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Scottish Shipbuilders & the Australian Market, 1901-1971
Michael James Macdonald
Submitted for the degree of M.Litt.
University of Glasgow
Department of Economic & Social History
January 2007

Abstract

The subject matter for this thesis derived from the observation that, between 1901 and 1914, Scottish shipbuilders held some 58.65 per cent of the Australian market in ships; after 1971, their market share was 0 per cent. These figures required further explanation. There was the question of whether the Scottish origins of many pioneering Australian shipowners ('Scottish kinship') inclined them to place orders in Scotland and played a part in establishing 'relationships of trust' (in Boyce's terms)\(^1\) between Australian shipowners and Scottish shipbuilders.

If Scottish kinship influenced purchaser choice before 1914, it was clearly no longer influential after 1971. The thesis examines the changes that took place in the Australian coastal shipping market over the seventy year period. It considers the changes brought about by the two World Wars, by Australian industrial development, by intervention in the market by Commonwealth\(^2\) governments and by the divergence of national interests between Britain and Australia that led to the establishment of merchant and naval shipbuilding in Australia. It considers the emergence of competition to coastal shipping from railways, road transport and air travel. The thesis considers what effect Scottish shipbuilder pricing policies had on Australian ordering of new ships, the effect of the offer of a new technology (the Danish diesel-engined ship) during the inter-war period and the ability of Scottish shipbuilders to adapt to changed market conditions after 1945.


\(^2\) The term 'Commonwealth' is used throughout this thesis as an abbreviation for 'The Commonwealth of Australia'. 'The Commonwealth government' means the national government of the Australian Federation.
There are seven Chapters or time periods. Chapter 1 deals with the development of Australian coastal shipping from the late-19th century until the First World War. The two World Wars (Chapters 2 and 5) are treated as interludes, during which there was no Australian market, the main units of the Australian coastal fleet were requisitioned for war service and coastal shipping services were disrupted. The inter-war period (Chapters 3 and 4) is divided into 1919-1929/1930 and 1931-1939 by the Wall Street Crash, to show the extent to which the Australian market collapsed after 1930. The period after the Second World War (Chapters 6 and 7) is divided into 1946-1960, when there were the last significant sales of British-built ships to Australia, and 1961-onwards, when British participation in the market fell to 0 per cent.

The thesis has drawn on Scottish shipbuilder, Australian shipowner and Commonwealth government primary sources with the aim of giving a more complete picture of shipbuilder-shipowner relationships than is usually provided by separate shipbuilding or shipowning histories.
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## Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ACSC</td>
<td>Australian Coastal Shipping Commission</td>
</tr>
<tr>
<td>ADB</td>
<td><em>Australian Dictionary of Biography</em></td>
</tr>
<tr>
<td>ALP</td>
<td>Australian Labor Party</td>
</tr>
<tr>
<td>ANA</td>
<td>Australian National Airways Pty Ltd</td>
</tr>
<tr>
<td>ANL</td>
<td>Australian National Line</td>
</tr>
<tr>
<td>ANZUS</td>
<td>Australia, New Zealand and the United States</td>
</tr>
<tr>
<td>ASOF</td>
<td>Australasian Steamship Owners’ Federation; after 1921,</td>
</tr>
<tr>
<td>ASO</td>
<td>Associated Steamship Owners</td>
</tr>
<tr>
<td>AUSN</td>
<td>Australasian Steam Navigation Co Ltd</td>
</tr>
<tr>
<td>B&amp;W</td>
<td>Burmeister &amp; Wain</td>
</tr>
<tr>
<td>BHP</td>
<td>Broken Hill Proprietary Ltd</td>
</tr>
<tr>
<td>BSC</td>
<td>Burntisland Shipbuilding Co Ltd; after 1942, merged with Hall, Russell &amp; Co Ltd to form</td>
</tr>
<tr>
<td>BSG</td>
<td>Burntisland Shipbuilding Group</td>
</tr>
<tr>
<td>CAC</td>
<td>Commonwealth Aircraft Corporation</td>
</tr>
<tr>
<td>CGLS</td>
<td>Commonwealth Government Line of Steamships</td>
</tr>
<tr>
<td>CSR</td>
<td>Colonial Sugar Refining Co Ltd</td>
</tr>
<tr>
<td>DSBB</td>
<td><em>Dictionary of Scottish Business Biography</em></td>
</tr>
<tr>
<td>E&amp;A</td>
<td>Eastern &amp; Australian S.S. Co, Ltd</td>
</tr>
<tr>
<td>dwt</td>
<td>deadweight tons</td>
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<tr>
<td>gt</td>
<td>gross tons</td>
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<tr>
<td>GUAS</td>
<td>Glasgow University Archives Service</td>
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<td>Melbourne University Archives</td>
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<td>NAA</td>
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<td>NAS</td>
<td>National Archives of Scotland</td>
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<td>NBA/ANU</td>
<td>Noel Butlin Archives in Australian National University, Canberra</td>
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<td>NSS</td>
<td>National Shipbuilders’ Security</td>
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<td>NSW</td>
<td>New South Wales</td>
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<tr>
<td>NSWSRO</td>
<td>New South Wales State Record Office</td>
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<tr>
<td>Abbreviation</td>
<td>Full Name</td>
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<tr>
<td>NZ</td>
<td>New Zealand</td>
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<tr>
<td>OYB</td>
<td>Official Year Book of the Commonwealth of Australia</td>
</tr>
<tr>
<td>P&amp;O</td>
<td>Peninsular &amp; Oriental Steam Navigation Co Ltd, also referred to as ‘Inchcape Group’</td>
</tr>
<tr>
<td>Qld</td>
<td>Queensland</td>
</tr>
<tr>
<td>SB (Co)</td>
<td>Shipbuilding Company</td>
</tr>
<tr>
<td>SLNSW</td>
<td>State Library of New South Wales (Mitchell Library)</td>
</tr>
<tr>
<td>SN (Co)</td>
<td>Steam Navigation Company</td>
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<tr>
<td>SS (Co)</td>
<td>Steamship Company</td>
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<td>Tas</td>
<td>Tasmania</td>
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‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

Introduction. Historiography.

There are already large bodies of literature about twentieth century Scottish shipbuilding and Australian shipowning, dealing with each separately. From the earliest days of voluntary settlement in Australia, Scottish immigrants, the ‘Scots-Australians’, were prominent in every aspect of Australian business life, including maritime trade. They were the masters of the emigrant ships, the masters and engineers of the vessels trading on the Australian coast, the directors and shareholders of the first Australian coastal shipping companies, merchants and shipping agents. From the middle of the 19th century, Scottish shipbuilders established business relationships with these early Scots-Australian shipowners, and such relationships continued until the late-1960s.

These relationships receive passing mention in the separate shipbuilding and shipowning literatures, although they do figure, separately, in the Scottish and Australian primary records. The Australian market became an important source of business for small/medium-sized Scottish shipyards, but the picture of the relationships contained in the separate archival records is partial, incomplete. One motive for this thesis, therefore, is to collate the Scottish and Australian records to give a more complete account of these relationships; to show how the demand for ships in the Australian market changed over time, in response to external factors, and how shipbuilders and shipowners responded to these changes.

Much of the Scottish shipbuilding literature is focussed on Clyde shipbuilding. Besides studies of individual shipbuilders, there is a mass of analytical work about the reasons for the decline of British, including Scottish shipbuilding

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1 Including works by Ian Johnston (Beardmore, John Brown), Johnston Robb (Scotts’ Shipbuilding & Engineering Co Ltd of Greenock) and Lewis Johnman and Hugh Murphy (Scott-Lithgow Ltd, published in 2008).
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

during that period. The primary Scottish shipbuilding records used in these analyses (directors’ minute books, letterbooks, financial statements, contract ‘agreements’ and the like) are generally those of the big Clyde firms (Beardmore, John Brown, Denny Brothers, Fairfields, Lithgows, Scotts and Stephen). Monographs and journal articles on the relationships between British/Scottish shipbuilders and their shipowning clients tend, on the whole, to describe ‘one-to-one’ or ‘one-to-few’ relationships between the great names of British maritime enterprise. These are the ‘networks’ and ‘relationships of trust’ described by Boyce, who takes as example the relationships between the Greenock shipbuilders Scotts’ and the Swire and Holt shipowning families. Boyce describes the understanding that developed over the years between the ‘Seniors’ of each party; the builder’s knowledge of the types of ship required for the trades in which the owner engaged, and the common understanding of the conventions of negotiation and tendering and of what was a ‘fair’ rate of profit for building a ship.

The Australian market was different. A group of small/medium-sized Clyde and Scottish East Coast shipbuilders built ships for a group of Australian shipowners whose principal directors and shareholders were resident in Australia. In the main, contracts were negotiated through brokers in Britain. There has been little or no British interest in Australian maritime history, most of which has been

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2 On the development of the World shipping market during the 20th century, and on British shipbuilding management and strategy, by Tony Slaven, Lewis Johnman and Hugh Murphy, Ed Lorenz, Sidney Pollard, Neil Buxton and others.

3 Summary lists of extant British shipbuilder records can be found in Ritchie, L.A. (Editor), The Shipbuilding Industry: A Guide to Historical Records (Manchester, Manchester University Press, 1992).


5 The ‘Seniors’ were the Chairmen or members of the owning families of the shipbuilders and shipowners. They were generally resident ‘at Home’ in Britain.

6 The British Inchcape Group controlled the Australasian United Steam Navigation Company and the Union Steamship Company of New Zealand. Contract negotiations were generally carried on in Britain between the Seniors of either party.
written from an Australian viewpoint. Besides the standard texts mentioned in this thesis,7 Malcolm Tull has listed over three hundred university theses, mostly Australian, on all aspects of the subject.8

As regards Australian views of maritime links with Britain, these concentrate on arguments about British Conference lines' control of Australia's overseas trade and the case for creating an Australian national shipping line in order to break 'the British stranglehold'. The older, post-war generation of Australian maritime historians was more anglophile, more accepting than later historians of British influence over Australian coastal shipping. The recent, Bicentenary® generation has been more 'nationalist', more critical of British influence, and of Australian political acquiescence therein. In particular, they have focussed on Britain's inability to defend her interests in the Asia-Pacific area, and on overt and covert British Conference 'profiteering' from their control of Australia's overseas trade and of stevedoring operations at Australian ports.10

There is little Australian interest in the British/Scottish shipbuilders who built the ships for the Australian coastal trades. There is only incidental mention in Australian maritime histories of the rôle of Scots-Australians in the founding of Australian coastal shipping companies. There is little mention of the Scottish

7 Including those by John Bach, Frank Broeze, Kenneth Buckley and Kris Klugman, Norman McKellar, Michael Page, Barry Pemberton and Mike Richards, listed in the Bibliography to this thesis, pp. 268ff.
9 1988 was the Bicentenary of the landing of the First Fleet at Botany Bay.
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origins of the mining and other Australian enterprises whose output provided Australian coastal shipping with a base workload.

This brief summary of the historiography of Scottish shipbuilding and Australian shipowning suggests that there are two separate accounts that are largely unrelated one to the other. An example of this disjunction is the case of Beardmore's reported loss of some £173,500 on a three ship contract for the Adelaide Steamship Company. What would have set off the klaxon for any accountant or economic historian appears only in an Appendix in Johnston's history of Beardmore and produces no echo in Page's history of the Adelaide Company.11

Although the Australian market in ships was an 'Empire market', there has been no systematic attempt by British maritime historians to describe it as a whole.12 The Scottish literature neither reveals nor seeks to explain the dominant position of Scottish shipbuilders in the Australian market in ships (58.65 per cent market share between 1901 and 1914; 73.8 per cent between 1931 and 1939 – Table 1, p. 33 of this thesis). Nor does it reveal why market share had dwindled to insignificance by 1971. The Scottish narrative would identify the commonly accepted reasons for British shipbuilders' loss of market share of the World market by the early 1970s; loss of competitiveness vis-à-vis Continental and Japanese rivals.13 However, the specific reason for their loss of the

12 Stephanie Jones, The Decline of British Maritime Enterprise in Australia: The Example of the A.U.S.N. Co, 1887-1961, Business History, No. 27 (1985), describes the history of one Australian company, the Australasian United Steam Navigation Company, in relation to the British Inchcape Group (P&O), of which she was the archivist.
13 Described by Slaven, for example; 'Growth & Stagnation in British/Scottish Shipbuilding, 1913-1977' in Kuuse, J & Slaven, A (Editors), Scottish & Scandinavian Shipbuilding: Development Problems in Historical Perspective (Glasgow, 1980), pp.18-54, including Tables 1a-c, pp.50-53.
Australian market was Australian government policy of promoting its national shipbuilding industry.

To explain these apparent lacunae in Anglo-Australian maritime historiography, one has to look at the different preoccupations of British and Australian maritime historians. The physical separation of the relevant primary archives, between Dundee or Edinburgh and Sydney or Melbourne, for example, has also discouraged the integration of the separate histories.

On the whole, British maritime historiography has tended to focus on Britain as the first maritime, naval and marine engineering superpower. In part, this reflects the concentration of maritime history research around the principal collections of government, shipbuilding and shipowning records, in London, Portsmouth, Liverpool, Newcastle and Glasgow.

One reason for focusing on the big Clyde shipbuilders is that their records are the most complete sets of Scottish shipbuilding records surviving. Other than the 'Dissolved Company Files' (BT2-series) in the National Archives of Scotland, little remains of the records of shipbuilders who disappeared before the First World War or during the inter-war period. These include the East Coast firms Gourlay Brothers & Co. (Dundee) Ltd and Scott of Kinghorn, Ltd who were prominent builders for the Australian market before 1914. The Clyde was not the only Scottish shipbuilding district, of course. Little has been published about shipbuilding on the East Coast of Scotland.

Reasons for British loss of competitiveness include 'structural factors'; failure to invest in new production methods, reluctance of old family-controlled firms to amalgamate into larger production units, over-dependence for orders on the British home market, failure to develop new ship types in response to the changing demands of world trade, and labour and management problems. Related to these are 'contract factors', including failure to offer fixed price contracts, extended delivery times and inability to offer shipowners credit on the scale in which it was available from foreign rivals.

Notable exceptions are Ian Hustwick's *Moray Firth Ships & Trade during the 19th Century*, (Aberdeen, Scottish Cultural Press, 1994), a chapter on Montrose.
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knows of no substantial published works on the Leith shipbuilders Henry Robb or Ramage & Ferguson, the Caledon Shipbuilding & Engineering Co., Ltd of Dundee or the Halls and Russells of Aberdeen. This thesis has drawn on surviving BT2-series records of Hawthorns & Co., Ltd and Ramage & Ferguson of Leith, on the records of the Burntisland Shipbuilding Company and Henry Robb of Leith, and upon those of the Ailsa Shipbuilding Company of Troon, all of whom built ships for the Australian market.

The drawback of this 'Clutha-centric' view of Scottish shipbuilders and their British clients is that it tends to exclude the smaller shipbuilders and their relationships with Empire and foreign shipowners. The focus of much British maritime historiography is the British home market in ships. The small Australian market is only of marginal interest, only insofar as British shipowners controlled Australian coastal shipping companies. Nevertheless, there was fierce competition for Australian work, four or more builders tendering for a single contract.

Moreover, the view of the Australian market, seen solely from a Scottish standpoint, using only available Scottish records, is an incomplete view. Estimate sheets, contract documents and letterbooks can only show which builder built what ship, and usually, at what price. They cannot tell why Australian owners chose not to order from Scottish yards, nor what the owners did with available funds instead of ordering ships in Scotland. They cannot tell whom the unsuccessful rival tenderers were, nor the amount of the


16 Before 1914, demand was not more than nine vessels a year of 1500ft/500 gross tons and upwards.


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unsuccessful tenders. The answers to these questions can often be found in the Australian archives.

By and large, Australian writers are uninterested in Scottish shipbuilding. Ships appeared, worked on the coast, were lost, sold on or hulked. Sometimes, Australian shipowners considered that the post-war price of acquiring a new ship was 'too high' in comparison with pre-war prices. The likely rate of return on a new ship was too low; Australian shipowners invested in government stocks instead. Australian writers seem incurious about why British/Scottish shipyard prices were 'too high'.

Nor, indeed, do they seem much interested in the development of Australian shipbuilding in large scale. Tull's Bibliography lists two university theses on the subject, both written in the late 1960s. The catalogue of the Vaughan Evans Library of the Australian National Maritime Museum lists a handful of printed works and audio tapes on shipbuilding. These include an unpublished, undated, 'Compilation of Resources on Shipbuilding in Australia and Shipbuilding in Sydney' by Vaughan Evans and Emery Balint, and some conference papers. The only substantial work known to the author is John Jeremy's Cockatoo Island: Sydney's Historic Dockyard (Sydney, University of New South Wales Press, 1998, 263pp), a study of one naval dockyard that happened to build merchant ships for the Commonwealth government. Jeremy was trained as a naval architect and was the last Chief Executive Officer of Cockatoo Dockyard. His main interest is in warship construction and the Dockyard's relationship with the Royal Australian Navy. However, he does outline Commonwealth government merchant shipbuilding policy during the two World Wars, and highlights the problem of maintaining merchant ship production at Cockatoo during the Second World War, in the face of the competing demands of naval building and repair work.

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17 Elderly Australian coastal ships were often retired to port as floating coal bunkers.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

Mike Richards' *Workhorses in Australian Waters: A History of Marine Engineering in Australia* (Sydney (NSW), Turton & Armstrong, 1987) was compiled on behalf of, and with contributions by, members of the Institute of Marine Engineers (Sydney Branch), as the Institute’s contribution to Australia’s Bicentenary celebrations. Although the book is primarily about the marine propulsion of Australian ships, a chapter on ‘Early Workshops’ refers to the origins of Australian shipbuilding. Richards does, however, highlight the contribution of Scottish-trained marine engineers and Superintendent Engineers in Australian coastal shipping; the possible significance of this is discussed in Chapter 1 of this thesis.16 The best British account of Australian shipbuilding during the First World War is by W. H. Churchin, former Chief Executive Officer of the Commonwealth Government Shipping Board. In a series of articles in the British trade weekly *Fairplay*, Churchin describes the Commonwealth government merchant shipbuilding programme and the organisation of work and cost structure of Australian shipbuilding.19

These accounts of Australian shipbuilding were written by maritime industry professionals. There appears to be no recent, overall, general survey of Australian shipbuilding, drawing on government and shipbuilder archives. The most complete record of Australian shipbuilding is contained in the state papers of the Commonwealth, held by the National Archives of Australia. The literature on Australian shipbuilding is largely for domestic consumption only.20

As for the Australian market (the demand for ships), Australian historiography makes clear that it was a fluid entity; it changed over time in response to shipowner ‘optimism’ or ‘pessimism’, to external influences, including

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16 ‘Establishing Trust between Shipowners and Shipbuilders’.
Commonwealth government policy, Australian industrial development, war or other perceived external threat. Australian primary records can answer many of the questions for which there are no answers in the Scottish sources. Why, for example, against all the conventions of 'networking' described by Boyce, did the Adelaide Steamship Company order motorships from Burmeister & Wain of Copenhagen in 1923, instead of from a Scottish yard? From a Scottish viewpoint, it would have been a gross breach of etiquette, the more inexplicable because the Adelaide Company would have been considered a 'friend' of William Beardmore & Co Ltd, who were building for the Australians at the time. Moreover, Beardmore were, themselves, developing marine diesel engines. Scottish reaction to such 'lapses' (sic) can be found in Wilfrid Ayre's comment in the Burntisland Shipyard Journal that, 'It is to be recorded that several vessels have been delivered to the Antipodes, whose hulls and/or engines were not of British construction'. Nevertheless, the Australians felt no obligation to order from a British yard, if a foreign builder offered what they considered a superior product at a lower price (Thesis Chapter 3, pp. 109-111). The reasons for the Adelaide Board's preference for Burmeister & Wain are set out in the Company directors' minutes.

In their turn, the Scottish shipbuilding archives point to reasons why Australians considered Scottish shipyard prices 'too high'. These include the inflated post-war cost of steel, continuing of wartime bonus wage rates after the war and of 'cost-plus' contracts, and the collapse, in 1920, of the 'realisable values' of ships in relation to the prices being asked for newbuilds. (Thesis Chapter 3, Table 3. 6, p. 107 and Table 3. 8, p. 112). This Australian complaint has to be qualified, however. Australian shipowners were still willing to pay 'high' Scottish

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21 That it was not the done thing for a 'friend' or 'ally' to order a ship from a 'rival' or 'outsider'. Boyce, 'Network Knowledge', p. 59. The Adelaide Company had been a 'friend' of Beardmore before the First World War. Burmeister & Wain were 'outsiders'.
23 Noel Butlin Archives/Australian National University, Z535 series, Adelaide Steamship Company Ltd, Meetings of Directors, 7 August 1923, p. 34 and following.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

prices to get the one-off, purpose-built ships they wanted. There were the further complaints that wartime charter rates for the owners' ships were insufficient to cover likely post-war replacement costs, and that, after the war, dividend payments had to be met by transfers from contingency funds. It is clear that the Australian inter-state companies declined to order new passenger ships until the mid-1920s, a gap of five or six years when Scottish yards would have welcomed orders. Not that the inter-state owners lacked the funds to invest in new ships; they chose to purchase government stocks or coal company shares instead (Thesis Chapter 3, pp. 92-95). The Australian records answer a question for which there is no answer in the Scottish records.

It seemed worthwhile, therefore, to integrate these two separate historiographies and sets of archival records in this thesis, in order create a more complete picture of the interplay between Scottish shipbuilders and their Australian clients. A group of Clyde and East of Scotland shipbuilders developed business relationships with a group of shipowners in a distant, British Empire market. How were these relationships established? Why did Scottish shipbuilders dominate the Australian market until the end of the 1930s? Why had their market share dwindled to insignificance thirty years later? Demand for ships was fluid; shipowner sentiment, the inclination to order a ship or invest available funds elsewhere, was subject to changing external factors. The Scots builders were tendering against one another for orders. What were the consequences of an unsuccessful tender or tenders? Were there specific

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24 Thesis, Chapter 3, Tables 3. 5 and 3. 6 and Chapter 6, Table 6. 5.
26 In 1922, the Adelaide Steamship Company could get 5-5½ per cent on South Australian government stock; likely rate of return on a ship was under 3 per cent. Noel Butlin Archives/Australian National University, Z535 series, Adelaide Steamship Company Ltd, Meetings of Directors, 9 May 1922, p. 126 and 16 May 1922, p. 129.
reasons for British/Scottish loss of market share of the Australian market, other than those described in the Scottish historiography for British/Scottish loss of share of the World market?

This thesis examines Commonwealth government shipping and shipbuilding policy and its effect on the Australian market in ships. The thesis will argue that the policy was a product of growing national self-assertion, of what Australians perceived as a growing divergence between Australian and British national interests. It was of a piece with post-colonial, nationalist sentiment that emerged throughout the British Empire after 1945. It reflected Australian perceptions that Australia could no longer depend on Britain for her defence, nor as her principal trading partner.

Research for this thesis opened up some lines of enquiry that do not appear to have been considered by previous researchers. One aspect of competitive tendering, highlighted in the Australian archives, is the range of tenders for the same contract. For example, Chapter 3, Table 3.9, p. 115, shows that the highest bid for the coastal passenger and cargo steamer *Wollongbar* (1922) was 33.27 per cent more than the successful tender. This prompted the question why the unsuccessful bid was so much greater than the successful one. Moreover, did Lithgows, the successful bidder, lose financially on the contract?

These 'unsuccessful tenders' raised further questions as to why builders who were, in effect, controlled by British shipowners seemed to over-bid for work

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28 In directors’ minutes and cables from the companies’ representatives in Britain, detailing the amounts of the rival tenders. Comparisons between successful and unsuccessful tenders for Australian contracts can be found in this thesis in Chapters 3, 4 and 7.
consistently during the 1920s. Overbidding for contracts was scarcely a strategy for survival during the inter-war period. Was there a smaller range of bids for contracts for home British shipowners? It was clear, from the Scottish records, that smaller builders like the Ailsa Shipbuilding Co Ltd of Troon were prepared to enter tenders that would result in losses, in order to get work.

Recent research on the accounting practices of British shipowners might suggest that losses made by their shipbuilder subsidiaries could be claimed as 'liabilities' to offset demands for Excess Profits' Duty or other taxation.

The Huddart, Parker Ltd 'Ships’ Cost Accounts' opened up another unexplored line of enquiry, the supplementary costs to Australian owners of having a ship built in Britain. These oncosts were the difference between the contract price, shown in 'The Agreement' (contract), the cost of the completed ship 'handed over Clyde/Forth' and the final cost of the ship 'delivered Australia'. For example, a ship's contract price might be £127,100, while the 'delivered Australia' cost was £140,643; £13,543 or 10.655 per cent in addition to the Contract Price. Oncosts included the cost of exchanging £Aus for £Stg to pay for the ship, the salary and expenses of the company's representative who superintended the work in Britain and the cost of the delivery voyage to Australia. Any of these would, of course, offer opportunities for inflating the cost of the ship in the Company's annual Profit & Loss Accounts. However, they do illustrate what Australian owners were prepared to pay, despite, and in addition to, 'high' British newbuild prices, in order to have ships purpose-built in Britain to their specifications. Commonwealth government policy after 1945 of offering

29 Incheape group (Peninsular & Oriental Steam Navigation Co Ltd) had a controlling shareholding in Alexander Stephen & Sons Ltd. Ellerman Lines had a substantial shareholding in the Leith shipbuilders Ramage & Ferguson Ltd.

30 Glasgow University Archives' Service, GD400/1/3, Ailsa Shipbuilding Co Ltd, Minute Books, 12 March 1925 and GD400/1/4, 23 April 1930 and following.


32 In Melbourne University Archives.

33 Melbourne University Archives, Huddart, Parker, Ltd, 'Ships’ Cost Accounts', Group 1/49/10, s.s. Ulcharoa, 1907-1908.
to meet one-third of the cost of a new ship, if ordered from an Australian shipyard, effectively eliminated these supplementary expenses for the shipowner. As a result, Australian owners were persuaded to order ships in Australia rather than from British/Scottish yards (Thesis Chapters 6 and 7).

One further area for exploration, touched on in this thesis, is the reasons for the survival of some Scottish shipbuilders despite the crises of the inter-war years and mid-1960s. The Clutha-centric view of the failure of the shipbuilding industry on the Clyde does not account for the survival of small builders like the Ailsa Company of Troon, Henry Robb at Leith and the Caledon at Dundee (merged as Robb-Caledon Shipbuilders Ltd in 1968) and Hall, Russell & Co Ltd in Aberdeen. In some respects, these were untypical Scottish yards. They were not involved in building the prestige passenger ships and 'fast cargo-liners' for the 'Empire trades' in which the Clyde yards specialised. The growth of air travel in the 1950s and '60s and the containerisation of cargo led to a sharp drop in demand for these types of ship. Nor were they warship-building yards with naval orders subject to shifts in British defence policy.

Instead, they found niche markets with British shipping companies that specialised in the short-sea and 'middle trades' with the near Continent, Scandinavia, the Baltic, Iberia and the Mediterranean. They undertook work for Empire and foreign shipowners, despite the difficulty of establishing relationships of trust and the possible risks involved in negotiating contracts through brokers. They made overseas sales trips, making contact with potential clients in Canada, South America, India and Australasia. They appointed overseas representatives. They built the new types of ship that were in demand

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during the 1960s, albeit building them in penny numbers. They built specialised heavy-lift vessels for transporting machinery, vehicle carriers for exporting British-made cars, trucks and other vehicles, short-sea container ships and drive-on freight ferries for the Continental trades, specialised small bulk carriers for transporting cement, liquid gas carriers for a rapidly developing market and tug/supply vessels to meet the demand for servicing the North Sea oilrigs.

To sum up: this thesis does not challenge the account of British shipbuilding and shipowning contained in the published literature. However, that account, which concentrates on British (Imperial) pre-eminence in marine technology, and the reasons for its loss of First Rank status after the Second World War, is not the whole story. It does not describe Scottish shipbuilders’ important share of the Australian market in ships, a dominant position which they enjoyed until the Second World War. The separate Scottish shipbuilding and Australian shipowning primary records tell, each, only half the story of Scottish Shipbuilders and the Australian Market between 1901 and 1971. The purpose of this thesis is to integrate these two accounts. It provides a series of snapshots of shipbuilding in Scotland and the Australian coastal shipping market at different dates and periods; at Federation in 1901 and before the First World War; the War and the early 1920s; the Wall Street Crash in 1929 and the depression of the 1930s; revival of confidence in the late-1930s, followed by the Second World War; the post-war boom, and finally, the disappearance of British/Scottish participation in the Australian market by the early-1970s.
Introduction.

The Commonwealth of Australia came into being on 1 January 1901. The former Australian colonies, now 'states', ceded to the Commonwealth (federal) government powers to legislate on, *inter alia*, external affairs, defence, navigation, customs, immigration, and conciliation and arbitration in industrial disputes.¹

Before Federation, Australia was largely dependent on Britain for her population growth, for investment capital, as a market for Australian exports, as a supplier of shipping for her overseas trade and for defence. In 1913, Australia received 59.7 per cent of her imports from Britain and 44.2 per cent of her exports were for the market 'at Home'.² British and Australian interests were not identical, however; it was a question of whose took precedence. Until the Statute of Westminster 1931, Britain reserved the right of veto over areas of Australian domestic policy. Kingston remarks that the King's representative could withhold his assent from any legislation deemed incompatible with British laws and treaties. 'Laws on shipping, immigration (and) defence were all reserved for royal assent'.³ Thus, although the Commonwealth government was competent in these subjects in principle, in practice, it could be over-ruled by Westminster.

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² Bambrick, Susan (Editor), *Cambridge Encyclopaedia of Australia*, (Cambridge, 1994), pp. 102-104.


The Commonwealth's powers in relation to navigation and shipping are described in the *Official Year Book of the Commonwealth of Australia*, No. 5/1912, p. 657. 'By Section 98, Part IV of the Commonwealth Constitution Act, the power to make laws with respect to trade and commerce was extended to navigation and shipping. An Act relating to Navigation & Shipping was introduced into the Senate (in 1904)'.

30
One area of conflict of interest was shipping and navigation. British shipping companies considered that the Commonwealth Navigation Bill 1904 and Act 1912 were incompatible with the British Merchant Shipping Act 1894. "White Australian" interests demanded the reservation of the Australian coastal shipping trades for Australian-registered ships, manned by white Australian crews. Home British shipowners' interests were in free, unrestricted access to the inter-state trades between the Australian state capital city/ports. The British shipping lines opposed the Act and delayed its implementation until 1921. Rearguard action during the 1920s led to the Act's modification to allow some British access on inter-state routes. The full impact of the Navigation Act on the inter-state trades after 1921 will be discussed in Chapter 3 of this thesis. In fact, the Australian coastal shipping market was small; annual demand before 1914 was some nine ships per year. There was a continuing shortage of Australian-registered tonnage until after WWII and overseas vessels had to be chartered to meet the demands of the expanding Australian economy.

British and Australian defence interests were also in conflict. The Australian warship building programme and the establishment of the Commonwealth Naval Dockyard in 1913 were Australia's response to doubts about Britain's ability to protect her commercial interests in Australasia. Australia's wartime merchant shipbuilding was not a serious threat to British market dominance, but


See also Macintyre, Oxford History, Vol. 4, p. 125, re: British shipping interests, Britain's reserve powers and the Navigation Bill.

The 'White Australia' policy; the exclusion of non-European (Asiatic and Pacific island) peoples from the Australian labour market, is described by Macintyre, Oxford History, Vol. 4, pp. 123-125. Kingston, Oxford History, Vol. 3, describes white Australian attitudes to Chinese immigrants (pp. 135-137) and Pacific islanders (pp. 162-167).

Between Tasmania and the mainland, and between Western Australia and the eastern states, for example.
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

Australia’s merchant shipyards did capture a small share of the market (some 22.3 per cent) between 1919 and 1930, and any loss of market share, especially to state-financed shipbuilders, was resented at Home.

There were also points of political difference. The Australian colonies had Labor Party governments before Federation and there were Labor governments in the federal parliament before 1914. In general, Australians accepted state mediation in industrial relations (the Commonwealth Conciliation & Arbitration Court), tariff protection for Australian manufactures, state finance for urban and rural development, state-ownership of the railways and a state-owned national shipping line. In these matters, Australia was at variance with British business and financial interests.

### Table 1.1. Summary of Market Shares of the Australian Market in Ships, 1901-1971.

Scottish, 'Other British', Australian and 'Foreign' Shipbuilders.

<table>
<thead>
<tr>
<th>Period</th>
<th>Scotland No. of Vessels (Total %)</th>
<th>Other British No. of Vessels (Total %)</th>
<th>Australia No. of Vessels (Total %)</th>
<th>Foreign No. of Vessels (Total %)</th>
<th>Total Number of Vessels (Total %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901-1914</td>
<td>78 (58.65%)</td>
<td>37 (27.8%)</td>
<td>13 (10%)</td>
<td>5 (3.55%)</td>
<td>133 (100%)</td>
</tr>
<tr>
<td>1919-1930</td>
<td>44 (46.8%)</td>
<td>17 (18.1%)</td>
<td>21 (22.3%)</td>
<td>12 (12.8%)</td>
<td>94 (100%)</td>
</tr>
<tr>
<td>1931-1939</td>
<td>31 (73.8%)</td>
<td>6 (14.3%)</td>
<td>1 (2%)</td>
<td>4 (9.9%)</td>
<td>42 (100%)</td>
</tr>
<tr>
<td>1946-1960</td>
<td>28 (24.78%)</td>
<td>9 (7.96%)</td>
<td>66 (56.41%)</td>
<td>10 (8.85%)</td>
<td>113 (100%)</td>
</tr>
<tr>
<td>1961-1971</td>
<td>9 (19%)</td>
<td>3 (about 6%)</td>
<td>26 (55%)</td>
<td>9 (20%)</td>
<td>47 (100%)</td>
</tr>
</tbody>
</table>

Source: Lloyd's Register of Ships Shipowner Supplements, various years.
Australian Coastal Shipping before the First World War.

19th century settlement in Australia was widely dispersed along the eastern and southern seaboards between Queensland and South Australia, in Tasmania, and in Western Australia. Before the development of road and rail transport in the 20th century, coastal shipping, first in sailing craft, then by steamship, was the most practical means of carrying passengers and freight between these coastal settlements. Coastal shipping services were operated by privately-owned companies; only mail services, provided by the private companies, received financial support from the colonial governments. By contrast, the service to the sparsely-populated northwest coast of Australia was financed and later operated by the Western Australian state government.

Three distinct types of coastal trade developed, each requiring a different type of ship.7 The inter-colonial8 trades, between the capital city-ports of the colonies, demanded a substantial passenger vessel with cargo space. The intracolonal trades, between the capital cities, the main regional port/settlements within each colony and the smaller outport/settlements, required a smaller type of passenger and cargo ship, capable of both sea and river navigation. The coastal bulk or commodity trades, including coal, grain/flour, sugar cane, and iron and other metal ores required a third type.9

The small harbours and river ports on the east and south coasts of Australia had different physical characteristics and vessels had to be designed and built for specific trades.10 From the 1850s and 1860s there was strong demand from

7 The term 'trade', as in 'coastal trade' or 'coal trade', is used throughout this thesis to mean 'a shipping service operating regularly on a particular route or carrying specified cargoes'.
8 'Inter-colonial'. After the founding of the Commonwealth of Australia in 1901, the Australian 'colonies' became 'states', and the trades were described as 'inter-state'.
9 The 19th century development of the coastal trades is described by Bach, Maritime History, Chapters VI-XI and by Pemberton, Barry, Australian Coastal Shipping (Melbourne: Melbourne University Press, 1979), various chapters.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

British/Scottish shipbuilders for steamships for the Australasian coastal trades. For example, John Key, Snr., at Kinghorn, Fife, and the Gourlay Brothers at Dundee began in business as general engineers and steam locomotive builders, but soon saw opportunities in building iron-hulled steamships for the pioneering Australian and New Zealand shipping companies. John Key's first steamship was the South Australian (1864) for Samuel White, grain miller of Adelaide, for the Adelaide-Melbourne flour trade. Gourlay Brothers' first ship, the iron-hulled schooner Alma (1854), was built for James Dow of Melbourne who had emigrated from Tayside.

The number of companies engaged in the Australian inter-state trades between 1901 and 1914 is shown in Table 1.2. A small number of steamships, all owned by private shipowners, supplemented by numbers of British mail and tramp steamers, was able to provide for all the shipping requirements of the pre-war Australian economy. The average size of the inter-state ships was small, around 2,000 gross tons (gt).

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11 Bowen, Frank C., 'John Key of Kinghorn', Shipbuilding & Shipping Record, LXXIII (1949).

12 Bowen, Frank C., 'Gourlays', Shipbuilding & Shipping Record, LXXIII (1949).
Table 1.2. 'Companies Engaged in the Inter-state Trades Reporting to the Commonwealth Government', 1901 and 1908-1914.

<table>
<thead>
<tr>
<th></th>
<th>1901</th>
<th>1908</th>
<th>1909</th>
<th>1910</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. Shipping</strong></td>
<td>11</td>
<td>23</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td><strong>Cos Reporting</strong></td>
<td>113</td>
<td>175</td>
<td>181</td>
<td>180</td>
</tr>
<tr>
<td><strong>Cross Tonnage</strong></td>
<td>184,574</td>
<td>261,862</td>
<td>283,276</td>
<td>291,470</td>
</tr>
<tr>
<td><strong>Licensed for No. 1st Class Passengers</strong></td>
<td>4,617</td>
<td>7,100</td>
<td>7,087</td>
<td>7,041</td>
</tr>
<tr>
<td><strong>Licensed for No. 2nd/Steerage Passengers</strong></td>
<td>4,490</td>
<td>6,156</td>
<td>6,460</td>
<td>6,395</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1911</th>
<th>1912</th>
<th>1913</th>
<th>1914</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. Shipping</strong></td>
<td>24</td>
<td>24</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td><strong>Cos Reporting</strong></td>
<td>178</td>
<td>180</td>
<td>190</td>
<td>174</td>
</tr>
<tr>
<td><strong>Cross Tonnage</strong></td>
<td>285,181</td>
<td>311,144</td>
<td>364,937</td>
<td>340,852</td>
</tr>
<tr>
<td><strong>Licensed for No. 1st Class Passengers</strong></td>
<td>8,616</td>
<td>9,084</td>
<td>9,826</td>
<td>8,068</td>
</tr>
<tr>
<td><strong>Licensed for No. 2nd/Steerage Passengers</strong></td>
<td>6,395</td>
<td>6,376</td>
<td>7,635</td>
<td>8,666</td>
</tr>
</tbody>
</table>

"Scottish Shipbuilders and the Australian Market, 1901-1971".

The Official Year Books of the Commonwealth of Australia, which enumerate every aspect of Australian life, do not specify whether 'Licensed for numbers of First and Second or Steerage class passengers' means that the coastal shipping fleet provided those numbers of berths or whether the ships are merely 'licensed to carry' those numbers of passengers of the respective classes. Nor do they explain whether there was an obligation to 'report' those figures to the Commonwealth Statistician. However, the pre-Federation colonies had been obliged to compile official statistics, including shipping, for the information of the Home Government; after Federation, the Commonwealth Statistician collated the colonies' (states') figures into a single annual publication.\footnote{Commonwealth Bureau of Census & Statistics, The Official Year Book of the Commonwealth of Australia (OYB). 'Official statistics. It will suffice to mention that statistical compilation in Australia originated in the necessity of producing 'Blue Books' for the information of the Home Government. The granting of Responsible Government extended the field of statistics that required to be collected'; OYB, No. 7/1914, p. 1.}

The increase in the number of First Class passenger places between 1908 and 1913 (about 38 per cent) reflects the number of new passenger steamers ordered during that period, to offer passengers comfort and speed comparable with that of the larger British mail liners.\footnote{Until the implementation of the Commonwealth Navigation Act in 1921, British mail liners were allowed to carry passengers between the Australian state capital/ports, in competition with local Australian inter-state shipping companies.} There was a slight increase in the total number of steamers, reflecting the ordering of new cargo tonnage in response to industrial development in the Wollongong/Port Kembla district of New South Wales. The increase in the total gross tonnage between 1908 and 1913 (39 per cent) indicates some increase in vessel size.\footnote{In 1908, the average gross tonnage per ship was 1,496; by 1913, it was 1,920 (Table 1. 2).}

The leading inter-colonial (inter-state) companies are shown in Table 1. 3. They formed the Australasian Steamship Owners' Federation (ASOF). After World War I, the group became known as Associated Steamship Owners (ASO).
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

Table 1. 3. Australasian Steamship Owners’ Federation Fleets in 1914. Numbers of Ships, Gross Tonnage & Estimates Values of Fleets.

<table>
<thead>
<tr>
<th>Fleet Name</th>
<th>No. of Ships</th>
<th>Total Gross Tonnage</th>
<th>Estimated Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide S.S. Co</td>
<td>30 ships</td>
<td>82,569gt</td>
<td>not available</td>
</tr>
<tr>
<td>Australian S.S./Smith</td>
<td>29 ships</td>
<td>59,523gt</td>
<td>£840,000</td>
</tr>
<tr>
<td>Australasian S.N. Co</td>
<td>20 ships</td>
<td>59,354gt</td>
<td>£790,741</td>
</tr>
<tr>
<td>Huddart, Parker</td>
<td>21 ships</td>
<td>48,410gt</td>
<td>£715,000</td>
</tr>
<tr>
<td>McIwraith</td>
<td>10 ships</td>
<td>33,540gt</td>
<td>£570,360</td>
</tr>
<tr>
<td>McEacharn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melbourne S.S. Co</td>
<td>9 ships</td>
<td>19,210gt</td>
<td>£245,000</td>
</tr>
<tr>
<td>Union S.S. Co of N.Z.</td>
<td>75 ships</td>
<td>262,553gt</td>
<td>£2,135,411</td>
</tr>
</tbody>
</table>


Notes: 1. The Union S. S. Co of New Zealand, which operated Bass Strait (Mainland-Tasmania) and trans-Tasman (Australia-New Zealand) services, was a founder member of the ASOF. However, the greater part of its fleet traded only on the New Zealand coast, or between New Zealand and the Pacific Islands.

Before WWI, there were also numbers of small intrastate companies, ranging in size from a couple of ships to substantial fleets of steamers. Some of the inter-state companies were also prominent in the intracolonia (intrastate) trades. The Adelaide S. S. Co was also the dominant intracolonia company in South Australia, while Australasian United dominated the intracolonia trades in Queensland. Like other inter-state companies, they had begun in the 19th century as local companies, trading mainly within their own colonies, or with the adjoining colony. Each had at some time tried to claim the trade within, and to or from, its own colony as its monopoly. However, growing inter-colonial trading, in particular in coal, flour/wheat and sugar, offered such good prospects for business, that invasions of rival spheres of influence were inevitable. The wide geographical separation between the sources of supply and the places of consumption made claims to monopoly impossible to defend. In the late-19th century, the Hunter Valley in New South Wales was the principal source of coal for the other colonies. Western Australia was largely dependent on NSW coal;
in 1904, Western Australia imported some 149,000 tons of coal from NSW. Before the setting up of flour mills in Queensland in the 1890s, the colony had to import flour from South Australia. For its part, Queensland was Australia's principal source of cane sugar.

In the absence of effective land-based transport links between the colonies, there was strong demand for coastal shipping services. For example, demand for coal grew rapidly in the late 19th century. The principal users were the municipal gas and electricity companies, the publicly-owned railways and the overseas shipping lines. There was intense rivalry over the winning of supply contracts. The inter-colonial companies acquired shares, often a controlling interest, in coal mining companies. The Adelaide Steamship Company bought substantial interests in J. & A. Brown's Abermain and Seaham Collieries (NSW) in 1905, and the North Bulli Colliery in 1908. Howard Smith (shipowner) acquired control of the 'Glasgow owned' Caledonian Coal Co., which was registered in Australia as 'Caledonian Collieries, Ltd', and had extensive coal interests in New South Wales. McIlwraith, McEacharn had an interest in the Bellambi Coal Co., while Huddart, Parker had interests in the Abermain and

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18 The growth of Australian coal consumption before 1914, the coal trade and the competition over coal supply contracts are described by Bach, Maritime History, Chapter IX.
20 See also Noel Butlin Archives, Australian National University (NBA/ANU), Z535, Adelaide S.S. Co. Meetings of Directors, various years. 'Investments' included Abermain and Seaham Collieries (both Ltd), North Bulli Colliery Ltd and East Greta Coal Mining Co Ltd.
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

Hebburn Collieries in NSW. Colliers were an important part of their fleets. The placing of orders for new colliers was often conditional on the winning of coal supply contracts. The importance of such non-shipping investments to the inter-state owners was that they provided alternative revenues to cover losses from their shipping business. Australian coastal shipping companies were developing into multi-dimensional businesses. Their ability to move funds out of shipping into investments that offered better returns will be discussed more fully in later Chapters.

The 1890s were years of intense competition between the inter-colonial companies, marked by rate-cutting wars. By the middle of the decade, however, there were attempts to form bi-lateral alliances ('joint purse' agreements) to pool revenues on routes on which companies were competing. These agreements were usually short-lived. A more general scheme to regulate the coastal shipping market and limit wasteful competition was begun in 1899 with the formation of the Australasian Steamship Owners' Federation (ASOF). The Federation served to pool the inter-colonial companies' ships, share revenues and losses and limit the demand for new tonnage to what the different coastal trades could accommodate. It also provided for collective defence in disputes with the maritime trade unions, and against overseas competition, and for a collective response to Commonwealth and state legislation.

There were the beginnings of company amalgamations. The bigger inter-state companies began acquiring shares in smaller rivals, taking advantage of the

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22 Melbourne University Archives (MUA), Huddart, Parker, Ltd, Minute Books, 1904-1936, passim, under the heading 'Coal Properties'. A Minute of 12 June 1907 refers to purchase of shares in the Seaham Coal Co (NSW).
24 The formation of the Australasian Steamship Owners’ Federation (ASOF) is described by Bach, *Maritime History*, Chapter IX.
ASOF negotiations referred to in MUA, Huddart, Parker, Ltd, Minute Books, 13 December 1901, 1 July 1902, and subsequently.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

need of the smaller companies to raise new capital. In 1901, Huddart, Parker Ltd of Melbourne acquired shares in the Melbourne Steamship Co Ltd, on joint account with Howard Smith and McLlwraith. Huddarts also held shares in the Tasmanian shipping company William Holyman & Sons Pty Ltd and in the Scots-Australian coal merchants, James Paterson & Co Ltd of Melbourne. In the intrastate trades in New South Wales, the dominant North Coast Steam Navigation Co Ltd began to take control of smaller rivals, including Nicoll Brothers Ltd of Sydney.

There was growing co-operation between the inter-state companies. A Huddart, Parker board minute of 17 April 1912 notes a joint tender by McLlwraith, McEacharn and Smiths for supplying coal to South Australian Railways. In 1911, Howard Smith invited the Huddart, Parker directors to take an interest in the Caledonian Coal Company, control of which Smith had recently acquired by the purchase of the Coats (of Paisley's) family shares. Smith offered Huddart a seat on the new Coal Company board. Huddart's directors considered the offer, but took no further action.

ASOF members agreed to restrict the amount of new tonnage they ordered by a formula which defined each's 'tonnage rights'; each company put a vessel or vessels of given gross tons into the 'pool' for each trade. If a company wanted a new ship (to meet the competition from the overseas lines, for example), it had to dispose of an equivalent amount of older (gross) tonnage.

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23 MUA, Huddart, Parker Ltd, Minute Books, 1 April 1901. 1,104 shares at 8s.6d
In 1912, the Melbourne S.S. Co offered 3,400 shares at £10 each to increase its share capital to £204,000. MUA, Huddart, Parker Ltd, Minute Books, 17 April 1912.
See also SLNSW, ML MSS 323/12, Minute Books, 16 May 1910 and 29 June 1910, re: proposed takeover of the Illawarra & South Coast S.N. Co.
28 MUA, Huddart, Parker Ltd, Minute Books, 17 April 1912.
30 MUA, Huddart, Parker Ltd, Minute Books, 14 December 1911 and 23 January 1912.
31 The system of tonnage rights is described by McKellar, From Derby, pp. 611-612.
from the pool. At a meeting of the Huddart, Parker Board on 17 August 1905, the board resolved that,

This Committee recommend that each Australasian Steamship Owners’ company agree to suspend its building rights under the Agreement to the extent: Adelaide Co 8,594 gross; AUSN 6,996 gross; Howard Smith 5,921 gross; Huddart, Parker 4,207 gross; McLlwraith 3,582 gross...subject, however, to the suspended building rights being reinstated as prescribed.

Further, on 10 July 1907, 'The Managing Director tabled a statement of tonnage which members (of ASOF) were at liberty to build as at 18 June 1907, shewing that Huddart, Parker were entitled to 9,814 tons'. That is, Huddarts could build either one inter-state liner or two cargo ships. When trade was slack, as in 1909, ASOF members were obliged to lay up ships according to an agreed formula.

Tonnage rights, as a form of demand management, made for a static size of coastal shipping fleet overall. They did, however, maintain the fleet at a size that was appropriate to the size of the Australian population and to the scale of the pre-industrial colonial economies. If owners were reluctant to dispose of ageing but serviceable vessels, natural wastage (shipwrecks) always created new demand. By contrast, when the Australian economy boomed after World War II, the size of the coastal shipping fleet was inadequate to meet the demand. Numbers of overseas vessels had to be chartered and licensed to

32 MUA, Huddart, Parker Ltd, Minute Books, 17 August 1905, p. 38 and 10 July 1907, p. 115.
30 MUA, Huddart, Parker Ltd, Minute Books, 12 August 1909, p. 213
34 SLNSW, ML MSS 3565 12X, Howard Smith & Co Ltd, Chairman’s Address to Annual General Meeting, 10 March 1905: ‘The Australian coastal trade, owing chiefly to lack of increase of population, and the fact that the States are now producing sufficient for their own requirements, cannot profitably employ any further increase in tonnage’.
35 The Commonwealth Navigation Act was amended to allow the licensing of overseas ships to trade on the Australian coast.
meet the necessary shipping effort. The overall impression of the pre-1914 coastal shipping fleet is that there were too many shipping companies for the available trade. The ASOF agreement stabilised the amount of tonnage available, but it also inhibited rationalisation, when unlimited competition between them would have resulted in company failures or takeovers. It was only after 1945, under external competitive pressure from the state-owned Australian National Line and from rail, road and air transport, that there was any significant reduction in the size of the privately-owned shipping fleet.

Even before the First World War and the founding of the Commonwealth Government Line of Steamers, Australians acknowledged that some socially desirable but non-commercial services, particularly to Northern Queensland, the Northern Territory and the northwest of Western Australia, would have to be subsidised by the state. For preference, subsidies would be paid to the private operators, who would provide the services. Until the loss of Koombana in 1912, the Adelaide S. S. Co. provided services on behalf of the Government of Western Australia; Australasian United carried the mails to northern Queensland for the state government. The joint Union Steamship/Huddart, Parker service between Melbourne and Launceston (Tasmania) was supported by federal government subsidy. As Broeze points out, Western Australians accepted the WA state government’s establishment of the State Shipping Service (SSS) in 1912 and SSS’s replacing the Adelaide Company in providing services to the far northwest. State ownership of shipping was of a piece with

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36 ‘Subsidised Mail Services’, *Official Year Book of the Commonwealth of Australia (OYB)*, Vol. 7/1913, pp. 668-669. AUSN received an annual subsidy of £18,450 to provide a weekly mail service to North Queensland ports, for example. The Western Australian government paid the State Shipping Service £5,500 to provide a Fremantle-Derby service ‘every 60 days’. Union S. S. Co and Huddart, Parker received £13,000 to provide a thrice-weekly service between Melbourne (Vic) and Launceston (Tas). Page, *Fitted for the Voyage*, p. 129.

Scottish Shipbuilders and the Australian Market, 1901-1971'.

Australian Labor Party policy on state ownership in general. The state railway networks were built with public finance and were publicly-owned.

The Scots-Australians.

From the beginning of voluntary settlement in Australia, Scottish immigrants took part in every aspect of settlement and business development, in all the professions and trades. They were the masters of the emigrant ships, among the first Australian landowners and businessmen, and were the channels for Scottish development capital to the colonies. In coastal shipping, they were among the first shipping professionals; shipowners, ships' masters, marine engineers and shipping agents. In 1914, seven out of twelve leading Australian coastal shipping companies had been founded by Scots-Australians, and 'home' Scots had had shares in several. Scots-Australians were prominent in many areas of the developing Australian colonial economies, including general trading, banking and finance, coal and mineral mining and mineral refining, metals trading, agriculture, stock rearing and marketing. Of Ville and Merrett's Table of 'Top 100 Australian Companies Ranked by Total Assets, 1910-1964', five of the top thirty companies in 1910 can be clearly identified as having been founded by Scots-Australians, and Numbers 31 and 32 on the list were also founded by Scots.

First generation Scots-Australian businessmen had diverse interests, diverse shareholdings and held multiple company directorships. Andrew Tennant, co-
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

founder of the Adelaide Steamship Co and Malcolm McEacharn, co-founder of McLwraith, McEacharn & Co, were landowners with interests in coal mines, as well as shareholders in coastal shipping companies. McEacharn combined raising livestock with an interest in the development of refrigeration technology, with a view to exporting frozen meat to Britain. In 1879, McLwraith & McEacharn chartered the iron screw steamer Strathleven (Blackwood & Gordon 1875/2,436 gross tons) and fitted her out with Bell-Coleman refrigeration plant; the vessel returned from Australia in 1880 with one of the first cargoes of frozen meat, demonstrating the trade's viability.40

'Home' and expatriate Scots played a leading rôle in the settlement of Queensland. The part played by British (Scottish) capital and the Scottish Australian Investment Company in the development of pastoralism in Queensland is referred to by Kingston.41 In 1876, McLwraith, McEacharn made an agreement with the Queensland Government to bring British immigrants to the colony in the ships of their 'Scottish Line'. In 1880, William Mackinnon, Chairman of the British India Steam Navigation Co, negotiated a contract with Thomas McLwraith, Prime Minister of Queensland, to carry the mails between Britain and the colony by steamer. Thomas McLwraith was a relative of Andrew McLwraith of McLwraith, McEacharn and was 'One of the forces behind the Queensland National Bank'.42 He also supplied some of the capital for the Strathleven, mentioned above.43 Mackinnon's partner, George Mackenzie of Mackinnon, Mackenzie & Co, Calcutta was a member of the Boards of the

ADB, Vol. 6, pp. 255-256.
40 ADB, Vol. 10, pp. 282, 263.
McKellar, From Derby, Chapter 4, pp. 45ff.
In 1883, the British India Company and the Queensland Agency set up the Queensland Steamship Co, whose Scots-Australian promoters were Burns, Philip (merchants and shipowners), Mcllwraith, McEacharn and Gilchrist,\(^{45}\) Watt (Sydney merchants).\(^{46}\) The Queensland Steamship Co was the forerunner of the Australasian United Steam Navigation Co, in which Andrew Mcllwraith and other Scots-Australians held shares. The home Scots/Scots-Australian involvement in the founding of the Queensland Steamship Co and the successor Australasian United S. N. Co is described in detail by McKellar.\(^{47}\) With Peter Denny of William Denny Brothers, shipbuilders, William Mackinnon formed the syndicate known as British India Associated Steamers in 1874.\(^{48}\) Denny Brothers built two of the three new steamers for the Queensland Steamship Co; later, they built several ships for the Australasian United S. N. Co. Robertson describes Peter Denny's shareholding in AUSN.\(^{49}\) James Burns became British India Associated Steamers' agent in Townsville, Queensland.

In politics, Andrew Mcllwraith was a close friend of Andrew Fisher, Scots-Australian trade unionist and one of the co-founders of the Australian Labor Party (ALP). Fisher was a proponent of state ownership, of railways in particular, which he saw as means of opening up Australia for settlement. It


\(^{47}\) McKellar, *From Derby*, pp. 50ff.

\(^{48}\) *DSBB*, Vol. 2, pp. 299-300.

should be remembered that railways in Britain were privately-owned at the end of the 19th century and were not nationalised until 1947. Fisher also advocated state arbitration in industrial disputes and, as a member of the Federal parliament, promoted the Commonwealth Conciliation & Arbitration Bill and Act 1904. Later, he became Commonwealth Prime Minister and Treasurer in the second minority Labor government.50

Prentis refers to Scots-Australian participation in the founding and development of the Australian banking system.51 A number of the founders and early directors of the Bank of New South Wales and the Commercial Banking Company (CBC) of Sydney were Scots-Australians.52 Scottish capital, from Glasgow in particular,53 helped set up the first Australian banks, which adopted Scottish banking practice. Edward Knox, founder of the Colonial Sugar Refining Co of Queensland (CSR) was also Managing Director of the Commercial Banking Co of Sydney.54 John Gilchrist, who formed partnerships with other Sydney merchants, was a shareholder-director of the Union Bank of Australia and a director of the Bank of Australia.55

Robert Barr Smith,56 co-founder, shareholder and first Chairman of the Adelaide S.S. Co, was also a director of the Wallaroo & Moonta Mining & Smelting Co, the South Australian Gas Co, the English, Scottish & Australian (Chartered) Bank, the Mortgage Co of South Australia, and a partner in the Adelaide trading company and agency Elder, Smith & Co., Ltd. Gilchrist, Watt were the London agents of the New South Wales intrastate steamship company, the North Coast

50 ADB, Vol. 8, pp. 502-505.
51 Prentis, The Scots, pp. 119-121.
52 David Larnach (ADB, Vol. 5, p. 65) and Thomas Walker were co-founders of the Bank of New South Wales. Larnach was appointed Managing Director of the Bank in 1854. Larnach was also an investor in the Colonial Sugar Refining Co, whose founder was Edward Knox.
54 Prentis, 'The Scots', p. 120.
Steam Navigation Co., Ltd in the early 1900s. At different times, Elder, Smith and G. S. Yuill & Co., Ltd acted as the London agents for the Adelaide S. S. Co. Yuill himself was a Scots-Australian and an Adelaide S. S. Co shareholder. William Cumming, Huddart Parker Ltd's Superintendent Engineer and director, set up his own London agency in the early-1900s. The importance of these Scots-Australian London agencies was that they negotiated trading between Britain and the Australian colonies, placing Australian produce on the London market, for example, and helping to fix transport for the produce to Britain. They helped establish 'trust' between Australian shipowners and shipbuilders in Britain and were among the channels through which contracts were negotiated between them.

Two points can be made about these multiple interests. First, bank directorships facilitated access by developing Australian companies to British investment capital. Second, through multiple directorships and shareholdings, Australian coastal shipping companies became multi-dimensional businesses with large investments in non-shipping activities, including coal and mineral mining, federal and state government stocks and later, in early Australian air services. These non-shipping investments provided alternative sources of income to cover any losses made by the shipping business; funds could be moved into non-shipping investments when the shipping trades were depressed.

Scots-Australians evidently liked to do business with one another. Co-operation was mutually advantageous. Primary producers like the mining company Broken Hill Proprietary Ltd (BHP) and the Colonial Sugar Refining Co

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67 SLNSW, ML MSS 323 series, North Coast S.N. Co, Minute Books, (various years).
68 Noel Butlin Archives/Australian National University (NBA/ANU), N46/557, 558, Adelaide S.S. Co. Ltd, Letters from London Agent.
69 MUA, Huddart, Parker, Ltd., Ships' Cost Accounts.
70 NBA/ANU, Z535, Adelaide S. S. Co Ltd, Meetings of Directors, 1919, onwards.
See also MUA, Huddart, Parker Ltd, Minute Books, 1904-1936.
61 The founding and history of BHP are described by Hughes, Helen, The Australian Iron & Steel Industry, 1848-1962 (Melbourne, Melbourne University Press, 1964)
required transport to move their output from the point of production to the point of use. When the CSR required shipping to move its sugar crop from Queensland, the Adelaide S. S. Co supplied the ships. The contract made between them in 1893, to carry CSR's entire output, may not have been won entirely on the basis of price; 62 George Yuill, the Adelaide S. S. Company's agent, had good relations with CSR management in Sydney business circles. Robert Philp of the Burns, Philp partnership and George Yuill were members of the Board of the Queensland Meat Export Co; 63 Yuill became a director of the Adelaide S. S. Co. and was also John Swire's agent in Australia from 1900. Bill Douglas (Scots-Australian) was Superintendent Engineer in Australia for Swire Group's China Navigation Co. Ltd, and the intrastate Illawarra & South Coast S. N. Co. 65 Peter Nicol Russell, engineer of Sydney, built ice-making machinery to the design of Scott James Harrison, and Harrison and T. S. Mort made the first unsuccessful attempt to export frozen meat to Britain. 66 Russell endowed the Peter Nicol Russell School of Engineering in Sydney University.

Establishing Trust between Shipowners and Shipbuilders.

Besides networking together in Australia, Scots-Australians also established business relationships, what Boyce calls 'relationships of trust', 67 with shipbuilders at Home in Scotland. There are some clearly identifiable early links between Scottish builders and Australian and New Zealand shipowners. The Dundee shipbuilders Gourlay Brothers formed a business relationship with

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64 Page, *Fitted for the Voyage*, p. 144.
66 The lives of Harrison and Russell are described in *ADB*, Vols 1/p. 520 and 6/p. 76, respectively. Russell's co-operation with James Harrison is referred to by Richards, Mike, *Workhorses in Australian Waters*, p. 102. Harrison studied at the Andersonian Institution in Glasgow before emigrating in 1837.
the Nicoll family of Sydney, who emigrated from Dundee in 1848. Russell & Co of Port Glasgow had early links with the Illawarra & South Coast S. N. Co of Sydney, and the relationship between Port Glasgow and Australia continued under Lithgows shipbuilders. Peter Denny of William Denny Brothers became a business partner of James Mills, co-founder of the Union Steamship Company of New Zealand and held shares in the Queensland shipping companies in which Sir William Mackinnon had an interest. From the 1860s and 1870s, business relationships, some of which became longstanding, were formed between Scots-Australian shipowners and Scottish shipbuilders who became their preferred bidders.

As long as the principals (the 'Seniors') on either side were resident in Britain, contracts were generally agreed on a friendly basis, one-to-one, in terms such as these: 'Dear Sir William, I have just got some iron at a good price; can I build you a ship?' Typical of the intimacy between builder and owner is contract correspondence between Denny Brothers and Lord Inchcape in 1911-12 about a prestige liner for the Australasian United S. N. Co. Relationships were formed between John Inglis, the Denny Brothers and Sir William Mackinnon or between the Denny Brothers, the Stephen Brothers and Sir James Mackay, Lord Inchcape. The builders showed their confidence by taking shares (Sixty-fourths) in the ships they built. Later, at the end of the 19th century, when the

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70 School of Oriental & African Studies, London, Mackinnon Collection, PP MS1, Box 18, ‘John Inglis (File) 69’, John Inglis (Glasgow shipbuilder) to Sir William Mackinnon (Chairman of the British India Steam Navigation Co), 17 October 1879.
71 Glasgow University Archives Service (GUAS), UGD 3/5/0496, William Denny Brothers & Brothers, Ltd, Contract Envelopes, Indarra, 26/7/1911ff. 'Instructions that require to be given to the man going out east' (sic). James and Archibald Denny agreed that a representative of Denny’s should go incognito to Australia (at their own expense) to observe the characteristics of rival companies’ ships, prior to designing the new steamer.
Scottish Shipbuilders and the Australian Market, 1901-1971.

Australian private shipping companies adopted limited liability, their Ordinary Share capital was largely raised in Australia.\(^3\)

Where there was no such one-to-one relationship of trust between the Principals, the Australians acted through agents or brokers based in Glasgow or London. As mentioned previously, these agents were sometimes Scots-Australians who had returned and set up businesses back home. The Adelaide Company set up an office in London through which it conducted negotiations with builders over contracts. The smaller coastal shipping companies used brokers like Paton & Hendry Ltd (later P. D. Hendry & Sons) of Glasgow or Tamplin of London.\(^4\) Charles McAllister (Scots-Australian), the North Coast Company’s Superintendent Engineer before and after the First World War,\(^5\) worked exclusively with Paton & Hendry. The North Coast Company rarely invited builders beyond the lower Clyde, Grangemouth or Kinghorn to tender for its ships. Paton & Hendry, or the owner’s Superintendent Engineer or other board member negotiated contracts with the Scottish shipbuilders. The agent or broker advised the shipowner of the current level of shipyard prices of labour and materials, whether it was a good time to order, or whether prices were likely to ‘harden’, labour disputes, steel supply shortages, and the other pieces of intelligence needed by the owner’s directors in their negotiations with the builder. There was generally some flexibility in agreeing a contract price; the agent or broker, on his own initiative, could sometimes persuade the builder to reduce his tender.\(^6\)

A key rôle in establishing trust with the builders was played by the owner’s Superintendent Engineer. Scots-born marine engineers served their apprenticeships in Scottish shipyards, emigrated to Australia in the 19th and

\(^3\) NBA/ANU, N46/764-775, Adelaide S. S. Co, Register of Members (Shareholders), for example

\(^4\) SLNSW, ML MSS 323, North Coast S. N. Co, Minute Books, various years. See also GUAS, GD400/1/-/A ilsas Shipbuilding Co Ltd Minute Books, various years.

\(^5\) SLNSW, ML MSS 323, North Coast S. N. Co, Minute Books, various years.

\(^6\) SLNSW, ML MSS 323/15-16, North Coast S. N. Co, Minute Books; negotiations with Lithgows Ltd (Port Glasgow shipbuilders), for example.
early 20th centuries and became senior managers and shareholders of Australian coastal shipping companies. From there, they could invite tenders from their former yards, which became ‘friends’ or ‘lead builders’ for their companies. The Superintendent Engineers combined their technical knowledge of ship construction and of the marine steam engine with an intimate knowledge of the Australian coast and the requirements of the coastal trades. As mentioned previously, ships were often designed to trade with specific small ports. The Superintendent Engineers were responsible for drawing up the specifications for the ships, negotiating the contracts with the builders in Scotland, making arrangements for progress payments during construction and supervising the building of the ships.

John Key, son of the Kinghorn, Fife, shipbuilder, served his apprenticeship in his father’s yard and went on to become Superintendent Engineer of the Australasian United S. N. Co (AUSN). Benjamin Wickham Macdonald, General Manager of AUSN, served his apprenticeship with A. & J. Inglis, shipbuilders; AUSN placed orders with Inglis and with the Kinghorn shipyard as a result. As late as the late-1940s, George Marriner, a graduate in engineering of Glasgow University, and trained at Yarrow shipbuilders, became the Burntisland Shipbuilding Co’s agent in Australia.

Scots-Australian marine engineers founded a professional association, the Engineering Association of New South Wales, in 1870. John Fyfe, Snr,.

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76 McKellar, From Derby, p. 74.
Marriner, George, see Richards, Workhorses in Australian Waters, p. 214.
Other leading Scots-Australian Superintendent Engineers included Bill Douglas of the Illawarra & South Coast Steam Navigation Co Ltd of Sydney and the Australian- Oriental Line Ltd (Swire Group/Hong Kong inter-colonial connection) and Dundonian George Oswald of the Adelaide Steamship Co Ltd; Richards, Workhorses, pp. 207-208.
78 After WWI, incorporated in the Institution of Engineers Australia; Richards, Workhorses, p. 122.
McKellar, From Derby, footnote 120, p. 16.
Scottish Shipbuilders and the Australian Market, 1901-1914.

In the years leading up to the First World War, Scottish shipbuilders became the friends and lead builders of the Australian private shipowners. In general, only a few friends were invited to tender for work. Before the First World War and until the early 1920s, British shipbuilders estimated a tender price for a ship on the basis of the cost of all materials and labour that went into the building, plus a sum for shipyard establishment charges, plus a sum for profit. This was the 'basis' price that the builder tendered to the owner. If the tender was accepted, 'extras' might be negotiated between the parties; allowance was made for any increase in the cost of labour and materials during construction, or additional items that the client might ask for. These extras could give rise to disputes when there was insufficient trust between owner and builder. Neither side wanted the expense of arbitration, however, so that an accommodation was

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61 The 'cost-plus' contract. GUAS, UCS3/7/1, UCS3/7/2, Alexander Stephen & Sons Ltd, Estimate Books, and National Archives of Scotland (NAS), GD313/9/n, Burntisland Shipbuilding Co Ltd, Estimate Sheets.
See also Johnman, Lewis & Murphy, Hugh, British Shipbuilding & the State: A Political Economy of Decline (Exeter, Exeter University Press, 2002), p. 20, re: the 1920s.
62 GUAS, GD400/1/1, Ailsa Shipbuilding Co Ltd, Minute Books, between 11 December 1908-10 October 1909, re: Merimbula for the Illawarra & South Coast S.N. Co Ltd, Sydney, a dispute that arose because of insufficient of trust. In 1922-23, there was an eighteen month dispute between the Ailsa SB Co and agents for a South American owner over the builder's claim for cost inflation above contract price, re: José Menendez (Table 3. 7, Chapter 3); GUAS, GD400/1/3, Minute Books, 21 February 1922, onwards.
See also Boyce, 'Network Knowledge & Network Routines', pp. 69-70.

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usually reached. When work was scarce and competition was keen, in the mid-1920s, for example, builders were obliged to offer fixed prices.

The Agreement (contract) between builder and owner set out the sum to be paid for the ship and terms of payment. Before 1914 and until the 1950s, payment was usually made in stages, as work on the ship progressed, the final payment being made when the ship was handed over. At times, the owner took out a mortgage on his ship, using the firm’s shares as collateral. The mortgage was usually repaid within a few months. The system worked well enough when trade was good, but securing repayment caused shipbuilders problems during the inter-war period and in the 1950s when trade was depressed. To the cost of the ship 'handed over/delivered Greenock/Forth', the Australian owner had to add various supplementary expenses. These appear in the owner’s ‘Ships’ Cost Accounts’ and show the final price of the new ship ‘delivered Australia’. These additional expenses included, for example, a naval architect’s fees for drawing up the ship’s plans, the salary and living expenses of the owner’s representative who supervised the construction of the ship in Britain and the crewing and other costs of the delivery voyage to Australia. An example from 1910 is the Zeelandia, a passenger liner built by John Brown of Clydebank for Huddart, Parker, Ltd. The contract price with the builders was £141,095; the price ‘delivered Australia’ was £163,067.5s.6d, so that additional expenses amounted to some £22,000, about 15.57 per cent in addition to the contract price.

It is worth making the point about supplementary expenses clear here. Before 1914, and as late as the 1950s, Australian owners accepted these additional expenses as the price of having a ship purpose-built for them in Britain. By the 1960s, however, Australian-built ships were available at prices equal to or lower

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than British-built shipyard prices. The oncosts of having a ship built in Australia would be lower than the costs of building in Britain. The point will be illustrated further in a later Chapter.

The following Tables 1.4 and 1.5 show some sample contract prices-per-ton of Scottish-built ships during the period 1901-1914. The price-per-ton is a useful measure for comparing the cost of ships over time. Prices-per-ton of British/Scottish-built ships immediately after WWI were considerably higher than the prices quoted in the Tables here. What effect these higher prices had on Australian owners' inclination to order new ships will be discussed in Chapter 3.

The contract price is chosen in the Tables throughout this thesis because it is the price for the work, excluding any extras, quoted in the 'Agreement' between shipbuilder and owner. Before WWI, the contract price of a small Australian intrastate cargo ship or passenger steamer with cargo space of 1,000-1,500 gross tons would range from £20-£30 per gross ton. The trade weekly Fairplay usually quoted the price of a ship in £ per deadweight ton. It is difficult to make exact comparisons between price-per-gross ton of passenger ships and price-per-deadweight ton of cargo ships. Gross tonnage is a measure of 'internal volume of all enclosed spaces' within the ship; deadweight capacity is the tons weight of cargo the ship can carry. In passenger ships ('pass' in the Tables), the gross tonnage is generally greater than the deadweight; in cargo ships ('cargo' in the Tables), deadweight is greater than gross tonnage. When the deadweight tonnage of a ship was not available, it has been necessary to quote the price per gross ton. Prices-per-ton are simply calculated by dividing the contract price by the ship's gross tonnage (gt) or deadweight tonnage (dwt).

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Table 1.4. Sample Ship Contract Prices-per-Ton, Inter-state Ships, 1905-1912.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Year built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt tons</th>
<th>Contract price £</th>
<th>Contract £/gross ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss Arahura</td>
<td>1905</td>
<td>pass +</td>
<td>1,596</td>
<td>755</td>
<td>£46,905</td>
<td>£29.8s ^</td>
</tr>
<tr>
<td>ss Echunga</td>
<td>1907</td>
<td>cargo</td>
<td>4,589</td>
<td>3,200</td>
<td>£27,200</td>
<td>£5.18s ^</td>
</tr>
<tr>
<td>ss Makura - Estimate</td>
<td>1908</td>
<td>pass</td>
<td>8,075</td>
<td></td>
<td>£191,000</td>
<td>£23.13s - estimate</td>
</tr>
<tr>
<td>ss Ulmaroa</td>
<td>1908</td>
<td>pass</td>
<td>5,777</td>
<td></td>
<td>£127,100</td>
<td>£22</td>
</tr>
<tr>
<td>ss Karoola</td>
<td>1909</td>
<td>pass</td>
<td>7,391</td>
<td></td>
<td>£145,000</td>
<td>£19.12s</td>
</tr>
<tr>
<td>ss Zealandia</td>
<td>1910</td>
<td>pass</td>
<td>6,660</td>
<td></td>
<td>£141,095</td>
<td>£21.4s</td>
</tr>
<tr>
<td>ss Mandalay</td>
<td>1911</td>
<td>cargo</td>
<td>5,520</td>
<td>8,640</td>
<td>£57,250</td>
<td>£10.7s ^</td>
</tr>
<tr>
<td>ss Indarra</td>
<td>1912</td>
<td>pass</td>
<td>9,735</td>
<td></td>
<td>£195,000</td>
<td>£20-</td>
</tr>
<tr>
<td>ss Warilda</td>
<td>1912</td>
<td>pass</td>
<td>7,713</td>
<td></td>
<td>£159,335</td>
<td>£20.13s</td>
</tr>
</tbody>
</table>


Notes: 1. Corresponding price per deadweight ton was about £62.2s.
2. £8.10s per deadweight ton. 3. GUAS/UC3/7/1, Stephen Estimate for No. 113/Ship No. 426. 4. Johnston, Ian, *Beardmore Built*, (Clydebank, 1993), p. 165. 5. Corresponding price per deadweight ton was £6.12s.

Table 1.5. Sample Ship Contract Prices-per-Ton, Intrastate Ships, 1906-1914.
Table 1.5. Sample Ship Contract Prices-per-Ton, Intrastate Ships, 1906-1914.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Year built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt tons</th>
<th>Contract price £</th>
<th>£/gross ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss Brundah</td>
<td>1906</td>
<td>cargo</td>
<td>884</td>
<td></td>
<td>£25,800</td>
<td>£29.3s</td>
</tr>
<tr>
<td>ss Orara</td>
<td>1907</td>
<td>cargo</td>
<td>1,297</td>
<td>345</td>
<td>£28,500</td>
<td>£22.1s</td>
</tr>
<tr>
<td>ss Mourilyan</td>
<td>1908</td>
<td>pass</td>
<td>1,366</td>
<td></td>
<td>£46,204</td>
<td>£33.16s</td>
</tr>
<tr>
<td>ss Paringa</td>
<td>1908</td>
<td>cargo-pass</td>
<td>1,310</td>
<td></td>
<td>£26,735</td>
<td>£20.8s</td>
</tr>
<tr>
<td>ss Burringbar</td>
<td>1909</td>
<td>cargo</td>
<td>876</td>
<td></td>
<td>£23,700</td>
<td>£27.1s</td>
</tr>
<tr>
<td>ss Coramba</td>
<td>1911</td>
<td>cargo</td>
<td>531</td>
<td></td>
<td>£12,770</td>
<td>£24.1s</td>
</tr>
<tr>
<td>ss Wollongbar</td>
<td>1911</td>
<td>cargo-pass</td>
<td>2,005</td>
<td></td>
<td>£54,924</td>
<td>£27.8s</td>
</tr>
<tr>
<td>ss Bermagui</td>
<td>1912</td>
<td>cargo</td>
<td>402</td>
<td></td>
<td>£9,900</td>
<td>£24.12s</td>
</tr>
<tr>
<td>ss Mavis</td>
<td>1912</td>
<td>cargo</td>
<td>1,209</td>
<td></td>
<td>£30,000</td>
<td>£24.16s</td>
</tr>
<tr>
<td>ss Itagiba</td>
<td>1913</td>
<td>cargo</td>
<td>2,169</td>
<td></td>
<td>£52,750</td>
<td>£24.6s</td>
</tr>
<tr>
<td>ss Raven</td>
<td>1913</td>
<td>cargo</td>
<td>1,337</td>
<td></td>
<td>£33,000</td>
<td>£24.14s</td>
</tr>
<tr>
<td>ss Maple</td>
<td>1914</td>
<td>cargo-pass</td>
<td>1,304</td>
<td></td>
<td>£52,900</td>
<td>£40.11s</td>
</tr>
</tbody>
</table>

Sources: SLNSW, ML MS323/8, North Coast S. N. Co, 'Agreements' various dates; NBA/ANU, Z535, Adelaide S. S. Co, Meetings of Directors, various dates; GUAS, GD400/1/series, Ailsa Shipbuilding Co Ltd, Minute Books, various dates.

Notes: cargo-pass = cargo + passenger ship; ss = steamship.
1. Corresponding price per dwt ton is £82.12s. 2. Not strictly Australian ships; ss Maple included to show price inflation in 1914.

What is notable about these prices is that there is little difference in price-per-ton between small intrastate ships and the larger inter-state liners. Simple cargo ships were usually markedly cheaper than the passenger vessels because they required less outfitting. Only one intrastate passenger ship is outside the £20-£30 per gross ton price range. The figures suggest that there was little difference in costs of production between small and large yards. In the 1930s, there was a much wider range of prices-per-ton.

It is also worth considering some unsuccessful Scottish tenders for Australian work. Alexander Stephen & Sons' Estimate/Tender books\(^{66}\) show at what prices Stephen offered to build ships for their clients; they also show which

\(^{66}\) In Glasgow University Archives, UCS3/7/series.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

other (British) yards bid for the contracts, and indicate the range of bids to build the same ship. The full impact of unsuccessful tenders becomes apparent after the Second World War, when British shipyard prices were uncompetitive with those of foreign rivals.

The first unsuccessful Stephen tender was for a passenger steamer for McIlwraith, McEacharn, Ltd. (Table 1.4). Stephen’s estimate was for the ship was £147,000. A pencilled note in the Estimate book states that: ‘Palmer (Newcastle) estimated (tendered) £147,000; Caledon (Dundee) bid £152,000; Barclay, Curle (bid) £170,000 as at 12 November 1908. Karoola’s price was about £145,000, but H&W (Harland & Wolff, Belfast) are said to have lost on her, as the net cost turned out more than the contract price’.

In 1908, McIlwraith, McEacharn had little recent experience of ordering passenger ships and the directors possibly had no current experience of working with potential bidders. The contract was probably fixed through brokers. The successful tender was 1.379 per cent lower than Stephen’s offer, while the highest tender was some 17.24 per cent more than Harland & Wolff’s bid. Harland could probably accept a small loss on the job, if they had other profitable work on hand, naval contracts, for example.

The second example is for an inter-state passenger steamer for the Adelaide Steamship Co. Stephen quoted £181,000 for the work on 26 January 1911 and submitted a revised bid of £179,500 a month later. A pencilled note in the Estimate book states that: ‘D & W H(enderson) quoted £179,500. Said to be taken by Beardmore at £165,000’.

There are several points of note in this tender. Beardmore, the successful bidder, was better known for building battleships; work on their first had begun

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89 GUAS, UCS3/7/1, Estimates Nos.349/25 January 1911 and 355/20 February 1911.
at Dalmuir in May 1905. Until their bid for the Adelaide contract, the company had completed four cargo steamers and only one large passenger liner, and had lost money on three of the five contracts. On the other hand, both Henderson and Stephen had built for the Adelaide Company recently. Stephen's bid was for one ship, whereas Beardmore eventually built three (the three W-s, 1912-13). According to Johnston, the contract price was £159,335, each, (£20.13s per gross ton), well within the prevailing range of contract prices. However, the cost completed of each ship was some £217,197 (about £28.3s per gross ton, or 36.31 per cent more than contract price), a loss of £57,862 per ship.

What caused these substantial losses is not clear from the surviving Beardmore records. It is possible, although unlikely, that Beardmore's estimator made a huge miscalculation; mistakes did happen. Perhaps there were delays to the work because of Admiralty demands or industrial disputes. At any rate, Beardmore was probably anticipating so much profit on Admiralty contracts that it could afford to make a loss on merchant work. Among small yards that did not have Admiralty work, a few hundred £s was sometimes the difference between winning a contract and going out of business. In 1909, six small Scottish yards bid for a steamer for the North Coast S. N. Co, Sydney. There was only £360 (3.12 per cent) between the three lowest bids under £12,000. Scott of Kinghorn's bid was £820 (7 per cent) above the lowest tender, but the Company was already in financial difficulties with another Australian contract and was being liquidated even as its bid was being considered.

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91 SLNSW, ML MSS 323/9, Cables between North Coast S.N. Co and Scottish brokers, 23 June 1909.
93 NAS, BT2/4817, Dissolved Company files, Scott of Kinghorn, Ltd.
One further point is worth making about Beardmore's losses on the Adelaide Company contracts. The amount of the loss, per ship, was greater than the entire assets of Gourlay Brothers & Co (Dundee) Ltd, shipbuilders, when that company was liquidated in June 1908. Gourlays was an old firm established in 1854, with longstanding relationships with Australasian companies. By the early-1900s, however, the Company lacked the capital to modernise its yard, and sustained losses in the slump of 1905-07. By contrast, Beardmore was a new entrant to shipbuilding, well capitalised, with interests in steelmaking and armour plating and, moreover, had Admiralty contracts. The disappearance before 1914 of Gourlays and Scotts left openings for new entrants after the war and their places were taken by Henry Robb at Leith and the Ayre Brothers at Burntisland.

Table 1.6. Market Shares of the Australian Market, 1901-1914.

Table 1.6 shows the respective market shares of the Australian market of Scottish, 'Other British', Australian and 'Foreign' (mainly European) shipbuilders between 1901 and 1914. The purchasers were the members of the Australasian Steamship Owners' Federation (ASOF, inter-state companies), inter-state companies who were not members of the ASOF, intrastate companies, collier owners and state-owned shipping lines. All cargo and passenger/cargo vessels over 500 gross tons that could be identified were included in the Tables. Many of the principal shipping companies also had fleets of shallow-draught river lighters ('droghers') of under 500 gross tons, used for lightering cargo between their larger sea-going vessels and upriver wharves. These craft would be included in the companies' fleets, as recorded in the Official Year Books. Tugs, dredgers and hopper barges, pilot cutters and harbour craft or vessels of under 500 gross tons are not included in the Tables. The numbers of vessels acquired during each time period were

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93 Dundee University Archives, MS 57/2/1, Gourlay Brothers & Co (Dundee) Ltd, Minute Book, Meeting of Creditors, 11 June 1908.
94 'Vessels Built in the Commonwealth', OYB No. 5/1912, pp. 671-672. The great majority of ships built in Australia before 1914 were built of wood, sail-powered and were of under 200 gross tons, suitable primarily for river work and inshore 'coasting'.
Table 1.6. Market Shares of Australian Market in Ships, 1901-1914.

<table>
<thead>
<tr>
<th>Scottish Yards Supplied (% of Total)</th>
<th>Other British Yards Supplied (% of Total)</th>
<th>Australian Yards Supplied (% of Total)</th>
<th>Foreign Yards Supplied (% of Total)</th>
<th>Total Number Vessels Supplied</th>
<th>Estimate Gross Tons 1901-1914</th>
<th>Average Vessels per Year</th>
<th>Average Gross Tons per Year</th>
<th>Av Gross Tons per Vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td>78 (58.65%)</td>
<td>37 (27.8%)</td>
<td>13 (10%)</td>
<td>5 (3.55%)</td>
<td>133</td>
<td>338,083</td>
<td>9.5</td>
<td>24,149</td>
<td>2,542</td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, Shipowner Supplements, various years and shipping company fleet lists.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

Of the 133 ships built for these companies between 1901-1914, (Table 1.7), 79 were 'cargos', 51 were passenger vessels with cargo capacity and three were 'colliers'. 78 (58.65 per cent) were built by Scottish yards and 37 (27.8 per cent) were built in other British yards; in total, British yards' market share was 86.45 per cent. 13 ships (10 per cent) were built in Australia and 5 ships (3.55 per cent) in 'Foreign'/European yards. The 'demand' (number of units purchased) is relatively small; 133 ships in fourteen years, or about 9.5 ships/year. Over 80 per cent of some companies' fleets, including Australasian United, the North Coast Steam Navigation Co of Sydney and the Union S. S. Co of New Zealand, were built in Scottish yards.\textsuperscript{95}

Table 1.7. Numbers of Types of Ship Sold to the Australian Market, 1901-1914.

<table>
<thead>
<tr>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>General cargo</td>
</tr>
<tr>
<td>Passenger/cargo-passenger</td>
</tr>
<tr>
<td>'Collier'</td>
</tr>
<tr>
<td>'Bulk carrier'</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Lloyd's Register of Ships, Shipowner Supplements, various years.

The significance of the amount of demand in the Australian market will become apparent when the figures for the periods 1919-1939 and 1945-1971 are discussed. If the demand were translated into annual shipyard output, it might represent the production of one medium-sized British shipyard. In 1929, for example, the Burntisland Shipbuilding Co built nine ships of 27,330 gross tons in total (3,036.67 gross tons, average).\textsuperscript{96} The small amount of annual demand had clear implications for the Australian shipbuilding industry, established

\textsuperscript{95} Appendix 1, p. 296.

\textsuperscript{96} Mackie, Robert Lesslie, 'Survival & Decline of Locally-based Family Firms in the Kirkcaldy Area', unpublished Edinburgh University PhD thesis, 1995, Table 5. 8, p. 208, based on records in National Archives of Scotland, GD313/1, Burntisland Shipbuilding Co.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

during WWI, 'as a wartime measure'. This point will be discussed below in Chapter 3.

Background, 1901-1914.
The opening sections of this Chapter have described the Australian market in ships as it was up to 1914. The market had remained more or less unchanged over the previous fifty years and business relationships were established between the shipowners and builders in Scotland. Before Federation, there was little or no government intervention in the market; the shipping companies themselves regulated it. Before 1914, coastal shipping was largely unchallenged as a means of inter-state transport. The states' publicly-owned railways did not yet provide competition on inter- or intrastate routes. The impact of railway competition on coastal shipping will be more fully discussed in later Chapters. After Federation, external influences began to modify the market. The Commonwealth government intervened through the Navigation Act and the setting up of the Commonwealth Conciliation & Arbitration Court.

Australia's Defence Interests and Warship Building before 1914.
By the 1880s, the Australian colonies had ambitions about colonising the Pacific islands, but also apprehensions about possible encroachment by European rivals, particularly Germany and France. These apprehensions gave rise to the Defence Agreement of 1887, by which Britain undertook to provide a Pacific naval squadron, partly financed by Australia and New Zealand. As Bach remarks, Australians frequently expressed the view that Britain had a duty to provide for the naval defence of Australia.\(^{97}\) Britain's commitment was not

unconditional, however; she retained control over the warships assigned to the Australasian station, and reserved the right to redeploy them at will. 96

Concern about Britain's ability to defend Australasia was raised by her response to growing Japanese naval power. Steiner & Neilson suggest that the British naval position in the Far East vis-à-vis France and Russia was weak, and that the Anglo-Japanese Defence Treaty of 1902 offered, 'a measure of superiority (to) allow for a strengthening of the home fleet', indicating Britain's true defence priorities. 97 Divergence between Britain's and Australia's national interests in defence matters was becoming apparent before WWI, and Britain's interests, the Dreadnought-building programme and 'the German challenge', were paramount. 100 The re-orienting of Britain's strategic interests towards Europe, and the First World War, allowed the Japanese Imperial Navy to expand, and Japanese shipping companies to extend their trading range in the Asia-Pacific region, into areas previously dominated by British shipping. 101 Doubts about Britain's real commitment to Australian defence prompted the establishment of warship building in Australia.

97 Steiner & Neilson, Britain & the Origins of the First World War, pp. 29-30.
Broeze, Frank, Island Nation (New South Wales, Allen & Unwin, 1998), p. 44.
100 Johnston, Beardmore Built, p. 12 and pp. 43-45, describes the German 'naval scare' of 1909, and the British Dreadnought-building programme.
The building of the German fleet under Tirpitz is described by Steiner & Neilson, Britain & the Origins of the First World War, pp. 29-30, and reference to the German Naval Laws can be found in Steiner & Neilson, pp. 51ff.
Jones, Francis I. W., 'The German Challenge to British Shipping, 1885-1914', Mariner's Mirror, Vol. 76/2, May 1990, pp. 151-166, deals mainly with the competition from German commercial shipping.
101 Johnman & Murphy, British Shipbuilding, p. 10, referring to a report from the British Embassy in Tokyo in 1917. Japanese shipping companies established themselves between Japan-Australia and Japan-India/Persian Gulf, at a time, during WWI, when British lines had withdrawn from the Asia-Pacific area.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

**The Commonwealth Naval Dockyard, Cockatoo Island.**

For their part, Australians did regard the Japanese as a threat; Japanese naval expansion was one of Australia’s motives for wanting her own naval defence force.\(^{102}\) Following the Russo-Japanese War, 1904-1905, the Commonwealth Government decided to establish naval shipbuilding in large scale, and warship building began at the Cockatoo Island Dockyard, Sydney, in 1910. John King Slater of Chatham (Naval) Dockyard was appointed General Manager in 1914. As Jeremy points out, the necessary technical expertise had to be built up from scratch. The warship builders Vickers, Ltd., Barrow supplied drawing office staff to help with design work and Cockatoo staff were seconded to Fairfields and William Denny Brothers to learn about ship construction.\(^{103}\) The Commonwealth Government ordered three torpedo boat destroyers from British yards. The contracts were awarded to Fairfields (two) and Denny Brothers (one); one of the Fairfields’ vessels was assembled at the Cockatoo Dockyard from material prepared in Glasgow.

A second shipbuilding yard, the New South Wales State Dockyard, was opened at Newcastle (New South Wales), where Broken Hill Proprietary (BHP) opened a steel-making plant in 1915. During the War, the Commonwealth Government inaugurated a programme of building merchant ships for Government account; the programme continued after the War. The Government’s motives for establishing merchant shipbuilding in Australia will be discussed in later Chapters.

Before 1914, Australian shipbuilding in large scale did not pose a threat to shipbuilders in Britain.\(^{104}\) Before the establishment of the BHP steelworks at Newcastle, there was no domestic source of steel plates for shipbuilding; plates

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‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

had to be imported from Britain or the United States. There were no maritime industries producing large marine steam engines, steering and cargo-handling gear and other items of ship outfitting; all had to be imported. There was no expertise in shipbuilding in large scale, in naval draughtsmanship, in shipyard organisation; all had to be learned overseas, or brought to Australia. Moreover, there were few shipyards, their annual output was tiny in comparison with British shipyard output, and, most pertinent, the completed ships were considerably more expensive than their British equivalents. Nevertheless, a national shipbuilding industry was of a piece with Commonwealth government policy of industrialisation and full employment, and, as a bonus, allowed for some modest import substitution.

Conclusions.
Chapter 1 of this thesis described the Australian coastal shipping market before the First World War. It was still a relatively unregulated market, although the Commonwealth government had signalled its intention to reserve coastal shipping for Australian-manned, -owned and -registered ships. It was an Empire market, one which British manufacturers expected to dominate. Nor did their clients consider placing orders elsewhere than at Home. The size of the coastal fleet and the type of ships required were appropriate for the needs of a pre-industrial economy. There was, as yet, no foreign-built product that was clearly technically superior to and cheaper than the British-built steam-powered coasting ship. The Danish-built diesel-engined ship did not emerge as a rival to British builds until the mid-1920s.

Scottish immigrants were the founding director-shareholders of seven out of twelve leading Australian coastal shipping companies. Home Scots held shares in and built ships for some of these companies. By 1901, Scottish shipbuilders had been supplying the Australian market for fifty years and more. The builders knew what types of ship the market required, and built them at a price at which the client could get a satisfactory rate of return. Knowledge of the type of ship also implied up-to-date ship design skills, resident in Australia, capable of
producing the exact specifications to which the Scots built. Home-trained Scots-Australian Superintendent Engineers and the Scots-Australian agencies in Britain were the channels through which technological information was passed to Australian shipowners. There was a developing pool of technological expertise available in professional associations like the Engineering Association of New South Wales and in the new Australian universities. Engineering workshops and ship repair docks provided practical training. This resident pool of expertise was pre-requisite for the establishment of shipbuilding in large scale in Australia during WWI.

Some 'Scottish kinship' factor does seem to account for Scottish shipbuilders' large share of the Australian market, therefore; 58.65 per cent between 1901 and 1914. The full effect of Commonwealth government intervention in the coastal shipping market was not felt until after 1918, through the enforcement of the Navigation Act and the continuing government wartime shipbuilding programme.

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Introduction

Chapter 2 deals with the Great War and how it affected Australian coastal shipping. Imperial (British) interests took precedence and there was no market in ships. In consequence of her shipping losses, the British requisitioned Australian coastal ships for Imperial service and any ships being built for Australia in British yards were also requisitioned. Australian coastal shipping services and her overseas trade were disrupted. The War exposed the inability of Britain’s merchant shipping fleet, on its own, to supply the Allies’ wartime needs, in the face of a prolonged enemy campaign. Britain made contracts with Australia to supply her with foodstuffs during the war, but was either unwilling or unable to supply the necessary shipping tonnage. The war gave Australia the unexpected (and unintended) opportunity to create a national, state-owned shipping fleet for overseas trading. The creation of the Commonwealth Government Line (CGLS) was in keeping with Australian Labor Party (ALP) policy on state-ownership. It was also supported by Australia’s primary producers and by their political allies, the Country Party (conservative). The CGLS offered lower freight rates to Australia’s overseas markets than the British Conference lines, and its creation was a direct challenge to British interests. The establishment of naval and merchant shipbuilding in Australia was also contrary to British interests. The British accepted the CGLS as an emergency wartime measure, as part of Australia’s contribution to the war effort, but it had no place in Britain’s conception of the post-war Imperial settlement.

The First World War.

During the First World War, there was no Australian market for ships. The requirements of Imperial defence took precedence over Australia’s needs for overseas and coastal shipping, and all the newest inter-state ships were
requisitioned for war service in the European theatre. Australian coastal shipping services were disrupted throughout the war.

Three years of fighting, 1914-1917, showed that there was approximate parity between Britain, the Empire and Britain's allies and Germany and hers. For all its apparent numerical strength and gross tonnage in 1914,¹ the British merchant marine was unable to provide for Britain’s wartime needs, in the face of the German submarine campaign. According to Arnold,² British government policy at the beginning of the war was ‘business as usual’; the Royal Navy would blockade Germany, disrupting the German war effort, while Britain supplied her Continental allies with the matériels they needed to fight the land war. By 1915, however, it was clear that the blockade was not going to cause Germany’s economy to collapse. Business as usual was abandoned and the British government took increasing control of the production of war materials and the supply of foodstuffs, and British merchant ships, Australian included, were requisitioned and at government disposal.

The German submarine campaign against allied shipping was having an effect. By December 1916, the British merchant fleet had lost some 500 steamers of over 1,600 gross tons each; by November 1917, the rate of British shipping losses exceeded the rate of replacement.³ As Bach notes, so urgent was the need for food transports in 1918 that the British government asked the Commonwealth to release more ships for war service. Some 45 per cent of the

¹ 18.3 million gross tons, 42.5% of total world tonnage in 1913 (Table 2. 1).
Pollard, British Economy, pp. 22-23, describes the full impact of unrestricted U-boat warfare on British merchant shipping.
Bach, Maritime History, p. 305, footnote 2, quotes Brassey’s figure for Britain’s total war losses as 9,031,828 gross tons of shipping.
Scottish Shipbuilders and the Australian Market, 1901-1971.

Australian inter-state fleet was requisitioned for Imperial service. Britain's net war losses are set out in Table 2.1a.

Table 2.1 Changes in Size of British and other Merchant Fleets, 1913-1919.

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4 Bach, Maritime History, p. 309. See also Tsokhas, W. M. Hughes, the Commonwealth Line', p. 294.
Table 2.1. Changes in Size of British and other Merchant Fleets, 1913-1939

<table>
<thead>
<tr>
<th>Year</th>
<th>1913</th>
<th>1913 change</th>
<th>1919</th>
<th>1920</th>
<th>1930</th>
<th>1939</th>
<th>1939 change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Million</td>
<td>%</td>
<td>Million</td>
<td>Million</td>
<td>Million</td>
<td>Million</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Gross</td>
<td>Total</td>
<td>Gross</td>
<td>Gross</td>
<td>Gross</td>
<td>Gross</td>
<td>Total</td>
</tr>
<tr>
<td>U.K.</td>
<td>18.3m</td>
<td>42.5%</td>
<td>16.3m</td>
<td>18.1m</td>
<td>20.3m</td>
<td>17.9m</td>
<td>26.1%</td>
</tr>
<tr>
<td>U.S</td>
<td>4.3m</td>
<td>10%</td>
<td>11.9m</td>
<td>14.5m</td>
<td>13.1m</td>
<td>11.4m</td>
<td>15.6%</td>
</tr>
<tr>
<td>Germany</td>
<td>4.7m</td>
<td>10.9%</td>
<td>3.2m</td>
<td>0.4m</td>
<td>4.2m</td>
<td>4.5m</td>
<td>6.6%</td>
</tr>
<tr>
<td>Japan</td>
<td>1.5m</td>
<td>3.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>World</td>
<td>43.1m</td>
<td></td>
<td>47.9m</td>
<td>53.9m</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Lloyd's Register of Shipping: Statistical Tables
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

From Table 2.1 it is clear that Britain’s net losses during the war were some two million gross tons. By 1919, Britain’s share of total World Gross Tonnage had fallen to 34 per cent from 42.5 per cent in 1913. The difference between Britain’s total war losses, 9.031m gross tons, and the total in this Table is accounted for by a large wartime merchant ship building programme. British shipbuilders turned over to producing replacement tonnage, moribund shipbuilding facilities were re-activated and shipbuilding capacity in Britain and the United States was increased. Australia’s contribution was the setting up of five new merchant-building yards. The world output of ships produced towards the end of the war greatly exceeded the anticipated post-war growth in world trade, leading to a slump in demand for ships in 1920-1921, and a collapse in the realisable value of ships on the market.

The Commonwealth Government Line of Steamers (CGLS) came about partly by chance, partly because of the demands of war. Both Tsokhas and Pollard make the point that the British response to the War, and the change to a war economy, was, initially, improvised, *ad hoc*. To secure her food supplies, she made bulk purchase agreements with Australia to supply her with foodstuffs, but there was insufficient tonnage available to move them. North American wheat was nearer to hand, and transporting it was a more efficient use of the ships available. However, the failure of the North American harvest in 1916 and the reluctance of British shipowners to send ships to Australia gave the Australians the opportunity to establish a national shipping line. The (Commonwealth) Royal Commission on Ocean Shipping Service, 1906, had advocated the setting up of a national line in order to reduce Australia’s dependence on overseas (mainly British) lines for her oversea trade. The proposal had bipartisan support in Australia. It accorded with ALP policy on state-ownership

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6 Tsokhas, Kosmas, ‘W. M. Hughes, the Commonwealth Line’, *passim.*
and had the support of primary producers/exporters and their political allies in the Country Party (conservative).\textsuperscript{7}

The British considered that they had first claim on all British shipping, Australian ships included. Both Hughes and Tull (Australian authors) note the effects of requisitioning, creating an acute shipping shortage in Australia and highlighting Australia's dependence on British shipping lines, over whose operations Australia had no control.\textsuperscript{8} There was a clear conflict of interests. Imperial priorities had the perverse effect of limiting the Commonwealth's ability to contribute to the war effort. Since the British were either unwilling or unable to provide the necessary tonnage, the Australians themselves were obliged to find the ships to fulfil the supply contracts.\textsuperscript{9} A number of enemy vessels had been seized in Australian ports at the outbreak of the war,\textsuperscript{10} and W. M. Hughes, the Labor Prime Minister, arranged, anonymously, to acquire British tramp steamers. In the end, the sale of fifteen was concluded. Needless to say, the purchase was strongly opposed by the British, Government and shipowners alike. The CGLS was in direct opposition to British Conference lines' interests, and the revenues from shipping services, the invisibles, were important credits (or debits) on either country's national accounts. While they accepted Government control of privately-owned shipping as a temporary wartime measure, the British could not accept Commonwealth government ownership of shipping, however patriotically motivated.\textsuperscript{11} Several authors comment that


\textsuperscript{8} Hughes, \textit{The Australian Iron & Steel Industry}, p. 133.

\texttt{Tull, Malcolm, 'Australia's Wheat Trade', \textit{Australian Economic History Review}, Vol. 32/2, 1992, p. 40.}

\textsuperscript{9} Broeze, \textit{Island Nation}, pp. 101ff

\textsuperscript{10} Twenty-eight, according to Pemberton, \textit{Australian Coastal Shipping}, p. 207ff.

\textsuperscript{11} Burley, \textit{British Shipping}, p. 26. According to Brennan, \textit{The Australian Commonwealth Shipping Line} (Canberra, Roebuck Society, 1978), when British owners found out who the purchaser was, they cancelled the sale of ten ships, and condemned Hughes's 'socialistic policies'.

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Scottish Shipbuilders and the Australian Market, 1901-1971'.

state control of the economy, including shipping, was regarded as an innovation, a novelty, virtually unknown in Britain before WWI. 12

Australian Resentment at Inchcape (P&O) and 'Conference'13 Domination of the Britain-Australia and Return Trades.

The Australian Labor Party and the maritime trade unions were in favour of a state-owned shipping line, manned by Australian crews, and Australian primary producers/exporters and their political allies in the Country Party also supported a Commonwealth Government Line (CGLS). The primary producers shipped to Britain on a 'cost-insurance-freight' basis; i.e., they delivered the commodity to the ship, insured it, and paid the freight.14 As the British Conference lines determined freight rates unilaterally, without reference to the shippers, any increase in freights increased the cost of Australian produce on the British market. Moreover, Conference could raise freights without fear of competition. When a competitor like the CGLS appeared, offering shippers lower freights, Conference simply cut its rates, or threatened to penalise shippers if they patronised the rival.15 The competitor was either forced to join the Conference, or go out of business. As noted by Burley and Pollard, shipping charges made

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Pollard, British Economy, pp. 18ff.
See also Bach, Maritime History, pp. 152-153.
15 Tsokhas, 'W. M. Hughes, the Commonwealth Line', pp. 296-297. For example, Conference ships would refuse to take a shipper's cargo, if no CGLS vessel were available.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

an important contribution to the British balance of payments and were a corresponding debit on Australia's. 16

There was particular resentment in Australia about 'The English Combine', the derogatory term for the British Inchcape Group (the Peninsular & Oriental Steam Navigation Company, and associated companies). Australian concerns were not without reason. Between 1910 and 1919, P&O acquired or merged with several companies trading between Britain and Australasia; the Australian Blue Anchor Line (1910), British India Steam Navigation Co. (1914), the New Zealand Shipping Co Ltd (1916), the Union Steamship Co. of New Zealand (1917), Eastern & Australian S. S. Co. (1919), and Orient Line (1919). The inter-state Australasian United Steam Navigation Company (AUSN) was already part of the Inchcape Group, and controlled from London.

At the launch of the CGLS liner Moreton Bay in December 1921, a representative of the Commonwealth Government stated that the five - Bays 17 were intended 'to ensure for Australian consumers and producers carriage of their products and requirements on equitable terms, and to prevent a stranglehold (sic) being placed on Australia by a large combine'. 18 Broeze, too, refers to the 'stranglehold' of P&O and British shipping companies in the Australia trades.19 Burley comments on the amount of overseas capital being invested in Australian interstate shipping in the 1920s. He reports the finding of the First Report of the Royal Commission on the Navigation Act that Inchcape

17 The five passenger and cargo ships built in Britain for the Commonwealth Government Line.
18 Shipbuilding & Shipping Record, 8 December 1921.
19 Broeze, 'Private Enterprise, p. 26 and Island Nation, pp. 100-101. Nota bene that Broeze did not have the same uncritical admiration of the British as John Bach, Norman McKellar and an older generation of Australian maritime historiographers.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

Group had acquired control of almost every Australian inter-state company. British control of Australia's coastal shipping merely compounded Australian resentment about British control of her oversea trade.

The Commonwealth Government Shipbuilding Programme.

The pre-war warship-building programme, carried out by the Cockatoo Island Dockyard, was described in Chapter 1. During the War, the Government inaugurated a programme of building merchant ships for Government account; the programme continued after the War. Orders were placed in five Australian shipyards for six D-class (5,500dwt), thirteen E-class (6,000dwt) and two 12,500dwt ships with refrigerated space, all steamers.

As a first step, the Commonwealth Government offered the post of Chief Executive Officer of the Commonwealth Government Shipping Board to W. H. Churchill, 'with full control of all merchant shipbuilding carried out in Australia'. Churchill, emphasising the exceptional circumstances in which the Australian industry was founded, remarks that shipbuilding was 'a valuable productive industry which, it is safe to say, would not have been accorded one moment's consideration under normal circumstances'.

Churchin recruited a skeleton shipyard production team in Britain, comprising a shipyard manager, a chief draughtsman, a foreman ironman and a foreman shipwright. Ship design work was done in a drawing office in London by draughtsmen seconded from British yards. The design work for the first Royal Australian Navy warships was, likewise, done in Britain; they were generally

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21 On returning to Britain after the War, Churchin described the Australian shipbuilding programme in the trade press: 'Australia's Shipbuilding Industry', *Fairplay*, 6, 13 and 20 January 1921.

22 'Australia's Shipbuilding Industry', *Fairplay*, 6 January 1921.
based on British designs, though with some modifications to suit Australian requirements. 23

Before the opening of the Broken Hill Proprietary Ltd. (BHP) steelworks at Newcastle (New South Wales) in 1915, heavy steel plates for shipbuilding had to be imported from abroad. 24 For the first building programme, Churchin purchased plates from the United States Steel Corporation and the British South Durham Steel & Iron Co. 25 Main engines, boilers and other ship’s equipment had to be imported. The Cockatoo Naval Dockyard assembled the Parsons steam turbines for the torpedo boat/destroyer Warrego (1912) which had been ‘imported in stripped condition’. 26

The Government set up the Commonwealth Ship Construction Department ‘to arrange contracts; prepare and distribute drawings; specify, order and distribute material, outfit, etc; supervise and make all payments; assist the various contractors with practical and technical information and instruction; and to superintend construction of the ship’. 27 Vessel design was to be of ‘sound commercial value’, similar to or slightly larger than the British standard ‘C’-type, and shipbuilding was to be carried out ‘on a commercial basis’. 28

Five shipyards in four eastern states took part in the government programme; Cockatoo Naval Dockyard and the New South Wales State Dockyard (NSW), Walkers’ Ltd, Maryborough (Qld), Williamstown Dockyard (Vic) and Poole & Steel Ltd (SA). The Shipping Board made contracts with the NSW State Dockyard for the construction of six ships, the terms of payment being (broadly speaking) based on £28 per deadweight ton, according to Churchin. As it

23 The Australian River-class destroyers, for example. Jeremy, Cockatoo Dockyard, p. 70.
26 Richards, Workhorses in Australian Waters, p. 138.
27 ‘Australia’s Shipbuilding Industry’, Fairplay, 6 January 1921, p. 80.
28 ‘Australia’s Shipbuilding Industry’, Fairplay, 6 January 1921, p. 76.
Scottish Shipbuilders and the Australian Market, 1901-1971.

turned out, the price agreed proved to be over-optimistic and the cost of the completed ships well over contract. Australian costs of production were considerably higher than British. Australian shipyard wage rates were higher than the equivalent British rates. Referring to the building of the Australian torpedo boat destroyer Yarra by William Denny Brothers, the compiler of The Denny List notes that the (Denny) yard employed about twelve Australian workmen (on the contract) to gain experience (in shipbuilding). 'The men were to be paid at British rates by the builders, their wages to be made up to Australian standards by their own government'. The establishment of large-scale shipbuilding in Australia was impromptu; the outcomes of the contracts, and how much they varied from the original contract prices did not become apparent until the mid-1920s.

The British trade periodical, The Shipbuilder, refers to a report on Australian manufacturing, issued by the Department of Trade, stating that the future of Australian shipbuilding was uncertain, 'owing to the high cost of labour and raw material'. Churchin's view of Australian shipbuilding was that,

Australia cannot compete with British shipbuilding. The Australian coastwise trade does not absorb sufficient tonnage to justify the establishment of many industries, the production of which play a prominent part in the completed ship. This necessitates the importing from other countries...with consequent increase in cost. Labour costs are also higher in Australia.

That is, it became clear to Churchin what the coastal owners knew already, that demand in the coastal shipping market was small and in proportion to the stage of Australian development at that time. There had to be self-imposed limits on demand, if the supply of ships on the coast was not to exceed the amount of

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30 Shipbuilder, October 1920, p. 199.
trade available. Whether there was a place for a five-shipyard Australian merchant shipbuilding industry, building over-priced ships, was debatable. The high costs of production meant that any Australian shipbuilding industry of that size would require continuing state financial support in order to survive. Indeed, that was the conclusion reached by the government's advisers during and after the Second World War, when the revival of the industry was being considered.

Conclusions.
The founding of the Commonwealth Government Line and the establishment of Australian shipbuilding were among the unintended consequences of the First World War. Both might have happened anyway; the war merely brought them about sooner. Under the pressure of the German submarine campaign and the exigencies of total war, the British were unable to supply the shipping needed to fulfil her food supply contracts with Australia. Political sentiment in Australia favoured a national shipping line, and there was bi-partisan agreement that Australia was over-dependent on British shipping for her overseas trade. There was growing resentment about the dominant position of the Conference lines in the Australia-U. K. trades. A state-owned shipping line implied a national shipbuilding industry to provide it with ships, while a shipbuilding industry in a developing industrial economy, competing with established shipbuilders overseas, required a national shipping line to provide it with work.

State intervention in business put Australia at odds with the British on several counts. There were public expenditure implications for an Australian economy that was dependent on borrowing from Britain. Australian public debt became a major issue in the late-1920s; the operating losses of the CGLS were reason enough for selling off its ships by 1928. British governments and the Conference lines had a common interest in the disappearance of the CGLS, because of the contribution of shipping services to the British national accounts. British shipbuilders had their pre-war 87 per cent share of the Australian market to protect.
Introduction
The inter-war period, 1919-1939, may best be divided into the years before the Wall Street Crash (October 1929; Chapter 3) and the years after (Chapter 4). The reason for making this divide is to show the clear collapse in demand for new ships after 1930—figures in Table 4.4 in Chapter 4. The total number of sales to Australian owners in the 1930s was one-third of sales in the 1920s.

Chapter 3 considers the changes in the Australian market that were brought about by the War. A number of factors influenced shipowner optimism or pessimism, the inclination to order new ships or place available funds in other investments. British/Scottish post-war new ship prices were clearly considered 'too high' in comparison with pre-1914 prices. Australian shipping companies developed into multi-dimensional businesses with large investments in non-shipping activities. If the likely rate of return on a new ship was reckoned to be inadequate, owners simply moved funds into non-shipping investments that offered better returns. Shipowners were also uncertain about the comparative costs and advantages of buying steam- or motor-powered ships. The marine diesel engine was developed before the First World War and growing numbers of ships were powered by diesel rather than steam engines in the 1920s. Australian shipowners did not feel that loyalty to British/Scottish friends obliged them to place orders in British yards at any price. If, as happened, a Continental 'outsider' offered a vessel that they considered technically superior, at a cheaper price with earlier delivery, the Australians accepted the Continental tender.¹

Other factors that influenced shipowner sentiment included Commonwealth government intervention through the enforcement of the Navigation Act. The implementation of the Act appeared to increase their operating costs by prescribing manning levels aboard ships. Maritime industry wage rates were adjudicated by the Commonwealth Arbitration Court and were outside the owners' control. The presence of the Commonwealth Government Line ships was another factor. The owners were uncertain whether they were going to operate on the coast in competition, or oversea. A national line, trading oversea, limited private owners' opportunities to get work for their ships on oversea voyages if coastal trade was slack. The owners also had to consider the possible effects of railway and road competition.

The government shipbuilding programme continued until 1924. There was the question of what to do with the ships that the programme produced. The wartime ALP government that initiated the programme intended to place an import duty on ships built abroad, to encourage owners to order from Australian yards. The National-Country Party (conservative) administration elected in December 1922 had no desire to be a shipowner and wanted to dispose of its fleet of highly-priced ships; for their part, the private owners were reluctant to acquire the ships at anything like the asking price. The availability of Australian-built ships also had implications for British/Scottish shipbuilders' share of the market.

The owners had also to take wartime and post-war industrial development into account. There were the effects of population growth, stimulated by the (British) Empire Settlement Act 1922. The Broken Hill Proprietary Ltd (BHP) Newcastle steelworks, opened in 1915, was producing steel, and there was a growing domestic market for all types of steel product and for consumer goods, including domestic appliances and motor cars. Output of steel-using plants, including Holden's Motor Body Builders Ltd, expanded, and American car manufacturers
Ford and General Motors set up branch assembly plants in Australia. These developments offered coastal shipping employment in the supply of raw materials (iron ore, coke and limestone) and in the distribution of manufactured goods.

This Chapter considers what effect these changes in the Australian market had on British/Scottish shipbuilders’ market share in the 1920s. Several factors clearly affected British shipbuilders’ costs and the attractiveness of the British-made product to potential clients. British shipyard prices were clearly considered too high in comparison with pre-1914 prices. Wartime bonus pay agreements continued until 1921 and there was a chronic shortage of steel, with consequent inflation of steel prices. Cost inflation and protracted delivery times meant that completed costs could be 30 per cent or more greater than contract prices. Pre-war British methods of estimating contracts, on a cost-plus basis, continued after the war, until the collapse of realisable values forced builders to tender on the basis of costs of labour and materials only. The Chapter notes some inflated and unsuccessful tenders for work and considers some shipbuilding company failures during the 1920s. These failures made room for new entrants, however.

After the War, potential customers were no longer limited to ordering steam-powered ships. The marine diesel engine had been developed before 1914, and now offered shipowners a choice. The availability of motor ships built by Continental builders at prices lower than British prices, meant that the British marine steam engine was no longer regarded as technically superior to any other form of propulsion, nor was it an automatic choice.

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2 Holden’s manufactured bodies for General Motors’ brands for sale in Australia. Holden’s was absorbed into General Motors in 1931; the merged company became General Motors-Holden’s Ltd. Forster, Colin, Industrial Development in Australia, 1920-1930 (Australian National University, Canberra, 1964), pp. 36, 43, 46.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

The background to these changes in the market was the developing Australian Debt Crisis, which came to a head in the late-1920s, and accompanied the Wall Street Crash of 1929. The post-war National-Country Party government had no wish to be saddled with the continuing costs of a national shipping line and a national shipbuilding programme. British lenders were alarmed at growing Australian public debt and the possibility of default. After the Crash, Australian revenues collapsed with the World slump in commodity prices. The full deflationary impact of the Crash was felt between 1930 and 1932. Although the Australian market in ships recovered in the mid-1930s, demand during the decade was only one-third of demand in the 1920s. For the first time, the state-owned railways offered an alternative to coastwise intrastate transport by sea.

Australian Coastal Shipping, 1919-1930.
Whereas the pre-war Australian market had been self-regulated by the private shipowners, the post-1919 market was regulated by the Government. The Navigation Act finally came into force in 1921. The intention of the Navigation Bill (1904) had been to reserve the Australian Coast for Australian-registered and -owned ships, manned by white Australian crews, in keeping with the White Australia policy. In this, the Bill met the coastal shipowners' complaints about unfair competition from overseas (mainly British) ships employing cheaper, non-white seamen. White Australian seafarers had been complaining since the 1880s about the overseas lines' use of so-called 'coolie crews' on their ships. Because of their lower crewing costs, the mail lines offered lower fares, and also greater comfort, than the inter-state company ships between the Australian state capital cities. In 1898-99, 'The steerage fare from Sydney to Fremantle in


4 Term used for Chinese seamen on foreign-registered ships in Australian waters in the 1880s. There was an 'anti-Chinese meeting' by the Seamen's Union at Port Adelaide in October 1884, Page, Fitted for the Voyage, pps. 72-73.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

An Australian ship was £5, but the Orient Company charged £4 and the White Star Line £4.10.0. One reason for the boom in orders for inter-state liners between 1901 and 1914 was to allow the Australian owners to match the speed and comfort of the mail ships.

The maritime unions and the inter-state owners had a common interest in the protection the Act offered. Although the owners were in favour of the Act in principle, in practice it promised to increase their operating costs. Vessels had to be taken out of service and modified to comply with the Act. Between 1919 and 1923, the Melbourne S. S. Co spent £8,353 on alterations to eight of its vessels. In 1927, Australasian United spent some £125,000 on the overhaul and modification of two turbine-powered passenger steamers, acquired within the Inchcape Group. The owners had to take on additional crew in accordance with the Act's 'manning provisions'. 'In general, no man should be expected to handle more than 3½ tons of coal per day' (Navigation Act). According to McKellar, the effect of this provision on Australasian United's crewing costs would be, 'that if the restriction to 3½ tons were applied to all vessels of the fleet, the Company would have to employ an extra twenty-nine

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5 Page, Fitted for the Voyage, p. 154. He also compares monthly wages' bills of Australian coastal and German mail steamers.

Other examples of inter-state fares are quoted by McKellar, From Derby, p. 143.

6 Australian writers, Bach, McKellar and Page, are critical of the Act, for imposing additional costs on the inter-state companies. Indeed, they are critical, in general, of Commonwealth Government intervention in Australian coastal shipping. In fact, many of the provisions of the Act (copy in Glasgow University Archives, UCS3/40/43, Alexander Stephen & Sons, Ltd) were about simple health and safety aboard ship; minimum space standards in crew accommodation, hot and cold running water and adequate sanitation, provision of mess rooms, and hospital accommodation on larger ships, provision of an enclosed wheelhouse, backup power and steering apparatus, etc. What the owners objected to was the Act's prescriptiveness on manning levels aboard ship, which added to crewing costs.

7 Bach, Maritime History, p. 313.

6 'Manning Committees' were set up 'under the auspices of the (Arbitration) Court, to decide on questions involving the employment of additional men', McKellar, From Derby, p. 375.

See also McKellar, From Derby, p. 315.

Royal Commission on the Navigation Act, Page, Fitted for the Voyage, pp. 211ff

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'Scottish Shipbuilders and the Australian Market, 1901-1971'.

firemen'. Moreover, the private owners could no longer control their own wage costs; wage rates for seafarers and wharfside labour were adjudicated by the Commonwealth Arbitration Court. The War and the immediate post-war period were marked by industrial disputes over wages, manning levels and working conditions. Bach notes that wage rates in coastal shipping rose by 30 per cent between 1910 and 1915, and there was a further increase in the wake of industrial action in 1919. The effect of these settlements was that company operating costs doubled between 1913 and 1923. The Commonwealth Government was determined to implement the Act, however, and it was promulgated in 1921. It only applied to the inter-state companies. The intrastate owners' representatives, the Coastal Steamship Owners' Association, made a successful application to the High Court that intrastate vessels should be exempted from the Act.

Australian coastal freight rates were high in comparison with world rates. Tull remarks that, 'In 1928, it cost 6s 3d-6s 9d per 100 foot to ship timber from Baltic ports to Australia, but the freight from Brisbane to Melbourne (Vic) was 6s and from Brisbane to Adelaide (SA) 10s 3d; also copper Townsville (Qld)-Antwerp was 20s/ton, while copper Townsville-Port Kembla (NSW) was 21s/ton'. In general, inter-state companies could simply pass on the increases to their customers in increased fares and freight rates. During the inter-war period, there was little effective competition from railway or road transport on the inter-state routes. Air travel developed in the 1930s, but only became a serious competitor on inter-state routes after WWII. The same was not true, however,

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9 McKellar, From Derby, p. 315.
10 Bach, Maritime History, p. 328.
11 Bach, Maritime History, p. 331, p. 313.
See also ‘Commonwealth Navigation & Shipping Legislation’, OYB, No. 17/1924, pps. 1053-55.
for intrastate companies like the North Coast Steam Navigation Co Ltd of Sydney, which were well aware of their operating costs relative to those of the New South Wales State Railways. The effect of high maritime labour costs on shipping, in comparison with road and rail transport, became more apparent after the Second World War.

Table 3.1. Companies Engaged in the Inter-state Trades Reporting to the Commonwealth Government, 1901-1925.

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Table 3.1. Companies Engaged in the Inter-state Trades Reporting to the Commonwealth Government, 1913 and 1920-1930.

<table>
<thead>
<tr>
<th>Year</th>
<th>1913</th>
<th>1920</th>
<th>1921</th>
<th>1922</th>
<th>1923</th>
<th>1924</th>
<th>1925</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Shipping Cos reporting</td>
<td>23</td>
<td>23</td>
<td>39</td>
<td>32</td>
<td>35</td>
<td>39</td>
<td>41</td>
</tr>
<tr>
<td>No. 'Steamships'</td>
<td>190</td>
<td>154</td>
<td>183</td>
<td>195</td>
<td>205</td>
<td>207</td>
<td>209</td>
</tr>
<tr>
<td>Gross tonnage</td>
<td>364,937</td>
<td>280,609</td>
<td>317,019</td>
<td>357,652</td>
<td>384,650</td>
<td>382,622</td>
<td>384,004</td>
</tr>
<tr>
<td>Licensed for No. 1st Class passengers</td>
<td>9,826</td>
<td>5,250</td>
<td>4,226</td>
<td>4,647</td>
<td>9,184</td>
<td>9,538</td>
<td>9,110</td>
</tr>
<tr>
<td>Licensed for No. 2nd/ Steerage passengers</td>
<td>7,635</td>
<td>5,632</td>
<td>4,642</td>
<td>5,016</td>
<td>4,756</td>
<td>4,343</td>
<td>4,204</td>
</tr>
<tr>
<td>No. Shipping Cos reporting</td>
<td>44</td>
<td>40</td>
<td>38</td>
<td>29</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 'Steamships'</td>
<td>216</td>
<td>212</td>
<td>201</td>
<td>181</td>
<td>173</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross tonnage</td>
<td>375,893</td>
<td>398,894</td>
<td>371,142</td>
<td>360,459</td>
<td>349,163</td>
<td></td>
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<tr>
<td>Licensed for No. 1st Class passengers</td>
<td>8,686</td>
<td>7,909</td>
<td>7,686</td>
<td>7,983</td>
<td>7,686</td>
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</tr>
<tr>
<td>Licensed for No. 2nd/ Steerage passengers</td>
<td>3,650</td>
<td>3,438</td>
<td>3,240</td>
<td>1,755</td>
<td>1,784</td>
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</table>

Source: Official Year Books, various years.

Note 1 'In this year, a number of small organisations were included for the first time'.
The effects of war service and Australian war losses can be seen by comparing the figures for 1913 with those of 1920 (Table 3.1).\textsuperscript{15} Owners sold a number of passenger ships immediately after the war, to take advantage of high second-hand prices. By 1921, requisitioned ships had returned to the coast. The figures for licensed places in 1920 and 1921 show the effects of war losses and the post-war sale of passenger ships; the net decline in the number of available places between 1913 and 1921 was some 49 per cent. Later in the decade, there was some revival of optimism about passenger travel by sea, and the inter-state companies ordered new liners. The number of First Class places increased but companies appear to have limited their provision for Second Class and Steerage passengers, indicating, perhaps, that they wanted to attract a monied, more profitable clientèle. Rather than providing for short, stage journeys, the owners were offering longer-distance travel during summer and cruising to sub-tropical Queensland during the winter season.

The increase in the numbers of steamships between 1920 and 1926, 40 per cent, shows that optimism increased in the middle of the decade as new ship prices came back. Numbers of cargo ships were ordered to cater for the expansion of industrial output that was predicted after the war. It is not clear why there was such a dramatic drop in the 'Number of Shipping Companies Reporting' between 1928 and 1930. Towards the end of the decade, recession deepened and there was some rationalisation among the intrastate companies, but this alone cannot account for the sharp decline. According to Bach, 'by early 1930, no less than 58 per cent of the (Australian coastal shipping) fleet was (laid up)'.\textsuperscript{16} The recession was more marked between 1932 and 1934, as will be discussed in the following chapter.

\textsuperscript{15} For example, the inter-state passenger ships Kyarra (AUSN, about 500 passenger places), torpedoed and sunk on 26 May 1918 and Adelaide S. S. Co's Warilda, 430 places, torpedoed and sunk on 3 August 1918.

\textsuperscript{16} Bach, \textit{Maritime History}, p. 318.

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‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

One matter that Table 3.1 does not show, but that comes out in the shipping company Minutes, is that there were further attempts to reduce the number of inter-state companies during the War and in the 1920s. Inter-state companies acquiring shareholdings in smaller rivals was referred to in Chapter 1. In 1915 and again in 1918, the Adelaide S. S. Co approached Australasian United (Inchcape Group), suggesting a buy out of the Adelaide Co’s assets.17 Nothing came of the offers, but in 1922, the Adelaide Co Board approached McLwraith, McEacharn to ascertain ‘if they would consider amalgamation with the Adelaide S. S. Co, or sell their Australian shipping interests outright’.18 After further discussion between the parties, and correspondence with the Adelaide Chairman, Anderson, in London, the Board decided that the Companies were ‘too wide apart to warrant our making an offer’.19

These discussions suggest, however, that the Adelaide Company thought that there should be some reduction in the number of companies operating on the Coast, in relation to the business available. Rationalisation of inter-state shipping only really accelerated after World War Two, under pressure of competition from other transport modes. In the intrastate trades, the North Coast Company continued to acquire small rival companies, including Allen Taylor, Nicholas Cain and Langley Brothers.20

The Commonwealth Government Line.

There was uncertainty among the private owners about how and where the post-war Australian Labor Party government intended to employ the CGLS ships (Table 3.2). These included the twenty-one cargo vessels, built or under construction under the wartime shipbuilding programme. As noted above, the

17 McKellar, From Derby, pps. 324, 346
18 Noel Butlin Archives, Australian National University (NBA/ANU), Adelaide S.S. Co, Meetings of Directors, Z535 series, Book Nos 2, 3; 2 August 1922, p. 182.
19 NBA/ANU, Z535, Meetings of Directors, 19 September 1922, p. 210 and 31 October 1922, p. 233. There was further consideration in 1926, but, again, the Adelaide Board decided not to proceed; 16 February 1926, p. 252.
20 SLNSW, ML MSS 323, North Coast S. N. Co, Minute Books, 1920s.
pre-war coastal market was already self-limited by tonnage rights in order to avoid oversupply of shipping. The CGLS ships had been intended for overseas trading, to cater for Australian exports of primary produce.

To assess the threat of the CGLS ships to the private shipowners, it is helpful to compare the numbers of vessels and gross tonnages of the Government ships with those of the three largest inter-state fleets, the Adelaide S. S. Co, Australasian United S. N. Co, and Howard Smith (Australian Steamship Co).


<table>
<thead>
<tr>
<th></th>
<th>No. Vessels owned 1920-1921</th>
<th>Tonnage (gross)</th>
<th>No. Vessels owned 1924-1925</th>
<th>Tonnage (gross)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth</td>
<td>18</td>
<td>77,169gt</td>
<td>38</td>
<td>218,194gt</td>
</tr>
<tr>
<td>Government Line,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>requisitioned</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CGLS owned</td>
<td>16</td>
<td>62,038gt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CGLS total</td>
<td>34</td>
<td>139,207gt</td>
<td>38</td>
<td>218,194gt</td>
</tr>
<tr>
<td>Private owners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adelaide S. S.</td>
<td>20</td>
<td>45,478gt</td>
<td>27</td>
<td>65,900gt</td>
</tr>
<tr>
<td>Howard Smith</td>
<td>29</td>
<td>60,404gt</td>
<td>30</td>
<td>67,220gt</td>
</tr>
<tr>
<td>Australasian</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United S. N. Co</td>
<td>19</td>
<td>47,790gt</td>
<td>16</td>
<td>47,716gt</td>
</tr>
</tbody>
</table>

Sources: Lloyd’s Registers, Shipowner sections. ‘Commonwealth Government Shipping Activities’, ‘Shipping’, OYBs, various years. gt = gross tons.

Note 1. From 1 July 1914, transport statistics recorded in the Official Year Books were for the year ending 30 June each year.

Table 3.2. shows that the CGLS fleet was the largest single Australian fleet between 1920-21 and 1924-25, in terms of numbers of vessels and total gross tonnage. Their average size (4,094gt – 1920-21; 5,742gt – 1924-25) was much larger than that of the inter-state ships (Adelaide Co = 2,274gt/2,441gt; Howard
Scottish Shipbuilders and the Australian Market, 1901-1971'.

Smith = 2,083gt/2,241gt A.U.S.N = 2,515gt/2,982gt); the size of the inter-state ships was more appropriate for coastal trading.

The Government had intended its ships for Australia's overseas trades. They had no place in the British Conference lines' scheme of things, however; they challenged Conference control of Australia's trade. When the CGLS offered prospective clients lower freights than Conference, Conference simply cut its rates to match, and threatened clients who had offered their business to the Australians.\(^{21}\) Meanwhile, the Port of London Authority (PLA) obstructed CGLS's application for suitable berths in London Docks.\(^{22}\) CGLS ships were manned under Australian articles \(^{23}\) and were therefore more expensive to operate than those of the Conference. By 1924, the capital cost of government vessels in commission was £11,818,938, with an estimated £2,338,000 worth under construction. Total capital expenditure on the setting up of the CGLS was estimated at £15,557,042. However, the current valuation of all CGLS ships and property in 1923-24 was only £4,749,350.\(^{24}\) After trading profitably during the war, the CGLS made losses of £1,171,569 in 1921-22 and £1,626,150 in 1922-23.\(^{25}\) The operations for the three years 1923-1927 show an accumulated loss of £1,922,406, the loss for 1926-27 being £593,572.

The CGLS was the creation of the wartime Labor Party government. The National-Country Party (conservative) administration elected in December 1922 had no interest in running a loss-making state-owned shipping line. In 1924, it

\(^{21}\) Tsokhas, 'W. M. Hughes, the Commonwealth Line', \textit{passim.}\nBurley, \textit{British Shipping}, pp. 228ff.

\(^{22}\) National Archives of Australia (NAA), A457, 'Berths at Port of London Authority', re: 'Appropriated Berth – London', Letter, General Manager, CGLS to Port of London Authority, 3 November 1921.

\(^{23}\) by Australians at Australian rates of pay.
See also Burley, \textit{British Shipping}, p. 324.

\(^{24}\) All CGLS vessels, tackle, apparel, office furnishings and fittings, etc', \textit{OYB}, No. 18/1925, p. 269.

\(^{25}\) Tsokhas, 'W. M. Hughes, the Commonwealth Line', p. 298.

CGLS losses for year ending 30 June 1922, \textit{OYB}, No. 18/1925, p. 270.
offered the CGLS ships to the private owners at a valuation of £4,725,650. The last remaining ships were sold to the British White Star Line (Kylsant Group) in 1928 for £1,900,000. The 'sell-out' still rankled with Australians thirty years later. Not only were the ships sold at a considerable discount, no sooner were they disposed of than Conference raised its rates between Australia and Britain. The disappearance of the Commonwealth Government Line removed the threat of competition from the private owners, and former CGLS Australian-built ships were available at a fraction of their building costs. By 1928, in any case, there was growing anxiety about the Commonwealth government's ability to borrow in the City of London. The CGLS was the kind of state enterprise to which the Treasury and the Bank of England objected during the Australian Debt Crisis that followed the Wall Street Crash in 1929.

Shipping Company Reactions to post-war Conditions.
Reactions of the private shipowners to post-war conditions and to state intervention in their business varied. They complained that wartime charter rates paid by the British government had been insufficient to allow for post-war ship replacement. They complained about the financial losses being made by the state-owned shipping companies and they complained about post-war British shipyard prices. They declined to purchase the Australian-built cargo steamers at anything like the prices the Commonwealth government was asking.

‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

They did continue to pay dividends to their shareholders, however, albeit from the profits of non-shipping investments. Shipping companies held sizeable amounts of Commonwealth, state and British government stock. This, from the Adelaide S. S. Co Directors’ Minutes:

Accounts for 12 months ended 30 June 1922 (were read): Resolved to transfer the interest on British and Australian War Loans, Bonds, Deposits and Stocks, amounting to £60,368.13s.4d direct to accounts as under. Resolved that out of the general profits of £174,485.3s.1d (which amount is exclusive of the £60,368) to write off to Depreciation the sum of £60,300, and out of the balance of general profits, to pay a dividend of 9d/share.29

Further: ‘£200,000 at 5 per cent for seven years and £200,000 at 5½ per cent for three years to be placed with South Australian Govt.’ (from sales of stock in London). Apparently, these investments were to be ‘free of Federal and State Income Taxes...as per letter to Under-Treasurer and his reply’.30 There are similar references to investments in government stocks in the Huddart, Parker Directors’ Minutes of the same period. The implication of these investments is that government stocks offered a better rate of return and less risk than ordering a new ship. Indeed, a Tariff Board Report of 1928, quoted by Bach, claimed that shipping company returns on capital had been 2.6 per cent in 1926, 1.6 per cent in 1927 and 0.8 per cent in 1928.31 British newbuild shipyard prices in 1921-22, £30 per deadweight ton and upwards for a plain cargo steamer, were not attractive. In early-1922, the Adelaide Company Board discussed the purchase of ‘a new Gulf steamer’ but ‘decided not to build at the prices quoted’.

29 NBA/ANU, Z535/Box 13, Adelaide S.S. Co Ltd, Meetings of Directors, 22 August 1922, p. 193
30 NBA/ANU, Z535, Adelaide S. S. Co, Meetings of Directors, 9 May 1922, p. 126 and 16 May 1922, p. 129
31 Bach, Maritime History, p. 318.

The Tariff Board was established in 1921 to investigate requests from Australian manufacturers for tariff protection; Macintyre, Oxford History, Vol. 4, p. 212.
Scottish Shipbuilders and the Australian Market, 1901-1971.

Ships could be had at bankrupt sale prices around £10 per deadweight ton; in 1921, the Adelaide Board decided to purchase a bankrupt sale steamer from John Fullerton of Paisley.32 Besides the perceived high cost of new steamers, there was the continuing threat of disruption to shipping services by the maritime trade unions.

The inter-state shipping companies were multi-dimensional businesses with a variety of investments. After the First World War, they still held a major share of Australian inter-state trade. If their shipping businesses were not making the scale of profits they expected, they used profits from other investments to pay dividends to their shipping company shareholders. The Adelaide Company restructured its finances in 1920 and distributed a 'reconstruction dividend totalling £58,128.7s.6d' among its shareholders.33 In 1919, Australasian United paid £393,000 to acquire the Eastern & Australian (Mail) S. S. Co (acquisition of another company within the Inchcape Group); AUSN paid dividends of 10 per cent between 1915 and 1924.34 Between 1925 and 1930, inclusive, AUSN paid dividends of 5 per cent each year.35

Some owners modified their ships to comply with the Navigation Act and continued to offer coastal passenger services. Some, the Adelaide S. S. Co and Australasian United, simply took profits, sold their passenger ships at the top of the post-war price boom, and did not replace them until the late-1920s. According to Page, 'the directors (of the Adelaide S. S. Co) decided to sell the Wandilla, Willochra (the W-s), and other passenger-cargo ships because the coastal passenger trade was declining' (not explained). 'It was an ideal time to sell. (The W-s) fetched nearly double their purchase price, and even the old

32 NBA/ANU, Z535, Adelaide S. S. Co, Meetings of Directors, 30 August 1921, p. 6 and 1 November 1921, p. 37.
33 Page, Fitted for the Voyage, pp. 217-218, 233
34 McKellar, From Derby, pp. 345-348,
35 McKellar, From Derby, p. 458.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

*Allinga* (built 1897) was sold for £38,000 (£16.19s per gross ton). Lord Inchcape sold Australasian United's *Indarra* in 1920 for some £41.2s per gross ton, nearly double her price, completed, in 1912. One consequence of shipowners' reluctance to order new passenger tonnage was that, between 1919 and 1926, Scottish shipbuilders received no orders from Australia for a type of ship in which they specialised.

Some owners, seeing opportunities in Australian industrial development, purchased cargo ships at bankrupt sale prices in 1921-22, and ordered new ships once prices came back. Howard Smith and Huddart, Parker & Co, switched investment into steel making and mining. 'In 1918, Howard Smith Ltd. took a significant parcel of shares in Commonwealth Steel Products Ltd'. In 1928, Howard Smith had £400,000-worth of ordinary shares in Australian Iron & Steel Ltd. In 1921, Huddart, Parker purchased a controlling interest in the Metropolitan Colliery (NSW).

Such cross-shareholdings had grown up before the war, during the fierce competition for coal-carrying contracts. As industrial development proceeded in the 1920s and '30s, coastal shipping played an important rôle in transporting raw materials and finished goods. Although Australian coastal freight rates were high in the 1920s because of labour costs, it seems unlikely that the railways offered significant competition on inter-state movements, because of trans-shipment costs at the state borders. Some of the most important bulk movements were inter-state; coal from New South Wales, iron ore from South Australia, sugar cane from Queensland. Moreover, with their shareholdings in these commodities, the shipowners could ensure that they were transported in

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36 Page, *Fitted for the Voyage*, p. 205
37 Farquhar, *Howard Smith Shipping*, p. 24
39 MUA, Huddart, Parker Ltd, Minute Books, 1921, *various dates.*
their ships. High coastal freights don't appear to have affected coastal shipping's share of the bulk carrying trades. Even the completion of the east-west trans-continental railway in 1917 did not bring about a switch of freight from sea transport; indeed, quantities of goods and livestock carried on the railway had fallen sharply by 1925, as noted elsewhere in this Chapter.

In the circumstances, the complaints of the shipowners have to be treated with some caution. The coastal owners complained that Government charter rates during the War (Blue Book rates) had not allowed them to provide for depreciation/replacement at post-war prices. G. W. Turner, Manager of Howard Smith, claimed that Smiths had not made enough on shipping operations in 1922-23 to cover depreciation on the fleet. Arnold notes, however, that some British shipping companies made good profits during the early part of the War. 'The Daily Mail estimated net earnings in the shipping trade of £250 million in 1916, compared with £20 million in 1913'.

Moreover, the accounting rules of the period allowed companies to conceal profits. Describing the collapse of the Royal Mail Steam Packet Co, Davies & Bourn point out that, before 1929, company law did not require a firm to publish Profit & Loss accounts at all, although Royal Mail did. Secret transfers of profits between companies in the same group were not unknown. McLean notes that, between 1921 and 1936, Lord Inchcape transferred profits made by the Union Steamship Co of New Zealand 'to prop up (his) teetering empire'.

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41 Bach, Maritime History, pp. 306-310.
42 McKellar, From Derby, pp. 338-343.
One factor that deterred the smaller intrastate companies from ordering new tonnage was the possible imposition of an Import Duty on ships of under 500 gross tons built overseas. The intention of the duty seems to have been to persuade the coastal owners to order the smaller type of river-sea cargo lighter ("drogher") from an Australian builder. The lighter trades from the coastal ports to upriver wharves were those most at risk from railway competition. The duty was proposed by the immediate post-war ALP government. In 1922, after protracted negotiations between the North Coast Company of Sydney and Lithgows (shipbuilders) about a new ship, the North Coast Board cabled:

'Regret unable entertain (Lithgows' tender) unless Federal elections 16 December (return) Nationalists which means amended tariff promises ceasing next year might then consider ordering prior end year and still escape duty'.

A National-Country Party (conservative) government was formed in January 1923 and implementation of the Duty was postponed sine die. Nevertheless, intrastate owners placing contracts in Britain continued to stipulate that (any) vessel 'must be guaranteed to measure not less than 500 gross tons'. In a contract with a small intrastate firm, Lithgows (shipbuilders) guaranteed that the vessel they were building would exceed 500 gross tons, or, if under, would 'pay any Import Duty imposed by the Australian government'.

It is difficult to say that there was a general loss of confidence among Australian private shipowners in the immediate post-war period. Owners reacted differently to the changed market conditions. What trading conditions on the Australian coast would be appeared very uncertain. If passengers preferred

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46 SLNSW, ML MSS 323/14, North Coast Steam Navigation Co Ltd, Minute Books, 1920s, passim.
47 SLNSW, ML MSS 323/14, Cable dated 9 November 1922 from NCSNCo to their representative Dr. Robertson in Port Glasgow.
48 SLNSW, ML MSS 323/14, Cables Sydney-Port Glasgow, November 1923.
49 GUAS, GD320/8/1/587, Lithgows Ltd, Ships' Papers; Agreement, Pappinbarra for Cain's Coastal Co-operative Ltd, Sydney, 5 August 1924.
stage travel by rail or road, the inter-state lines offered leisure travel by steamer instead. Their position as intrastate general carriers was being challenged by the state-owned railways, but they were not threatened by serious inter-state competition until the deregulation of road transport after 1953.

If shipping wasn't making sufficient profits, or if the price of new ships was considered too high, the directors moved funds into government stocks or mining company shares. In the mid-1930s, they took control of Australia's embryonic airline, Australian National Airways Pty Ltd (ANA). They adapted to the changes brought about by the Navigation Act, placed funds in more profitable non-shipping investments and came back to market when conditions appeared more favourable. Suffice to say that there were no major Australian shipping company casualties in the 1920s, the Commonwealth Government Line excepted.

**Scottish Shipbuilders & the Australian Market in Ships, 1919-1930.**

One characteristic of Australian coastal shipping in the inter-war period was that investment in ships did not keep pace with industrial investment, particularly in mining. Figures for 'Gross Private Capital Formation', comparing shipping and mining, show that investment in mining overtook shipping investment in 1929, and exceeded it by a wide margin in the 1930s. Iron ore output increased from 128,000 tonnes in 1911 to 332,000 tonnes in 1916, to 701,000 tonnes in 1921. By 1930, output was 950,000 tonnes. Black coal output nearly doubled between 1901-1921; 6,948,000 to 13,003,000 tonnes, although output fell back after the Wall Street Crash. The iron ore required to be shipped from South Australia to Broken Hill's steelworks at Newcastle (NSW), while coal or coke was moved from New South Wales and Queensland to points of consumption in the other states. The tonnage of bulk cargo on offer greatly exceeded the

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52 Appendix 3 and Appendix 4, p. 250.
amount of shipping available to lift it. Broken Hill Pty, which had depended on a private shipowner for its shipping requirements, became a shipowner in its own right. In 1923, when the government offered the Company its (Australian-built) 6,000dwt ships, BHP took four. The effect of Australian shipyard output on the market can be seen in Table 3. 3.

Table 3. 3. Market Shares of the Australian Market in Ships, Comparison 1901-1914 and 1919-1930.
### Table 3. 3. Market Shares of the Australian Market in Ships, 1901-1914

<table>
<thead>
<tr>
<th>Scottish Yards Supplied (% of Total)</th>
<th>Other British Yards Supplied (% of Total)</th>
<th>Australian Yards Supplied (% of Total)</th>
<th>Foreign Yards Supplied (% of Total)</th>
<th>Total Vessels Supplied</th>
<th>Estimate Gross Tons 1901-1914</th>
<th>Average Gross Tons per Year</th>
<th>Average Vessels per Year</th>
<th>Average Gross Tons per Vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td>78 (58.65%)</td>
<td>37 (27.8%)</td>
<td>13 (10%)</td>
<td>5 (3.55%)</td>
<td>133</td>
<td>338,083</td>
<td>9.5</td>
<td>24,149</td>
<td>2,542</td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, Shipowner Supplements, various years and shipping company fleet lists.

### Market Shares of Australian Market in Ships, 1919-1930.

<table>
<thead>
<tr>
<th>Scottish Yards Supplied (% of Total)</th>
<th>Other British Yards Supplied (% of Total)</th>
<th>Australian Yards Supplied (% of Total)</th>
<th>Foreign Yards Supplied (% of Total)</th>
<th>Total Vessels Supplied</th>
<th>Estimate Gross Tons 1919-1930</th>
<th>Average Gross Tons per Year</th>
<th>Average Vessels per Year</th>
<th>Average Gross Tons per Vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td>44 (46.8%)</td>
<td>17 (18.1%)</td>
<td>21 (22.3%)</td>
<td>12 (12.8%)</td>
<td>94</td>
<td>289,532</td>
<td>7.8</td>
<td>24,128</td>
<td>3,080gt</td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, Shipowner Supplements, various years and shipping company fleet lists.
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

There were ninety-four additions to the fleet, made up of 67 general cargo ships, 12 passenger or cargo and passenger, 9 colliers and 6 bulk carriers. ‘The passenger fleet had shrunk from 174,963 tons in 1913 to 102,664 tons in 1923, while by 1926, further vessels had been sold (in 1927, there remained only seven liners on the coast, measuring 56,166 tons)’. 53

Table 3. 4. Numbers of Types of Ship Sold to the Australian Market, 1919-1930.

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>General cargo</td>
<td>67</td>
</tr>
<tr>
<td>Passenger/cargo-passenger</td>
<td>12</td>
</tr>
<tr>
<td>Collier</td>
<td>9</td>
</tr>
<tr>
<td>Bulk carrier</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
</tr>
</tbody>
</table>

Source: Sources: Lloyd’s Register of Ships, Shipowner Supplements, and shipping company fleet lists.

What is noticeable from Table 3. 3 is British/Scottish shipbuilders’ loss of market share between 1919 and 1930 and the increase in the percentage of Australian and Foreign builds. British yards’ market share fell from 86.45 per cent to 64.9 per cent. Scottish builders’ market share fell from 58.65 per cent to 46.8 per cent, but was still more than double the share of other British builders. Some reasons for fall in demand from Australian owners were set out earlier in this Chapter. Australian shipyards working for Commonwealth government account and war prizes took 22.3 per cent of the market. The market share of foreign-built vessels also increased as the private owners ordered ships, including some six Danish-built diesel-engined ships that were cheaper than British-built equivalents.

53 Bach, Maritime History, p. 315.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

Factors Contributing to British/Scottish Yards' Loss of Market Share of the Australian Market in the 1920s.

Several factors contributed to British/Scottish shipbuilders' loss of market share of both the world and Australian markets during the inter-war period. In good periods before WWI, British shipbuilders had been price fixers, taking contracts on a cost-plus basis (cost of materials-plus-wages, plus a fixed sum for establishment charges, plus a sum for profit). This continued after the war, until 1922, when smaller builders were obliged to tender for contracts on the basis of materials and wages only. That is, in the buyer's market in the mid-1920s, they became price takers.

Post-war contract prices were perceived as high in comparison with pre-war prices. Johnman & Murphy remark on the rise in production costs in the immediate post-war period, indicating that the replacement cost of ships rose by some 300 per cent between 1914 and 1920. Shipyard costs of steel and labour were inflated; industrial disputes caused delays in the completion of contracts, so that the final price of a ship could be 30 per cent, or more, greater than the original contract price. In the slump of 1920-21, the realisable values of ships collapsed. British shipbuilders complained that there was 'unfair' foreign competition from German, Dutch and Scandinavian yards, which offered lower tenders for work. The Commonwealth Government entered the Australian market as purchaser and, as a matter of policy, placed orders with Australian shipyards.

The high post-war price of steel was reflected in post-war ship prices. The price of steel plate in 1910 had been about £6.10s/ton, the price that Napier & McIntyre quoted to the Ailsa Shipbuilding Co Ltd for 3,000 tons.

54 GUAS, GD400/1/3, Ailsa SB Co Ltd, Minute Books, February 1922ff., National Archives of Scotland (hereafter NAS), GD339/1/1, Henry Robb Ltd, Minute Books, Minutes of A. G. M., 29 November 1922.
55 Johnman & Murphy, British Shipbuilding & the State since 1918, pp. 15, 20.
56 GUAS, GD400/1/1, Ailsa SB Co Ltd, Minute Books, 7 June 1910. The Ailsa Company bought 2,000 tons at £6.8s/6.9s per ton; Minutes of 18 October 1910.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

quotes the price of American steel in May 1920 as £25.10s per ton, £1.10s per ton cheaper than British steel. By June 1921, the price of steel had fallen by £4/ton. In 1921, 'Shipbuilders in Germany are getting their plates at £14/ton. Germans are selling plates in Holland and Belgium at £20/ton, which is £4.10s/ton below the price here'. In 1923, Wilfrid Ayre, director of the Burntisland Shipbuilding Co, wrote that, 'From the beginning of the year, steel prices advanced sharply from a figure of 22 per cent above pre-war as at January 1923 to 46 per cent above pre-war at June 1923. Taking all fluctuations into account, the cost of production today compared with December 1922 is an increase of 2 per cent or about 5s per deadweight ton'.

Problems over the price of steel were compounded by problems of supply. Steelmakers could not guarantee supplies, and delays in deliveries of steel caused delays in the completion of work, with inflation of the final prices of ships as a result. Shipbuilders tried to take control of steel supply. Hawthorns & Co Ltd's optimistic flotation Prospectus in July 1920 notes the current steel shortage, but states that 'the Company has joined with other shipbuilders to acquire the total share capital of the Steel Company of Scotland (in order to

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See also Payne, Peter L., Coivlles & the Scottish Steel Industry, (Oxford, Clarendon Press, 1979), 'Price of Ship Plates & Sections (£s per ton) for Delivery in Scotland, 1919-1930', Table 6. 3, p. 148. Payne's table draws on Steel Company of Scotland Minute Books XVII-XIX. From the table, the price of plates for ships peaked at £26/ton, 12 May 1920, falling to £12.50 (£12.10s)/ton, 14 October 1921 and £10.25 (£10.5s)/ton, 17 June 1923.
55 'Shipbuilding Notes', Fairplay 6 January 1921, p.68 and Fairplay 20 January 1921, p. 301.
GUAS, GD400/1/2, Ailsa SB Co Ltd, Minute Books, 10 July 1920. Beadmore (steelmaker) could not guarantee to meet the Ailsa Co's full requirements.
GUAS, GD400/1/3, Ailsa SB Co Ltd, Minute Books, 15 March 1923 and 10 May 1923. Because of delays in steel deliveries, the Ailsa Company was obliged to ask a local customer for extensions to the delivery dates of the two ships. There was also a lock-out of Boilermakers in the spring of 1923, causing work to be suspended.
secure supplies). Other shipbuilder shareholdings in Scottish steel-making companies are described in an unpublished Glasgow University thesis. Only by January 1929, however, were steel prices down nearly to pre-war levels; the price of ship plates was £8.7.6 per ton 'for plates delivered on the Clyde'; £7.17.6 for sections and £10.10 for boiler plates.

Post-war British shipyard wage rates were another factor that inflated post-war prices. The builders continued to pay wartime bonus rates until mid-1921. Comparing British and German wage rates in 1925, Amos Ayre of the Burntisland Shipbuilding Co noted that, 'A skilled shipyard worker in Germany is paid about 7½d per hour. The rate is less than half the rate paid to street sweepers in Britain', and that the cost of living was lower in Germany. Later in 1925, Ayre complained about 'the lack of patriotism' of British shipowners who placed orders abroad.

Between 1921 and 1923, intermittent industrial disputes with the shipbuilding unions delayed work, postponing dates of delivery to the purchasers. Ailsa Shipbuilding Co minutes note a number of cancellations 'on account of delay in delivery' in 1920; cancellation of (ship) No. 378 was announced on 12 October 1920. Inability to meet contract dates inevitably annoyed and inconvenienced

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62 NAS, BT2/3181, Dissolved Company Files. A Special Resolution to wind up Hawthorns & Co Ltd was passed at an Extraordinary General Meeting of Shareholders, 24 May 1928 and confirmed 8 June 1928.
64 'Scottish Steel Trade', Shipbuilding & Shipping Record, 17 January 1929
65 GUAS, GD400/1/3, Ailsa SB Co Ltd, Minute Books, 1 June 1921, which refers to the recent reduction in wages of shipyard workers by 6/- per week for timeworkers and 15 per cent for pieceworkers.
66 'German) wages' bills are lower and their men work out their 8 hours/day giving better output than is the case here'.
See also 'Shipbuilding Notes', Fairplay, 6 January 1921, p. 66.
67 GUAS, GD400/1/3, Ailsa SB Co Ltd, Minute Books, 12 October 1920.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

customers, and led to disputes with the builder about price increases. In the circumstances, customers simply cancelled orders, or placed work in Continental yards, which offered lower rates and shorter delivery times. An editorial in the trade press in 1924 complained about the loss of a repair contract to the Dutch New Waterway Shipbuilding Co of Schiedam. The Dutch company’s tender was £3,235 (20 working days), including £400, cost of taking the vessel to Rotterdam. The lowest Bristol Channel tender was £5,578 (38 working days). The same Dutch yard took a tender that the Leith builder Ramage & Ferguson would normally have expected to win, with a tender that was 10 per cent below the Scottish yard’s bid. The effect of these problems can be seen by comparing British newbuild shipyard prices with second-hand prices (the realisable values of ships) after the collapse of the World market in 1920-21.

Scottish Shipyard Prices in the 1920s.

Because of a growing excess of supply of ships over demand, the realisable values of ships collapsed in 1920. The realisable value is the price at which a ship of a given specification could be sold on the open market at a given time. There was a growing disparity between contract prices and market prices. For example, the Era (1920/5,500dwt), contract price £275,000 (£50 per deadweight ton), was sold in 1921 at a bankrupt sale price of £10.18s per deadweight ton, the realisable value being about one-fifth of the contract price.

The following Tables (3.5 to 3.9) trace the evolution of British shipyard prices (price-per-ton) between 1920 and 1929. As mentioned in Chapter 1, prices-per-

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68 'Another Ship Repair Contract Lost', Shipbuilding & Shipping Record, 21 February 1924, referring to the steamer Benwood. There were further complaints about 'unfair competition' by the New Waterway SB Co in subsequent issues of Shipbuilding & Shipping Record during 1924.

69 NAS, GD339/15/17, Ramage & Ferguson Ltd, Quotations' Book. Quotation for Eillerman’s Wilson Line Domino (1925), 30/1/1924.

70 Fairplay, 2 June 1921, p. 787
ton are simply calculated by dividing the contract price by the ship’s gross tonnage (gt) or deadweight tonnage (dwt). British pre-war contract prices were the standard with which Australians compared post-war British shipyard prices. In general terms, the price of a pre-war cargo ship could be £6 per deadweight ton and upwards, while the price of an inter-state passenger liner with cargo space varied from £20-£30 per gross ton (Tables 1.4 and 1.5). Immediate post-war British contract prices could range from £40/ton-£100/ton for a passenger ship with cargo capacity. The CGLS liner Largs Bay (1921), contracted for at the height of the post-war boom, cost about £62.16s per gross ton (about £76.10s per deadweight ton). However, the Commonwealth government would order at a level of price that would deter an Australian private shipowner. As Table 3.5 shows, no new inter-state liners were ordered until the late-1920s, and then at prices well above pre-war levels.

Table 3.5. Sample Contract Prices-per-ton, Scottish-built Passenger Ships, 1921-1929.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt tons</th>
<th>Contract £</th>
<th>Contract £/dwt ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>ts Largs Bay</td>
<td>1921</td>
<td>pass</td>
<td>13,851</td>
<td>15,000</td>
<td>£1,147,258</td>
<td>£76.10s/dwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss Wollongbar</td>
<td>1922</td>
<td>pass</td>
<td>2,239</td>
<td>1,100</td>
<td>£108,800</td>
<td>£98.18s/dwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mv Manunda</td>
<td>1929</td>
<td>pass</td>
<td>9,115</td>
<td></td>
<td>£407,000</td>
<td>£44.13s/gross</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tsmv Westralia</td>
<td>1929</td>
<td>pass</td>
<td>8,108</td>
<td></td>
<td>£378,000</td>
<td>£46.12/gross</td>
</tr>
</tbody>
</table>


Notes: mv = motor vessel, pass = passenger ship, ss = steamship; ts = turbine steamer; tsmv = twin-screw motor vessel.

71 Johnston, Beardmore Built, p. 167.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt tons</th>
<th>Contract £</th>
<th>Contract £/dwt ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss Amorapora</td>
<td>1920</td>
<td>pass/</td>
<td>10,200</td>
<td>£294,600</td>
<td>£28.18</td>
<td>£28.18s</td>
</tr>
<tr>
<td>tsmv Hauraki</td>
<td>1922</td>
<td>cargo</td>
<td>10,810</td>
<td>£253,310</td>
<td>£23.9s</td>
<td></td>
</tr>
<tr>
<td>ss Ulmarra</td>
<td>1923</td>
<td>cargo</td>
<td>945</td>
<td>£31,000</td>
<td>£32.16s</td>
<td></td>
</tr>
<tr>
<td>ss Arcoona</td>
<td>1924</td>
<td>cargo</td>
<td>5,080</td>
<td>£78,000</td>
<td>£15.7s</td>
<td></td>
</tr>
<tr>
<td>ss Ulooloo</td>
<td>1924</td>
<td>cargo</td>
<td>4,930</td>
<td>£77,250</td>
<td>£15.14s</td>
<td></td>
</tr>
<tr>
<td>ss Papoinbarra</td>
<td>1924</td>
<td>cargo</td>
<td>363</td>
<td>£24,100</td>
<td>£66.8s</td>
<td></td>
</tr>
<tr>
<td>ss Bergalia</td>
<td>1925</td>
<td>cargo</td>
<td>548</td>
<td>£23,757</td>
<td>£43.7s/gross</td>
<td></td>
</tr>
<tr>
<td>ss Bonalbo</td>
<td>1925</td>
<td>cargo</td>
<td>960</td>
<td>£34,950</td>
<td>£39.8s/gross</td>
<td></td>
</tr>
<tr>
<td>mv Mulcra</td>
<td>1925</td>
<td>cargo</td>
<td>1,500</td>
<td>£24,700</td>
<td>£15.9s</td>
<td></td>
</tr>
<tr>
<td>(built Denmark)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mv Nimbin</td>
<td>1927</td>
<td>cargo</td>
<td>1,052</td>
<td>£50,000</td>
<td>£35.14s</td>
<td></td>
</tr>
<tr>
<td>(built Denmark)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss Armadale</td>
<td>1929</td>
<td>cargo</td>
<td>9,060</td>
<td>£124,939</td>
<td>£13.16s</td>
<td></td>
</tr>
<tr>
<td>ss Cobargo</td>
<td>1929</td>
<td>cargo</td>
<td>860</td>
<td>£35,000</td>
<td>£58.7s</td>
<td></td>
</tr>
<tr>
<td>ss Talune</td>
<td>1929</td>
<td>cargo</td>
<td>3,500</td>
<td>£74,500</td>
<td>£21.6s</td>
<td></td>
</tr>
</tbody>
</table>


What is notable about the contract prices in Table 3.6 is their wide range, from £28.18s per dwt ton at the height of the boom in 1920, falling to £13.16s per dwt ton in 1929. On the other hand, prices per ton for one-off, purpose-built steamers for the Australian market remained high (£58.7s in 1929). Even at these price levels, however, the Ailsa Shipbuilding Co still made losses on both the Bergalia and Cobargo contracts for Australian clients (£1,385 ‘after debit of establishment charges’, and £3,416, respectively). 72

Some measure of the inflation of costs during contract can be judged from Table 3.7.

72 GUAS, GD400/1/3, Ailsa SB Co Ltd, Minute Books, 12 March 1925 and GD400/1/4, 23 April 1930 and following.
Table 3.7. British Shipyard Contract and Sale or Final prices, 1920-1921, Showing Inflation.

<table>
<thead>
<tr>
<th>Shipname</th>
<th>Built</th>
<th>Type</th>
<th>Gross/</th>
<th>Contract</th>
<th>Sale/final</th>
<th>% Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>dwt</td>
<td>£/ton</td>
<td>£/dwt</td>
<td></td>
</tr>
<tr>
<td>Amaroora</td>
<td>1920</td>
<td>pass/cargo</td>
<td>10,200</td>
<td>£28.18s/</td>
<td>£39.18s/</td>
<td>38%</td>
</tr>
<tr>
<td>Chilka</td>
<td>1921</td>
<td>pass/cargo</td>
<td>4,430</td>
<td>£66.16s/</td>
<td>£95.16s/</td>
<td>44%</td>
</tr>
<tr>
<td>José</td>
<td>1922</td>
<td>gt</td>
<td>4,441</td>
<td>£62.12s/</td>
<td>£85.11s/</td>
<td>36.69%</td>
</tr>
</tbody>
</table>

Sources: The Denny List; GUAS, GD400/1/3, Ailsa SB Co, Minute Book No.3, 28 August 1922. gt = gross ton (dwt tons not available).

Part of the problem of British post-war shipyard prices may have arisen from the type of relationships between the builders and their customers, and from the way in which contracts were made between them (Chapter 1). Passenger liners and passenger-cargo ships were generally built as one-offs. Contract price and delivery date were agreed, but both parties accepted that extras might be required during construction, the additional costs of which were subject to negotiation. Some modest inflation between contract and delivery was generally acceptable.

In the boom conditions immediately after the war, contracts were calculated in the same way. A typical example can be quoted from The Denny List:

'Amarapoora (Denny No.1062/1920). The price worked out on cost of labour and materials, plus 15 per cent for (establishment) charges and 5-7½ per cent for profit. The price originally agreed was £294,600, but because of (inflation)

73 There are references to the establishment of British shipbuilder-shipowner business relationships in Boyce, Gordon, 'Network Knowledge & Network Routines: Negotiating Activities between Shipowners & Shipbuilders', Business History, Vol. 45/2 (April 2003), pp. 52ff, passim.


the final price was £406,960; that is, some 38 per cent more than the contract price. The price of the Chilka (1921) (Table 3.7) rose by some 44 per cent between contract and completion. Inflation of that order inevitably led to disputes between the parties or the cancellation of contracts. The final completed cost of the José Menéndez (1922) was some 36.69 per cent above contract price (Table 3.7). The Ailsa Shipbuilding Co tried to claim for their additional expenditure, but had to go to arbitration with the purchasers, who refused to pay the additional sum demanded. The builders lost on the contract.75

A further point of interest in Table 3.6 is the appearance of the first diesel-engined ships (‘mv’) in the mid-1920s. These were built by Burmeister & Wain of Copenhagen (B&W) who had been developing the marine diesel engine for over ten years. The smaller Scottish yards, the Ailsa Shipbuilding Co of Troon or Henry Robb of Leith were not equipped to build diesel engines, but were interested in tendering to build ships’ hulls and fit them out with diesels.76

Marine diesel engine development was taking place in Scotland at Beardmore and the North British Marine Engine Works at Whiteinch. In 1923, however, there was no small output, proven British-made diesel engine comparable in price with B&W’s. Scottish tenders for a Mulora-type in 1923 were three times and more higher than B&W’s offer (£16.9s/dwt ton).77 Confirmation of the price difference between Scotland and Denmark can be seen in the case of the Nimbin (1927). The lowest Scottish tender (Ailsa SB Co, £72.14s/dwt ton for an

75 GUAS, GD400/1/2, Ailsa SB Co Ltd, Minute Books, 2 December 1919 and GD400/1/3, Minute Books, between 21 February 1922 and 13 September 1923.
76 GUAS, GUA/DC400/1/3, Ailsa SB Co Ltd, Minute Books, 15 August 1924 and 16 October 1924.
77 NAS, GD339/14/57, Henry Robb Ltd, Press Cuttings.
77 NBA/ANU, 2535 series, Adelaide S. S. Co, Meetings of Directors, 27 May 1924, p.241. ‘Approved acceptance of B&W’s offer to build for £24,700 (618,000 kr)’.
‘Agreement’ confirmed, Minute of 3 June 1924, p. 245.
840dwt ship) was double the contract price agreed between the North Coast Co of Sydney and B&W (£35.14s/dwt ton for 1,400dwt).\textsuperscript{76}

The marine diesel engine was as much a novelty to Australian shipowners as to builders in Scotland. In 1923, the General Manager of the Adelaide Company visited both Home and Continental yards "(to) enable him to get more information regarding motor vessels'.\textsuperscript{79} The preference for diesel machinery over steam may have seemed problematic, given Australia's known coal reserves and the availability in Australia of oil fuel for bunkering. Before WWI, however, there was already an Australian market for motor spirit and petroleum-based lubricants. The development of road and air transport and other petroleum-using industries in the 1920s created demand and oil refining and storage capacity followed. Commonwealth Oil Refineries, a partnership between the Commonwealth government and the Anglo-Persian Oil Company, was formed in 1920, and Australia's first refinery, at Laverton (Vic) began production in 1924. British and American oil companies set up Australian agencies to market refined products.

In early 1924, when the Adelaide Company wanted a small coaster for a subsidiary, it invited tenders from four British yards, including John Duthie Torry & Co in Aberdeen and Hawthorns of Leith. None of the builders had previous experience of building or fitting out diesel-powered ships. It is significant that all four quotations included installation of Dutch-built Kromhout motors rather than any British-built design. It may be that the Adelaide Company had stipulated Kromhout as a result of the General Manager’s investigations at Continental engine works. Kromhout, like Burmeister, had acquired expertise in building small output diesel engines for the Dutch home market.

\textsuperscript{76} SLNSW, ML MSS 323/15, North Coast S. N. Co, Cables Glasgow-Sydney and vice versa and Minutes between 18 June 1926 and 17 November 1926.
\textsuperscript{79} NBA/ANU, Z535, Adelaide S. S. Co, Meetings of Directors, 7 August 1923, p. 34.
As regards the actual tenders, Duthie's (£14,060) was the lowest, while Hawthorn's (£17,850, 26.95 per cent more than Duthie's) was the highest. Needless to say, both yards were desperate for the work at the time. Hawthorn's had booked a huge deficit the previous year, and had a large bank overdraft. In May 1924, Henry Robb made Hawthorn's an offer to take over their Victoria shipyard at Leith. The Adelaide Company favoured Duthie's tender, but they may simply have been kite-flying, as no further action was taken. Both Duthie and Hawthorn's went out of the business within a year. The Adelaide Company had an uncanny nose for builders in financial difficulties; witness the contracts made with Beardmore in the mid-1920s. One major attraction of the motor ship, as far as Australian owners were concerned, was that they required fewer men in the engine room than steamers. Operating costs of a motor ship were lower than those of a steamer, in consequence.

The difference between Scottish contract prices in 1919-1920 and realisable values after the crash in 1920-1921 can be seen by comparing the following Table 3.8 with Tables 3.5 and 3.6. Second-hand prices during the boom illustrate the shortage of shipping brought about by the war and the success of the German submarine campaign. At £30-£40 per gross ton, they were higher than the pre-war prices of newbuilt ships. By 1921, however, the realisable values of ships collapsed, as shipping freights collapsed and post-war supply of ships, worldwide, greatly exceeded demand.

The realisable value of steam tonnage, which was £19.46 per ton in 1915 and had risen to £29.43 in 1918 and to £42.51 in 1919, in 1920 stood at £34.09/ton,

80 NAS, BT2/3161, Dissolved Company files, Hawthorns & Co Ltd. Debit to the Profit & Loss Account as at May 1924 was £73,042; overdraft with the National Bank of Scotland was £54,412.
81 NAS, GD339/1/1, Henry Robb Ltd, Minute Books, 8 May 1924 and 1924-, passim.
82 NBA/ANU, Z635, Adelaide S.S. Co, Meetings of Directors, 29 January 1924, p. 145
83 Moreover, a lower level of skill was required than for a steam turbine vessel. Burley, British Shipping & Australia, p. 324.
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

and fell to only £9.93/ton in 1921. By mid-summer of 1921, the British trade press claimed that, 'It costs £18/deadweight ton to build a ship whose market value when completed is only £8/dwt ton'.


<table>
<thead>
<tr>
<th>Shipname</th>
<th>Built</th>
<th>Type</th>
<th>Tons deadweight</th>
<th>Sold year</th>
<th>Sale price</th>
<th>Sale price/ dwt ton</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before crash</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss Strathesk</td>
<td>1909</td>
<td>cargo</td>
<td>7,180dwt</td>
<td>1916</td>
<td>£145,000</td>
<td>£20.18s</td>
</tr>
<tr>
<td>ss Indarra</td>
<td>1912</td>
<td>pass</td>
<td>9,735gt</td>
<td>1920</td>
<td>£400,000</td>
<td>£41.2s/gt</td>
</tr>
<tr>
<td>ss Melbourne</td>
<td>1892</td>
<td>cargo</td>
<td>1,739gt</td>
<td>1920</td>
<td>£52,000</td>
<td>£35.13s/gt</td>
</tr>
<tr>
<td>ss Allinga</td>
<td>1897</td>
<td>cargo</td>
<td>2,242gt</td>
<td></td>
<td>£35,000</td>
<td>£16.19s/gt</td>
</tr>
<tr>
<td><strong>After crash</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss Ridley</td>
<td>1913</td>
<td>cargo</td>
<td>5,830dwt</td>
<td>1921</td>
<td>£80,000</td>
<td>£6.10s</td>
</tr>
<tr>
<td>ss Waltham</td>
<td>1906</td>
<td>cargo</td>
<td>8,163dwt</td>
<td>1921</td>
<td>£80,000</td>
<td>£6.10s</td>
</tr>
<tr>
<td>ss Ennisbrook</td>
<td>1914</td>
<td>cargo</td>
<td>5,970dwt</td>
<td>1921</td>
<td>£52,000</td>
<td>£7.00</td>
</tr>
<tr>
<td>ss Albistan</td>
<td>1905</td>
<td>cargo</td>
<td>5,540dwt</td>
<td>1921</td>
<td>£35,000</td>
<td>£6.6s</td>
</tr>
<tr>
<td>(ex-)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss Karamu</td>
<td>1912</td>
<td>cargo</td>
<td>664dwt</td>
<td>1921</td>
<td>£12,500</td>
<td>£18.18s</td>
</tr>
<tr>
<td>ss</td>
<td>1915</td>
<td>cargo</td>
<td>11,400dwt</td>
<td>1921</td>
<td>£70,000</td>
<td>£6.3s</td>
</tr>
<tr>
<td>Schwartzensiefs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss Era</td>
<td>1921</td>
<td>cargo</td>
<td>5,500dwt</td>
<td>1921</td>
<td>£60,000</td>
<td>£10.18s</td>
</tr>
<tr>
<td>ss Solskin</td>
<td>1921</td>
<td>cargo</td>
<td>1,580dwt</td>
<td>1925</td>
<td>£17,750</td>
<td>£11.4s</td>
</tr>
<tr>
<td>ss Levuka</td>
<td>1910</td>
<td>pass</td>
<td>3,820dwt</td>
<td>1926</td>
<td>£70,000</td>
<td>£18.7s</td>
</tr>
</tbody>
</table>

Sources: ‘Shipping Sales’, Fairplay, 1921, weekly, passim, McKellar, From Derby, p. 411.

Notes: 1. Strathesk was built for £9.7s/gross ton (Sale price was 257 per cent more). 2. Indarra was built for £23.16s/gross ton (Sale price was 72.46 per cent more).

Table 3. 8 shows that, by 1921, buyers, Australians included, could get second-hand ships a lot cheaper than British newbuilds. Whereas newbuild prices could be over £30 per ton for a cargo steamer, a bankrupt sale cargo ship could be had for a little under £11 per dwt ton. German war reparation tonnage could

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85 Shipbuilding & Shipping Record, 4 August 1921, pp. 366-367.
be had for around £6 per dw t ton.  C. W. Kellock & Co (brokers) sold the steamers Ridley and Waltham for the Craggs S. S. Co (in liquidation) for £80,000 the pair (£6-£7/dwt ton, each).  Fairplay notes that, ‘In March 1920, they were sold for £344,000 the pair’ (about £28.13s per dw t ton, each), a measure of how the market for ships collapsed later the same year.

Craggs S. S. Co. was one of several shipping companies liquidated in the early 1920s. Builders were left with uncompleted hulls or finished ships, part-paid for by bankrupt owners. In August and September 1920, Burntisland SB Co directors agreed to raise an action against Craggs in respect of a ship they were building for the owner, then in financial difficulties.

Some Australian owners were still prepared to pay inflated British shipyard prices, however, in order to get the purpose-built tonnage they wanted; Wollongbar (£98.18s/dwt ton), Pappinbarra (£66.8s/dwt ton). The cannie Australian owners either stayed out of the market until prices came back (Arcoona, 1924, Table 3. 6), or were able to negotiate keen prices with British builders. By 1923, when the Adelaide S. S. Co signed contracts with Beardmore for two plain cargo ships, the prices, £15.7s and £15.14s/dwt ton, were probably taken on the basis of cost of materials and wages only. These prices raise the question: Did the Adelaide Company receive intelligence, either from their Scottish broker, or from George Oswald, their Scots-Australian Superintendent Engineer, about Beardmore’s financial position when they placed the orders? Ian Johnston mentions the parlous state of the yard at the time, and of Clyde shipbuilding, in general. There is some other evidence of

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85 For example, Schwartenfels (1915), Table 3. 8.
87 Fairplay, 7 April 1921.
88 NAS/GD/313/1/1, Burntisland SB Co Ltd, Agenda, re: Ship No. 113, 10 August 1920
89 NAS/GD313/1/1, Burntisland SB Co Ltd, Agenda, re: Ship No. 113, 7 September 1920.
91 'Agreements signed', 31 July 1923, p. 29.
92 Johnston, Beardmore Built, pps. 129-130.
93 GUAS, UGD100/1/2, William Beardmore & Co Ltd, Minute Books, 1922-23. Beardmore was having problems with a contract with an Italian owner.
owners negotiating Scottish bids downwards in the prevailing buyer's market. As mentioned earlier, the Ailsa Shipbuilding Company booked losses on contracts during the 1920s, taken at cost of labour and materials only.

Scottish Shipbuilder Failures, 1919-1930.

By 1922 the full impact of defaults and bankruptcies within the shipping industry was being felt by the smaller Scottish yards.

It had been found impossible to secure any orders. It was resolved that, in the meantime, the amount to be included in estimates for establishment charges should be reduced to a figure which would merely show an advantage in taking the contract, compared with the alternative of closing down the works. Tenders to General Steam Navigation and other old clients would be (on the basis of) labour and material (costs) only.

In 1925-26, the Ailsa Company first considered closing their Ayr shipyard for a year, and then liquidating the company entirely. Moreover, the Ailsa Company was in direct competition for Australian work with the much larger Lithgows of Port Glasgow. The position of Henry Robb Ltd at Leith was similar.

Table 3. 9 compares some successful and unsuccessful Scottish tenders for ships in the 1920s. These are included here to indicate the range of over-

91 GUAS, GD320/8/1/597, Ships’ Papers; Agreement between Lithgows Ltd and Cain's Coastal Co-operative of Sydney, re Peppinbarra.
GUAS, GD400/1/4, Ailsa SB Co Ltd, Minute Books, 20 December 1927. General Steam Navigation persuaded Ailsa to reduce a tender by ‘probably about £1,000.’
92 GUAS, GD400/1/3, Ailsa SB Co Ltd, Minute Books, 21 February 1922.
93 GUAS, GD400/1/3, Ailsa SB Co, Minute Books, 8 October 1925 and 13/14 September 1926.
NAS, GD339/1/1, Henry Robb Ltd, Minute Books, 4th Meeting of Shareholders, 29 November 1922.
'The competition (for work) was so keen that, in many cases, we saved money by not getting the work.' NAS, GD339/1/1, Minute Books, 22 October 1923.
bidding for work, ranging from under 1% more than the successful bid to more than 30 per cent over.

Table 3. 9. Comparison Successful/Unsuccessful Scottish Tenders, 1920s.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt tons</th>
<th>Successful Tender</th>
<th>Unsuccessful Tender</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Bay' liner for CGLS, tender by Stephen</td>
<td>1921</td>
<td>pass</td>
<td>15,000</td>
<td></td>
<td>£1,147,258</td>
<td>£1,264,485 (+10.21%)</td>
</tr>
<tr>
<td>ss Wollongbar tender by Ramage &amp; Ferguson</td>
<td>1922</td>
<td>pass</td>
<td>2,239</td>
<td>1,100</td>
<td>£108,800</td>
<td>£132,800 (+22.058%)</td>
</tr>
<tr>
<td>ss Wollongbar tender by Stephen</td>
<td>1922</td>
<td>pass</td>
<td>'1,500'</td>
<td></td>
<td>£108,800</td>
<td>'Quoted £145,000' (+33.27%)</td>
</tr>
<tr>
<td>ss London &amp; Edinburgh by Hawthorns</td>
<td>1923</td>
<td>1st</td>
<td>£95,850</td>
<td>Final</td>
<td>£92,500</td>
<td>£100,000 (+8.108%)</td>
</tr>
<tr>
<td>ss London &amp; Edinburgh by Ramage &amp; F</td>
<td>1923</td>
<td></td>
<td>£92,500</td>
<td></td>
<td>£114,500</td>
<td>(+24%)</td>
</tr>
<tr>
<td>ss for Wm Sloan by Hawthorns</td>
<td>1923</td>
<td>cargo</td>
<td>£46,650</td>
<td></td>
<td>£54,000</td>
<td>(+15.75%)</td>
</tr>
<tr>
<td>ss for Wm Sloan by Ramage &amp; F</td>
<td>1923</td>
<td>cargo</td>
<td>£46,650</td>
<td></td>
<td>£59,170</td>
<td>(+26.83%)</td>
</tr>
<tr>
<td>ss Adelaide S.S. Co by Caledon</td>
<td>1924</td>
<td>cargo</td>
<td>4,930</td>
<td>4,930</td>
<td>£77,250</td>
<td>£83,500 (+8%)</td>
</tr>
<tr>
<td>ss Domino tender by Ramage &amp; F</td>
<td>1925</td>
<td></td>
<td>1,453</td>
<td></td>
<td>£35,000</td>
<td>£38,575 nett (+10.21%)</td>
</tr>
<tr>
<td>mv Nimbin by Ailsa SB Co</td>
<td>1927</td>
<td>cargo</td>
<td>1,052</td>
<td>1,400</td>
<td>£50,000</td>
<td>'£61,000 approx' (+22%)</td>
</tr>
<tr>
<td>mv Manunda by Stephen</td>
<td>1929</td>
<td>pass</td>
<td>9,115</td>
<td>9,115</td>
<td>£407,000</td>
<td>£409,584 (+0.63%)</td>
</tr>
<tr>
<td>ss Talune tender by Stephen</td>
<td>1929</td>
<td>cargo</td>
<td>3,500</td>
<td></td>
<td>£74,500</td>
<td>£91,617 (+22.97%)</td>
</tr>
</tbody>
</table>

Notes. 1. Column 1 shows the name or type of ship tendered for and the name of the unsuccessful tenderer. Column 6 shows the amount of the successful tender. Column 7 shows the amount that the unsuccessful tenderer quoted and the percentage by which his quotation exceeded the successful tender (for example, +10.21 per cent). 2. For Australian owner. 3. Contract won by Dutch shipbuilder.

It is evident from Table 3. 9 that Hawthorn's and Ramage & Ferguson tenders were substantially higher than the successful bids. Ramage seems to have over-bid for work consistently by anything between 10 per cent and 30 per cent, which may explain why the company won so few contracts in the 1920s.

Whether it was because of the Ellerman Group, shipowners, majority shareholding in Ramage & Ferguson is not clear, but it is remarkable that Alexander Stephen & Sons, another shipbuilder controlled by a shipowning group (Inchcape) also tended to over-tender. On the other hand, small companies like the Ailsa Shipbuilding Co that were not subsidiaries of a larger group were willing to take loss-making contracts in order to stay in business.

In shipbuilding company failures, it was small shareholders who lost most. Hawthorn's optimistic Prospectus in 1920 promised 'assured profit and no market risks'; nominal capital was increased from £110,000 to £250,000, raised from over 400 Leith and Edinburgh investors. By the end of 1922, Hawthorn's recorded a Debit Balance on the Profit & Loss account of £33,785. In May 1924, when Henry Robb offered a little over £8,000 for Hawthorn's Victoria shipyard, the Debit Balance for the previous year was £73,042. Smaller shipyards at Alloa, Campbeltown, Kinghorn and Montrose, re-activated in the 1919 boom, also closed in the 1920s.

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94 NAS, GD339/15/17 and GD339/15/18, Ramage & Ferguson Ltd, Quotations' Books.
95 GUAS, GD400/8/series, Ailsa SB Co, Comparative Abstract Accounts for six year periods, 1920s and 1930s. Between the late-1920s and 1939, the Ailsa Company covered its trading losses by depleting its 'Floating Assets'.
96 NAS, BT2/3161, Dissolved Company files, Hawthorn & Co Ltd. NAS, GD339/1/1, Henry Robb Ltd, Minute Books, 8 May 1924 and following.
Perhaps the biggest Scottish casualty of the 1920s was Beardmore's Naval Construction Works. The Dalmuir yard had already been sold to National Shipbuilders' Security Ltd in 1930, when the last launches took place, but the damage to Beardmore's shipbuilding division was done in the 1920s. As mentioned in Chapter 1, the shipyard was established in the early-1900s in order to build battleships. The cancellation of the warship building programme, following the Washington Naval Treaty of 1922, removed the possibility of work that Admiralty contracts provided, and set Beardmore in competition for merchant ship work with experienced merchant ship builders like John Brown and Fairfields.\(^7\) Beardmore was showing signs of acute stress between 1921-24 because of problems with contracts for Italian clients and difficulties in raising finance. The Company Chairman was ousted in 1928, after strong criticism of his management style, and trading losses in each of the five years 1923-1927. Board Minutes in 1928 and 1929 indicate that the loss on a single liner contract was £138,000;\(^6\) losses by the engine department in these years were attributed to 'lack of machining facilities, and to the fact that Dalmuir had been too optimistic when giving promises of delivery'. This over-optimism suggests desperation in the engine department, but also inadequate financial control over the Dalmuir works by the Board. 'In view of the extent of the loss, it was remitted to Mr. MacFarlane (Accountant) to obtain from Dalmuir a full explanation of the loss incurred', but the Board had known about losses at Dalmuir for five years.\(^9\) Incidentally, it was against this background that the Adelaide Steamship Company ordered their liner *Manunda* in October 1927. Unfortunately, there are no available profit or loss figures for the contract.

\(^6\) *Duchess of Atholl* (No. 648/1928). According to Johnston, *Ships for a Nation*, p. 180, a 35 ton steam turbine was dropped into the ship's double bottom during fitting out.
\(^9\) GUAS, UGD100/1/1/3, William Beardmore & Co Ltd, Minute Books, 19 February 1929, 21 August 1928, 5 December 1928.
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

British post-war shipyard prices clearly deterred some potential Australian customers, particularly if prices were being compared with those obtaining before the war. Australian owners made inquiries with Scottish shipbuilders during the early 1920s, but it is clear from estimate/tender records that no orders were placed. In evidence to the Royal Commission on the Australian shipping industry (1923), J. E. Morphett of the Adelaide Steamship Co noted that his company, 'recently gave very serious consideration to the building (in Britain) of a very much larger and faster mail vessel (for the Eyre Peninsula service). The lowest tender received, plus the cost of bringing the ship to Australia, meant the expenditure of £100,000'. No order was placed in Britain; the Adelaide Board 'decided not to build at the prices quoted'. In the face of Australian owners' reluctance to order new ships at the prices obtaining in 1919-1920, British (Scottish) shipbuilders' share of the Australian market fell, and was not regained until the late-1930s, although by then, it was a share of a greatly reduced market.

Background, 1919-1930.

It is necessary to consider the general economic background in Australia in the 1920s as it illustrates points of difference and conflict between Britain and Australia. As indicated in the Market Share Table 3.3 above, Australia's wartime shipbuilding programme took market share from British shipbuilders. The state-financed programme did not cause the Australian Debt Crisis of 1928-1930, but it was part of what the British clearly regarded as inappropriate Australian public expenditure. In fact, there seems to be no evidence in the Scottish shipbuilding records that the programme caused alarm in the Scottish industry. Australian orders continued to be placed in Scotland. It appears that English tramp ship building yards lost more; as Table 3.3 showed,

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100 For example, NAS, GD339/15/17, Ramage & Ferguson Ltd, Quotations' Books, 1920s and GUAS, UCS3/7/3 and UCS3/7/4, Alexander Stephen & Sons Ltd, Estimate Books.
101 Page, Fitted for the Voyage, pp. 213-214
102 NBA/ANU, Z535, Meetings of Directors, various, early 1922.
Scottish Shipbuilders and the Australian Market, 1901-1971.

'Other British' yards' market share fell by 54 per cent, while Scottish yards' share fell by 43 per cent. The Federation of British Industry only began to complain about manufacturing in the dominions after the Imperial Economic Conference at Ottawa in 1932. It was the British Treasury and the Bank of England that demanded a reduction in Australia's public expenditure because of the level of Australian debt in the City of London.

There seems to have been a general presumption, in Australia at any rate, of post-war economic growth. Both the main political groupings were eager to promote population growth and full employment. Population increased from 5.4m in 1921 to 6.414m in 1929, aided by the (British) Empire Settlement Act 1922.\(^{103}\) Between 1921 and 1925, 'Increase in Net Immigration' was 172,323. There was a further increase of 130,058 between 1926 and 1930.\(^{104}\) Immigration and rural land settlement were encouraged by assisted passages and government grants. Services, including railway and road construction, irrigation, the provision of schools and the marketing of rural produce, were financed by Commonwealth Government and state borrowing from the London money markets; more than £300 million in the post-war decade.\(^{105}\) The Official Year Book notes, however, that, in 1930, 'the Government decided to reduce the flow of assisted immigrants because of financial and industrial depression'.\(^{106}\) Forster points out that population growth created a larger Australian domestic market for consumer goods manufactured in Australia.\(^{107}\)

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\(^{103}\) Appendix 2, p. 266.


\(^{105}\) OYB, No. 24/1931, p. 662.

\(^{106}\) OYB, Census Statistics, various years. The OYBs describe the government funds available for assisted migration and settlement.

\(^{107}\) An essay on 'Capital Formation' by W.A.Sinclair in Forster, Colin (Editor), *Australian Economic Development in the Twentieth Century*, (London, George Allen & Unwin Ltd, 1970), pp. 22ff, asserts that there was 'inadequate co-ordination of public expenditure' on rural development in the 1920s and that the goals of rural land settlement and increased agricultural production were not fully achieved.


\(^{108}\) OYB, No. 24/1931, pp. 676-677 and OYB, No. 27/1934, pp. 780-781. Henceforth, assisted passages would be limited to 'boys for farm work, young women for
Industrial development was already happening before the First World War. Mineral ore refining had been taking place in South Australia since the late-1880s. The New South Wales (NSW) state government began harbour works at Port Kembla (NSW) in 1901 to facilitate the shipment of local coal; between 1901 and 1914, the Wollongong/Port Kembla district was developed as a mining, port and industrial zone. In 1907, the Electrolytic Refining & Smelting Co set up a copper smelter at Kembla. The copper ore was imported by ship from South Australia, Tasmania and Queensland. The steel-maker Hoskins (Australian Iron & Steel) transferred its steel-making to Kembla after the War. These facilities all required skilled labour and sea transport to service them. When the British galvanised iron and wiremakers John Lysaght set up its Australian branch plant at Newcastle (NSW) in 1922-23, the company brought skilled workers out from Britain. The inter-state shipping companies, aware of the potential carrying trade that these facilities offered, ordered suitable cargo ships in the mid-1920s.

The Australian Debt Crisis & the British Economic Mission.

The negative aspect of population growth and industrial development was increased public borrowing and the parallel growth of the Australian National Debt. Macintyre notes that 'As early as 1926, London financiers drew attention to some disturbing features of Australian borrowing. The accumulated foreign public debt had risen by then from £419 million in 1920 to £562 million, interest charges from £7 million p.a. to £26 million'. The Treasury and the Bank of

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108 Bach, Maritime History, p. 230
109 Forster, Industrial Development, pp. 122-123
110 Broeze, Island Nation, p. 162.
110 Macintyre, Oxford History, Vol. 4, pp. 242ff
England were concerned about levels of Australian borrowing in London, and the danger of default. As a result, a British Economic Mission visited Australia in 1928 at the invitation of the Commonwealth Prime Minister S. M. Bruce. It was followed in 1930 by a visitation by Sir Otto Niemeyer from the Bank of England. The Bank’s instructions to the Australians were clear: repayment of debt, reduction of public expenditure and balanced budgets; what the Treasury and the Bank had prescribed for the British economy after the war. 111

Sir Otto was scathing. Macintyre quotes his address to Commonwealth and state prime ministers in August 1930: ‘By a series of accidents, chiefly the liberality of lenders and accidental high prices for Australian exports... (Australia has) been able to enjoy a standard of living beyond its means. Furthermore, it (has) used protection and arbitration to stray from its proper imperial relationship as a producer of raw materials for British manufactures and a customer for their products’. He did not believe in what he called ‘the exploded doctrine of the enormous potentialities of Australia’. 112

The Bank proposed the setting up of an Australian Central Bank. A Central Bank would help restore financial discipline where (the Bank believed) it had been lacking previously. The Australian economy could be managed as the Bank thought fit; a Central Bank would ‘hold out against economic nationalism’.113 The British were clearly worried that Australian tariff protection would harm British exports,114 but the notion that Australia was still a pre-First World War, pre-industrial economy was manifestly contradicted by the reality of

Australia's mineral reserves and by industrial development that they had stimulated.

The Effect of Australian Shipyard Output on the Australian Market in the early-1920s.

Commonwealth government financial support for the Government Line and the Australian shipbuilding industry were precisely the kind of public expenditure to which the British objected. The Commonwealth had not only created a shipbuilding rival to British shipbuilders, infringing the longstanding British dominance in the Australian market, it had given financial support to its domestic industry in a way that was unthinkable to the British. The output of the Australian yards was small and the total capital cost of the wartime building programme, some £15m, was excessive (Tables 3.10 and 3.11). As it happened, by the time of the Debt Crisis, the Government ships had been sold off and the shipbuilding industry was moribund. Nevertheless, Commonwealth government support for the maritime industries came to the fore again in the late-1930s. It is necessary to examine here the output of the Australian shipyards in the early-1920s and their costs of production. They were the subject of reports by experts in the period 1937-1940; these reports were the basis of Commonwealth government policy for the maritime industries during the Second World War and afterwards.

Table 3.10. Output (Cargo Ships for Government Account) of Five Australian Shipyards, 1919-1924.
Table 3.10. Output (Cargo Ships for Government Account) of Five Australian Shipyards, 1919-1924.

<table>
<thead>
<tr>
<th></th>
<th>1919</th>
<th>1920</th>
<th>1921</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ships</td>
<td>Gross</td>
<td>Ships</td>
<td>Gross</td>
<td>Ships</td>
</tr>
<tr>
<td>Launched</td>
<td>Tons</td>
<td>Launched</td>
<td>Tons</td>
<td>Launched</td>
</tr>
<tr>
<td>Cockatoo Is. Dockyard</td>
<td>1</td>
<td>3,344</td>
<td>1</td>
<td>3,350</td>
</tr>
<tr>
<td>N.S.W. State Dockyard</td>
<td>3</td>
<td>9,695</td>
<td>2</td>
<td>6,710</td>
</tr>
<tr>
<td>Poole &amp; Steel</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
</tr>
<tr>
<td>Walkers' Ltd</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
</tr>
<tr>
<td>Williamstown Dockyard</td>
<td>2</td>
<td>6,710</td>
<td>2</td>
<td>6,692</td>
</tr>
</tbody>
</table>

Total Ships Launched: 6
Total Gross Tons Launched: 20,049

<table>
<thead>
<tr>
<th></th>
<th>1922</th>
<th>1923</th>
<th>1924</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ships</td>
<td>Gross</td>
<td>Ships</td>
<td>Gross</td>
<td>Ships</td>
</tr>
<tr>
<td>Launched</td>
<td>Tons</td>
<td>Launched</td>
<td>Tons</td>
<td>Launched</td>
</tr>
<tr>
<td>Cockatoo Is. Dockyard</td>
<td>nil</td>
<td>nil</td>
<td>1</td>
<td>9,670</td>
</tr>
<tr>
<td>N.S.W. State Dockyard</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
</tr>
<tr>
<td>Poole &amp; Steel</td>
<td>1</td>
<td>3,350</td>
<td>nil</td>
<td>nil</td>
</tr>
<tr>
<td>Walkers' Ltd</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
</tr>
<tr>
<td>Williamstown Dockyard</td>
<td>2</td>
<td>6,706</td>
<td>nil</td>
<td>nil</td>
</tr>
</tbody>
</table>

29,400
53,584
82,984

Source: Official Year Books, various years and Lloyd’s Register of Ships.
Notes: The Commonwealth Naval Dockyard, Cockatoo Island, Sydney, also built warships during this period.
Although the Commonwealth Shipping Board intended that Australian shipbuilding should be run on a commercial basis, it is clear from Table 3.10 that the annual output of the five merchant shipyards was modest; some 21 ships in six years (an average of under one ship/yard/year), a low level of output. The tonnage launched by three yards in 1919, six ships of 20,040 gross tons (average 3,340 gross) was little more than the output of one medium sized Scottish yard in 1920, six ships of 18,343 gross (3,057 gross tons, average).\(^\text{115}\)

As mentioned in Chapter 2, the allocation of the work among five yards in four states was probably dictated by inter-state sensitivities.

The prices that the Government was prepared to pay for ships for CGLS service (between £26-£33 per dwt ton for the D- and E-type cargo ships, Table 3.11) was nearly double what the Adelaide S. S. Co paid Beardmore for a similar type (Arcoona, £15.7s per deadweight ton, Table 3.6).

Table 3.11. Some Australian Newbuild Prices, 1920s.

<table>
<thead>
<tr>
<th>Shipname</th>
<th>Built</th>
<th>Type</th>
<th>Dwt tons</th>
<th>Price</th>
<th>Price/ dwt</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss Australian</td>
<td>1920</td>
<td>cargo</td>
<td>5,000dwt</td>
<td>£26-</td>
<td>£33/ton'</td>
</tr>
<tr>
<td>yard(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss Dromana</td>
<td>1919</td>
<td>cargo</td>
<td>5,600dwt</td>
<td>£162,370</td>
<td>£29/dwt</td>
</tr>
<tr>
<td>ss Dundula</td>
<td>1920</td>
<td>cargo</td>
<td>5,600dwt</td>
<td>£31.8s/ton'</td>
<td></td>
</tr>
<tr>
<td>ss E-class,</td>
<td>1921-</td>
<td>cargo</td>
<td>6,000dwt</td>
<td>'about £29'</td>
<td></td>
</tr>
<tr>
<td>shipyard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>price</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ss E-class,</td>
<td>1921</td>
<td>cargo</td>
<td>6,000dwt</td>
<td>£32,000</td>
<td>c£5.5s/dwt</td>
</tr>
<tr>
<td>(sale)</td>
<td></td>
<td></td>
<td></td>
<td>(sale)</td>
<td></td>
</tr>
<tr>
<td>ss Forsdale</td>
<td>1924</td>
<td>cargo</td>
<td>12,500dwt</td>
<td>£828,469</td>
<td>£66.6s/dwt</td>
</tr>
</tbody>
</table>

Sources: OYBs, various years; Fairplay, 20 January 1921.
Note 1. The deadweight tonnage of the D-class is variously quoted as 5,000 and 5,600 (£32.10s or £29/dwt ton).
Note 2. Second-hand price when purchased by Australasian United S. N. Co, Ltd, McKellar, From Derby, p. 437. This was the price in July 1924; in 1926, AUSN got two E-class ships for £18,750 (about £3.2s per dwt ton).

\(^\text{115}\) Mackie, Robin, 'Survival & Decline', p. 208, Table 5.8.
The prices-per-ton in Table 3.11 are the contract prices quoted by W. H. Churchin (former Chief Executive Officer of the Commonwealth Government Shipping Board) in his review of Australian shipbuilding in the trade weekly Fairplay. The British trade press evidently doubted that the Australian industry was competitive; that is, competitive even with current British newbuild prices (Table 3.6). Australia was determined to continue shipbuilding, but 'it remains to be seen how it will fare should the cost of building in the U.K. keep at or below £15/dwt ton to which it has dropped this week'. Fairplay believed that the realisable values of the Australian builds in February 1921 were probably as little as half their contract prices. Comparison of prices in Table 3.11 with prices in Table 3.8 (second-hand prices) shows that an Australian shipowner could get a newbuilt bankrupt sale British steamer for as little as one-third of the asking price for an Australian-built ship. Indeed, the Commonwealth government got £3.2s per dwt ton for two 'E'-type ships in a bankrupt sale in 1926 (Table 3.11).

In fact, the prices of the Australian-built ships appear to have been aspirations. They were prices at which the Commonwealth Shipbuilding Construction Branch (SCB) and the builders hoped the ships could be built, and the contracts were evidently signed on that basis. Fairplay quoted the price of steel plates in Australia in 1920 as £31/ton (the British price was £27/ton), although Churchin claimed that he had got plates at a 'controlled price' (price not specified). According to Churchin, 'The cost of construction to the builder (of Dromana, 1919 – Table 3.11) was £162,370, (£29 per deadweight ton) covering all material, all direct and indirect labour, all overhead charges, including supervision of work, depreciation at a commercial figure, etc'.

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117 'Australia's economic position', Fairplay, 6 January 1921, p. 28.
118 'Commonwealth to Build more Ships' – Comment on report in The Times, Fairplay, 24 February 1921, p. 694.
119 The Australian inter-state owner Howard Smith got the steamer Era (1921) for £10.18s per dwt ton.
120 Fairplay, 20 January 1921, p. 334.
In December 1922 and February 1923, however, the New South Wales Bureau of Statistics and Commonwealth Statistician Charles Wickens asked the CGLS to supply figures for the Capital Cost of CGLS fleet as at 30 June 1922 and Earnings, Expenditure and Net profit during the year ended 30 June 1922. The CGLS and Shipbuilding Construction Branch (SCB) were reluctant to release any figures. 'We suggest that it is not advisable to give the latter portion of the information asked for, but, in any case, pending receipt, from the General Manager, of accounts to 30 June 1922, this cannot be supplied here'. Moreover, 'The money figures are a matter for the Treasury or the Commonwealth Line of Steamers'. An indication of the true position of the Commonwealth Shipping Board, including the operations of the Government owned ships and the Cockatoo Island Dockyard's merchant and naval building, came out in the 1928 edition of the *Official Year Book*.

The reason for the SCB's reticence, and how wide of the mark the original cost estimates had been, can be judged from the following Tables 3.12 and 3.13.

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121 NAA, A425, Correspondence about Australian Shipbuilding, Letter, NSW Bureau of Statistics to Manager CGLS, 15 December 1922
122 NAA, A425, Correspondence about Australian Shipbuilding, Letter, Commonwealth Statistician to Secretary of the Commonwealth Ship Construction Branch (SCB), 27 February 1923.
123 NAA, A425, 44467/40078, Letters, CGLS/Secretary SCB. to Secretary, Prime Minister's Department, 8 and 11 January 1923.
124 'Australian Commonwealth Line of Steamers'. 'The balance sheet of the Commonwealth Shipping Board, covering the activities of the ACLS and the Cockatoo Island Dockyard to 31 May 1927, shows liabilities to the total of £6,676,476, and assets of £4,754,070. The operations for the three years 1923-1927 show an accumulated loss of £1,922,406, the loss for 1926-27 being £593,572'. *OYB*, No. 22/1928, p. 253.
Table 3.12. ‘Average Capital Cost Australian-built Ships, 1919-1923’.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. vessels</th>
<th>Gross tonnage per ship</th>
<th>Price £Aus per ‘ton’</th>
<th>Final £Aus per ‘ton’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>2</td>
<td>3,348</td>
<td>£Aus 46.15s</td>
<td></td>
</tr>
<tr>
<td>1920</td>
<td>8</td>
<td>3,352</td>
<td>£Aus 60.15s</td>
<td></td>
</tr>
<tr>
<td>1921</td>
<td>6</td>
<td>3,355</td>
<td>£Aus 72.8s</td>
<td></td>
</tr>
<tr>
<td>1922</td>
<td>2</td>
<td>3,348</td>
<td>£Aus 66.2s</td>
<td></td>
</tr>
<tr>
<td>1923</td>
<td>1</td>
<td>3,353</td>
<td>£Aus 69.9s</td>
<td></td>
</tr>
<tr>
<td>1924</td>
<td>2</td>
<td>9,670</td>
<td>£Aus 68.16s</td>
<td>£Aus 77.7s/84.19s</td>
</tr>
</tbody>
</table>

Source: (Commonwealth) Joint Committee of Public Accounts Report, 6 May 1937.

Note 1. The ‘Price £Aus per ton’ (Column 4) is quoted in the Australian records as £46 point 74 (£Aus 46.74), translated here as about £46.15s (‘Forty-six pounds and fifteen shillings’) in pre-decimal money.

Table 3.13. ‘Comparison of Cost/Deadweight Ton U.K. 7,500dwt tramp and Australian-built 5,900dwt steamer, 1919-1924’.

<table>
<thead>
<tr>
<th>Year ending</th>
<th>U.K. £stg/ (5,900dwt, approx)</th>
<th>£Aus/dwt ton (7,500dwt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31/12/1919</td>
<td>£30.0.0</td>
<td>£31.12s</td>
</tr>
<tr>
<td>31/12/1920</td>
<td>£30.0.0</td>
<td>£34.10s</td>
</tr>
<tr>
<td>31/12/1921</td>
<td>£13.0.0</td>
<td>£41.4s</td>
</tr>
<tr>
<td>31/12/1922</td>
<td>£9.0.0</td>
<td>£33.14s</td>
</tr>
<tr>
<td>31/12/1923</td>
<td>£9.12s.6d</td>
<td>£39.10s</td>
</tr>
<tr>
<td>31/12/1924</td>
<td>£9.1s.4d</td>
<td></td>
</tr>
</tbody>
</table>


The production cost figures in Tables 3.12 and 3.13 were produced between 1937-1940 by experts advising the Commonwealth government on the re-activation of Australian shipbuilding. The Tables show that the small Australian output was uncompetitive in price, even with British production costs at the top.

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126 NAA, A425, 1944/353, ‘Shipbuilding in Australia’ (Appendix B), Department of Trade & Customs, 15 March 1940.
of the boom. The figures bore out criticisms in a minority report to the Royal Commission Report on the Cockatoo Island Dockyard, published in 1921.\textsuperscript{127} The ‘charges’ (overheads and establishment) made by the Dockyard for work done on Government account were condemned as ‘extravagant’ and ‘far too high’. The collier \textit{Biloela} (1920/6,500dwt) ‘cost £400,000 or about £61.10s/dwt ton, while her market value today is not more than £10/dwt ton, equalling £70,000’.

The minority report went on,

A yard for the construction of merchant ships (\textit{sc.} at Cockatoo Island) is not needed at the present time (because of World overcapacity and a glut of ships). Merchant shipbuilding in the Commonwealth should therefore cease immediately. To proceed (with the two -\textit{dales} - 12,800dwt steamers with space for refrigerated cargo) would be a complete waste of public money. The estimated cost of building these two ships is about £54/dwt ton (or £675,000 per ship). When completed, they would not realise in the market more than £25/dwt ton (or £310,000). The Australian general manager of the CGLS stated that he could not make his ships pay at the existing capital cost of construction.\textsuperscript{128}

Cost inflation on the two -\textit{dales} was some 18.387 per cent, according to an inter-departmental memorandum in February 1924.\textsuperscript{129} Why the two ships were over budget is not clear; whether there were delays at the Dockyard because of labour troubles, or late delivery of items of outfit, or simply that the Dockyard had no previous experience of fitting out refrigeration plant in ships. 18 per cent

\textsuperscript{127} \textit{Fairplay}, 20 October 1921, pp.103, 170.
\textsuperscript{128} The actual costs of the -\textit{dales}, completed, were £828,469 and £752,065, Jeremy, \textit{Cockatoo Island}, p. 79.
\textsuperscript{129} NAA, SF27/32, Letter, George S. Knowles, Attorney General’s Dept, to Prime Minister’s Dept., re: Cost of ships under construction at Cockatoo Island, 22 February 1924.
inflation is modest, however, in comparison with levels of inflation of British contract prices, mentioned previously.

At costs of production like these, however, Australian shipbuilding could not be justified except in wartime, as an emergency measure. After both World Wars, when the Commonwealth government tried to sell its ships to the private owners, the owners refused to buy at anything like the asking price. Eventually, in the mid-1920s, the government disposed of its ships at a large discount. In 1950, there were protracted negotiations between Government and the owners about the conditions on which the owners would buy Australian-built ships. One conclusion was that the government would have to provide subsidy to cover up to 25 per cent of the cost of the ship.

Although post-war British shipyard prices deterred cannier Australian owners, the British could still build and sell the types of bespoke ships for the trades that Australians required and preferred. Australian shipyards could only hope to be competitive by building standard cargo designs that the private owners did not want, at prices they were not prepared to pay. The Commonwealth government WWI shipbuilding programme was an improvised response to what it saw as a wartime emergency, the need to get Australian produce to the British market to earn Sterling and support the war effort. Estimates of the costs of the programme were optimistic, and the full cost to the exchequer and the national accounts was not apparent until later. The private owners considered the standard ships too big for their Australian inter-state trades, and preferred smaller, one-off, purpose-built designs in any case. Australian merchant shipbuilding clearly did affect British/Scottish shipbuilders' share of the Australian market in the 1920s. The state-subsidised yards doubled Australian market share to 22.3 per cent in the 1920s, while British yards' share fell from nearly 87 per cent to 65 per cent. After the Wall Street Crash, Australian shipyards closed, and the British resumed their domination of the market.

130 McKellar, From Derby, p. 437.
Between 1931 and 1939, Scottish yards’ market share was 73.8 per cent, but of a much smaller market; one-third of that in the 1920s.

Possible Effects of Competition from Railways.
One difficulty about considering the evolution of Australian coastal passenger shipping in the 1920s and ‘30s is the lack of figures for passenger shipping in the Commonwealth Bureau of Census & Statistics’ *Official Year Books* (*OYBs*). While numbers of passengers, passenger-miles, tons of goods carried and goods ton-miles are recorded for Commonwealth government and Australian states’ railways, no such figures are given for the privately-owned coastal shipping companies. To assess the impact of railway expansion on passenger travel by sea, it would be necessary to aggregate the annual passenger returns from the records of eight or nine private companies over the period.

Passenger-carrying ships were licensed to carry numbers of First or Second/Steerage class passengers. These numbers were published annually in the *OYBs*, and they have to be taken as indicators of the state of the coastal passenger trade, over time. Bach remarks that, ‘It is difficult to explain convincingly the extent of the depression suffered by the coastal passenger trade, apart from the transcontinental railway competition’ (Table 3. 14). This may be borne out by the railway passenger traffic figures. The east-west Trans-Australian railway from Port Augusta, South Australia, to Kalgoorlie, Western Australia was completed in 1917. The number of passenger journeys on the railway increased by 35 per cent between 1918-19 and 1924-25. However, without figures for sea travel between Melbourne/Adelaide and Fremantle during the same period, it’s impossible to say what proportion of railway passenger journeys was due to capture from the shipping lines, and what to population growth.

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131 *OYBs*, ‘Number of passengers for which licensed to carry’.
The Trans-Australian Railway was built and operated by the Federal Government Department of Railways.
Table 3.14. Trans-Australia Railway Passengers & Goods 1916-17 to 1936-37.

<table>
<thead>
<tr>
<th>Year</th>
<th>1916-17</th>
<th>1917-18</th>
<th>1918-19</th>
<th>1919-20</th>
<th>1920-21</th>
<th>1921-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Passenger Journeys</td>
<td>4,160</td>
<td>17,834</td>
<td>23,942</td>
<td>22,966</td>
<td>29,866</td>
<td>28,003</td>
</tr>
<tr>
<td>2. Passenger Train Miles</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>367,099</td>
</tr>
<tr>
<td>3. Total Passenger Miles</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>24,157,000</td>
</tr>
<tr>
<td>4. Tons Goods &amp; Livestock Carried</td>
<td>583,260</td>
<td>120,826</td>
<td>116,971</td>
<td>53,722</td>
<td>20,089</td>
<td>20,780</td>
</tr>
<tr>
<td>5. Goods Train Miles</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>103,962</td>
</tr>
<tr>
<td>6. Total Goods (ton/miles)</td>
<td>570,493</td>
<td>475,936</td>
<td>368,886</td>
<td>401,709</td>
<td>472,290</td>
<td>471,061</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Passenger Journeys</td>
<td>31,605</td>
<td>32,362</td>
<td>36,030</td>
<td>19,209</td>
<td>15,875</td>
<td>22,843</td>
<td>25,486</td>
</tr>
<tr>
<td>2. Passenger Train Miles</td>
<td>367,419</td>
<td>361,457</td>
<td>219,815</td>
<td>224,735</td>
<td>228,724</td>
<td>404,843</td>
<td></td>
</tr>
<tr>
<td>3. Total Passenger Miles</td>
<td>26,339,000</td>
<td>28,846,000</td>
<td>33,376,000</td>
<td>18,811,000</td>
<td>13,318,000</td>
<td>20,356,000</td>
<td>22,917,000</td>
</tr>
<tr>
<td>4. Tons Goods &amp; Livestock Carried</td>
<td>32,856</td>
<td>42,225</td>
<td>40,750</td>
<td>12,360</td>
<td>21,316</td>
<td>30,757</td>
<td>42,973</td>
</tr>
<tr>
<td>5. Goods Train Miles</td>
<td>105,040</td>
<td>133,945</td>
<td>32,000</td>
<td>98,012</td>
<td>104,877</td>
<td>115,981</td>
<td></td>
</tr>
</tbody>
</table>

Sources: *Official Year Books*, various years.

Note 1. From 1 July 1914, the 'statistical year' for transport statistics, including shipping and railways, ended 30 June each year. *Official Year Book* No. 13/1920, Preface p. vi and p. 619. 2. Total train miles (Item 7) is the sum of Passenger train Miles (Item 2) plus Goods Train Miles (Item 5). 3. *Official Year Book* No. 31/1938 was the last in which the passenger and goods on the Trans-Australian Railway were enumerated separately.
From Table 3.14, it appears that the Trans-Continental railway did not immediately affect the coastal companies’ cargo carrying, at any rate; the railway gauge-break at Kalgoorlie, shown in the *Official Year Book*, No. 32/1939, p. 137 (map), imposed trans-shipment costs on the east-west movement of goods and livestock. Indeed, goods carried on the Trans-Continental railway actually declined by some 64 per cent between 1918-19 and 1924-25, possibly indicating the effect of the end of the War. The effects of the Wall Street Crash can be seen in the passenger and goods figures for 1930-31 and 1931-32. Passenger journeys fell by 56 per cent between 1928-29 and 1931-32, while tons of goods and livestock carried were almost halved. By 1936-37, the last year for which the *Official Year Books* give separate figures for the Trans-Continental, goods carried recovered to mid-1920s levels, but passenger journeys were still 29 per cent below the figures for 1928-29. All in all, the Trans-Continental railway does not appear to have captured significant amounts of traffic from shipping services on the east-west route. What is clear from Table 3.14 is the effect of the Wall Street Crash of the overall level of activity on the railway in the 1930s. The level of inter-state shipping activity, indicated in the *Official Year Book* Tables of 'Tons (Weight) of Inter-state Cargo Shipped', shows a similar sharp decline between 1923-24 and 1931-32.¹³³

The role of railways in the decline of inter-state shipping on the east coast in the inter-war period is debatable. Queensland state railways were generally 3'6" gauge, New South Wales adopted 'standard gauge' of 4'8½", while Victorian and South Australian lines were mainly 'broad', 5'3" gauge. Any inter-state railway journey required a gauge-change; trans-shipment at state borders imposed additional costs on the inter-state transport of freight.

¹³³ 'Inter-state Cargo Shipped (Tons Weight)’ fell from 6,356,191 tons in 1923-24 to 5,764,631 tons in 1926-27 to 3,002,327 tons in 1931-32 (-52.78 per cent over the whole period), *OYB* No. 25/1932, p. 197. See also Chapter 4, Table 4.1.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

'As an indication of the extra cost (of transfer at the gauge breaks), the junction charges on inter-state traffic between New South Wales and Victoria range from 1s 6d to 2s 6d per ton.' 134

It was not until after the First World War that there were interstate discussions on the standardisation of gauges.135 However, as Dowcra and Kolsen point out, "each state continued to use its rail network to achieve (its own) objectives (and) there was no attempt to pursue a national rail policy."136 In the early-1920s, one of these objectives was to make work available for returning veterans and for immigrants brought to Australia under the Empire Settlement Act. From North Coast S. N. Co records, it appears that the New South Wales state government was deliberately charging railway rates below shipping rates in order to capture traffic.

It is more likely that railway and road transport captured passenger traffic from intrastate shipping. Indeed, McKellar asserts that the extension of the coastal railway in Queensland in the 1920s allowed the State Railways Department to capture intrastate traffic from the Australasian United Steam Navigation Co.137 Laxon asserts that the growth of road transport in the Geelong and Gippsland districts of Victoria during and after the war captured trade from the local shipping company. 138 The North Coast S. N. Co, the leading intrastate operator in NSW, gathered intelligence regularly on NSW State Railways’ fares and freights. There are references in the North Coast directors’ minutes to rate cutting to meet railway opposition, competitive seasonal fare promotions and hostile railway ‘canvassing’ (sic) for freight among shipping company

134 OYB, No. 9/1916, p. 625
135 OYB, No. 9/1916, pp. 623ff
137 McKellar, From Derby, pp. 295, 297, 366
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

customers. North Coast local agents submitted weekly reports of passenger and freight carriages, and directors were kept informed of year-to-year fluctuations.

The impact of railway development on coastal shipping in the 1920s is not clear. As Sinclair points out, there was little cost/benefit analysis of railway projects and many (rural) railway services made losses. Whether there was serious railway capture of shipping company trade in the 1920s is doubtful. Without figures to compare railway and sea carrying, it is impossible to say. It is just as likely that the North Coast Company was complaining about the publicly-financed, state-run railway challenge to a monopoly that it had held since the first settlement of New South Wales.

What is more likely is that small shipping rivals were capturing traffic from the bigger companies. Adelaide S. S. Co Minutes refer frequently to Patrick Steamships Ltd as 'rivals'; in 1924, for example, Patrick offered a 10 per cent reduction in freights on Spencer's Gulf (SA) for two years. Australasian United management complained frequently about the activities of their Queensland rival John Burke & Co.

Conclusions.
The 1920s was a period of uncertainty for Australian coastal shipowners. They had to consider the likely effects of the enforcement of the Commonwealth Navigation Act and the setting of maritime industry wages by the Arbitration Court. There was the presence of the Commonwealth Government Line ships and the question of whether they were going to compete for trade with the

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142 McKellar, From Derby, pp. 413-420.
private owners. The owners had their ship replacement costs to consider. British newbuild prices immediately after the war were considered too high when compared with pre-war prices or with the post-war bankrupt sale or second-hand prices. Australian-built ships were likewise considered too expensive, and not suited to the inter-state trades, anyway. Inter-state companies had non-shipping investments, into which they could move available funds until ship prices came back to what the owners considered acceptable levels. However, some Australian owners were still prepared to pay British prices in order to get the kind of one-off ships for the trade they required. Scottish yards maintained a 46.8 per cent share of the market.

There was also uncertainty about the respective costs and benefits of steam or diesel propulsion. For the first time, a non-British marine technology offered an alternative to a British product at an attractive price that was considerably cheaper than the British equivalent.

Australian post-war shipyard output does seem to have affected Scottish shipbuilders’ market share, which fell from 56.85 per cent before the war to 46.8 per cent in the 1920s. Although Australian prices proved to be higher than British, the Commonwealth government, as purchaser of the Australian builds, was prepared to pay prices that kept the private owners out of the market. When the Australian builds were eventually sold off at a large discount, it was the Commonwealth government that carried the loss.

British shipbuilders’ loss of world market share in the 1920s is attributable to British shipyard prices and to cheaper costs of production of Continental builders. Foreign governments were prepared to promote their domestic shipping and shipbuilding in competition with the British, and this was a continuing problem for the British in the 1930s. British government reluctance to give similar financial assistance to British lines (Cunard excepted), and British owners’ reluctance to invest in new ships allowed foreign rivals to capture trade
at British expense. In order to survive in the changed market conditions in the 1920s, British shipbuilders were obliged to abandon cost-plus pricing and to tender on the basis of cost of labour and materials only. As a result of pre-war shipyard closures, there were openings in the foreign and Empire markets for new entrants after the war. Henry Robb, who set up as shipbuilder in 1918, actively pursued business in the Empire in the inter-war period.

During the 1920s, Australians and British were at odds over post-war economic expansion, full employment and the level of Australian public debt. The British seem to have disregarded Australian development potential, assuming that, after the war, she would resume her 'proper imperial relationship' in the Imperial trading system.\(^{143}\) Certainly, Churchin's opinion in 1921 about the limited demand for ships on the Australian coast seems to envisage the Australian coastal fleet resuming its limited, pre-war rôle, sufficient for the needs of a pre-industrial economy.\(^{144}\) This apparent discounting of Australia's development potential is echoed by Sir Otto Niemeyer's opinion that Australians were 'obsessed with the exploded doctrine of the enormous potentialities of Australia'.\(^{145}\) If the British still regarded Australia as a pre-industrial economy, their views were contradicted by Australia's actual post-war industrial capacity. Industrialisation went ahead anyway. Australia's known reserves of coal and minerals were ready to be exploited once trading conditions revived in the mid-1930s, after the Wall Street Crash.


\(^{144}\) Chief Executive Officer of the Commonwealth Government Shipping Board during the war (Chapter 2).

\(^{145}\) 'Australia's Shipbuilding Industry', *Fairplay*, 20 January 1921, p. 334.

Introduction
This Chapter examines the effect of the Wall Street Crash on the Australian market in ships and on the market's suppliers in Britain. The collapse in world prices of wheat, wool and metal ores reduced Australian revenues from exports. Export income fell from £139m in 1929 to £99m in 1930.\(^1\) Extensive mineral deposits in Western Australia and Queensland could not be fully exploited. The need to make debt repayments led to sharp reductions in Australian public expenditure and to large-scale unemployment.

Shipping companies' and shipbuilders' principal interest was survival. The Chapter considers some of the strategies the shipowners adopted in order to survive, and how the shipbuilders reacted to changed market conditions. The amount of cargo moved by ship in 1931-1932 was half that moved in 1923-1924. Over half the Australian coastal fleet was laid up. Owners were reluctant to order new ships and placed available funds in non-shipping investments. As a result of the Depression, there was a collapse of the market in ships between 1931 and 1934. Demand in the period 1931-1939 was half the demand between 1919 and 1930. Demand recovered at the end of the decade, but it was still only half that of the 1920s. Shipowners still showed a preference for ordering ships from Scotland. British shipyards resumed their dominant position in the Australian market in the late-1930s, but it was a much-reduced market.

Some companies still ordered ships. The rôle of inter-state shipping was changing; its rôle as a general carrier of passengers and freight was challenged by rival modes in the 1930s, by the government-owned railways and by the growth of air travel. However, there were openings for shipping companies to become dedicated carriers of bulk cargoes such as coal, coke, iron and other

ores, limestone and sugar. These trades had always been part of their freight business through their shareholdings in colliery companies, coal merchants and mineral mines.

Australia's agricultural potential and large mineral reserves gave reasons for optimism. Domestic manufacture of consumer goods under protective tariffs only paused after the Crash. The British manufacturers' organisation, the Federation of British Industries, resented protection, but British and foreign firms simply took Australian partners and set up branch plants in Australia. By the late-1930s, Australia was ready for the economic boom that took place after WWII.

In Scotland, demand for new ships collapsed and ship repairing was at a low ebb. Both old established shipbuilders and firms that had started up in 1918 felt the pinch. Continental yards took new work by consistently beating Scottish yards on price. Builders had difficulty in getting clients to pay. Owners asked for credit but were unwilling to offer security. The British response to the Crash was to reduce shipbuilding capacity. Under the National Shipbuilders' Security scheme, yards were closed and redundant sites were sterilised to prevent their use for shipbuilding in future.

By contrast, Britain's rivals, including the United States and Japan, stimulated demand by providing government assistance to shipbuilders and shipping lines. The British were opposed to state-subsidised competition, and governments were unwilling to give assistance to British flag carriers, for fear of demands from British manufacturers for similar financial help. The British solution was the 'Scrap & Build' scheme, which allowed some modest government assistance to be given to the maritime industries. However, the foreign challenge in the Asia-Pacific area merely highlighted British weakness there, and Australasian isolation. As a consequence, the Commonwealth government
re-established warship building before the outbreak of the Second World War. Merchant shipbuilding in Australia was revived during the War (Chapter 5).

**Australian Coastal Shipping, 1931-1939.**

Following the Crash, there was a sharp fall in output and a decline in the amount of shipping traffic moving. Perhaps the most immediate, pressing problems for Australia were the collapse of world commodity prices and the level of public debt. Nearly one-half of Australia’s export earnings were required to repay annual interest on the debt. Australia’s export earnings collapsed and she was struggling to avoid default. The Bank of England was alarmed by the high level of Australian borrowing, and there was general antipathy between the money markets and Australian politicians about borrowing to finance public works. Industrial development under protective tariffs was a clear area of policy difference between the white dominions and British manufacturers.

Commodity prices and output in key sectors collapsed. For example, wool was a major export item that could account for over 40 per cent of the value of Australia’s merchandise exports. As a result of the Crash, there was a sharp fall in the total value of wool exports, from some £66m in 1927-28 to £32m in 1930-31; the value of wool exports recovered to £62.504m in 1936-37.

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3 Australia was running a balance of trade deficit for several years before the Crisis. Deficits in government finance for the Commonwealth and the States, and the measures taken to meet the Debt Crisis are described in ‘The Financial Crisis’, OYB No. 24/1931, Chapter VIII, pp. 757ff. The £Aus was devalued by 30 per cent in 1931, OYB No. 24/1931, p. 758.


6 OyBs No. 26/1933, p. 552 and No. 32/1939, p. 599. The average price-per-lb of wool at auction fell by 47 per cent between 1928-29 and 1932-33. Total Australian wool production in the 1930s was 971m lbs and upwards, of value between £40.448m (1934-35) and £63.585m (1936-37).
of iron ore in South Australia fell from 928,000 tons (value £1,068,000) in 1930 to 289,179 tons (value £332,556) in 1931, but rose again in 1932 and 1933. New South Wales coal output fell from 11.126m tons (value £9.782m) in 1927 to 6.432m tons (value £4.607m) in 1931, its lowest level since 1904. By 1937, production had risen to 10,051,519 tons (value £5,823,469).^ There was a world-wide cut in steel prices.® Because of continuing low world prices, the output of the Mount Isa (Qld) silver/lead and copper mines was restricted.® Nevertheless, there were underlying reasons for optimism. American investors, not British, had confidence in the Mount Isa lodes; the American Smelting & Refining Co invested £500,000 in 1930, and existing railway lines were extended to link the mines to Port Townsville.® Steel companies acquired leases on high-grade iron ores in the Yampi Sound district of Western Australia. These ores required coastal shipping to bring them to processing plants in New South Wales and South Australia.

As a result of the collapse in output, there was a decline in the tonnage of freight moving by sea (Table 4.1). Over half the inter-state fleet was laid up in 1930.® There was a collapse in demand for ships, although confidence revived in the mid-1930s. Table 4.1 shows the changes in the number of inter-state shipping movements and tonnages of cargo shipped, before, during and after the Crash of 1929-1930. The Table records only Australian-registered inter-state ships, excluding the movement of foreign-flag ships between Australian ports. The 'Tonnage of vessels entered/cleared' (Columns 3 and 5) is net tonnage (a standard unit of measurement that indicates the approximate size of the ship).

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8 Hughes, Australian Iron & Steel, p. 108.
9 Output of the Mount Isa (Qld) mines, OYBs No. 24/1931, p. 575; No. 28/1935, p. 639.
11 Broeze, Island Nation, pp. 158-160.
12 58 per cent, according to Bach, Maritime History, pp. 318-319; 65 per cent, according to McKellar, From Derby, p. 439.
Table 4.1. Australian Inter-state Shipping Movement, 1923-24 and 1930s.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of vessels entered</th>
<th>Tonnage vessels entered</th>
<th>Number of vessels cleared</th>
<th>Tonnage vessels cleared</th>
<th>Inter-state cargo shipped, tons weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1923-24</td>
<td>5,565</td>
<td>8,228,391</td>
<td>5,546</td>
<td>8,109,094</td>
<td>6,358,191</td>
</tr>
<tr>
<td>1931-32</td>
<td>3,958</td>
<td>5,512,175</td>
<td>3,999</td>
<td>5,557,763</td>
<td>3,002,327</td>
</tr>
<tr>
<td>1933-34</td>
<td>4,360</td>
<td>5,927,623</td>
<td>4,379</td>
<td>6,095,043</td>
<td>4,278,158</td>
</tr>
<tr>
<td>1937-38</td>
<td>not available</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>7,032,080</td>
</tr>
<tr>
<td>1938-39</td>
<td>not available</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>7,221,000</td>
</tr>
<tr>
<td>1939-40</td>
<td>not available</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>7,140,480</td>
</tr>
</tbody>
</table>

Source: *Official Year Book of the Commonwealth of Australia*, various years.

Note: In the late-1930s, what was recorded in these tables changed, it is no longer possible to compare 'Number and tonnage of vessels entered and cleared' for 1937-1938 onwards with figures for previous years. Only figures for 'Inter-state cargo shipped, tons weight' (Table 4.1, Column 6) were recorded as before, allowing comparisons to be made.

In the 1920s, inter-state trade was on a declining trend. The low point was reached after the Wall Street Crash, in 1931-32, when the tons weight of inter-state cargo shipped (Table 4.1/column 6) was less than half the amount shipped in 1923-1924. The aggregate number of inter-state shipping movements declined by some 29 per cent between 1923-1924 and 1931-1932. By 1939-1940, however, the tons weight of inter-state cargo shipped had increased by some 40 per cent over the 1933-1934 figure. This probably reflects growing demand in the bulk trades in response to the development of steelworks at Whyalla (SA) and Port Kembla (NSW). Shipping companies ordered bulk carriers in anticipation of the requirements of these plants. Unfortunately, *Official Year Book* figures do not differentiate between general cargo and bulk cargo, so that it is impossible to say what proportion of the increase in traffic is attributable to these developments.

As a result of the decline in output after 1930, the Australian market in ships collapsed. Only six ships (23,611 gross tons), five built in Britain and one in Denmark, were delivered to Australian owners between 1931-1934, inclusive.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

Between 1935 and 1939, British yards delivered 28 ships of 114,321 gross tons.\textsuperscript{12} It is clear from company records that owners held off ordering during 1931-1933 and placed available funds elsewhere.\textsuperscript{13} There was a marked decline in the number of passenger places on offer on ships (Table 4.2).

Table 4. 2. ‘Inter-state and Coastal Steamship Services’, 1930s.

\footnote{12 Statistical Office of the Customs & Excise Department, \textit{Annual Statement of the Trade of the United Kingdom}, various years.}
\footnote{13 Adelaide S. S. Co and North Coast Steam Navigation Co, Minutes.}
Table 4.2. 'Inter-state and Coastal Steamship Services', 1930s.

<table>
<thead>
<tr>
<th></th>
<th>1931</th>
<th>1932</th>
<th>1933</th>
<th>1934</th>
<th>1935</th>
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<tr>
<td>No. Shipping Cos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reporting</td>
<td>23</td>
<td>23</td>
<td>22</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>No. 'Steamships'</td>
<td>162</td>
<td>154</td>
<td>154</td>
<td>155</td>
<td>156</td>
</tr>
<tr>
<td>Gross tonnage</td>
<td>319,756grt</td>
<td>306,878grt</td>
<td>309,309</td>
<td>302,897grt</td>
<td>324,891grt</td>
</tr>
<tr>
<td>Licensed for No. 1st Class passengers</td>
<td>7,276</td>
<td>7,222</td>
<td>7,230</td>
<td>3,914</td>
<td>4,311</td>
</tr>
<tr>
<td>Licensed for No. 2nd/ Steerage passengers</td>
<td>1,775</td>
<td>1,755</td>
<td>1,755</td>
<td>1,755</td>
<td>1,820</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>1936</th>
<th>1937</th>
<th>1938</th>
<th>1939</th>
<th>1940</th>
<th>1941</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Shipping Cos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>reporting</td>
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<td>30</td>
<td>28</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>No. 'Steamships'</td>
<td>160</td>
<td>162</td>
<td>167</td>
<td>154</td>
<td>150</td>
<td>137</td>
</tr>
<tr>
<td>Gross tonnage</td>
<td>352,661grt</td>
<td>353,280grt</td>
<td>386,182grt</td>
<td>344,967grt</td>
<td>334,105</td>
<td>316,499</td>
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<tr>
<td>Licensed for No. 1st Class passengers</td>
<td>4,450</td>
<td>4,410</td>
<td>3,909</td>
<td>3,385</td>
<td>3,147</td>
<td>2,889</td>
</tr>
<tr>
<td>Licensed for No. 2nd/ Steerage passengers</td>
<td>1,895</td>
<td>1,810</td>
<td>1,719</td>
<td>1,332</td>
<td>1,360</td>
<td>1,256</td>
</tr>
</tbody>
</table>

Source: *Official Year Book of the Commonwealth of Australia*, various years.
Note: From 1934, onwards, the numbers of First and Second/Steerage places are 'Exclusive of purely day passenger accommodation'.

*Scottish Shipbuilders and the Australian Market, 1901-1971.*
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

Between 1931 and 1939, there was little variation in the number of steamships in the Australian fleet (now including diesel-powered vessels); the annual average was 158 vessels. There was a drop of some 24 per cent from the annual average of 208 vessels between 1923-1928 (216 vessels of 375,893 gross tons recorded in 1926; Table 3.1). From 1934 onwards, the number of passenger places recorded in the tables excluded 'day passenger' accommodation; this explains the apparent reduction in the number of First Class places between 1933 and 1934. The reason for the change in enumeration is not explained in the Official Year Book. After 1918, fewer places were provided in Second and Steerage Class than in First, as mentioned previously. It suggests that companies were providing for fewer short stage journeys, and more, longer sea voyages. The generation of liners ordered in the late-1920s offered inter-state scheduled services during the summer season and cruises to Queensland in winter, indicating that the companies wanted to attract a more affluent clientele. The number of First Class berths provided fluctuated little during the 1930s. Following changes to the Navigation Act from 1926, onwards, the inter-state liners faced competition from P&O and Orient Line ships, which were now licensed to carry passengers between Australian ports. To meet the competition, the inter-state companies offered through voyages between Queensland and Western Australia, eliminating transfers at Melbourne or Sydney.¹⁴

The number of passenger-carrying ships ordered between 1931 and 1939 was fifteen of 90,767 gross tons. Of these only nine ships (55,293 gross tons) were exclusively for the Australian inter-state trades; the other six were built to trade between Australia and the Pacific islands. Before the introduction of large passenger-carrying aircraft, however, there was still a place for passenger

¹⁴ 'Australian Coasting Services', Shipbuilding & Shipping Record, 14 November 1935. McKellar, From Derby, pp. 459-460.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

shipping on the inter-state routes. Australian shipping companies invested in both passenger ships and air transport in the mid-1930s.\(^{15}\)

Some rationalisation took place among the intrastate companies. The North Coast Company of Sydney took over its small rival, Cain's Co-operative S. S. Co, for example.\(^{13}\) There were no major casualties among the inter-state companies, however. Membership of the Associated Steamship Owners (formerly the Australasian Steamship Owners' Federation) regulated the provision of inter-state shipping services; members shared the laying up of vessels and tonnage rights prevented an oversupply of new ships. In fact, self-regulation was appropriate after the Crash, when demand for shipping was poor, but tonnage rights inhibited fleet expansion when the national economy was expanding in the late-1930s.\(^{17}\) In the economic boom that followed the Second World War, Australian-registered tonnage was insufficient to handle the available trade. Reduction in the number of inter-state companies only took place after 1945 under competitive pressure from other modes.

The balance of shipping company work between carrying general cargo and single commodities (bulk cargoes) was beginning to change in the inter-war period. On the inter-state routes, the shipping companies could still compete for general cargo with the railways; inter-state railway transport was still hindered by the non-standardisation of railway gauges between states, as mentioned previously. There were openings for shipping companies to develop as dedicated carriers of coal, coke, iron and other ores, limestone and sugar.

\(^{15}\) MUA, Huddart, Parker, Ltd, Minute Books, 14 May 1936, p.490, re registration of Australian National Airways Pty Ltd, for example.
\(^{16}\) SLNSW, ML MSS 323/15, North Coast Steam Navigation Co Ltd, Minute Books, 18 September 1929, p.571: 'Approve purchase of 3,200 Cain shares at average 13/10½ (i.e. 13s.10½d?)'
\(^{17}\) McKellar, From Derby, pp. 810ff.
Different Responses to Conditions after the Crash.

It is worth considering the different responses to the Crash of the Australasian United S. N. Company's British (Inchcape group) management and their Australian counterparts in the Adelaide S. S. Co.

Table 4.3. Comparative Fleet Sizes and Gross Tonnages, AUSN, Adelaide S. S. Co and Howard Smith, 1921-1939.

<table>
<thead>
<tr>
<th>Year</th>
<th>AUSN Number of ships in fleet</th>
<th>Total gross tons</th>
<th>Adelaide S. S. Co Number of ships in fleet</th>
<th>Total gross tons</th>
<th>Smith Number of ships in fleet</th>
<th>Total gross tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>19</td>
<td>47,790</td>
<td>20</td>
<td>45,478</td>
<td>29</td>
<td>60,404</td>
</tr>
<tr>
<td>1925</td>
<td>16</td>
<td>47,716</td>
<td>27</td>
<td>65,900</td>
<td>30</td>
<td>67,220</td>
</tr>
<tr>
<td>1930</td>
<td>11</td>
<td>27,133</td>
<td>37</td>
<td>82,084</td>
<td>26</td>
<td>51,246</td>
</tr>
<tr>
<td>1939</td>
<td>13</td>
<td>37,139</td>
<td>32</td>
<td>78,408</td>
<td>17</td>
<td>38,966</td>
</tr>
</tbody>
</table>

Sources: Jones, Stephanie, 'The Decline of British Maritime Enterprise in Australia', p.63. Lloyd's Registers, Shipowner Supplements, various years.

The Adelaide S. S. Co, through its spread of business interests, was more responsive to developments in the Australian economy and its investment in ships only declined in the 1930s. Between 1931 and 1939, the Adelaide Company acquired seven ships of 29,362 gross tons; four cargo ships suitable for the bulk trades, one inter-state passenger and two intrastate passenger ships. In the same period, by contrast, AUSN acquired only three ships of 4,957 gross tons; one general cargo type and two suitable for the Queensland intrastate trades. Australasian United lost a passenger ship in 1929 but it was not replaced.18

These apparent differences in company investment policy require explanation. The fundamentals of the Australian economy, Australia's mineral resources and industrial potential, were the same for both. With the eventual return of confidence, industrial expansion would resume and bulk materials would require to be moved by sea to supply it. There was still some demand for passenger journeys by sea. One possibility is that the London-based Inchcape

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18 McKellar, From Derby, p. 405.
group regarded its Australian businesses as a sideline, Inchcape's own principal rôle being Imperial flag-carrier to India, Australasia and the Far East. Certainly, the bulk of Inchcape's investment in new ships was on the trunk routes from Britain, rather than on the Australian coast or the branch lines from Australia to Japan and China, New Zealand and North America. In addition, Inchcape group companies were losing market share in the Pacific to state-assisted Japanese and American lines. The British were entirely opposed to foreign governments assisting their maritime industries. Inchcape's reluctance to invest in its Australasian shipping companies may be symptomatic of general British commercial weakness in the Asia-Pacific region. Inchcape required Australasian United to finance any new building from its own resources rather than from group funds. Failure to invest in AUSN may be related to Inchcape's financial position at the end of the 1920s, when Inchcape was repatriating profits from its New Zealand subsidiary Union Steamship. Inchcape's neglect of its Australasian businesses denied work to British shipyards at a time when orders were desperately needed.

By contrast, the Adelaide Company invested in bulk carriers in the 1930s, in the expectation of work in connection with developments at Port Kembla (NSW) and Whyalla (SA). AUSN did not invest in bulk carriers, despite the potential demand for shipping that the Mount Isa ores in Queensland promised. Even a small, dynamic intrastate company like the North Coast S. N. Co of Sydney

19 The Eastern & Australian S. S. Co (Australia-Japan/China) and the Union S. S. Co of New Zealand (Australia-New Zealand-United States).
20 Two small intrastate ships ordered by AUSN in the mid-1930s were financed by bank loans, McKellar, From Derby, p. 464. AUSN's financial position in 1930, McKellar, From Derby, p. 463.
21 McKellar, From Derby, pp. 457-458.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

acquired four new cargo ships in the 1930s, including three motor vessels. Inchcape did not order a motor ship for its Australian trades until 1934.\(^\text{22}\)

If British shipping management claimed to be averse to subsidised shipping services, Australian owners had no inhibitions. To meet the competition from the British mail lines between Tasmania and the mainland, Huddart, Parker Ltd was inclined to order a new passenger ship in 1930, but only if the federal government would offer to subsidise the service. Huddart wanted a ten-year contract with subsidy of £48,000 \textit{per annum} for the initial period, and then £92,000 \textit{per annum} for seven years with the new vessel.\(^\text{23}\)

Australian shipping companies had funds to invest in 1930; they simply did not order ships. Huddart, Parker made a ‘loan at call’ of £284,000 to the coal company Hebburn Ltd. ‘In view of the difficulty of carrying on Hebburn under the present financial conditions, it was resolved that the loan should be interest free’. Other dividends from investments were reported in the Company minutes.\(^\text{24}\) Later, the Huddart, Parker directors noted that, ‘Since £80,000 of loan from Tasmanian Steamers was specially invested, Huddarts had to pay back the loan to satisfy the Federal Income Tax Department’. They then borrowed the same amount again and invested it in government stock at 5\% per cent.\(^\text{25}\) Adelaide S. S. Co directors agreed to a merger of their interests with the New South Wales coal owners James & Alexander Brown.\(^\text{26}\) The inter-state companies continued to pay dividends after the Crash. The Adelaide Co paid 4\% per cent dividend in 1932, 5 per cent in 1933 and 6 per cent in 1934 and

\(^{22}\)‘The first vessel actually built for the Company since Indarra in 1912’, McKellar, \textit{From Derby}, p. 420.

\(^{23}\)MUA, Huddart, Parker, Ltd, Minute Books, 27 March 1930 and 4 August 1930. In fact, the ferry, \textit{Taraona}, was not ordered until 28 January 1932, Minute Books, pp. 171-172.

\(^{24}\)MUA, Huddart, Parker, Ltd, Minute Books, 28 January 1932, pp. 171-172.

\(^{25}\)The minute of 13 March 1930 details dividends from the coal merchants Paterson, the Melbourne S. S. Co, the Electrolytic Zinc Co and the Geelong Gas Co.

\(^{26}\)MUA, Huddart, Parker, Ltd, Minute Books, 29 January 1931, pp. 91-92 and 24 March 1932.

\(^{26}\)Page, \textit{Fitted for the Voyage}, pps. 231-232.
1935. By contrast, AUSN/Inchcape paid 2½ per cent dividend in 1931, no dividend in 1932 or 1933, and 2 per cent in 1934 and 1935. There was a general reluctance among Australian shipowners to order ships until the mid-1930s. There was no longer a threat of competition from a state-owned shipping line. In part, they may have been inhibited by 'tonnage rights'; in part, they may have calculated that their non-shipping investments offered better returns. As the Australian economy picked up in the late-1930s, there was renewed demand for coastal shipping and the owners responded by placing orders.

Scottish Shipbuilders and the Australian Market, 1931-1939.

As a result of the Crash, demand for ships collapsed and British shipbuilding output collapsed with it. Commenting in 1934, the house journal of the Burntisland Shipbuilding Company noted that, in 1913, shipbuilding output in Great Britain & Ireland was some 1,932,000 gross tons (gt). The best year’s output in the 1920s was 1929, 1.523million gt, a fall of 21 per cent. By 1930, it was 1.479million gt, in 1931, 502,000gt, in 1932, 188,000gt and in 1933, 133,000gt. The writer remarks that there had also been a large fall in warship work as a consequence of the Washington Naval Treaty 1922. In January 1921, 299,000 persons were employed in (British) shipbuilding; in January 1935, 85,500. By October 1929, 40.1 per cent of British shipyard workers were unemployed (Shipbuilding Employers’ Federation figures). On the Clyde, the figure was 50 per cent. By 1932, unemployment in shipyards in Scotland and

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McKellar, From Derby, pp. 463-464, quotes broadly similar dividend rates for Huddart, Parker and the Melbourne S. S. Co.
28 Jones, Stephanie, 'British Maritime Enterprise in Australia', p. 64.
Johnman & Murphy, British Shipbuilding, pp. 19, 37.
The general British economic background after the Crash is described by Pollard, Development of the British Economy, 'Years of Crisis, 1929-1931, pp. 141ff.
the North East of England was said to be 72 per cent. Shipbuilders were making contracts on the basis of cost of materials and labour only, simply to give employment. Wilfrid Ayre remarked that ‘total world surplus shipbuilding capacity (in 1931 was) at least 1.17 million gross tons (or 50.4 per cent)’

Conditions affected both old established yards like the Ailsa Shipbuilding Co Ltd of Troon and new 1918 entrants like Henry Robb Ltd of Leith and the Burntisland Shipbuilding Company Ltd. There was some further rationalisation of shipbuilding capacity. Henry Robb’s neighbours Ramage & Ferguson Ltd closed in 1934. As mentioned in Chapter 3, Ramage had done little business in the 1920s; Robb acquired the property cheaply.

The Ailsa Company records show that the company was making losses on contracts from about 1924 onwards. Ailsa directors’ minutes during the early-1930s reported losses on building contracts regularly. The debit to the Profit & Loss Account at 31 May 1930 was £36,216. This increased to a debit of £48,452 by May 1931 following a trading loss for the year of £12,235. Much the same was reported the following year. The Company covered its trading losses by drawing on its reserves. ‘Comparative Abstract Accounts’ for six year periods between 1927 and 1937 show that the amount of Ailsa Company ‘Investments’ declined from £99,925 in 1927 to £27,808 in 1937. The

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32 Fairplay, 20 August 1931.
36 GUAS, GD400/1/4, Ailsa SB Co Ltd, Minute Books, 23 April 1930. Net loss on the whole contract of Cobargo (Ailsa SB Co No. 410/1929) for Illawarra & South Coast S. N. Co, Sydney, was £3,416 compared with estimated loss of £3,558. The Ailsa Company had to settle a claim for ‘defective refrigeration plant’ installed in the ship. Other similar losses on contracts are reported, passim.
Company's liquid assets fell from £119,237 in 1932 to £88,919 in 1937, while the 'Excess of Liquid Assets over Current Liabilities' fell from £115,821 to £73,136 during the same period. After the Wall Street Crash, the Ailsa directors seem to have preferred a survival strategy of depleting assets rather than taking on a bank overdraft. Treasury bills were sold and the proceeds placed on special deposit account, as and when opportunities arose.

The position was similar for Henry Robb at Leith. As regards 'New & Repair Work', 'there were no enquiries for new work, and enquiries for Repair & Survey work were at an absolute standstill'. Even the usual formal courtesies between owner and builder were abandoned. 'We had been asked to submit (a tender) for repairs to a Glasgow steamer. As indication of the attitude adopted by Ship Owners all over the country at present, the specification for repairs to this vessel was issued to all Ship Builders, asking for quotations, instead of, as previously, being placed with certain few, without inviting competitive tenders.' In former times, the owner, William Robertson of Glasgow, would have approached only the Ailsa Shipbuilding Co or another builder with whom he had established a working relationship. Builders were so desperate for work that Robertson could invite tenders. As a new entrant in 1918, Robb had had no previous dealings with him.

There was no change by the Meeting of Robb Directors on 8 December 1931. The Chairman reported that no new orders had been booked since 2 June 1931. The Finance Committee was to prepare a Report on the financial position of the Company. In November 1933, Robb reported to his Board that: 'some owners were (getting) their repair work (done) abroad'. The Company was out of touch with shipowners who required the kind of work of which Robb

38 GUAS, GD400/1/4, Ailsa Shipbuilding Co Ltd, Minute Books, 15 December 1931.
was capable. The Company’s representatives should actively seek work, making regular and frequent calls on shipowners.40

As a new entrant into shipbuilding, Robb had to establish himself in a home market in which there were already longstanding builder-owner relationships. He seems to have made a conscious decision to move into the niche in the Empire and foreign markets left by the disappearance of John Scott & Co of Kinghorn, Gourlay Brothers of Dundee and the Coaster Construction Co of Montrose. Both he and the Burntisland Shipbuilding Co, another new entrant, attended the British Empire Trade Exhibition in Buenos Aires in March 1931, and both companies recognised the potential of the South American market. Robb reported that there were inquiries at the Fair, but no orders, 'as the exchange is against us'.41 The company arranged to have a technical representative in South America.

Robb had to risk dealing with unknown overseas clients through brokers, tendering for work before he had established relations with them. To establish personal contact, he made a sales trip to India and Australasia in 1936, which produced several orders. He made a further visit to New Zealand in 1938.42 The greater ease of doing business with owners at home may explain why he also bid for Inchcape group work.43 One continuing problem for builders was the ending of the pre-1914 convention of stage payments during construction with final payment on delivery. In its place, builders were obliged to offer clients extended payment terms.44 Ayre at Burntisland wanted the government to

40 NAS, GD339/1/2, Henry Robb Ltd, Minute Books, 2 November 1933.
41 NAS, GD339/1/2, Henry Robb Ltd, Minute Books, 29 May 1930, 29 December 1930 and 29 July 1931.
42 NAS, GD339/1/2, Henry Robb Ltd, Minute Books, 21 February 1936 and 27 December 1938.
43 Albeit in competition with an established firm of shipbuilders like Alexander Stephen & Sons Ltd.
44 Over an extended period, typically up to five years, the purchaser taking a mortgage on the ship, with repayments to the shipbuilder every six months.

Boyce, ‘Network Knowledge’, p. 64.
guarantee the credit offered by the builders. There are frequent references in the Henry Robb minutes to correspondence with brokers about mortgages and about clients' failure to pay.45

After the Crash, builder's friends could not be relied on. Valued clients wanted to know what credit facilities builders were prepared to offer. In correspondence between Thomas McLaren, shipbrokers, and the Ailsa Company, the brokers asked about credit facilities for Irish clients, stating that: 'it would be impossible to get a mortgage from Messrs. Kelly on a new steamer'.46 William Robertson, shipowner of Glasgow, a longstanding 'friend' of the Ailsa Company, 'might build, if satisfactory credit terms were offered by the builder'. The builder's General Manager called on the owner; the Ailsa was prepared to give credit for whole or part of the price, on certain conditions, but 'Wm Robertson (was unwilling) to give a mortgage on any vessel...wanting deferred payment without security'.47 The Ailsa Company was reluctant to take on work on that basis and there were no launches at Troon in 1932 or 1933.

Wages and salaries were reduced. On 29 January 1931, the Ailsa Shipbuilding Co directors discussed reducing staff salaries, including those of the General Manager and the Secretary. A reduction of 10 per cent for management was agreed, and managerial salaries were not increased again until September 1936.48 The directors of Henry Robb agreed to similar proposals. The Managing Director's Statement: 'suggested the desirability of all-round

45 NAS, GD339/1/1, Henry Robb Ltd, Minute Books, 9 April 1930; GD339/1/2, 29 May 1930, 29 December 1930 and 25 September 1935, re: Port Waikato; the balance on the Port Waikato account was not paid until 1935. Problems over payment for the Saint Anthony (Robb No. 220/1936), a passenger ferry for Indian service, financed by Export Credit Guarantee, are also mentioned; Minute, 30 March 1936.

46 GUAS, GD400/1/4, Ailsa SB Co Ltd, Minute Books, 17 November 1931 and 15 December 1931.

47 GUAS, GD400/1/4, Ailsa SB Co Ltd, Minute Books, 23 January 1933 and 31 October 1933.

48 GUAS, GD400/1/4, Ailsa SB Co Ltd, Minute Books, 24 February 1931 and GD400/1/4, 10 September 1938.
reduction in salaries and wages; salaries (5 per cent), wages (10 per cent), 'such reduction to take place as from first pay in September 1931'.

Henry Robb minutes refer to rival firms price cutting when tendering for new vessels. It appears that builders were prepared to take on work at unremunerative rates in order to keep yards open, and to rely on bank overdraft facilities and other forms of credit. In 1931, 'Messrs Watson' loaned Henry Robb £10,000, loan to be repaid in full by 8 August 1934. Interest on the loan is not stated. Robb also obtained loans (amounts unspecified) from a 'Mr. Napier' and a 'Mr. McColl'.

Trading conditions improved from 1934 onwards. The Ailsa Company was placed on the 'King's Roll of Employees' (the Admiralty list) for manufacturing propelling machinery in 1936 and it began to record profits on contracts. Henry Robb reported a trading profit of £1,463.5s.8d for year ending 31 March 1933. There was also a trading profit in 1933-34. In January 1934, the Henry Robb board discussed a 'fusion' with the rival Ardrossan Dockyard Co. At the time, Robb was about to take over his Leith neighbour Ramage & Ferguson. It suggests that Robb was interested in some further rationalisation of smaller yards to eliminate competition, as had already happened at Leith. Several small Clyde yards had disappeared in the late-1920s. Nothing further happened, however. Robb evidently thought that the merger would require the floating of a public company, and perhaps wanted to keep Henry Robb as a

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52 GUAS, GD400/1/5, Ailsa SB Co Ltd, Minute Books, 14 May 1936 and 9 March 1937.
53 NAS, GD339/1/2, Henry Robb Ltd, Minute Books, 29 August 1933.
private limited company. In the event, Robb increased the company's capital to £40,000 in 1936 by the issue of 3,500 £1 shares. Robb acquired the interest and goodwill, plant and buildings of Ramage & Ferguson for £8,500.

Reduction in shipbuilding capacity (supply) through National Shipbuilders' Security (NSS) was British shipbuilders' response to the sharp reduction in demand after the Wall Street Crash. Sir James Lithgow, Chairman of NSS, invited Henry Robb to join the scheme in 1931. The aim of the scheme was a permanent reduction in the number of British yards; purchase and sterilisation of redundant capacity was to be financed by a 1 per cent sales' levy on ships built by Shipbuilding Conference members. As Buxton points out, however, rationalisation was largely left to market forces. In fact, in the case of the Ramage & Ferguson site at Leith, the Leith Dock Commission refused to agree to its being taken out of use, and Henry Robb acquired it. A number of Clyde yards that had built ships for Australian owners were liquidated in the late-1920s and early-1930s, and their sites acquired by NSS. All had been in financial difficulties after the slump of 1920-21, or were subsidiaries of larger shipbuilders (Harland & Wolff or Lithgows) and were not the main sites of their shipbuilding activities. Whether reduction in shipbuilding capacity was an appropriate reaction to the crisis in 1930s is debatable. What is certain is that

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54 NAS, GD339/1/2, Henry Robb Ltd, Minute Books, 22 January 1934.
55 NAS, GD338/1/2, Henry Robb Ltd, Minute Books, 12 November 1936.
56 NAS, GD338/1/2, Henry Robb Ltd, Minute Books, 27 December 1938
57 NAS, GD339/1/2, Henry Robb Ltd, Minute Books, 8 December 1931.
59 Johnman & Murphy, *British Shipbuilding*, p. 35, pp. 31ff.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

demand stimulation in the form practised by the Americans and the Japanese was inconceivable to the British.

Market Shares of the Australian Market in Ships, 1931-1939.
The Australian market in ships collapsed in 1930. The number of vessels ordered in the period 1931-1939 was under one-half of the number ordered between 1919 and 1930. The average number of ships ordered per year fell from 7.8 to 4.67 (-40 per cent). Gross tonnage ordered fell by some 44 per cent. The number of pure general cargo vessels ordered was under one-third of the number ordered between 1919 and 1930, indicating a sharp decline in the amount of general cargo on offer for movement by sea.

Table 4.4. Market Shares of the Australian Market in Ships, 1931-1939.

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61 If four British Phosphate Commission vessels are included, four Scottish-built ships of 23,201grt are to be added to the 1931-1939 total.
62 That is, vessels designed to carry only cargo (miscellaneous piece goods).
### Table 4. Market Shares of the Australian Market in Ships, 1931-1939

<table>
<thead>
<tr>
<th></th>
<th>Scottish yards supplied (% of total)</th>
<th>Other British yards supplied (% of total)</th>
<th>Australian yards supplied (% of total)</th>
<th>Foreign yards supplied (% of total)</th>
<th>Total vessels supplied</th>
<th>Total number vessels supplied</th>
<th>Estimate gross tons 1931-1940</th>
<th>Average vessels per year</th>
<th>Average gross tons per vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>(73.8%)</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>42</td>
<td>180,700</td>
<td>4.67</td>
<td>17,855 gross</td>
<td>3,823 gross</td>
</tr>
<tr>
<td>(14.3%)</td>
<td>(2%)</td>
<td>(9.9%)</td>
<td>(100%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, Shipowner Supplements, and shipping company fleet lists.
Scottish Shipbuilders and the Australian Market, 1901-1971’.

Table 4. 6. Numbers of Ship Types Sold to the Australian Market, 1931-1939 and 1919-1930 for Comparison.

<table>
<thead>
<tr>
<th></th>
<th>1931-1939 Number</th>
<th>1919-1930 Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>General cargo</td>
<td>20</td>
<td>67</td>
</tr>
<tr>
<td>Passenger/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>passenger-cargo</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>'Collier'</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>'Bulk carrier'</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
<td><strong>94</strong></td>
</tr>
</tbody>
</table>

Source: Lloyd’s Register of Ships, Shipowner Supplements, and shipping company fleet lists.

Numbers of passenger and passenger-and-cargo ships actually increased from 12 (1919-1930) to 15 (1931-39), the increase accounted for by the number of new passenger ships acquired by Burns, Philp for the Pacific Islands’ trades. The number of new colliers delivered fell from nine to one, which may reflect the decline in the coal trade in the 1930s, following the New South Wales coal strike in 1929-1930. The coal export trade did not recover until much later. Overall, the sharp decline in number of new ships delivered reflects the depression of the early 1930s. Fewer bigger ships were ordered; the average gross tonnage per ship increased from 3,080 (1919-1930) to 3,823 (1931-1939).

Table 4. 4 confirms Australian owners’ continuing preference for having ships built in Scotland (73.8 per cent market share). Despite the sharp reduction in demand, there was no change in the types of ship required. In this respect, the Australian market, like the World market in general, was a static one. Dramatic changes in ship type and methods of cargo handling did not take place until the 1950s. Demand was still for purpose-built, ‘one-off’ ships (what Scottish yards excelled in).

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63 Bach, Maritime History, p. 318.
The principal technical innovation of the 1920s, the marine diesel engine was mentioned in Chapter 3. The small motor ship of about 1,000-deadweight tons was one type for which the Australians preferred Continental builders; Burmeister & Wain (B&W) of Copenhagen consistently underbid British yards. In 1933, when the North Coast Company of Sydney put out an inquiry for a small motor cargo ship, B&W's successful tender was £58.14s per dwt ton for a 775dwt ton ship. Lithgows, the lowest British tender, was £67.6s per dwt ton for a 720dwt ton vessel (14.65 per cent more). In 1936, Harland & Wolff, who built B&W engines under licence, tendered £35,360 for a small cargo ship. B&W's tender was £34,300, but with delivery three months later than Harland. Although prices were rising, North Coast persuaded Harland to match B&W's offer, and Hendry, the broker, obtained a further reduction. Harland got the work, indicating that there was some elasticity in their original offer.

Table 4.6. Sample Contract Prices-per-Ton, Passenger Ships, 1930s.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Year built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt tons</th>
<th>Contract price</th>
<th>Contract price £/dwt ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>mv Moonta</td>
<td>1931</td>
<td>pass</td>
<td>2,693</td>
<td>1,200</td>
<td>£123,100</td>
<td>£112.12</td>
</tr>
<tr>
<td>(built Denmark)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mv Dunroon</td>
<td>1935</td>
<td>pass</td>
<td>10,514</td>
<td></td>
<td>£478,846</td>
<td>£45.11s/gt</td>
</tr>
<tr>
<td>ts Taroona</td>
<td>1935</td>
<td>pass</td>
<td>4,287</td>
<td></td>
<td>£233,500</td>
<td>£54.7s/gt</td>
</tr>
</tbody>
</table>

Sources: 1. NBA/ANU, Z535, Adelaide S.S. Co, Meetings of Directors, Project (Code 'G. M. 3'). 2. MUA, Huddart, Parker, Ltd., Ships' Cost Accounts. 3. The contract prices are £ per gross ton (gt).
Table 4.7. Sample Contract Prices-per-Ton, Cargo Ships, 1930s.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Year built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt tons</th>
<th>Contract price £</th>
<th>Contract price £/dwt ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss Munmorah</td>
<td>1934</td>
<td>collier</td>
<td>1,600</td>
<td>£35,300</td>
<td>£22.1s</td>
<td></td>
</tr>
<tr>
<td>mv Wyrrallah</td>
<td>1934</td>
<td>cargo</td>
<td>775</td>
<td>£45,500</td>
<td>£58.14s</td>
<td></td>
</tr>
<tr>
<td>(built Denmark)</td>
<td></td>
<td></td>
<td>(1,080)1</td>
<td>tender</td>
<td>tender</td>
<td></td>
</tr>
<tr>
<td>mv Bingera</td>
<td>1935</td>
<td>cargo</td>
<td>950</td>
<td>£46,897</td>
<td>£49.7s</td>
<td></td>
</tr>
<tr>
<td>ss Adelong</td>
<td>1936</td>
<td>cargo</td>
<td>3,577</td>
<td>£96,300</td>
<td>£26.4</td>
<td></td>
</tr>
<tr>
<td>ss Age</td>
<td>1936</td>
<td>collier</td>
<td>4,734</td>
<td>£50,000</td>
<td>£17.18s</td>
<td></td>
</tr>
<tr>
<td>ss Beltana</td>
<td>1936</td>
<td>cargo</td>
<td>3,584</td>
<td>£46,897</td>
<td>£49.7s</td>
<td></td>
</tr>
<tr>
<td>mv Comara</td>
<td>1937</td>
<td>cargo</td>
<td>751</td>
<td>£34,150</td>
<td>£41.13s</td>
<td></td>
</tr>
<tr>
<td>ss Iron Baron</td>
<td>1936</td>
<td>bulk</td>
<td>4,584</td>
<td>£113,000</td>
<td>£14.4</td>
<td></td>
</tr>
<tr>
<td>ss Age</td>
<td>1936</td>
<td>cargo</td>
<td>5,325</td>
<td>£102,500</td>
<td>£19.15s</td>
<td></td>
</tr>
<tr>
<td>mv Bulolo</td>
<td>1938</td>
<td>pass</td>
<td>6,450</td>
<td>£80,000</td>
<td>£25.13s</td>
<td></td>
</tr>
<tr>
<td>ss Komata</td>
<td>1938</td>
<td>cargo</td>
<td>5,325</td>
<td>£139,500</td>
<td>£26.4s</td>
<td></td>
</tr>
<tr>
<td>mv Koolama</td>
<td>1938</td>
<td>pass</td>
<td>4,026</td>
<td>£113,000</td>
<td>£26.4s</td>
<td></td>
</tr>
<tr>
<td>ss Kooringa</td>
<td>1938</td>
<td>collier</td>
<td>3,292</td>
<td>£125,000</td>
<td>£22</td>
<td></td>
</tr>
<tr>
<td>mv Kopara</td>
<td>1938</td>
<td>cargo</td>
<td>950</td>
<td>£57,850</td>
<td>£60.18s</td>
<td></td>
</tr>
<tr>
<td>ss Korowai</td>
<td>1938</td>
<td>cargo</td>
<td>3,305</td>
<td>£96,500</td>
<td>£29.4</td>
<td></td>
</tr>
<tr>
<td>ss Matthew</td>
<td>1938</td>
<td>cargo</td>
<td>2,235</td>
<td>£72,350</td>
<td>£20.13s</td>
<td></td>
</tr>
<tr>
<td>ss Tambua</td>
<td>1938</td>
<td>bulk</td>
<td>3,566</td>
<td>£133,000</td>
<td>£37.5s</td>
<td></td>
</tr>
<tr>
<td>ss Uskside</td>
<td>1937</td>
<td>cargo</td>
<td>4,500</td>
<td>£47,576</td>
<td>£10.11s</td>
<td></td>
</tr>
<tr>
<td>ss Bangalow</td>
<td>1939</td>
<td>cargo</td>
<td>648</td>
<td>£46,000</td>
<td>£90.4s</td>
<td></td>
</tr>
</tbody>
</table>


Note 1. Deadweight of the completed ship was 1,080. Note 2. Contract price/gt is price per gross ton.

Between 1931 and 1934, Scottish yards quoted between £10-£30 per dwt ton for a plain cargo ship, depending on size, whether steam or diesel-powered, or single or twin screw (twin screw ships, with two sets of main engines, were more expensive than single screw). In the mid-1930s, a cargo-and-passenger ship of 1,800dwt tons for the British and continental coasting trades would generally cost about £35 per dwt ton. Ships built for the Empire market tended to be more expensive; in 1936, a 950dwt motor 'coastal liner' for Australasian United cost £49.7s per dwt ton. In 1938, a 950dwt motor cargo ship for a New Zealand owner cost £60.18s per dwt ton. The reasons for the higher prices are...
probably more expensive outfitting of accommodation to comply with the
Commonwealth Navigation Act, and rising shipyard material and wages’ costs.

By the 1930s, owners were asking comparative quotations for steam or diesel
main engines. Prices of main diesel engines could vary by £20,000, depending
on the client’s requirements for horsepower and service speed. In 1937,
there was a long correspondence between Alexander Stephen & Sons and the
Union S. S. Co of New Zealand about the comparative prices of steam power
(£26.8s per dwt ton) and diesel (about £37.11s per dwt ton) for a cargo ship of
5,325dwt. Eventually, the client chose steam. The initial cost of a steamer
was lower, but the operating costs of a motor ship were less.

In 1936, the North Coast Company put out an inquiry for a cargo ship of about
1,000dwt tons. The lowest tender for a steamer was £43,450 by Henry Robb
(about £42 per dwt ton for a 1,035dwt ship). There was only £200 difference
between Robb’s and the next lowest bids (from Caledon, Dundee and Harland
& Wolff). As an alternative, Harland offered a diesel-engined ship for either
£55,100 or £58,100, depending on type of engine (about £55-58 per dwt ton; 31
per cent-38 per cent more than the cheapest steamer). The contract was
eventually placed with B&W at £46,500 for a motor vessel of 1,100dwt (about
£42.5s per dwt ton), little more expensive than the steamer, and at least 18 per
cent cheaper than Harland’s tender for diesel power. The supplementary cost
of exchange Danish krøner/£Stg would have been taken into account when
deciding for B&W.66

65 GUAS, UCS3/7/4 and UCS3/7/5, Alexander Stephen & Sons, Ltd, Estimate Books,
Stephen quoted £52,750 for a 6-cylinder Sulzer diesel engine driving a single propeller
or £83,047 for two 4-cylinder Sulzer diesel engines driving two propellers.
66 GUAS, UCS3/13/42, Alexander Stephen & Sons, Ltd, Ships’ Files, Contract
correspondence about Ship No. 564, Komata.
70 SLNSW, ML MSS 323/17 (21), Minute Books, cable, 12 August 1936 and minutes 19
August 1936, 23 September 1936 and 14 October 1936, re: Wyangarie (1938)
contract.
The size of this differential between steam and diesel power may account for the relatively high price of the Kopara (1938/950dwt, £60.18s per dwt ton, Table 4.5). The diesel-powered Wyrallah (1934, £58.14s per dwt ton) was nearly three times as expensive as the steamer Matthew Flinders, of similar design, completed in 1938 at £20.13s per dwt ton (Table 4.5).

Table 4.8. Comparison Successful/Unsuccessful Tenders for Australian Ships, 1930s.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Built</th>
<th>Type</th>
<th>Gross tons</th>
<th>Dwt</th>
<th>Successful Tender</th>
<th>Unsuccessful Tender</th>
</tr>
</thead>
<tbody>
<tr>
<td>mv Moonta</td>
<td>1931</td>
<td>pass</td>
<td>2,693</td>
<td>1,200</td>
<td>£123,100</td>
<td>£136,000-£142,750</td>
</tr>
<tr>
<td>tender by Stephen</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td>(+10.57% or more)</td>
<td></td>
</tr>
<tr>
<td>mv Wyrallah</td>
<td>1934</td>
<td>cargo</td>
<td>775</td>
<td>2</td>
<td>£45,500</td>
<td>£48,450 (+6.48%)</td>
</tr>
<tr>
<td>lowest Scottish</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tender by Lithgows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mv Wyangarie</td>
<td>1938</td>
<td>cargo</td>
<td>1,100</td>
<td>1,100</td>
<td>£46,500</td>
<td>£55,100-£58,100</td>
</tr>
<tr>
<td>tender by Harland &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(+18% or more)</td>
<td></td>
</tr>
<tr>
<td>Wolff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: NBA/ANU, Z535, Adelaide S.S. Co Ltd, Meetings of Directors; SLNSW, ML MSS 323/17, North Coast S.N. Co, Minute Books.

Note 1. Column 1 shows the name of the ship tendered for and the name of the unsuccessful tenderer. Column 5 shows the amount of the successful tender. Column 7 shows the amount that the unsuccessful tenderer quoted and the percentage by which his quotation exceeded the successful tender (for example, +10.57 per cent). Note 2. The North Coast Company's original inquiry was for a vessel of about 775dwt tons. Lithgows' offer was for a 720dwt ship. The actual dwt of the completed ship was 1,080.

What the costs-per-deadweight ton figures in Tables 4.6 to 4.8 show is that, in the 1930s, the first cost of diesel-engined ships was higher than that of steamers, and that the Danish Burmeister & Wain's tenders for diesel-powered vessels were consistently lower than Scottish tenders for the same work.

British Shipbuilders' Reactions to Market Conditions in the 1930s.

By the early 1930s, British government, shipbuilders and shipowners were concerned at the loss of Britain's market share of maritime trade to state
supported competition by foreign rivals, particularly the United States, Japan and Germany. The British attitude to foreign competition is summed up in a complaint in the trade press in 1932:

The private operator of ships who must, out of his own resources, maintain his essential services with up-to-date vessels, lest he be driven out of business by the competition of others (who are) frequently assisted by governments not only in the building of ships, but also in their operation.\(^71\)

Wilfrid Ayre (Burntisland Shipbuilding Co) expressed similar views on the competition suffered by Britain's unsheltered industries from state-assisted foreign opponents.\(^72\) For example, the British resented the United States' reservation of the trade between the United States and Hawaii for American-registered and -manned ships\(^73\) and the Jones-White Act 1928 which provided for the payment of construction subsidies to American lines ordering ships from U. S. shipyards. While British-registered trans-Pacific liners were prevented from carrying passengers between Hawaii and the United States, United States liners could still carry passengers between the U. S., New Zealand and Australia. Moreover, the American government had given financial support to the Matson Line to have three liners built in American yards, and provided operating subsidies to Matson to undercut British fares between the United States and Australasia.\(^74\) It was a modest stimulation of demand. It produced

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\(^71\) *Liverpool Journal of Commerce & Shipping Telegraph*, 6 September 1932.

\(^72\) "British shipping is carried on without protection of any sort. Some countries give appreciable assistance to their ships by subsidy or in their merchant laws"; NAS, GD313/15/4, *Burntisland Shipyard Journal*, Vol. 10/No. 1, July 1931 and *Burntisland Shipyard Journal*, Vol. 10/No. 2, October 1931.


\(^74\) Burley, *British Shipping & Australia*, pp. 252-256.

(There is) 'a distinction between subsidies for services rendered (e.g.) carriage of mails... (and subsidies intended) to confer a special advantage'. *Journal of Commerce*, 6 September 1932.
modern vessels, improved the quality of service, attracted users and increased U. S. market share of the trans-Pacific passenger trade. It ran entirely counter to the stated British belief in ‘a return to the principle of exchange based upon properly ascertained economic costs’.  

The British disapproved of any kind of demand stimulation that did not arise from ‘the natural laws of supply and demand’. An exception was made in the case of Cunard and the Queen Mary, when British technical prestige and the North Atlantic Blue Riband were at stake. For the builders and the government, the question was how British shipowners could be persuaded to undertake some modest fleet renewal; how to make financial assistance available, without creating demand for similar help from other depressed manufacturing sectors. Wilfrid Ayre was strongly against the shipbuilder extending credit to the shipowner by means of mortgages. As mentioned earlier in relation to Henry Robb, extended payment terms, if offered to little-known customers, simply left the builder out of pocket. Ayre described ‘the essentials of attractive loan finance’ as ‘a low interest rate, maximum period and freedom from difficulty of meeting amortisation payments’. He wanted government to guarantee shipbuilder’s ‘bills’, to offer ‘support of a reserve nature’; the shipbuilder should not have to carry the risk of offering credit to his customers. In fact, what he was proposing was similar to the form of

Johnman & Murphy, British Shipbuilding, p. 49, describe the types of financial assistance offered by foreign governments to their shipowners.

75 Liverpool Journal of Commerce & Shipping Telegraph, 6 September 1932.

76 Johnman & Murphy, British Shipbuilding, pp. 37, 40-43.

77 The shipowner paid for the ship in instalments, every three or six months, over a period of years; either the ship or the shipowner’s shares were offered as security. GUAS, UCS3/13/41, Alexander Stephen & Sons, Ltd, Contract files, 2 June 1938, 26 January 1938, re: Union S. S. Co. Ltd’s payments by Bills of Exchange for Korowai (Stephen No. 563/1936). Full payment for the completed ship was outstanding from the shipowner, therefore, while the shipbuilder had to settle his own accounts with his suppliers, repay his bank borrowings, etc. See ‘Contingent Liabilities’, thesis Chapter 6, pp. 204-205.

78 It is not a solution to the problem (of providing finance for new ships) that we should revert to the practice of continuing to rely on the granting of extended terms of payment
assistance that the Japanese government was giving Japanese shipowners at the same time.

The British response to foreign competition was the Shipping (Assistance) Act 1935 and the 'Scrap & Build' scheme. It was a lukewarm response, to assist the maritime industries without raising demands from cotton manufacturers and others. The government provided £10 million at low rates of interest to allow tramp ship owners to replace old tonnage with new in ratio two old for one new.79 It appears to be a tacit recognition of the reduction in the global range of the British tramp ship fleet. British owners’ (Inchcape's) reluctance to invest in the trans-Pacific trades seems to confirm the reduced status of that business.80

The object of 'Scrap & Build' was the replacement of obsolescent tramp tonnage. As it happened, by 1936, world freights were rising, and the values of scrappable tonnage rose with them. Selling prices to shipbreakers did not keep pace, so that shipowners had an incentive to retain overage vessels.61 In addition, the cost of new tonnage was also rising. The price per deadweight ton of 'a 7,500dwt tramp steamer on a bare specification' rose from a low point of £8.6s.3d (Stg) in December 1932 to £10.8s in December 1936, rising further to £15.17s.4d in December 1939.52 Builders like the Ayres at Burntisland undoubtedly felt that 'Scrap & Build', the replacement of obsolescent tonnage, would help their business.83 Their arguments in its favour can be seen in this

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79 Johnman & Murphy, *British Shipbuilding*, p. 50, p. 52.
52 Extract from *Fairplay*, 11 January 1940.
83 NAS, GD313/15/5, 'Age Distribution of Tonnage at June 1932', *Burntisland Shipyard Journal*, Vol. 11/No. 2, April 1933. The article claims that, at that date, 20.16 per cent of British & Irish ships were under 5-years old, (World 14.63 per cent); more British &
light. Ayre believed that the stabilisation of steel prices until the end of 1938 would 'create a more favourable environment for stabilising prices and ordering ships'. There was a renewed sense of optimism; an article in the *Burntisland Shipyard Journal* in January 1938 speaks of the company's plans for investment in new cranage and a 'well equipped engineering shop'.

**Background, 1931-1939.**

**Australian Industrial Development in the 1930s and British Reaction.**

Contrary to the views of the British money markets and manufacturers, Australia's natural resources and expanding population promised economic growth once confidence had been restored. Australian steel output expanded in the 1920s and '30s to meet growing demand from manufacturers. Production reached 433,000 tons in 1928-29; domestic steel consumption was 950,000 tons in that year. Crude steel output rose further to some 899,000 tonnes in 1936 to over 1.6m tonnes in 1941.

In 1928, Howard Smith the shipowner took £400,000 of Ordinary shares in Australian Iron & Steel Ltd, the company formed by the steelmaker Hoskins and two British steelmakers. The British firms elected to take Australian partners and set up in Australia, to avoid protective tariffs on imported steel products. Australian Iron & Steel was moving to a new waterfront site at Port Kembla (NSW) when the Crash happened; the firm went out of business and its shares were bought up by BHP in 1935. BHP also acquired Hoskins's leases on the Yampi Sound (WA) iron ore deposits. Because the ore required to be shipped

Irish ships were under 10-years old than Rest of the World, and fewer ships (7.77 per cent) were over 25-years old (World 22 per cent). There are further references to 'obsolescent tonnage' and 'Scrap & Build' in *Burntisland Shipyard Journal*, Vol. 12/No. 4, April 1935 and Vol. 12/No. 5, 1935. *Syren & Shipping*, 28 August 1935.


by sea to steel plants in the east, BHP was unable to exploit them until after the Second World War. Meanwhile, BHP expanded production at Newcastle (NSW) and acquired control of a number of steel-using companies. In 1937, it entered an agreement with the South Australian government to build a steelworks and coking plant at Whyalla (SA); the state offered BHP a lease of a site on favourable terms, and other concessions. South Australia made similar arrangements to attract General Motors-Holden and Imperial Chemical Industries to set up plants in the state. The BHP steelworks opened in 1941. A five-berth shipyard was built on an adjacent site and launched its first ship early in the war. In quite a different direction, Broken Hill, the Electrolytic Zinc Co of Australasia and the Orient Steam Navigation Co formed the Commonwealth Aircraft Corporation (CAC) in 1936, with capital of £600,000; aircraft production began in Australia in 1938. Inter-state shipowners Huddart, Parker, Union S. S. Co and Adelaide S. S. Co had links with CAC through their shareholding in Australian National Airways Pty.

Other overseas companies, including Ford and General Motors, established branch factories in Australia. General Motors acquired control of the local Holden's Motor Body Builders Ltd in 1931. There was a growing home market for motor cars, electric-powered domestic consumer goods and every type of steel product. Australian steel output rose to 1,292,000 tons in 1939-40 and to 1,647,000 tons in 1940-41. Such growing confidence provided work for the inter-state shipping companies. To meet the requirements of the steel trade, BHP ordered four bulk carriers from Lithgows of Port Glasgow. The orders raised angry protests from Australian trade unionists and Labor Party politicians as to why the work had not been given to Australian shipyards. The Cockatoo

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Docks & Engineering Co of Sydney was invited to tender, but their bid was ‘very considerably in excess’ of Lithgows’ £14.4s per dwt ton.  

These industrial developments inevitably affected home British manufacturers’ market share. Both Pollard and Cain & Hopkins emphasise the importance of dominion markets to British exporters during the inter-war period. The value of British exports to the dominions fell (by 22 per cent) from an annual average of £143m in 1925-29 to £111m by 1934-38. Through the Federation of British Industries, British manufacturers objected to the development of industries in the dominions under tariff protection. Sir William Larke, Director of the British Iron & Steel Federation, wanted no new iron and steel making capacity in the dominions, a position directly opposed to Australian policy, and oblivious to Australia’s large iron ore and coal reserves. The editor of the Burntisland Shipyard Journal complained about foreign countries’ pursuit of ‘national self-sufficiency’ and the shrinkage in trade because ‘they are trying to live by themselves’ (reducing their imports); he cited the collapse in the value of World imports from £4,930m (1913 values) in 1929 to some £2,000m during the first half of 1932. With reference to his own industry, he complained about ‘lapses’ by Australian owners in ordering ships ‘whose hulls and/or engines were not of

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80 NAA, 1940/902, Prime Minister’s Office, Correspondence file, 1935, re: BHP placing orders overseas (with Lithgows) for two 8,000dwt ore carriers (Iron Baron-type) for the Australian inter-state trade. The Prime Minister’s Office received complaints about the reported orders from, inter alia, the Hunter Australian Labor Party Federal Electoral Council (6 August 1935, ref. 730/3/602). ALP members protested in Parliament. Cockatoo Docks & Engineering Co’s correspondence with the Prime Minister’s Department about the ore carrier contract, 19-23 September 1935, is ref. 35/8605 and ref. 35/9108.  
81 Cain & Hopkins, British Imperialism, p. 85.  
82 Pollard, British Economy, p. 90.  
85 Cain & Hopkins, British Imperialism, p. 292.  
Scottish Shipbuilders and the Australian Market, 1901-1971'.

British construction', a clear reference to the Australians’ preference for Burmeister & Wain. British manufacturers were clearly affected by loss of market share in world markets, but felt that, under the British imperial trading system, they ought to retain their proper share of the Empire market.

**Competition to Coastal Shipping from Other Modes.**

Railway and airline competition was restricted by the Crash but was set to revive by the late-1930s. A standard (4'8½") gauge railway line between Grafton (NSW) and Brisbane (Qld) opened for traffic on 27 September 1930. The cost of construction was shared between the Federal government and the governments of New South Wales and Queensland. The link allowed the two state railways to compete with coastal shipping between points in New South Wales, including Sydney, and Brisbane. McKellar remarks that, in January 1930, the Queensland state government allowed the State Railways Department to offer special freight rates to customers who gave it the whole of their business. In view of the level of Queensland’s public debt, however, an official report on competition suggested that the railways should not compete with coastal shipping for inter-port trade, but should feed traffic from the hinterland to the ports.

In the event, both rail and seaborne traffic declined sharply during the Depression. Coastal shipping freights were reduced and railway and maritime wage rates were cut by 10 per cent, in common with other wages and salaries, following a decision of the Commonwealth Arbitration Court in January 1931. Once confidence revived later in the decade, the Queensland state government extended existing railway lines to link the Mount Isa mines with Port

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94 OYB, Vol. 36/1944-1945, p. 133
95 Bridgen Report; McKellar, From Derby, pp. 414-415.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

Townsville.\textsuperscript{97} Wheat was transported to the Queensland ports by rail and the construction of silos at the ports allowed wheat to be exported throughout the year, instead of seasonally. There was further railway development in Queensland in the 1960s to allow the exploitation of the Bowen basin coalfields.\textsuperscript{98}

Railway competition was a more obvious threat to intrastate shipping companies. In New South Wales, the directors of the North Coast Steam Navigation Co kept a close watch on road and railway competition for the Company's business. There are frequent references in the North Coast minutes to 'Railway Opposition'. One minute refers to contracts between the New South Wales Railway Department and butter and bacon producers on the Richmond & Clarence Rivers, and North Coast's proposed reduced rates in response. In July 1933, North Coast took legal advice about railway competition, but no further action was taken.\textsuperscript{99}

In June 1935, Railway Inspectors canvassed storekeepers in Lismore and Taree (NSW); North Coast local managers reported the storekeepers 'who are said to have signed Agreements (with the railway) for 12 months'. North Coast complained about poaching to the Commissioner for Railways and to the NSW Minister for Transport. The North Coast Board was informed every month about fluctuations in butter and bacon carrying, but it is not clear whether these fluctuations were as a result of railway capture of traffic.\textsuperscript{100} The Company was also concerned about possible competition from road transport. A minute in 1937 refers to 'an appeal' by the Chambers of Commerce in Lismore District for

\textsuperscript{97} Breeze, \textit{Island Nation}, pp. 158-160
amendment to the New South Wales Transport Act to allow motor transport without licence to exceed 50 miles radius from the Queensland border, in competition with rail. Any relaxation of road traffic regulation would inevitably affect North Coast’s carriages from the coast to upriver wharves. The North Coast Company was clearly sensitive to any competition that threatened its share of trade, especially when, in the mid-1930s, it was planning to invest in new ships. Whether the Company’s complaints indicate a serious challenge to its position is not clear. Perhaps it was simply the novelty of having its longstanding monopoly challenged. It is likely that competition from other shipowners was of greater importance. McKellar refers to AUSN’s concerns about competition for intrastate trade in Queensland from local shipowner John Burke.

**Australian Inter-state Air Travel in the 1930s.**

McKellar draws attention to the growth of air travel in the 1920s and '30s as a cause for the decline in numbers of passengers travelling by sea. He notes the inauguration of a daily east-west air service between Perth (WA) and Adelaide (SA) in June 1929, followed by a daily Sydney (NSW)-Brisbane (Qld) line in November 1929, extended to Townsville (Qld) in April 1930.

**Table 4.9. Australian Air Travel, 1920s-1930s.**

<table>
<thead>
<tr>
<th>Years</th>
<th>1925-26 1</th>
<th>1929-30</th>
<th>1933-34</th>
<th>1936-37</th>
<th>1937-38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles flown</td>
<td>487,603</td>
<td>3,234,307</td>
<td>3,061,449</td>
<td>8,731,612</td>
<td>12,291,570</td>
</tr>
<tr>
<td>Paying</td>
<td>4,174</td>
<td>91,415</td>
<td>54,119</td>
<td>85,574</td>
<td>133,408</td>
</tr>
<tr>
<td>Non-paying</td>
<td>2,830</td>
<td>12,801</td>
<td>10,117</td>
<td>16,590</td>
<td>25,495</td>
</tr>
<tr>
<td>Total</td>
<td>7,004</td>
<td>104,216</td>
<td>64,236</td>
<td>102,164</td>
<td>158,903</td>
</tr>
</tbody>
</table>

Sources: Official Year Books No. 24/1931, p. 213 and No. 32/1939, p. 149

Note 1. The statistical year for transport statistics ended on 30 June each year.

2. There is no explanation in the OYBs of who the 'non-paying passengers' are.

101 SLNSW, ML MSS 323/17, Minute Books, 19 May 1937, p. 185.
102 McKellar, From Derby, p. 415-416.
103 McKellar, From Derby, p. 407.
were; they may have been either airways' staff, users of the 'Flying Doctor' service, or members of the state or federal parliaments. After 1945, 'non-paying passengers' are no longer enumerated in the OYBs.

Table 4.9 shows the rapid growth of air miles flown and paying passengers carried between 1926 and 1930. The effects of the post-Crash depression are shown in the figures for 1933-34, but air travel had picked up again strongly by the end of the decade.

One indicator of the competition provided by air services is the growth in the number of 'Subsidised Air Services' shown in the Official Year Books. These can be compared with the subsidised mail steamer services of 1921 (Official Year Book No. 14/1921, pp. 639-640). On routes between Melbourne-Tasmania, to the northwest of Western Australia, or to northern Queensland, aircraft offered more frequent, daily, twice or thrice-weekly services, as against 'thrice weekly (summer)' or 'once each sixty days' by steamer. 81.85 per cent of miles flown annually in 1938-39 were subsidised. The total mileages flown by subsidised air services as at 30 June 1939 were 134,263 miles/week (6,981,676 miles/year) out of a total of 164,028 miles/week (8,529,456 miles/year).104

The figures in Table 4.9 make it clear that there was growth in numbers of passengers travelling inter-state by modes other than ship. It seems probable that passengers chose to change modes, though, without figures for numbers travelling by sea on comparable routes, it is impossible to calculate the extent of the switch. However, the figures for numbers of Licensed Passenger Places aboard ship (Table 4.2, above) suggest a sharp decline in numbers travelling by sea in the inter-war period.

In the 1920s and 1930s, Australian shipowners recognised the potential of investing in air transport. First World War veteran pilots set up small flying

104 OYB, No.32/1939, pp. 144-145.
operations in the 1920s; Holyman’s Airways Pty Ltd in Tasmania grew out of one of these.\textsuperscript{105} The original William Holyman & Sons, Pty., Ltd., shipowners, traded between Tasmania and the mainland. Holyman’s Airways was registered in 1934, won a Commonwealth Government mail contract, and began a subsidised mail service between Tasmania and the mainland on 1 October 1934. Huddart, Parker Ltd and the Union S. S. Co of New Zealand were among the shareholders.\textsuperscript{106} In 1936, Holyman’s Airways merged with Adelaide Airways to form Australian National Airways Pty Ltd. The company was registered on 13 May 1936 with nominal capital of £500,000. ANA’s first directors were J. L. Webb (Huddart, Parker director, Chairman), A. J. Soular (Sydney Manager of the Union Steamship Co of New Zealand, and a Scots-Australian, I. N. Holyman (Chairman of William Holyman & Sons Pty Ltd), M. G. Anderson (Chairman of the Adelaide Steamship Co) and D. C. Dowdell.\textsuperscript{107} Boyce notes that the Union Steamship Co Ltd of New Zealand had an interest in Tasman Empire Airways.\textsuperscript{108}

Conclusions.

Despite the Debt Crisis of 1930, the fundamentals of the Australian economy, her potential agricultural and mineral wealth, were sound. Foreign investors were prepared to put up the capital to develop her mineral resources, and state governments in the eastern states made agreements with private companies to facilitate industrial development. Consumer goods were manufactured in

\textsuperscript{105} Australian Dictionary of Biography, Vol.14, pp. 480-481.

\textsuperscript{106} MUA, Huddart, Parker Ltd, Minute Books, 12 July 1934, p. 352. Holyman’s Airways Pty Ltd required some £25,000 for the purchase of additional aeroplanes; Huddart’s directors approved a proposal to put up a share of the necessary funds. See also 17 October 1934, pp. 371-372 and 16 October 1935, p. 445.

\textsuperscript{107} MUA, Huddart, Parker Ltd, Minute Books, 6 February 1938, pp. 469-470 and 14 May 1938, p. 490.


Scottish Shipbuilders and the Australian Market, 1901-1971.

Australia under tariff protection. Overseas companies formed partnerships with local firms in order to set up branch factories and avoid import duties.

These developments offered the coastal shipping companies potential business. If their rôle as general carriers of cargo and passengers was challenged by other modes, there was work available as dedicated carriers of bulk cargoes and certain types of single piece goods, motor vehicle bodies, for example. The reduction in orders for general cargo types in the 1930s and the increase in demand for bulk carriers indicates that the companies were adapting to changed conditions. Inter-state companies developed as multi-dimensional businesses. When shipping was depressed, they moved available funds into government stocks or industrial or mining ventures. To anticipate the growth of air travel, they invested in air transport.

By and large, Australian shipowners preferred to offer work to British shipbuilders, except when a Continental builder offered a superior type of vessel at a cheaper price. The long-established relationships between the Australians and shipbuilders at Home remained strong. In the buyer's market that obtained after the Wall Street Crash, British shipbuilders were obliged to seek for work, canvassing for business from shipowners who had come to them for work previously. At least one Scottish builder, Henry Robb, looked for Empire and export business, and visited India and Australasia to make contact with potential clients. British shipbuilders had to offer their clients extended payment terms, taking the risk of offering mortgages to shipowners, while foreign shipbuilders could rely on government interest guarantees on the credit they offered to their customers.

There was no competition from local (Australian) shipbuilders, and the British resumed their domination of the Australian market in the 1930s. British manufacturers were opposed to Australian protectionism, but Australian industrialisation was happening, anyway. The British Imperial trading system,
‘Scottish Shipbuilders and the Australian Market, 1901-1971’.

the pre-1914 exchange of Australian primary produce for British manufactures, became hard to sustain.
Introduction.

This Chapter examines events in the Asia-Pacific region during the mid- to late-1930s and the re-establishment of shipbuilding in Australia during WWII. At stake were Britain’s and Australia’s shipping and defence interests in the region. There was a growing divergence of interests between Australia and Britain. Events showed that Britain’s position in the region was weak, in particular, vis-à-vis Japan; they explain why Australia was obliged to provide for her own defence. The re-establishment of warship building in Australia was Australia’s response to Japan’s emergence as a major commercial and military power in the ‘Near North’ (as R. G. Menzies called it).^1

One indicator of British commercial weakness in the Asia-Pacific region was her apparent unwillingness to support British shipping companies against subsidised foreign competition. British shipping lines carried Australia’s overseas trade in the region, but it is doubtful whether the trades were among British shipowners’ commercial priorities. In defence matters, questions had already been raised in the 1920s about the lapsing of the Anglo-Japanese Treaty of 1902, the defendability of the Singapore naval base and about Britain’s ability to protect her interests, where Japan was regarded as a potential challenger.

British and Australian interests diverged. If Britain was unable to provide for Australia’s defence and overseas trade, Australia must look after her own. The British were hostile to any resumption of merchant shipbuilding in Australia that would have produced commercial rivals to British interests. This Chapter considers why Australian merchant shipbuilding was revived with Commonwealth government financial support.

Shipping Competition in the Asia-Pacific Region.

British shipping companies had already lost ground in the Asia-Pacific region before the 1930s. Johnman & Murphy refer to the expansion of Japanese shipping during the First World War into areas vacated by the British.\(^2\) By the mid-1930s, for example, there was the large imbalance in Japan’s favour in carrying between Australia and Japan. The Japanese members of the Japan-Australia Conference were equipped with fast, modern, diesel-powered ships, 17 in number by 1937, built under a Scrap & Build programme.\(^3\) The British representative, the Eastern & Australian S. S. Co of the Inchcape group (E&A), contributed three elderly second-hand steamers. Pooled receipts for the trade were distributed 75 per cent-80 per cent to the Japanese lines, 20-25 per cent to E&A. As Japanese purchasers/importers preferred their goods to be shipped under ‘free on board’ (‘fob’) terms, they could choose to use Japanese-owned vessels.\(^4\) In the 1930s, Japan was a major customer for Australian wheat and wool and Australia imported Japanese manufactures in return. Tables 5.1 and 5.2 show the development of Australian trade with Britain, the United States and Japan in selected years between 1926-27 and 1938-39.

Table 5.1. Percentages of Total Australian Exports, Destinations, various years 1926-27 to 1938-39.

\(^2\) Johnman & Murphy, *British Shipbuilding*, p. 10.  
\(^3\) Burley, *British Shipping & Australia*, p. 257.  
Table 5.1. Percentages of Total Australian Exports, Destinations, various years 1926-27 to 1938-39.

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<tbody>
<tr>
<td>% of Total Australian Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.K.</td>
<td>36.14%</td>
<td>44.04%</td>
<td>52.23%</td>
<td>55.52%</td>
<td>54.45%</td>
</tr>
<tr>
<td>U.S.</td>
<td>6.41%</td>
<td>3.26%</td>
<td>2.66%</td>
<td>2.39%</td>
<td>2.95%</td>
</tr>
<tr>
<td>Japan</td>
<td>7.75%</td>
<td>10.58%</td>
<td>11.66%</td>
<td>4.16%</td>
<td>3.97%</td>
</tr>
</tbody>
</table>

Sources: Official Year Books, various years.
Note 1. 1935-36, when the Australia-Japan Trade Treaty was re-negotiated, was the peak year for Australian exports to Japan in the 1930s; 14.19 per cent of total exports.

Table 5.1 shows the importance to Australia of her Japanese market. Sales to Japan increased from 7.75 per cent of total Australian exports in 1926-27 to peak in 1935-36; they fell sharply thereafter to 4.16 per cent of total exports in 1937-38. Sales of Australian produce to Britain grew in the 1930s as a result of the arrangements introduced after the Imperial Economic Conference at Ottawa in 1932.

Table 5.2. Percentages of Total Australian Imports, Origins, various years 1926-27 to 1938-39.

<table>
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<tbody>
<tr>
<td>% of Total Australian Imports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.K.</td>
<td>41.30%</td>
<td>39.6%</td>
<td>43.63%</td>
<td>42.32%</td>
<td>41.64%</td>
</tr>
<tr>
<td>U.S.</td>
<td>25.22%</td>
<td>19.39%</td>
<td>15.64%</td>
<td>16.26%</td>
<td>15.09%</td>
</tr>
<tr>
<td>Japan</td>
<td>3.16%</td>
<td>4.05%</td>
<td>6.55%</td>
<td>4.90%</td>
<td>4.22%</td>
</tr>
</tbody>
</table>

Sources: Official Year Books, various years.

Imports of British goods increased between 1926-27 and 1934-35, while imports from the United States declined in the same period. The British Preferential Tariff favoured trade with Britain, while discriminating against competing foreign imports. Imports from Japan were on a rising trend until the mid-1930s, but declined after 1936 as a result of a trade dispute over Imperial
 preference and Japan’s invasion of China in 1937. The rapid expansion in the 1960s of Australian trade with Japan will be discussed in Chapter 7.

The Japanese members of the Japan-Australia shipping Conference received state aid in the form of building and operating subsidies. Articles in the British trade press deplored subsidised competition in the Pacific. A typical British shipbuilder’s view was expressed in the Burntisland Shipyards Journal: ‘Can (British Shipping) ever fight its way against (the) state-supported mercantile fleets of France, Germany, Italy and the United States? The British operator is running his business under strictly economic methods, without artificial support from his Government. (He) cannot be expected to compete under such one-sided conditions. Foreign governments give operating subsidies (to their shipowners) and capital subsidies for newbuilding.’ It was a familiar complaint, in defiance of the ways of the world. What might, nowadays, seem the solution, state aid for British operators, was unthinkable. It would have led to demands from other depressed sectors for assistance.

In 1935-36, when the Japan-Australia Conference arrangements were being re-negotiated, the Eastern & Australian S. S. Co wanted to retain a guaranteed share of the trade in both directions, between 20 per cent-25 per cent. The British government indicated that the Company could expect no financial assistance. E&A therefore approached the Commonwealth government for a subsidy to build new tonnage. The Australians were more sympathetic, but the matter dragged on until 1938, when the Imperial Shipping Committee recommended that the British government should give loan guarantees to

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5 Burley, British Shipping, p. 220.
6 Burley, British Shipping, pp. 256ff.
Shipbuilding & Shipping Record, 1935, passim.
Scottish Shipbuilders and the Australian Market, 1901-1971'.

British companies to help them acquire new ships, and that there should be operating subsidies for British lines operating against foreign competition.\(^9\)

It is perhaps indicative of British priorities that, although the government was willing to give assistance to Cunard on the North Atlantic,\(^9\) it was unwilling to support Inchcape group companies on their Asia-Pacific routes. Moreover, although British shipowners declared themselves opposed in principle to state subsidies for the maritime industries, Inchcape saw no contradiction in asking the Commonwealth government for assistance for E&A.\(^10\) These matters concerned British shipbuilders, of course. Any orders for ships for the Pacific trades would have been welcome in the 1930s. In fact, only one passenger ship was built, at Barrow in 1936, and she was for the trans-Tasman rather than the trans-Pacific route.

The British/Inchcape attitude to Japanese competition, as described by Tsokhas, seems quite unrealistic now. Had the war not intervened, E&A would surely have gone out of business; the Japanese were not prepared to continue to share the trade. If Inchcape was not prepared to invest in E&A, why not simply liquidate it? McKellar makes the point that the fate of Australasian United was linked to that of E&A. According to him, Inchcape considered that investment in E&A had priority over AUSN. For their part, the Australian managers of AUSN would rather have disposed of E&A and used the proceeds to order new ships for AUSN.\(^11\) Both Tsokhas and Burley take the view that neither company received sufficient investment, having to make do with second-hand vessels built for other trades.\(^12\) In fact, it was continuing under-investment

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\(^9\) Through the Cunard Insurance (Agreement) Act 1930. Johnman & Murphy, British Shipbuilding, pp. 37, 40-41
\(^11\) The relationship between E&A and AUSN is described by McKellar, From Derby, p. 443, pp. 457-458.

Burley, British Shipping, pp. 254, 256.
by Australasian United’s British management that put AUSN out of business in 1961, while locally-managed and well-capitalised companies like Adelaide Steamship survived the changes of the post-war period.

It seems clear that Inchcape’s Australasian businesses had low priority from a London viewpoint. While the U.K.-Australia Conference lines, including Inchcape group, enjoyed a captive market between Britain and Australia, the same was not true of the Asia-Pacific trades. British government and shipowners seem to have concurred that Australia’s principal trading relationship was with Britain. This is not to say that there was a deliberate British policy, post-Ottawa Conference, of favouring bi-lateral trade with Australia to the exclusion of Australian trade with third countries. Had Australian Asia-Pacific trade had the same importance for London, however, the British would surely have been more whole-hearted in promoting it, even to the extent of giving assistance to E&A.

Japan and Australian National Defence.

Britain’s commitment to the defence of her interests in the Asia-Pacific region was already being questioned in the 1920s, following her signing of the Washington Naval Treaty in 1921. Australian concerns were set out in a letter from R. G. Casey in London to S. M. Bruce in Canberra, describing the views of Britain’s former military attaché in Tokyo, who, ‘deplored the loss of the Anglo-Japanese Treaty’. Further letters from Casey to Bruce discuss Imperial defence, the rôle of Indian and Pacific Ocean naval bases, including Singapore and Darwin, possible Australian participation in the defence of Singapore, the likelihood of a Japanese naval attack on Singapore, and how the bases could best be defended, whether by fixed defences or by aircraft.

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13 Johnman & Murphy, *British Shipbuilding*, pp. 18-19.
Breeze, *Island Nation*, pp. 52-53.
14 NAA, A1420, R. G. Casey (Australian External Affairs Liaison Officer in London) to S. M. Bruce (Prime Minister), 12 January 1928.
15 NAA, A1420, Casey to Bruce, ‘Defence of the Ports’, 12 January 1928.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

In view of the growing Japanese military threat in the late 1930s, there was a modest increase in Australian defence spending, including preparation of factories for munitions' production, and a programme for building military training aircraft and training flying personnel. Orders for sloops and 'Tribal' class destroyers were placed with the Cockatoo Dockyard. The sinking of HMAS Sydney, Pearl Harbor, the loss of Prince of Wales and Repulse, the Fall of Singapore and the Darwin Air Raid, put Australia in the front line in the Pacific War. American forces used Australia as a base for the counter-attack against the Japanese, and Australian troops and warships fought alongside the Americans throughout the Pacific campaign. Australian dockyards were used for repairing allied warships. The effect of the Pacific war was to re-position Australia in the Asia-Pacific region, and this re-alignment was confirmed by the ANZUS Pact of 1951, and by the growing importance of trade with Asian-Pacific countries and with the United States.

Resumption of Merchant Shipbuilding in Australia and the Wartime Shipbuilding Programme.

The question of resuming shipbuilding in Australia came to the fore in 1935 when Broken Hill Pty (BHP) ordered two ore carriers from Lithgows of Port Glasgow. Australian trade unionists and Labor Party politicians complained that the contracts should have been placed in Australian shipyards to give work to unemployed shipyard workers. On 4 September 1935, the Comptroller, Department of Trade & Customs asked BHP ‘for information of the Minister,

96 The Invasion of China in 1937.
97 Butlin, S. J., War Economy, 1939-1942, (Canberra, Australian War Memorial), 1955, pp. 267ff, part of the official Australian history of WWII.
98 Jeremy, Cockatoo Island, pp. 84-85.
99 Jeremy, Cockatoo Dockyard, Appendix 8 'Ship Refits & Repairs During WWII', pp. 231ff.
21 NAA, 1940/902. Correspondence file, 1935, re: BHP placing orders overseas (with Lithgows) for two 8,000dwt ore carriers for Australian inter-state trade.
whether quotations for the vessels were invited from Australian shipbuilding yards. Particulars of the amounts of the tenders submitted by Australian and overseas shipbuilders would be helpful. It was clear from a reply by the Cockatoo Docks & Engineering Co that Cockatoo’s tender was well in excess of Lithgows’. 22 (Unfortunately, no copy of Cockatoo’s tender was found among the Australian records in Canberra).

In 1937, the Commonwealth Joint Committee of Public Accounts inquired into the ‘Capital Cost of Australian-built Ships, 1919-1923’; the Committee reported in May 1937. It was a reprise of the long-running debate about whether, and at what cost, merchant and naval shipbuilding should be re-established in Australia. 23 In 1939, after the outbreak of war, Cabinet considered ‘Comparative Costs of British and Australian Shipbuilding’, labour and materials’ costs. Investigation of hourly rates for various types of labour showed that rates at Cockatoo Dockyard and Mort’s Dock, Sydney were much higher than ‘London rates’. 24

Examination of comparative costs was part of a broader inquiry by the Department of Trade & Customs into ‘Shipbuilding in Australia’. 25 The starting point of the inquiry was the necessity of finding sufficient tonnage to transport foodstuffs to Britain. Following the Imperial Conference in 1937, and in anticipation of a European war, the Commonwealth made contracts to supply Britain with foodstuffs in bulk, the British to supply the shipping. By early 1940, however, the British could not guarantee to provide sufficient tonnage. As had

22 NAA, A425, 35/8605, 19 September 1935.
24 NAA, A425, 1940/802, Confidential Statement ‘A’: Comparative Labour Cost of Shipbuilding in Australia and the United Kingdom, based on cargo vessels with imported machinery, boiler and auxiliaries.

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happened in 1916, the Australians had either to find the ships themselves or stockpile unsaleable produce at Australian ports (Chapter 2).

The Trade & Customs Report was submitted to Cabinet in March 1940, before the German invasion of Russia and the entry of Japan and the United States into the war. It was based on the assumption that the war would last at least three years. The reporters investigated Australia's actual and potential shipbuilding capacity; what residual facilities were left from the post-1918 shipbuilding programme, and what sites could be developed for shipbuilding; how many building slips might eventually be available, what size of vessels could be built on them, and what annual output might be; and the likely cost of re-activating dormant facilities and bringing new slips into production.

They considered what types of ship of what carrying capacity would be required during the war, and whether they would be built to carry Australia's own exports, or built on behalf of the British government. The United States and Canada were currently preparing to build war standard cargo types for the British; what was called 'de-centralised ship production'. Primary producers took the lead in lobbying for resuming shipbuilding, in order to secure transport for their exports; they preferred vessels of up to 7,000gross/10,000dwt tons. On the other hand, the Australian coastal trades normally required smaller vessels.

The reporters examined the likely cost per deadweight ton of Australian war-built tonnage, in comparison with likely British-built costs. They considered the post-war disposal of the Australian-built ships, the likely annual post-war demand for ships, the achievable annual post-war output of Australian yards and Australian shipyard prices in comparison with world (i.e. British) prices. They also canvassed the private shipowners as to their post-war requirements, and whether they would be prepared to acquire Australian-built ships.

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27 Between 1918-1930, annual demand for the coastal trades was 7.8 ships of 3,080 gross/5,000dwt tons, average.
From their investigations, the following points emerged. Considerable investment was required to bring the Australian yards into full production. No private concern would accept the financial risk; the state would have to meet the costs of re-activating shipbuilding as a wartime measure. The types of ship required to support the war effort and secure the export of Australian produce were larger than would normally be required in peacetime for the Australian coastal trades. At the end of the war, there would be a fleet of cargo vessels, the disposal of which would be problematic.

Australian shipyard prices of war-built ships were likely to exceed British prices, but British-built ships would be unobtainable during the war, anyway, because of United Kingdom Export Prohibition Regulations. The price differential with British builds was likely to increase considerably after the war. The private owners made it clear to the investigators that they would not buy Australian-built ships at anything like probable post-war prices, but would wait until prices (delivered Australia) came back to pre-war levels. These findings echoed the views of W. H. Churchin, Chief Executive Officer of the Commonwealth Government Shipping Board in 1921, referred to in Chapter 2.

The investigators recommended that the Commonwealth government should inaugurate a shipbuilding programme, as a war measure. A steam-powered, standard, plain cargo type of 5,200gross/9,200dwt tons and a smaller 6,000dwt ton type could be built. Some items of outfit would have to be imported, but most of the steel for hull, frames and boilers could be manufactured in Australia at competitive prices. Given sufficient notice, Broken Hill Proprietary could produce these items. Steam propelling machinery could be manufactured locally.

A Commonwealth Shipbuilding Commission or Board, composed of suitably qualified persons, should be set up. The Commission would ‘advise the Government as to what standardised types and numbers of cargo ships are
required', and would superintend the letting of contracts, progress of work, including progress payments, and other matters connected with the re-activation of the shipyards. An agreement on co-operation between the shipbuilding workforce and management was pre-requisite, if continuity of work and cost reductions were to be achieved.

Some mechanism; bounty, protective duty or prohibition of imports, or some combination of these, would be required to secure the position of Australian shipyards after the war. The local shipbuilding industry should be guaranteed the Australian market for ships (other than large or luxury passenger ships) for ten years'.

The Trade & Customs Report ran entirely counter to pre-war British industrial policy, that British manufacturers would supply the needs of the dominions, not vice versa. The British made it clear that they did not contemplate Australia participating in decentralised ship production. No skilled shipbuilding manpower or materials could be spared, and besides, ships and certain key items were now prohibited exports. The Australians would be better employed building small naval vessels; corvettes and minesweepers. In 1940, it was a realistic assessment of the contribution that the Australians could make to the war effort; the Americans and Canadians were clearly capable of supplying all the merchant tonnage Britain required.

The Australian Shipbuilding Board was set up March 1941. Its first task was to obtain designs, order materials and begin a programme of building a series of 8,500dwt 'A'-type cargo steamers for the export trades, and a smaller, 3,000dwt 'D'-type for coastal trading. The problems of bringing shipyards back into production, lack of skilled manpower, shortage of materials and an over-

26 NAA, 1940/902, Memo by the Assistant Comptroller General, Tariffs, to Managing Director, BHP, 30 January 1940, noted that Investigations into Australian shipbuilding by the Tariff Board led to the Shipbuilding Bounty Act 1939.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

The entry of Japan into the war and the turning of Australia into an American military base merely compounded the difficulties.

Military requirements now took precedence over civil. The Royal Navy, the Royal Australian Navy and the Americans had first call on available merchant tonnage to transport war material and troops to the fighting zones. Repair of warships and requisitioned merchant vessels took priority over any merchant shipbuilding programme. Supply of shipping for commercial purposes became a serious problem. Some commodities; coal, timber and sugar, required a regular supply of shipping, and any disruption in supply threatened production. Actual tonnage available in 1943 for carrying essential cargoes was estimated to be 114 vessels of 194,706 gross tons, against 231 of 434,327 gross in 1939. Quoting a wartime report on the inter-state trades, Butlin notes that the seven ASO member companies carried approximately 5,730,000 tons annually, including general cargo, 2,335,000 tons, coal coke and ore, 1,870,000 tons and ironstone and limestone, 1,000,000 tons. These figures are a useful benchmark to show how the coastal trades expanded in the post-war economic boom.


Hughes, The Australian Iron & Steel Industry, p. 134, describes the development of BHP's Whyalla shipyard, which launched its first ship, a corvette, in May 1941. BHP Whyalla's total wartime production was ten vessels of 54,324dwt.

30 For example, the Americans had exclusive use of twenty-one Dutch vessels that had taken refuge in Australia, Butlin & Schedvin, War Economy, 1942-45, p. 221.

31 Butlin & Schedvin, War Economy, 1942-45, pp. 238-239. In January 1943, the coastal fleet comprised 274 vessels of 532,482gt, War Economy, 1942-45, p. 238, but these included vessels under military control and those used for transporting military cargo. In effect, only 114 vessels of 194,706 gross tons were available for moving essential (civilian) cargo. Hence the need to charter additional tonnage. Butlin & Schedvin note that, on 1 January 1942, in addition to ASO members' ships, there were twenty-four vessels of various nationalities on charter to the Commonwealth Shipping Control Board. By 1 January 1946, there were thirty-seven vessels on charter.

32 Butlin, War Economy 1939-1942, p. 147.
Moreover, there were problems in merchant shipbuilding. Yards like Walsh Island (New South Wales) were well below standard for a programme of building large (9,000dwt) ships, and the original programme (60 ‘A’ class ships in five years) was seen to be over-ambitious and well beyond the capabilities of the existing yards. There were continuing shortages of skilled labour and material, and there was inadequate co-ordination of hull and engine building. In 1943, a Cabinet Committee reviewed naval and merchant shipbuilding and repair, and the building programme was modified to reflect likely post-war shipping requirements. The ‘A’-type building programme was cut back to thirteen ships and orders were placed for three smaller types, more suitable for the intrastate trades.\(^\text{33}\)

What is interesting about this revised programme is the confidence that the planners showed in the post-war continuance of intrastate shipping. This was perhaps a reflection on the inadequacies of the railway and road networks that the war revealed. As mentioned in previous chapters, different railway gauges between states necessitated trans-shipment of goods at the state borders. In wartime, manpower had to be diverted for the task, delaying the movement of troops and equipment to northern Queensland and to Western Australia. The capacity of main lines (the number of trains per day they could carry) was restricted because many were single track, signalling was inadequate and locomotives and rolling stock were unsuitable for moving large quantities of matériel in wartime. There was no network of long-distance highways suitable for inter-state road transport.

What the planners could not foresee was the speed with which land and air transport captured market share from coastal shipping after the war. Air travel quickly took the place of inter-state passenger shipping, and road haulage

\(^{33}\) 10 of 6,000dwt, 10 of 4,000dwt and 2 of 2,000dwt. Butlin & Schadvin, War Economy, 1942-45, pp. 245-246.
replaced intrastate general cargo shipping.\textsuperscript{34} In New South Wales, the Illawarra & South Coast Company sold its ships in 1951 and was liquidated in February 1952. The North Coast S. N. Co ceased shipowning in 1954; AUSN, the Inchcape group Company in Queensland, was liquidated in 1961. The pre-war Associated Steamship Owners' arrangements, established before the First World War, which kept seven inter-state companies in business until 1939, could not prevent the reduction in their number in the 1960s. The war showed up the inadequacies of the land-based transport networks; post-war investment in roads and the lifting of restrictions on road transport saw off intrastate shipping.

The Commonwealth government was committed to the re-establishment of shipbuilding to some £5.697 million. After the war, there was bi-partisan political agreement that shipbuilding should continue, with government financial support, 'for reasons of national defence'. During the Korean crisis of 1950 and the Cold War that followed it, national defence became central in all discussion of Australia's maritime industries.\textsuperscript{35} One Memorandum to Cabinet from the Ministry of Supply & Development, written in early 1950, could not be more plain. 'In the present state of world affairs, Britain could not possibly meet Australia's needs of shipbuilding, shipping or ship repairs during another World War. Britain and America are certain to look to Australia for still greater assistance in this respect than was demanded during the 1939-45 war.'\textsuperscript{36}


\textsuperscript{35} NAA, A2703, Cabinet, Minutes on Shipbuilding, including 'Naval Construction in Australia', A425, successive Memoranda, Ministry of Supply & Development to Cabinet. A4933, Cabinet Committee on Shipping & Shipbuilding (SSB51 series, 1951-).

Conclusions.

As a result of the war, Australians concluded that they could no longer depend on Britain for their security, nor to supply their needs for merchant shipping. During the war, Japanese submarines had attacked merchant ships off the Australian coast. A post-war programme of building anti-submarine frigates in Australia, and the retention of suitably qualified technical staff to carry it out, became a priority. The Korean crisis was taking place in Australia's 'Near North'. The Commonwealth was financially committed to Australian shipbuilding, and a fleet of Australian-built merchant ships was either being built, or was operating currently, managed by the private shipowners. The private owners made it clear that they would not order from Australian yards at anything like Australian-built prices. There was bi-partisan agreement that the Commonwealth would have to meet the difference between Australian and British shipyard prices, if Australian yards were to stay in business.

These decisions impinged upon the British after the war. The post-war Australian Labor Party government placed restrictions on the importing of ships, enforced by the Shipping Act 1949, which required private owners to obtain permits to order ships from overseas (i.e. British) yards. British shipyards had full order books and the full impact of post-war industrialisation in the Empire did not become apparent until later. It was a far remove from the 1930s, post-Ottawa, Imperial trading system, in which the Empire supplied Britain with raw materials and provided markets for British manufactures in return. In the event, it was Japanese and American investment, not British, which developed the Yampi Sound iron ore deposits in the 1960s, and the American Utah Development Company, along with Japanese and Australian partners, who opened up the Queensland coalfields. The effect of the war was to re-position Australia in the Asia-Pacific region, where her principal commercial and defence interests lay. These developments will be discussed in the following chapter.

38 Apart from Australian shipbuilding, steel-making and shipbuilding started up in India, for example.
'Scottish Shipbuilders and the Australian Market, 1901-1971'.

The effect of Commonwealth government intervention in the maritime industries and on the 'strictly commercial relationships' between Scottish shipbuilders and their Australian clients is the subject of the concluding chapter of this thesis.
introduction.

Chapter 6 discusses the effects on the Australian market of Commonwealth Government shipbuilding and shipping policies after World War II. The central dilemma was what to do about Australia’s re-activated merchant shipbuilding yards and the ships they were building for government account. The wartime national shipbuilding programme had to be accommodated into post-war planning and integrated with Australia’s other planning objectives of economic development and full employment.

Post-war defence policy was initiated during the war under a Labor Party (ALP) government and continued by the Liberal-Country Party (conservative) administration after the general election in December 1949. Because of the developing Korean crisis in the late-1940s, national defence became central to planning for the maritime industries. The 1950s was a period when a conservative government tried unsuccessfully to reconcile the requirements of national defence with a return to a free market in the provision of coastal shipping services. Policy for the maritime industries was worked out in a series of Memoranda, and in consultation with the private shipowners.¹

Given that a national shipbuilding industry had been created, it had to be provided with work. There clearly was a need for ships to meet the anticipated post-war expansion of the Australian economy. The Liberal-Country Party government had no desire to be a shipowner. At first, it tried to persuade the private owners to buy the Australian-built ships. Australian shipbuilding costs were higher even than post-war British costs, however. For their part, the private owners refused to purchase the government built ships at the offer price. More to the point, they did not want to have to compete with a state-owned, state-funded National Line.

¹ National Archives of Australia (NAA), A4639, Memoranda/Agenda 42B, 42C and 42E, Ministry of Supply & Development to Cabinet, March-August 1950.
In the event, the demands of national defence could not be reconciled with the resumption of a free market in shipping services; in the government's opinion, national defence had priority. If the private owners would not buy the ships, and the government was obliged, by its key policy objectives, to become a shipowner, it was necessary to allocate the shipping effort between the state-owned ships and the private shipping companies.

Government policy was also in conflict with the interests of British manufacturers and the policy affected Australia's and Britain's market share of the market in ships. However, Australian governments were merely pursuing policies that other emergent, post-colonial nations like India were pursuing at the same time, the favouring of the national industry at the expense of traditional commercial relationships. Moreover, Britain's rivals, including Germany and Japan, had a quite different attitude to government intervention and shipbuilding for export. British capital goods' manufacturers lost market share, as a result.

The Chapter also examines changes in land-based and maritime transport as they affected Australian coastal shipping services. Road transport deregulation clearly had an effect on both inter- and intrastate shipping. It accelerated rationalisation of coastal shipping services by forcing intrastate companies out of business, in New South Wales, for example. It also had an effect on the inter-state general cargo trades. Traditional manual methods of handling general cargo were not competitive with road transport and the 'drive on-drive off' ship, introduced on the coast in the late-1950s. The 1950s also saw mechanical methods of loading and discharging single bulk cargoes replace the last remnants of traditional lumping in sacks, by hand. Port development was necessary for the evolution of maritime transport that took place in the 1960s. The new types of ship required to meet these developments were not the types that Scottish shipbuilders had always built. Numbers of passengers travelling on Australian domestic air services increased
rapidly after the war, at the expense of travel by sea, and the private shipowners sold off their passenger ships by the early-1960s.

These changes in the Australian market clearly had implications for its Scottish suppliers. The Chapter examines post-war conditions in the Scottish industry and how shipbuilders responded to competition from Australian shipyards. The Australian private owners regarded Australian-built ships as over-priced and unsuitable for their traditional trades. They wanted the types of purpose-built 'ships for the trades' that they had always ordered; the level of post-war Scottish shipyard prices does not seem to have been as important a deterrent to Australian owners as the possibility of having to compete for trade with state-owned ships.

Cost factors that inflated British shipyard prices included high steel and component prices; shortages of supply led to extended delivery times. In the immediate post-war period, Scottish yards still offered their clients cost-plus contracts, while their foreign rivals offered fixed prices. Continental and Japanese shipbuilders offered lower costs of production, shorter delivery times and also better credit terms than British/Scottish yards. Foreign nationalism was another factor in British shipbuilders' loss of market share. Australian self-assertion in her maritime industries was of a piece with other post-colonial developments. India, for example, developed her own shipping and shipbuilding in the 1950s, with assistance from German shipbuilders. Emergent nations like India, Indonesia and, later, Nigeria were establishing national shipping fleets in the late-1950s and early-1960s. These developments all affected British/Scottish manufacturers' share of the world market and also reduced British shipping's share of the world's carrying trade, with consequences for British invisible earnings. Not only shipbuilders lost market share. Other British capital goods' manufacturers, including locomotive builders, for example, also lost their share of world markets.
Australian Coastal Shipping, 1946-1960.

At the end of the war, the Commonwealth (ALP) government was committed to its wartime shipbuilding programme, modified in 1943 to take account of the private owners' stated requirements for smaller ships, more suitable for the coasting trades. Six Australian yards were building, for government account, a range of merchant ship types, suitable for both the coasting and oversea trades. The Australian-built ships were state-owned, but managed and operated by the private shipowners. For the private shipowners, the key question was, when would the Government give up control of shipping services and allow free market conditions to resume.

In the immediate post-war period, national defence became the key motive for retaining shipbuilding capacity in Australia. Wartime experience; attacks by Japanese submarines on shipping around the Australian coast, made the protection of Australia's seaborne trade imperative. Defence planners pressed the Government for a post-war programme of building anti-submarine frigates. The Korean crisis (1948-50) and the Korean War reinforced these concerns. There were fears that the Allies would make demands on Australia for shipping and for ship repairing facilities. Australia's peacetime ambitions for industrial development and full employment would not be fulfilled, if there were any large-scale requisitioning of Australian tonnage.

The return of a Liberal-Country Party (conservative) government in December 1949 led to a review of policy for the maritime industries. The review was made in the light of the developing Korean crisis. Alternative policies were set out in a series of Memoranda/Agenda between March and August 1950. The Minister of Supply & Development's Memorandum to Cabinet of 6 March 1950 summarised the development of shipbuilding policy under ALP governments since 1943; the Memorandum became the basis of succeeding Memoranda

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2 National Archives of Australia (NAA), A4639, Memorandum 42B, Paragraph 4b, Minister of Supply to Cabinet, 6 March 1950.
Memorandum 42B outlines how an Inter-departmental Committee was set up in 1944 to examine and report on post-war shipbuilding. A key recommendation was that, 'The mercantile marine and the shipbuilding industry be established on a sound basis after the war, so that they may provide adequately for the defence of Australia'. 'It was important that shipbuilding should be decentralised. The development of shipbuilding was a big factor in the Australian government's full employment policy' (that is, Australians should not be dependent on British shipbuilders, as they had been hitherto).  

Australian costs of production were higher than British and the need for subsidies to meet the difference between Australian and British building costs was recognised. It had been the Labor government's intention that the private shipowners should order from Australian yards. At a meeting with owners' representatives in May 1947, the Prime Minister, J. B. Chifley, had said that the Government was 'prepared to offer (the private owners) a building subsidy to cover the differences between British and local costs, up to a maximum of 25 per cent of the latter'. The amount of subsidy was later increased to one-third. This increase brought Australian-built prices well below British prices and had a clear effect on British market shares in the 1960s.

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3 NAA, A4639, Memorandum 42B, 6 March 1950.
4 NAA, A4639, Memorandum 42C, Paragraph 6c.
5 Shipbuilding & Shipping Record, 19 May 1949, quoting M. B. Miller, General Manager of the Union S. S. Co of New Zealand, at a launch at Leith on 12 May 1949.
6 NAA, A4639, Memorandum 42B, Paragraph 12, 'Basis of Sales to Private Shipowners'.
7 McKellar, From Derby, p. 524, quoting internal AUSN management correspondence. The 25 per cent subsidy is also referred to in Shipbuilding & Shipping Record, 29 July 1948.
In 1948, the question of scrapping overage tonnage in order to stimulate demand came to the fore; legislative action was proposed. 'If the shipbuilding industry is to survive, legislative provision will be necessary to compel (sic) shipowners to replace ships 25 years of age and older (by not licensing them for trading), and to purchase vessels for replacement and new trade from Australian shipyards (by continuing the wartime restrictions on the import of ships from overseas). That is, replacement would provide the Australian yards with a base workload. In interviews between government officials and representatives of the owners, some owners said that they were actually quite happy to continue operating with overage ships. The Memorandum 'Replacement of Over-Age Vessels' defines the current (1950) Australian coastal fleet as approximately 208 vessels, aggregating about 470,000 gross tons, of which 104 (108,000 tons gross) or 38 per cent of the total are over 25 years of age'. The ALP proposals were much more radical than the British pre-1939 'Scrap & Build' scheme; they envisaged an element of compulsion that was absent from the British programme. The successor Liberal-Country Party administration modified the original ALP policy by removing the element of compulsion in the replacement of over-age ships. It continued to require shipowners to obtain permits to import ships, however.

The legislative action adopted by the ALP government was the Shipping Act 1949 which 'provided for a system of licensing ships for the coastal trade, (so that) ships should not be imported into Australia without the consent of the Minister of Supply'. With the fall of the ALP government in December 1949,

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9 NAA, A4639, 42B, Paragraph 6, 'Replacement of Overage Vessels', Minister of Supply to Cabinet, 6 March 1950.
10 Under Australian wartime (Customs (Import Licensing), Customs Act 1939) regulations, to deal with wartime shortages of foreign currency, vessels built overseas could not be admitted to the Australian register without Government approval', McKellar, *From Derby Round to Burketown*, p. 499.
the Act was not implemented. The effect of the continuing restrictions on sales of British ships and ships' equipment to Australia can be seen in British Customs & Excise Department trade figures. Between 1946 and 1950, Commonwealth governments issued only five licences to import ships from Britain, during a period when Australian private owners might otherwise have been re-equipping after the war.  

By mid-1950, six Australian yards were building ships. The new Government acknowledged that there was insufficient Australian-registered tonnage available to lift the amount of bulk materials that the steel industry said it could process. Australian economic development, including the exploitation of the Pilbara (Western Australia) iron ore deposits, was dependent on the availability of sufficient suitable tonnage. Reporting on his interview with the manager of Broken Hill Proprietary (BHP), the Ministry of Supply civil servant noted that, 'With the assistance of 8-12 chartered foreign-registered vessels of between 8,000/10,000dwt capacity. The bulk tonnage lifted on the Australian coast for the year ended 30 June 1950 was a little over three million tons. The chartered vessels were carrying a substantial amount of the total tonnage'. By 1952, BHP's annual requirements would be between 5½-6m tons of raw materials. BHP would build four vessels of 10,000 deadweight tons capacity each at their Whyalla shipyard. BHP estimated that twelve of this 10,000dwt class would be required. The civil servant added that, 'If war broke out there would probably be an overnight withdrawal of the ships from charter. It is clear from the foregoing that we need more ships for the bulk trade than we have for the present, and can possibly build for years to come'.

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NAA, A4639, 42C, 'Australian Shipbuilding Industry', Minister of Supply to Cabinet, 14 June 1950 and 1 August 1950.

12 Great Britain. Customs & Excise Department, Statistical Office, Annual Statement of the Trade, various years.

13 NAA, A4639, Memorandum 42E, Paragraphs 9, 21, 22. Broken Hill Pty's response to the Ministry of Supply, re: its requirements for new tonnage.

14 NAA, A4639, 42E, Paragraphs 9 and 22, and 'Vessels on Charter from Overseas', Paragraphs 27 and 28.
Because of the shortage of tonnage and the inability of the Australian yards to fill the gap (Table 6.1), the Government conceded eventually that the Navigation Act would have to be modified to allow 'continuing permits' to be issued so that overseas ships could be chartered. The Commonwealth Director of Navigation issued single-voyage or continuing permits to overseas vessels (mainly British tramp steamers) operating on the Australian coast, under charter to the Commonwealth. These ships were obliged to adhere to the freight rates stipulated by the Associated Steamship Owners of Australia and the Australian Shipping Board. Vessels chartered to the Commonwealth also charged freights at normal inter-state rates; there were special concession rates for iron ore.¹⁵

The problem of supply of tonnage was a continuing one. In 1962, because of a shortage of tankers to carry petroleum products, eleven vessels were granted 'continuing permits'. ¹²¹ Other vessels had 'single-voyage' permits.¹⁰

Table 6.1. Australian Shipyard Output, 1943-1950.

A measure of the problem of supply of shipping by the Australian yards can be seen from Table 6.1. Output was tiny, in comparison with what overseas yards could produce in the same time.

¹⁵ 'U.K. Ships in Australian Coastal Trade', Shipbuilding & Shipping Record, 14 July 1949.
Mckellar, From Derby, pp. 568-569.
Table 6.1. Australian Shipyard Output, 1943-1950.

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Total ships launched and gt 1943-1950 32 111,578gt

Sources: NAA, A4639, 42B and Lloyd's Registers, various years
The yards are Broken Hill Pty, Whyalla (SA), Cockatoo Island, Sydney (NSW),
Commonwealth Naval Dockyard, Williamstown (Vic), Evans Deakin, Brisbane (Qld), New South Wales
State Dockyard, Newcastle (NSW) and Walkers', Maryborough (Qld). gt = gross tons
In Memorandum 42B, the Ministry of Supply reporter estimated that a minimum total annual output of 32,000 gross tons would be required from the (Australian) yards, 'if production were to be economical'. As was noted in Chapter 3 about Australian output during and after the First World War, it would be equivalent to the annual output of one medium-sized British yard. The figures in Table 6.1 may be compared with the Second World War output of the Burntisland Shipbuilding Co (BSC) on four slips: 62 vessels of 269,878 gross/397,487dwt tons. BSC's highest annual pre-war output was 28,827 gross tons in 1937; annual average output during the war was 45,340 gross tons. Moreover, in 1949 'Vessels launched' at Burntisland were 8 of 26,766 gross/44,980dwt, and in 1950, 'Vessels delivered' were 10 of 34,375 gross/53,450dwt.

The Ministry of Supply & Development admitted that there was a shortage of technical expertise requisite in carrying out the shipbuilding programme. Only Broken Hill Proprietary employed its own naval architect; other Australian shipbuilders lacked the necessary design staff. The government's intention was to have available a pool of skilled manpower, trained in conversion, ship repairing and shipbuilding, in the event of an outbreak of war. Some items of ship outfit still had to be imported. Although steam main engines were already manufactured in Australia, the Commonwealth Government had to obtain a licence on behalf of the Australian Shipbuilding Board to manufacture Doxford diesel engines.

18 These comprised 32 deep-sea cargo ships, 2 Merchant Aircraft Carriers (MACs), 3 'Loch'-class frigates, 16 colliers, 5 coasters and 4 'Chant' coastal tankers.
21 Richards, Mike, Workhorses in Australian Waters, pp. 173-175. Licences for Polar and Mirrlees diesels were also obtained.
"Scottish Shipbuilders & the Australian Market, 1901-1971".

This comparison does not in any way diminish the Australian yards' wartime achievements. The yards had to be re-activated from scratch, whereas, by 1939, BSC had had nearly twenty years' experience of building ships in series. Sharing out of the Australian contracts among the four eastern states simply recognised potential inter-state jealousies. In a unitary, non-federated state, the solution might have been to concentrate building on one or two large shipyards, with steelworks and equipment suppliers in close proximity; unthinkable in federal Australia.

In fact, it is evident from Table 6.1 that the combined annual output of the Australian yards never approached the minimum of 32,000 gross tons required for 'economical' production. The largest output achieved was six ships of 20,776 gross tons in 1946. Even 32,000 gross tons per annum would have been quite inadequate for the total amount of cargo requiring to be lifted annually, and overseas vessels had to be chartered to make up the numbers.²²

The level of Australian-built prices was clearly going to be a problem, when they were compared with British shipyard prices. The question for the Liberal-Country Party government was how Australian shipbuilding costs were to be brought down to approximate parity with British. More to the point was the question of how the Australian private owners were to be persuaded to buy the standard ship types on offer.

Development of Commonwealth Government Policy in 1950s.

Protracted negotiations between the Liberal-Country Party government and the private shipowners failed to persuade the owners to purchase the Australian-built ships. The stumbling blocks remained cost and the owners' fears about having to compete for cargo with state-owned ships. Government policy was

set out in papers by the Cabinet Committee on Shipping & Shipbuilding (SSB) from 1951, onwards. The Government repeatedly to the owners that it had no desire to continue as a shipowner, and that it believed that 'the Australian coastal trade should be conducted by private enterprise under conditions of active competition'.24

While negotiations went on, the government shipbuilding programme continued. Australian shipyards were to construct eight 10,000dwt bulk carriers (Lake - type) at an estimated cost of £Aus96,500 each (£Aus96.10s, equivalent to about £Stg72.10s,25 per deadweight ton, each), 'including engines and other items supplied by the Australian Shipbuilding Board'. This figure can be compared with a British-built bulk carrier which cost about £Stg59.7s (equivalent to about £Aus75) per deadweight ton. Table 6.2 shows the prices per ton of two comparable bulk carriers, the British-built ss Timbara (1954) and the Australian Lake - type (1956). The Australian-built ship would cost about 28.66 per cent more than the British build, at £Aus prices. The British price would be 'handed over U.K.', of course, so that the final, 'delivered Australia' price of the ship, including all the supplementary expenses, would be more.26 The difference between the Australian-built and British-built prices is about £Stg15 (about £Aus20) per deadweight ton, so that the 25 per cent subsidy available to the Australian private owners would bring Australian- and British-built prices more or less in line.27 The 33 per cent subsidy offered by the Government later gave Australian yards a clear price advantage over British.

23 NAA, A4933, SSB/51-series, Cabinet Committee on Shipping & Shipbuilding, 1951-
24 NAA, A4933, SSB51/3,
25 NAA, A4639, Submission 42E, 'Australian Shipbuilding Industry', Paragraph 37, by Secretary to Cabinet, 13 October 1950.
McKellar, From Derby, p.592, quotes the price of one Lake - as £(Aus)1.25m (about £Stg937,500);
£Stg1 = about £Aus1.5s
26 NAA, A4933, SSB51/2. Timbara (Blyth Dry Dock 1954/10,220dwt) cost
27 NAA, A4639, Submission 42E, Paragraph 37.
Table 6.2. Comparison of Some British and Australian newbuild prices, 1947-1958.

**British-built, prices £stg**

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>Tons dwt</th>
<th>£stg</th>
<th>Price £/dwt ton</th>
<th>£Aus/dwt ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss Komata</td>
<td>1938</td>
<td>cargo 5,325</td>
<td>£139,500</td>
<td>£26.4s</td>
<td></td>
</tr>
<tr>
<td>mv Komata</td>
<td>1947</td>
<td>cargo 5,305</td>
<td>£211,693</td>
<td>£58.15s</td>
<td></td>
</tr>
<tr>
<td>mv Coramba</td>
<td>1948</td>
<td>cargo 5,500</td>
<td>£443,000</td>
<td>£80.11s</td>
<td></td>
</tr>
<tr>
<td>ss Canberra</td>
<td>1948</td>
<td>cargo 3,880</td>
<td>£243,500</td>
<td>£52.15s</td>
<td></td>
</tr>
<tr>
<td>ss Wallarah</td>
<td>1952</td>
<td>collier 1,585</td>
<td>£171,435</td>
<td>£108.3s</td>
<td></td>
</tr>
<tr>
<td>mv Minkara</td>
<td>1954</td>
<td>cargo 3,508</td>
<td>£376,970</td>
<td>£107.9s</td>
<td></td>
</tr>
<tr>
<td>ss Timbarra</td>
<td>1964</td>
<td>bulk 10,220</td>
<td>£806,375</td>
<td>£59.7s</td>
<td></td>
</tr>
<tr>
<td>mv Stephen Brown</td>
<td>1954</td>
<td>collier 1,800</td>
<td>£244,600</td>
<td>£135.18s</td>
<td></td>
</tr>
<tr>
<td>mv Warringa</td>
<td>1955</td>
<td>cargo 4,255</td>
<td>£434,300</td>
<td>£102 (= £Aus125)</td>
<td></td>
</tr>
<tr>
<td>mv Lemana</td>
<td>1955</td>
<td>cargo 860</td>
<td>£200,800</td>
<td>£209.3s</td>
<td></td>
</tr>
<tr>
<td>mv Meringa</td>
<td>1958</td>
<td>bulk 7,150</td>
<td>£838,516</td>
<td>£117 (= £Aus146.5s)</td>
<td></td>
</tr>
<tr>
<td>mv Sugar Transporter</td>
<td>1958</td>
<td>bulk 6,550gt</td>
<td>£579,541 *</td>
<td>£103.15s *</td>
<td></td>
</tr>
</tbody>
</table>

**Australian-built, prices £Aus**

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>Tons dwt</th>
<th>£Aus</th>
</tr>
</thead>
<tbody>
<tr>
<td>ss 'A' class</td>
<td>1943-</td>
<td>cargo 6,500</td>
<td>£Aus73.8s (average)</td>
</tr>
<tr>
<td>ss 'D' class</td>
<td>1946-</td>
<td>cargo 3,000</td>
<td>£Aus125.3s (average)</td>
</tr>
<tr>
<td>mv 'Nyora'</td>
<td>1935</td>
<td>cargo 1,400</td>
<td>£Aus280,000 (average)</td>
</tr>
<tr>
<td>mv 'E' class</td>
<td>1948</td>
<td>cargo 622</td>
<td>£Aus245 (average)</td>
</tr>
<tr>
<td>mv Inyula</td>
<td>1954</td>
<td>bulk 7,119</td>
<td>£Aus115.3s</td>
</tr>
<tr>
<td>'Lake' type</td>
<td>1956-</td>
<td>bulk 10,400</td>
<td>£Aus96.10s (average)</td>
</tr>
<tr>
<td>'Wollongong'</td>
<td>1962</td>
<td>bulk 16,520</td>
<td>£Aus125 (estimate)</td>
</tr>
</tbody>
</table>

Sources: GUAS and NAS, Contract records. NAA, A4933, SSB51/3.
Notes: * denotes price per gross ton. The deadweight tonnages were not available. £1Stg = £Aus1.5s
The numbers of government-owned ships for sale, and the prices asked, are as listed here. Thirteen 'A'-class/River ships cost £8,207,943, (£Aus631,380, average, or about £Aus73.8s per dwt ton), two B-s cost £1,208,000, the pair; nine D-s cost £Aus3,378,910, (£Aus375,435 average or about £Aus125.3s per dwt ton) and the five 'E' class ships of 622dwt tons cost in total £Aus762,500, average £Aus152,500, each, or £Aus245 per dwt ton. In 1954, the estimated price for the Inyula-type, '6,000dwt ton, 'bulk carrier' for the Ministry of Supply was £600,000; the actual final cost was £820,000. 28 The total 'Original cost' of all government-owned ships is given as £14,013,103, and 'Depreciated at 31 March 1951' is given as £8,728,932. 29

In 1951, ASO representatives offered £4,628,788 'for the purchase of the entire Commonwealth-owned fleet'; 30 that is, some £4.1 million below the Government estimate of the ships' depreciated value at 31 March 1951. Norman McKellar, the Australian maritime historian, considers that the ASO offer was the price at which the private owners thought they could operate the fleet profitably. 31 As McKellar remarks, 'In the final analysis, it was determined that none of the vessels could, in fact, be anything other than unprofitable if the price to be paid for them were 'cost less depreciation'; some of the River class ships had cost as much as £761,000 (£89.10s per dwt ton) to build. It was estimated that, if the combined fleet could be bought for about £5.3 million, the (ASO) companies could make a payable proposition of operating it. This would make the price something like £270,000 for a River, £325,000 for a B, and so on'. 32 It is not stated whether the £ quoted is £Aus or £Stg (it appears to be £Aus).

The ASO offer was well below the Government valuation. From McKellar's comment, it is apparent that the private owners wanted a considerable discount
'Scottish Shipbuilders & the Australian Market, 1901-1971'.

below (Australian-built) 'completed Australia' prices. The 'A'-class were originally conceived for the overseas general cargo trades and the owners considered them unsuitable for the Australian coastal business on offer. Their physical layout was unsuitable for carrying iron ore and other heavy cargoes in bulk and their holds required additional preparation for handling coal, iron ore, dolomite/limestone and the like. Nevertheless, the £Aus prices of the 'A'/Rivers, 'handed over Australia' were not so different from the £Stg prices of similar British-built types, (£Stg converted to £Aus equivalent values), if the cost of the delivery voyage and other supplementary expenses were added to the cost of the ship 'handed over Clyde/Tyne'.

For the Australian owner, the supplementary costs of having a ship built in Australia would be lower than for having a similar ship built in Britain. For example, the owner would not have to pay bank charges to exchange £Aus for £Stg, the costs of maintaining the Company's representative at a shipyard in Australia would be lower than if he were based in the U. K., and the cost of delivering a ship from the builders in Brisbane to Sydney or Melbourne would be lower than the cost of a delivery voyage from Clyde or Tyne to Australia. As long as the owner's only effective choice was to order from a British yard, he accepted his supplementary expenses as part of the price of the ship. However, once the Commonwealth government was covering one-third of the cost of the ship; in effect, covering his oncosts, and more, the owner had every incentive to order from an Australian yard.

The second-hand price of an 'A'/River would, on McKellar's reckoning, be about £Aus31.15s per deadweight ton. Whether an Australian shipowner could have got a ship, new or second-hand, at that price, in 1950, is a matter of conjecture. The question does not really arise, however. The private owners declared that they were not interested in buying Australian-built ships. The types then on offer were steamers whereas they preferred motor ships because of lower

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33 The engineer who supervised the construction of the ship at the shipyard.
'Scottish Shipbuilders & the Australian Market, 1901-1971'.

manning costs. They wanted ships purpose built for specific trades (what they usually ordered from British yards, in other words), not standard designs. Australian-built ships were too expensive, and the subsidy on offer was inadequate. 34

Private Owners' Views on the Future of Coastal Shipping.
The most fundamental limitation on the Government policy was the private owners' rejection of Australian-built ships. The Government wanted to know how the private owners saw their businesses developing after the war; what types of ship they would be prepared to order. In August 1950, Ministry of Supply officials held a series of interviews with the managers of the private shipowners, asking about their likely future requirements for tonnage, whether, or not, they were prepared to make 'a firm statement of their requirements in terms of numbers and types of ship'.35 From the owners' responses, it is clear that, if they were going to order at all, they were not going to order the Australian-built standard types on offer. They would not buy the local product if they were free to order elsewhere. 36 The owners' main concern was when the Government was going to withdraw from shipping and allow the free market to resume without further intervention. Without knowing that, they were not going to order ships.

It is evident from their responses that, with the restoration of the free market, the owners envisaged resuming their pre-war trades. They were thinking in terms of ordering vessels of 'special type', the kind of bespoke 'ships for the trades' that they usually ordered from U. K. yards. The General Manager of the Newcastle & Hunter River Steamship Co., Ltd (New South Wales intrastate) stated that his Company 'badly needed replacement vessels of about 600dwt for the Sydney-Newcastle trades...but would not order because of uncertainty

34 NAA, A4639, 42E, Submissions of Mollwraith, McEacharn and North Coast S. N. Co.
35 NAA, A4639, 42E, Paragraph 4.
36 NAA, A4639, 42E. These types were 'A'-class (8,500dwt steamer), 'B'-class (about 6,000dwt steamer), 'D'-class (3,000dwt steamer) and 'E'-class (622dwt motor ship). NAA, A4639, 42C, Paragraph 19.
about freights (that is, whether freight rates would continue to be government-controlled). His Company might be interested in chartering, not buying, Australian-built 'E'-type ships (622dwt), which would have suited the owner's requirements well. However, his Company had had some very suitable offers of almost new ships from the U.K. and Scandinavia. That is, second-hand ships that were a lot cheaper than the 'E's, which cost some £Aus245/£Stg196 per ton, average, very expensive in comparison with anything British or Scandinavian-built.

The North Coast S. N. Co (New South Wales intrastate) required shallow-draught river-sea-types, carrying about 800dwt. The Illawarra & South Coast S. N. Co (NSW intrastate) also wanted shallow draught ships, either 600dwt or 800dwt, but claimed that, at that time, it was in no position to order new tonnage. In fact, the Illawarra Company was the only one to admit to the Ministry of Supply that it was in financial difficulties. Ten months later, on 29 June 1951, the Illawarra Company Chairman's Report noted that: 'Road and rail competition made it impossible to increase our freight rates to an extent sufficient to absorb rising costs and continue at a profit. (The Directors) plan to sell ships and go into voluntary liquidation'. Mcllwraith, McEacham (inter-state company with large coal interests) would have wanted colliers for their bulk coal business, but said that the 'B'-class (about 6,400dwt tons) was too big for the company's purposes.

What ships to buy at what price was only one aspect of the private owners' costs. There was also the question of their operating costs. In 1950, the coastal companies were evidently still thinking in terms of carrying general cargo (multivarious piece goods) in ships of traditional design, using manual labour to handle the cargo. There is no suggestion of the coming of mechanised cargo-handling or of carrying cargo in containers or on pallets.

37 NAA, A4639, 42E, 9 August 1850.
36 New South Wales State Record Office (NSWSRO), Dead Company Files, Container 17/9134; Item 7144, Illawarra & South Coast S. N. Co. Ltd.
‘Scottish Shipbuilders & the Australian Market, 1901-1971’.

Although the Americans used mechanised cargo-handling at Australian ports during the war, these methods were not widely introduced until the end of the ’50s. There were problems of shortage of wharfside labour and poor cargo-handling (work) rates after the war. Delays and disputes at the ports all added to ship operating costs. There was also a continuing problem of ship manning costs. In a speech in 1960, Captain J. P. Williams, Chairman of the Australian Coastal Shipping Commission, made an unfavourable comparison between the operating costs of Australian, British and Greek owners of a 10,000-ton motor ship.

The Illawarra Company’s response to the Ministry reporters is the only one that refers directly to a threat to coastal shipping from land-based transport. Instrastate companies’ operating costs made their businesses most at risk from land-based transport, as they had only limited scope for altering their rates in response to road and railway rates. In 1946, two Illawarra Company officers inspected ports and cargo-handling methods in Britain, Canada and the United States. Their reports cover the handling of materials in bulk and they also comment unfavourably on low rates of handling of general cargo; in Glasgow, the rate was said to be 3 tons of cargo per gang per hour, compared with 7-8 tons per gang per hour (average) at New South Wales ports. The Cabinet Committee on Shipping & Shipbuilding, 1951, made a similar point about ‘Improving the Turn-round of Vessels in Australian Ports’.

46 McKellar, From Derby, p. 543, quotes an AUSN general cargo ship voyage, A. 24, Fremantle-Sydney, late-1940s, which ‘took fifty-six days, of which forty-seven were spent in port’. Elsewhere, he refers to ‘typical examples of bad loading and discharge rates’ at Queensland ports in 1947-48, From Derby, pp. 512, 517, 552.
47 NAA, A4639, Memorandum 42E, 11 August 1950.
42 NSWSRO, Container 6/14973.4, Illawarra & South Coast S. N. Co. Ltd. NAA, A4933, Vol. 29, SSB51/3, Cabinet Committee on Shipping & Shipbuilding.
'Scottish Shipbuilders & the Australian Market, 1901-1971'.

Cargo-handling costs and delays caused by industrial disputes were not unique to Australia. Growing cost pressures, and the desire to limit the control of organised dock labour over cargo throughput, persuaded shipowners to press for changes in cargo-handling methods. These included mechanisation of bulk loading and discharge and the carrying of general cargo in containers or on pallets, loaded and discharged by non-dock labour, away from the ports. These changes fitted in perfectly with the development of road freight transport and of 'drive-on' vehicle- or road trailer-carrying ships in the 1950s.\(^43\)

Mechanisation of bulk loading of coal, iron ore and sugar was taking place in the 1950s at ports in New South Wales, Queensland and Western Australia. The first conversion to bulk sugar handling was completed at Mackay (Qld) in 1957. 'It loaded 750 tons/hour, and, operated by 17 skilled men, did the work formerly carried on by 300 wharf labourers.\(^44\) Other bulk-handling terminals followed, in conjunction with the opening of new railway lines connecting the mines to the ports. These developments were pre-requisite for the exploitation of coal and iron reserves and the export contracts signed with Japanese steel manufacturers in the mid-1960s.\(^45\)

Among the owners' replies to the Ministry of Supply, only the steel maker BHP considered its requirements for the movement of materials in bulk. The other owners were interested principally in acquiring ships for carrying general cargo.\(^46\) The return of the Liberal-Country Party government led to the easing of restrictions on ordering ships overseas. Australian owners could now obtain permits to order new purpose-built general cargo tonnage in Britain. Scottish-built contract prices for general cargo types ranged from £Stg102 to over £Stg200 per deadweight ton. An approximately comparable Australian-built

\(^{43}\) Broeze describes port development in Island Nation, pp. 165-169.

\(^{44}\) McKellar, From Derby, p. 605.

\(^{45}\) Pemberton, Australian Coastal Shipping, p. 190b.

\(^{46}\) Bach, Maritime History, pp. 428-430.

Broeze, Island Nation, pp. 168-169.

\(^{47}\) NAA, A4638, Memorandum 42E, August 1950.
type would cost £Aus200 (about £Stg150) per deadweight ton. The Scottish
price was 'Price handed over Greenock/Forth', of course, to which had to be
added the cost of the delivery voyage to Australia and the owner's other
supplementary expenses.

Wm. Holyman (private owner)'s submission to the Ministry of Supply in 1950
suggests that the price of a ship on order from Henry Robb was £Stg198,000,
or £135.3s/dwt ton. That is, even at these high British prices, made on cost-
plus contracts, Australian private shipowners would still rather order purpose-
built tonnage in Britain than standard types built in Australia.\(^{47}\) Even more
surprising is the contract price (handed over Greenock) of a ship built by
coasting vessel (of 960dwt tons) ... our present fixed price is £200,800 (delivered
Greenock)'. That is, £Stg209.3s (about £Aus252) per deadweight ton. Delivery
was to be in twelve months of signing the contract.\(^{48}\) In fact, it was possible to
obtain Australian-built ships at £Aus prices that were cheaper than similar
British-built types, 'delivered Australia' (£Stg prices converted to £Aus
equivalents). In 1956, Australian yards were building bulk carriers for about
£Aus115 per deadweight ton. Nevertheless, the Adelaide Steamship Company
preferred to order a purpose-built bulk sugar carrier in Scotland for
£Stg117/£Aus146 per deadweight ton. Supplementary expenses, including
'delivery Australia', were extra.\(^{49}\)

These examples suggest that price alone was not as important a disincentive
for the owners as Australian domestic politics. The owners could have had the
25 per cent government subsidy, which had been on offer since 1948. In their

\(^{47}\) NAA, A4639, Memorandum 42E, Interview with Captain Holyman, 14 August 1950.
The ship was Wareatea (Henry Robb No. 418/1952/1,465dwt)
\(^{48}\) Glasgow City Archives, George Brown to Messrs Tamplin (Brokers), 18 March 1955,
re: Lemana (George Brown (Marine) Ltd. No. 265/1956/960dwt).
\(^{49}\) McKellar, From Derby, p. 568. Inyula, Evans Deakin, Brisbane 1954/7, 119dwt,
£Aus820,000.
NAS, GD313/1/2, Burntisland SB Co Ltd, Minute Books, Meringa, Hall Russell
No. 865/1958/7, 150dwt.
Interviews with the private owners in August 1950, the Ministry of Supply had made it clear that the Commonwealth was prepared to construct the ships of special type the owners said they required, and to meet up to 25 per cent of the cost of construction, if ordered from an Australian yard.\footnote{NAA, A4639, 42E, Department of Supply, Letter, 18 August 1950, Paragraph 6.}

For the owners, the question was not only price but 'a lack of Government policy concerning the future of vessels now being operated by the Australian Shipping Board, and as to whether the government will undertake to cease to operate shipping in the future'.\footnote{NAA, A4639, 42E, Department of Supply, Letter, 18 August 1950, Paragraph 9 (d), and also 9 (f).} In other words, when would the free market in coastal shipping services be restored? The owners saw no point in ordering new ships (at whatever price) if they had to run them in competition with a state-owned, publicly-financed fleet. In fact, the free market in inter- and intrastate trade was restored by road transport de-regulation after 1953, and not in the sense that the private shipowners anticipated.\footnote{Inter-state road transport regulation was declared unconstitutional, following the Hughes & Vale Pty Ltd v. New South Wales case in 1953. The High Court found in favour of the State of New South Wales, but the decision was overturned after an Appeal to the Privy Council. Dowcra, G. E. & Kolsen, H. M., 'Transport & Australian Federalism', Journal of Transport History, 3\textsuperscript{rd} series Vol.10/1 (March 1989), pp. 62, 66-67. Sheridan, Tom, 'Coastal Shipping & the Menzies Government', Australian Economic History Review, vol. 35, 1995, p. 10 describes coastal shipping's loss of trade in the 1950s.}

The proportions of privately-owned and state-owned fleets changed in the 1950s. In 1951, the majority of ships on the coast were still privately-owned. Between them, the ASO owners and BHP owned 62 per cent of the Australian fleet's gross tonnage (Table 6.3), while the government owned 23 per cent. By 1961, ANL was the largest Australian fleet, only slightly smaller in terms of gross tonnage than those of ASO and BHP combined. Between 1951 and 1961, three intrastate companies in New South Wales went out of business. There were takeovers and amalgamations among the inter-state companies,
and the Australasian United S. N. Co. sold its ships in 1961. The privately-owned Broken Hill fleet expanded as a result of demand for steel. As BHP’s trade was largely in the bulk sector; iron ore, coal and limestone, the company was largely unaffected by the decline in the carrying of general cargo that affected the other private shipowners.

Table 6.3. Percentage of the Total Gross Tonnage of the Australian Coastal Fleet Owned by ASO Members, the Government and BHP, 1951, 1961.

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1961</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASO</td>
<td>44%</td>
<td>19%</td>
</tr>
<tr>
<td>Government-owned; from 1956, ANL</td>
<td>23%</td>
<td>41%</td>
</tr>
<tr>
<td>BHP</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>85%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Source: National Archives of Australia A4933, XMI, vol.29
Notes: ASO = Associated Steamship Owners, the private shipowners (inter-state companies). ANL = The Australian National Line (state-owned). BHP = Broken Hill Pty Ltd (privately-owned steelmakers with own fleet of ships).

Table 6.4. Comparative Australian Fleet Sizes, 1961.

<table>
<thead>
<tr>
<th></th>
<th>Number ships</th>
<th>Gross tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide S.S.</td>
<td>15</td>
<td>39,827</td>
</tr>
<tr>
<td>ANL¹</td>
<td>44</td>
<td>192,201</td>
</tr>
<tr>
<td>BHP</td>
<td>16</td>
<td>184,996</td>
</tr>
</tbody>
</table>

Sources: Lloyd’s Register of Ships, Shipowners’ Supplement and Official Year Book of the Commonwealth of Australia, No. 48/1962.
Note 1. The Australian National Line figure is the fleet size at 30 June 1961.

Table 6.3 shows the extent to which the ASO-member inter-state fleets declined as a percentage of the total Australian coastal fleet between 1951 and 1961. The gross tonnage of the state-owned fleet increased during the same period; by 1961, it was the largest fleet in numbers of ships and gross tonnage.

Both government and private owners were agreed that additional tonnage was essential if economic development was to take place, but neither would change
'Scottish Shipbuilders & the Australian Market, 1901-1971'.

position. Finally, in 1956, the Menzies government entered into the Australian Coastal Shipping Agreement with the private owners. The Agreement was confirmed by the Australian Coastal Shipping Agreement Act 1956. The Act set up the Australian Coastal Shipping Commission (ACSC) with wide powers 'to establish, maintain and operate shipping services between the States, or between Australia and overseas countries'. As a trading style, the Commission adopted the name the Australian National Line (ANL). The Act allocated the coastal shipping task between ANL and the private owners. Under the Agreement, the owners 'undertook that they would acquire and maintain such tonnage as would, together with the vessels of the National Line, provide adequate services'. The Commission agreed to engage in coastal shipping only through the Australian National Line. ANL was to take on the bulk trades, leaving general cargo for the private shipowners. By the Act, the private companies were also given the agency and stevedoring of the ANL fleet until 1976.


Shipbuilders in Scotland with an interest in the Empire market were aware of the revival of shipbuilding in Australia and of Commonwealth government restrictions on placing orders overseas. These restrictions were only one of a number of problems facing the Scottish industry after 1945. These included obtaining licences to build from the Admiralty, the supply and cost of steel, cost inflation, delays in delivery of components and shipyard productivity. These

53 'U.K. Ships in Australian Coastal Trade', Shipbuilding & Shipping Record, 14 July 1949.
54 OYEs, various years.
McKellar, From Derby, pps. 589ff.
56 Page, Fitted for the Voyage, p. 305.
56 Johnman & Murphy, British Shipbuilding, p. 96, describe the permit-license system. In early 1946, the price of steel plates rose to £16. 16s. 6d; Johnman & Murphy, British Shipbuilding, p. 97, quoting Shipbuilder & Marine Engine Builder, March 1946.

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‘Scottish Shipbuilders & the Australian Market, 1901-1971’.

all led to extended completion times and inflated final costs; British shipyard prices became increasingly uncompetitive with those of foreign rivals.

The British trade press was aware of the uncompetitiveness of British prices in the European market. A report in *Shipbuilding & Shipping Record* comparing British and German prices for internal combustion engines noted that by the First Quarter of 1953, German manufacturers had captured 50-54 per cent of the Dutch market. Germans quoted fixed prices and offered quicker delivery, 'whereas U.K. manufacturers maintain their escalator clause'. That is, British manufacturers persisted in offering potential foreign customers cost-plus contracts. A measure of how inflated post-war prices were in comparison with pre-war can be seen in correspondence between Alexander Stephen & Sons Ltd and the Union Steamship Co Ltd of New Zealand about the price of a replacement for a Stephen-built ship lost during the War. The pre-war price for the 5,325 dwt ton steamer was £26.4s per dwt ton; its replacement was to be like-for-like, but the post-war price was £58.15s per dwt ton.58

A major problem immediately after the war was the availability of steel. According to the trade press: 'Estimated steel output for 1947 is 13-14 million ingot tons. British steelmakers will be able to supply virtually as much steel as the main consuming industries will be able to absorb by current production'. Such optimism was not reflected by shipbuilders' actual experience, however. An Editorial in the same periodical, three months later, noted that, 'The Admiralty announced that steel for naval and merchant shipbuilding in the April-June quarter would be cut by 30 per cent. (There is) surprise that (the) industry has not been included in the list of top priorities, particularly in view of the fact

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57 *Shipbuilding & Shipping Record*, 8 April 1954, p. 431. Notes from Commercial Department of British Embassy, the Hague, to Export Services Department of Board of Trade.


59 *Shipbuilding & Shipping Record*, 9 January 1947.
that so many ships were building for foreign account, for early delivery'.

Henry Robb referred to, 'The effect of the (steel deliveries') quota system on our programme over the next 2 to 3 financial years, when it (is) estimated that our steel deliveries would be cut 25-30 per cent.'

Charles M. Scott (shipbuilder) made the point in a letter to the Admiralty about 'Return of our steel requirements for Period II 1949':

In view of the close contacts we have at the present time with one or two owners, we are somewhat worried about our steel position for new construction. Our allocation for Period II 1948 was 200 tons, for Period IV 1948, 150 tons, for Period I 1949, 110 tons, so far. We now have a Contract 350 (for export to New Zealand) and are in close touch with the owners, for whom we have built before, in connection with three vessels, the placing of same to a great extent still depending on our delivery position. Surely our output from three building berths should not be restricted to just over one vessel per year. Our steel requirements should run at 255 tons/quarter to enable us to build two ships/year on our three berths.

Small firms like Scott & Sons of Bowling that specialised in building for export to the British overseas market had reason to feel aggrieved. They felt that cutting steel allocations to shipbuilders was self-defeating, preventing them from making their contribution to Britain's Balance of Payments. Sir Wilfrid Ayre reinforced the point in a signed editorial in his company's Shipyard Journal. 'In 1951, 5.75 million tons of shipping are on order from British yards (at an) estimated value (of) £500 million. More than one-third of this tonnage (175

217
million tons) is for export. About ¾ million tons of steel per year will ensure production in the same period of £125 million-worth of new ships. 83

The observation was a pertinent one for the Burntisland Company. British manufacturers clearly understood the importance of export markets, even if the post-war government's immediate priorities were financial rather than manufacturing; principally, repayment of debt and the restoration of sterling convertibility. 64 Sir Wilfrid was aware of the need to build ships for export: 'We must produce for export to repair our ravaged finances' 65 He had visited South America on business in 1946 and recognised the region as a potential export market for British shipbuilders. There are frequent references in the Burntisland Shipyard Journal to Burntisland's building for export to the Empire market, Egypt, Norway and South American countries. In 1946, the Company appointed George Marriner, an emigrant Scottish marine engineer, to be its agent in Australia. Marriner reported on the change to a Liberal-Country Party government in December 1949. As a result, Sir Wilfrid visited Australia in July and August 1950. He had an interview with the Australian Minister of Shipping about the possibility of the new government removing restrictions on building ships overseas. 'The Chairman thought that the outcome of his talks would result in the removal of these restrictions'. 66 In the event, the Company won a number of orders from Australian owners. Sir Wilfrid made further visits to Australia in 1952, 'to finalise details of recent contracts and to discuss estimates recently submitted for new proposals', and in 1960, 'to maintain contacts with clients and to discuss the position arising from the continued prohibition of the

64 Pollard, The Development of the British Economy, Chapters 5 and 6, describes the problems faced by Britain in the immediate post-war period. For example, British Economy, Table 5. 11, 'British overseas debts in 1945', p. 219. The debt to India, Burma and the Middle East is quoted as £1,732bn, and total debt £3,355bn.
66 NAS, GD313/1/2, Burntisland Shipbuilding Co Ltd, Minute Books, 30 January 1950/Minute 57. See also 1 September 1950/Minute 86.
Commonwealth government on issuing of licences to build ships overseas. British shipbuilders clearly believed that they still had some influence with the Australians, even if petitioning a dominion government must have been an unusual experience for them. In 1950, the incoming conservative administration’s policy was not yet fixed. Sir Wilfrid’s visit was recognition, however, of a change in the Anglo-Australian relationship that the war had brought about.

Shortages of steel and other components caused extended delivery times. Charles Scott expresses caution about putting a delivery date on a contract with a New Zealand owner. ‘We are of the opinion that we cannot be too careful in what we sign in connection with the proposed new vessel especially as such a vessel could not be delivered by us under about 25 months’. In a letter to a Tasmanian client, Scott regrets a three-month delay in delivery of the main engine from the builders.

Such delays in delivery inevitably inconvenienced and annoyed the purchaser. An Australian owner wrote to George Brown (Marine) Ltd of Greenock: ‘Received your letter of 3 July (1956) ref. to the delay in fitting out the mv Lemanana. It is certainly very disappointing, as, apart from other considerations, our ss Laranah will have to be withdrawn from service some considerable time prior to the arrival in Australian waters of Lemanana, and we will be without a ship in that particular trade’. The ship was handed over late. As regards extended British build times, Slaven points out that between 1952 and 1956, Japanese, German, Swedish and other European yards were building tankers in as little as one-third of the time taken by British builders. British tenders were 20-25 per cent above tenders from rival foreign yards. Steel supply was still a problem in

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87 NAS, GD313/1/2, Minute Books, 23 December 1952/Minute 250 and 10 February 1953/Minute 266. 3 August 1960/Minute 502.
88 GUAS, GD322/2/6, Scott & Sons (Bowling) Ltd, Charles M. Scott to Maclay Murray Spens, 20 August 1948, re Ship 300, delivered late in 1950. GD322/2/9, Charles M. Scott to L. W. Smith, Launceston (Tas), 24 September 1948.
89 Glasgow City Archives (GCA), TD865, George Brown (Marine) Ltd, Letter from Wm. Holyman & Sons Pty Ltd to George Brown (Marine) Ltd, 10 July 1956.
1958. Slaven remarks that industries that were considered to have greater export potential were given priority in steel allocation.\(^70\)

Related to complaints about deliveries of steel were complaints about price inflation. Sir Wilfrid Ayre commented on shipbuilders' 'disinclination to tender firm prices'. He attributed this to instability of materials' and wages' costs and suggested that fixed prices for steel supplies would encourage resumption of firm price tendering. On productivity, Sir Wilfrid remarked that, 'Since 1945, national wage rates in shipbuilding and engineering have been increased seven times, involving a total (of) approximately £380 million' (i.e., added to the bill for wages). Output per man/hour is inferior to that attained in pre-war (pre-1939) days, or during the war'.\(^71\) In 1954, an Editorial in the trade press asked 'Are fixed prices possible'?\(^72\)

**Fixed Prices and Terms of Payment.**

From time to time between 1946 and 1960, some Scottish yards did offer their clients fixed price contracts. In 1955, George Brown (Marine) Ltd offered Wm. Holyman, 'Our present fixed price...£200,800' for a small 960dwt ton cargo ship. The delivery date proposed was in twelve months (March 1956).\(^73\) During the post-war period, the Burntisland Shipbuilding Group (BSG)\(^74\) does not seem to have had a firm policy as to whether it offered fixed price or 'cost-plus' contracts. Payment terms varied from time to time. In 1950, contracts between BSG and the Dundee, Perth & London Shipping Co Ltd and the Turnbull, Scott

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\(^71\) NAS, GD313/15/6, Burntisland & Hall Russell Shipyard Journal, Vol. 23/2, 1953.

\(^72\) NAS, GD313/15/6, Burntisland & Hall Russell Shipyard Journal, Vol. 21/4, 1950.

\(^73\) 'Shipowners will not think of contracting for new tonnage until a fixed price can be agreed on': 'Are fixed prices possible?', *Motor Ship*, July 1954, p. 136.

\(^74\) Johnman & Murphy, *British Shipbuilding*, p. 112.

\(^75\) GCA, TD865, George Brown (Marine) Ltd to Messrs Tamplin (brokers), 18 March 1955.

\(^76\) The Burntisland Shipbuilding Co took over Aberdeen shipbuilders Hall, Russell and Alexander Hall in 1942.
Scottish Shipbuilders & the Australian Market, 1901-1971.

Shipping Co Ltd were fixed price.\(^7\) In 1959, BSG offered to alter the terms of their contract with Silvertown Services Ltd for a bulk sugar carrier to take account of the client's concerns about inflation. The original contract (11 December 1957) was cost plus, but BSG offered to change the basis price to a fixed price.\(^8\)

Some contracts specified stage payments during construction of the ship, with final instalment shortly after handing over to the owner. Contracts with 'old friends', the collier companies, for example, and with the Australians were generally of this type. With new clients, terms of payment might be '40 per cent cash during construction, and 60 per cent in ten equal six monthly instalments over five years, secured by a mortgage', according to terms specified in the contract.\(^7\)

Payment by Bills of Exchange (extended payment terms) caused problems for the builders, however. Ayre had made his views on the subject known in 1939 (Chapter 4). \(^7\) These terms involved the builder in 'Contingent Liabilities', outstanding payments for work already completed amounting to £'000s. The emergence of payment by Bills in the mid-1950s seems to indicate the resumption of a buyer's market.

An important client like Inchcape Group might ask for extended credit. In 1949, the Union S. S. Co. and British India S. N. Co. asked Henry Robb

\(^7\) NAS, GD313/1/2, Burtnisland SB Co, Minute Books, 30 January 1950 (for coastal liner London, 1950) and 1 September 1950/Minute 85, (for a 9,400dwt cargo tramp).
\(^8\) NAS/GD313/8- series, Burtnisland SB Co Ltd, Contracts & Agreements, Letter BSC to Silvertown Services Ltd. 13 February 1959, re: Ship No. 871. The basis price at 11 December 1957 was £935,000, while the final price is given as £966,000, Minute Books, 1 March 1960.
\(^7\) NAS, GD313/1/2, Burtnisland SB Group. Minute Books, Contract for Hall, Russell Ship No. 833, 9 March 1951/Minute 158.
\(^7\) NAS, GD313/15/5, 'Finance of Shipbuilding Contracts', Burtnisland Shipyard Journal, Vol. 16/2, April 1939.
to accept Bills which would be discounted by the Owners and liquidated over five years. This would be a contingent liability for a considerable sum, and it was estimated that the liability at 31 March 1950 would be approximately £300,000. After taking everything into consideration, (we) did not see how we could refuse to accept the Owners' request, particularly as these two companies are subsidiaries of the P&O Group.79

Again, in a BSG Minute from 1957, 'The Chairman (Sir Wilfrid Ayre) reported the following Bills of Exchange (amounting to £552,400) drawn by the Company were at present outstanding. (The option to pay part of the ship contract price by Bills) could result in a substantial amount being outstanding from now on, and the Chairman felt it necessary to obtain the Board's reaction in regard to the policy to be adopted'.80 During the mid-1950s, when the market in ships was depressed, BSG was obliged to offer owners extended payment terms, contrary to Ayre's expressed views on the subject. BSG seems to have had particular difficulty in getting flag of convenience owners to pay.81 These were a new type of client who emerged after the war; the contracts with them may have been negotiated through the London investment company who were now BSG's principal shareholder.82 Perhaps BSG had no alternative but to tender for the work, but whether a pre-war, independent BSC, fully under Ayre Brothers' control, would have offered its customers such generous payment terms is debatable. In the late-1950s, owners had difficulty obtaining credit for ordering

79 NAS, GD339/1/3, Henry Robb Ltd, Minute Books, 30 November 1949. According to Henry Robb Ltd Minutes, the amount of 'Bills receivable under discount' were, in 1950 - £232,500; in 1951 - £882,250; in 1952 - £588,750; in 1953 - £55,000; Balance Sheets, various years.
80 NAS, GD313/1/2, 10 December 1957/Minute 427. In a previous minute, 15 August 1958/Minute 346, Bills of Exchange outstanding amounted to £174,600.
81 'Flags of Convenience' states, Costa Rica, Liberia and Panama, for example, had lax or few regulations relating to the registration of ships for trading. Lloyd's Rules, which regulated British shipping, were much more restrictive. Owners who registered their ships in Liberia, for example, could reduce their operating costs relative to British-registered shipowners' costs.
82 The Scottish & Mercantile Investment Co Ltd; NAS/GD313/1/2, Burntsland SB Group, Minute Books, 5 October 1951; Ritchie (Editor), The Shipbuilding Industry, p. 58; Mackie, Survival & Decline, pp. 223-224.
ships from British yards. A BSG minute in 1958 announced that a contract had been suspended ‘due to credit restrictions’ (the client had had difficulty in getting finance). Credit was made available through the Ship Mortgage Finance Company, set up in 1951, but was subject to restrictions because of recurrent Sterling crises in the 1950s.

Inflation & Delays in Delivery.

Table 6.5. Price Increases above Contract (Basis) Price, Burntisland Shipbuilding Group, 1950s (over).

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83 NAS, GD313/1/2, Burntisland Shipbuilding Group, Minute Books, 10 June 1958/Minute 447.

Johnman & Murphy, *British Shipbuilding*, pp. 135ff, describe the availability of credit for new ships in relation to Britain’s economic problems in the late-1940s and 1950s.

84 Johnman & Murphy, *British Shipbuilding*, pp. 136-139.
### Table 6.5. Price Increases above Contract (Basis) Price, Burntisland SB Group, 1950s

<table>
<thead>
<tr>
<th></th>
<th>Warringa (Burntisland SB Co No. 369/1955)</th>
<th>Century (Hall, Russell No. 854/1955)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract price (20/3/1952)</strong></td>
<td>£Stg</td>
<td>£Aus, approx ¹</td>
</tr>
<tr>
<td>Hull and Machinery (basis)</td>
<td>£434,300</td>
<td>£542,875</td>
</tr>
<tr>
<td>Builder's claim for increased costs</td>
<td>£102,970</td>
<td>£128,712.10s</td>
</tr>
<tr>
<td>Client's extras</td>
<td>£12,706</td>
<td>£15,682.10s</td>
</tr>
<tr>
<td><strong>Price at handover, Forth, 27/7/1955</strong></td>
<td>£567,468 ²</td>
<td>£Aus709,335</td>
</tr>
<tr>
<td>Final cost 'delivered Australia'</td>
<td>£Aus723,563 ³</td>
<td></td>
</tr>
</tbody>
</table>

Sources: NAS, GD313/18, Burntisland SB Group Contract files; GD313/1/2, Minutes; Melbourne University Archives, Huddart, Parker 'Ship Cost Accounts', *Warringa*, 1955.

Notes: 1. £Aus about 25 per cent more than £Stg. 2. The cost at handover, Forth was 'verified by an Edinburgh firm of accountants. 22 September 1955'. 3. The Credit Balance of £23,316 for the freight carried on the delivery voyage seems to have covered much of the contract's supplementary costs.
Table 6.5 shows examples of inflation of two BSG contracts with Australian clients in the mid-1950s. Burnisland No. 369 is a general cargo ship; Hall, Russell No. 854 is a small bulk carrier. The inflation of No. 369 is highlighted in ‘Ship Cost Accounts’ in the files of Huddart, Parker Ltd in Melbourne University Archives. The contract (basis) price in 1952 of hull and machinery was £Stg434,300 or about £Stg102 (about £Aus127) per deadweight ton. To this would be added the cost of any extras, agreed between the parties, and an amount for inflation. The final price anticipated by the purchaser at ‘handover Forth’ in 1955 was about £Stg465,000; that is, about 7 per cent above contract price. In July 1955, Huddart’s representative at Burnisland cabled the Company that the estimated final price was likely to be £Stg576,000, or some 32.6 per cent more than contract price. The increase was so far beyond the purchaser’s expectations that he asked ‘an Edinburgh firm of accountants’ to verify the cost at handover (£Stg567,468, in fact).

What else is notable about the contract for Ship No. 369 (Table 6.5) is the long delivery time, over three years, between signing in March 1952 and handover in July 1955. Perhaps the purchaser’s expectation of cost inflation over that period was unrealistic. Nevertheless, the private owners still considered it worth placing an order in Scotland for a purpose-built ‘ship for the trade’ of a type for which there was no Australian-built equivalent. Inflation of the Hall, Russell No. 854 contract was about 14.5 per cent over the three years between Agreement and delivery. Cost inflation over contract price eventually showed up in BSG’s trading accounts. In 1957, BSC’s Aberdeen subsidiary Alexander Hall, booked a £30,309 loss on a contract for a Glasgow owner (8 per cent over contract) and the parent company agreed to cover Hall’s losses.

85 NAS, GD313/18/-, Burnisland Shipbuilding Group, Contract files; ‘Account rendered to owner’ (£570,850), minus Contract price, hull and machinery (£498,900).
86 NAS, GD313/1/2, Burnisland Shipbuilding Group, Minute Books, 11 June 1957.
British Reaction to the Resumption of Australian Shipbuilding.

The reaction of British shipbuilders and the British trade press to state-subsidised Australian shipbuilding was critical. It focussed on government assistance in re-establishing shipbuilding during the war, shipyard 'over-capacity' in relation to likely post-war demand, and the intention to remove 'over-age' tonnage and to subsidise the private owners, in order to provide work for Australian shipyards. In 1949, at the launch of a ship for Australian owners Burns, Philp & Co, the builders expressed concern that Australia proposed to build her own ships, and that the Commonwealth Government proposed to assist Australian shipowners, by a subsidy, to meet the 'very considerable' difference in shipbuilding costs with Britain.

The British were clearly concerned that Australia's 'Shipbuilding Aspirations' would limit their market share. Nevertheless, the Scots went out of their way to cultivate their Australasian clients. Sir Wilfrid Ayre's three visits to Australia have been mentioned. John Ashcroft, Henry Robb's chief draughtsman, visited Australia and New Zealand in 1950-51, to meet representatives of the Government and the private owners. Henry Robb Jnr visited Australia in June 1953. BSG had agencies in Australia and Canada. There are frequent references in the correspondence of Scott & Sons (Bowling) Ltd to concerns about work for Australasian clients.

The Scots were aware of the delicacy of the situation vis-à-vis their overseas clients. In December 1952, following his visit to Australia, Sir Wilfrid Ayre announced an order worth some £Stg546,800 from McIlwraith, McEacharn Ltd

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89 NAS, GD313/1/2 and GD339/1/3, Burntisland Shipbuilding Group and Henry Robb Board Minutes. In 1948, Scots invited a Scots-New Zealander, formerly of Stonehaven, to be their agent in New Zealand, GUAS, GD322/2/6, 29 November 1948/p. 470.
of Melbourne. By 1954, however, Mcllwraith's circumstances had changed and
the company asked for the contract to be cancelled. The cancellation was
clearly an embarrassment to the Burntisland Board, with possible cancellation
charges in mind. 'The Chairman stated that we should act with careful
discretion as, having secured a substantial hold on the Australian shipping
market, any action by us likely to cause dissatisfaction to Mcllwraith would have
serious repercussions on other Australian owners'. In the event, Mcllwraith paid
Burntisland a fee of £16,500, against expenditure already incurred of some
£9,000. 90 Other cancellations during the period are noted in BSG minute
books.91 The Shipbuilding Conference noted that 250,000 gt of orders with
British shipbuilders were cancelled in 1953. 92


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90 NAS, GD313/18/42, Hall, Russell, Contracts & Agreements, Ship No.851, 7 October
1952. NAS, GD313/1/2, Burntisland SB Group, Minute Books, 12 October 1954,
Minutes 304 and 321.
91 NAS, GD313/1/2, Burntisland Shipbuilding Group, Minute Books, cancellation of Ship
No. 355, 24 September 1953, for example.
<table>
<thead>
<tr>
<th>Scottish yards vessels supplied (% of Total)</th>
<th>Other British yards vessels supplied (% of Total)</th>
<th>Australian yards vessels supplied (% of total)</th>
<th>Foreign yards vessels supplied (% of Total)</th>
<th>Total number vessels supplied</th>
<th>Estimate gross tons 1946-1960</th>
<th>Average gross vessels per year</th>
<th>Average gross tons per year</th>
<th>Average gross tons per vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 (24.76%)</td>
<td>5 (7.96%)</td>
<td>66 (58.41%)</td>
<td>10 (8.65%)</td>
<td>113</td>
<td>470,743</td>
<td>7.53</td>
<td>31,383</td>
<td>4,166grt</td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, Shipowner Supplements, and shipping company fleet lists.
The results of the lifting of Commonwealth government restrictions on ordering from overseas builders can be seen in Table 6.0. The private owners were granted permits to order new tonnage in Britain. The Table shows the effect of government subsidies; Australian yards' market share increased from 2 per cent between 1931-1939 to 58.41 per cent between 1946-1960, while British yards' market share fell from 88 per cent between 1931 and 1939 (Table 4.4) to 33 per cent. Britain's loss of market share between 1946 and 1960 confirms a trend of loss of share of the world market, shown in Lloyd's Register Statistical Tables.93

Of the ships acquired during the period, there was only one passenger ship, the first passenger and vehicle, drive-on, drive-off ship, for the Bass Strait (Melbourne-Tasmania) service. This line was not seriously challenged by alternative modes, except by air travel. Numbers of bulk carriers increased as numbers of general cargo ships declined. General cargo ships of about 113,210 gross tons were supplied to the private owners during the period, and bulk carriers of about 90,079 gross tons. The National Line acquired about 96,257 gross tons of general cargo ships and some 93,741 gross tons of bulk carriers. Two tankers of 24,372 gross tons, total, were added to the fleet.

Background, 1946-1960.

The development of steel-making capacity proceeded in the 1950s, creating demand for coastal shipping; BHP built the necessary tonnage at their Whyalla shipyard for its own and for government account. Strip mill and port development continued, at Port Kembla from 1952 onwards, and a new rolling mill was opened at Kwinana (WA) in 1952. At Port Kembla, a tinning plant with an annual capacity of about 72,000 tons began production in 1957.94

93 Johnman & Murphy, British Shipbuilding, Tables 25 and 26, p. 144. Britain's share of the Norwegian market, more important than Australia in terms of numbers of ships supplied, fell from 48.4 per cent (30 ships of 308,787 gross tons) in 1951 to 2.1 per cent (2 ships totalling 18,938 gross tons) in 1957.
94 Hughes, Australian Iron & Steel, pp. 156ff, pp. 158-159.
Braeze, Island Nation, p. 168.
Table 6. 7. 'Estimate for Substantial New Coastal Tonnage'

<table>
<thead>
<tr>
<th>Tons Shipped,</th>
<th>Anticipated annual shipping reqd. as at June 1954</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Ending</td>
<td></td>
</tr>
<tr>
<td>30 June 1951</td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>2,007,300</td>
</tr>
<tr>
<td>Iron ore +</td>
<td>2,500,000</td>
</tr>
<tr>
<td>limestone</td>
<td></td>
</tr>
<tr>
<td>Coke</td>
<td>240,000</td>
</tr>
<tr>
<td>Steel products</td>
<td>600,000</td>
</tr>
<tr>
<td>Sugar</td>
<td>477,000</td>
</tr>
<tr>
<td>Total effort</td>
<td>5,824,300</td>
</tr>
</tbody>
</table>

Source: NAA, SSB 51/7, Cabinet Committee on Shipping & Shipbuilding, p. 2.

In 1951, BHP predicted that, by 1956, the Company would have an annual requirement of 6 million tons of Ironstone and limestone. By 1961, the BHP fleet consisted of sixteen vessels, together with two vessels on time charter; together, they could carry 2½m tons of raw material and finished products annually. The private shipping companies and by ANL carried considerable tonnages in addition.

Table 6. 8. Interstate Cargo in Tons (Weight) Shipped and Discharged, Australian Ports, Period 1937-38 to 1961-62.

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Shipped tons weight</th>
<th>Discharged tons weight</th>
<th>Total ship tons weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1937-38</td>
<td>8,809,018</td>
<td>9,022,664</td>
<td>17,931,682</td>
</tr>
<tr>
<td>1952-53</td>
<td>8,447,000</td>
<td>8,995,000</td>
<td>17,442,000</td>
</tr>
<tr>
<td>1961-62</td>
<td>13,658,000</td>
<td>13,318,000</td>
<td>26,976,000</td>
</tr>
</tbody>
</table>


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85 NAA, A4639, Memorandum 42E and A4933, SSB51/3 and SSB51/7, Appendix B. Reports by Norman Jones, (Chief) General Manager of Broken Hill Proprietary to Ministry of Supply, re: BHP's projected steel output, and tonnages of iron ore, limestone/dolomite and coke requiring to be shipped to meet it.

86 Hughes, Australian iron & Steel, p. 158.
‘Scottish Shipbuilders & the Australian Market, 1901-1971’.

Tons weight of inter-state cargo shipped increased by 54.66 per cent between 1952-53 and 1961-62; by 1968-69 (Table 7.2), the amount shipped was more than double the 1952-53 figure. Much of this increase is undoubtedly due to improvements in cargo throughput resulting from the introduction of mechanical loading and discharge at the ports.

Growth of Australian Internal Air Travel after 1945.

The rapid expansion in Australian domestic air travel between 1948 and 1973 is shown in Table 6.9. Numbers of passengers flying more than doubled between 1948 and 1962 and increased by 181 per cent between 1962 and 1973. There are no available figures to show losses in patronage of ASO members’ passenger ships, but their sale by 1961 and non-replacement is indicative of their loss of trade. Air travel clearly became Australians’ preferred mode by the 1960s.


<table>
<thead>
<tr>
<th>Year</th>
<th>Passenger Miles Flown</th>
<th>Paying Passengers</th>
<th>Non-Paying Passengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947-48</td>
<td>503,494,000</td>
<td>1,207,839</td>
<td>No longer enumerated</td>
</tr>
<tr>
<td>1952-53</td>
<td>667,321,000</td>
<td>1,706,446</td>
<td></td>
</tr>
<tr>
<td>1957-58</td>
<td>898,542,000</td>
<td>2,122,794</td>
<td></td>
</tr>
<tr>
<td>1961-62</td>
<td>1,119,430,000</td>
<td>2,686,180</td>
<td></td>
</tr>
<tr>
<td>1972-73</td>
<td>3,628,217,340</td>
<td>7,502,592</td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1. Years ending 30 June in each case.

The Post-War Economy.

The post-war economic reconstruction of the former Axis powers and their anchoring in the Western democratic, capitalist camp was part of United States foreign policy, in face of the perceived communist threat from the Soviet Union and China. As Broomé points out, the United States promoted the post-war re-

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97 Official Year Books, various years.
Australians: Historical Statistics, p. 162.
construction of the German and Japanese economies as ‘workshop economies’, to supply Western Europe and Asia with capital goods. A by-product of this policy was that it allowed these countries to replace the British in their longstanding rôle as capital goods’ suppliers.

As it happened, the German and Japanese governments developed a clear understanding of the inter-play between state financial support, manufacturing and exporting in promoting economic re-construction. Their shipbuilders, shipping companies and manufacturers co-operated to increase manufacturers’ market share in export markets. German and Japanese governments guaranteed low-interest loans through the banks to shipowners and steelmakers. An example of co-operation between shipowners, shipbuilders and manufacturers in promoting exports is the development of the drive-on/drive-off vehicle-carrying ship in the late-1950s and early-1960s. Private and commercial road vehicles and wheeled agricultural machinery became major export items, but British shipbuilders did little development of the vehicle carrier

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66 For example, ‘machinery’ was Germany’s leading export item, 21.4 per cent of German exports in 1953; ‘Germany as a Competitor in Exports’, Shipbuilding & Shipping Record, 4 November 1954, p. 618.


German government financial assistance to steelworks for steel for shipbuilding for export is described in Motor Ship, January 1955, pp. 468-469. Cain & Hopkine, British Imperialism, p. 269, make the point that British banks were more reluctant to lend to industry, long-term, than were foreign banks.
in comparison with their foreign rivals. In the 1960s, by contrast, German-designed and -built vehicle carriers exported Volkswagen cars from Emden to the British market. Similar Swedish and Japanese vessels transported Swedish and Japanese cars to overseas markets, worldwide. Describing the post-war development of the Japanese maritime industries, Chida & Davies note the rapid growth of the Japanese 'car-bulker' fleet (large drive-on, drive-off floating garages) between 1965 and 1973, by which time there were 0.97 million gross tons of the type of vessel. In the same period, Japanese car exports 'rose from 365,000 vehicles in 1967 to over 1 million in 1970, 2 million in 1972'. Japanese shipbuilders developed heavy-lift ships, vessels designed for carrying heavy machinery for export. There was a close relationship between Japanese shipping and Japanese steelmakers, the former delivering the raw materials to the latter and then carrying export cargoes of finished steel. The Japanese merchant fleet grew from 0.915m gross tons in 1945 to 23.715m gross tons by 1970.

The important contribution to the national accounts of shipbuilding for export was recognised in France, Germany and Japan. *Motor Ship* reported on the French Groupement Exportation de Navires & Enginnes de Mer en Acier (GENEMA), a grouping of French shipbuilders 'which has the special object of obtaining orders abroad'. Levels of foreign shipyard output for export were well in excess of British output for export. Japanese shipbuilding's foreign

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101 As it happened, Scottish East Coast yards built a few of the type in the mid-1960s, but these were exceptions.
105 'Shipbuilding in Germany in 1954', *Motor Ship*, January 1955, pp. 468-469, notes that 45 per cent of German shipbuilding output in 1954, some 950,000 gross tons, was for foreign owners. By contrast, British shipyard output 'for Overseas Registration' in 1954 was 482,000 gross tons; Johnman & Murphy, *British Shipbuilding*, Table 18, p. 102.
currency earnings in 1965 and 1966 were $800 million (£286 million) and $1,000 million (£358 million), respectively.¹⁰⁶

Methods adopted by Germany and Japan for promoting the export of ships included granting steelmakers allowances per ton of steel to be used for export shipbuilding, a reduction in turnover tax payable by shipbuilders who built for export and government assistance to shipbuilders to provide favourable credit terms to foreign clients.¹⁰⁷ German governments paid interest subsidies on shipbuilding loans from commercial sector banks. German government aid to German shipbuilders for the financial year 1962-63 included DM20 million for subsidy on interest payments.¹⁰⁸ Shipbuilding came ¹⁰⁶ in the list of German exports in 1953; shipbuilding exports rose from 0.2 per cent of total exports in 1951 to 2 per cent in 1953 (in value, DM23.2 million to DM372.4 million).¹⁰⁹

Britain's leading rivals, Germany, Sweden and Japan were all building more tonnage for export than for the home market. As Slaven points out, German shipyard output for export exceeded British in 1954 and Germany became Europe's leading builder for foreign flags.¹¹⁰ These figures are remarkable.

According to Motor Ship, February 1964, pp. 518ff, Germany's shipbuilding output for export in 1963 was about 80 per cent of total output. Japanese shipbuilding output for export in 1963 was reported to be 3.124 million gross tons, 86 per cent of total Japanese shipbuilding output; Motor Ship, January 1964, p. 453.

Chida & Davies, Japanese Shipping & Shipbuilding, Tables, pp. 201-202.

The Export-Import Credit Bank of Japan provided loans to shipbuilders at rates of interest lower than those offered by Japanese commercial banks, 'Japanese Shipbuilding Difficulties', Fairplay 16 February 1967, p. 10.
¹⁰⁹ Shipbuilding & Shipping Record, 8 February 1962.
¹¹⁰ 'Germany as a Competitor in Exports', Shipbuilding & Shipping Record, 4 November 1954, p. 618.
¹¹¹ Slaven, 'Growth & Stagnation', p. 27.

Johnman & Murphy, British Shipbuilding, Table 19, p.103, both quoting Lloyd's Register Annual Reports.
'Scottish Shipbuilders & the Australian Market, 1901-1971'.

considering that West Germany only resumed shipbuilding in 1949, and Japan in 1950. German productivity was higher than British. The German working week was 48 hours (44 hours in Britain) and 'German prices are generally 15 per cent lower than those obtainable in the U.K.' One difficulty British yards faced was the amount of credit that rival foreign builders could offer. In 1954, the German shipbuilder Howaldtswerke was offering potential clients credit terms of up to 40 per cent of total capital outlay, over six years.

There was growing unease in the British trade press about the re-emergence of Germany as a shipbuilding rival. Not only were they capturing share of world markets, they were making their shipbuilding expertise available to new, post-colonial nations like India; India had been a traditional British Empire market. German assistance to India was two-pronged. She helped set up a rival shipbuilding centre in an area where British manufacturers had long dominated and she helped establish an Indian national shipping line, a low cost alternative to British lines. German manufacturers provided diesel machinery for ships being built for the Scindia Steam Navigation Co Ltd by Hindustan Shipyard Ltd, Visakhapatnam; German shipyards built 10,000dwt ships for the Indian line, and offered the Indians credit. Germans offered fixed price and guaranteed delivery and 'German diesel propelling and auxiliary machinery is being standardised in most ships'.

State support for the national shipbuilding industry went hand-in-hand with support for the state's overseas shipping (Germany, Japan and United States); private shipping companies were given financial inducements to order from

Chida & Davies, Japanese Shipping & Shipbuilding, Tables, pp. 201-202.
'More Indian Orders for Germany', Motor Ship, August 1954, p. 182.
home yards. Rivals practised ‘flag discrimination’.114 German shipowners asked
German exporters to use German-flag ships. The British chafed at the
American ‘50-50 Rule’, the American claim that 50 per cent of Marshall Aid gifts
should be shipped in US-flag ships. Only about 28 per cent of United States’
seaborne trade was carried in US-flag ships. British representatives at the
International Chamber of Shipping complained about a Chilean proposal to
introduce a ‘50-50 Rule’ with respect to Chile’s overseas shipping trade. British
tramp shipping had traditionally dominated the Chilean trades.115 Jamieson has
described the post-war emergence of Asian national flag lines in Burma,
Indonesia and Pakistan, in competition with British shipping lines.116

Foreign competitors also encroached upon other traditional British Empire
markets for capital goods; new domestic manufacture brought import
replacement. The competition experienced by the North British Locomotive Co
Ltd and its liquidation in 1962 is detailed by Fleming, McKinstry & Wallace. In
India, for example, a traditional British market, indigenous locomotive
construction began after Independence in 1947. The local TELCO
manufactured metre-gauge locomotives and the Government financed a new
locomotive works at Chitteranjan.117

114 ‘The favouring of a nation’s own merchant fleet in preference to foreigners’.
Jamieson, ‘Facing the Rising Tide’, quoting Great Britain PRO CAB 134/1681, 4
February 1959.
115 Shipbuilding & Shipping Record, 7 January 1954, p. 4, and 4 March 1954,
p. 271.
Shipbuilding & Shipping Record, 4 February 1954, p.133 and 18 February 1954,
p. 204.
116 Jamieson, Alan G., ‘Facing the Rising Tide. British Attitudes to Asian National
p. 135-148.
117 Fleming, A. I. M., McKinstry & Wallace, ‘The Decline & Fall of the North British Loco
‘Decline & Fall of NBL’, p. 72.
Great Britain, Customs & Excise, Annual Statement of Trade of the United Kingdom,
various years between 1953 and 1966, confirms the decline in the £ value and number
of British export sales of all types of railway locomotive to British and Foreign countries.

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Conclusions.
The immediate post-war period was one of uncertainties for the Australian private shipowners. Chief of these was the Government’s intentions about the employment of the state-owned fleet, whether they were going to operate in competition with the inter-state ships; if not, at what price would the Government offer the Australian-built ships to the private owners. The owners still preferred to order the ‘ships for the trades’ that they had always ordered from Scottish yards, even at Scottish post-war prices. They did not want the wartime, standard design Australian steamships, which they regarded as unsuitable for the coastal trades.

In defence of their apparent conservatism, it must be said that the full impact of road transport de-regulation was not felt until later in the 1950s, after the general cargo types they had ordered had entered service. The evolution of new ship types was slow; the first drive-on, drive-off and container ships did not appear on the Australian coast until the end of the 1950s. The more immediate, pressing need after the War was for bulk carriers to supply the demands of the expanding Australian economy. With the help of government subsidy, the Australian shipbuilding industry was able to build the ships required, although additional tonnage had to be chartered from overseas. The shipbuilding industry and the Australian National Line worked in conjunction and ANL became the largest shipping fleet. ANL and the shipping arm of BHP undertook the movement of bulk cargo while the residual privately-owned fleets handled the general cargo trades. The reduction in Associated Steamship Owner (inter-state) companies was delayed until the beginning of the 1960s, but land transport had largely replaced intrastate shipping by the end of the 1950s.

The increase of the government subsidy to 33½ per cent made Australian-built prices more attractive than Scottish. The effect of this additional incentive can be seen in the market share Tables (Table 6.6). British/Scottish share of the Australian market collapsed in the 1950s. Australian state-subsidised
shipbuilding and shipping was of a piece with similar developments in Asian post-colonial countries during the 1950s and '60s. British shipyard prices could not compete with those of re-vitalised rivals like Germany and Japan. Because of recurring Sterling crises in the 1950s, British shipbuilders were unable to offer shipowners credit to the extent and on the kind of terms that their rivals could offer. Britain’s shipbuilding rivals captured market share as a result. In any case, building for export and the restoration of balance of payments surpluses were German and Japanese priorities.

British reaction to foreign competition in shipbuilding and shipping was what it had always been. In 1962, members of the British Chamber of Shipping complained about their ‘profound concern at the disruptive and costly effects of the intervention of foreign governments in the commercial operations of shipping’. Other countries were ‘seeking to return to the outmoded and restrictive doctrine of national goods in national ships built in national yards’.¹¹⁸ British shipbuilders’ loss of market share of the Australian market was not exceptional. The cumulative effects of competition can be seen in the sharp decline of British shipbuilders’ share of the World market.

¹¹⁸ Reports on the Annual Meeting of the Chamber of Shipping, Shipbuilding & Shipping Record, 3 March 1960, p. 288ff.
Between 1961 and 1971, there was continuing rationalisation of Australian coastal shipping; inter-state companies merged and the Australasian United S. N. Co (P&O Group) ceased to trade and sold its ships. The Australian National Line (ANL) was confirmed as the largest Australian fleet with the lion’s share of ships, gross tonnage and tonnage carried. It dominated the coastal bulk trades, evolved as an inter-state general cargo carrier and took over the Bass Strait passenger-and-vehicles’ ferry services. In the late-1960s, ANL engaged in the overseas liner trades.¹ There was large-scale expansion of the bulk trades, as evidenced by figures for the movement of the base raw materials for industry, including iron ore, coal, coke, dolomite/limestone, bauxite and alumina. There was also the development of container and roll on-roll off shipping, which required extensive port development at the state capital city/ports. With the help of 33½ per cent subsidy and close co-operation between the Australian Coastal Shipping Commission (the National Line) and Australian builders, Australian yards captured a 55 per cent market share, while British/Scottish yards’ share of the market dwindled to insignificance, some four ships out of the 47 delivered to Australian owners during the decade. However, there was also growing evidence in the late-1960s that Australian shipbuilding costs were uncompetitive, even with subsidy, so that Australian builders sought Japanese technical advice about improving production management. Australian shipyard output was still insufficient to meet all Australia’s tonnage needs and foreign vessels had to be chartered to meet the demands of the coastal trades. The National Line had to place orders for container ships overseas in Germany and Japan.

¹ That is, carrying general cargo in containers on regular scheduled services to Europe and East Asia.
The availability of subsidy to Australian owners clearly influenced their preference for Australian yards and the decline in British yards' market share. British shipyard prices in the 1960s were uncompetitive with World prices in general, however. British prices for standard cargo types could be £15 per deadweight ton, or more, higher than prices obtainable from non-British yards. Scottish tenders to build special types for the Australasian trades were also uncompetitive, but it was an impossible handicap to beat an Australian quotation that would attract a 33% per cent subsidy. Eventually, towards the end of the 1960s, the British government offered credit guarantees for ships built for export, what foreign governments had been offering their national shipbuilders for years.

The upheavals in British shipbuilding in the mid-1960s brought about the failure of a number of Scottish shipbuilders, including William Denny Brothers, Alexander Stephen & Sons and the Burntisland Shipbuilding Co, all of whom had built for the Australian market, to which they had been the dominant suppliers previously. British shipbuilders' failure to compete with subsidised competition in the Australian market merely reflected their failure to compete with subsidised competition in the world market.

The background to these changes in British-Australian relationships was the growing importance to Australia of Japan as a trading partner, and the redirection of Australia's trade towards the Asia-Pacific region. Australia's growing rapprochement with Japan was a consequence of Britain's intention to join the European Economic Community and Australia's need to find alternative markets for her minerals and agricultural produce. Britain's first application to join the EEC foundered in 1963 because of France's refusal to allow access for Australian agricultural produce to the Common Market.

During the 1960s, the Australian National Line's fleet was confirmed as the largest on the Australian coast with some 47.27 per cent of the combined gross tonnages of the five largest Australian fleets (Table 7.1). The gross tonnage of the ANL fleet more than doubled between 1957 and 1971, from 153,704gt to 395,853gt.


<table>
<thead>
<tr>
<th>Number ships</th>
<th>Gross tons (estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former ASO</td>
<td>22</td>
</tr>
<tr>
<td>(Private Owner)</td>
<td>205,732</td>
</tr>
<tr>
<td>ANL</td>
<td>30</td>
</tr>
<tr>
<td>BHP</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>836,220</td>
</tr>
</tbody>
</table>


Note 1. The fleets of Associated Steamships Ltd, formed by the merger of the general cargo interests of the Adelaide S. S. Co and McLlwrath, McEacharn, Ltd; Bulkships, the combined bulk cargo-carrying fleets of the Adelaide S. S. Co, McLlwrath, McEacharn and the Melbourne Steamship Co; and Australian S. S. Co (Howard Smith).

The composition of the coastal fleet changed. In 1971, it comprised some thirty-six bulk carriers, reflecting their importance for supplying the requirements of Australian industry. There were also vehicle/road trailer-and-passenger ferries for the coastal 'Searoader' service, a number of small container ships for coastal trading, and three large deep-sea container vessels for the overseas trades. The amount of cargo moved around the Australian coast continued to expand. Inter-state tonnage (weight) shipped increased from 13,858,000 tonnes in 1961-62 to 15,692,000 tonnes in 1966-67, rising to 25,970,000 tonnes weight in 1971-72 (90 per cent increase between 1961-62 and 1971-72).^2

Table 7. 2. Interstate cargo in tonnes (weight) shipped and discharged, Australian ports, period 1961-62 to 1972-73.

<table>
<thead>
<tr>
<th></th>
<th>Shipped tonnes weight</th>
<th>Discharged tonnes weight</th>
<th>Total tonnes weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961-62</td>
<td>13,658,000</td>
<td>13,318,000</td>
<td>26,976,000</td>
</tr>
<tr>
<td>1966-67</td>
<td>15,692,000</td>
<td>15,565,000</td>
<td>31,257,000</td>
</tr>
<tr>
<td>1968-69</td>
<td>18,511,000</td>
<td>18,158,000</td>
<td>36,669,000</td>
</tr>
<tr>
<td>1971-72</td>
<td>25,970,000</td>
<td>25,393,000</td>
<td>51,363,000</td>
</tr>
<tr>
<td>1972-73</td>
<td>28,006,000</td>
<td>27,364,000</td>
<td>55,370,000</td>
</tr>
</tbody>
</table>


What these figures show is the expansion of the bulk trades. Unfortunately, the figures do not differentiate bulk and general cargo, but figures for coal and iron and steel output can also be taken as indicators of growth in the bulk trades. Crude steel output increased from 1,486,000 tonnes in 1951 to 6,737,000 in 1971 (353 per cent). During the same period, NSW black coal output increased from 13,729,000 tonnes to 34,567,000 (151.78 per cent). The production of dolomite, used as a flux in steel making, rose from 190,868 tonnes in 1960 to 316,731 tonnes in 1968. Broken Hill Pty carried 4.2m tons of cargo in 1968-69 but it was still necessary to charter foreign-registered vessels to carry 7m tons round the Australian coast and 3m tons worldwide. These figures can be compared with BHP’s projected annual requirements for 1952 of between 5½-6m tons of raw materials (Chapter 6). According to the same report, BHP’s transport costs in the same period ($A60m) were twice the amount spent on scrap, steel, fuel oil and other items. This rapid growth in bulk carrying followed large-scale investment in mechanical loading equipment at the ports and in new steel-making and steel-using capacity.

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3 Appendix 3, p. 250.
4 Appendix 4, p. 250.
7 Shipbuilding & Shipping Record, 13 February 1970, p. 20.

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The first move towards rationalisation of the private inter-state companies came in 1957 with the merger of the bulk carrying interests of the Adelaide Steamship Co, McIlwraith McEacharn Ltd and the Melbourne Steamship Co. under the title Bulkships Ltd. The new company ordered four 12,000dwt ton bulk carriers from the BHP Whyalla shipyard for the heavy ore trades. The order attracted the Commonwealth government subsidy, of course. The inter-state owners' organisation Associated Steamship Owners had maintained the number of inter-state companies at seven until the Second World War, but was unable to prevent its weakest members from going under in the changed conditions in the 1950s and '60s. In 1961, the P&O Group sold Australasian United's ships and, in 1962, McIlwraith, McEacharn acquired the residual shipping interests of Huddart, Parker, Ltd of Melbourne. Howard Smith absorbed the Melbourne S. S. Co Ltd in 1964.

In 1963, the Adelaide S. S. Co and McIlwraith, McEacharn, Ltd merged their general cargo businesses to form Associated Steamships Pty. The company ordered a full cellular container ship from the New South Wales Government Dockyard; the vessel inaugurated a Melbourne-Fremantle 'Seatainer' service in June 1964. The service was later extended to Brisbane. In 1969, two further container ships (12,000 dwt tons, each) were built by the Whyalla Shipbuilding & Engineering Works for the Brisbane-Sydney-Melbourne-Fremantle service. The Scottish shipbuilder Alexander Stephen & Sons made an unsuccessful tender for these ships, as indicated below.

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9 Jones, Stephanie, 'British Maritime Enterprise', p. 70.
11 'Full cellular container ship' in which the hold is subdivided into cells which separate and secure the stacks of containers.
'Australian-built container ships for inter-state coastal services', *Shipbuilding & Shipping Record*, 25 July 1969.
The orders were worth $A25,000,000; five Japanese shipbuilders, British firms, and the Australian Shipbuilding Board tendered. *Fairplay*, 2 February 1967, p. 46.
These new services required large-scale investment in port development and the moving of port activity from the centres of the city/ports to new sites with deep water. The new sites were equipped with container handling gear and provided with large container storage and trailer parking areas. Drive on/drive off terminals were constructed for the new generation of passenger-and-vehicle ferries and trailer-carrying ships. There was extensive dredging and deepening of fairways and berths to accommodate the larger vessels that the new trades required.\(^\text{13}\) The period from the mid-1950s to the mid-/late-1960s saw the transformation of the general cargo trades on the Australian coast, as elsewhere in the world. Labour-intensive methods of handling general cargo gave way to mechanised cargo handling, and the widespread use of pallets or containers which were driven on to (ro-ro) or lifted into (lo-lo) the ships’ holds.

Ship- and cargo-handling design skills were firmly established in Australia. Keith Murray, who was trained at Mort’s Dock & Engineering Co Ltd, Sydney and was later Superintendent Engineer in Australia of the Union S. S. Co of New Zealand, designed two roll-roll on/off ships for trading between Melbourne/Sydney and Hobart (Tas).\(^\text{14}\) Keith was involved in the overall design of the ships and the port/terminal facilities for handling the two vessels. He also designed specialised lifting gear for handling newsprint rolls for four specialised newsprint carriers for the New Zealand-Australia trade. The ships were built at Dundee by the Caledon Shipbuilding & Engineering Co Ltd. The Caledon had a long tradition of building for Australasian owners and subsequently won a contract to build two 5,000dwt-type roll-on/roll-off ships for trans-Tasman service.


\(^\text{14}\) Interview 11 November 2005 with Keith Murray (CEng, FIMarE, MRINA, FIMH). *Seaway Queen* and *Seaway King* (BHP Whyalla 1964/2,961 gross tons).
The establishment of design skills in Australia contributed to owners' confidence in placing orders there for ships of sophisticated design. The availability of government subsidies, now 33½ per cent of the cost of the ship, was clearly also a determining factor. These developments affected British shipbuilders' market share, however, and caused resentment. At a launch at Leith in 1962, Henry Robb Jnr remarked on 'unfair competition within the Commonwealth'; Australia was subsidising its shipbuilding. Only a week earlier, an order for two ships (the pair that Keith Murray designed) had been placed in Australia by a New Zealand Co. who were expected (sic) to place orders in this country. 'I feel that our Government could discuss such matters with Commonwealth governments with a view to coming to a more equitable arrangement'. The trade press reported that tenders had been called in Australia and overseas, and Australian prices were competitive. The value of the contract was more than £2½ million. Alexander Stephen & Sons also made unsuccessful bids for the same contract; the amount of their tender is not known.\(^{15}\)

Robb's comments are understandable. Henry Robb had been one of Union Steamship's Scottish friends and had built a number of general cargo types for Union during the 1950s. Robb might not have been able to build 370ft ships at Leith without lengthening the shipyard's berths, but Alexander Stephen or the Caledon could have. The context of Robb's comments was the then current crisis in British shipbuilding, when any work would have been welcome. It was galling that the work went to a subsidised builder when no similar financial assistance was available from the British government. From 1962, credit finance for capital goods' exports was available through a group of British commercial banks and insurance companies, but was subject to restrictions

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\(^{15}\) 'Scottish Builder & Commonwealth Countries', *Shipbuilding & Shipping Record*, 29 March 1962, p. 423.  
*Shipbuilding & Shipping Record*, 7 June 1963, p. 763.  
'Scottish Shipbuilders & the Australian market, 1901-1971'.

during Britain's recurrent Sterling crises.\textsuperscript{16} An Editorial in the trade press noted that British yards were competing against foreign subsidies; 50 per cent subsidies in the U.S., 30 per cent in France and Italy and one-third in Australia. The report noted that French and Italian subsidies were scheduled to disappear in accordance with the Treaty of Rome.\textsuperscript{17}

\textbf{Table 7. 3. Market Shares of the Australian Market, 1961-1971.}

\textsuperscript{17} 'British Shipbuilding costs at the end of 1962', \textit{Motor Ship}, January 1963, p. 467.

<table>
<thead>
<tr>
<th>Scottish Yards Supplied (% of Total)</th>
<th>Other British yards vessels supplied (% of Total)</th>
<th>Australian yards vessels supplied (% of Total)</th>
<th>Foreign vessels supplied (% of Total)</th>
<th>Total vessels supplied 1961-71</th>
<th>Estimate gross tons 1961-71</th>
<th>Av ships per year</th>
<th>Av gross tons/year</th>
<th>Av gross tons per ship</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 (19%)</td>
<td>3 (c7%)</td>
<td>26 (55%)</td>
<td>9 (19%)</td>
<td>47 (100%)</td>
<td>551,326</td>
<td>4.27</td>
<td>50,120</td>
<td>11,730</td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, Shipowner Supplements, and shipping company fleet lists.
'Scottish Shipbuilders & the Australian market, 1901-1971'.

Table 7.4. Numbers of Ship Types Sold to the Australian Market, 1961-1971.

<table>
<thead>
<tr>
<th>1961-1971</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>General cargo</td>
<td>6</td>
</tr>
<tr>
<td>Container or ro-ro + container</td>
<td>17</td>
</tr>
<tr>
<td>Vehicle + Passenger</td>
<td>2</td>
</tr>
<tr>
<td>Passenger</td>
<td>1</td>
</tr>
<tr>
<td>'Collier'</td>
<td>0</td>
</tr>
<tr>
<td>'Bulk carrier'</td>
<td>17</td>
</tr>
<tr>
<td>Tanker</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, and shipping company fleet lists.

The main feature of the period 1961-1971 is the almost complete disappearance of British sales to the Australian market. During the period, Australian owners placed orders for some four ships in British yards (8.5 per cent of total sales). British sales shown in Table 7.3 are mainly to the Union S. S. Co of New Zealand, still technically a member of the Associated Steamship Owners, for Union's trans-Tasman (Australia-New Zealand) trades.

What Table 7.4 makes clear is that, by 1971, demand for the traditional general cargo ship for inter-state trading, whose continuance the private owners had anticipated in 1950, was negligible. Only two of the six listed in Table 7.4 were actually employed inter-state, in Western Australia; the other four were newsprint carriers for the trans-Tasman trade. The types in demand; the passenger/vehicle ferry (2), the freight vehicle and container carrier (17) the pure container ship (3) the bulk carrier (17) and the tanker (4) all required the minimum of dock labour at the ports. The pure container- and freight vehicle and container-types were adapted to road transport.
British Shipyard Prices in the 1960s.

British shipyard prices for plain cargo ships remained uncompetitive with prices obtainable from foreign yards. The estimated cost (materials and labour) of a 13,150/15,300 dwt British-built cargo ship in 1963 was £1,059,880 (£80.12s/£69.5s per deadweight ton). By September 1968, the cost of the same ship had risen to £1,227,820 (£93.7s/£80.5s per deadweight ton), an increase of 15.84 per cent. The trade periodical *Fairplay* calculated that the cost of its standard British-built 11,000/13,000dwt cargo ship had risen from £92.5s/£78 per dwt ton in 1956 to £99.10s/£84.5s in 1966. By way of comparison, *Fairplay* also noted that the price of the non-British standard 'Conqueror'-type cargo ship (14,000/15,000dwt) was in the range £60.13s-£65.7s per dwt ton, which, 'by modern standards, is a good price'. By 1966, a 'standard' British-built 25,000 dwt ton bulk carrier cost about £56 per dwt ton. It is difficult to compare these British prices with Australian-built prices, as ship sizes do not correspond neatly. However, it is clear that the British-built standard cargo ship was considerably more expensive than the similar foreign-built 'Conqueror'-type.

Unsuccessful Scottish Tenders for Australasian Ships, 1960s.

During the early 1960s, Scottish yards, including the Burntisland Shipbuilding Co and Alexander Stephen & Sons, made unsuccessful tenders for ships for Australasian owners. The amount of most of the tenders is not known, but the following list indicates the successful bidder; Australian yards benefitted from the government subsidies available to the owners. Stephen made a number of unsuccessful tenders for Australasian ships, including:

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18 *Motor Ship*, January 1963, pp. 468-469 and 'British Shipbuilding Today', *Motor Ship*, September 1968, pp. 55-57. Similar figures were published in 'Fluctuations in Shipping Values', *Fairplay*, 12 January 1967, p. 101. The *Fairplay* price (£99.12s/£84.5s per deadweight ton) was said to 'include full overheads and a fair profit'.

19 The size of ship *Fairplay* used as its standard for comparing changes in shipbuilding prices over time.


‘Scottish Shipbuilders & the Australian market, 1901-1971’.


Stephen’s estimate was £727,400; the amount of the successful tender is not known.25


Stephen’s 1965 estimates for the 12,837 gross tons ‘Seatainer’-type container ship for Associated Steamships (UCS3/6/298) were £1,039,291 for the first vessel of two and £996,401 for the second. There is no indication on the estimate sheets whether these included overheads and profit.24 The tenders were unsuccessful; the ships were built by BHP Whyalla.

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Scottish Shipbuilders & the Australian market, 1901-1971.

The design for the 'Twin-screw diesel trailer ship for Adelaide S. S. Co' (Stephen Estimate UCS3/6/84) was prepared by the Australian Shipbuilding Board.²⁵ It is not known who did the design work for the other contracts, whether an Australian or British consultancy. The availability of government subsidy gave Australian yards the cost/price advantage over British builders.

Unsuccessful Burntisland Shipbuilding Group tenders in the early 1960s included


BSC 're-quoted' 9/11/1962. (Karepo-type, 1964, built by Taikoo Dockyard & Engineering Co Ltd, Hong Kong (Swire Group).²⁶

The amount of BSG's tender is not known. What is notable about the tender is the number of British bidders and the company that won the contract. The unsuccessful bidders included the Blythswood Shipbuilding Co Ltd of Glasgow who normally specialised in building tankers, not general cargo ships. Blythswood must have been desperate for the work, as the company had only one order on its books at the time (March 1963). Henry Robb and Alexander Stephen had built for Union in the 1950s and would have considered themselves friends of the Union company. Yards like Burntisland Shipbuilding Group, Barclay, Curle and Austin & Pickersgill were 'outsiders' who had never built for the New Zealand owners and would have had to establish working relationships with them from scratch; not ideal conditions for builders in a buyer's market, when work was short and tenders had to be pared to the bone.

Page, Fitted for the Voyage, p.300.
Scottish Shipbuilders & the Australian market, 1901-1971.

The BSG Enquiry Books from the early 1960s include numbers of similar unsuccessful tenders for British and Australasian owners.

The contract was awarded to the Taikoo Dockyard & Engineering Co Ltd of Hong Kong, part of the Swire Group. What is of interest is that Union had contacts with Swire Group through its participation in Australian National Airways Pty Ltd (ANA). As mentioned in Chapter 4, A. J. Soutar was Union’s director on the first ANA Board of Directors in 1936. Boyce notes the inter-colonial relationship between Swire and William Holyman & Sons Pty Ltd who were co-founder-shareholders of ANA. When the Taikoo Dockyard wanted to set up an airliner maintenance base in Hong Kong in the late-1940s, it was Holyman/ANA, applying its acquired skills in this new engineering discipline, that provided Taikoo with the technical expertise.27 Through the Swire-Holyman/ANA relationship, therefore, Taikoo had an opening to Union Steamship that British outsiders like BSG or Barclay, Curle lacked.

Before the Second World War, the contracts listed above in Unsuccessful Scottish Tenders would probably have gone to another British/Scottish builder. They were precisely the types of specialised ships for the trades that the Scots had been building for Australasian owners until the late-1950s. Australian government subsidies clearly played a part in winning the orders for Australian yards. The surviving private owners, Associated Steamships, for example, placed their orders in Australia (Stephen tender UCS3/6/298). The majority of BHP’s bulk carriers were built at BHP’s own yard at Whyalla (SA), while the National Line worked in close conjunction with the Australian yards (Stephen tender UCS3/6/290).

Eventually, in the 1960s, when British shipbuilding was in full crisis, a group of London and Scottish commercial banks and insurance companies proposed a

Scottish Shipbuilders & the Australian market, 1901-1971.

Credit Finance scheme for Capital Goods’ Exports, as mentioned above in this Chapter. The banks offered loans at fixed interest rates of 5½ per cent *per annum* for 3-5 years; the insurance companies’ offer was 6¼ per cent *per annum* over 5 years. In 1965-66, the Government proposed that the Export Credit Guarantee Department should support the financing of shipbuilding for export on terms of 80 per cent credit, re-payable over ten years at 5½ per cent *per annum* fixed interest. These figures can be compared to the increase in the German government’s assistance to its shipbuilders in 1962-63 from DM50m to DM80m/£Stg7m annually. German yards could offer their clients up to 50 per cent of the total building cost at 5.5 per cent interest, repayable over 7-8 years. Later, the amount of assistance available was raised to DM100m, but was reduced to DM70m in 1967 because of strain on the Federal Budget. During the same period, government support allowed Japanese shipbuilders to offer credit of 80 per cent of the price of a ship for export; payment extended over 8 years at 5 per cent interest *per annum*. British credit restrictions in 1967 were followed by the devaluation of Sterling in November of that year. British ships for export became more attractively priced, while a revaluation of the DM made German-built ships more expensive in comparison. None of this is to say that British shipbuilders’ ability, or otherwise, to offer their clients credit was the main reason for their loss of export orders in the 1960s. However, a Bank Rate of 7 per cent in March 1967 was a disincentive to shipbuilders to borrow to finance capital expenditure, while credit restrictions meant that British builders were unable to match the credit facilities offered by their foreign rivals. Besides general lack of price competitiveness, specific

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Also *Fairplay* 27 April 1967, p. 17, re: British credit restrictions.
33 *Shipbuilding & Shipping Record*, 7 November 1969.

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causes can often be identified for individual British shipbuilder failures in the
1960s. In the case of Denny Brothers of Dumbarton in 1963, it was the
development costs of their Hovercraft at a time when they were failing to win
new ship orders. For Burntisland Group, the last straw was the heavy losses on
a contract for the Pakistan Government in 1968, described by Mackie. However, as Mackie points out, BSG had made trading losses in the four
previous years, 1964-67. 34

The cumulative effects of British shipbuilding and shipping’s problems after the
Second World War can be seen in the decline in Britain’s share of the world
market in ships and the size of her merchant fleet as a percentage of the world
fleet. Her share of the world market fell from 12.4 per cent in 1962 to 5.1 per
cent in 1971. 35 The size of her merchant fleet declined from 22.4 per cent of
the world fleet in 1948 to 9.69 per cent in 1975. 36

British restrictions on the availability of credit for shipbuilding for export and the
Commonwealth government’s offer to Australian owners of 33% per cent
subsidy are part of the explanation for the shares of the Australian market
between 1961 and 1971 (Table 7. 3). Nevertheless, annual Australian shipyard
output was still under 30,000 gross tons per year and production costs were
high in comparison with production costs elsewhere. Improving relations
between Australia and Japan from the late-1950s and developing trading

34 Mackie, ‘Survival & Decline’, pp. 221-225 and Table 5. 11, p. 222, quoting BSG
annual balance sheets.
NAS, GD313/1/3, Burntisland Shipbuilding Group, Minute books, 13 December
1963/Minute 589, for example, and subsequent Minutes, including Minutes of
A. G. M., 18 October 1966. The Burntisland Shipbuilding Co Ltd was wound up
following an Extraordinary General Meeting on 17 December 1968.
35 Johnman & Murphy, British Shipbuilding, Table 23 ‘U.K. and World Ships Delivered,
36 Slaven, A, ‘Growth & Stagnation in British/Scottish Shipbuilding, 1913-1977’ in
Kuuse, J & Slaven, A (Editors), Scottish & Scandinavian Shipbuilding: Development
Problems in Historical Perspective (Glasgow, 1980), Tables, 1A,
p. 50 and 1B, p. 52, drawing on Lloyd’s Register Statistical Tables.
Table 7.5. Some Australian-built ship prices, early 1960s

<table>
<thead>
<tr>
<th>Type of ship</th>
<th>Owner</th>
<th>'Cost £Aus after subsidy'</th>
<th>Cost £Aus per dwt ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle ferry</td>
<td>Adelaide S.S.</td>
<td>£Aus1,300,000</td>
<td>not available</td>
</tr>
<tr>
<td>Container ship</td>
<td>Mcllwraith/Associated S.S.</td>
<td>£Aus1,550,000</td>
<td></td>
</tr>
<tr>
<td>Vessels + containers</td>
<td>Union S.S. Co.</td>
<td>£Aus1,250,000</td>
<td></td>
</tr>
<tr>
<td>Container ship</td>
<td>Wm.Holyman</td>
<td>£Aus550,000</td>
<td></td>
</tr>
<tr>
<td>Ore carrier</td>
<td>Bulkships</td>
<td>£Aus2,300,000</td>
<td></td>
</tr>
<tr>
<td>Ore carrier</td>
<td>Broken Hill Pty</td>
<td>£Aus2,000,000</td>
<td></td>
</tr>
<tr>
<td>Passenger + Vehicle ferry</td>
<td>ANL</td>
<td>$A10,000,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: National Archives of Australia, M2568, Treasury Memorandum, 31 July 1964, Re: Australian Steamship Owners' Federation submission on 'Investment Allowance for Ships'.

Notes: 1. The 'Cost £Aus after subsidy' (Column 3) was the price paid by the purchaser, being two-thirds of the full cost of the ship completed. The Government subsidy covered the remaining one-third of the cost.
2. Average cost of three bulk ore carriers.
Australian Shipbuilding Costs, 1960s.

Between 1961 and 1971, Australian shipyard output was some 300,000 gt, or about 27,500 gt per year.\(^{37}\) It was still a very small output, less than that anticipated in the Ministry of Supply & Development Memoranda of the late-1940s (32,000 gross tons \textit{per annum}) as being the minimum for economical production. It explains why Australian unit costs were still so high, and why the 33\% per cent government subsidy to Australian owners was necessary to secure Australian yards’ market share. Nevertheless, the subsidy clearly gave Australian yards the price advantage. Table 7. 5 shows some prices paid by owners for Australian-built ships, after the payment of the subsidy to cover the builder’s full costs.\(^{36}\) These prices can be read in conjunction with unsuccessful tenders by Alexander Stephen & Sons Ltd, submitted during the early 1960s.

Such high costs of production clearly concerned Australian shipyard management. A by-product of improved relations with Japan in the 1960s was technical co-operation between Australian and Japanese shipbuilders. In 1967, there were British and Japanese reports of an approach by the NSW State Dockyard to a Japanese shipbuilder for assistance in drawing up plans for a passenger-and-vehicle ferry for ANL (the ship for which Alexander Stephen entered an unsuccessful tender, UCS3/6/290, above).\(^{36}\) In 1969, because of ‘substantial operating losses’, the NSW State Dockyard sent its shipbuilding and commercial managers to Japan to seek a suitable partner to supply technical advice on all aspects of shipbuilding and production management. The Australian Shipbuilding Board sought licensing agreements with Japanese firms.\(^{40}\)

\(^{37}\) Estimate based on Lloyd’s \textit{Register of Ships}, \textit{Shipowner} supplements.


\(^{39}\) Ishikawajima Harima Heavy Industries Co Ltd, \textit{Fairplay} 21 February 1967, p. 57.

\(^{40}\) \textit{Shipbuilding & Shipping Record}, 28 February 1969, p. 303.
'Scottish Shipbuilders & the Australian market, 1901-1971'.

The British trade press noted that, 'Japan has moved towards a dominant advisory role in Australia's shipbuilding industry'; other agreements on technical co-operation were concluded between Broken Hill Proprietary and 'a Japanese company' and between Evans, Deakin Ltd shipbuilders and Ishikawajima Harima Heavy Industries Co., Ltd. Significant is that these agreements were made with Japanese firms, not British; that Australians considered that Japanese technology and ship production techniques were superior to British. In 1969, Kawasaki Heavy Industries completed a vehicle deck/container ship for ANL. No British yard could offer a similar type at a keener price. In 1969 and 1972, ANL acquired two German-built container ships for the Australia-Europe trade, work that British yards would have expected to get in the past.

**Australian Economic Development and Trade Relations.**

The 1960s saw the continuing development of Australian industry and the mineral resources needed to supply it. Typical of the development of steelmaking for domestic consumption was the opening in 1962 of an electrolytic tinplating plant at Port Kembla (NSW), as mentioned in Chapter 6. In 1969, work was begun on a £88.75m (Stg) extension of Port Kembla steelworks, including a £16m blast furnace, to produce steel for motor vehicles and domestic appliances; plant capacity would rise to some 5.5m tonnes/year. The plant required deepening of the port and harbour improvement to accommodate a 55,000dwt bulk carrier, recently completed at BHP's Whyalla shipyard. Australian crude steel output advanced from 3.843m tonnes in 1961 to 6.737m tonnes in 1971.

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41 Fairplay, 6 July 1967, p. 145.
42 A roll-on vessel with garage for road trailers below decks, and container stowage space above. Delivery of Australian Enterprise (Kawasaki HI 1969), 'which could earn the Australian economy $A6m/year, it is estimated', Shipbuilding & Shipping Record, 3 October 1969.
43 Hughes, Australian Iron & Steel, p. 159.
44 Shipbuilding & Shipping Record, 16 May 1969, p. 887.
Scottish Shipbuilders & the Australian market, 1901-1971'.

New deposits of industrial minerals were exploited. Bauxite, the basis material for aluminium, was mined at Weipa (Qld) and moved by sea to an alumina refinery at Gladstone (Qld), whence to an aluminium plant at Bell Bay.\(^6\) Australian bauxite production increased from a few hundred tonnes per year before 1956, to 10,000 tonnes in 1956, 15,000 tonnes (1959), 47,000 tonnes (1961) to 12,733,000 tonnes in 1971. Substantial quantities of bauxite were exported to Japan; 3m tonnes in 1969.\(^7\) The output of Australia’s aluminium smelters increased from 13,000 tonnes in 1955 to 2,236,000 tonnes in 1971.\(^8\)

The late-1950s and the 1960s was a period of growing rapprochement with Japan and a re-orienting of Australian trading relationships from Europe towards Asia. It co-incided with Britain’s first negotiations with the European Economic Community about British membership. The price of Britain’s accession to the EEC was the ending of Commonwealth preference. The French would not allow Australasian agricultural produce entry to the protected European market; Australia was obliged to look for markets in Asia.\(^9\) Australia and Japan concluded a Commerce Agreement in July 1957, the purpose of which was to give Japan Most Favoured Nation status.\(^10\) Japan wanted to purchase Australian iron ore, coking coal, bauxite and agricultural produce for her own development, while she could offer Australia access to Asian markets and assistance in marketing in return.\(^11\) Japanese trading companies helped to

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\(^6\) Pemberton, Australian Coastal Shipping, p. 206.
\(^7\) Bach, Maritime History, p. 431.
\(^8\) Shipbuilding & Shipping Record, 9 January 1970.
\(^9\) Australians: Historical Statistics, p. 91.
\(^10\) European (EEC member) attitudes to Commonwealth preference and Australasian agricultural produce are described by Singleton & Robertson, Economic Relations, pp. 168ff, p. 184, (re: Britain’s first membership application, 1981-83. The French veto, pp. 188-189). Singleton & Robertson describe in detail the respective positions of British, Australian, New Zealand and EEC members in Britain’s membership negotiations up to British accession in 1973, passim.

obtain finance to develop the Mount Newman iron ore reserves in Western Australia and to build the necessary railway and port infrastructure to get the ore to market. In return, they obtained marketing rights over the raw materials. The Japanese steel companies constructed super ore carriers which reduced substantially the unit cost of landing Australian ore and coal in Japan. American companies became important investors in Australian mining. The opening up of opencast coal mining in Queensland in the 1960s was a joint venture between the Australian Theiss Brothers, Peabody Coal (U. S.) and the Japanese trading company Mitsui. The partnership made a contract to supply Japan with 45m tons of coking coal over ten years, using Gladstone as the port of export. In a separate development, the Utah Development Co made a contract to supply Japanese steelmakers with 85mn tons of coking coal. The development of the Queensland railway network to service these developments is described by Frost. Quoting Queensland Coal Board statistics, 1980, Frost notes that Queensland coal exports (overseas) grew from 1,186,000 tonnes in 1965 to 6,975,000 tonnes in 1971 to 9,200,000 tonnes in 1972. The Japanese usually supplied the shipping to fulfil the contracts. It is not known how much


The first shipment of iron ore from Mt Newman (WA) left the new port of Dampier in March 1966, Bolton, *Oxford History of Australia*, vol. 5, p. 177-178.
Blainey, *The Rush that never Ended*, pp. 348-351, refers to the development of the Mt Newman iron ore deposits.
53 Chida & Davies, *Japanese Shipping*, p.149.
54 *Shipbuilding & Shipping Record*, 5 December 1969.
'Scottish Shipbuilders & the Australian market, 1901-1971'.

British tramp shipping was used, although British tramp companies would have provided the tonnage in the past. Coal moved inter-state from Queensland to BHP Whyalla (SA) increased from 7,000 tonnes in 1970 to 214,000 tonnes in 1973.

The net effect of these developments on Australia's oversea trade was that, between 1950-51 and 1970-71, the Japanese share of Australia's total export trade increased from 6.27 per cent to 27.22 per cent while imports from Japan rose from 2.09 per cent of total imports in 1950-51 to 13.82 per cent in 1970-71. In the same period, the British share of Australia's total exports fell from 32.66 per cent of total in 1950-51 to 11.26 per cent in 1970-71. Imports from Britain fell from 47.98 per cent of total in 1950-51 to 21.36 per cent in 1970-71.  

In 1967, the value of Australian exports to Japan ($587million) exceeded the value of exports to Britain ($405million) for the first time. Thereafter, Japan became the principal destination of Australian exports; in 1970, of total Australian exports of value $4,107million, exports to the U.K. were $488million, while exports to Japan were $1,021million (or about 25 per cent of total Australian exports). In 1970, the value of exports to the United States ($556million) exceeded the value of exports to the United Kingdom ($488million). Even the value of Australian exports to New Zealand exceeded exports to U.K. in the mid-1970s, after British accession to the EEC in 1973. Official trade statistics describe a similar picture for Australian imports.

Conclusions.

Some of the reasons for the disappearance of British shipbuilders from the Australian market have been set out in Chapters 6 and 7. Although Australian

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56 Official Year Books, Trade Statistics, various years.
57 Official Year Books, Trade Statistics, various years.
'Exports by Destination' and 'Imports by Origin, Value $million', Australians: Historical Statistics, Tables pp. 201 and 204.
costs of production were higher even than British, Commonwealth government subsidy brought Australian prices, ‘delivered Australia’ below British prices. Some unsuccessful British tenders for Australian ships were noted. By the 1960s, there were clearly close working relationships between Australian builders and owners, the kind of relationships of trust that the private owners had had previously with builders in Scotland.

British shipyard prices were not competitive with world prices. British shipbuilders were competing with foreign yards that offered fixed prices, more prompt delivery and better credit terms. Only by the mid-1960s, when British shipbuilding was in full crisis, was the Government willing to guarantee the kind of credit terms that foreign shipbuilders had been offering their clients since the mid-1950s. The kind of new ship type-development that was taking place in Germany and Japan was happening only piecemeal in Britain. The example of the large road vehicle transporter ship, designed to take foreign-built cars to export markets, has been cited, but poor British participation in the building of coastal and deep-sea container ships, one of the maritime trade growth areas in the 1960s and 1970s, is also notable. ANL’s deep-sea container ships were built in Germany and Japan. Alexander Stephen & Sons’ unsuccessful tender for two small Australian coastal container ships (UCS3/6/298) was noted above. Scottish yards built specialised types like the vehicle carrier in penny numbers, while Continental yards were building them in series, and pursuing continuing type-development to meet the changing demands of the market. Failure to respond to market openings was a failure of British shipping management. In 1954, the trade press noted that there were insufficient British ships available for the timber trade; British shipowners were not interested in acquiring the specialised tonnage required to break into the market, it was claimed. As timber from Russia, the Baltic and Scandinavia was an important import item, it was being carried in foreign-registered, not British ships.\(^{69}\)

\(^{69}\) *Shipbuilding & Shipping Record*, 18 March 1954, p. 339.
As mentioned in Chapter 6, British shipbuilders also faced competition from industrialising emergent, post-colonial nations like India, while West Germany and communist-bloc builders in Yugoslavia were offering new, post-colonial national shipping fleets attractive credit facilities that British yards were unable to match.59 A number of unsuccessful tenders by Scottish shipbuilders have been quoted in Chapter 7. The consequence of these lost contracts was the failure in the 1960s of numbers of Scottish yards that had previously supplied the Australian market; Burntisland Shipbuilding Group, William Denny Brothers and Alexander Stephen & Sons.

There is evidence of growing Australian technological sophistication in the design of new types of ship and in the export to Hong Kong of the complex engineering skills required in aircraft maintenance. Australian shipbuilding production methods were still backward, however. It is a measure of Australia’s developing relationships with Japan that Australian shipbuilders sought Japanese rather than British assistance to improve their shipyard production methods.

Improving relations between Australia and Japan in the 1960s followed from Britain’s applications to join the European Economic Community. It became clear to the Australians that they could not expect preferential access to the European market for their agricultural produce once Britain joined the EEC. Expanding trade between Australia and Japan was mutually beneficial; agricultural produce and supplies of minerals for Japan, inward investment and new oversea markets for Australia. The result of this change in the direction of Australian trade was that Japan replaced Britain as Australia’s principal trading partner by the end of the 1960s.

59 Jamieson, ‘Facing the Rising Tide’, p.146.
Chapter 8. Conclusions.

This thesis considered the place of coastal shipping in the Australian economy and its evolution over seventy years. It began with the period before the First World War, when Australia was still a pre-industrial economy, or, as Simon Ville has pointed out, a collection of six or seven separate, relatively unintegrated colonial economies. Before the full development of land-based transport, coastal shipping was the most effective means of moving passengers and freight between the colonies. By moving coal from the Hunter Valley of New South Wales or iron ore from South Australia or sugar cane from Queensland to the points where they were used, coastal shipping helped in the integration of these colonial economies.

Scottish emigrants drew on Scottish capital to found the first Australian businesses. Scots-Australians were involved in every aspect of early business activity, in banking and insurance, agricultural and pastoral business, coal and mineral mining and mineral refining, metals and general trading, agency and marketing, and in coastal shipping. Before 1914, seven out of twelve leading Australian coastal shipping companies had been founded by Scots-Australians. From the 1850s and ‘60s, there was strong demand for steamships to carry on trading on the Australian coast. Scottish master mariners and marine engineers who had trained in Scottish shipyards were among the founding shareholder-directors of the new Australian coastal shipping companies. Home Scots shipbuilders saw profit in taking shares in and building ships for the Australian coastal trades. Relationships of trust were established between Home Scots shipbuilders and Scots-Australian shipowners. Home Scots knew the types of one-off, purpose-built ships that the Australian coastal trades required, and built them for a price at which the owners could make a satisfactory rate of return. So strong were the relationships between shipbuilder and shipowner before the

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1 Interview with Professor Simon Ville, Department of Economics, University of Wollongong (NSW), at Wollongong, 14 November 2005.

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‘Scottish Shipbuilders & the Australian Market, 1901-1971’.

First World War that Home Scots’ share of the Australian market was some 58%.

As long as the Scottish-built steam-powered ship was considered the best available, Australian owners had no inclination to order new tonnage elsewhere. However, by the mid-1920s, the small, foreign-, Danish-built diesel-powered vessel offered Australians a choice. Although the capital cost of the Danish ship was higher than that of the Scottish-built steamer, it offered the owner cheaper running costs because it required fewer, less highly qualified engine room staff than the equivalent steamer. It could also carry a larger revenue-earning payload than the steamer, whose bunker coal took up space that would otherwise have carried cargo. The Danish-built motor vessel was also markedly cheaper than any equivalent Scottish-built motor ship.

The price of Scottish-built ships was, ultimately, an important factor in Scottish shipbuilders’ loss of market share of both the Australian and world markets. Australian shipbuilding, introduced during both World Wars as a wartime measure, was very small-scale, and costs of production made Australian-built ships quite uncompetitive in price, even with the prices of Scottish builds. Scottish yards still retained market share of around 47% in the 1920s, against the unsubsidised production of the Australian yards. However, they were unable to compete when Commonwealth governments offered subsidy of up to one-third of the cost of the ship, built in Australia. By 1971, Scottish yards had ceased to build for the Australian coastal shipping market, although a Scottish warship yard continued to build submarines for the Royal Australian Navy.

The period 1901-1971 was also marked by a growing divergence of interests between Britain and Australia, which forms the background to the commercial shipbuilder-shipowner relationships. In 1901, Australia was still a pre-industrial economy (or economies), part of the British Imperial trading system. She had extensive economic resources, however, that would stimulate autonomous
Industrial development, in her own economic interests, outside Imperial control. Britain's national interests turned towards the European continent; Australia was peripheral, a British outpost on the Asia-Pacific Rim. Britain viewed her national security in relation to the emergence of Germany as a European military and economic power; Australia's interests were in the emergence of Japan as a major power in the Asia-Pacific Region. The Australian shipbuilding industry, the state-owned shipping line and the Royal Australian Navy all came about because of Britain's unwillingness, or inability, to provide for Australia's trade and defence needs.

Ultimately, national self-assertion proved more important to Australians than kinship and commercial ties to The Mother Country. Developments after the Second World War; the Australian National Line and Australian subsidised shipbuilding, were part of general post-colonial nationalism. Other emergent nations set up their national shipping lines and manufactured the capital goods, ships and railway locomotives included, that British manufacturers had supplied in the past. State-ownership and protected industrial development had long been accepted by Australians.

It was Britain's inability to secure entry for Australian produce to the Common Market that convinced Australians to seek markets elsewhere and led her to a rapprochement with Japan. Australia had the mineral and agricultural resources that Japan needed for her economic expansion. In return, Japan offered Australia marketing services, access to Asian markets and technical assistance, in particular in production management in her shipbuilding industry. The thesis concludes that, while Scottish kinship was an important factor in establishing Scottish shipbuilders' large share of the Australian market in ships before 1914, it was no longer a factor by 1971. British and Australian interests had diverged too widely, Britain was no longer Australia's principal overseas trading partner, and British maritime technology was no longer regarded by Australians as the best and cheapest available.
Appendix 1. Twelve Australian Coastal Fleets, 1914. Numbers of Ships built in Scottish and Other British Yards, and Respective Percentages of Total Fleets.

<table>
<thead>
<tr>
<th>Company</th>
<th>Number of Ships in fleet, 1914</th>
<th>Number of Ships built in Scotland</th>
<th>% Ships built in Scotland</th>
<th>Number of Ships built Other British</th>
<th>% Ships built Other British</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide S.S.</td>
<td>34</td>
<td>15</td>
<td>44.11%</td>
<td>17</td>
<td>50%</td>
</tr>
<tr>
<td>Australasian</td>
<td>21</td>
<td>17</td>
<td>80.95%</td>
<td>3</td>
<td>14.28%</td>
</tr>
<tr>
<td>United Australian</td>
<td>30</td>
<td>11</td>
<td>36.66%</td>
<td>16</td>
<td>53.33%</td>
</tr>
<tr>
<td>S.S. Smith (Brown, J &amp; A)</td>
<td>13</td>
<td>9</td>
<td>66.67%</td>
<td>2</td>
<td>33.33%</td>
</tr>
<tr>
<td>Burns, Philp</td>
<td>6</td>
<td>4</td>
<td>69.23%</td>
<td>2</td>
<td>15.38%</td>
</tr>
<tr>
<td>Holyman</td>
<td>9</td>
<td>2</td>
<td>22.2%</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Huddart</td>
<td>20</td>
<td>7</td>
<td>35%</td>
<td>13</td>
<td>65%</td>
</tr>
<tr>
<td>Parker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illawarra &amp; South Coast</td>
<td>7</td>
<td>4</td>
<td>57.14%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>McIlwraith, McEacharn</td>
<td>11</td>
<td>4</td>
<td>36.36%</td>
<td>5</td>
<td>45.45%</td>
</tr>
<tr>
<td>Melbourne</td>
<td>11</td>
<td>2</td>
<td>18.18%</td>
<td>8</td>
<td>72.7%</td>
</tr>
<tr>
<td>S. S. North Coast</td>
<td>28</td>
<td>23</td>
<td>82.14%</td>
<td>1</td>
<td>4.3%</td>
</tr>
<tr>
<td>S. N. Co</td>
<td>20</td>
<td>18</td>
<td>90%</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Union S.S.Co (Bass/Tasman)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>116</td>
<td>55.23%</td>
<td>70</td>
<td>33.33%</td>
</tr>
</tbody>
</table>

Sources: Lloyd's Register of Ships, Shipowner Supplements, various years 1901-1914.

Appendix 2. Australian Population Growth, 1901-1971

<table>
<thead>
<tr>
<th>Year</th>
<th>1901</th>
<th>1911</th>
<th>1921</th>
<th>1933</th>
<th>1947</th>
<th>1961</th>
<th>1971</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,773,801</td>
<td>4,455,005</td>
<td>5,435,734</td>
<td>6,629,839</td>
<td>7,579,358</td>
<td>10,508,166</td>
<td>12,755,636</td>
</tr>
</tbody>
</table>

### Appendix 3. Australian Iron Ore, Pig Iron and Crude Steel Production, 1903-1971, various years, '000 tonnes

<table>
<thead>
<tr>
<th>Year</th>
<th>Iron Ore</th>
<th>Pig Iron</th>
<th>Crude Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1903</td>
<td>126</td>
<td>41</td>
<td>4</td>
</tr>
<tr>
<td>1908</td>
<td>208</td>
<td>37</td>
<td>5</td>
</tr>
<tr>
<td>1911</td>
<td>128</td>
<td>151</td>
<td>174</td>
</tr>
<tr>
<td>1916</td>
<td>332</td>
<td>319</td>
<td>213</td>
</tr>
<tr>
<td>1921</td>
<td>701</td>
<td>437</td>
<td>391</td>
</tr>
<tr>
<td>1927</td>
<td>922</td>
<td>48</td>
<td>417</td>
</tr>
<tr>
<td>1930</td>
<td>950</td>
<td>313</td>
<td>320</td>
</tr>
<tr>
<td>1931</td>
<td>302</td>
<td>237</td>
<td>252</td>
</tr>
<tr>
<td>1936</td>
<td>1,823</td>
<td>862</td>
<td>899</td>
</tr>
<tr>
<td>1941</td>
<td>2,487</td>
<td>1,569</td>
<td>1,651</td>
</tr>
<tr>
<td>1951</td>
<td>2,492</td>
<td>1,346</td>
<td>1,486</td>
</tr>
<tr>
<td>1961</td>
<td>5,461</td>
<td>3,210</td>
<td>3,843</td>
</tr>
<tr>
<td>1966</td>
<td>11,068</td>
<td>4,742</td>
<td>5,890</td>
</tr>
<tr>
<td>1971</td>
<td>62,063</td>
<td>6,128</td>
<td>6,737</td>
</tr>
</tbody>
</table>


Note that *Official Year Books* give slightly different figures.

### Appendix 4. Australian Black and Brown Coal Production, 1901-1971, various years, '000 tonnes.

<table>
<thead>
<tr>
<th>Year</th>
<th>NSW Black</th>
<th>Qld Black</th>
<th>Australia Black</th>
<th>Australia Black Exports</th>
<th>Australia Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>6,064</td>
<td>505</td>
<td>6,948</td>
<td>1,589</td>
<td>nil</td>
</tr>
<tr>
<td>1911</td>
<td>6,631</td>
<td>906</td>
<td>10,713</td>
<td>1,704</td>
<td>6</td>
</tr>
<tr>
<td>1914</td>
<td>10,557</td>
<td>1,071</td>
<td>12,641</td>
<td>1,380</td>
<td>3</td>
</tr>
<tr>
<td>1921</td>
<td>10,966</td>
<td>970</td>
<td>13,003</td>
<td>1,015</td>
<td>81</td>
</tr>
<tr>
<td>1930</td>
<td>7,207</td>
<td>1,112</td>
<td>9,684</td>
<td>344</td>
<td>1,861</td>
</tr>
<tr>
<td>1931</td>
<td>6,535</td>
<td>855</td>
<td>8,386</td>
<td>344</td>
<td>2,230</td>
</tr>
<tr>
<td>1941</td>
<td>11,954</td>
<td>1,477</td>
<td>14,440</td>
<td>245</td>
<td>4,639</td>
</tr>
<tr>
<td>1951</td>
<td>13,729</td>
<td>2,513</td>
<td>17,891</td>
<td>-528</td>
<td>7,961</td>
</tr>
<tr>
<td>1961</td>
<td>19,325</td>
<td>2,827</td>
<td>24,391</td>
<td>1,957</td>
<td>16,540</td>
</tr>
<tr>
<td>1966</td>
<td>25,879</td>
<td>4,739</td>
<td>33,618</td>
<td>8,171</td>
<td>22,133</td>
</tr>
<tr>
<td>1971</td>
<td>34,567</td>
<td>11,629</td>
<td>46,196</td>
<td>19,268</td>
<td>23,363</td>
</tr>
</tbody>
</table>


Note that *Official Year Books* give slightly different figures.

NSW is New South Wales; Qld is Queensland.
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