,5	71,4		125,9		65,6		94,4		111,6		82,8		66,5		53,2		12,4		8,2
	Cement, Lime	180,9	235,5	322,5		403,6		308,6		378,1		397,9		431,3		366,1		506,9		21,2		12,6
7 Mach. and Transport Equipm.	Mineral (Rock) Manufactures	0,2	0,6	—		0,7		1,0		62,5		37,9		189,6		287,3		2 375,7		15,9		40,6
	Glass and Glass Manufactures	53,0	55,8	64,1		137,4		22,7		93,2		70,6		440,8		363,4		356,5		—		—
	Pottery Manufactures	7,3	12,2	16,1		27,4		19,5		23,0		29,0		31,6		63,7		61,7		—		—
	Iron and Steel, unproc.	17,0	19,1	20,3		27,3		12,1		16,0		23,6		20,9		43,6		51,3		—		—
	Manufactures of Metals	69,2	107,0	64,0		80,6		38,2		68,2		105,7		102,0		129,5		176,4		—		—
	Metals; Metallic and Non-Metallic Manufactures	42,9	56,4	113,3		320,5		122,0		188,0		236,0		383,5		544,6		723,4		—		—
	Plant Manuf.; Metals, Metallic & Non-Metallic	189,6	251,2	277,8		593,9		215,5		451,0		502,8		1 168,4		1 432,0		3 744,9		15,9		40,6
		375,6	606,9	614,3		1 019,9		536,1		846,5		921,6		1 615,8		1 816,7		4 277,3		46,9		53,4
		4%	6%	6%		7%		5%		8%		8%		14%		12%		17%		1%		1%
Machines, Mech. Parts	1870	1874	1878		1882		1886		1890		1894		1898		1902		1906		1910		1913	
	—	7,0	0,2		—		—		0,1		0,0		0,9		0,9		0,2		0,1		—	
	0,0	7,0	0,2		0,0		0,0		0,1		0,0		0,9		0,9		0,2		0,1		0,0	
	0,0	7,0	0,2		0,0		0,0		0,1		0,0		0,9		0,9		0,2		0,1		0,0	
	0%	0%	0%		0%		0%		0%		0%		0%		0%		0%		0%		0%	

[illegible]

Table IMP/DEN-3			Imports of Iceland from Denmark by SITC Groups and Origin (Value*), 1870**–1913	
(partly estimated)				
SITC	Origin (estim.)	Commodities		
No		In Icelandic		
			In English	
0	Food			
	<i>Division</i>	<i>Commodity Type</i>		0 Food
001-C	A Landbúnað.	Hross og önnur dýr, lífandi		Horses and Other Live Animals
01	A Landbúnað.	Kjötmat		Meat
023	A Landbúnað.	Smjör		Butter
091	A Landbúnað.	Smjörliki		Margarine
024	A Landbúnað.	Ostur		Cheese
025	A Landbúnað.	Egg		Eggs
	A Landbúnað. Total			Agricult. Prod. (mainly Dairies); Marg.
035	B Fiskaf.	Fiskur, verkaður		Fish, Cured
036	B Fiskaf.	Ostur, nýjar		Fish, Fresh; Tinned Food
	B Fiskaf. Total			Fisheries Products
045	C Korn, -af.	Korn, ómalað		Cereals, Unmilled
047	C Korn, -af.	Korn, malað		Cereals, Milled
045/047	C Korn, -af.	Hrisgrjón og -mjöl		Rice
049	C Korn, -af.	Sagó o.fl.; brauð; kornafurðir o.fl.		Sago; Bread; Cereal Preparations etc.
	C Korn, -af. Total			Cereals (and Cereal Products)
05-A, 059	D Plöntuaf.	Trjááxextir, safar/saft o.fl.		Fruits
05-B	D Plöntuaf.	Jarðáxextir (eink. kartöflur)		Vegetables (esp. Potatoes); Juices
06	D Plöntuaf.	Kandis, sykurl, melassi, síróp		Sugar, Sugar Preparations
071-074	D Plöntuaf.	Kaffi, te, kakó og súkkulaði		Coffee, Tea, Cocoa and Chocolate
075	D Plöntuaf.	Krydd		Herbs and Spices
08	D Plöntuaf.	Skepnufóður		Feeding Stuffs for Animals
	D Plöntuaf. Total			Other Plant Foodstuffs (mainly Sugar,
098	E Tilbúinn matur	Niðursóðinn og tilbúinn matur		Preserved Foodstuffs
	E Tilbúinn matur Total			Preserved Foodstuffs
	Grand Total			Cereals (mainly)
1	Beverages and Tobacco			
	<i>Division</i>	<i>Commodity Type</i>		1 Beverages and Tobacco
111	A Gosdrykkir	Gosdrykkir		Soft Drinks
112	B Vín	Vín, öl, mjóður		Wine, Ale, and Mead
12	C Tóbak	Tóbak, óunnið og unnið		Tobacco, Tob. Manufactures
	Total			Alcoholic Beverages (mainly)
	Grand Total			

SITC No	Origin (estim.)	Commodities In Icelandic	In English
2	Crude Mat., ined., exc. Fuels		
	<i>Division</i>	<i>Commodity Type</i>	
21	A Dýraaf.	Skinn og húðir, óverkaðar	2 Crude Mat., ined., exc. Fuels
291	A Dýraaf.	Bein og tennur, horn og klaufir, ger	Hides and Skins, Raw
	A Dýraaf. Total		Off Animals
231	B Plöntuaf.	Viðarkvoða, toglaður (gúmmi) o.p.h.	Crude Rubber
244-248	B Plöntuaf.	Timbur og korkur, óunnin	Wood and Cork, Unproc.
25-269	B Plöntuaf.	Treflar, -efni, fíður og dúnn	Textile Fibres, Feathers and Down
292	B Plöntuaf.	Önnar efnivörur jurtakyns	Crude Vegetable Materials
	B Plöntuaf. Total		Plant Materials (mainly Wood)
27	C Jarðefni	Steinar og jarðefni, óunnin	Crude Minerals (mainly of Stone/Rock)
	C Jarðefni Total		Crude Minerals
	Grand Total		Wood (mainly)
3	Min. Fuels, Lubric., and Rel. Mat.		
	<i>Division</i>	<i>Commodity Type</i>	
32	A Eidsneyti	Steinkol, viðarkol, mólkol, sindurkol	3 Min. Fuels, Lubric., and Rel. Ma
33	A Eidsneyti	Steinolia og smurolia	Coals: Hard, Brown, Peat
	A Eidsneyti Total		Petroleum
335	B Þéttiefni	Tjara og bik	Mineral Fuels
	B Þéttiefni Total		Sealing Compounds (Tar and Pitch)
	Grand Total		Sealing Compounds (Tar and Pitch)
			Mineral Fuels (mainly)
4	Animal and Veget. Oils and Fats		
	<i>Division</i>	<i>Commodity Type</i>	
41	A Af dýrum	Féiti, mör, spik, lifur (önnið?)	4 Animal and Veget. Oils and Fats
43	A Af dýrum	Lýsi, féiti, töl (önnið?); vax	Fats, Liver: Unproc.
	A Af dýrum Total		Fish Oils, Fats: Proc.; Wax
42	B Af jurtum	Jurtalaolur	Animal Oils and Fats
	B Af jurtum Total		Vegetable Oils
	Grand Total		Vegetable Oils
			Animal Oils and Fats
5	Chemicals		
	<i>Division</i>	<i>Commodity Type</i>	
51	A Þæklunarefni	Edik	5 Chemicals
52	A Þæklunarefni	Salt og saltþétur	Vinegar
	A Þæklunarefni Total		Salt

SITC No	Origin (estim.)	Commodities In Icelandic	In English
53	B Aðrar efnavör	Litunar- og sýtnaræfni; blek, sverta, lakk	Dyeing, Tanning and Colouring Materials
54	B Aðrar efnavör	Lyfja- og lækningavörur	Medical and Pharmaceutical Products
599	B Aðrar efnavör	Kemískar efnablöndur	Chemical Materials
	B Aðrar efnavörur Total		
	Grand Total		
6	Manufactured Goods		
	<i>Division</i>	<i>Commodity Type</i>	6 Manufactured Goods
619	A Dýraaf.	Skinn og húðir (verkaðar) og vörur þar úr	Skins, Dressed; Leather and Leather Mar
65-C	A Dýraaf.	Silkblandin efni	Fabrics and Made-up Articles from Silk
65-D	A Dýraaf.	Vörur úr ull og hári	Made-up Articles from Wool and Hair
	A Dýraaf. Total		Skins, Dressed; Leather, Leather Man
63	B Plöntuaf.	Trévörur, hálf- eða fullunnar, korkur, unninn; tágavinna	Wood and Cork Manufactures
649	B Plöntuaf.	Pappír, pappi, pappírsvörur, veggfóður, lítmýndir o.fl.	Paper, Paperboard; Articles of Paper Pulp
65-A	B Plöntuaf.	Kaðlar, mottur, línur, net (úr lín, hampi eða baðmull)	Ropes, Mats, Lines, Nets (from Linen, He
65-B	B Plöntuaf.	Vörur úr baðmull, líni eða hampi	Fabrics and Made-up Articles from Cotton
	B Plöntuaf. Total		Wood Manuf., Paper etc.; Textile Fabr
661	C Jarðefnaaf.	Kalk, steinlím o.b.u.l.	Cement, Lime
662-663	C Jarðefnaaf.	Vörur úr steini	Mineral (Rock) Manufactures
664-665	C Jarðefnaaf.	Gler og vörur úr gleri	Glass and Glass Manufactures
666	C Jarðefnaaf.	Vörur úr leir	Pottery Manufactures
67	C Jarðefnaaf.	Járn og stál, óunnið	Iron and Steel, unproc.
699	C Jarðefnaaf.	Vörur úr jámi, stáli og ódýrum málni	Manufactures of Metals
	C Jarðefnaaf. Total		Metals; Metallic and Non-Metallic Man
	Grand Total		Plant Manuf.; Metals, Metallic & Non-M
7	Mach. and Transport Equipm.		
	<i>Division</i>	<i>Commodity Type</i>	7 Mach. and Transport Equipm.
71-78		Vélar og tæki ýmiss konar	Machines, Mech. Parts
	Total		Machines, Mech. Parts
	Grand Total		
8	Miscell. Manufact. Articles		
	<i>Division</i>	<i>Commodity Type</i>	8 Miscell. Manufact. Articles
82		Rúm og -dýnur	Beds and Mattresses
84-85		Fatnaður, ytri og tilbúinn; skófatn. o.fl.	Clothes, Footwear etc.
885		Úr, klukkur og mælur	Watches, Clocks, Barometers
891		Skotfæri	Ammunition
892		Prentað mál	Printed Matter
899		Hlutir til skemmtunar og skrauts, listmunir, hljóðfæri	Articles for Entertainment and Decoration
	Total		Various Manufactured Articles
	Grand Total		

SITC No	Origin (estim.)	Commodities In Icelandic	In English
9	Misc. Transact. and Comm.		
	Division	Commodity Type	9 Misc. Transact. and Comm.
99		Óflokkað og óflokkanlegt	Unenumerated
	Total		
	Grand Total		
Total Value			
Source:	Table IMP/DEN-1		
* Fob prices			

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In English	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
2 Crude Mat., ined., exc. Fuels	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Hides and Skins, Raw	9 603	29 027	17 178	28 116	23 698	82 134	39 770	14 080	36 370	22 196	38 002	—
Bones, Teeth, Horn, Claws, Yeast	5	51	65	173	270	760	435	1 347	836	1 330	—	—
Off Animals	9 608	29 078	17 242	28 289	23 968	82 894	40 205	15 427	37 207	23 526	38 002	0
Crude Rubber	3 084	134	299	28	3	26	75	431	8	501	—	—
Wood and Cork, Unproc.	58 028	73 279	73 931	74 963	38 886	83 215	40 431	48 504	46 548	101 785	—	—
Textile Fibres; Feathers and Down	8 607	6 337	2 717	2 362	2 095	2 220	670	982	1 721	805	—	—
Crude Vegetable Materials	6	23	496	569	324	261	327	1 178	440	1 798	—	—
Plant Materials (mainly Wood)	69 725	79 772	77 443	77 922	41 307	85 722	41 503	51 095	48 717	104 889	0	0
Crude Minerals (mainly of Stone/Rock)	317	986	1 422	3 786	29 907	3 995	10 848	774	712	1 197	—	—
Crude Minerals	317	986	1 422	3 786	29 907	3 995	10 848	774	712	1 197	0	0
Wood (mainly)	79 650	109 836	96 107	109 997	95 182	172 611	92 556	67 297	86 636	129 611	38 002	0
	3%	3%	3%	3%	4%	6%	3%	3%	3%	3%	1%	0%
3 Min. Fuels, Lubric., and Rel. Ma	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Coals: Hard, Brown, Peat	26 131	22 495	19 955	32 887	15 715	28 541	24 236	26 074	42 194	88 946	—	—
Petroleum	6 385	19 878	20 967	18 050	11 999	19 562	14 522	12 154	32 435	229 008	142 142	322 218
Mineral Fuels	32 516	42 373	40 922	50 937	27 715	48 103	38 758	38 228	74 628	317 954	142 142	322 218
Sealing Compounds (Tar and Pitch)	8 337	10 795	10 622	9 123	5 974	8 292	5 812	4 830	5 692	4 058	—	—
Sealing Compounds (Tar and Pitch)	8 337	10 795	10 622	9 123	5 974	8 292	5 812	4 830	5 692	4 058	0	0
Mineral Fuels (mainly)	40 853	53 169	51 544	60 060	33 689	56 395	44 569	43 059	80 321	322 012	142 142	322 218
	2%	2%	2%	2%	1%	2%	2%	2%	2%	7%	5%	11%
4 Animal and Veget. Oils and Fats	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Fats, Liver: Unproc.	—	1 067	96	1 186	453	790	257	680	2 285	4 035	—	—
Fish Oils, Fats: Proc.; Wax	—	970	686	3 372	460	4 804	336	1 577	2 778	718	—	—
Animal Oils and Fats	0	2 038	781	4 558	913	5 595	592	2 258	5 063	4 753	0	0
Vegetable Oils	—	45	30	—	—	—	—	1 159	—	—	—	—
Vegetable Oils	0	45	30	0	0	0	0	1 159	0	0	0	0
Animal Oils and Fats	0	2 083	812	4 558	913	5 595	592	3 417	5 063	4 753	0	0
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5 Chemicals	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Vinegar	3 003	2 645	686	4 395	1 310	936	1 333	1 696	1 420	1 228	2 325	—
Salt	20 011	25 194	35 894	34 779	9 231	10 558	9 375	4 729	5 132	27 347	—	—
	23 014	27 839	36 580	39 174	10 541	11 494	10 708	6 425	6 552	28 575	2 325	0

In English	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
Dyeing, Tanning and Colouring Materials	16 171	18 389	24 988	35 900	21 124	37 864	33 761	35 354	47 771	46 021	—	—
Medical and Pharmaceutical Products	6 146	5 776	13 389	13 260	10 272	11 530	20 855	13 560	14 893	9 620	—	—
Chemical Materials	15 646	18 529	31 996	51 365	34 141	37 260	51 281	50 222	63 422	105 021	65 306	66 013
	37 964	42 694	70 373	100 524	65 537	86 653	105 896	99 136	126 086	160 662	65 306	66 013
	60 978	70 533	106 953	139 698	76 078	98 147	116 605	105 561	132 638	189 237	67 631	66 013
	2%	2%	4%	4%	3%	3%	4%	4%	4%	4%	2%	2%
6 Manufactured Goods	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Skins, Dressed; Leather and Leather Mar	20 041	286 060	19 072	51 292	29 026	39 429	46 184	26 904	35 030	52 638	38 000	58 001
Fabrics and Made-up Articles from Silk	3 760	2 262	1 107	1 002	825	1 079	914	3 138	4 183	3 607	1 125	—
Made-up Articles from Wool and Hair	13 748	71 521	78 132	86 220	36 266	73 501	85 578	36 880	34 027	63 507	61 358	52 001
Skins, Dressed; Leather, Leather Man	37 549	359 843	98 310	138 514	66 117	114 010	132 676	66 922	73 240	119 751	100 484	110 001
Wood and Cork Manufactures	49 288	63 772	114 951	120 072	87 667	128 733	108 580	57 212	26 663	30 299	80 032	96 034
Paper, Paperboard; Articles of Paper Pulp	5 453	9 325	11 664	16 444	10 119	13 312	17 931	23 920	32 472	60 736	60 010	11 000
Ropes, Mats, Lines, Nets (from Linen, He	28 492	39 309	55 218	51 733	42 249	57 060	45 674	24 315	23 347	42 323	4 384	—
Fabrics and Made-up Articles from Cotton	112 039	205 725	182 497	246 566	110 570	187 757	190 582	121 173	125 692	73 085	34 717	37 066
Wood Manuf., Paper etc.; Textile Fabri	195 272	318 131	364 330	434 816	250 606	386 862	362 767	226 621	208 173	206 442	179 144	144 100
Cement, Lime	7	266	—	72	48	2 561	2 311	15 308	14 152	112 415	36 127	96 325
Mineral (Rock) Manufactures	3 836	4 331	8 828	11 652	2 888	11 148	4 789	17 022	11 174	8 964	—	—
Glass and Glass Manufactures	8 156	19 645	27 452	47 489	17 699	28 553	8 036	13 424	20 787	14 644	—	—
Pottery Manufactures	6 552	7 564	7 982	12 429	5 806	9 926	11 117	8 875	16 795	29 468	—	—
Iron and Steel, unproc.	16 291	25 991	10 881	14 420	5 148	11 795	12 992	14 941	17 677	24 694	—	—
Manufactures of Metals	35 404	49 069	90 762	279 288	91 044	138 659	177 305	180 442	265 407	323 366	—	—
Metals; Metallic and Non-Metallic Man	70 245	106 865	145 906	365 350	122 633	202 641	216 550	250 012	345 992	513 551	36 127	96 325
Plant Manuf., Metals, Metallic & Non-M	303 066	784 839	608 546	938 679	439 355	703 512	711 993	543 554	627 405	839 745	315 754	350 427
	11%	25%	20%	24%	19%	24%	25%	20%	19%	19%	10%	12%
7 Mach. and Transport Equipm.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Machines, Mech. Parts	—	70 112	408	—	—	736	14	2 057	2 168	485	27 001	—
Machines, Mech. Parts	0	70 112	408	0	0	736	14	2 057	2 168	485	27 001	0
	0	70 112	408	0	0	736	14	2 057	2 168	485	27 001	0
	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
8 Miscell. Manufact. Articles	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Beds and Mattresses	—	—	214	307	251	—	—	6 232	—	—	—	—
Clothes, Footwear etc.	9 645	18 051	27 926	39 259	36 036	38 739	67 376	94 006	136 767	93 572	49 000	83 001
Watches, Clocks, Barometers	—	10 109	105	762	1 522	16 458	2 670	1 157	12 581	—	—	—
Ammunition	36	—	—	—	—	—	488	49	130	—	—	—
Printed Matter	9 265	—	19 229	29 968	27 279	37 606	26 640	69 113	21 405	24 048	44 001	54 001
Articles for Entertainment and Decoration	8 768	13 080	34 387	45 123	16 365	13 478	61 206	19 778	10 013	10 228	—	—
Various Manufactured Articles	27 714	41 239	81 861	115 419	81 454	106 280	158 380	190 335	180 897	127 848	93 001	137 002
	27 714	41 239	81 861	115 419	81 454	106 280	158 380	190 335	180 897	127 848	93 001	137 002
	1%	1%	3%	3%	4%	4%	6%	7%	5%	3%	3%	5%

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Table IMP/NOR-3		Imports of Iceland from Norway by SITC Groups and Origin (Quantity), 1870–1913	
SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
0	Food		
	<i>Division</i>	<i>Commodity Type</i>	0 Food
001-B	A Landbúnað.	Hross, lifandi	Live Horses
01	A Landbúnað.	Kjötmat	Meat
023/091	A Landbúnað.	Smjör og smjörliki	Butter and Margarine
024	A Landbúnað.	Ostur	Cheese
	A Landbúnað. Total		Agricult. Products (mainly Meat)
034	B Fiskaf.	Nýr fiskur	Fresh Fish
035	B Fiskaf.	Verkaður fiskur (saltaður, reykstur)	Cured Fish
	B Fiskaf. Total		Fisheries Products (Herring)
045	C Korn, -af.	Korn, ómalað	Cereals, Unmilled
047	C Korn, -af.	Korn, malað	Cereals, Milled
045/047	C Korn, -af.	Korn (ómalað fremur en malað)	Cereals, Milled/Unmilled
045/047	C Korn, -af.	Hrisgrjón og -mjöl	Rice
048	C Korn, -af.	Brauð	Bread
	C Korn, -af. Total		Cereals (and Cereal Products)
05-A/B	D Plöntuaf.	Ávextir, ber og grænmeti (annað en kál)	Vegetables
05-B	D Plöntuaf.	Kartöflur	Potatoes
06	D Plöntuaf.	Sykur, síróp, melassi	Sugar and Sugar Preparations
071–074	D Plöntuaf.	Kaffi og te	Coffee and Tea
08	D Plöntuaf.	Skepnufóður	Fodder
	D Plöntuaf. Total		Other Plant Foodstuffs (mainly Potatoes)
09	A Landbúnað.	Njórsóðin mjólk (gerilsneydd?)	Milk
09	E Tilbúinn mat	Tilbúinn mat	Prepared Food
	E Tilbúinn matur Total		Prepared Food
	Grand Total		Cereals (mainly)
1	Beverages and Tobacco		
	<i>Division</i>	<i>Commodity Type</i>	1 Beverages and Tobacco
111	A Goddrykkir	Goddrykkir	Mineral Water
112	B Vín og öl	Vín og öl	Wine and Ale
12	C Tobak	Tobak	Tobacco and Tobacco Manufact.
	Total		Alcoholic Beverages (mainly)
	Grand Total		

SITC No	Origin (estim.)		Commodities	
		In Icelandic		In English
2	Crude Materials, ined., exc. Fuels			
	<i>Division</i>	<i>Commodity Type</i>		2 Crude Mat., ined., exc. Fuels
21	A Dýraaf.	Skinn, óverkuð		Skins, undr.
	A Dýraaf. Total			Animal Materials
24	B Plöntuaf.	Timbur, óunnið		Wood
265–268	B Plöntuaf.	Hampur og ull		Hemp
292	B Plöntuaf.	Börkur o.fl.		Crude Vegetable Materials
	B Plöntuaf. Total			Plant Materials (mainly Wood)
27–28	C Jarðefni	Jarðefni og jarðmálmur		Crude Minerals
	C Jarðefni Total			Crude Minerals
	Grand Total			Wood (mainly)
3	Mineral Fuels, Lubric. and Rel. Mat.			
	<i>Division</i>	<i>Commodity Type</i>		3 Min. Fuels, Lubric., and Rel. Mat.
32	A Eldsneyti	Kol og kox		Coals, Cokes
33	A Eldsneyti	Parafínolla, jarðolla o.fl.		Paraffin Oil, Petroleum etc.
	A Eldsneyti Total			Mineral Fuels (mainly Coals)
335	B Þéttiefni	Tjara		Tar
	B Þéttiefni Total			Sealing Compounds (Tar)
	Grand Total			Mineral Fuels (mainly)
4	Animal and Vegetable Oils and Fats			
	<i>Division</i>	<i>Commodity Type</i>		4 Animal and Veget. Oils and Fats
4		Ollur og feiti af jurtum og dýrum		Vegetable Oils
	Total			Anim. and Veget. Oils/Fats
	Grand Total			
5	Chemicals			
	<i>Division</i>	<i>Commodity Type</i>		5 Chemicals
52	A Þæklunarefni	Saltt		Salt
	A Þæklunarefni Total			Preservative Materials (Salt)
53	B Aðrar efnav.	Litunarvörur		Dying Stuffs
554	B Aðrar efnav.	Sápa		Soap

SITC No	Origin (estim.)	Commodities In Icelandic	In English
592	B Aðrar efnav.	Lím	Glue
598	B Aðrar efnav.	Koparáburður (?)	Goods from Fats, Tallow and Oils
	B Aðrar efnav. Total		Other Chemicals
	Grand Total		Salt
6	Manufact. Goods, Classif. chiefly by Mat.		
	Division	Commodity Type	6 Manufactured Goods
61-62	A Dýraaf.	Leður og leðurvörur, gúmmívörur	Leather and Leather Manufact.
65-D	A Dýraaf.	Ullarvörur, hvers konar	Woolens
	A Dýraaf. Total		Leather and Leather Manufact.
63	B Plöntuaf.	Vörur úr tré og korki	Wood and Cork Manufact.
64	B Plöntuaf.	Pappír, pappi og pappírsvörur	Paper and Paper Manufact.
65-A	B Plöntuaf.	Kablar, línur, net, segldúkar	Ropes, Lines, Nets
65-B	B Plöntuaf.	Hamp-, lín-, baðmullar- og jútavörur	Textile Fabrics and Made-up Articles (C)
	B Plöntuaf. Total		Wood Manufact. (mainly)
661	C Jarðefnaaf.	Steinlim, kalk	Cement, Lime
662-663	C Jarðefnaaf.	Vörur úr steini	Rock Manufactures
664-665	C Jarðefnaaf.	Vörur úr gleri	Glass and Glass Manufactures
666	C Jarðefnaaf.	Leirlát	Pottery Manufactures
67-68	C Jarðefnaaf.	Járn og stál, óunnið; kopar o.fl.	Iron and Steel, unproc.
69	C Jarðefnaaf.	Vörur úr jámi og stáli	Manufactures of Iron
	C Jarðefnaaf. Total		Rock Manufactures (mainly), Iron a
	Grand Total		Wood and Rock Manufact. (mainly)
7	Mach. and Transp. Equipm.		
	Division	Commodity Type	7 Mach. and Transp. Equipm.
71-78		Ahöld, verkfæri, vélar, simtæki, rafmagnstæki, vagna-/kerruhlutir	Machines
793		Gufu- og seglskip, bátar	Sailing Vessels and Boats
	Total		Sailing Vessels
	Grand Total		
8	Miscell. Manufactured Articles		
	Division	Commodity Type	8 Miscell. Manufact. Articles
811		Hús, tilhöggvin (?)	Timber Houses, premade
813		Lampar	Lamps
84-85		Fatnaður (skór og fót)	Clothes and Footwear
891		Skotfæri (púður)	Ammunition
892		Bækur	Books

SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
897		Silfursmíði	Fine Silver Items
898		Hljóðfæri	Musical Instruments
	Total		Clothes and Footwear (mainly)
	Grand Total		
9	Miscell. Transact. and Comm.		
	<i>Division</i>	<i>Commodity Type</i>	9 Miscell. Transact. and Comm.
99		Óflokkað og óflokkanlegt	Not elsewhere specified
	Total		
	Grand Total		
Total Quantity			
Source:	Table IMP/NOR-2		
† For 1870–86 incl. a special reconstructive method was used to estimate the salt imports (cf. explanations in previous tables).			
During 1890–1913 incl. returned salt to Norway has been subtracted from the salt coming from Norway each year.			

[illegible]

In English	Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity		Quantity	
	Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes		Tonnes	
2 Crude Mat., ined., exc. Fuels	1870		1874		1878		1882		1886		1890		1894		1902	
Skins, undr.	—	0,0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Animal Materials	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Wood	897,8	1 283,4	2 263,3	3 283,8	1 750,4	2 812,5	4 247,7	6 924,3	7 362,3	8 456,3	4 163,0	3 817,6				
Hemp	—	—	—	—	—	0,6	0,3	—	—	—	—	0,1	0,7			
Crude Vegetable Materials	—	41,1	0,7	11,3	3,8	0,5	1,0	2,4	—	—	—	—	—			
Plant Materials (mainly Wood)	897,8	1 324,5	2 263,9	3 295,2	1 754,2	2 813,6	4 249,1	6 926,7	7 362,3	8 456,3	4 163,0	3 818,3				
Crude Minerals	—	—	—	—	—	36,0	2,8	6,5	3,3	14,7	356,9	298,7				
Crude Minerals	0,0	0,0	0,0	0,0	0,0	36,0	2,8	6,5	3,3	14,7	356,9	298,7				
Wood (mainly)	897,8	1 324,5	2 263,9	3 295,2	1 754,2	2 849,6	4 251,8	6 933,2	7 365,6	8 470,9	4 520,0	4 116,9				
	88%	78%	75%	71%	60%	62%	58%	62%	34%	34%	21%	32%				
3 Min. Fuels, Lubric., and Rel. Mat	1870		1874		1878		1882		1886		1890		1894		1902	
Coals, Cokes	—	—	—	—	—	—	—	—	—	—	281,4	319,4	168,1	1 435,2	1 578,3	461,7
Paraffin Oil, Petroleum etc.	—	—	—	—	—	—	—	—	—	—	7,6	8,3	15,7	29,5	31,5	20,6
Mineral Fuels (mainly Coals)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	289,1	327,7	183,8	1 464,7	1 609,8	482,3
Tar	—	—	—	—	—	—	—	—	—	—	1,9	1,3	0,8	0,3	—	1,8
Sealing Compounds (Tar)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,9	1,3	0,8	0,3	0,0	1,8
Mineral Fuels (mainly)	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	291,0	329,0	184,6	1 465,0	1 609,8	484,1
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	4%	2%	7%	6%	2%
4 Animal and Veget. Oils and Fats	1870		1874		1878		1882		1886		1890		1894		1902	
Vegetable Oils	—	—	—	—	—	—	—	—	—	—	0,4	2,0	3,9	23,6	3,0	1,7
Anim. and Veget. Oils/Fats	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	2,0	3,9	23,6	3,0	1,7
	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,4	2,0	3,9	23,6	3,0	1,7
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5 Chemicals	1870		1874		1878		1882		1886		1890		1894		1902	
Salt	37,7	363,5	447,6	1 015,5	520,9	696,0	1 853,9	770,4	9 836,4	11 782,6	14 591,0	6 210,5				
Preservative Materials (Salt)	37,7	363,5	447,6	1 015,5	520,9	696,0	1 853,9	770,4	9 836,4	11 782,6	14 591,0	6 210,5				
Dying Stuffs	—	—	—	—	—	—	—	—	—	—	0,1	0,0	—	—	—	—
Soap	—	—	—	—	—	—	0,7	0,5	—	—	—	1,9	4,7	1,6	4,6	3,1

In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
Glue	—	—	—	—	—	—	—	—	—	—	0.5	—
Goods from Fats, Tallow and Oils	—	—	—	—	—	—	—	—	—	—	2.0	2.5
Other Chemicals	0.0	0.0	0.0	0.7	0.5	0.1	1.9	4.7	1.6	4.6	10.1	4.6
Salt	37.7	363.5	447.6	1 016.2	521.4	696.0	1 855.8	775.1	9 838.0	11 787.2	14 601.1	6 215.1
	4%	21%	15%	22%	18%	15%	25%	7%	46%	47%	68%	49%
6 Manufactured Goods	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Leather and Leather Manufact.	—	—	0.0	0.1	—	0.0	0.1	0.6	1.7	6.5	3.3	3.6
Woollens	0.5	—	—	—	—	0.0	0.3	3.5	12.0	11.2	6.6	3.4
Leather and Leather Manufact.	0.5	0.0	0.0	0.1	0.0	0.0	0.3	4.1	13.7	17.7	9.9	7.0
Wood and Cork Manufact.	0.1	0.8	7.5	4.8	70.6	101.6	310.8	257.9	814.5	1 907.3	755.6	542.6
Paper and Paper Manufact.	—	—	—	1.3	—	1.6	3.1	2.3	6.7	8.8	47.7	57.4
Ropes, Lines, Nets	2.8	0.1	0.5	0.6	2.8	4.7	3.5	14.7	77.7	139.2	120.9	110.3
Textile Fabrics and Made-up Articles (c)	—	—	—	—	—	0.6	0.3	0.3	—	1.2	0.2	1.0
Wood Manufact. (mainly)	3.0	1.0	8.0	6.8	73.4	108.5	317.7	275.2	898.9	2 056.5	924.5	711.3
Cement, Lime	—	—	—	—	—	2.2	17.7	—	—	—	—	207.6
Rock Manufactures	—	—	19.6	102.5	44.0	116.0	167.9	16.3	959.9	216.1	—	202.5
Glass and Glass Manufactures	—	2.2	3.7	21.0	7.8	1.7	0.5	0.6	0.4	17.1	33.9	7.6
Pottery Manufactures	—	—	—	—	—	0.1	0.1	0.0	—	—	—	—
Iron and Steel, unproc.	0.7	0.5	3.4	0.1	0.5	4.8	8.9	16.7	163.9	7.2	2.3	14.7
Manufactures of Iron	6.5	0.8	44.2	0.5	1.5	6.8	4.8	42.6	277.6	46.6	141.1	47.4
Rock Manufactures (mainly), Iron a	7.2	3.6	70.8	124.1	53.8	131.6	199.9	76.1	1 401.9	287.0	177.2	479.9
Wood and Rock Manufact. (mainly)	10.7	4.5	78.9	130.9	127.2	240.1	517.9	355.5	2 314.5	2 361.1	1 111.6	1 198.1
	1%	0%	3%	3%	4%	5%	7%	3%	11%	9%	5%	9%
7 Mach. and Transp. Equipm.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Machines	—	—	—	—	—	50.2	0.2	6.1	2.3	14.3	21.5	66.0
Sailing Vessels and Boats	—	—	55.4	21.9	134.9	0.2	58.1	2 604.3	142.8	142.1	41.6	627.5
Sailing Vessels	0.0	0.0	55.4	21.9	134.9	50.3	58.2	2 610.4	145.1	156.4	63.0	693.6
	0.0	0.0	55.4	21.9	134.9	50.3	58.2	2 610.4	145.1	156.4	63.0	693.6
	0%	0%	2%	0%	5%	1%	1%	23%	1%	1%	0%	5%
8 Miscell. Manufact. Articles	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Timber Houses, premade	—	—	—	—	—	—	—	—	40.0	15.0	7.4	—
Lamps	—	—	—	0.1	0.0	0.1	—	—	—	—	0.4	—
Clothes and Footwear	—	—	—	—	—	0.2	0.7	0.3	0.6	4.0	15.2	23.3
Ammunition	—	—	—	—	—	0.1	0.2	0.4	0.4	0.7	2.3	0.3
Books	—	—	0.0	0.1	—	—	—	0.0	0.0	0.2	0.0	—

planations in previous tables).

Table IMP/NOR-5			
Imports of Iceland from Norway by SITC Groups and Origin (Value), 1870–1913			
SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
0	Food		
	<i>Division</i>	<i>Commodity Type</i>	0 Food
001-B	A Landbúnað.	Hross, lífandi	Live Horses
01	A Landbúnað.	Kjötmatar	Meat
023/091	A Landbúnað.	Smjör og smjörliki	Butter and Margarine
024	A Landbúnað.	Östur	Cheese
	A Landbúnað. Total		Agricult. Products (mainly Meat)
034	B Fiskaf.	Nýr fiskur	Fresh Fish
035	B Fiskaf.	Verkaður fiskur (saltaður, reykstur)	Cured Fish
	B Fiskaf. Total		Fisheries Products (Herring)
045	C Korn, -af.	Korn, ómalað	Cereals, Unmilled
047	C Korn, -af.	Korn, malað	Cereals, Milled
045/047	C Korn, -af.	Korn (ómalað eða malað)	Cereals, Milled/Unmilled
045/047	C Korn, -af.	Hrisgrjón og -mjöl	Rice
048	C Korn, -af.	Brauð	Bread
	C Korn, -af. Total		Cereals (and Cereal Products)
05-A/B	D Plöntuaf.	Ávexir, ber og grænmeti (annað en kál)	Vegetables
05-B	D Plöntuaf.	Kartöflur	Potatoes
06	D Plöntuaf.	Sykur, slróp, melassi	Sugar and Sugar Preparations
071–074	D Plöntuaf.	Kaffi og te	Coffee and Tea
08	D Plöntuaf.	Skepnufóður	Fodder
	D Plöntuaf. Total		Other Plant Foodstuffs (mainly Pot)
09	A Landbúnað.	Niðursoðin mjólk (gerilsneydd?)	Milk
09	E Tilbúinn matar	Tilbúinn matar	Prepared Food
	E Tilbúinn matar Total		Prepared Food
	Grand Total		Cereals (mainly)
1	Beverages and Tobacco		
	<i>Division</i>	<i>Commodity Type</i>	1 Beverages and Tobacco
111	A Goddrykkir	Gosdrykkir	Mineral Water
112	B Vin og öl	Vín og öl	Wine and Ale
12	C Tóbak	Tóbak	Tobacco and Tobacco Manufact.
	Total		Alcoholic Beverages (mainly)
	Grand Total		

SITC No	Origin (estim.)	Commodities	In Icelandic	In English
2	Crude Materials, ined., exc. Fuels			
	<i>Division</i>	<i>Commodity Type</i>		2 Crude Mat., ined., exc. Fuels
21	A Dýraaf.	Skin, óverkuð		Skins, undr.
	A Dýraaf. Total			Animal Materials
24	B Plöntuaf.	Timbur, óunnið		Wood
265–268	B Plöntuaf.	Hampur og ull		Hemp
292	B Plöntuaf.	Börkur o.fl.		Crude Vegetable Materials
	B Plöntuaf. Total			Plant Materials (mainly Wood)
27–28	C Jarðefni	Jarðefni og jarðmálmar		Crude Minerals
	C Jarðefni Total			Crude Minerals
	Grand Total			Wood (mainly)
3	Mineral Fuels, Lubric. and Rel. Mat.			
	<i>Division</i>	<i>Commodity Type</i>		3 Min. Fuels, Lubric., and Rel.
32	A Eldsneyti	Kol og kox		Coals, Cokes
33	A Eldsneyti	Parafínolía, jarðóllía o.fl.		Paraffin Oil, Petroleum etc.
	A Eldsneyti Total			Mineral Fuels (mainly Coals)
335	B Þéttiefni	Tjara		Tar
	B Þéttiefni Total			Sealing Compounds (Tar)
	Grand Total			Mineral Fuels (mainly)
4	Animal and Vegetable Oils and Fats			
	<i>Division</i>	<i>Commodity Type</i>		4 Animal and Veget. Oils and F
4		Óllur og feiti af jurtum og dýrum		Vegetable Oils
	Total			Anim. and Veget. Oils/Fats
	Grand Total			
5	Chemicals			
	<i>Division</i>	<i>Commodity Type</i>		5 Chemicals
52	A Þæklunarefni	Salt		Salt
	A Þæklunarefni Total			Preservative Materials (Salt)
53	B Aðrar efnav.	Litunarvörur		Dying Stuffs
554	B Aðrar efnav.	Sápa		Soap
592	B Aðrar efnav.	Lím		Glue
598	B Aðrar efnav.	Koparaburður (?)		Goods from Fats, Tallow and Oils
	B Aðrar efnav. Total			Other Chemicals
	Grand Total			Salt

SITC No	Origin (estim.)	Commodities In Icelandic	Commodities In English
6	Manufact. Goods, Classif. chiefly by Mat.		
	<i>Division</i>	<i>Commodity Type</i>	
61-62	A Dýraaf.	Leður og leðurvörur, gúmmivörur	6 Manufactured Goods Leather and Leather Manufact.
65-D	A Dýraaf.	Ullarvörur, hvers konar	Woolens
	A Dýraaf. Total		Leather and Leather Manufact.
63	B Plöntuaf.	Vörur úr tré og korki	Wood and Cork Manufact.
64	B Plöntuaf.	Pappir, pappi og pappirsvörur	Paper and Paper Manufact.
65-A	B Plöntuaf.	Kaðlar, línur, net, segldúkar	Ropes, Lines, Nets
65-B	B Plöntuaf.	Hamp-, lín-, baðmullar- og jútavörur	Textile Fabrics and Made-up Articles
	B Plöntuaf. Total		Wood Manufact. (mainly)
661	C Jarðefnaaf.	Steinlim, kalk	Cement, Lime
662-663	C Jarðefnaaf.	Vörur úr steini	Rock Manufactures
664-665	C Jarðefnaaf.	Vörur úr gleri	Glass and Glass Manufactures
666	C Jarðefnaaf.	Leirílát	Pottery Manufactures
67-68	C Jarðefnaaf.	Járn og stál, óunnid; kopar o.fl.	Iron and Steel, unproc.
69	C Jarðefnaaf.	Vörur úr járn og stáli	Manufactures of Iron
	C Jarðefnaaf. Total		Rock Manufactures (mainly), Iron a
	Grand Total		Wood and Rock Manufact. (mainly)
7	Mach. and Transp. Equipm.		
	<i>Division</i>	<i>Commodity Type</i>	
71-78		Ahöld, verkfæri, vélar, slímtæki, rafmagnstæki, vagna-/kerruhlutir	7 Mach. and Transp. Equipm. Machines
793		Gufu- og seglskip, bátar	Sailing Vessels and Boats
	Total		Sailing Vessels
	Grand Total		
8	Miscell. Manufactured Articles		
	<i>Division</i>	<i>Commodity Type</i>	
811		Hús, tilhöggvin (?)	8 Miscell. Manufact. Articles Timber Houses, premade
813		Lampar	Lamps
84-85		Fatnaður (skór og fót)	Clothes and Footwear
891		Skotfæri (púður)	Ammunition
892		Bækur	Books
897		Slífursmíði	Fine Silver Items
898		Hljóðfæri	Musical Instruments
	Total		Clothes and Footwear (mainly)
	Grand Total		

[illegible]

[illegible]

In English	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.	Value Norw. kr.
2 Crude Mat., ined., exc. Fuels	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Skins, undr.	—	118	—	—	—	—	—	—	—	—	—	—
Animal Materials	0	118	0	0	0	0	0	0	0	0	0	0
Wood	48 276	92 702	118 325	163 208	77 526	119 573	169 422	323 233	338 213	468 815	222 776	208 233
Hemp	—	—	—	—	—	352	176	—	—	—	135	1 289
Crude Vegetable Materials	—	5 236	60	1 249	294	36	65	157	—	—	—	—
Plant Materials (mainly Wood)	48 276	97 838	118 384	164 456	77 820	119 961	169 663	323 390	338 213	468 815	222 911	209 622
Crude Minerals	—	—	—	—	—	2 196	167	390	61	151	1 339	1 274
Crude Minerals	0	0	0	0	0	2 196	167	390	61	151	1 339	1 274
Wood (mainly)	48 276	98 056	118 384	164 456	77 820	122 157	169 830	323 779	338 274	468 966	224 250	210 786
	29%	33%	63%	42%	42%	38%	48%	29%	28%	24%	18%	19%
3 Min. Fuels, Lubric., and Rel.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Coals, Cokes	—	—	—	—	—	7 041	7 603	3 933	34 754	37 433	8 022	35
Paraffin Oil, Petroleum etc.	—	—	—	—	—	1 158	937	1 685	3 059	3 124	1 728	1 519
Mineral Fuels (mainly Coals)	0	0	0	0	0	8 199	8 540	5 619	37 813	40 557	9 760	1 566
Tar	—	—	—	—	—	281	180	50	12	—	54	73
Sealing Compounds (Tar)	0	0	0	0	0	281	180	50	12	0	54	73
Mineral Fuels (mainly)	0	0	0	0	0	8 480	8 721	5 669	37 825	40 557	9 804	1 627
	0%	0%	0%	0%	0%	3%	2%	1%	3%	2%	1%	0%
4 Animal and Veget. Oils and F	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Vegetable Oils	—	—	—	—	—	206	948	1 679	13 174	1 687	1 106	—
Anim. and Veget. Oils/Fats	0	0	0	0	0	206	948	1 679	13 174	1 687	1 106	0
	0	0	0	0	0	206	948	1 679	13 174	1 687	1 106	0
	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
5 Chemicals	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Salt	1 703	13 287	11 325	169 109	24 762	19 898	43 857	18 210	218 501	269 938	177 190	90 897
Preservative Materials (Salt)	1 703	13 287	11 325	169 109	24 762	19 898	43 857	18 210	218 501	269 938	177 190	90 897
Dying Stuffs	—	—	—	—	—	93	32	—	—	—	1 587	—
Soap	—	—	—	349	159	—	509	1 177	423	960	743	469
Glue	—	—	—	—	—	—	—	—	—	—	255	—
Goods from Fats, Tallow and Oils	—	—	—	—	—	—	—	—	—	—	1 944	2 205
Other Chemicals	0	0	0	349	159	93	541	1 177	423	960	4 528	2 674
Salt	1 703	13 287	11 325	169 458	24 322	19 991	44 399	19 387	218 925	270 899	181 718	93 571
	1%	4%	6%	44%	13%	6%	12%	2%	18%	14%	15%	8%

In English	Value		Value		Value		Value		Value		Value		Value		Value		Value	
	Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.		Norw. kr.	
6 Manufactured Goods																		
Leather and Leather Manufact.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
	—	—	171	303	—	42	154	1 490	4 063	17 337	8 772	8 807						
Woolens	4 207	—	—	—	—	75	1 185	11 095	31 466	46 962	29 619	15 197						
Leather and Leather Manufact.	4 207	0	171	303	0	117	1 339	12 585	35 529	64 299	38 391	24 004						
Wood and Cork Manufact.	212	848	6 971	1 055	12 706	23 506	66 433	53 446	183 078	616 679	242 044	187 811						
Paper and Paper Manufact.	—	—	—	429	—	320	393	354	1 040	1 544	9 858	13 007						
Ropes, Lines, Nets	2 474	329	528	634	4 240	3 931	2 708	19 190	137 852	314 377	202 028	109 698						
Textile Fabrics and Made-up Articles	—	—	—	—	—	1 575	566	606	—	856	979	5 390						
Wood Manufact. (mainly)	2 685	1 177	7 499	2 117	16 946	29 332	70 100	73 597	321 969	933 456	454 909	315 906						
Cement, Lime	—	—	—	—	—	55	445	—	—	—	—	4 568						
Rock Manufactures	—	—	235	1 731	707	1 789	2 270	259	11 235	2 838	—	1 215						
Glass and Glass Manufactures	—	437	546	2 339	856	285	77	101	47	2 586	4 306	916						
Pottery Manufactures	—	—	—	—	—	20	22	1	—	—	—	—						
Iron and Steel, unproc.	166	181	779	13	25	297	647	1 325	11 359	1 437	846	1 603						
Manufactures of Iron	1 624	650	6 141	508	386	2 527	2 249	17 556	96 068	21 226	91 356	66 720						
Rock Manufactures (mainly), Iron and	1 790	1 268	7 700	4 592	1 974	4 972	5 710	19 242	118 720	28 087	96 508	75 022						
Wood and Rock Manufact. (mainly)	8 682	2 445	15 371	7 012	18 920	34 421	77 149	105 425	476 218	1 025 841	589 808	414 932						
	5%	1%	8%	2%	10%	11%	22%	10%	39%	52%	47%	37%						
7 Mach. and Transp. Equipm.	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Machines	—	—	—	—	—	54 186	212	6 475	2 378	22 261	34 754	64 776						
Sailing Vessels and Boats	—	—	3 400	874	6 390	54	1 876	571 117	17 415	13 899	10 960	93 050						
Sailing Vessels	0	0	3 400	874	6 390	54 240	2 087	577 592	19 794	36 160	45 714	157 826						
	0	0	3 400	874	6 390	54 240	2 087	577 592	19 794	36 160	45 714	157 826						
	0%	0%	2%	0%	3%	17%	1%	52%	2%	2%	4%	14%						
8 Miscell. Manufact. Articles	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913						
Timber Houses, premade	—	—	—	—	—	—	—	—	8 680	3 276	1 488	—						
Lamps	—	—	—	421	93	190	—	—	—	—	2 031	—						
Clothes and Footwear	—	—	—	—	—	444	2 399	2 531	4 293	11 737	39 188	93 000						
Ammunition	—	—	—	—	—	123	182	366	412	785	2 952	429						
Books	—	—	420	420	—	—	—	397	113	1 028	253	—						
Fine Silver Items	—	—	—	—	—	—	—	—	—	—	120	—						
Musical Instruments	—	—	—	—	—	421	—	—	—	—	—	—						
Clothes and Footwear (mainly)	0	0	420	841	93	1 178	2 581	3 294	13 498	16 827	46 031	93 429						
	0	0	420	841	93	1 178	2 581	3 294	13 498	16 827	46 031	93 429						
	0%	0%	0%	0%	0%	0%	1%	0%	1%	1%	4%	8%						

[illegible]

Table IMP/OTH-2			Imports of Iceland from Other Countries* by SITC Groups and Origin (Quantity), 1898-1913									
SITC	Origin (estim.)	Commodities	In Icelandic	In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes		
No												
0	Food											
	Division	Commodity Type										
01	A Landbúnað.	Kjötmatur		Meat	—	—	—	—	—	1,2		
024	A Landbúnað.	Ostur		Cheese	2,2	0,1	0,4	0,6	0,6	3,6		
025	A Landbúnað.	Egg		Eggs	—	—	—	—	—	—		
091	A Landbúnað.	Smjörliki, plöntu- og svínafeti		Margarine, Lard	0,5	4,3	—	6,6	6,6	64,0		
	A Landbúnað. Total			Cheese, Margarine, etc.	2,7	4,4	0,4	7,2	7,2	68,8		
045	C Korn, -af.	Korn, ómalað		Cereals, Unmilled	42,3	19,9	3,9	46,5	46,5	34,2		
047	C Korn, -af.	Korn, malað		Cereals, Milled	160,2	116,5	48,1	690,7	690,7	300,2		
045/047	C Korn, -af.	Hrisgrjón		Rice	27,2	32,9	11,7	106,9	106,9	28,1		
048	C Korn, -af.	Brauð		Bread	—	—	—	—	4,5	0,1		
	C Korn, -af. Total			Cereals	229,7	169,3	63,6	848,6	848,6	362,6		
05-A	D Plöntuaf.	Trjáávxetir		Fruits	—	—	—	—	1,3	—		
05-B, 059	D Plöntuaf.	Jarðávxetir (eink. kartöflur), jurtasafar		Vegetables (esp. Potatoes); Juices	—	—	0,3	3,0	3,0	1,2		
061-062	D Plöntuaf.	Sykur, unninn og óunninn		Sugar, Sugar Preparations	32,1	25,3	12,7	352,4	352,4	754,3		
071-074	D Plöntuaf.	Kaffi, te, kakó og súkkulaði		Coffee, Tea, Cocoa and Chocolate	13,8	7,2	4,7	119,2	119,2	170,8		
08	D Plöntuaf.	Skepnufóður		Feeding Stuffs for Animals	—	—	—	—	—	—		
	D Plöntuaf. Total			Sugar and Sugar Prep.; Coffee, Tea, Cocoa and Chocolate; et	45,9	32,6	17,7	475,9	475,9	926,3		
098	E Tilbúinn matur	Ymis matvæli (niðursv., nýlenduv. o.fl.)		Various Foodstuffs (prepared, etc.)	—	—	—	—	—	17,3		
	E Tilbúinn matur Total			Various Foodstuffs (prepared, etc.)	0,0	0,0	0,0	0,0	0,0	17,3		
	Grand Total				278,2	206,2	81,7	1 331,7	1 331,7	1 375,0		
					17%	27%	2%	8%	8%	4%		
1	Beverages and Tobacco											
	Division	Commodity Type		1 Beverages and Tobacco	1898	1902	1906	1910	1910	1913		
111	A Gosdrykkir	Gosdrykkir		Soft Drinks	—	—	—	—	0,1	—		
112	B Vin	Vín og öl		Wine and Ale	3,3	—	0,5	2,5	2,5	0,5		
12	C Tóbak	Tóbak, óunnið og unnið		Tobacco, Tob. Manufactures	1,5	0,5	0,3	5,0	5,0	6,8		
	Total			Alcoholic Beverages, Tobacco	4,8	0,5	0,7	7,6	7,6	7,3		
	Grand Total				4,8	0,5	0,7	7,6	7,6	7,3		
					0%	0%	0%	0%	0%	0%		
2	Crude Mat., ined., exc. Fuels											
	Division	Commodity Type		2 Crude Mat., ined., exc. Fuels	1898	1902	1906	1910	1910	1913		
24	B Plöntuaf.	Timbur, óunnið		Wood, Unproc.	—	—	—	—	—	10,3		
265	B Plöntuaf.	Hampur		Hemp	—	—	—	—	—	—		
	B Plöntuaf. Tot Plant Materials (Timber)			Wood, Unproc.	0,0	0,0	0,0	0,0	0,0	10,3		
	Grand Total				0,0	0,0	0,0	0,0	0,0	10,3		
					0%	0%	0%	0%	0%	0%		

SITC No	Origin (estim.)	Commodities In Icelandic	In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
666	C Jarðefnaaf.	Leirlíát (mestmegnis)	Pottery Manufactures (mainly)	—	—	—	50,4
67	C Jarðefnaaf.	Járn og stál, kopar, óunnlað	Iron and Steel, unproc.	0,4	—	—	106,5
699	C Jarðefnaaf.	Vörur úr jární, stáli og ódýrum málmí	Manufactures of Metals	0,1	0,0	—	71,3
	C Jarðefnaaf. Total		Goods and Articles off Minerals	2,2	2,3	0,2	255,5
	Grand Total			2,2	2,3	0,2	586,6
				0%	0%	0%	2%
7	Mach. and Transport Equipm.						
71-77	<i>Division</i>	<i>Commodity Type</i>	7 Mach. and Transport Equipm.	1898	1902	1906	1913
78		Vélar og tæki ýmiss konar	Machines, Mech. Parts, Goods Transp. Equipm.	0,1	0,3	0,2	1,1
793		Fólksflutningatæki	Passenger Transport Equipments	—	—	—	0,1
		Skip og bátar	Ships and Boats	—	—	—	1,7
	Total		Machines; Ships and Boats	0,1	0,3	0,2	1,0
	Grand Total			0,1	0,3	0,2	2,3
				0%	0%	0%	0%
8	Miscell. Manufact. Articles						
	<i>Division</i>	<i>Commodity Type</i>	8 Miscell. Manufact. Articles	1898	1902	1906	1913
812		Ófnar og eldavélar	Radiators and Stoves	—	—	—	—
813		Lampar	Lamps	—	—	—	9,3
82		Stofuhúsgögn	Furnitures	—	—	—	8,8
84-85		Fatnaður, ytri og tilbúinn; skófatn. o.fl.	Clothes, Footwear etc.	—	—	—	—
87-88		Úr og klukkur; gasmælur	Watches and Clocks	—	—	—	0,8
891		Skotvopn og -færi	Ammunition	—	—	—	1,8
892		Prentað mál	Printed Matter	—	—	—	0,1
899		Hlutir til skemmtunar og skrauts, hljóðfæri	Articles for Entertainment and Decoration; Musical Instruments	—	—	—	0,6
	Total		Clothes, Footwear; etc.	0,0	0,0	0,0	1,9
	Grand Total			0,0	0,0	0,0	2,7
				0%	0%	0%	0%
9	Misc. Transact. and Comm.						
	<i>Division</i>	<i>Commodity Type</i>	9 Misc. Transact. and Comm.	1898	1902	1906	1913
99		Óflokkað og óflokkkanlegt	Unenumerated	—	—	—	—
	Total		Unenumerated	0,0	0,0	0,0	0,2
	Grand Total			0,0	0,0	0,0	0,2
				0%	0%	0%	0%
Total Quantity				1 607,6	753,2	3 350,2	34 171,4
Source:	Table IMP/OTH-1						
* Other Countries in imports are all other than Denmark, Norway, Sweden, the United Kingdom, Spain and Italy.							

Table IMP/OTH-3									
Imports of Iceland from Other Countries* by SITC Groups and Origin (Value), 1898-1913									
SITC	Origin (estim.)	Commodities	In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
No		In Icelandic							
0	Food								
	<i>Division</i>	<i>Commodity Type</i>	0 Food	1898	1902	1906	1910	1913	
01	A Landbúnað.	Kjómatur	Meat	—	—	80	—	718	
024	A Landbúnað.	Ostur	Cheese	1 651	54	446	955	3 220	
025	A Landbúnað.	Egg	Eggs	—	—	—	—	—	
091	A Landbúnað.	Smjörliki, plöntu- og svínafeti	Margarine, Lard	420	4 435	111	5 518	58 736	
	A Landbúnað. Total		Cheese, Margarine, etc.	2 071,0	4 489,0	637,0	6 473,0	62 674,0	
045	C Korn, -af.	Korn, ómalað	Cereals, Unmilled	6 600	3 326	752	6 728	6 082	
047	C Korn, -af.	Korn, malað	Cereals, Milled	34 694	22 271	9 324	117 254	53 467	
045/047	C Korn, -af.	Hrisgrjón	Rice	6 209	7 398	2 484	22 402	6 973	
048	C Korn, -af.	Brauð	Bread	1 608	—	140	1 920	84	
	C Korn, -af. Total		Cereals	49 111	32 995	12 700	148 304	66 606	
05-A	D Plöntuaf.	Trjááxextir	Fruits	—	—	667	803	7	
05-B, 059	D Plöntuaf.	Jarðáxextir (eink. kartöflur), jurtasafar	Vegetables (esp. Potatoes); Juices	—	—	24	1 674	1 318	
061-062	D Plöntuaf.	Sykur, unninn og óunninn	Sugar, Sugar Preparations	15 610	10 675	5 922	142 675	259 743	
071-074	D Plöntuaf.	Kaffi, te, kakó og súkkulaði	Coffee, Tea, Cocoa and Chocolate	13 304	6 846	6 062	99 739	194 416	
08	D Plöntuaf.	Skepnufóður	Feeding Stuffs for Animals	—	—	2 741	—	—	
	D Plöntuaf. Total		Sugar and Sugar Prep.; Coffee, Tea, Cocoa and Choc	28 914	17 521	15 416	244 891	455 484	
098	E Tilbúinn matur	Ymis matvæli (niðursv., nýlenduv. o.fl.)	Various Foodstuffs (prepared, etc.)	3 573	963	379	10 533	11 111	
	E Tilbúinn matur Total		Various Foodstuffs (prepared, etc.)	3 573,0	963,0	379,0	10 533,0	11 111,0	
	Grand Total			83 669,0	55 968,0	29 132,0	410 201,0	695 875,0	
				42%	29%	5%	26%	21%	
1	Beverages and Tobacco								
	<i>Division</i>	<i>Commodity Type</i>	1 Beverages and Tobacco	1898	1902	1906	1910	1913	
111	A Gosdrykkir	Gosdrykkir	Soft Drinks	—	—	250	58	—	
112	B Vin	Vín og öl	Wine and Ale	6 415	—	331	2 029	549	
12	C Tóbak	Tóbak, óunnið og unnið	Tobacco, Tob. Manufactures	5 701	5 191	13 628	43 638	55 541	
	Total		Alcoholic Beverages, Tobacco	12 116	5 191	14 209	45 725	56 090	
	Grand Total			12 116	5 191	14 209	45 725	56 090	
				6%	3%	3%	3%	2%	
2	Crude Mat., ined., exc. Fuels								
	<i>Division</i>	<i>Commodity Type</i>	2 Crude Mat., ined., exc. Fuels	1898	1902	1906	1910	1913	
24	B Plöntuaf.	Timbur, óunnið	Wood, Unproc.	—	—	—	949	1 730	
265	B Plöntuaf.	Hampur	Hemp	—	—	—	—	—	
	B Plöntuaf. Total			0	0	0	949	1 730	
	Grand Total		Wood, Unproc.	0	0	0	949	1 730	
				0%	0%	0%	0%	0%	

SITC No	Origin (estim.)	Commodities	In Icelandic	In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
3	Min. Fuels, Lubric., and Rel. Mat.								
	<i>Division</i>	<i>Commodity Type</i>			1898	1902	1906	1910	1913
32	A Eldsneyti	Kol og kox		Coals, Cokes	—	—	—	—	5 000
33	A Eldsneyti	Steinolla og vélaolla		Petroleum; Lubricants	3 036	1 964	718	1 219	138 455
	A Eldsneyti Total			Coals, Petroleum	3 036	1 964	718	1 219	143 455
335	B Þéttiefni	Tjara		Tar	28	90	30	7 200	—
	B Þéttiefni Total			Tar	28	90	30	7 200	0
	Grand Total				3 064	2 054	748	8 419	143 455
					2%	1%	0%	1%	5%
4	Animal and Veget. Oils and Fats								
	<i>Division</i>	<i>Commodity Type</i>			1898	1902	1906	1910	1913
43	Tólg			Tallow	—	—	—	—	—
	Total			Tallow	0	0	0	0	0
	Grand Total				0	0	0	0	0
					0%	0%	0%	0%	0%
5	Chemicals								
	<i>Division</i>	<i>Commodity Type</i>			1898	1902	1906	1910	1913
51	A Þæklunarefni	Edik (ediksýra)		Vinegar	—	29	—	—	—
52	A Þæklunarefni	Salt		Salt	51 563	23 620	73 532	281 024	708 128
	A Þæklunarefni Total			Preservative Materials (Salt)	51 563	23 649	73 532	281 024	708 128
53	B Aðrar efnav.	Litir og litunarefni		Dyeing, Tanning and Colouring Materials	754	308	207	10 889	11 840
54	B Aðrar efnav.	Lyf og baðmeðul (sauðfjár-)		Medical and Pharmaceutical Products	1 277	—	—	1 535	1 975
55-59	B Aðrar efnav.	Keimiskar efnaþöndur		Artificial Fertilizers	—	—	—	—	—
	B Aðrar efnav. Total			Other Chemicals	2 031	308	207	12 424	13 815
	Grand Total			Salt	53 694	23 957	73 739	293 448	721 943
					27%	13%	14%	19%	25%
6	Manufactured Goods								
	<i>Division</i>	<i>Commodity Type</i>			1898	1902	1906	1910	1913
61	A Dýraaf.	Skin og leður		Skins, Dressed; Leather	377	3 016	4 515	16 187	23 765
65-C	A Dýraaf.	Silkevafnaður		Fabrics and Made-up Articles from Silk	4 216	1 629	15 933	15 274	38 060
65-D	A Dýraaf.	Ullavafnaður		Made-up Articles from Wool and Hair	5 802	5 430	41 638	72 637	108 559
	A Dýraaf. Total			Woollens (mainly), Silk Articles, etc.	10 395	10 075	62 086	104 098	170 384
63	B Þöntuaf.	Trévörur, hálf- eða fullunnar		Wood Manufactures	—	23 413	200	1 102	424
649	B Þöntuaf.	Pappír, pappi, pappírsvörur, veggfóður		Paper, Paperboard; Articles of Paper Pulp, Paperboard ar	—	1 400	2 937	3 420	9 667
65-A	B Þöntuaf.	Kaðlar, færi, garn, tvinni, net, mottur og dúkar		Ropes, Lines, Nets and Mats (from Linen, Hemp or Cotto	4 801	2 614	3 656	47 784	72 524
65-B	B Þöntuaf.	Vefnaður úr baðmull, lín og hampi		Fabrics and Made-up Articles from Cotton, Linen and Her	3 630	20 378	52 776	157 941	258 879
	B Þöntuaf. Total			Ropes, etc.; Textiles off Plants	8 431	47 805	59 569	210 247	341 494
661	C Jarðefnaaf.	Kalk, steinlim o.p.u.l.		Cement, Lime	179	234	17	3 323	—
662-663	C Jarðefnaaf.	Vörur úr steini		Mineral (Rock) Manufactures	—	—	—	23	38
664	C Jarðefnaaf.	Gluggagler		Glass	—	100	10 147	5 190	7 101

SITC	Origin (estim.)	Commodities	In English	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes	Quantity Tonnes
No		In Icelandic					
666	C Jarðefnaaf.	Leirlíát (mestmegnis)	Pottery Manufactures (mainly)	167	249	1 217	16 887
67	C Jarðefnaaf.	Járn og stál, kopar: óunnib	Iron and Steel, unproc.	103	—	425	126
699	C Jarðefnaaf.	Vörur úr jární, stáli og bódýrum málmí	Manufactures of Metals	18 560	14 654	31 113	26 178
	C Jarðefnaaf. Total		Goods and Articles off Minerals	19 009	15 237	42 919	61 727
	Grand Total			37 835	73 117	164 674	366 072
				19%	38%	31%	24%
7	Mach. and Transport Equipm.						
	Division	Commodity Type	7 Mach. and Transport Equipm.	1998	1902	1906	1910
71-77		Vélar og tæki ýmiss konar	Machines, Mech. Parts, Goods Transp. Equipm.	617	2 342	1 774	11 997
78		Fólksflutningatæki	Passenger Transport Equipments	—	—	—	2 553
793		Skip og bátar	Ships and Boats	—	—	—	677
	Total		Machines; Ships and Boats	617	2 342	1 774	15 227
	Grand Total			617	2 342	1 774	15 227
				0%	1%	0%	1%
8	Miscell. Manufact. Articles						
	Division	Commodity Type	8 Miscell. Manufact. Articles	1998	1902	1906	1910
812		Ófnar og eldavélar	Radiators and Stoves	183	60	5 000	4 095
813		Lampar	Lamps	482	654	3 387	27 057
82		Stofuhúsgögn	Furnitures	94	3 459	1 717	6 295
84-85		Fatnaður, ytri og tilbúinn; skófatn. o.fl.	Clothes, Footwear etc.	6 048	15 992	194 562	250 235
87-88		Úr og klukkur; gasmælur	Watches and Clocks	1 249	1 399	5 230	8 556
891		Skotvopn og -færi	Ammunition	—	40	—	225
892		Prentað mál	Printed Matter	126	1 210	1 004	1 896
899		Hlutir til skemmtunar og skrauts, hjólfæri	Articles for Entertainment and Decoration; Musical Instrur	1 985	4 497	31 292	28 605
	Total		Clothes, Footwear; etc.	10 167	27 311	242 192	326 964
	Grand Total			10 167	27 311	242 192	326 964
				5%	14%	45%	21%
9	Misc. Transact. and Comm.						
	Division	Commodity Type	9 Misc. Transact. and Comm.	1998	1902	1906	1910
999		Óflokkað og óflokkanlegt	Unenumerated	547	1 019	6 996	81 277
	Total		Unenumerated	547	1 019	6 996	81 277
	Grand Total			547	1 019	6 996	81 277
				0%	1%	1%	5%
							2%
	Total Value			201 609	190 959	533 364	1 548 282
							2 905 509
	Source:	Table IMP/OTH-1					
	* Other Countries in imports are all other than Denmark, Norway, Sweden, the United Kingdom, Spain and Italy.						

* Other Countries in imports are all other than Denmark, Norway, Sweden, the United Kingdom, Spain and Italy.

Table IMPI/UK-14			
Imports of Iceland from the United Kingdom, 1870-1913, and Unspecified Countries, 1870-94, by SITC Groups and Origin (Quantity): Based on Source Material B and C			
SITC	Origin (estim.)	Commodities	In English
No		In Icelandic	
0	Food		0 Food
	<i>Division</i>	<i>Commodity Type</i>	
023	A Landbúnað.	Smjör (og smjörflíki?)	Butter
024	A Landbúnað.	Ostur	Cheese
091	A Landbúnað.	Smjörflíki	Margarine
	A Landbúnað. Total		Butter/Margarine
045	C Korn, -af.*	Korn, ómalað	Cereals, Unmilled
047	C Korn, -af.*	Korn, malað	Cereals, Milled
045/047	C Korn, -af.	Risgrjón og rismjöl	Rice and Rice Meal
048	C Korn, -af.	Kex og kökur	Biscuits and Cakes
	C Korn, -af. Total		Cereals, Biscuits and Cakes
05-B, 059	D Plöntuaf.	Garðavexir (eink. kartöflur), jurtasafar	Vegetables (mainly Potatoes), etc.
06	D Plöntuaf.	Sykur o.p.h.	Sugar, etc.
071-074	D Plöntuaf.	Kaffi, (te og kakó)	Coffee, Cocoa, Tea
	D Plöntuaf. Total		Sugar, Coffee, and Tea
098	E Niðursuðuv.	Ýmis matvæli (niðursv., nýlenduv. o.fl.)	Various Foodstuffs
	E Niðursuðuv. Total		Various Foodstuffs
	Grand Total		Cereals, etc.
1	Beverages and Tobacco		1 Beverages and Tobacco
	<i>Division</i>	<i>Commodity Type</i>	
111	A Gosdrykkir	Gosdrykkir	Soft Drinks
112	B Vín	Afengir drykkir	Alcoholic Beverages
12	C Tóbak	Tóbaksvörur	Tobacco & Tob. Manuf.
	Total		Alcoholic Beverages
	Grand Total		
2	Crude Materials, inedible, exc. Fuels		2 Crude Materials, inedible, exc. Fu
	<i>Division</i>	<i>Commodity Type</i>	
24	B Plöntuaf.	Timbur, óumnið	Wood
265	B Plöntuaf.	Hampur	Hemp
	B Plöntuaf. Total	Plant Materials (mainly Hemp)	Hemp
	Grand Total		

SITC No	Origin (estim.)	Commodities	In Icelandic	In English
3		Mineral Fuels, Lubricants and Rel. Mat.		
	<i>Division</i>	<i>Commodity Type</i>		
32	A Eldsneyti	Kol, hvers konar		3 Mineral Fuels, Lubricants and Re
33	A Eldsneyti	Steinolia		Coals
	A Eldsneyti Total			Petroleum
335	B Þéttiefni	Tjara		Mineral Fuels (mainly Coal)
	B Þéttiefni Total			Tar
	Grand Total			Sealing Compounds (Tar)
				Coals (mainly)
4		Animal and Vegetable Oils and Fats		
	<i>Division</i>	<i>Commodity Type</i>		
4		Jurtaciður (trúlega)		4 Animal and Vegetable Oils and F
	Total			Vegetable Oils (presumably)
	Grand Total			Vegetable Oils (presumably)
5		Chemicals		
	<i>Division</i>	<i>Commodity Type</i>		
51	A Þæklunarefni	Edik		5 Chemicals
52	A Þæklunarefni	Salt		Vinegar
	A Þæklunarefni Total			Salt
53	B Kemisk efni	Litur og litunarefni		Preservative Materials (Salt)
54	B Kemisk efni	Lyf og baðmeðul (sauðfjár-)		Dyeing and Colouring Materials
	B Kemisk efni Total			Medical and Pharmaceutical Products
	Grand Total			Other Chemicals
6		Manufactured Goods		
	<i>Division</i>	<i>Commodity Type</i>		
61	A Dýraaf.	Skin og leður		6 Manufactured Goods
65-C	A Dýraaf.	Silkefnaður		Skins
65-D	A Dýraaf.	Ullarvafnaður		Silk Manufactures
	A Dýraaf. Total			Woolens
63	B Þlöntuaf.	Trévörur, hálf- eða fullunnar		Skins
64	B Þlöntuaf.	Pappír		Manufactures of Wood
65-A	B Þlöntuaf.	Kaðlar, færi, net		Paper and Manufactures thereof
65-B	B Þlöntuaf.	Vörur úr baðmull, líni og hampi		Ropes, Lines, Nets
	B Þlöntuaf. Total			Manufactures of Cotton, Linen, and Hemp
661	C Jarðefnaaf.	Steinlim, kalk		Textiles; Paper, etc.; Ropes, etc.
662-663	C Jarðefnaaf.	Vörur úr steini		Cement, Lime
664	C Jarðefnaaf.	Gluggaglar		Mineral Manufactures
666	C Jarðefnaaf.	Leirílát (mestmegnis)		Manufactures of Glass
67	C Jarðefnaaf.	Járn og stál		Pottery
				Iron and Steel

SITC No	Origin (estim.)	Commodities	
		In Icelandic	In English
6999	C Jarðefnaaf.	Vörur úr jární, stáli og ódýrum málmí	Iron and Steel Manufactures
	C Jarðefnaaf. Total		Iron and Steel; Cement and Lime; etc.
	Grand Total		
7	Mach. and Transport Equipm.		
	Division	Commodity Type	7 Mach. and Transport Equipm.
71-77		Vélar og tæki ýmiss konar	Machines, Mech. Parts, Goods Transp. E
785		Hjólhestar	Bicycles
78		Fólksflutningatæki	Passenger Transport Equipment
793		Aðrir bátar	Boats
	Total		Machines, Mech. Parts, Transp. Equipm.
	Grand Total		
8	Miscellaneous Manufactured Articles		
	Division	Commodity Type	8 Miscellaneous Manufactured Art
82		Stofugögn (meubler)	Furniture
849		Leður og leðurvörur	Leather and Leather Manufactures
84		Ytri klæðnaður	Clothing
84		Sjöklaði	Seamen's Clothing
84-85		Fatnaður, saumavörur, hattar, o.fl.	Clothes, Haberdashery, Millinery
85		Skófatnaður	Footwear
891		Skotvopn og -færi	Ammunition
	Total		
	Grand Total		
9	Miscell. Transact. and Commodities		
	Division	Commodity Type	9 Miscell. Transact. and Commodit
3		Ljósmeti og eldsneyti, annað en kol og steinolla (eldspýtur? Koks?)	?
90		Ótalit annað	Unspecified
	Total		
	Grand Total		
	Total Quantity		
Source:	Table IMP/UK-8		
	Table IMP/UK-9		
	Table IMP/UK-13		

[illegible]

In English	Quantity Tonnes	1870	1874	1878	Quantity Tonnes	1882	1886	Quantity Tonnes	1890	1894	Quantity Tonnes	1898	Quantity Tonnes	1902	Quantity Tonnes	1906	Quantity Tonnes	1910	Quantity Tonnes	1913
3 Mineral Fuels, Lubricants and Re																				
Coals	2 413.8	2 211.0	1 217.9	2 729.2	4 337.2	5 483.5	8 183.6	17 288.5	37 280.1	51 425.9	88 823.8	107 068.1								
Petroleum	0.9	—	37.9	109.9	129.0	180.6	296.0	484.6	513.2	349.0	59.7	3.4								
Mineral Fuels (mainly Coal)	2 414.7	2 211.0	1 255.7	2 839.1	4 466.2	5 664.1	8 479.6	17 773.1	37 793.3	51 774.9	88 883.5	107 071.5								
Tar	12.4	17.8	10.2	7.9	7.5	15.4	7.7	1.5	—	—	—	—								
Sealing Compounds (Tar)	12.4	17.8	10.2	7.9	7.5	15.4	7.7	1.5	—	—	—	—								
Coals (mainly)	2 427.1	2 228.8	1 266.0	2 847.0	4 473.7	5 679.5	8 487.3	17 774.6	37 793.3	51 774.9	88 883.5	107 071.5								
	45%	35%	17%	27%	37%	36%	42%	63%	79%	82%	93%	91%								
4 Animal and Vegetable Oils and F																				
Vegetable Oils (presumably)	—	—	—	—	—	—	—	—	—	—	—	—								
Vegetable Oils (presumably)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%								
5 Chemicals																				
Vinegar	0.3	1.4	5.7	—	3.6	4.8	4.5	0.1	—	—	—	—								
Salt	2 306.9	2 314.9	4 159.5	5 621.8	4 387.1	7 016.4	8 142.6	8 576.5	8 043.7	7 053.1	1 723.1	4 494.8								
Preservative Materials (Salt)	2 307.2	2 316.3	4 165.3	5 621.8	4 390.7	7 021.2	8 147.1	8 576.6	8 043.7	7 053.1	1 723.1	4 494.8								
Dyeing and Colouring Materials	—	—	—	—	—	—	—	—	—	—	—	—								
Medical and Pharmaceutical Products	—	—	—	—	—	—	—	—	—	—	—	—								
Other Chemicals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
	2 307.2	2 316.3	4 165.3	5 621.8	4 390.7	7 021.2	8 147.1	8 576.6	8 043.7	7 053.1	1 723.1	4 494.8								
	43%	36%	57%	53%	37%	44%	41%	31%	17%	11%	2%	4%								
6 Manufactured Goods																				
Skins	—	—	—	—	—	—	—	—	—	—	—	—								
Silk Manufactures	—	—	—	—	—	—	—	—	—	—	—	—								
Woolens	—	—	—	—	—	—	—	—	—	—	—	—								
Skins	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
Manufactures of Wood	—	—	—	—	—	—	—	—	—	—	—	—								
Paper and Manufactures thereof	—	—	—	—	—	—	—	—	—	—	—	—								
Ropes, Lines, Nets	0.0	—	24.7	24.2	7.2	36.6	31.1	—	—	—	—	—								
Manufactures of Cotton, Linen, and Hemp	—	—	—	—	—	—	—	—	—	—	—	—								
Textiles; Paper, etc.; Ropes, etc.	0.0	0.0	24.7	24.2	7.2	36.6	31.1	0.0	187.3	357.1	278.2	204.6								
Cement, Lime	11.1	—	25.6	50.1	36.6	—	—	—	—	—	—	—								
Mineral Manufactures	—	—	—	—	—	—	—	—	—	—	—	—								
Manufactures of Glass	—	—	—	—	—	—	—	—	—	—	—	—								
Pottery	—	—	—	—	—	—	—	—	—	—	—	—								
Iron and Steel	3.9	—	10.0	5.7	9.8	4.6	—	3.1	489.7	1 115.6	683.8	954.0								

[illegible]

Table IMP/UK-15			
Imports of Iceland from the United Kingdom, 1870–1913, and Unspecified Countries, 1870–94, by SITC Groups and Origin (Value): Based on Source Material B and C			
SITC No	Origin (estim.) In Icelandic	Commodities In English	
0	Food		
	<i>Division</i>	<i>Commodity Type</i>	
023	A Landbúnað.	Smjör (og smjörflíki?)	0 Food
024	A Landbúnað.	Ostur	Butter
091	A Landbúnað.	Smjörflíki	Cheese
	A Landbúnað. Total		Margarine
045	C Korn, -af.*	Korn, ómalað	Butter/Margarine
047	C Korn, -af.*	Korn, malað	Cereals, Unmilled
045/047	C Korn, -af.	Risgrjón og rismjöl	Cereals, Milled
048	C Korn, -af.	Kex og kökur	Rice and Rice Meal
	C Korn, -af. Total		Biscuits and Cakes
05-B, 05E	D Plöntuaf.	Garðavextir (eink. kartöflur), jurtasafar	Cereals, Biscuits and Cakes
06	D Plöntuaf.	Sýkur o.p.h.	Vegetables (mainly Potatoes), etc.
071–074	D Plöntuaf.	Kaffi, (te og kakó)	Sugar, etc.
	D Plöntuaf. Total		Coffee, Cocoa, Tea
098	E Niðursuðuv.	Ymis matvæli (niðursv., nýlenduv. o.fl.)	Sugar, Coffee, and Tea
	E Niðursuðuv. Total		Various Foodstuffs
	Grand Total		Various Foodstuffs
			Cereals, etc.
1	Beverages and Tobacco		
	<i>Division</i>	<i>Commodity Type</i>	
111	A Gosdrykkir	Gosdrykkir	1 Beverages and Tobacco
112	B Vín	Afengir drykkir	Soft Drinks
12	C Tóbak	Tóbaksvörur	Alcoholic Beverages
	Total		Tobacco & Tob. Manuf.
	Grand Total		Alcoholic Beverages
2	Crude Materials, inedible, exc. Fuels		
	<i>Division</i>	<i>Commodity Type</i>	
24	B Plöntuaf.	Timbur, óunnið	2 Crude Materials, inedible, exc. F
265	B Plöntuaf.	Hampur	Wood
	B Plöntuaf. Total		Hemp
	Grand Total		Hemp

SITC No	Origin (estim.)	Commodities In Icelandic	In English
3	Mineral Fuels, Lubricants and Rel. Mat.		
	<i>Division</i>	<i>Commodity Type</i>	
32	A Eldsneyti	Kol, hvers konar	3 Mineral Fuels, Lubricants and Re
33	A Eldsneyti	Steinolla	Coals
	A Eldsneyti Total		Petroleum
335	B Þéttiefni	Tjara	Mineral Fuels (mainly Coal)
	B Þéttiefni Total		Tar
	Grand Total		Sealing Compounds (Tar)
			Coals (mainly)
4	Animal and Vegetable Oils and Fats		
	<i>Division</i>	<i>Commodity Type</i>	
4		Jurtaolíur (trúlega)	4 Animal and Vegetable Oils and F
	Total		Vegetable Oils (presumably)
	Grand Total		Vegetable Oils (presumably)
5	Chemicals		
	<i>Division</i>	<i>Commodity Type</i>	
51	A Þæklunarefni	Edik	5 Chemicals
52	A Þæklunarefni	Salt	Vinegar
	A Þæklunarefni Total		Salt
53	B Kemisk efni	Litir og litunarefni	Preservative Materials (Salt)
54	B Kemisk efni	Lyf og baðmeðul (sauðfjárl-)	Dyeing and Colouring Materials
	B Kemisk efni Total		Medical and Pharmaceutical Products
	Grand Total		Other Chemicals
6	Manufactured Goods		
	<i>Division</i>	<i>Commodity Type</i>	
61	A Dýraaf.	Skinn og leður	6 Manufactured Goods
65-C	A Dýraaf.	Silkevafnaður	Skins
65-D	A Dýraaf.	Ullavafnaður	Silk Manufactures
	A Dýraaf. Total		Woolens
63	B Þlöntuaf.	Trévrður, hálf- eða fullunnar	Skins
64	B Þlöntuaf.	Pappír	Manufactures of Wood
65-A	B Þlöntuaf.	Kaclar, færri, net	Paper and Manufactures thereof
65-B	B Þlöntuaf.	Vörur úr baðmull, líní og hampi	Ropes, Lines, Nets
	B Þlöntuaf. Total		Manufactures of Cotton, Linen, and Hemp
661	C Jarðefnaaf.	Steinlim, kalk	Textiles; Ropes, Lines, Nets; Paper and
662-663	C Jarðefnaaf.	Vörur úr steini	Cement, Lime
664	C Jarðefnaaf.	Gluggagler	Mineral Manufactures
666	C Jarðefnaaf.	Leirlát (mestmegnis)	Manufactures of Glass
67	C Jarðefnaaf.	Járn og stál	Pottery
			Iron and Steel

SITC	Origin (estim.)	Commodities	
No		In Icelandic	In English
6999	C Jarðefnaaf.	Vörur úr jámi, stáli og öðrum málmum	Iron and Steel Manufactures
	C Jarðefnaaf. Total		Iron and Steel, and Manufactures there
	Grand Total		
7	Mach. and Transport Equipm.		
	Division	Commodity Type	7 Mach. and Transport Equipm.
71-77		Vélar og tæki ýmiss konar	Machines, Mech. Parts, Goods Transp. Eq
785		Hjólhestar	Bicycles
78		Fólksflutningatæki	Passenger Transport Equipment
793		Aðrir bátar	Boats
	Total		Machines, Mech. Parts, Transp. Equipm.
	Grand Total		
8	Miscellaneous Manufactured Articles		
	Division	Commodity Type	8 Miscellaneous Manufactured Art
82		Stofugögn (meubler)	Furniture
849		Leður og leðurvörur	Leather and Leather Manufactures
84		Ytri klæðnaður	Clothing
84		Sjónklæði	Seamen's Clothing
84-85		Farnaður, saumavörur, hattar, o.fl.	Clothes, Haberdashery, Millinery
85		Skófatnaður	Footwear
891		Skotvopn og -færi	Ammunition
	Total		Clothes, Haberdashery, Millinery, Foot
	Grand Total		
9	Miscell. Transact. and Commodities		
	Division	Commodity Type	9 Miscell. Transact. and Commodi
3		Ljósmeti og eldsneyti, annað en kol og steinolla (eldspýtur? Koks?)	
90		Ötalið annað	Unspecified
	Total		
	Grand Total		
	Total Value		
Source:	Table IMP/UK-8		
	Table IMP/UK-9		
	Table IMP/UK-13		

[illegible]

In English	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.	Value Danish kr.
3 Mineral Fuels, Lubricants and Resins	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Coals	45 212	34 784	15 433	34 663	54 858	81 677	127 524	232 738	556 341	825 007	816 347	1 318 874
Petroleum	313	—	8 548	22 634	24 009	33 010	52 639	51 946	63 972	43 518	6 232	495
Mineral Fuels (mainly Coal)	45 524	34 784	23 981	57 296	78 867	114 687	180 184	284 684	660 313	868 525	822 579	1 319 370
Tar	1 455	2 289	1 431	1 020	888	1 764	828	221	—	—	—	—
Sealing Compounds (Tar)	1 455	2 289	1 431	1 020	888	1 764	828	221	0	0	0	0
Coals (mainly)	46 980	37 073	25 412	58 316	79 755	116 451	180 992	284 904	660 313	868 525	822 579	1 319 370
	13%	6%	4%	6%	9%	11%	13%	24%	34%	19%	24%	29%
4 Animal and Vegetable Oils and Fats	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Vegetable Oils (presumably)	—	—	—	—	—	—	—	—	55 956	29 076	28 260	14 774
Vegetable Oils (presumably)	0	0	0	0	0	0	0	0	55 956	29 076	28 260	14 774
	0	0	0	0	0	0	0	0	55 956	29 076	28 260	14 774
	0%	0%	0%	0%	0%	0%	0%	0%	3%	1%	1%	0%
5 Chemicals	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Vinegar	105	640	3 087	—	1 466	2 168	2 256	28	—	—	—	—
Salt	45 761	39 070	57 635	76 497	58 249	103 809	120 134	185 115	130 918	122 557	34 608	59 555
Preservative Materials (Salt)	45 866	39 710	60 721	76 497	59 714	105 977	122 390	185 143	130 918	122 557	34 608	59 555
Dyeing and Colouring Materials	—	—	—	—	—	—	—	7 843	—	—	—	—
Medical and Pharmaceutical Products	—	—	—	—	—	—	—	7 959	—	—	—	—
Other Chemicals	0	0	0	0	0	0	0	15 801	0	0	0	0
	45 866	39 710	60 721	76 497	59 714	105 977	122 390	200 944	130 918	122 557	34 608	59 555
	12%	6%	9%	8%	6%	10%	9%	17%	7%	3%	1%	1%
6 Manufactured Goods	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913
Skins	—	—	—	—	—	—	—	2 057	—	—	—	—
Silk Manufactures	—	—	—	—	—	—	—	4 608	—	—	—	—
Woolens	—	—	—	—	—	—	—	21 777	36 690	71 029	20 754	20 372
Skins	0	0	0	0	0	0	0	28 443	36 690	71 029	20 754	20 372
Manufactures of Wood	—	—	—	—	—	—	—	4 307	—	—	—	—
Paper and Manufactures thereof	—	—	—	—	—	—	—	12 097	—	26 647	24 451	—
Ropes, Lines, Nets	0	—	23 181	20 120	5 217	27 444	24 107	70 542	103 802	200 212	222 572	196 695
Manufactures of Cotton, Linen, and Hemp	—	—	—	—	—	—	—	110 161	219 208	342 596	223 297	293 886
Textiles; Ropes, Lines, Nets; Paper and	0	0	23 181	20 120	5 217	27 444	24 107	197 107	323 010	569 454	470 319	490 581
Cement, Lime	288	—	811	1 687	1 303	—	—	2 847	—	—	—	—
Mineral Manufactures	—	—	—	—	—	—	—	1 507	—	—	—	—
Manufactures of Glass	—	—	—	—	—	—	—	2 345	—	—	—	—
Pottery	—	—	—	—	—	—	—	7 226	—	—	—	—
Iron and Steel	880	—	2 020	1 025	1 521	749	—	753	123 472	311 452	179 808	266 290

* Quantities of unspecified cereals 1902–13 have been split up in unmilled and milled cereals according to the shares between the two in the Icelandic trade returns. That must, however, only be considered as a proxy for the actual portions of each type. Hence the italics. — Unspecified types of cereals in 1898 have also been added to unmilled cereals.

Appendix B

The Problem of Externally Owned

Exports and Imports

The activities of Norwegian businessmen in the Iceland economy were an expression of foreign enterprise, and it produces certain definitional and statistical problems, when the foreign trade of Iceland is used as a yardstick of the production and consumption of the economy. The definitional problem is that their activities were on the boarder of the economy, because the Norwegians partially imported the factors used in their production, and, consequently, the payments to these factors did not stay in Iceland. Hence, the economic impact of their activities was not as great as it had been if factors had wholly been attracted from the domestic economy and the payments to factors had been put in circulation internally. The statistical problem is that since they tended to live in Norway and only stay in Iceland during the summer, sometimes using straw-men to facilitate this, sources are scattered and no doubt lacking sometimes. Also, the scholarly literature about their activities in Iceland is meagre. The reactions to these two problems concerning the datasets will be discussed in turn below.

The economic activities of Norwegians in Iceland consisted predominantly of herring fishing and whaling. Sometimes, the Norwegians were merchants too and opened shops, but in that case they usually settled down in Iceland. Anyway, the herring fishing and whaling was prosecuted partly with Norwegian labourers and solely with Norwegian capital (money and capital goods) and entrepreneurship. Perhaps the main impact on the domestic economy was through labour that the Norwegian entrepreneurs needed for salting the herring (women mostly) and working in the whaling stations (unskilled men). But there were also payments (rent or purchase) for the use of land and state revenues through export duties and import tariffs. Because of the partial importation of the factors of production and the resulting leakages (see Chapter II), the exports of herring and

whale products do not accurately portray the production of the domestic economy, which one usually thinks of in relation to exports and the economy in general.

To portray more precisely the actual production and consumption of the domestic economy, one has to subtract those exports where external factors of production were used in their production from total exports, and subtract those imports that were used by the foreign enterprises from total imports. This distinction is difficult to make, and it is an ample subject in itself to do a separate research on this. Therefore, only a rudimentary attempt was made here to distinguish between externally and internally owned exports and imports (see Table B.BAL/ALL-2). The method is discussed in Chapter VI, so I will only recapitulate this. On the production side, all exported whale products were owned by Norwegians and the major part of herring. On the consumption side, salt, coal, and all barrel material (tuns and staves) from Norway was assigned to the Norwegians enterprises. It goes without saying that this estimate of the share of externally owned imports and exports, as of all imports and exports, is bound to be a guesswork. However, the remaining (internally owned) goods no doubt reflect better consumption and production of the domestic economy itself, rather than total exports and imports

Table BAL/ALL-2													
Balance of Trade and Value of Iceland's Domestic Exports and Imports by Countries, 1870-1913:													
Adjusted for externally-owned exports and imports (estimates)*													
Individual Countries	1870	1874	1878	1882	1886	1890	1894	1898	1902	1906	1910	1913	Thous. Dan. kr.
Denmark													
+ Exports (internally owned)	1 693,9	2 090,3	2 433,8	2 921,3	1 819,6	1 926,4	2 165,2	1 807,2	2 483,2	4 696,8	4 683,8	7 846,5	
- Imports (internally owned)	2 694,5	3 199,8	3 006,1	3 910,3	2 276,3	2 915,2	2 827,8	2 662,4	3 302,5	4 439,7	3 179,3	3 578,4	
Balance	- 1 000,6	- 1 109,5	- 572,3	- 988,9	- 456,8	- 988,8	- 662,6	- 855,2	- 819,3	257,1	1 504,5	4 268,1	
Norway													
+ Exports (total)	73,0	302,4	264,2	458,0	249,3	347,7	691,7	856,2	2 574,6	5 021,4	2 416,1	2 963,5	
- Herring, salted	0,9	0,1	23,6	57,0	11,7	43,8	47,9	7,7	76,5	3 093,0	689,6	1 473,4	
- Meal from Whalemeat	—	—	—	—	—	—	—	16,7	35,3	123,9	89,7	24,2	
- Bones, Bone Meal, Teeth, Baleens, Guano	—	—	—	—	3,1	1,6	9,9	5,8	35,8	34,5	21,5	19,4	
- Whale Oil (Train-Oil)	—	—	—	—	—	—	—	—	69,4	758,0	445,4	—	
= Internally owned exports	72,2	302,2	240,6	401,0	234,5	302,4	633,9	826,0	2 357,6	1 012,0	1 169,8	1 446,6	
- Imports (total)	160,5	305,1	210,4	420,4	180,6	314,1	350,5	1 102,0	1 231,3	1 965,6	1 456,4	1 269,3	
+ Salt	1,6	15,0	14,8	188,8	22,5	18,3	42,4	18,2	227,6	264,3	288,2	149,2	
+ Tuns and Staves	0,2	2,4	12,1	13,5	17,4	19,2	61,6	51,1	182,3	613,9	256,2	203,9	
+ Coal	0,0	0,0	0,0	0,0	0,0	6,4	7,4	3,9	36,1	36,7	12,2	0,1	
= Internally owned imports	158,8	287,7	183,5	218,1	140,7	270,2	239,2	1 028,7	785,3	1 050,8	899,7	916,1	
Balance	- 86,6	14,5	57,1	182,9	93,8	32,2	394,7	- 202,8	1 572,3	- 38,8	270,1	530,4	
Spain													
+ Exports (internally owned)	812,7	810,8	867,1	1 457,0	—	206,9	320,0	642,9	1 328,6	1 986,9	3 407,7	2 113,2	
- Imports (internally owned)	—	—	—	—	—	—	—	—	—	—	—	—	
Balance	812,7	810,8	867,1	1 457,0	—	206,9	320,0	642,9	1 328,6	1 986,9	3 407,7	2 113,2	
Italy													
+ Exports (internally owned)	—	—	—	—	—	388,2	222,8	304,3	867,4	949,1	1 207,6	1 638,9	
- Imports (internally owned)	—	—	—	—	—	—	—	—	—	—	—	—	
Balance	—	—	—	—	—	388,2	222,8	304,3	867,4	949,1	1 207,6	1 638,9	
UK and others**													
+ Exports (total)	1 234,5	1 872,6	1 549,4	3 159,0	2 235,1	3 410,9	4 058,7	2 030,1	2 790,9	2 075,1	3 108,3	4 794,0	
- Herring, salted	1,3	0,1	57,3	1 514,1	284,5	56,6	65,5	—	—	—	—	—	
- Meal from Whalemeat	—	—	—	—	—	—	—	—	—	—	—	—	
- Whale Bones, Baleens, Meal from Whalebones, Guano	0,2	0,2	0,8	0,0	0,2	—	0,5	44,0	15,1	—	98,4	21,1	
- Whale Oil (Train-Oil)	—	—	—	—	66,2	227,1	952,4	769,4	1 245,0	722,8	1 031,9	285,9	
= Internally owned exports	1 233,0	1 872,3	1 491,3	1 644,8	1 884,2	3 127,2	3 040,2	1 216,6	1 530,8	1 352,2	1 978,0	4 487,1	
- Imports (internally owned)	361,4	663,8	731,8	1 016,5	914,1	1 038,4	1 336,0	1 206,4	1 992,1	4 516,8	3 909,8	5 386,5	
Balance	871,6	1 208,5	759,5	628,3	970,1	2 088,8	1 704,2	10,2	- 461,4	- 3 164,5	- 1 931,8	- 899,5	

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Appendix C

Index Considerations Concerning the Terms of Trade Computations

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1. Existing Trade Data and their Comparison with the New Datasets

Measurement of terms of trade, which are presented in chapter VI, is bedevilled with all the usual index problems. We will discuss here the choice of index types, their difference from earlier indices used in calculations of Iceland's terms of trade, and the varying outcomes by different methods using the same or similar data. The terms of trade series produced in this research are not the first of its kind. The first computations of Iceland's terms of trade in our research period were price indices and an unit price (net barter) index made by Guðmundur Jónsson in his PhD thesis, 'The State and the Icelandic Economy,' in 1991. Although annual series, the indices were based on a handful of commodities only and intended as a rough indicator of the movements and the levels of the terms of trade.¹ Later, this work was not only extended in time (stretching from 1862/64 to 1994) but also refined and improved very much in Guðmundur Jónsson and Magnús S. Magnússon's (editors) *Hagskinna. Icelandic Historical Statistics*.²

In *Hagskinna*, a Laspeyres (base) index was used for both the price and volume indices of exports and imports, but the index was chained at certain points of time. The indices started in 1862/64 and were chained in 1876 and in 1895, besides in 1913/1914. The number of goods included in the computations and their share in exports and

¹ Guðmundur Jónsson, 'The State and the Icelandic Economy,' pp 384–6.

² Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, pp 560, 915 (Fig. 34).

imports indices varied over time. These statistics of the terms of trade series in *Hagskinna* and in the present research are conveniently set out in the following table.

Table C.1. Statistics Concerning Computations of Indices for Foreign Trade of Iceland, 1870 to 1913

Exports

	<i>Value of Exports included</i>	<i>Number of Exports included</i>
IceStat Datasets (Total Exports)	77–99%	32–41
New Datasets:		
Total Exports	90–99%	9
Internally Owned Exports	84–98%	8

Imports

	<i>Value of Imports included</i>	<i>Number of Imports included</i>
IceStat Datasets (Total Imports)	48–84%	15–45
New Datasets:		
Total Imports	74–95%	32
Internally Owned Imports	72–95%	32

Sources: Guðmundur Jónsson and Magnús S. Magnússon, eds, *Hagskinna. Icelandic Historical Statistics*, p 409 (table).
The New Datasets.

While the number of imports included in our indices was not much less than in the IceStat indices (15 items were used only for a short period of time), the number of export items included was only nine and eight for total and internally owned exports respectively. The low number of export items, but a relatively high percentage of exports included, is due to the fact that a good part of the exports was compound groups of goods, owing in the main to the foreign sources used. This low number of exports is a potential drawback because it can disguise two kinds of changes, namely quality changes and introduction of new commodities. Both problems, which cause a bias in the outcome, can be tackled to some extent, but only with special calculations in conjunction with

estimates.³ This was not embarked upon here so this conceivable defiance remains for later improvement. However, the new datasets have the advantage over the IceStat datasets in that the share of exports and imports included generally was higher. It does not show here, but the relative share of exports and, especially, imports that were included in my computations tended to fall towards the end of the period, when the trade started to diversify significantly. Therefore, accuracy of the indices could be increased by including more exports and imports in the computations.

2. Choice and Calculations of Base Indices in the New Datasets

For the present research, it was decided to use a Laspeyres (base) index for the computation of volume indices. The objective of a volume index is to measure the fluctuations in the quantities exported and imported at fixed prices, and a Laspeyres index was found to serve this objective best. There was no point in using current prices for the construction of the volume indices, because this method means that the level of volume at any one year is only comparable in absolute terms to the previous sample year. Hence, the method obscures the fluctuations in the absolute levels of the volume over time. By using a fixed base year for the prices, however, the comparison of volume levels at any point of time is enabled. Also, the calculation of income terms of trade was

³ Gamaliel Sveinsson, 'Þjóðhagsreikningar á föstu verði,' pp 77–9.

deemed to be more realistic by using base rather than current type for the exports volume index. Hence, the prices of 1870 were used as a base for both volume indices.

By contrast, the objective of a price index in a trade analysis is to measure the fluctuations in the prices of goods exported and imported. Laspeyres index does a poor job at this for it logically excludes changes in the commodity composition and tends to delay their inclusion, even if the index is chained at intervals. A Paasche index immediately includes the changes and reflects far better the actual fluctuations in the preferences of internal consumers (in the case of imports) and in the actual shifts in production in the economy (in the case of exports). If one was measuring, say, domestic prices over time, irrespective of consumption and production considerations, a Laspeyres index would certainly be aptly suited. However, if one wanted to see how consumers and producers responded to those price changes, a Paasche index would be the correct choice. Therefore, which index is used depends on whether or not the objective with the price indices is to measure this responsiveness in the foreign trade, rather than to measure price changes *per se*. The only drawback in using a Paasche type for price indices is, as discussed above, that absolute price levels are obscured when any points of time in a series lying far away from each other are compared. Strictly speaking, a particular level in, say, an annual series is only comparable to the previous year. That is the price one has to pay for the advantage of seeing producers' and consumers' responses to movements in prices, but it is a small price if the price fluctuations are moderate over time. Only if they are huge or fluctuate heavily does the price become higher.⁴

⁴ Some of the general observations here concerning indexing are briefed in F. Caswell, *Success in Statistics*, p 155. While Caswell's book is succinct, a lengthy discussion about technicalities is in K.A. Yeomans, *Statistics for the Social Scientist*, vol. 1, pp 129–48. A very useful source is A. Ølgaard in 'Mere om indextal' who discusses index series problems methodologically and shows different computations of Denmark's terms of trade.

Because of the different nature of a base (Laspeyres) and current (Paasche) index, it is a well known fact that their choice can affect very much the outcome. This is perhaps the most evident variable in making indices although issues, such as the size of sample and method of calculating, are pertinent to the usual index problems, whether computing price or volume indices. Because of these considerations, the opportunity was used to test the different types of indices on the material in the datasets and to compare the results internally and with existing indices. Starting with the price indices, it is clear that the base type admirably conveys the medium to long term changes in the price movements over time, while the current type patently obscures them (Fig. C.1 and C.2). Thus, in the case of exports, the base type shows how the prices sagged broadly in the middle of our period (from the late 1880s to late 1890s), but climbed again to a similar level as in the beginning (Fig. C.1). Prices of imports, however, shows a long term downward swings from the late 1870s to the early 1900s, after which they began to rise again (Fig. C.2). By contrast, the current price indices for exports and imports mainly shows fluctuations around a remarkably stable level, and particularly irregular oscillations in the case of export prices. The divergence of the current index from the base index in the case of exports suggests that producers from the late 1880s to the early 1900s countered the downwards trend by shifting to other exports. Consumers, however, concurrently but slowly opted for more expensive imports, and this happened a little while after the downwards price trend started. (Note though that externally owned exports and imports blur this trend.) Interesting as these price trends *per se* are, our purpose was to reveal the actual responses to the price movements in the foreign trade, and current type index shows exactly this.

A comparison with the IceStat indices is interesting. The data is, of course, altogether different, but the IceStat indices essentially should broadly agree with our base type indices. As it happens, the patterns in the volume indices for exports and

imports broadly harmonise (Fig. C.3 and C.4), but the new datasets' index is on a higher level because of considerable adjustments for under-reporting. In the case of the price indices, there are similarities between the two computations but there are notable differences too. The pattern in the IceStat export price index fits well with the pattern in our export price index except in the end, because while ours only moves onto a similar level as in the beginning, the IceStat index surpasses it markedly in the very end (Fig. C.1). In the case of imports, both indices show the price fall well, but the IceStat index does not witness any rise in prices towards the end of the period. Now, the different data material and contrasting methods of working out fob and cif prices explain the difference in the outcomes, but which of the two sets of indices are more correct? The principal test to this is the share of exports and imports included in the calculations, besides the accuracy of the basic data itself. On these accounts, there can hardly be any no doubt that our indices are more reliable than the IceStat indices. However, to do justice to the IceStat indices, it is possible that another method was used calculating the base type index than was employed here. The editors of the *Hagskinna* do not state whether they used an aggregate or relative calculation for the price index (and the volume index). This should not be of major consequence, but it may explain a part of the difference. In our computations, a relative index was used for it shows a greater sensitivity to the proportional price (or volume) change of each commodity than an aggregate index does.⁵

⁵ F. Caswell, *Success in Statistics*, pp 153–5.

3. The Implications of Different Types of Indices on the Outcome of Terms of Trade

Given the variations in the outcome depending on whether I used a base or current type of index on my data material, the calculation of unit price terms of trade produced anticipated results. Since the patterns and the levels of the current (Paasche) indices for exports and imports coincided rather well, it was no surprise that the unit price (net barter) terms of trade in general remained on the same level over time and showed a pattern similar to the base indices (Fig. C.5). (Note that unit price index for internally owned exports and imports was practically the same as for total exports and imports, so

the extreme years are not caused by shifts in imports or exports by foreign enterprise.⁶⁾ By contrast, the distinct, yet moderate, difference in the patterns and the levels of the base price indices for exports (Fig. C.1) and imports (Fig. C.2) obviously was bound to produce a new pattern and another level of the unit price index. But what is a bit surprising is to see how well this outcome coincided with the unit price index that was computed so differently (on the basis of current indices), see Fig. C.5. In other words, it does not seem to matter much whether a unit price index is calculated on the basis of current or base price indices, because both broadly give the same outcome. However, this is only a suggestion of a possible rule or a principle, based on Icelandic data only, and the choice of method for calculating price indices remains of major importance. As for the IceStat unit price index, it resembles very much our base index, although it is based on altogether different data material (Fig. C.5), until 1910–13, and this shows that it broadly gave a correct impression of the pattern of Iceland's unit prices in the foreign trade except for the end of the period.

By way of concluding, these remarks show that the making of price indices is the really critical issue in the production of terms of trade series, because the computation of volume indices is much more straightforward. What is imperative is to be certain about what kind of questions one wants to answer with price indices. The choice of index type rests on that. But it is important not to confuse this consideration with the choice of price index type for income terms of trade, which merely requires current price index to meet its end. Apart from this, the Icelandic data suggests that there are no methodological complications about the choice of index type for the calculation of the unit price index. It possibly tends to be similar irrespective of the type of price indices employed. Finally, concerning the comparison of the new and the IceStat indices, the new indices broadly

⁶ Table C.BAL/ALL-3.

support the patterns and, less though, the levels already revealed by the IceStat indices. However, there are considerable divergencies in the price and volume indices in the mid 1900s onwards, which reproduce themselves in derived indices. Since the new datasets must be considered more complete and accurate than the IceStat datasets, the new indices should be preferred.

Table BAL/ALL-3															
Indices of Price, Volume, and Various Terms of Trade in the Foreign Trade of Iceland, 1870–1913															
A. Total Exports and Imports															
Year	New Datasets														
	Price Indices				Volume Indices (Laspeyres)***				Terms of Trade (TT)						
	Paasche Type*		Laspeyres Type**		Total Population		Per Capita		Unit Price (Net Barter Paasche)		Gross Barter TT		Income TT †		
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Total Pop.	Per Capita	Total Pop.	Per Capita	Income TT †
1870	88	93	81	118	24	22	30	27	94	69	90	90	23	29	
1874	115	99	102	130	26	28	32	35	115	79	110	110	30	37	
1878	79	90	91	124	30	26	37	32	88	74	86	86	27	32	
1882	98	94	97	116	47	37	56	45	104	83	79	79	48	58	
1886	66	77	70	96	33	29	40	35	85	72	88	88	28	34	
1890	103	104	78	105	45	34	56	42	99	74	75	75	45	55	
1894	80	84	71	94	62	41	74	49	96	76	67	67	60	71	
1898	84	108	65	88	52	42	58	48	78	74	82	82	40	45	
1902	120	88	82	83	69	64	75	70	137	98	93	93	94	103	
1906	103	106	99	90	83	89	88	95	98	110	108	108	81	86	
1910	85	102	92	100	93	77	95	79	83	92	83	83	77	79	
1913	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Growth per annum	0,3%	0,2%	0,5%	-0,4%	3,3%	3,6%	2,8%	3,1%	0,1%	0,9%	0,2%	0,2%	3,5%	3,0%	
Sources:	Table EXP/ALL-13.		Table EXP/ALL-14.												
	Table IMP/ALL-13.		Table IMP/ALL-14.												
	Hagskinna, pp 408, 409 (table), 560.														
* Current (Paasche) Weighted Price Relative Index Series															
** Base (Laspeyres) Weighted Price Relative Index Series															
*** Base (Laspeyres) Weighted Volume Relative Index Series															
† Paasche based net barter terms of trade index is used															
‡ Chained Base (Laspeyres) Weighted Index Series (not indicated whether they are aggregative or relative)															

Table BA						
Indices o						
A. Total Exports and Imports, cont.						
Year	Statistics Iceland Datasets					
	Price Indices (Laspeyres) ^{††}		Volume Indices (Laspeyres) ^{††}		Unit Price (Net Barter)	
	Exports	Imports	Exports	Imports	Imports	TT
1870	64	104	32	18		62
1874	81	142	35	19		57
1878	73	133	40	20		55
1882	78	131	56	28		60
1886	53	117	41	21		45
1890	65	124	53	28		52
1894	58	114	71	30		51
1898	57	97	63	39		59
1902	76	101	80	50		75
1906	83	99	92	68		84
1910	76	94	109	70		81
1913	100	100	100	100		100
Growth						
per annum	1,0%	-0,1%	2,7%	4,1%		1,1%
Sources:						
* Current (P)						
** Base (La)						
*** Base (Lz)						
† Paasche						
†† Chained						

[illegible]

Appendix D

Margins of Merchants in the Iceland Trade:

The Case of Denmark

In Chapter VIII I presented the outcome of my computation for gross margins of merchants in Iceland's trade with Denmark. It remained an important country in the foreign trade of Iceland and information about prices in Icelandic sources mainly come from Danish merchant houses. Therefore, it was natural to focus on the trade with Denmark. However, it should be able to do similar computations for other countries trading with Iceland, provided that the necessary basic information exists. The problem is that, nevertheless, that this kind of computation is not possible for all the countries all the time during my research period. To facilitate an understanding of the information needed for this kind of examination, a scheme is offered in the following table.

Table D.1. Adjustments for Producing Merchants' Margins on Exports and Imports in the Iceland Trade, 1870 to 1913

	<i>Exports 1870–1913</i>			<i>Imports 1870–1906***</i>		
	Value Base	Subtract	Difference	Value Base	Subtract	Difference
Denmark	fob	Duty & DMW Val.	Margins	cif	Tariff & Retail Val.	Margins
Norway						
1870–94:	fob	Duty & ...	...	cif	Tariff & ...	...
1898–1913:	fob	Duty & DMW Val.	Margins	cif	Tariff & Retail Val.	Margins
Spain and Italy	...	Duty & DMW Val.	...	.	.	.
UK and 'others'*	fob	Duty & DMW Val.	Margins	cif	Tariff & Retail Val.	Margins
Other countries**	...	Duty & DMW Val.	...	...	Tariff & Retail Val.	...

* United Kingdom 1870 to 1913 and other (unspecified) countries 1870 to 1894

** Other countries than stated above 1898 to 1913

*** Margins on imports in 1910 and 1913 cannot be calculated because of the move from a retail price basis to a cif basis in 1909 onwards

The table indicates that this kind of examination would also be possible for Britain, although the Icelandic price data presumably applies slightly less to this trade flow. However, for the trade with Norway this exercise would require substantial estimates or extrapolations until 1898. This is because in this period there are no information about prices of Norwegian goods in Iceland (retail values) or Icelandic goods going to Norway (DMW values) as the table shows. From 1898 onwards, the calculation of margins for Norway would be possible. For all other countries, the examination of margins was not possible, because we have no data on fob prices of exports or cif prices of imports. As Table A.1 in Appendix A showed, in the case of Spain, Italy and Other countries, we needed the rate of margins to produce fob prices of exports and cif prices of imports, and here we need that fob and cif prices so this cannot be resolved without further information outside.

The examination of margins in the trade with Denmark meant that the Danish classification of goods had to be used as a basis, and price information picked from the Icelandic returns, which had another arrangement of classifying goods in trade. This posed some problems which were solved alternatively with merging, disaggregation, and some estimates. For all goods in trade, except for saltfish, the DMW and retail values were based on unweighted average prices, but weighted prices would presumably only have increased the accuracy of the results marginally.¹ Optimally, the export and import levies should also be subtracted from the fob and cif values as Table D.1 indicates. However, this was slightly problematic because information about export duties and import tariffs by goods are not available. There are only aggregated figures about these state revenues by years, and the totals have to be broken down by goods and then

¹ Weighted average prices for saltfish were used only because they existed among unpublished material of the present author and saltfish was a large staple in the exports. Incidentally, the weighted and unweighted average prices of saltfish were relatively similar and this presumably applies also to other exports and most imports in the long run.

transposed to the quantities in the datasets.² However, a brief check on the sums of these export and import levies in individual cases suggested that they entailed a relatively small increase to the value and, hence, this calculation was not embarked on. This has the effect of producing higher margins for merchants, and the higher as time passed (because more goods became subject to levies), but it almost certainly does not skew much the outcome of the examination on the overall level and the trend of the margins.

² This is a slightly convoluted calculation that does not need explication here, since it was not made.

Appendix E

International Trade in Commodities

Relevant for Iceland: Selected Price Series

Table E.1. Selected Price Series for Wool in International Trade, 1870–1913

Year	Export Prices of		Merino Wool in London (Index)	Imported Wool			
	Icelandic Wool (Icel.:E)			All Wool to Denmark (		Sheep and Lambs' Wool to the UK (UK:Imp.)	
	Price per Tonne	Index		Price per Tonne	Index	Price per Tonne	Index
1870	1 328	81	90	2 680	124	2 368	139
1874	2 025	123	128	3 000	139	2 416	141
1878	1 609	98	106	2 800	129	2 305	135
1882	1 479	90	105	1 900	88	2 041	119
1886	1 081	66	80	1 627	75	1 511	88
1890	1 426	87	86	1 846	85	1 712	100
1894	1 237	75	63	1 496	69	1 415	83
1898	1 047	64	73	1 578	73	1 360	80
1902	1 145	70	82	1 564	72	1 251	73
1906	1 868	113	99	1 921	89	1 698	99
1910	1 437	87	102	1 394	64	1 696	99
1913	1 647	100	100	2 162	100	1 710	100

Sources: W.A. Lewis, *Growth and Fluctuations*, pp 280–81.
 Danish and British trade returns 1870–1913.
 Table EXP/ALL-10.

Index: 1913 = 100

Table E.2. Selected Price Series for Meat in International Trade, 1870–1913

Year	Export Prices of		Imported Mutton					
	Icelandic Mutton (Icel.		All Meat to Denmark (D		All Meat to Norway (N		Meat (Salted or Fresh) to the UK (U	
	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index
1870	328	53	900	119	600	86	1 001	149
1874	360	58	1 000	132	600	86	1 006	149
1878	384	62	580	77	609	87	1 049	156
1882	398	64	640	85	590	84	1 199	178
1886	312	50	371	49	400	57	781	116
1890	393	63	595	79	350	50	747	111
1894	343	55	521	69	370	53	684	102
1898	366	59	596	79	410	59	701	104
1902	431	69	611	81	460	66	655	97
1906	439	70	548	72	500	71	628	93
1910	437	70	661	87	510	73	650	96
1913	623	100	757	100	700	100	674	100

Sources: Table EXP/ALL-10. Danish, Norwegian, and British trade returns 1870–1913.

Index: 1913 = 100

Table E.3. Selected Price Series for Live Sheep in International Trade, 1870–1913

Year	Export Prices of Icelandic Live Sheep (£)		All Imported Live Sheep & Lambs to the UK (£)		All Imported Live Sheep & Lambs to Norway (Nkr)		All Imported Live Sheep & Lambs to Denmark (DKr)	
	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index
1870	331	76	693	115	400	60	400	69
1874	330	76	856	142	536	80	444	77
1878	422	97	982	162	533	80	311	54
1882	369	85	918	152	600	90	333	58
1886	296	68	781	129	666	100	267	46
1890	383	88	784	130	667	100	267	46
1894	320	74	670	111	400	60	244	42
1898	267	62	599	99	498	75	356	62
1902	357	82	625	103	402	60	378	65
1906	402	93	613	101	399	60	533	92
1910	392	90	712	118	399	60	511	88
1913	434	100	605	100	667	100	578	100

Sources: Table EXP/ALL-10. British, Danish, and Norwegian trade returns 1870–1913.

Index: 1913 = 100

Table E.4. Selected Price Series for Live Horses in International Trade, 1870–1913

Year	Minim. Exp. Prices of Icel. Horses (Icel.:Exp.)		All Imported Live Horses to the UK (UK:		All Imported Live Horses to Norway (Nor		All Imported Live Horses to Denmark (D		Live Horses from 'Denm./Icel.* to the UK (Dk	
	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index
1870	166	59	1 590	79	640	56	1 719	93	349	114
1874	163	58	2 312	115	1 054	92	1 925	105	1 200	391
1878	173	62	1 583	79	1 152	101	858	47	1 004	327
1882	121	43	1 248	62	820	72	1 001	54	377	123
1886	139	50	894	44	800	70	858	47	286	93
1890	154	55	905	45	800	70	855	46	343	112
1894	151	54	1 245	62	1 000	87	858	47	399	130
1898	156	56	1 387	69	1 334	116	1 018	55	375	122
1902	167	60	1 328	66	1 149	100	941	51	260	85
1906	181	65	1 558	77	959	84	915	50	254	83
1910	245	88	1 876	93	1 145	100	1 118	61	311	102
1913	280	100	2 011	100	1 145	100	1 842	100	307	100

Sources: Table EXP/ALL-10. British, Danish, and Norwegian trade returns 1870–1913.

Index: 1913 = 100

* 'Denmark' 1870–98,
Iceland 1902–13.

Table E.5. Selected Price Series for Saltfish in International Trade, 1870–1913

Year	Export Prices of Icelandic Saltfish (Iceland)		All Exported Saltfish from Norway (Norway)		All Exported Salted/Dried Fish from Denmark (Denmark)		All Imported Saltfish to Denmark (Denmark)	
	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index
1870	272	70	348	61	268	48	270	50
1874	308	79	360	63	300	54	300	56
1878	281	72	356	63	330	59	300	56
1882	363	93	440	77	460	82	400	74
1886	233	60	260	46	160	29	150	28
1890	267	68	320	56	375	67	340	63
1894	237	61	280	49	520	93	500	93
1898	237	61	330	58	340	61	310	57
1902	333	85	430	75	330	59	340	63
1906	373	95	513	90	435	78	420	78
1910	365	93	480	84	390	70	380	70
1913	391	100	570	100	560	100	540	100

Sources: Table EXP/ALL-10. British, Danish, and Norwegian trade returns 1870–1913.

Index: 1913 = 100

Table E3

Year	All Imported Saltfish to Norw. (Nor		Imported Saltfish from Iceland to the UK (Ic		All Fish. from 'Denm./Icel.* to the UK (D		All Imported Saltfish, etc. to the UK (U	
	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index	Price per Tonne	Index
1870		0		0	266	73	368	78
1874		0		0	345	95	649	137
1878		0		0	312	86	763	161
1882		0		0	315	87	688	146
1886		0		0	263	72	613	130
1890		0		0	270	74	658	139
1894		0		0	254	70	590	125
1898		0		0	279	77	587	124
1902		0	295	77	295	81	403	85
1906		0	318	83	319	88	454	96
1910	460	84	347	90	317	87	432	91
1913	550	100	384	100	363	100	473	100

Sources:

* 'Denmark' 1870–98,
Iceland 1902–13.

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