The Applicability of Resource-based Theory to the Interpretation of Strategic Management in Jardine Matheson:

Uncertainty, Relationships and Capabilities

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Dissertation Abstract

Jardine, Matheson & Company is a Hong Kong conglomerate that has gone through political upheaval, global and regional economic crises, and has survived and transformed itself several times in the process. The story of Jardine Matheson is by no means an unmitigated success story – management decisions were made on the basis of imperfect information and sometimes they proved wrong, with long-term negative impact on the firm. But the story of Jardine Matheson is about organizational learning, about the management of capabilities in an uncertain environment, about the limitation of risk via organizational routines and cooperative external relationships – based on superior expertise in risk management.

This dissertation is an analysis/history of strategic management at Jardine, Matheson & Company, using Resource-based theory as the principal interpretive framework.

Two periods in the firm's history are examined: the development of its early capabilities (1810 to 1906) and the expansion and growth of the firm by acquisition from 1961-1996.

From their beginning in the commissions business, William Jardine and James Matheson developed a reputation for sound financial management that furthered their trading relationships and supported their firm's expansion from agency house to managing agent to investment house from 1832-1885.

Through the mid twentieth century, trading firms like Jardine, Matheson provided a single source for shipping, insuring, warehousing, marketing and selling goods produced in Europe and the US to Asian markets. All trade with the Pacific went through brokers like Jardine, Matheson. Jardine, Matheson had the relationships and the reputation; it was the biggest and best known of the trading companies.

Jardine's acquisition strategy of the period 1961-1971 reveals a firm leveraging its distinctive capabilities in new Pacific markets; vertically integrating along the lines of its capabilities, horizontally integrating to build new capabilities for future growth in 1972-1977 and reevaluating its acquisitions and divesting non-performing assets in 1978-1979. The Hongkong Land stock swap of the early 1980s – and the firm's consequent high debt position – led to critical rethinking of strategic management at Jardine Matheson and a re-focusing on its historic capabilities by 1984-1989.

Today, long-term, dense networks of relationships and informal financial credits enable Jardine, Matheson to lead the conglomerate sector and enterprising local firms in transportation, insurance, hotels and financial services. The firm's entry into branded

franchise businesses is an acknowledgment of the value of relationships and reputation (both Jardine's and that of the international franchise) to replication and, hence, to continued growth.

The ability of the firm's managers to extend their geographic or functional knowledge to new opportunities – and the firm's commitment to cross-training managers – has been essential to reputation, innovation and architecture, the sources of added value and basis for strategic management at Jardine, Matheson.

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Chapter 1: Introduction – What Can A Hong Kong Conglomerate Teach Us About Uncertainty, Relationships and Capabilities?

Introduction

Volatility, government policy shifts, chance – unpredictable elements in the life of any business – are familiar to the major Asian conglomerates. Some, like Swire Pacific, Hutchison Whampoa, Wheelock and Jardine, Matheson & Company, are the descendants of the old agency houses and share the opprobrium of a colonial, or worse, opium past.

In Hong Kong and on the mainland, new business enterprises have emerged or new configurations led by Chinese businessmen – like Cheung Kong's Li Kashing – that are challenging the old houses for investor dollars because they afford leading edge development prospects without the corporate center, asset baggage, and history.

Jardine, Matheson & Company is the oldest of the firms and the focus of this study. From 1832 and for a hundred years, the firm's business was risk-broking for buyers and sellers of goods from/to Europe and Asia – and based entirely on commissions. The firm extracted commissions – as much as 45 cents on every dollar – for services that included sales, returns, cost and freight, guarantees of bills, ship's disbursement, insurance, arranging insurance, chartering ships, receiving inbound freight, obtaining outbound freight, setting insurance losses, negotiating bills of exchange, arbitration of debts, debt settlement, managing estates, executors of estates and transshipping goods. Jardine, Matheson could charge a commission on sixteen separate "agency" services because the business was very risky and the participants in the business – not knowledgeable enough themselves and lacking the clout of a big operator like Jardine, Matheson – preferred to have that risk managed by a firm with market knowledge, reputation, influence and strong financial management skills.

Today, Jardine Matheson is a multinational company with a range of activities encompassing financial services, supermarkets, consumer marketing, engineering and construction, motor trading, property and hotels. Jardine's insurance, motors, supermarket and hotel businesses are market leaders across Asia.

Chapter 1: Section 1: Jardine, Matheson & Company as A Study Subject introduces the concepts of collaboration, capabilities, learning and inter-firm networks as important to a study of strategic management.

Chapter 1: Section 2: Dissertation Aim, Key Questions and Rationale identifies the purpose of the dissertation, the questions it examines, and the rationale for the selection of questions to be addressed in each chapter.

Chapter 1: Section 3: Dissertation Structure identifies the purpose of each chapter and the content of major subheadings in each chapter.

Chapter 1: Section 1: Jardine, Matheson & Company as A Study Subject

Jardine, Matheson & Company is an example of success and survival in a highly uncertain social and political environment. Any search for characteristics and practices responsible for success must include collaboration, capabilities, learning and interdependent multi-firm networks.

Because their business lines, customers or markets have evolved in different directions depending on their capabilities, Jardine, Matheson competes with other Hong Kong firms like Swire and Hutchison and CITIC, among others, for investment capital, coalition participation and influence in the region, but these firms are more often collaborators than competitors within the ASEAN.

Since the 1960s, the accelerated globalization of economic activities and global competition, have made it impossible for firms like these to rely on their own resources to survive the tyranny of global competition. They must pull together other firms, both competitors and collaborators, to help them ride out unpredictable storms in the global economy, share knowledge and reduce business risk. This has taken the form of external corporate networks based on both equity and non-equity arrangements.

Indeed, Jardine Matheson's diversification in the mid1970s into very different products and services leveraged the company's existing capabilities in finance, insurance, trading and shipping, marketing and distribution to create internal and external corporate networks representing different stages of the same production chain – as well as different production chains altogether. Jardine Matheson's managers experienced new learning, a source of immediate or potential competitive advantage, and applicable to future growth.

Not at all a new phenomenon, the concept of intra- and inter-firm networks to reduce risk began as early as the 19th century with the Canton Insurance company, headed in alternate years by Jardine, Matheson and by Dent & Company, that set insurance rates for shippers; the Shipping Conferences, established by John Samuel Swire, to which Butterfield and Swire and Jardine Matheson (among others) were parties, which established guaranteed routes and rates for shippers, and the British and Chinese Corporation headed by Jardine Matheson and Butterfield and Swire to raise and manage Chinese railroad funds.

Relationships and network building are embedded in the social and economic relations of ASEAN firms, where culture, cooperation and trust are essential to business operations under uncertainty. In fact, it is the quality and distinctiveness of these intra-firm and inter-firm contracts and relationships that create competitive advantage for the firm within its market, according to a Resource-based interpretation of the growth of firms.

Chapter 1: Section 2: Dissertation Aim, Key Questions and Rationale

The primary aim of this dissertation is to analyze the strategic management of Jardine, Matheson & Company, using Resource-based theory as the principal interpretive framework, although Harvard and Chicago School views are also considered. The dissertation covers two periods, the development of Jardine, Matheson's network of relationships and capabilities from 1810 to 1906, and the transnational expansion of Jardine, Matheson's businesses and markets from 1961 to the present.

The unique contribution of this dissertation is in its attempt to operationalize the Resource-based view, applying that view to the broad historical sweep of the development of one major company to help explain that firm's sustainability and the consistency of its strategic practices, policies and management.

In a Resource-based interpretation, a firm's strategic choices are aimed at developing and applying profitably its distinctive capabilities. Resources and services are chosen for development and growth in response to internal and external factors. Failure is inevitable and can be attributed to a misunderstanding by the firm of its own capabilities or the capabilities needed in a new market. Of particular interest is the firm's role in creating markets or market institutions, that is to say the development of routines for the functioning of the various markets the firm was helping to develop. In a Resource-based interpretation, the founders and managers of the firm develop an internal and external architecture to learn, collaborate and reduce risk. Initiative is primary and encouraged; only reasonable routines are established to curb opportunism. Finally, raising funds, when necessary, is part of the managerial or entrepreneurial task.

Hence, the interpretation of strategic management in Jardine, Matheson & Company requires answers some critical questions:

- How and why did Jardine, Matheson's founders and managers develop particular resources and services? (Question 1)
- What internal (including the firm and its agents) and external (including government, social policy, competition, new entrants, buyers and suppliers) factors were responsible for their choices? (Question 2)
- The firm's choices met with some notable successes – and some notable failures. How are the firm's failures explained? (Question 3)

- At the firm's origin – and again after WWII and the Korean War – there were as yet no markets in Asia, in the sense of market institutions. What role did the firm play in the development of markets? (Question 4)
- What was the organizational structure of the firm, including both internal and external, that allowed for consistent business routines and promoted organizational learning? (Question 5)
- How did Jardine, Matheson promote managerial initiative while curbing opportunism? (Question 6)
- How did Jardine, Matheson raise funds for growth? (Question 7)

But the study of strategic management in Jardine, Matheson is more than a series of responses to probing questions. The study provides both context for and systematic analysis of firm decision-making. Senior executives of Jardine, Matheson were unusually explicit about the reasons for what they were trying to do, both in the early period as evidenced in the Jardine, Matheson Archives, and in the later period, in the Annual Reports, interviews and investment records.

The early Jardine, Matheson & Company was the direct descendant of the first private trading company with a history and experience in the Far East that spanned 200 years. The firm was the inheritor of administrative routines and a network of trading relationships that grew out of the very special business, social and political environment in China during the early nineteenth century. The opportunity – as well as the uncertainty – of the China trade made profitable a range of services to businesses and individuals that protected their investments and shipments, while Jardine, Matheson & Company absorbed the risk. The firm was in a position to do this so long as it did not invest in the commodities in which it traded or which it insured. Fundamental to Jardine, Matheson's success and the reputation it built for financial probity was the fundamental strategic decision to eschew speculation and to concentrate on building up a pattern of relationships within and outside the business which would foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners.

Resource and services choices (Question 1) the internal and external factors responsible for those choices (Question 2), the development of routines for the functioning of the various markets which Jardine, Matheson was helping to develop (Question 4), and managerial fundraising for new opportunities (Question 7) are issues for the development of any firm, and are part of the discussion of the early history of Jardine, Matheson & Company, 1810 to 1906 which absorbs Chapter 4.

While the early history occupies only one chapter of this dissertation, the decisions made by the early firm frame the resource and services choices made by Jardine, Matheson & Company after WWII, after the near destruction of the firm and its assets, and the imprisonment or exile of many of the firm's managers. There was little left after the war – beyond the ambition of the Keswicks to rebuild in an uncertain environment they believed they knew far better than the Europeans and Americans who saw advantage in marketing their products in China. The pace of growth, the sometimes-speculative decision-making, made some degree of failure inevitable. Just as inevitable, given the firm's inexperience with strategic failure, was a trial and error approach to climbing out of failure. Part of the firm's escalating fear of failure was the level of debt financing incurred to fund growth.

Like the previous chapter, Chapter 5 is an overview chapter that covers the post WWII period to 1996. The Chapter examines the firm's resource and services choices made in each of four sub-periods from 1961-1996 (Question 1). It is impossible to separate these choices from the firm's perception of productive opportunity; hence, in telling the story of Jardine, Matheson's emergence from WWII and aggressive acquisitions and divestiture strategy, attention is also paid to the environmental conditions in which the firm assessed opportunity and made choices. Chapter 5 also deals with the firm's first significant experience of failure (Question 3). The mechanisms used by the firm to raise funds for continued growth (Question 7) are also explored.

The extraordinary range of product/market choices made by Jardine, Matheson during the period covered in Chapter 5 might be explained by a loss of focus with painful consequences, leading to a re-examination and re-focusing of the company along the lines of its historic capabilities. While the final outcome was indeed a re-focusing, the internal and external factors responsible for the firm's choices defend their logic, consistency, insight into industrial development, and real productive opportunity for extending historical capabilities and relationships into new business areas. Hence, Chapter 6 is an in-depth analysis of the firm's investments, its acquisitions and divestitures from 1972 to 1996 to understand the industry (external) and skills (internal) factors responsible for Jardine, Matheson's resource and services choices (Question 2).

The firm's ability to grow depended on the capability and experience of its managers – including the ability to foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners. Hence, Chapter 7 is dedicated to the organizational structure of the firm, including both internal and external organizations, that allowed for consistent business routines and promoted organizational learning (Question 5). The chapter deals with organizational learning from the viewpoint of management processes, including the training of high potential management; the involvement of the firm's senior managers on the boards of influential external bodies, and the surfacing, review and approval of new investment ideas. The chapter also covers the management processes that protected the Company from ill-considered or opportunistic projects sponsored by departments or by associated or subsidiary firms (Question 6).

To support a Resource-based interpretation of resource/services choices based on capabilities, the management of uncertainty, the development of external insight and continued organizational learning, Chapter 8 looks at the history of strategic management at Jardine, at four breakpoints – 1832, 1885, 1977 and 1996. The breakpoint is a snapshot of the company at a point in time when a new business model was in play: in 1832, the "agency house" was the operative model; in 1885, the freestanding investment house; in 1977 international commodities trading and investment in 1996, international brand building. Chapter 8 addresses the organizational learning component of Question 5 as revealed in firm decision-making.

Chapter 9 provides a broad overview of the questions and answers, comparing alternative Resource-based, Harvard and Chicago school interpretations.

Chapter 1: Section 3: Dissertation Structure

The dissertation is organized as follows:

Chapter 2 is a critical account of Resource-based theory as a framework for interpreting business strategy.

Chapter 2: Section 1: Comparison of Harvard, Chicago and Resource-based Theories of the Firm introduces three strands of firm theory, the first two are Harvard and Chicago school industrial organization economics, still deeply rooted in neo-classical firm theory, and the third is Resource-based theory. The section summarizes and analyzes Resource-based theory in terms of its similarities to and differences from these IO related theories.

Chapter 2: Section 2: Edith Penrose and The (Resource-based) Theory of the Growth of the Firm drives deeper into the concepts of Resource-based theory articulated by Edith Penrose.

Chapter 2: Section 3: Edith Penrose, Her Influencers and Influences – Big Ideas for Economics and Strategic Management focuses on the major ideas and themes, drawn from economics and strategic management that will be investigated in this dissertation.

Chapter 3 deals with the methodology used in this dissertation: the primary sources used, how the business facts were gathered, analyzed and presented, and the findings interpreted in light of the theory literature.

Chapter 3: Section 1: Key Questions and Hypotheses identifies some significant questions important to understanding strategic management in Jardine Matheson and proposes a set of hypotheses valuable to evaluating alternative Resource-based, Harvard or Chicago school interpretations.

Chapter 3: Section 2: Four Tests of Validity and Reliability examines the kinds and use of information sources to establish the quality of the research design.

Chapter 4 takes a case study approach to the early years of Jardine, Matheson & Company, beginning with the progenitors of the firm, the early private trade, from 1810 to the firm's establishment as a public liability company in 1906. The chapter deals with the early resources and services choices made by the firm (Question 1), based on the internal and external factors, including the very special business, social and political environment into which Jardine and Matheson entered (Question 2), the development of markets (Question 4) and the firm's establishment of mechanisms to raise funds for investments (Question 7).

Chapter 4: Section 1: Resource/Service Choices and Origins of Market Institutions looks at the services required of private traders and the establishment of market institutions in a commercial atmosphere of high risk and volatile political conditions.

Chapter 4: Section 2: Internal and External Factors Responsible for Resource/Services Choices looks at the establishment and communication of decision rules that allowed the firm to build and protect its reputation for sound financial management and network of trading relationships. The section also deals with the firm's evolving relationship with government.

Chapter 4: Section 3: Fundraising for Growth: From Joint Stock to Free-standing Investment House looks at Jardine, Matheson's changing role as investor with partners in the development of China and the ASEAN.

Chapter 4: Section 4: Jardine, Matheson's Resource/ Services Choices, Contributing Factors, Development of Market Institutions and Fundraising Mechanisms: A Resource-based Interpretation summarizes key research findings for the early period in light of four of the seven questions posed by this dissertation.

Chapter 5 extends the case study approach to the firm's period of international growth and expansion, debt and recovery, from 1961-1996. The chapter sheds light on senior management's understanding of the firm's capabilities and perceived ability to reshape these to address new opportunities. Simon Keswick's asset sales of the mid 1980s provides evidence that the use of Resource-based theory to interpret a firm's record is not tied to any notion of necessary success for a 'correctly-based' strategy – provided there is some evidence, other than outcomes, from which to infer the reasons and expectations which led to action.

This Chapter looks at the firm's resource and services choices (Question 1) over four sub-periods, 1961-1971; 1972-1977; and 1978-1983; 1984-1996. The firm's first experience with failure (Question 3) is dealt with, as are mechanisms used by the firm to raise funds for growth (Question 7).

Chapter 5: Section 1: Resource/Services Choices and Contributing Factors to 1961 establishes the 20th century political and economic context for Jardine, Matheson's resource/services choices, including the decision to go public in 1961.

Chapter 5: Section 2: Building on Historic Capabilities: Stepping Stones Period, 1961 - 1971 describes the firm's resource and services choices during the first of Jardine, Matheson's growth periods, including cautious expansion into new geographic markets and extensive investment in the economic development of Hong Kong.

Chapter 5: Section 3: Speculating in Commodities and Manufactures: Exploit and Develop Period, 1972 - 1977 describes the resource and services choices made by during Jardine, Matheson's aggressive international expansion into new and unrelated businesses, including manufacturing and natural resources.

Chapter 5: Section 4: Rationalizing Commodities and Manufactures: Harvest and Divest Period, 1978 - 1983 describes the resource and services choices made during an equally intense period of divestiture activity, during which Jardine, Matheson rationalized both businesses and markets in response to internal and environmental factors.

Chapter 5: Section 5: Experience of Failure: Focus on Distinctive Capabilities Period, 1984 - 1996 describes a period of reduced acquisition activity during which the firm concentrated on core businesses and new competencies in retail and services. The firm's choices met with notable failures. The section deals with Jardine's experience and explanation of failure.

Chapter 5: Section 6: Fundraising for Investment describes the self-financed growth of the "Stepping Stones" period and the increasingly leveraged growth of the "Exploit and Develop" period.

Chapter 5: Section 7: Choices, Failure and Investment: Interpretation of Jardine, Matheson's Growth Strategy Using Resource-based Theory compares the proposed Resource-based interpretation of Jardine, Matheson's choice of resources and services based on capabilities with the alternative explanations of the Harvard and Chicago school.

Chapter 6 offers an analysis of the "industrial logic" of Jardine, Matheson & Company acquisition and divestiture strategies. The Chapter deals with the internal and external factors responsible for the firm's resource and services choices (Question 2).

Chapter 6: Section 1: External Factors – Jardine, Matheson's Acquisitions and Divestitures by Industry analyzes acquisitions and divestments by industry group and major category over each of the strategic sub-periods.

Chapter 6: Section 2: Internal Factors – Skills Required by Acquired Firms identifies and compares the skills required by the firm's manufacturing, resource and services acquisitions with those required by Jardine, Matheson's core businesses.

Chapter 6: Section 3: Geographic Spread of Jardine, Matheson's Acquisitions and Divestitures analyzes the entry and exit strategies of the firm.

Chapter 6: Section 4: Comparison of Jardine, Matheson's Acquisitions with Those of Other International Firms During the Same Periods looks at trends and patterns of acquisition activity across industries and geographies for the same period.

Chapter 6: Section 5: Could Jardine, Matheson Leverage Its Distinctive Capabilities More Effectively By Building An External Organization? The section examines the advantages to Jardine, Matheson of its "external organization," that is, its network of equity and trade relationships, versus market transactions.

Chapter 6: Section 6: The Internal and External Factors Responsible for Jardine, Matheson's Resource/ Services Choices: A Resource-based Interpretation. The Resource-based view is compared with Harvard and Chicago interpretations.

Chapter 7 examines organizational structure, knowledge sharing and the training and development of Jardine, Matheson's human resources to accommodate and accelerate growth while managing uncertainty. Sections 1 and 2 deal with the internal organization of the firm. Section 4 deals with the external organization, and Section 5 compares Jardine, Matheson & Company's external organization with that of the Japanese general trading company. The Chapter deals with the creation of an external organization, in which participants become dependent on the technical and communications architecture set by upstream participants (Question 5). Chapter 7: Section 3 also deals with the firm's methods for enhancing managerial initiative while curbing opportunism (Question 6).

Chapter 7: Section 1: Interpersonal Networks tracks some 200 of Jardine, Matheson's managers from 1972 to 1996 to determine how managers contribute to the intra- and inter-firm network.

Chapter 7: Section 2: Internal and External Relationships: Parent and Subsidiary Firms – Affiliational Ties discusses resource dispersion and networks at Jardine, Matheson.

Chapter 7: Section 3: Encouraging Initiative While Curbing Opportunism discusses the role of boards in decision-making at Jardine, Matheson.

Chapter 7: Section 4: External Relationships – Impact on Influence and Reputation discusses the information gathering, influence and decision making roles played by Jardine, Matheson executives on the boards of government, bank and social/political clubs.

Chapter 7: Section 5: Internal and External Organization and Growth discusses the roles of organization (Question 5) and managerial initiative (Question 6) in firm strategic management, and compares a Resource-based interpretation with alternative Harvard and Chicago school views.

Drawing on the seven questions and their responses, including both the business facts presented in the preceding chapters as well as additional detail from my case study research, **Chapter 8** audits Jardine, Matheson's and strategic management and organizational learning over four breakpoints, 1832, 1885, 1977, 1996.

Chapter 8: Section 1: Strategic Audit of the Environment and the Industry 1832-1996 identifies Jardine, Matheson's principal external relationships with suppliers, customers and competitors, and how those relationships have changed over time.

Chapter 8: Section 2: Strategic Audit of the Firm, Jardine, Matheson & Company. 1832-1996 considers how Jardine, Matheson's capabilities have been deployed in the firm's chosen markets, how appropriable are their returns, and how the firm's capabilities have changed over time to meet evolving business needs.

Chapter 8: Section 3: Implications for Learning and Innovation considers the change in value and use of resources and capabilities over Jardine, Matheson's history.

Chapter 9 summarizes the findings of this research, re-examines the applicability of a Resource-based – versus monopoly (Harvard) or ownership (Chicago) – interpretation of strategic management in Jardine, Matheson, examines the contribution of this study to the strategic management literature and suggests directions for further research.

Chapter 9: Section 1: Summary of Research Findings recaps the major findings of Chapters 4 through 8.

Chapter 9: Section 2: The Applicability of A Resource-based Interpretation of Strategic Management in Jardine, Matheson & Company, 1832-1996 re-examines the hypotheses proposed in Chapter 2 and summarizes the case for a Resource-based interpretation. Alternate Harvard and Chicago school hypotheses are critiqued.

Chapter 9: Section 3: Contribution of this Study to the Strategic Management Literature and Directions for Future Research.

Chapter 9 recaps the major findings of Chapters 5 through 8; looks at the comparative usefulness of Resource-based theory and the Harvard and Chicago School views to interpret strategic management in Jardine Matheson. The Chapter offers suggestions for further research into Jardine, Matheson & Company and the strategic management literature.

Each chapter begins with an introduction, including chapter contents and structure. Each chapter contains three or more subsections that are clearly identified. Within each subsection are italicized subheadings.

Chapter 2: A Critical Account of Resource-based Theory as a Framework for Interpreting Business Strategy

Introduction

Many researchers and practitioners have sought to interpret business strategy, looking for the reasons behind the development and growth of firms – or looking to predict future behavior (or future growth) from an analysis of past action and performance. The focus of firm theory has shifted from the firm as a production function (neoclassical school) to the firm as monopolist (Harvard School, Bain IO), to the firm as a contributor to social welfare (Chicago School), to the firm as an innovator (Resource-based theory).

These schools of theory differ with respect to the relative importance of the roles they assign firm and industry. Is it the firm (Chicago and Resource-based views) or industry structure (Harvard School) that exerts most significant impact on firm strategy and growth? And if it is the firm, is it ownership and efficiency (Chicago School) or distinctive capabilities resident in the firm (Resource-based theory) that create efficiencies and new profitable opportunities? Both Harvard and Chicago schools assume perfect knowledge, at least of all relevant probabilities. Firms therefore can create strategy for sustainable advantage. By contrast, the Resource-based view assumes firms will do their best to plan for different outcomes in the midst of uncertainty and will attempt to minimize risk.

Chapter 2: Section 1: Comparison of Harvard, Chicago and Resource-based Theories of the Firm introduces three strands of firm theory, the first two are Harvard and Chicago school industrial organization economics, still deeply rooted in neo-classical firm theory, and the third is Resource-based theory. The section summarizes and analyzes Resource-based theory in terms of its similarities to and differences from these IO related theories.

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Chapter 2: Section 3: Edith Penrose, Her Influencers and Influences – Big Ideas for Economics and Strategic Management focuses on the major ideas and themes, drawn from economics and strategic management that will be investigated in this dissertation.

Chapter 2: Section 1: Comparison of Harvard, Chicago and Resource-based Theories of the Firm

When is a firm not a firm? In neoclassical theory, the firm was a black box,[1] which costlessly made optimal decisions in response to price signals in the marketplace.

The neoclassical firm was a specifiable production function, teaming two inputs, labor and capital, and operating on the following assumptions: (a) that the "right" input mix can be ascertained via a cost curve; (b) the marginal contribution of each input is easily calculable; (c) all parties have perfect and complete information; and (d) resources are mobile and divisible and flow unimpeded to the highest value use.[2]

The historical basis of the model was an undeveloped agrarian economy with standardized products, numerous firms in markets, each firm with a small share and unable by its action alone to exert significant influence over price, no barriers to entry, and output carried to the point where each seller's marginal cost equaled the going market price.[3]

The theory of perfect competition gave way to modeling the firm as a mechanism to restrain output through monopoly or collusion. The focus of this model was the large firm, because large firms controlled substantial proportions of industry output and were believed to have the greatest opportunity and incentive to engage in monopolistic or collusive practices.[4]

In the Harvard School's standard industrial organization (IO) model, firms want to restrain output so that market price will be driven up. The successful firm's profit is the difference between an artificially high market price and its costs. Competition for monopoly control is the firm's motivation. The main limitation on size and scope in the standard model is governmental intervention.

Even vertical integration is seen as a method of extending monopoly power to downstream industries. Acquiring own source of raw material is seen to free a firm from another's control over price. And advertising or product differentiation are viewed as ways to erect barriers and increase monopoly power.[5]

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1 Edith Penrose, The Theory of the Growth of the Firm (Oxford: Blackwell, 1959), p. xiii

2 Frank H. Knight, Risk, Uncertainty and Profit (New York: Houghton Mifflin Co., 1921), p. 320

3 E.M. Singer, Antitrust Economics and Legal Analysis (Columbus, OH: Grid Publishing, 1981), p. 2.

4 L.W. Weiss, "The Concentration-profits Relationship and Antitrust," in H. Goldschmid, H.M. Mann & J.F. Weston, ed. Industrial Concentration: The New Learning (Boston: Little, Brown, 1975), p. 184.

5 W. S. Comanor, "Vertical Mergers, Market Power and the Antitrust Laws," Journal of Law and Economics, Vol. 57, p. 259-62. See also W.S. Comanor and T.A. Wilson. Advertising and Market Power (Cambridge: Harvard University Press, 1974).

While the perfect competition model predicts no persistent performance differences among firms, standard IO predicts persistent, above normal returns based on efficiency differences among firms or the ability of firms in an industry to restrict new entrants.

Joe Bain's 1950s era studies to defend his "structure-conduct-performance" hypothesis analyzed data from the middle of the Depression era, supporting the belief that control and deterrence of competition by firms with market power were the central economic forces in the economy, instead of firms competing over making at lower cost a product consumers preferred.[6]

Michael Porter's "Five Forces" model is based on Bain's structure-conduct-performance hypothesis in which industry structure – e.g. numbers of sellers and buyers, product differentiation, barriers to entry, degree of fixed versus variable costs, and vertical integration – determines firm conduct – e.g. pricing and advertising – which in turn determines economic performance.[7] Underpinning Porter's framework are three sources of external constraints that affect the ability of inputs to generate rents – demand, public policy and competitor action. Like Bain IO, Porter's model looks to the firm to deploy its resources to deter competition, to co-opt it through collusion or to destroy it through below cost predatory pricing.[8]

The Chicago response to counter the Bain IO view – as well as the public policy initiatives resulting from that view – gained its momentum from an effort to understand the economic rationale and impact of social welfare practices on business.[9] The Chicago tradition questioned the power of government intervention to increase welfare, arguing that the "social costs" of government-imposed divestiture for reasons of size or concentration outweighed the benefits. The Chicago tradition viewed many practices that the Harvard school considered monopolistic or collusive as simply the outcome of firms trying to maximize productive efficiency.[10]

The scholars of the Chicago tradition reconfirmed through renewed application of price theory the efficacy of market mechanisms in achieving welfare-enhancing ends. The Chicago tradition also applies central concepts of neoclassical price theory – profit

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6 J.S. Bain, "Workable Competition in Oligopoly: Theoretical Considerations and Some Empirical Evidence," American Economic Review, Vol. 40, pp. 35-47; also, J.S. Bain, "Economies of Scale, Concentration and the Conditions of Entry in Twenty Manufacturing-Industries, American Economic Review, Vol. 44, pp. 15-39.

7 Michael E. Porter, Competitive Strategy (New York: Free Press, 1980).

8 Idem, also Michael E. Porter, Competitive Advantage (New York: Free Press, 1985).

9 G.J. Stigler, "A Theory of Oligopoly" in G.J. Stigler, The Organization of Industry (Homewood: Irwin, 1968), p. 38.

10 H. Demsetz, "Industry Structure, Market Rivalry and Public Policy," Journal of Law and Economics, Vol. 16, pp. 1-9; H. Demsetz, The Market Concentration Doctrine (Washington, D.C.: American Enterprise Institute, Hoover Policy Studies, 1973).

maximizing behavior and competition. A central assumption within the Chicago tradition is that of costly information.

The Chicago school offered efficiency-based explanations for a number of practices that Bain saw as monopolistic, for example vertical integration, related by the Chicago school to the efficiency with which suppliers can or cannot supply a firm over the various stages of a product life cycle.[11] In the Chicago view firm size and scope are determined by efficiency. If a firm can make efficiency gains, it will grow. If not, it will shrink as competitors erode the firm's source of advantage.

Important to the Chicago perspective is the paramount role of entry of new competitors in imposing an efficiency imperative on incumbent firms and determining long run earnings potential. To deter competition, it is necessary to erect legal and impenetrable barriers to entry through ownership of assets or vertical integration. [12]

Information, locked in assets, is another and perhaps the most fundamental barrier to entry,[13] according to the Chicago tradition. Information costs constitute hurdles to all who would have entered the industry. Complete knowledge about products and firms would make brand loyalty useless from both consumer and seller viewpoints. In the presence of such costs, competitors are deterred from entry, and consumers will find it useful to rely on the firm's experience and reputation, on its history, or on the fact that the firm has made sizeable investments to this industry.[14]

By contrast with the Harvard and Chicago models which assume firms' perfect knowledge, much like neo-classical theory, the Resource-based view is fundamentally a process theory, embodying learning and also the decay of static advantages, though a concept of equilibrium may be useful to explain the persistence of strategic principles through a sequence of actions.

As in the Bain IO and Chicago school model theories described above, the firm's ultimate objective in a Resource-based approach is above normal returns, but obtaining such returns is tied to the distinctiveness of the firm's product, and the distinctiveness of the product to the distinctiveness of its inputs or resources. Articulated by Edith Penrose in 1959, "The core of the theory of the growth of the firm can be very simply stated. We start with the function of the firm and from this derive the appropriate definition of the firm. The economic function of

11 G.J. Stigler, "The Economics of Information," in G.J. Stigler, The Organization of Industry (Homewood: Irwin, 1968).

12 G.H. Stigler, "The Division of Labor is limited by the Extent of the Market," in The Organization and Industry (Homewood: Irwin, 1968).

13 H. Demsetz, "Barriers to Entry," American Economic Review, Vol. 72, p. 52.

14 H. Demsetz, "Barriers to Entry," idem, p. 50.

a firm is that of acquiring and organizing human and other resources in order profitably to supply goods and services to the market."[15]

In a Resource-based view, the critical problem faced by the firm is how to maintain the distinctiveness of its product. Like the Chicago School (and unlike the Harvard School) the Resource-based view sees abnormal returns resulting primarily from the acumen or luck of the firm in acquiring, combining and deploying resources and relationships more quickly or more effectively than other firms in the industry and in the environment which the firm finds itself. [16]

Unlike the Chicago School, in the Resource-based view the acquisition of resources and operational efficiency are not enough. Edith Penrose distinguished between resources and services precisely in order to produce an analysis in which the relevant uses of resources were problematic; resources themselves are created partly by a continuous process in the course of business, and partly by deliberate action guided by some conception – a scenario rather than a forecast – of what might be achieved.[17]

Since the necessary conditions for Resource-based theory are highly imperfect knowledge and cognitive limitations, any intendedly comprehensive strategy must include more than the development and application of capabilities; it requires the management of uncertainty, which is a question both of productive and marketing capabilities and of governance.

A summary comparison of the Resource-based view with the neoclassical, Harvard (Bain IO) and Chicago School models reveals these similarities and dissimilarities.

- The neoclassical school presumes perfect knowledge – so do the Harvard and Chicago Schools. On the contrary, the Resource-based view presumes that the firm operates in an uncertain world.
- Perfect knowledge assumes that successful strategy can be deduced. The Harvard and Chicago Schools operate on this basis, hence failure can be avoided. In the Resource-based view, uncertainty makes it impossible to deduce successful strategy. Strategy is fallible, extra-logical.
- Neoclassical theory views the firm as a combiner of physical inputs with predictable physical output and with perfect knowledge of market demand. The Resource-based view operates under no production algorithm. The identification and combination of

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15 Edith Penrose, ibid, p. ix

16 The basic Resource-based view articulated R.P. Rumelt, Strategy, Structure and Economic Performance (Cambridge: Harvard University Press, 1974), p. 567; B. Wernerfelt, "A Resource-based view of the Firm," Strategic Management Journal, Vol. 5, pp. 173; J.B. Barney, "Strategic Factor Markets: Expectations, Luck and Business Strategy," Management Science, Vol. 32, pp. 1231-41.

17 Edith Penrose, Ibid. p. 55.

- resources is problematic. Resource availability may be unpredictable. Both the inputs and the output of the firm may be intangible, the by-products of teams of resources, whose causal connections are ambiguous. Discerning appropriate inputs is ultimately a matter of entrepreneurial vision and intuition.
- According to the Harvard School, a firm's environment poses critical constraints on strategy. These constraints may be other firms (competition or monopoly) or government. While accepting the possibility of environmental constraints (and arguing the firm's ability to adapt to constraints and shape its own environment), the Resource-based view holds that restraints through monopolistic or collusive action – or investment in entry barriers – are not primary sources of above normal rents. It is the firm – not the industry – that is the unit of analysis. The internal organization of the firm is a critical variable. Firm behavior may be at least as much a matter of managerial choice as the foregone conclusion of industry structure.
- According to the Chicago School, firms are production and distribution efficiency seekers hence firms make acquisitions to obtain scale economies. The size and scope of the firm reflect the extent to which production and distribution efficiencies are achieved. On the contrary, in the Resource-based view, efficiency seeking goes far beyond current production, extending also to new products, new routines, and new relationships.
- Both the Harvard and Chicago Schools view persistent abnormal rents as possible. So does Resource-based theory, but knowledge, innovation and other intangibles are as important to the Resource-based firm as the attainment of rents – and equally a source of growth.

Chapter 2: Section 2: Edith Penrose and The (Resource-based) Theory of the Growth of the Firm

The previous section suggested three alternative interpretations for the existence and activities of firms, the Harvard school, Chicago school and Resource-based view. This section focuses on the contributions of Edith Penrose to the Resource-based view, to industrial organization and to economics.

In her 1959 Theory of the Growth of the Firm, Edith Penrose defines and describes a firm not as monopolist but as innovator, as the coordinator of the capabilities of its managers, who recombine resources – and learn from mistakes time and again – to provide distinctive and creative products and services that are valuable to the firm's markets. Indeed, the firm's managers are responsible for the growth of the firm and for whatever limits there may be to the rate of growth.[18] For her understanding of the firm as a dynamic human organization, Penrose is indebted to Alfred Marshall who saw in economics "a study of mankind in the ordinary business of life. For the business by which a person earns his livelihood generally fills his thoughts during by far the greater part of those hours in which his mind is at its best; during them his character is being formed by the way in which he uses his faculties in his work, by the thoughts and feelings which it suggests, and by his relations to his associates in work, his employers or his employees."[19]

The key contributions of Penrose's thought include:

- *A definition of the firm* as a collection of productive resources the disposal of which between different uses and over time is determined by administrative decisions.[20]
- *A definition of resources* that includes physical and human resources which in turn consist of a bundle of potential services and can, for the most part, be defined independently of their use.[21]
- *A definition of firm governance* as an administrative framework within which resources are bound together and whose boundaries are determined by administrative coordination or authoritative communication (including term contracts, leases and patent license agreements, which may provide controls that are as effective as "administrative coordination").[22]

18 Edith Penrose, Ibid. pp. 43-64.
19 Alfred Marshall, Principles of Economics (Macmillan, 1949), Book I, p. 1.
20 Edith Penrose, Ibid., p. 24
21 Edith Penrose, Ibid. p. xi.
22 Edith Penrose, Ibid. p. 189-91.

- *A dynamic process theory of the continuous but limited growth of the firm based on entrepreneurial vision or 'image.'* In order to focus attention on the crucial role of a firm's inherited resources, the environment is treated … as an 'image' in the entrepreneur's mind of the possibilities and restrictions with which he is confronted, for it is, after all, such an 'image' which in fact determines a man's behavior; whether experience confirms expectations is another story.[23]
- *A perspective on the limits to firm growth rate and size*, the former limited by the growth of knowledge within it, but the latter by the extent to which administrative effectiveness can continue to reach its expanding boundaries.[24]
- *A view of the importance of managers to firm growth and hence to profits.* "Profits …(are) a necessary condition of expansion." Growth, therefore, was a chief reason for the interest of managers in profits.[25]
- *An understanding of the importance of inherited managerial capability to the successful expansion of the firm through acquisition.* The availability of inherited managers with such experience limits the amount of expansion that can be planned or undertaken in any period of time. Such managers, by definition, cannot be acquired from the market but are a necessary input in expansion.[26]
- *A recognition that even growth by acquisition and merger* does not escape the constraints imposed by the necessity of using inputs from existing managerial resources to maintain the coherence of the organization.[27]
- *A necessary connection between the growth of the firm and the increasing experience and knowledge of management.* The growing experience of management, its knowledge of the other resources of the firm and of the potential for using them in different ways, *create incentives for further expansion* as the firm searches for ways of using the services of its own resources more profitably.[28]
- *A necessary connection between the completion of an increment of growth and the availability of the managerial services devoted to it for further expansion.* [29]
- A theory of the diversification of the firm, based on the assumption that the firm can

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[23] Edith Penrose, Ibid. p. 5.
[24] Edith Penrose, Ibid. p. xvii.
[25] Edith Penrose, Ibid., p. xii
[26] Edith Penrose, Ibid. p. 49.
[27] Edith Penrose, Ibid. p. xii.
[28] Edith Penrose, Ibid. pp. 78-79.
[29] Edith Penrose, ibid. p. 200.

manipulate the environment to serve its own purposes. Penrose observed that: "*The set of opportunities for investment and growth that its entrepreneurs and managers perceive is different for every firm and depends on its specific collection of human and other resources.*"[30]

- An assumption that in the theory of the growth of firms *"history matters"* – growth is essentially an evolutionary process and based on the cumulative growth of collective knowledge, in the context of a purposive firm."[31]

Penrose's firm exists in an uncertain world – where managers make fallible conjectures, and, knowing that they may not have complete information, must make the best decisions they can. She is indebted to Frank Knight for her understanding of uncertainty.[32]

Of uncertainty, Penrose says:

- Uncertainty resulting from the feeling that one has too little information leads to a lack of confidence in the soundness of the judgments that lie behind any given plan of action. [33]
- One of the most important tasks of a firm in an uncertain world will be that of obtaining as much information as is practical about the possible course of future events.
- To obtain information requires an input of resources, and to evaluate the information requires the services of existing management.
- Uncertainty will limit expansion only to the extent that managerial resources are limited.
- Each new activity undertaken by the firm requires an increased input of managerial services, to obtain sufficient information, but to develop sufficiently well-worked out plans to reduce risk.
- Practically all of the various ways of reducing risk have the same effect on the demand of managerial services as do the ways of reducing uncertainty. The greater the risk or uncertainty, the greater the managerial task. Hence the expansion plans of a firm are necessarily restricted by the capacity of management.

Edith Penrose makes a strong case for enterprise – or entrepreneurial ambition, but risk and uncertainty attend every managerial decision:[34]

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30 Edith Penrose, Ibid. p. 73.
31 Edith Penrose, Ibid. p. 2.
32 Frank H. Knight, Risk, Uncertainty and Profit, Ibid. p. 77.
33 Edith Penrose, Ibid. p. 59.
34 Edith Penrose, Ibid. p. 33, 36-37.

- Enterprise and attitude toward risk are, in this context, opposite sides of the sane coin, for enterprise includes the willingness to take risks...to search for ways of avoiding risk and still expand.
- Firms can, for examples diversify their activities to spread risk, or protect themselves by backward or forward integration; or they can adopt short-run flexible programs easily changed when conditions change; or they may, as a means of limiting their own liability, set up subsidiaries able to borrow money on their own account to make on some of the more speculative activities.
- Entrepreneurial judgment involves more than imagination, good sense, self-confidence and other personal qualities. It is closely related to the organization of information gathering and consulting facilities within a firm – and it leads into the whole question of the effects of risk and uncertainty on, and the role of expectations in, the growth of firms.
- Although the "objective" productive opportunity of a firm is limited by what the firm is able to accomplish, the subjective productive opportunity is a question of what it thinks it can accomplish.
- Expectations, and not objective facts, are the immediate determinants of firm behavior.

The receding managerial limit, the evolutionary growth of knowledge, the importance of enterprise and entrepreneurial vision, the respective importance of the firm and the environment, the possibility of failure and the persistence of uncertainty and risk, and the collective action of firms to reduce risk and uncertainty – as Penrose acknowledged in her introduction to the 1995 re-issue of her Theory of the Growth of the Firm – are issues that have been important both to economics and to strategic management since Adam Smith. These issues are dealt with in Section 3.

Chapter 2: Section 3: Edith Penrose, Her Influencers and Influences – Big Ideas for Economics and Strategic Management

The receding managerial limit, the evolutionary growth of knowledge, the importance of enterprise and entrepreneurial vision, the respective importance of the firm and the environment, the possibility of failure and the persistence of uncertainty and risk, and the collective action of firms to reduce uncertainty and risk – each of these "big ideas" deals with an issue of significance for firm behavior. These issues are: the basis of strategic choice; the internal and external factors leading to resource and service choices; the explanation of failure; the role of the firm as an innovator, creating markets; the firm's architecture – its internal and external relationships and organizational learning; the promotion of managerial initiative and reduction or perception of opportunism; and fundraising for new projects or growth opportunities.

Basis of Resource/Service Choice

Capabilities are the basis of deliberate strategic product/market choice in the Resource-based view. The idea can be traced to Adam Smith's belief that economic progress was fundamentally the result of the division of labor, which resulted in progressive improvements in skill, dexterity, judgment and productive capabilities of all kinds as well as increased specialization.[35] This idea is the basis of Penrose's Theory of the Growth of the Firm , although Penrose spoke of "resources" and "services".

G.B. Richardson, inspired by Penrose, replaced her "resources" and "services" terminology with capabilities and produced an analytical framework to explain which activities are likely to be collected within a single organization, which coordinated by market transactions and which coordinated by businesses otherwise independent.[36]

In the strategic management literature, Birger Wernerfelt, who coined the term "Resource-based view, argued that firm selects its strategy to generate rents based on its resource capabilities and a dynamic fit with environmental opportunities provided by customers, competitors, technology, etc.[37] The view is shared by Rumelt,[38] by Montgomery and

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35 Brian J. Loasby, "Edith T. Penrose's Place in the Filiation of Economic Ideas," Economia. No. 29-8 (1999), p. 104

36 George B. Richardson, "The Organization of Industry," Economic Journal, Vol. 82, pp. 883-96.

37 Birger Wernerfelt, "A Resource-based View of the Firm," Strategic Management Journal, Vol. 5, No. 6 (1984), p. 172.

38 Richard P. Rumelt. "Toward A Strategic Theory of the Firm," Competitive Strategic Management (Englewood Cliffs, New Jersey: Prentice Hall, 1984), p. 557.

Wernerfelt,[39] and by Castanias and Helfat who, like Penrose, include managerial expertise among rent generating resources.[40]

Replacing the word "capability" with core competence, strategic management theorists Prahalad and Hamel argue that the resource accumulation process may help cultivate a firm's core competencies, defined as "bundle of skills and technologies that enables a company to provide a particular benefit to customers and provide a catalyst to further resource accumulation.

The firm must constantly reinvest to maintain and expand existing capabilities to inhibit imitation. Alfred Chandler emphasizes creation, maintenance and expansion of resources and organizational capabilities as keys to competitive advantage. Such capabilities provide the profits that in large part finance the continuing growth of the enterprise. Highly product–specific and process–specific, these organizational capabilities affect and often determine the direction and pace of small numbers of first–movers and challengers, as well as of the industries and national economies in which they operate.[41]

In fact, Chandler provides a wealth of evidence in support of the Penrosean notion that resources and organizational capabilities provide an internal dynamic for the growth of the firm.

Just as an important theme in Penrose is the interrelatedness of resources and mental models as two sources of firm heterogeneity, Chandler[42] illustrates how resources and mental models of managers interact. Some firms' managers are uniquely positioned to create a significant organizational breakthrough (e.g., multidivisional form). The accumulation of resources and the need for change demanded new mental models for coping with unprecedented diversification. The accumulation of resources creates a base for organizational learning,

Internal and External Factors Responsible for the Firm's Resource and Services Choices

In a Resource–based interpretation, a firm's choice of resources and services for development and growth would be explained by the business, social and political

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[39] Cyntha A. Montgomery and Birger Wernerfelt, "Diversification, Ricardian Rents and Tobin's q," Rand Journal of Economics, Vol. 19 (1988) pp. 624.

[40] Richard P. Castanias and Constance E. Helfat, "Managerial Resources and Rents," Journal of Management, Vol. 17, No. 1 (1991); pp. 155-171.

[41] Alfred D. Chandler. Scale and Scope (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1990), p. 496.

[42] Alfred D. Chandler, Scale and Scope, Ibid., p. 189.

environment of the firm as well as by the firm's concentration on building up a pattern of relationships both inside and outside the business. These relationships would foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners.

While Penrose acknowledges the firm's conjectural ability to shape its "image" of the environment,[43] she adds: "There can be no question that for any particular firm the environment 'determines' its opportunities, for it must take its resources as given ... and must look to the opportunities it can find for using them for the source of its power to grow. Whether we should treat the resources of the firm or its environment as the more important factor explaining growth, depends on the question we ask: if we want to explain why some firms see the environment differently, why some grow and some do not...or why the environment is different for every firm, we must take the 'resources' approach; if we want to explain why a particular firm or group of firms with specified resources grows in the way it does, we must examine the opportunities for the use of those resources."[44]

Alfred Marshall provides insights into how a firm might simultaneously build a pattern of relationships and shape its environment by coordinating its activities with other firms through an "external organization, "that is to say "a network of social, technical and commercial arrangements that link a business with its customers, suppliers and rivals; such networks take a long time to put in place.[45]

In discussing the nature of production in 'The Principles' Marshall differentiated the benefits of production accruing to the individual large firm – internal economies of scale – and those accruing to the industry as a whole – external economies. "We may divide the economies arising from an increase in the scale of production of any kind of goods, into two classes – firstly, those dependent on the general development of the industry; and, secondly, those dependent on the resources of the individual houses of business engaged in it, on their organization and the efficiency of their management. We may call the former external economies, and the latter internal economies."[46]

As Loasby notes, into Marshall's discussion of external economies is introduced the notion of localization (which) cuts across his distinction between the organization of businesses in the same trade and the organization of various trades relative to one another, being concerned

43 Edith Penrose, Ibid. p. 215. The word "image" derives from Kenneth Boulding, The Image (Ann Arbor, Michigan: University of Michigan Press, 2956).

44 Edith Penrose, Ibid. p. 217.

45 Alfred Marshall, Principles of Economics (London: Macmillan Press, 1920; Brian J. Loasby, "Marshall's Economics of Progress," Journal of Economic Studies, Vol. 13, Number 5, p. 10.

46 A. Marshall, Ibid. p. 266.

sometimes with relations between similar firms and sometimes with firms whose activities are complimentary.[47] Thus "localization", along with specialization – which means the production process can be broken up into smaller stages thereby allowing small specialized firms to fulfill a part of the total production process[48] – are ways in which small firms can accrue external economies of scale and thus overcome the disadvantages which arise due to their size. According to Marshall, external economies .. "can often be secured by the concentration of many small businesses of a similar character in particular localities: or as is commonly said, by the localization of industry."[49]

In effect, this localization of industry can be an alternative to a larger size for the individual enterprise. As Marshall notes: "For instance in cotton spinning, and calico weaving, a comparatively small factory will hold its own and give constant employment to the best known machines for every process: so that a larger factory is only several parallel smaller factories under one roof; and indeed some cotton spinners, when enlarging their works, think it best to add a weaving department."[50]

This localization of industry, coupled with the already identified specialization, gave rise to the notion of industrial districts, discussed in further detail in Section 6. Marshall comments: "The largest industries, and especially those that need massive plant, are located increasingly in industrial districts,"[51] but small firms providing inputs and specialist finishing can also reap advantages in terms of external economies from being located in industrial districts: – "in large measure dispensed with the necessity of any complex arrangements in each individual business, since the external economies, which even a small business thus obtained, were generally far more important to it than those which the largest business in the world could obtain by its own efforts."[52]

In addition to external economies arising out of production, Marshall identified benefits arising out of agglomerations, such as skilled labor, capital and infrastructure. "Meanwhile the trading functions of the city developed. Warehouses for the products of the district took the place of factories; shops for the accommodation of the district were enlarged; and banks and mercantile houses of all kinds became prominent."[53]

Marshall refers to an intangible "industrial atmosphere" which he describes thus: "When an

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47 Brian J. Loasby, 'Firms, markets and the principle of continuity.' in National Systems of Innovation (London: Pinter, 1992) 1990, p. 112.
48 A. Marshall, Principles, Ibid. p. 284.
49 A. Marshall, Principles, Ibid. , p. 266.
50 A. Marshall, Principles, p. 281.
51 A. Marshall, Industry and Trade (London: Macmillan, 1932), p. 600.
52 A. Marshall, Industry and Trade, p 300.
53 A. Marshall, Industry and Trade, p. 285.

industry has thus chosen a locality for itself, it is likely to stay there long: so great are the advantages which people following the same skilled trade get from neighborhood to one another. The mysteries of the trade become no mysteries; but are as it were in the air, and children learn many of them unconsciously."[54] The establishment of an industrial atmosphere takes on the appearance of an extended or external organization where skills are being constantly developed and interchanged, ideas are exchanged and innovation occurs within the district. In such an atmosphere, "if one man starts a new idea, it is taken up by others and combined with suggestions of their own; and thus it becomes a source of further ideas."[55]

Marshall's "industrial atmosphere" leads to a long–term commitment of an industry to a particular district, like Marshall's examples of the cutlery trade Sheffield and Solingen "which yield gratis to the manufacturers of cutlery great advantages, that are not easily to be had elsewhere: and an atmosphere cannot be moved."[56] Once industrial districts become established they are relatively stable productive systems "an established center of specialized skill, unless dominated by a guild or trade–union of an exceptionally obstructive character, is generally in a position to turn to account quickly any new departure affecting its work; and if the change comes gradually, there is no particular time at which strong incitement is offered to open up the industry elsewhere."[57]

Yet they are also dynamic systems, the dynamism being created by the constant interaction of the actors involved. Merchants not only purchase goods but also "discuss with the manufacturer himself any suggestions which may occur to them for modifications in detail, to suit their individual judgments, or to meet the special tastes…" etc.

Marshall's external organization, "industrial district" and "industrial atmosphere" are rich sources of information about the collaborative pursuit of knowledge by firms. While Penrose did not have much to say about external networks, she did advance that the spread of inter-firm networking has been stimulated by the growth of global businesses the scale of operation of which is largely independent of national boundaries, especially in technological fields. Strategic alliances are formed between firms in related areas around the world. Formal relations among such firms are necessary and rational, and may advance the competitive power of each of them. Penrose used the network as an example of administrative coordination. Penrose herself credits D'Cruz and Rugman for their definition of a network as a "governance structure for organizing exchange through cooperative, non-

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[54] A. Marshall, Principles, p. 281.
[55] A. Marshall, Principles, p. 271.
[56] A. Marshall, Industry and Trade, p. 284.
[57] A. Marshall, Industry and Trade, p. 284.

equity relationships among firms and non-business institutions"[58] and Gomes-Casseres'[59] for a definition of a network as "groups of companies joined together in a larger overarching relationship...each company fulfilling a specific role within the group."

Explanation of Failure

In the Resource-based view, failure can be attributed to the firm's misunderstanding of its own capabilities or the capabilities required in a new market. Brian Loasby's interpretation of "Penrose's most significant analytical innovation...the distinction between resources and inputs into production, which she called productive services," inserts fallible conjecture into the firm's understanding of its capabilities, its environment and its opportunities.[60] There is no absolute logic that can be brought to bear to exempt the firm from failures of understanding. All firms exist in an uncertain world, so actual conditions in the world itself – not only the understanding of those conditions – can impact the success or failure of strategy. Loasby compares Penrose with Marshall, citing Marshall's line that "constructive speculation is inherent in nearly every business decision:" "Any firm may fail...and all firms experience failure."[61]

The concept of failure owes much to Adam Smith's "account of the growth of knowledge through the invention and application of fallible connecting principles. Thus learning may lead to foresight or oversight...A theory of economic development that respects both human abilities and the historical record must rest on conjecture and exposure to refutation rather than rational expectations."[62]

Failure is one of the outcomes of uncertainty. Elaborating on the uncertainty that underlies business decisions, Frank Knight writes: "The business man himself not merely forms the best estimate he can of the outcome of his actions but he is likely to estimate the probability that his estimate is correct."[63] In a world of change and uncertainty, "The essence of the situation is action according to opinion, of greater or less foundation and value, neither entire ignorance nor complete and perfect information, but partial knowledge.[64] Using the example

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58 J. R. D'Cruz and A. Rugman, "Business Network Theory and the Canadian Industry," International Business Review, Vol. 3, Number 4, p. 276.

59 B. Gomes-Casseres, "Group versus Group: How Alliance Networks Compete," Harvard Business Review, July-August 1994, p. 4.

60 Brian J. Loasby, "Organizations as Interpretive Systems," DRUID 2000 Summer Conference, June 2000.

61 Brian J. Loasby, Ibid. p.11.

62 Brian J. Loasby, "The Significance of Penrose's Theory for the Development of Economics," Contributions to Political Economy, Vol. 18 (1999), p. 38.

63 Frank H. Knight, Risk, Uncertainty and Profit, Ibid. p. 230.

64 Idem, p. 188.

of the insurance industry, Knight comments on the principle of eliminating uncertainty by dealing with groups of cases rather than individual cases:

> "The possibility of thus reducing uncertainty by transforming it into a measurable risk through grouping constitutes a strong incentive to extend the scale of operations of a business establishment...Insofar as a single business man, by borrowing capital or otherwise, can extend the scope of his exercise of judgment over a greater number of decisions or estimates, there is a greater probability that bad guesses will be offset by good ones and that a degree of constancy and dependability in the total results will be achieved."[65] Indeed, says Knight, "It must be emphasized that this type of organization actually reduces risks, and does not merely transfer them from one party to another (corporations).[66]

Role of Firms in Creating Markets

In a Resource-based view, the firm's development of market institutions will encourage the development of the capability for buyers and sellers to be in such free interaction that the prices of the same goods will tend to equality easily and quickly.

Mark Casson offers a picture of the initial obstacles to trade without market institutions: no contract between buyer and seller, no knowledge of reciprocal wants, no agreement over price, the need to exchange custody of goods, no confidence that goods correspond to specification and no confidence about restitution in case of default. As Loasby[67] notes, it is to the advantage of the entrepreneur to invest in the creation of a system of conventions and rules that cost him more in the short term so that he can reduce transaction costs in the longer term. "In developing its own organization and its particular market, each business draws on the institutions of the society within which it operates, and then develops, through a mixture of deliberate decisions and the consequences of day-to-day interactions, rules and conventions which serve to coordinate its activities and to align them with the activities of its suppliers and customers."[68]

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65 Frank H. Knight, Risk, Uncertainty and Profit, Ibid. p. 254.

66 Idem, p. 254.

67 Brian J. Loasby, "Market Institutions and Economic Evolution," Journal of Evolutionary Economics (2000), Vol. 10, p. 301.

68 Brian J. Loasby, "Market Institutions", Ibid. p.302.

The Architecture of the Firm and Organizational Learning.

In a Resource-based view, the firm creates an 'architecture' or 'administrative framework' for learning and collaboration. This framework includes both interorganizational linkages and internal processes for learning, the development of capabilities, the exploitation of productive opportunities, and the development of consistent routines important for trustworthiness, consistent patterns of behavior and effective forms of governance.

The ideas central to the 'architecture' of the firm derive from Adam Smith and Alfred Marshall. Reinterpreted by Penrose in The Theory of the Growth of the Firm, the division of labor both within and between firms, leads to the development of skills and the perception of possibilities, while firms within a similar line of business will develop somewhat different skills and perceptions. Firms are learning organizations, continually changing their organization to align their increasing knowledge with their productive opportunity.[69]

Marshall again adds greater depth to his exploration of firm behavior. As explained in Section 2 above, the continual interaction of buyers, sellers and producers resulted in a Marshallian "industrial atmosphere" and localization in an "industrial district." Marshall coined the term "constructive cooperation" to identify one of the factors which gave industrial districts a competitive edge: Constructive cooperation enables even "moderate sized" businesses to compete with much larger competitors "provided these qualities are united with a frank willingness to learn from others; and to cooperate genially with others in matters in which unfettered association has large opportunities."[70] The economies which accrue to medium sized businesses, enabling them to compete with larger competitors, arise out of the evolution of new organizations which are directly the result of the development of constructive cooperation, arising itself out of the constant interaction within the industrial districts. Marshall cites such examples as 'The British Pottery Manufacturers' Association' which had among its purposes "To deal with the quality, supply, purchase, and control of raw materials and stores, where desirable, in the interests of the members; to deal with all questions relative to cost and conditions of transport; to consider means of facilitating the extension of export trade; to bring about closer cooperation with the technical arts, and designs sections of the pottery schools; to promote general propaganda, and to undertake advertising in connection with the industry; to consider the best means of encouraging and utilizing improvements, inventions, and patents for the general good and advancement of the industry; to deal with all matters connected with more economical production, including costing; to watch national and local legislation affecting the industry. Experts are to be

69 Brian J. Loasby, "The Significance of Penrose's Theory", Ibid. p.38.
70 A. Marshall, Industry and Trade, p. 594.

appointed, and assistance given to members in overcoming the technical difficulties which constantly arise in so complex an industry; and the Federation has power to purchase, work, and exploit any patents, secret processes, or other improvements in the general interests of the members."[71]

The constant interaction of the actors within Marshall's industrial districts, leading to innovation and the sharing of skilled personnel and machinery relies on the development of trusting relationships and close community relations.

The trust, which underlies the "constructive cooperation", develops through relationships which evolve through interaction within markets, as the following citation makes clear. "Everyone buys, and nearly every producer sells, to some extent in a 'general' market, in which he is on about the same footing with others around him. But nearly everyone has also some 'particular' markets; that is, some people or groups of people with whom he is in somewhat close touch: mutual knowledge and trust lead him to approach them, and them to approach him, in preference to strangers."[72]

Encouraging Initiative While Curbing Opportunism

Unique to the Resource-based view, opportunism is often an opportunity to extend the firm's interorganizational linkages to include a new but familiar business partner with known and consistent business behaviors. The idea derives from Marshall's concept of the external organization, the network of social, technical and commercial arrangements that link a business with its customers, suppliers and rivals.

In her 1995 edition of The Theory of the Growth of the Firm, Penrose cites the work of Oliver Williamson,[73] who describes and lends support to the evolution and growth of the multidivisional form, in which strategic decisions are concentrated in a general office at the top of a large enterprise, served by an "elite" staff whose function is to examine strategic options and exercise a general supervision over operating subsidiaries. Williamson' s analysis rests on the appraisal of transaction costs. He demonstrates the way in which firms can expand their managerial capacity and the type of organization required.

The key issue is incentive-compatibility: the distribution of knowledge may provide opportunities for individuals to gain by concealing or misrepresenting their private information, while reducing overall efficiency. However, restoring efficiency allows for gains

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71 A. Marshall, Industry and Trade, p.604.

72 A. Marshall, Industry and Trade, p. 182.

73 Oliver E. Williamson, The Economic Institutions of Capitalism: Firms, Markets and Relational Contracting (New York: Free Press, 1985),

all round, and so 'farsighted contracting' permits the design of incentive structures which ensure disclosure of private information, if necessary by putting the owner of this private information in charge.

Penrose also cites Christopher Bartlett and Sumantra Ghoshal's[74] "managerial theory of the firm." In their model, the creation of a high degree of trust, extensive socialization of personnel to the values of the firm, personal psychological incentives to excel in meeting targets, and effective networks of relationships throughout the firm are heavily relied on to maintain administrative cohesion.

Michael Jensen argues that the cost of transferring information makes it necessary to decentralize some decision rights in organizations. This decentralization in turn requires organizations to solve the control problem that results when self–interested persons do not behave as perfect agents. Jensen argues that three critical systems are necessary: (1) a system for allocating decision rights among agents in the firm, (2) a system for measuring and evaluating performance in the firm, and (3) a system for rewarding and punishing individuals for their performance. These concepts offer a major competitive advantage for organizations.[75]

Fundraising for Investment

In a Resource–based view, raising funds for acquisitions/investment, when necessary, is part of the managerial or entrepreneurial task. This task might be accomplished through an 'external organization' in which the raising of funds is relatively easy – or through intrafirm boards that review and approve fundraising projects to safeguard against opportunism and to consider the potential project in light of its larger effect on businesses currently managed by the company.

[74] Christopher Bartlett and Sumantra Ghoshal, "Beyond the M Form: Towards A Managerial Theory of the Firm," Strategic Management Journal, (Winter 1993).

[75] Michael Jensen, Foundations of Organizational Strategy (Cambridge, MA: Harvard University Press, 1999).

Chapter 3: Methodology and Sources

Introduction

The primary aim of this dissertation is to analyze the strategic management of Jardine, Matheson & Company using Resource-based theory as the principal interpretive framework.

The dissertation covers two periods: the development of Jardine, Matheson's core capabilities from 1810 to 1906 and the international expansion of Jardine, Matheson's businesses and markets from 1961 to the present.

The types of research questions asked by this study – "how and why" questions predominantly about a contemporary set of events over which the investigator has little or no control – suggest that an explanatory case study approach be used.[76] The "case" is the applicability of Resource-based theory to the interpretation of strategic management in Jardine, Matheson.

The unit of analysis in this case study is the strategic management of a single firm. Comparison with firms operating in the same markets, in similar businesses, making similar decisions over the time period covered in this study, are frequently used in this dissertation to provide a larger view.

The research design involved these six steps:

- Identifying a set of questions key to the research;
- On the basis of these questions, framing hypotheses that support a Resource-based interpretation or suggest an alternative interpretation;
- Analyzing the hypotheses to structure an approach to the research;
- Using hypotheses to gather relevant data and summarizing it into findings;
- Synthesizing the results of the data gathering to create case study databases;
- Using the case study databases to structure data analysis and composition.

The chapter and its discussion of methodology and sources is structured as follows:

Chapter 3: Section1: Key Questions and Hypotheses identifies some significant questions important to understanding strategic management in Jardine Matheson and

[76] Robert K. Yin, Case Study Research: Design and Methods (Sage: Applied Social Research Methods, Vol. 5, 1994), p.4.

proposes a set of hypotheses valuable to evaluating alternative Resource-based, Harvard or Chicago school interpretations.

Chapter 3: Section 2: Four Tests of Validity and Reliability examines the kinds and use of information sources to establish the quality of the research design.

Chapter 3: Section 1: Key Questions and Hypotheses

As stated in Chapter 1, this study attempts to answer some significant questions about strategic management at Jardine, Matheson & Company. The questions are:

- How and why did Jardine, Matheson's founders and managers develop particular resources and services? (Question 1)
- What internal (including the firm and its agents) and external (including government, social policy, competition, new entrants, buyers and suppliers) factors were responsible for their choices? (Question 2)
- The firm's choices met with some notable successes – and some notable failures. How are the firm's failures explained? (Question 3)
- At the firm's origin – and again after WWII and the Korean War – there were as yet no markets in Asia, in the sense of market institutions. What role did the firm play in the development of markets? (Question 4)
- What was the organizational structure of the firm, including both internal and external, that allowed for consistent business routines and promoted organizational learning? (Question 5)
- How did Jardine, Matheson promote managerial initiative while curbing opportunism? (Question 6)
- How did Jardine, Matheson raise funds for growth? (Question 7)

Each of these questions deals with an issue of significance for firm behavior: the basis of strategic choice; internal and external factors leading to resource and service choices; failures; role of the firm as an innovator, creating markets; the firm's architecture – its internal and external relationships and organizational learning; the promotion of managerial initiative and reduction or perception of opportunism; and fundraising for new projects or growth opportunities.

The answer to each question was framed as a hypothesis, articulating what would be true if Resource-based theory were a proper explanation of strategic management at Jardine Matheson. For each Resource-based hypothesis, a corresponding Harvard or Chicago school explanation was offered. The hypotheses were then grouped into issue "buckets."

Basis of Resource/Service Choice (Question 1)

Hypothesis 1 (RBV): Jardine, Matheson's founders and subsequent senior managers made strategic choices aimed at developing and applying profitably their distinctive capabilities.

Hypothesis 1a (Harvard): Jardine, Matheson's founders and subsequent senior managers made strategic choices aimed at achieving competitive advantage through the creation of monopoly positions in their chosen markets by erecting entry barriers and eliminating existing competitors.

Hypothesis 1b (Chicago): Jardine, Matheson's founders and subsequent senior managers made strategic choices aimed at reducing the cost of production through vertical integration.

Internal and External Factors Responsible for the Firm's Resource and Services Choices (Question 2)

Hypothesis 2 (RBV): Jardine, Matheson's choice of resources and services for development and growth derive from the very special business, social and political environment into which Jardine, Matheson entered, and the firm's concentration on building up a pattern of relationships within and outside the business which would foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners.

Hypothesis 2a (Harvard): The specific advantages of Hong Kong and the cluster of expatriate competitors clustered there – and the demand they sought to satisfy – had more influence on Jardine, Matheson's resource and service portfolio than the firm's explicit management choices.

Hypothesis 2b (Chicago): Jardine Matheson's choice of resources and services was based on ownership opportunity – enhanced by the British rule of law in Hong Kong which enabled and protected private ownership.

Explanation of Failure (Question 3)

Hypothesis 3 (RBV): Jardine, Matheson's strategic choices were based on the development of distinctive capabilities. When the firm's strategy failed, that failure can be attributed to a misunderstanding, either of their own capabilities were or as to what capabilities were needed in a new market.

Hypothesis 3a (Harvard): Jardine, Matheson's strategic choices were based on the pursuit of monopoly positions. Where the firm's strategy failed, failure can be attributed to changes in industry structure that could have been predicted – and avoided by investment in entry barriers, signaling and pricing strategy.

Hypothesis 3b(Chicago): Jardine, Matheson's strategic choices were based on the pursuit of ownership advantages. Where the firm's strategy failed, the firm was trapped into short term, higher cost contracts that did not provide the cost and time efficiencies possible through direct ownership.

Role of Jardine, Matheson in Creating Markets (Question 4)

Hypothesis 4 (RBV): There are only rudimentary market institutions. Jardine, Matheson's communication (through reports, a weekly newspaper, etc.) of internal routines to customers and business associates will encourage the development of the capability for buyers and sellers to be in such free interaction that the prices of the same goods will tend toward equality easily and quickly.

Hypothesis 4a (Harvard): There is already a market, if fragmented, in which Jardine, Matheson is the major player. The firm's goal is to get all of the market for itself by signaling strategy, erecting entry barriers, encouraging competitors to leave – or buying them out.

Hypothesis 4b (Chicago): There is already a market, if fragmented, and there is a set price for the object that Jardine, Matheson sells. It is the firm's business to produce as cheaply as possible. Creating a market means increasing demand and sale of already existing products by being more efficient and reducing prices to increase total sales and profits. Jardine, Matheson can do that through large scale ownership.

The Architecture of the Firm and Organizational Learning (Question 5)

Hypothesis 5 (RBV): Jardine, Matheson's founders and subsequent managers developed an "architecture" or "administrative framework" for learning and collaboration. This framework included interorganizational linkages for risk reduction and learning important for developing capabilities, trustworthiness, consistent patterns of behavior and effective forms of governance. It was part of interorganizational succession planning that managers could be moved from one geographical area to another, one function to another, with enhanced effectiveness and without disruption of the business.

Hypothesis 5a (Harvard): Firm architecture is a response to industry structure, which has a strong influence in determining the competitive rules of the game as well as the strategies potentially available to the firm. It's about competition. Learning is based on a rigorous analysis of the market, the industry and the strengths and weaknesses of competitors.

Hypothesis 5b (Chicago): Firm architecture is a way of increasing efficiencies and rents through ownership or long-term contracts that keep transaction costs low. Firm architecture promotes and encourages organizational learning – specifically knowing how to resolve minor problems arising from contracts, for example, and what the rules are for effective contract administration. A further example, learning also takes place in the production area where it is accomplished through on the job training or more formal training and education.

Encouraging Initiative While Curbing Opportunism (Question 6)

Hypothesis 6 (RBV): Unique to the Resource-based view, opportunism is often an opportunity to extend the firm's interorganizational linkages to include a new but familiar business partner with known and consistent business behaviors.

Hypothesis 6a (Harvard): Initiative is rewarded and opportunism curbed by managerial bonuses based on over-achievement of results.

Hypothesis 6b (Chicago): Similar to the Harvard school, recognizing that agents are effort averse, owner-managers must have paid higher bonuses or provided better benefits to attract and retain the best managers to grow its business. The point of view is based on the quid pro quo nature of contracts.

Fundraising for Investment (Question 7)

Hypothesis 7 (RBV): Raising funds, when necessary, is part of the managerial or entrepreneurial task. This task might be accomplished through an "external organization" in which the raising of funds is relatively easy – or through intrafirm firm boards that review and approve fundraising projects to safeguard against opportunism and to consider the potential project in light of its larger effect on businesses currently managed by the holding company.

Hypothesis 7a (Harvard): In the Harvard view, there are internal routines for analyzing the market, competitors, and new entrants as well as the needs of buyers and sellers. New projects would be put through a rigorous competitive analysis.

Hypothesis 7b (Chicago): In the Chicago view, there are internal routines for fundraising for projects. Managerial initiative and opportunism are handled through rigorous cost/benefit analysis, the establishment of hurdle rates and bonuses are based on project returns.

The data collected were matched to the key questions and hypotheses and plotted on a data matrix, described in the internal validity section below.

Chapter 3: Section 2: Four Tests of Validity and Reliability

This dissertation follows Robert Yin's[77] criteria for judging the quality of research designs, including four tests of validity – **construct validity, internal validity, external validity and reliability**.

Construct Validity requires the use of multiple sources of evidence and the establishment of a chain of evidence during the data collection phase of case study research. Sources of evidence used in this study are *archival records, documentation, physical artifacts and interviews.*

Archival records are a principal source for the history of the firm, and the development of the firm's early competencies discussed in Chapter 4, was the Jardine, Matheson & Company Archives, housed at Cambridge University Library. They occupy some 1000 square feet of shelf space and provide a complete record of the firm through 1906. From the Jardine records, it was possible to identify how the firm adapted itself to the special conditions of trade with China and emerging Asian markets, to outline the firm's development as an agency house, its commission business in trade and the service of trade, and its business as merchant investor, against a broad economic, social and political background.

The Jardine, Matheson archives predate the formal constitution of Jardine, Matheson as a partnership by some 22 years, since the firm's founding partners were both employed by Magniac & Company. The early correspondence provides insight into the practices, agent and supplier relationships, markets and products which James Matheson and William Jardine inherited and built.

The format of the correspondence is volumes of bound letters, boxes of unbound letters and microfiche. The correspondence is organized chronologically, by manager (Taipan), by geographic area and by market. A plan of the organization of the Archives is available to researchers who have secured the firm's permission to access the records. The fragility of the correspondence, worm-eaten and mildewed from storage in the back rooms of a Hong Kong warehouse or go down before its arrival at Cambridge University, is partially responsible for Jardine, Matheson's interdiction against photocopying. A second reason shared with me by the Manuscripts Librarian was the firm's desire to maintain a single repository of original correspondence at Cambridge – not duplicate sets of photocopies in libraries around the world.

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77 Robert K. Yin, ibid. p. 32.

The correspondence is handwritten, much of it in a large, loopy, florid style popular during the early to mid 1880s. Some of the originals are badly faded and are available only on microfilm.

The letters fall into two main groups, general correspondence and private letters. General correspondence includes letters reporting receipt of an order or advising of a delivery – or, alternatively, circumstances delaying a delivery. These are largely unsigned letters or letters bearing the "house" name. Of the more than 180,000 letters only some 4000 are private letters.

The private letter books of James Matheson, William Jardine and their successors provide rich detail on the way information was shared among correspondents and agents; the thinking of the founders about their business; the training of agents and office staff and the disciplining of agents; the meaning of social and political events and the response the firm should make to these events, the opening of markets and the status of investments in business and technology.

These are signed letters to and from major suppliers and agents. I read all of the private letters, copying large passages or whole letters into lined copy books in No. 2 pencil per the regulations of the Cambridge University Library Manuscripts room, creating a record for myself that was nearly as fragile and frequently as indecipherable as the original manuscripts themselves!

I chose to copy letters and passages that illuminated a situation requiring interpretation and a decision to act, why it was taken, how it was implemented and with what result. Hence, my record is biased toward management thinking. A sampling of the letters is given in **Appendix A: Jardine Matheson Archives, Management Issues 1810-1906**, at the end of this dissertation.

A second source of information on the early firm is The Canton Register, the first English language newspaper in China, founded by James Matheson in 1827. Originally intended as a monthly, the paper's subscribers pushed for a weekly newspaper, and within a few months of start-up, The Canton Register became a weekly. Its pages were filled with recent legislation, custom, ship arrivals and departures, advertisements of new businesses and ships for sale, and local and worldwide news of interest to the trading community and their families. Twice monthly, there was a update on prices in the marketplace called "The Price Current."

The Canton Register was published until 1846. The full newspaper record - some fifteen hundred pages of text - was obtained on microfilm from the U.S. Library of Congress.

The Jardine, Matheson Archive and the Canton Register provided the firm and industry data that inform Chapter 4.

The availability of monographs based on archival records of the Rio Tinto Company, Finlay & Company, Harrison & Crosfield, Butterfield & Swire, the Hongkong & Shanghai Bank, among others, permits a broader view of Jardine, Matheson & Company, its industry, its investments and its network of relationships.

Documentation and physical artifacts are used extensively in Chapter 5 to consider the growth of Jardine, Matheson & Company from 1961 to 1996. The chapter draws on the firm's Annual Reports, including the consolidated financials, the summary balance sheet and profit and loss statements of the major subsidiaries, the Chairman's letter and the Annual Report Essay, group structure diagrams and the principal subsidiary and associated company charts, where and when these were provided.

As a Company registered in Hong Kong and, after 1984 registered in Bermuda, Jardine, Matheson & Company was under no obligation to make its Annual Reports available to the general public. While the U.S. Library of Congress, British Library, Harvard University and the New York Public Library had discrete volumes covering a few of the 35 years, the complete record was made available to me at Matheson & Company in London.

For the sake of comparison, selected Annual Reports of peer firms like Swire Pacific, First Pacific, CITIC Pacific, Wheelock & Company and Hutchison Whampoa were obtained from several research sources.

Because of changes in accounting practice, most notably the move to equity accounting, the presentation of financial data in the Annual Report has undergone significant change. In 1981 it became necessary to summarize the balance sheet and profit and loss data for major subsidiaries in order to explain the impact on the consolidated balance sheet of the losses attributable to those businesses.

As Jardine, Matheson & Company began to grow, its internal and external organization are depicted in the Annual Report, including acquisitions of 20% or more of associated and subsidiary companies, their business lines and the geographies in which they operate.

- The charts that accompany Chapter 5 make use of all of the quantitative data to plot the management ratios relevant to operating performance, corporate liquidity and corporate value. The financial data are also used to value the firm under different scenarios and to chart Added Value;

- Acquisitions and restructurings during the study were charted to reveal the relative growth of the firm's business lines across geography and the duration of investments. See Chapter 6;

- Changes in governance and structure were tracked. See Chapters 5 and 7.

Interviews and discussions were used to gain insight into firm decisions from 1970 to 1996. My advisor and guide to the history of Jardine, Matheson & Company post-1961 was Jeremy Brown, formerly managing director of the firm, under senior managing director, David Newbigging. Brown was a steward of the firm during its period of greatest and broadest expansion. Currently, Jeremy Brown is a director of Matheson & Company in London. I had three meetings with him during the research period and exchanged letters. Mr. Brown provided me WITH access to the Jardine, Matheson Archives at Cambridge University and allowed me to review the complete Annual Reports of the firm at the offices of Matheson & Company in London.

During the third of my meetings with Jeremy Brown, I asked him the series of questions that Chris Bartlett and Sumantra Ghoshal had asked some nine companies in research supporting Nitin Nohria and Sumantra Ghoshal's 1997 <u>The Differentiated Network, Organizing Multinational Corporations for Value Creation</u>, discussed in Chapter 7.

To interpret the acquisition and investment environment, as well as accounting practices of the 1970s and 1980s, I relied on Paul Albert, senior investment counsellor with Prudential Securities Far East, who lived and worked with the small but influential circle of Hong Kong's corporate and government leaders that included the Governor, Jardine, Matheson, The Hongkong & Shanghai Bank and Hong Kong Telephone.

Mark Nichols, research librarian, Cambridge University Library, shared with me the recently finished catalogue of the Jardine, Matheson Archive, from which I was able to develop a comprehensive view of the incoming and outgoing correspondence by market.

Internal Validity is established during the data analysis stage of case study research, during which the data collected are logically linked to the hypotheses, and criteria established for interpreting the findings. For the Jardine, Matheson case, we looked for corroborative evidence for the Resource-based view (Hypotheses 1-7) or alternative plausible hypotheses 1a-7a (Harvard view) or hypotheses 1b-7b (Chicago School). We plotted the evidence for each hypothesis on a data matrix.

The data matrix tracks hypotheses, data, sources and methods on a single X-Y grid. Listed along the Y-axis are the hypotheses and related questions that help target the data needed.

Along the X-axis are the sources that might be able to support the hypotheses or answer questions. The crosscheck column is used to ensure verification. The template appears below.

Data Matrix

	ISSUE:				PAGE ___ OF ___
DATE:	HYPOTHESIS:				
	SOURCES:				CROSS-CHECK: YES NO
DATA NEEDS	Firm Principal Interview	Jardine Matheson Archive	Industry Expert Interview	Comparative Research	
Q1	X	X			YES
Q2			X		NO
Q3	X	X		X	YES

Reliability and replicability are also built into the case design. The letters that inform Chapter 4 are available in the Jardine, Matheson Archive; a sample of the letters is included as **Appendix A**. Jardine, Matheson's investments and acquisitions – including lines of businesses, primary SIC code, country of origin, ownership percentage – are captured in a 150 page database. A truncated version of this database is attached as **Appendix B**.

The previously mentioned data matrix provides the opportunity to verify the logic and conclusions of this dissertation and to replicate the instrument in other studies.

The search for objective criteria for interpreting the findings led to John Kay's[78] strategic audits of the firm and the industry. These very structured, detailed analytical tools result in a multidimensional and revealing characterization of changes in the external or industry environment and the ability of the firm to accommodate, adapt or change to succeed in the

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[78] John Kay, Foundations of Corporate Success (Oxford: Oxford University Press, 1994), pp. 283-320.

new environment. The audits pose a series of questions suitable for the creation of "table shells" for arrays of data that provide insights into:

- **changes in the use and value of Jardine, Matheson's resources from one period to the next**. For example Jardine's change in strategy from ship-owning to shipping services, with the sell-off of costly to maintain physical assets and new focus on services;
- **the capabilities or organizational routines that have been the source of competitive advantage to the firm**. The core competencies of the firm, developed during the early period were identified and compared with their use or extension during the later period;
- **the internal and external organization of the firm - how relationships developed and changed from the early to later period.** Changes and use of management resources, organizational form and governance as well as relationships with buyers and suppliers were charted and analyzed;
- **the firm's response or adaptation to its environment**, including the major strategic groups, industry and market trends, regulatory environment, market served, value chain, consumer demand, was identified and compared from one period to the next.

External Validity is always problematic when a single case is studied, nevertheless a level of generalizability is achieved through the comparison of Jardine, Matheson and Company with other Hong Kong firms of the early and later periods, as well as with 3887 multinational firms whose acquisitions and divestitures were studied by Khemani in 1991[79]. Similarity or complementarity of acquisitions was analyzed using the standard industrial classification (SIC) code, which categorizes establishments into industries (2-digit codes) and industrial groups (4-digit codes) on the basis of raw materials, production processes, and end uses. The SIC analysis of acquisitions over the period 1972-74, 1975-1977, 1983-1984, 1988-1989 permits a comparison of Jardine, Matheson's acquisition strategy with that of the multinational firms studied by Khemani, who also used SIC analysis to interpret acquisitions and divestitures over the same period.

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[79] R. Khemani in Waverman, Leonard, ed. Corporate Globalization through Mergers and Acquisitions. (Canada: University of Calgary Press, 1991).

The skills required by Jardine, Matheson and Company's acquisitions are compared with the skills of multinational firms studied by Moshe Farjoun.[80] Again using SIC codes, and based on the United States Department of Labor Office of Employment Statistics (OES), each industry or line of business is viewed as a combination of occupational skills or bodies of knowledge required to produce a product or services. Consequently, the relatedness of different industries is determined by similarity in skill combinations. Jardine, Matheson's original and acquired businesses were grouped into 2-digit and 4-digit SIC codes and OES industry and occupational data were used to identify the skills required by each of these businesses. The analysis allowed Jardine, Matheson's acquisition strategy to be compared with that of the manufacturing firms studied by Farjoun.

[80] Moshe Farjoun, "The Independent and Joint Effects of the Skill and Physical Basis of Relatedness in Diversification," Strategic Management Journal, Vol. 19, No. 7 (July 1, 1998), pp. 611-630.

Chapter 4: Jardine, Matheson & Company, 1810-1906: Resource and Services Choices, Contributing Factors, the Development of Market Institutions and Fundraising for Investment

Introduction

As noted in Chapter 1, Section 2, the early Jardine, Matheson & Company was the inheritor of administrative routines and a network of trading relationships that grew out of the very special business, social and political environment in China during the early nineteenth century. The opportunity – as well as the uncertainty – of the China trade made profitable a range of services to businesses and individuals that protected their investments and shipments, while Jardine, Matheson & Company absorbed the risk. The firm was in a position to do this so long as it did not invest in the commodities in which it traded or which it insured. Fundamental to Jardine, Matheson's success and the relationship it built for financial probity was the fundamental strategic decision to eschew speculation and to concentrate on building up a pattern of relationships within and outside the business which would foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners.

Chapter 4 deals with the early history of Jardine, Matheson & Company. In telling that story, the chapter includes the firm's early resource and services choices, the internal and external factors responsible for those choices, the development of routines for the functioning of the various markets which Jardine, Matheson was helping to develop, and managerial fundraising for new opportunities, particularly in the late 1800s.

The early history of Jardine, Matheson & Company is known from letters sent to and from the firm to suppliers and agents, some 183,000 letters, as well as account books, ledgers, telegrams and memoranda. The letters are an underlying resource of this firm, because all firm activity – including management, discipline, market information and training as well as order fulfillment – was based on written correspondence, copies of which were faithfully and more or less carefully preserved. The collection includes 31,000 from the period 1810-1850, and 142,000 from 1850-1906. During the period 1810-1850, 22% of the letters were to China; 35% to India, 16% to London or Great Britain, 24% to the East Indies, 9% to Macao, and 4% to other locations. Over the whole period, from 1810-1906, 40% of the letters were addressed to Hong Kong/China, 17% to London/Great Britain and 15% to India. Some 3,114 letters were signed by the partners. See **Chart 1: Frequency and Distribution of Letters, 1810-1906**, at the end of the chapter.

The tradition of management letters, as well as their maintenance for future use, began with the British East India Company, as early as 1600, and in China as early as 1723, as shown by the records in the British Museum. The letters in the Jardine, Matheson collection start from 1810. They are the letters of the firm's progenitors who developed and maintained a seamless correspondence with suppliers and agents that was unbroken by the death or removal of one partner and his replacement by another. This continuity and stability was important to the reputation as well as to the architecture of Jardine, Matheson & Company.

Chart 2: Categorization of Correspondence, below, shows how the subjects covered in the private letters were categorized for study and interpretation.

Chart 2: Categorization of Correspondence

THE FIRM	THE MARKET AND THE INDUSTRY
• Role of managers in the Firm	• Capital resources
• Training of agents and office staff	• Knowledge resources
• Disciplining of agents, staff	• Physical resources
• Structure of the partnership	• Correspondents
• Market knowledge	• Kinds of products
• How market knowledge was shared	• Kinds of services
• Relationship with correspondents	• Location, number of markets
• Relationship with Chinese business class	• Investment in technology development
• Relationship with and participation in government	• Investment in new businesses
	• Competitors
• Participation in industry organizations	• Demand Conditions

The chapter is divided into four sections:

Chapter 4: Section 1: Resource/Services Choices and Origins of Market Institutions looks at the services required of private traders and the establishment of market institutions in a commercial atmosphere of high risk and volatile political conditions.

Chapter 4: Section 2: Internal and External Factors Responsible for Resource/Services Choices looks at the establishment and communication of decision rules that allowed the firm to build and protect its reputation for sound financial management and network of trading relationships. The section also deals with the firm's evolving relationship with government.

Chapter 4: Section 3: Fundraising for Growth: From Joint Stock to Free-standing Investment House looks at Jardine, Matheson's changing role as investor with partners in the development of China and the ASEAN.

Chapter 4: Section 4: Jardine, Matheson's Resource/Services Choices, Contributing Factors, Development of Market Institutions and Fundraising Mechanisms: A Resource-based Interpretation summarizes key research findings for the early period in light of four of the seven questions posed by this dissertation. (For consistency, the order and numbering of the questions remains constant throughout the document).

- How and why did Jardine, Matheson's founders and managers choose to develop particular resources and services? (Question 1)
- What internal (including the firm and its agents) and external (including government, social policy, competition, new entrants, buyers and suppliers) factors were responsible for their choices? (Question 2)
- What role did Jardine, Matheson play in the creation of market institutions? (Question 4)
- What mechanisms did the firm put in place to raise funds for investment? (Question 7)

Section 4 also compares the proposed Resource-based interpretation of Jardine, Matheson's strategic decisions, based on capabilities and the management of uncertainty, with the monopoly and ownership/efficiency explanations suggested by the Harvard and Chicago school views respectively.

Chapter 4: Section 1: Resource/Service Choices; Origins of Market Institutions

The origins of Jardine, Matheson & Company's early resource and service choices and incipient market institutions - established to create a stable environment in which trade could flourish – lie deep in the late 18th century. The East India Company was then the dominant player in the China trade. Piracy and storms at sea threatened the security of shipments, and conditions in China prohibited merchants from moving beyond a narrow trading sector. The East India Company was banker, broker and insurer – minting its own money, insuring shipments, and maintaining a militia for the protection of the merchant community. When the East India Company lost the monopoly on trade, banking, financing and insuring functions, which had protected and facilitated trade, were left to be carried on by the emerging private trade.

Early resource/services choices and the development of market institutions were necessitated by the gap left by the East India Company, and these are nearly impossible to separate from the trading environment.

The Origins of the Private Trade: Early Market Institutions

Through 1842, the East India Company, by virtue of a Royal Charter, held the monopoly of the trade between Great Britain, India and the Far East. From China the company imported tea to meet the increasing consumption in Europe. Trade with the Chinese was difficult. The foreign traders were limited to a small plot of land, Canton, on the banks of the Pearl River. They were permitted to deal only with Chinese merchants who were officially sanctioned by the government. These Chinese merchants were known as "cohongs." The Manchu government believed that China already possessed everything in abundance and had no need for the products of "foreign barbarians," as government documents referred to the European traders.

China's self-sufficiency couldn't have happened at a worse time for British manufacture. Large-scale, low-cost British manufactures, especially cotton, created a domestic surplus that had to be sold abroad, even at a loss to maintain the volume of output. Even offered at a loss, the Chinese were not buying.

Unable to make money selling manufactured goods to the Chinese, private traders associated with the East India Company began smuggling opium into China aboard ships chartered in Calcutta. All of the opium was in fact produced in India under the direction of the East India Company, but was not distributed by the Company. Such a sale would have risked the East India Company's charter for the legitimate business with China. Instead, private merchants licensed by the East India Company, like Jardine, Matheson & Company and its progenitors conducted the trade.

Jardine, Matheson & Company and peer companies exchanged the silver proceeds they would receive for opium for bills drawn on the chartered company in London and India, thus completing a triangular transaction and eliminating the need to ship large quantities of coin from Europe to China.[81]

Like Palmer's and Dent and Forbes, among others, Jardine, Matheson became a house of agency with many other associated private merchants in Canton.[82] While the agency house was primarily a trading firm, like the East India Company, the firm also acted as banker, bill-broker, ship owner, freighter, insurance agent and purveyor, maintaining commercial and financial connections with its branch houses or agents all over the world.

The partners within an agency house had often begun their professional lives with the East India Company. For example, William Jardine, born in 1784 in Dumfriesshire, Scotland, a student of medicine at Edinburgh University, went to work for the British East India Company as a ship's surgeon. He met and became a partner of Magniac & Company, a trading firm in Canton, China. Magniac & Company was descended in an unbroken line from the first trading firm permitted by the British East India Company to trade privately and enjoyed an extensive list of "correspondents" for supply and distribution. A few months later he was joined by James Matheson, son of a Scottish baronet, who had for several years served as Danish consul in China.

General merchants and commission merchants like the early Jardine, Matheson were in direct and daily contact with world suppliers in London, Liverpool, Glasgow, Calcutta, Straits, and indeed China (although through the intermediation of the co-hong). The demand for raw materials and foodstuffs for use in Asia as well as for export was increasing so rapidly – and money was so available – that investors deposited money directly with the agency houses for a fixed rate of interest.

Unlike the East India Company, agency houses were not joint stock companies. They were personal partnerships, preferred to individual ownership because, in the event of death, the firm would not come to an end. In 1831, when his nephew Hugh was about to become a partner in Calcutta with Charles Lyall, James Matheson wrote on the merits of a partnership.

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[81] Account of sales, charges and net proceeds of opium. Hong Kong, May 18, 1846. JM A8/77/7.
[82] Letter from Fergusson & Co. to Charles Magniac & Co. in Canton. Calcutta, April 14, 1825. Jardine Matheson Archives B6/5/164, Cambridge University Library. Hereinafter, the Jardine Matheson Archives will be identified as JM.

The arrangement, he said, allows "greater confidence resulting from not having to rely on a single life will induce your friends to greater business."[83] The partnership, based on the principal-agent concept in English Common Law, was loose and individual partners were allowed to have separate dealings on their own account, also known as "speculation." When James Matheson set up his nephew in Calcutta in 1831 it was "on the express understanding that the house is one of mere agency, and that above all you must abstain from speculating in that most treacherous of articles, indigo, which has entailed ruin to so many, while a fortunate few have made money by it."[84] For a young house "pure commission business" was best, because "income comes to you without asking in the snug way of the China business."[85]

The agent charged commission on every kind of service provided to his principal. On March 1, 1825, rates were established by a Meeting of the Canton Agents and confirmed in November 1831.[86]

Commissions Charged by Agents

(1) On sale of opium, cotton, cochineal, quicksilver and precious stones; and of ships house	3%
(2) On sale or purchase of all other goods	5%
(3) On returns (including cost and freight) in goods	2½%
cost and freight of Treasure or Bills	1%
(4) On the sale, purchase or shipment of Bullion	1%
(5) Guarantee of bills, bonds or other engagements	2 ½%
(6) Ship's disbursement	2 ½%
(7) Effecting insurance	½%
(8) Chartering ships for other parties	2 ½%
(9) Receiving inward freight	1%
(10) Obtaining outward freight	5%
(11) Settling insurance losses	1%
(12) Negotiating bills of exchange	1%
loans on respondentia	2%
(13) Debts, where a process at law or arbitration is necessary	2 ½%
Debts if recovered	5%
(14) Managing estates of others	2 ½%
(15) Acting as Executors for estate of persons deceased	5%
(16) Transshipping goods	1%

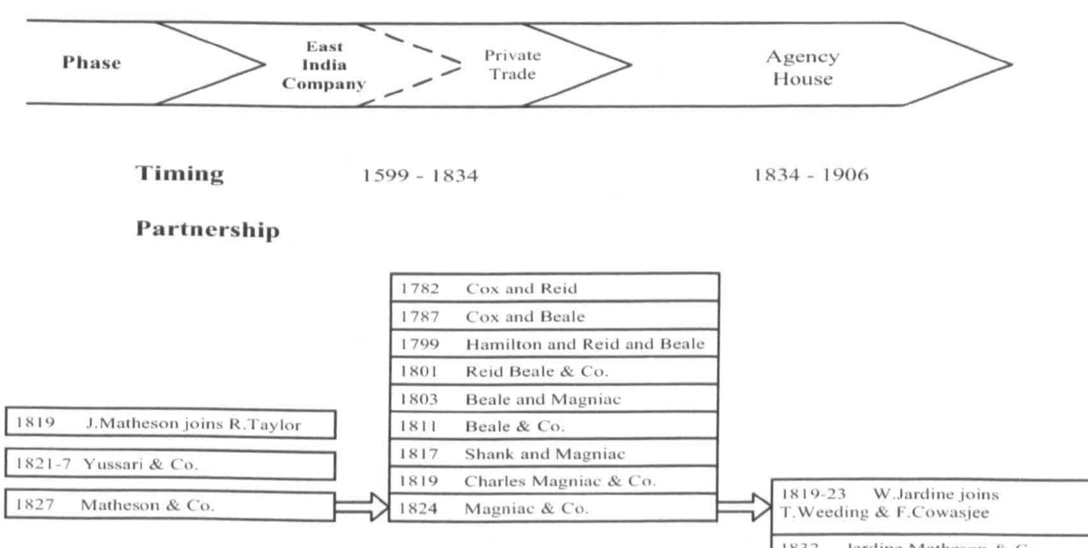
Source: Hosea B. Morse, *Chronicles of the East India Company Trading to China*, III, Yale, 1926-29.

83 Letter from James Matheson to Hugh Matheson, November 7, 1832. JM, C5/1.
84 Letter from James Matheson to Hugh Matheson, November 4, 1982. JM, C5/1.
85 Letter from James Matheson to Hugh Matheson, May 9, 1832. JM, C5/1.
86 ILB. JM, September 10, 1828.

The Commission system set a precedent for the emergence of the agency house as an investment group, using these deposits and some limited trading profit to invest in indigo factories, sugar plantations, ships, agricultural and building speculations, docks, and loans to other mercantile houses, at reduced risk and for potential wealth.

As a result of the pure commission basis of their business, the partners required little working capital, since they operated on the capital of the shippers. Speculation in opium or indigo would have involved borrowing from the Hong merchants on strict terms of 1-1/2% interest a month. The partnership document of Yrisarri & Co. stated: "The attention of the partners (X. Yrisarri and J. Matheson) is to be primarily devoted to Agency, not, however, excluding safe speculation on the spot, but adventures to other places are to be considered rather as an exception to their line of business than as properly belonging to it. Profits are to go to a joint account, from which it shall be allowed to neither to withdraw for his separate purposes more than $5,000 per annum, leaving the remainder to accumulate until the termination of the partnership, when it shall be equally divided." See **Chart 3: Evolution of the Private Trade,** below.

Chart 3: Evolution of the Private Trade



When a partner withdrew, the house was not dissolved, although its name was changed. Other partners were admitted who enjoyed the established credit, the relationships and routines, and the financial resources of the house. Credit, relationships, routines and financial resources were passed along seamlessly from Cox and Beale to Magniac and Beale to Magniac & Company. When Jardine, Matheson & Company came into being on July 1, 1832, it was an amalgam of three successful interests – Jardine, Magniac and Matheson – with an extensive clientele ranging from Europe to Australia and Latin America, a substantial opening balance and some fifty regular correspondents in Bombay and almost as many in Calcutta.[87]

Need for Credit Led to Banking Capability and Market Institutions

From the beginning of the private trade, banking operations were carried on by the Canton agency houses. Since there were no European banks in China, the merchants had to be financiers. The granting of credits was indispensable to the distant commercial transactions of the China trade. Advances were granted at 1% per month and in the form, not of cash, but of accepting Bills of Exchange drawn on themselves or on their London agents. Exchange banking evolved directly from the China trade because it was dependent on remittance and subject to currency variations. A deposit and loan business was developed, owing to the nature of the money market at Canton, which allowed for an extremely high rate of interest. The Hong merchants were the principal borrowers. They were charged 1-1/2% a month and up to 40% per annum.[88] "Nabobs" and Captains of Indiamen sent their private fortunes made in India to the merchants of Canton, and kept the money on deposit until they returned to England or died. To a Mr. Robertson who left $3000 in the hands of Reid, Beale & Co., the firm wrote: "We pay 10% per annum interest on deposits and beg you to inform us if interest is to be remitted annually or to accumulate here."[89]

In addition to deposit banking, the Canton agency houses engaged in a variety of financial operations arising from the need to remit funds continuously from China to India and England to balance the trade, including:

- high-interest, short-term loans called "respondentia" bonds," granted to shippers in Canton to help them purchase an export cargo and charter a vessel. The money was to be repaid in India within a fixed number of days after landing the cargo, which was security for the loan;

[87] JM C1/1-4, C2/1-5.
[88] Hosea B. Morse, Chronicles of the East India Company Trading to China, III. (New Haven: Yale University Press, 1926-9).
[89] JM April 28, 1801

- the purchase of "[British East India] Company Certificates" in exchange for payment in London at a rate of exchange fixed by the Court of Directors. The private merchants paid a high premium for these certificates, which were available in limited amounts and were fully paid out at 12 months and half at 6 months.
- payment in Chinese silver ingots – profitable because they were 15% purer than silver dollars which were smuggled out of Macao or Lintin.
- remittance of funds through American traders, because American traders had always been obliged to bring large quantities of cash to Canton with which to purchase teas and silks.

For example, Magniac & Company would pay its India suppliers with drafts on Magniac's London agents, guaranteed by bills of lading for American cotton and other goods received from American agents in exchange for teas and silks. During the remittance crisis of 1826-27 Magniac & Co. wrote: "we have taken up a considerable amount of the Bank of U.S. Bills on Baring Bros. & Co., London." By 1830 half of the value carried by U.S. vessels to China consisted of Bills on London. Bills of John Jacob Astor, Stephen Girard of Philadelphia or those drawn under letter of credit from Baring Bros. were always negotiable in Canton.

Building Distinctive Capability: Jardine, Matheson's Reputation for Financial Probity

A regular supply of American Bills on London changed the remittance situation. In a circular letter of 1831 to Bombay firms, Jardine, Matheson said "It is generally in our power to remit funds to England on more advantageous terms than can be effected in Bombay." Jamsetjee Jeejeebhoy and Sons, the largest trade constituent of Jardine, Matheson & Company, remitted to London through China about £150,000 a year. American drafts in London gave the private trade financial independence from the East India Company.

The practice of resorting to American Bills on London lessened Jardine, Matheson & Company's exposure during what became known as the Calcutta credit crisis for 1829-34.

The story of Jardine, Matheson's relative escape from the credit crisis is an example of the power and use of information as a resource. All of the other Agency Houses suffered losses or failed, including Palmer & Co., Alexander & Co., Mackintosh & Co., Colvin & Co., Fairlie & Co., London & Calcutta, Richard Mackintosh & Co., London, among others. Dent & Company was unprepared for the failure of Palmers in 1830. According to James Matheson, the origin of the bitter feud between Dents and Jardine, Matheson & Company lay in Jardine; Matheson's withholding of the correspondence, brought from Calcutta in a Jardine clipper, of the news of the failure of Palmers.

In 1832 James Matheson wrote about Jardine, Matheson's financial policy to his nephew Hugh. "Of the bills which we endorse, those on Baring Brothers & Co. are always drawn under credits either from themselves or their attorney at New York, Mr. T.W. Ward, who has authority for the purpose. Other bills are drawn under credits from a known capitalist John Jacob Astor of New York, who owns lands almost equal to a principality in the United States. Bills on Gledstone, Drysdale & Co. are either drawn under credits from them or on the security of bills of lading for goods.... Mr. Thomas Weeding on whom we draw is a merchant possessed of at least a lack of pounds sterling. Thomas Wyatt on whom we also pass bills is a still greater capitalist 'tho only an oilman. Then there are Messrs. Spode and Copeland, Chinaware men of solid wealth and you may have seen some of our bills on them also. On the whole, we feel that we are now committing ourselves with people of far greater solidity than those whose bills are vaunted forth at 7/10 -1/2 at Calcutta. And if any disappointment should occur to us, divided as our risk is among various parties, it cannot but prove comparatively insignificant.... It may probably prove a useful preparation on future occasions of sending you bills with our endorsement to state who the drawers are, and the nature of the security on which we rely authorizing you at the same time to assure parties taking them that Fairlie Bonham & Co. will be prepared to take them in case of need for our honor. But as I have said before it is not likely that we shall trouble you with anything 'til we hear that credit is reestablished in the mercantile establishments at Calcutta.... Tell me how the bills of the United States bank are valued at your place, whether they would sell equally well with those of the first Calcutta houses. They ought in fact to sell as well as the Company's. The security to my mind is better."[90]

In 1835, Hollingworth Magniac established with John Abel Smith, M.P. and Oswald Smith, the firm of Magniac Smith & Co., of 3 Lombard Street. William Jardine, who claimed to be "fully aware of the wealth, respectability and high character of the parties," agreed to make them London agents with this reservation: "At no time shall it be expedient that we should give up the option of carrying on transactions with other London houses to a certain extent, however, giving a larger share of business to whatever house may act as our principal agents. The principal advantage we look to from our house connection is the certainty of our Bills being protected to whatever extent we may have occasion to draw in the course of any one season, without reference to immediately available assets to meet them." [91]

When William Jardine went home from China in 1839, he became a partner in the Lombard Street firm, which became known as Magniac Jardine & Co. when he bought out the Smith family. In 1848, James Matheson reorganized the firm as Matheson & Co.

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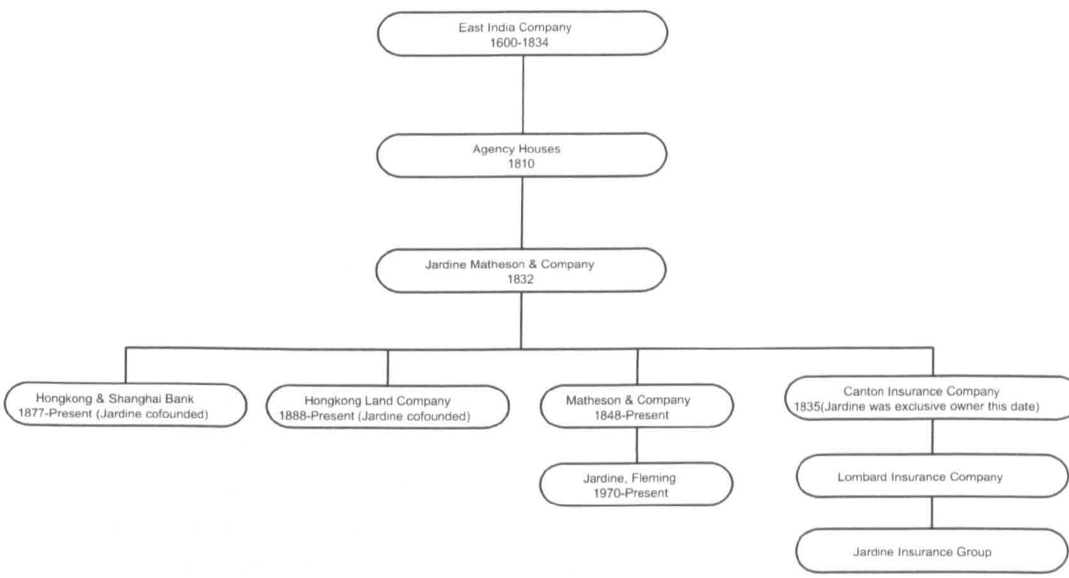
[90] Letter from James Matheson, April 25, 1832. JM, C5/1.
[91] Letter from James Matheson to William Jardine, February 9, 1835, JM, C5/3.

On the strength of its reputation and relationships, Jardine, Matheson & Co. was thus able to build a banking business, which on the withdrawal of the East India Company's Finance Committee from Canton in 1839, handled most of the lucrative exchange transactions arising from the China trade. Following the conclusion of the war and the cession of Hong Kong to Britain, Jardine, Matheson & Company began to finance shipments, open credit and offer general merchant banking facilities. See **Chart 4: Evolution of Financial Services,** below.

Chart 4: Evolution of Financial Services



So attractive were the proceeds of the banking business that Jardine, Matheson had therefore a vested interest in opposing the formation of the competitive Hongkong and Shanghai Banking Corporation in 1865. In 1895, William and James J. Keswick of Jardine, Matheson & Company, with Robert Jackson of the Hongkong and Shanghai Banking Corporation, formed the British and Chinese Corporation, which made financial arrangements for successive governments of China and, before 1911, constructed major railway lines in east central China.

Building Market Institutions to Insure Rich Cargo Against High Risk:

In addition to banking another major aspect of the agency business which sprang from the China trade was marine insurance. Insurance was indispensable in a trade of rich cargo and high risk. In 1801 there was no public insurance office of any kind in Canton, but several individuals would combine in temporary associations to underwrite a ship and its cargo up to $12,000. In 1805 the Canton Insurance Society was founded. This institution lasted thirty years and was managed alternately, every five years, by the Davidson-Dent house and that of the Beale-Magniac-Jardine firm. The concern consisted of a number of shares, usually 60, which were held by the managing agents in Canton and their friends in Calcutta and Bombay. These shares were much sought after since there was no limit to the responsibility of each shareholder, no cash deposit was exacted and the profits yielded a dividend of from $3,000-$4,000 a share. The main inducement to become a shareholder was the prestige and respectability it conferred. In 1832 Jardine, Matheson & Company as Managers of the 10th Canton Insurance Company, bestowed the Calcutta agency on their protégé, Lyall Matheson & Company.

The competition in "risks" was due to the fact that the principal agency houses in Calcutta and Bombay each had an insurance office of its own, likewise a co-partnership of commercial "friends" and their connections in the other centers. Fairlie & Co. were managers of the Calcutta Insurance Society, with Magniac & Co. as its Canton agent. Palmers ran the rival Canton Insurance Company, with Dents as its Canton agents. Forbes controlled the Bombay Insurance Company, Remington the Bombay Insurance Society. James Matheson brought with him to Canton in 1819 the agency for Mackintosh's Hope Insurance Company and Dents' Phoenix, which he took with him upon entering the firms of Yrisarri and Magniac. The insurance companies belonged to the various agency houses. One might call them insurance subsidiaries, from which the agency houses derived dividends on shares, surplus of premiums over losses and a regular commission of 1/2% for every insurance affected.

A list published in The Canton Register of February 1829 shows Magniac & Co. as agents of six Insurance companies, including the 8th Canton Insurance Company, and Dent & Co. as agents of four. In 1829 Jardine started a private underwriting account "J.M. and Friends," with the firm holding 20 of the 36 shares, with each share worth $1,000 per annum. As the volume of the China trade increased, the insurance revenue increased. In 1835, when the 10th Canton office came to a close, Dent decided to end the "ancient custom of alternate management" and set up its own China Insurance Company, leaving Canton in the hands of Jardine, Matheson & Company. The Canton Insurance Company laid the foundation for

Jardine, Matheson's large interest in many forms of insurance services,[92] and the increased cash flow from insurance services enabled the firm invest in new businesses – particularly in shipping.

Building Dominance in Shipping: Jardine, Matheson as Owner, Investor and Innovator

In the early days of the China trade, the Canton agency houses acted as resident agents, also known as Supercargoes, for country ships owned in India, receiving from the owners a commission, as described in the section on Commissions. The development of the opium trade forced the Canton agent to become a ship owner. It became necessary to have a special fleet of clippers, receiving ships, coastal vessels, and tenders. These ships would often be the joint property of the Canton agent and the agent's principal India constituent who supplied the opium. Jardine, Matheson gave its captains an interest in the clippers and a reduction of demurrage charges on their receiving vessels. The shipping business grew up around the larger Canton agency houses, which had grown rich from its banking and insurance businesses. Jardine, Matheson & Company was able to build a considerable private fleet, the beginnings of its dominant position in the carrying trade of the China seas.

One of the first acts of the new firm was to order the brig *Fairy* from a shipyard in Liverpool, England. From this and earlier smaller beginnings the firm's shipping interests grew and became a principal activity in the Group's transportation services. The founders were quick to take over a large part of the tea trade, which was available after the East India Company's monopoly ended. Tea and silk were the major trading activities until later in the century.[93]

Jardine, Matheson & Company also established agency services (as the configuration of insurance, banking, and representation services was called) for other ship owners, including those of American clippers.[94]

The firm's shipping business was inseparable from trading. For the firm's London agents – Magniac Smith, Magniac Jardine and later Matheson & Company – canvassing for ship consignments was important to maximizing capacity on incoming and outgoing ships. This led to close relationships with ship owners and extended to outward cargoes such as coal with the introduction of steamships in the Far East.

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92 Letter from James Matheson to Hugh Matheson, February 21, 1832, JM C/1; Insurance policy taken out by Joao Antonio Barretto, Chairman of the Club Lusitano, with the Hongkong Fire Insurance Company, Limited, Hong Kong, January 2, 1974. JM A8/96.

93 Table of tea purchases. Foochow, June 30, 1865. JM A8/129; "Account of Cocoons purchased up Country for Account of Messrs. Jardine, Matheson & Company and sent fresh to Pootung for an experiment per steamer Faust," Shanghai, August 12, 1865, JM A8/8/4.

94 Maggie Keswick, ed., The Thistle and the Jade (London: Octopus Books, 1982), p. 138-139.

Investment in technology for rapid transport and communication was important to competitive advantage in tea sales. The first British tea clipper, the *Stornoway* was built for the firm. Several such ships would ply between China and England, each carrying about million pound weight of tea for sale at the London tea auctions. By 1840, the Baltimore model *Clipper Ship* excelled the field in speed.

James Matheson was impressed with the possibilities of steam navigation and chartered the steamer *Forbes* in Calcutta to tow the brig *Jamesina* to China. The next steamship venture, the *Jardine*, was built in 1835 and was inspired by the need for better communication between Canton and Lintin. Jardine, Matheson's steamships, built on the River Clyde, replaced clippers in 1855 on a regular monthly schedule from Calcutta to China.

Jardine, Matheson was also an investor in the shipping interests of other firms. The firm invested in Russell & Company's shipping operations on the Yangtze River in 1860 and in the China Coast Steam Navigation Company in 1872. The China Coast Company was the precursor to the Indo China Steam Navigation Company, formed in London in 1881, which brought together all the ships and operations on the Yangtze, after Russell & Company was sold to the China Merchants. From an initial 12 ships, the Indo China Steam Navigation Company expanded its ships to 20 at 100,000 tons by 1905 and expanded its river service to include Hankow, Ichang and Chungking, when politically and commercially practical.

The tonnage of vessels entered and cleared at offices under Chinese control from 1864-1912 indicate that the coasting trade represented 75% and foreign trade 25% of total shipping volume. British ships represented 50% of the total through 1912, when Japanese and Chinese ships began to carry a combined total of 40%. The bulk of the coasting trade was in the hands of the Indo-China Steamship Company (Jardine, Matheson's subsidiary) and the China Navigation Co. **Chart 5**, below, looks at the number of ships, the tonnage and relative market share of shipping company competitors operating on the Yangtze from 1903 through 1911. (Entries under competitor columns are from left: number of ships, tonnage, market share, based on percent of total Yangtze River trade).

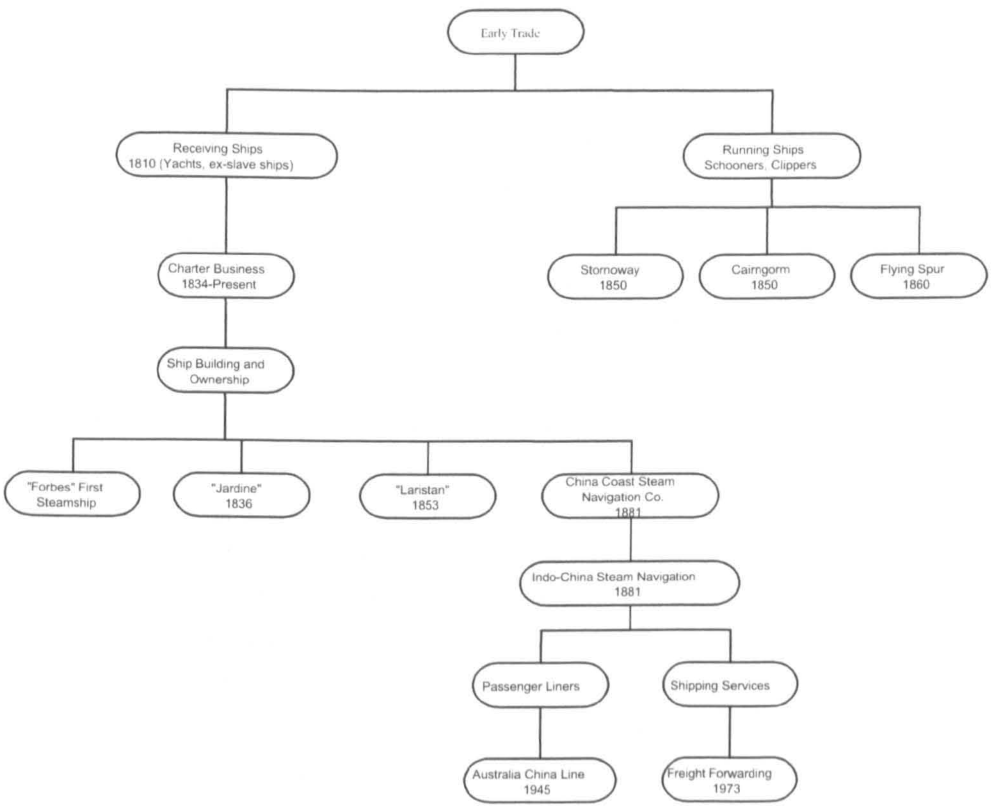
Chart 5: Market Share of Major Shipping Companies, 1870-1911

Year	China Navigation (Butterfield & Swire)	Indo-China Steamship (Jardine, Matheson)	Nisshin Kisen	China Merchants	Total
1903	4-6,757 (23.8)	5-7,236 (25.5)	5-6,727 (23.7)	6-7688(27.1)	20-28408 (100)
1911	9-9863 (17.9)	6-10648(19.3)	12-25678 (46.6)	7-8864 (16.1)	34-55053 (100)

Source: William D. Wray, Mitsubishi and the NYK 1870-1914: Business Strategy in the Japanese Shipping Industry, Harvard University, 1984.

Competition (and collaboration) with the Japanese began in 1900. The Japanese goal was to link China ports with Mitsubishi's transoceanic lines, integrating the Japanese firm's business operations with those of European traders, and reducing Russia's threat to be the first to connect Europe and East Asia by rail. The building of railways in China by Western firms and the inevitable development of China's natural resources similarly threatened Japan. See **Chart 6: Evolution of the Shipping Business,** below.

Chart 6: Evolution of the Shipping Business



Incipient Market Institutions Evolve and Institutionalize: The Treaty Port System

Three wars with China over opium and colonial interests from 1842-1898 laid the foundation for the treaty-port system within which commercial, navigational, residential, judicial and industrial rights were secured for British and American merchants in China. The treaty port system identified some 15 ports that were to be kept open for foreign trade and required that taxes and duties be systematized. The system provided encouragement and protection for trade and lasted until 1941. A similar system in Japan lasted from 1858 to 1894. The system in Siam lasted until 1926.

The treaty port system offered traders a freedom from monopoly, a wider field of activity than the previously limited single trading zone (for example, Canton), a systematized taxation of goods and shipping, of direct access through British officials to local authorities and of extraterritoriality, the provision of differences between British and local judicial conceptions and practices.

The system of taxation, guaranteed by the Treaty of Nanking, provided for a 5% import and export tariff and arranged that imports after payment of import duties might be conveyed to the interior free of all further charges except transit dues. The Treaty of Tientsin provided that transit dues might be compounded by paying a single charge of 2½% on the value of goods in return for certificate known as a transit pass, exempting goods from all further inland charges whatsoever. From 1842 to 1928, the Treaty Port system made the entry of foreign goods into China, the manufacture of goods by foreigners in China, and the export of Chinese goods abroad was fiscally easy as possible.

As a consequence of extra-territoriality, the British – like American, Japanese, French and other foreign traders resident in China – were for a long time entirely immune from direct taxation, except in the form of a land tax, by the Chinese government. This was largely a characteristic of the treaty port system until World War II.

Most-favored-nation treatment – one of the most important parts of the treaty port system – threw open China's inland waters to navigation. The Chefoo Convention of 1876 provided that the term "inland" should apply as much to places on the seacoasts and river shores as to places in the interior not open to foreign trade. The Mackay Treaty of 1902 laid down that a steamer duly registered for inland water navigation might ply between open ports, or from one open port or ports, to places inland and back to such port or ports, landing or shipping passengers, or cargo, at any recognized place of trade en route.[95] Under these rules, British merchants also had the right to lease warehouses and jetties on inland waters, to employ Chinese agents at them and visit them from time to time. Yangtze Trade Regulations, issued in the same year as the first set of inland waters regulations, allowed vessels not specially registered under the latter to ply between – as well as land and ship passengers and goods at - the open ports on the river but not elsewhere. Vessels specifically registered for inland water traffic, however, made the excluded places, usable. In 1905 the West River was also thrown open to steam navigation. Treaties made in 1928 and 1930 in respect of the tariff placed tonnage dues entirely under Chinese jurisdiction. Nevertheless, at the outbreak of World War II, they remained as they had been fixed by the Treaty of Tientsin, $.65/ton.[96]

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95 E.M. Gull, British Economic Interests in the Far East, (New York: Institute of Pacific Relations, 1943), p. 31.
96 E.M. Gull, ibid., p. 32.

The treaty port system was a strategic asset to the private trade. By definition, a strategic asset is a source of competitive advantage which is derived from factors external to the firm rather than from the firm's distinctive capabilities. The treaty port system created a level playing field in which all firms had the same opening advantage, but firms that could accumulate and retain more revenue through their distinctive capabilities had greater sustainable advantage.

From 1842 through 1914, Shanghai and Hong Kong among the Treaty Ports, were the chief centers of economic activity for tea, silk and manufactures, see **Chart 7** below. The Treaty Ports of Tientsin, Hankow and Canton were distant followers.

Chart 7: Economic Activity of Shanghai and Hong Kong, 1840-1914

Chief Imports, Average Annual Value	**1899-1903 £**	**1904-1908 £**	**1909-1913 £**
Tea	712,560	74,759	712,368
Raw silk	391,958	354,490	359,494
Silk, knubs and waste	338,705	322,772	442,332
Hemp	235,592	21,416	12,520
Plaiting of straw	231,266	188,799	168,465
Manufactures of skins and furs	230,159	188,680	58,646
Bristles	176,806	218,638	269,152
Furs	133,705	154,896	58,646
Hides, raw	49,618	46,412	-
Soya beans	--	--	717,562
Wool, camel's and sheep's	16,050	202,158	237,536

Source: Annual Statement of the Trade of the United Kingdom in E.M. Gull, British Economic Interests in the Far East, Institute of Pacific Relations, 1943.

The British Empire (including Great Britain and Hong Kong) was the purchaser on average of 28% of China's exports during the period 1880-1913. The combined share of China's import trade represented by India, Singapore, the Straits, Australia, New Zealand, South Africa and Canada was 26% in 1880 and averaged 10% from 1890-1913.

During the period 1854-1903, the bulk of Britain's imports from China came directly from Chinese ports. Only a relatively small portion came through Hong Kong. On the other hand, until 1889, nearly half of Britain's exports passed into China from Hong Kong. After 1889, this proportion changed. Hong Kong's percentage share of China's total exports averaged 31.5% from 1880-1913.

Chart 8 depicts the development of Hong Kong as an entrepot for Britain's trade with China.

Chart 8: Hong Kong As Entrepot, 1890-1913

Average Annual Value	**1890-3 Thousands £**	**1894-1903 Thousands £**	**1904-13 Thousands £**
Imports from China	4,505	2,784	4,011
Imports from Hong Kong	1,012	726	580
Exports to China	5,956	6,066	11,131
Exports to Hong Kong	2,095	2,419	3,594

Source: Statistics of the United Kingdom's Customs and Excise Department in E.M. Gull, British Economic Interests in the Far East, Institute of Pacific Relations, 1943.

Chapter 4: Section 2: Internal and External Factors Responsible for Resource/Services Choices

Without the government backing the East India Company had enjoyed (as well as the ability to mint money and raise a militia), private firms with a reputation for financial probity enjoyed a major source of advantage over less cautious peers and would-be competitors in trading, banking, maritime insurance and shipping. Reputation and retention of trading relationships depended on sound financial management and the ability of the firm's founders to communicate decision criteria and build trust at a distance. Later, reputation would be an important advantage in the firm's evolving relationship with government, as lender, investor and joint venture partner.

As previously mentioned, letter writing was the principal means of setting rules, sharing market information and building relationships with suppliers and agents, communicating strategy to partners, training and disciplining agents, organizing industry support and communicating with and influencing government. The correspondence is rich and some flavor of the content of the letters is given in **Appendix A: Jardine Matheson Archives, Management Issues 1810-1906**, at the end of this dissertation.

Avoid Speculation: A Simple Decision Rule for Managing Uncertainty

The advantage Jardine, Matheson enjoyed in the marketplace depended on its reputation – and that reputation depended on the quality of the firm's financial decisions. With competitors seesawing from stability to near bankruptcy, Jardine, Matheson offered a safe haven to customers and suppliers who banked, borrowed, insured and shipped with the firm. It was important to Jardine's reputation and to the firm's own stability that associated agents and staff follow closely the firm's prohibition against speculation on their own account, particularly speculation in commodities and especially speculation in indigo. As James Matheson explained to Charles Thomas, who was urging on Matheson a coffee investment: "While you speculate in the face of a high exchange and at your own risk, your neighbors do so at the risk of their constituents and often for the sake of effecting sales at anything likely to pay an indifferent exchange. Hence, it generally happens that those who are first in the market on these occasions, whether from priority of information or superior discernment in foreseeing a use, make handsome profits, while those who follow experience a very different fate. It is not, however, on account of these views that we feel an insuperable objection to incur the risk of such speculation. They are foreign to the line of our business, and we have neither the time nor inclination for acquiring the requisite information to give us a fair chance of avoiding the most serious errors."[97]

Inculcating sound financial management in its agents was the most pressing management issue faced by Jardine, Matheson & Company in the firm's early years. Advances and speculation were the most common concerns. James Matheson chides the firm's Bombay agent De Vitre & Company:

> Excuse my mentioning to you that it would be some satisfaction to me if you could manage to square up your account with us about once a year, if not putting you to much inconvenience. Your balance would thus be really what it ought to be, say, a series of temporary advances in anticipation of your remittances and not a permanent loan forming a part of your trading capital.[98]

The firm of E. de Otadui, a Portuguese agent working in Manila, and his American partner, John Shillaber, was reprimanded sharply for "the injudiciousness of the speculative views, which you have allowed yourselves to be led away by, as much to the injury of your friends. You will probably accuse your bad fortune, but if this has been the case during a large portion of your life, is it not high time, at length to avoid exposing yourself to a choice which has proved so uniformly ruinous?"[99]

Again to Otadui, "Sincerely desirous as we are of the prosperity of your house, and of contributing to it by every means in our power, it is a service of great regret to us that our wishes should to all appearance have been hitherto thwarted in this respect. And we are anxious that a better system should, if possible, be adopted to insure you enjoying the full advantage of the extensive agency business which you have the means of commanding. I have written strongly to Mr. Shillaber my opinion of the injudicious magnitude and seemingly wild character of his speculative views."[100]

Speculation led to the request for advances and loans, anathema to the firm. In a letter of May 1, 1838 to John Purvis in London, James Matheson wrote: "We must confess however it is with some reluctance we agree to this, experiences here show that such advances in place of benefiting the receivers are too apt to accumulate with a still larger debt. It will be a source of much satisfaction to us, should you care prove to be an exception to the general rule."[101]

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97 James Matheson to Charles Thomas, Singapore Sept. 30, 1832, JMA C4/2.
98 Letter from James Matheson to De Vitre & Co., July 24, 1832., JM 4/1.
99 Letter from James Matheson to John Shilaber, Manila, April 26, 1838. JM C5/3.
100 Letter from James Matheson to E. de Otadui, April 30, 1838. JM C5/3.
101 Letter from James Matheson to John Purvis, May 1, 1838. JM C5/3.

James Matheson sent James Adam Smith to Manila to oversee the finances of Otadui & Co. But the young man's correspondence reveals him to have fallen into the same financial practices as the firm's partners. James Matheson therefore admonishes:

> The state of the Government and your own treasury as pointed out in your own letter of 7 August is very annoying and disappointing and I could not have believed that you would have been so helpless as to have no local response within reach to provide for this temporary emergency – seeing that you had such excellent security to give for an advance and were besides authorized to pass your bill on us. This unlooked for state of affairs subjects us to the inconvenience and loss of sending you large treasure remittance per *Good Success*, and we cannot bear even the remote chance of our operations in your quarter being hampered or impeded for want of funds. I enter into all these explanations in the hope that a better understanding between us for the future may prevent such a contretemps as we are now suffering from.[102]

Referring to James Adam Smith's unsuccessful attempts to reconcile Otadui's accounts, which appear seriously short, Matheson writes:

> This surely needed explanation from you or from Shillaber to relieve him from the grave imputation, which it involves. It would seem to me as it now stands to be another instance of money taken from us without our knowledge or consent, and they seem to hint surprise at our wishing to charge interest on it – Does it never occur to Otadui or Shillaber to ask themselves what particular merit they should have in our eyes that they should expect us to make the vast sacrifices for them of every kind which we are doing? Our whole intercourse with them has been but a string of sacrifices, one after another without any return.

How Jardine, Matheson Built A Reputation for Regular and Candid Information with Buyers and Suppliers

A network of correspondents in East Asia, Europe, South America and Africa, including the commanders of Jardine, Matheson's vessels, supplied information to the early firm, some of which was communicated to a larger audience via The Canton Register from 1827-1846, and some withheld for Jardine, Matheson's own benefit. Beginning in 1848 through 1870, the commander of each Jardine vessel submitted a formal monthly report, which was compiled and sent to "friends" on the firm's "opium list." It followed a set form, and normally began

[102] Letter from James Matheson to James Adam Smith, May 7, 1838. JM C5/3.

with general remarks, sometimes commenting cautiously about political events in China, and then described current markets for each type of opium, quoted average prices, estimated current stocks in China, and gave current exchange rates for India and London. The government-controlled Bengal monopoly provided reports and memoranda on crops and possible yields in the Benares and Behar agencies, but Jardine, Matheson & Company depended on Jeejeebhoy and others for their knowledge of the Malwa crop and Bombay market trends to prepare instructions for commanders on the coast. Jardine, Skinner in Calcutta also informed Jardine, Matheson about the monthly auctions, watched market trends and forwarded the official reports of the government opium agencies.

After 1846, the collective communications of the Hong Kong head office with Jardine commanders were formalized. Each month instructions were sent from Hong Kong to the Commanders of Jardine, Matheson & Company vessels, Southern and Eastern Stations, which included all receiving ships on the coast, ranging from 14 in 1846 to 10 in 1851 and thereafter. Instructions gave a general picture of the Hong Kong market before issuing orders on sales. For a view of the content of such correspondence, see the Coast Letter Book, Hong Kong to Commanders, May 29, 1851: "The almost simultaneous arrival of (four) vessels from the fifth and sixth Calcutta sales has caused, for the moment, a panic among the dealers and prices which had previously been well supported at our last quotations have given way. After a time, however, the market will probably rally somewhat, but for the present, you will continue to take full share of sales at current rates."

How Jardine, Matheson Built and Trained An Increasing Cadre of Agents

Unlike the East India Company that frequently engaged the well-educated sons of the well-to-do in roles for which they might be ill-suited in order to jump-start a career, the private traders could not afford the luxury of a mistake. James Matheson was articulate about his expectations: "I am not in favor of young men being brought forward on the stage of life without ample previous training. In regard to your plan of making him our "safe and confidential agent" in Glasgow, I should think some years must elapse before he can be qualified for such an office.[103]

His assessment of the talents of a friend's young protégé was caustic: "He is so incorrigibly vain as not to be in the least aware of his shallowness of intellect. Thus he has neither the same chance of improvement which a more modest man would have nor the same facility of making up for his deficiencies by resorting to the advice or assistance of a friend."[104]

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103 Letter of James Matheson to William Mathieson, Glasgow, January 17, 1831. JM C4/1.
104 Letter of James Matheson March 18, 1832, JM C4/1.

When he perceived the goal to be worthwhile, Matheson was a detail-oriented teacher:

> Perceiving that it would be acceptable to your firm to have a portion of the Agency of our intimate friends Messrs. Jamsetjee Jeejeebhoy Sons & Co., Bombay, we have for some time been desirous of bringing them into correspondence with you. Their London business consists chiefly of the remittance to Bombay of funds arising from their consignments to us which are by us forwarded to Messrs. Forbes, Forbes & Co., who have hitherto acted as their friends. The usual routine has been, that on receipt of their consignments to us, we write to Messrs. Forbes, Forbes & Co. engaging to remit to them in the course of the season such sums as we may be instructed on receiving our engagements. Messrs. F. F. & Co. agree to advance a certain portion of the same and the remainder as soon as our bills or produce reach their hands. Last year in consideration of the difficulty of making remittances from hence they relaxed from this rule and came under advance for more than a third, but they are too fond of making remarks tending to overrate the value of their services and are apt to be captious in reminding our friends that sometimes our letters of Engagement, sometimes our remittances (when bills happen to be scarce here) are late in reaching, all which our friends remark in a late letter is very unpleasant to them. We have taken advantage of this to reply that you will furnish advances without unduly burying our operations here, so as to give time for our picking up bills and produce at the most advantageous periods of their being procurable within the range of the season and as a commencement we have sent them a letter of credit on you for £20 to £3,000. It will rest with you (if they adopt our plan) to encourage a continuance and extension of this business or the contrary. They have for many years carried on a well managed and lucrative business through our predecessors and us, which has latterly exceeded a million of dollars per annum of which about £150,000 per annum pass through the hands of their London agents. They also consign on a limited scale

How Jardine, Matheson Developed and Evolved Its Relationship with the Government in China

While the East India Company had acted on the authority of the Crown as an arm of the government with a militia of its own, the private trade in China found itself with no authority and no protection. The object of its on again, off again relationship with government, whether Parliamentary or Ching dynasty, was trade. The relationship went through three phases during the period covered in this chapter: the first, a campaign to engage all British traders and suppliers in China and India to support the British government's intervention in trade whether by guns or diplomacy; the second, a campaign to engage all foreign traders in pursuit of the establishment of free trade at negotiated Treaty Ports; the third, a campaign to provide loans to the Chinese government for armaments and infrastructure, often involving the collaboration of peer companies and competitors.

At the outset, as the East India Company became less effective and private traders increasingly on their own, an appeal was made to Parliament for diplomacy or guns, whatever would have the desired return.

James Matheson campaigned for government protection of the right of free trade where a precedent of such trade had been established. In 1828 he delivered an address to Parliament, which was subsequently published by Smith, Elder in 1831. James Matheson's Present Position and Prospects of the British Trade with China was directed to the House of Commons where its purpose was to argue "establishing a direct and frequent communication between the two governments (Great Britain and Peking). No particular act or appearance of favor or concession need to expected from the Chinese Government."[105] The treatise quotes extensively from natural law theorists and lawyers like Grotius, Pufendorf and Emmerich de Vattel to bolster the argument for the application of the law of nature to trade as well as to nations.

Upon joining Magniac & Company, James Matheson solicited the Bombay and Canton merchants to sign a Petition to Parliament, supporting his treatise. In a letter to Jamsetjee Jejeebhoy, which is typical of many of the period, he argued:

> As you must feel interested in whatever tends to the improvement of our commercial relations with China, I take this opportunity of enclosing a copy of a Petition calling the attention of the House of Commons to the subject signed by every British subject here, out of the Company's employ, except Mr. L. Dent and Capt. Glover. Much good has already been done by the energetic measures adopted.[106]

The firm's relationship with Lord Palmerston, British Foreign Secretary, was very strong and the partners persuaded Lord Palmerston to send warships to China to arrange for reparations to be made for the 20,000 chests of opium worth $9 million, which had been seized by the Chinese authorities. The hostilities that ensued became known as the First Opium War. The Chinese lost and were forced to sign a treaty in 1842 awarding the British traders $6 million in reparations. The treaty opened the ports of Canton, Amoy, Foochow,

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105 James Matheson, Prospects of the British Trade with China, (London: Smith Elder, 1831).
106 Letter of James Matheson to Jamsetjee Jejeebhoy, January 31, 1831, JM C4/1.

Ningpo and Shanghai and ceded the island of Hong Kong to Britain. The second phase of the relationship with government had begun.

Jardine Matheson purchased the first plot of land sold in Hong Kong and moved its offices there. The colony's first governor, Sir Henry Pottinger, endorsed the opium trade and later won the support of Parliament, which viewed the opium trade as a method to reduce the British trade deficit with China. After continued hostilities, a Second Opium War broke out in 1860. As victors, the British won virtually unrestricted commercial rights to conduct business in China – but so did the other trading nations, France, Germany, and the United States among others.

The firm was substantively involved in the pre and post Opium War discussions and the establishment of the treaty port system, described in the previous section, which established a system of customs duties at the ports. The treaty port system replaced the old tribute system by which gifts and respect were paid to the Imperial throne for the privilege of conducting trade. The firm developed and maintained close relations with both Chinese and British leaders, attempting to find the right, timely, mutually beneficial instrument of influence.

After many years of seeking Parliamentary assistance on behalf of the merchants of Canton (and after many years of making minor loans at interest to officials and Chinese merchants), Jardine, Matheson was involved in the first sizable loan to the Imperial government – a loan guaranteed by the customs revenue in April 1867 – for China's campaign against the Moslem rebels. The uprising was known as the Taiping Rebellion. The loan at 15% was in the amount of £400,000, with Jardine, Matheson being asked for £200,000.

Peking did not authorize further provincial loans until 1874 when money was needed again to finance military operations. The firm declined the whole amount of £600,000 but offered £150,000, if customs security were again provided. Assurance was then given that permits would be issued by the customs at Shanghai, Canton and Chinkiang, that they would be endorsed by the governors general and governors, and that the full amount would be returned within three years, with annual interest set at 10.5%. The firm was satisfied with this business as an investment.

The conclusion of the Taiping Rebellion and the opening of the Yangtze River, the third phase, raised Jardine, Matheson & Company's confidence in a Chinese government-directed program of economic development for China. This confidence is illustrated in the record of meetings between members of the firm and Li Hung-Chang, leader of the Imperial army against the rebels. Nevertheless, the participation of foreigners in China's external trade, as owners or agents in the exchange of goods, was still restricted at all open ports, except

Shanghai and Hong Kong. Hence, the auxiliary services of trade were vital to the prosperity of foreigners in China. Jardine, Matheson & Company reacted to these developments by an increased emphasis on the servicing of trade, facilitation of government loans and industrial projects, and the pursuit of cooperation and joint investment with the emerging Chinese merchant community.

From 1885, James Keswick saw Li Hung-Chang several times to discuss site development. Li had plans to construct a railroad to link Shansi with Tientsin. In Keswick's view "It would be the best means by which we could become the pioneer company of railways on a large scale in China."[107]

Through the summer and autumn of 1886, much of Jardine, Matheson's Shanghai and Tientsin correspondence deals with proposed contracts for armaments, railways, railway materials, telegraph equipment, loans, Port Arthur fortifications and Formosa. Until conservative pressures forced Liu Ming-ch'uan's removal as governor of Formosa, his orders for railway materials and arms were almost entirely channeled through the agency of Jardine, Matheson.

During the 1880s firms like Jardine, Matheson were very willing to work with the Chinese officials, who would accept foreign help in the building of communications to begin the transformation of the old economy. A new policy had become explicit by 1875. By lending money for administrative and essentially non-productive purposes, the firm expected to place itself with Li Hung-chang and a few others, as the agent through whom the Chinese government might initiate and supply its further projects. Jardine's partners interpreted China's early self-strengthening efforts - both the arsenals and the steamships – as harbingers of industrialization and future economic development so vast in terms of required communications and manufacturing equipment that it would dwarf all previous industrial programs. For the Western agent "on the ground," experienced and favored by Chinese officials, it was expected that such a program would provide excellent profits.

Jardine, Matheson's willingness at this stage to serve, rather than oppose, the bureaucracy reached its high point in the decade before the Sino-Japanese war, although the great surge of industrial and financial enterprise, regarded as imminent each year, had not resulted in many concrete projects before 1885. Jardine hoped for a China developing commercially and industrially along Japanese lines, with overall direction in government hands while Western firms acted as suppliers of capital, materials and skills. Jardine's F.B. Johnson's

[107] Letter from James Keswick to J. Bell-Irving, July 18, 1887, JM, C41/9

advocated "keeping ourselves to the front in any communications on fiscal arrangements or enterprises taking place between Chinese authorities and foreigners."[108] During this period, the firm was primarily interested in railway contracts, often with partners like Butterfield & Swire, for financing and supplying of material. Loans, however large and profitable, were regarded as a means of obtaining leverage with officials responsible for the award of railway contracts. Loans offered for general engineering work - particularly the repair of the Yellow River flood control system, the fortification of Port Arthur, and the provision of materials for all engineering work - were second only to railway contracts. The sale of armaments followed all these larger activities.

The geographic centers of the firm's activities with Chinese officials during the 1880's and 1890's were Shanghai, Tientsin and Peking. In the eighties, the firm's office at Tientsin began to coordinate all the firm's business on behalf of the Chinese government, directing negotiations at Peking and maintaining daily contact with Li Hung-Chang's office.

While Jardine, Matheson continued to make government loans in the 1880s and 1890s, in the century's closing decades, what was different was the emergence of definite aims for the use of capital. Having reverted to the stricter practices of an agency house, operating on commission and no longer investing large amounts of their own capital in exports, members of the firm were free to emphasize their distinctive capabilities as managers and brokers of finance, banking and insurance services.

And it was in the spirit of optimism and perceived future value that Jardine, Matheson & Company amalgamated its river and coastal shipping interests and floated the resulting limited liability company, The Indo-China Steam Navigation Company, on the London Stock Exchange in 1881.[109] Sir Paul Chater formed the Hongkong Land Company in joint partnership with James Keswick in 1888.[110]

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108 Letter from F.B. Johnson to W. Paterson, January 20, 1883, JM, Unbound Correspondence, HK-Sh. B2/12.

109 Jardine, Matheson & Company 1981 Annual Report, p. 8.

110 Jardine, Matheson & Company 1981 Annual Report., p. 8.

Chapter 4: Section 3: Fundraising for Growth: From Joint Stock to Free-standing Investment House

The three major functions derived from trading, elsewhere described as agency services -- namely, banking, shipping and insurance – dominated the Hong Kong investment market and reflected the commercial character of the Treaty Port system. From the 1870's forward, Jardine, Matheson and its competitors partnered made substantial investments in joint-stock enterprises in the service of trade. **Chart 9** details Jardine, Matheson's investments as of April 1885.

Chart 9: Jardine, Matheson & Company - Investments in the Service of Trade and Manufacturing

	Taels (Ounces of Silver, Chinese)
Hunt's Wharf Property	213,846
Jardine's Piers and Godowns	331,000
Canton Insurance Office	36,000
Hong Kong Fire Insurance Company	44,100
Hong Kong and Whampoa Dock Company	81,568
Hong Kong, Canton and Macao SS Company	36,672
Indo-China Steam Navigation Company	817,560
Hong Kong and Shanghai Bank	463,968
China Sugar Refining	109,858
Luzon Sugar Refining	119,850

Source: JM Archives, Account Books, 1885

The China Mail reports Jardine, Matheson's commission business at £150,000 as of 1884. Jardine's assets at the time are found in the 1885 accounts, a total of £2.5 million and half in the name of Robert Jardine. According to Lefevour, "A rough calculation would indicate that more than half of the firm's total capital was invested in steamships, Treaty Port real estate, banking, insurance and produce business. The range of its business, and this substantial capital, placed (the firm's) members most favorably in their campaign to serve as catalysts in China's commercial and industrial development."[111]

Funded with the retained earnings of trading profits, Jardine, Matheson & Company opened

[111] Edward Le Fevour, Western Enterprise in Late Ching China. (Cambridge, Massachusetts: Harvard University Press, 1968), p. 175

Ewo Silk Filature in 1895 and Ewo Cotton Spinning and Weaving Company, Ltd. in 1897 to meet the incipient Japanese competition and internalize the supply chain. By 1914, Jardine, Matheson were managers of two other mills, the King Yik and the Yantzepoo, their spindles totaling 153,320 with 1900 looms.

After a period of opposition, Jardine, Matheson joined the Board of Directors and the London Advisory Council of the Hong Kong and Shanghai Bank in 1877 (and has remained on the Bank board ever since). Among Jardine, Matheson's early reservations about membership on the bank board, was the bank's direct access to member firm finances. Butterfield & Swire and Sassoon, among others, sat on the board. The advantage of membership was access to investment and shared financing opportunities not only in China and Hong Kong but also in the bank's branch markets.

Early in 1898 the British and Chinese Corporation was created jointly by the Hongkong and Shanghai Banking Corporation and Jardine, Matheson & Company to construct railways in the Yangtze Valley; the provinces south of the Yangtze; the province of Shansi with connection to the Peking-Hankow line at a point south of Chengting and a connecting line to the Yangtze Valley, crossing the Huangho Valley. The immediate purpose of railway construction was to link the port to the interior for product inflow and outflow. There was intense competition with and eventual collaboration by German, American and French interests in the construction of railways. A list of railway projects follows as **Chart 10.**

Chart 10: Jardine, Matheson & Company and The Hong Kong & Shanghai Bank Investments in China Railroads

Shanghai-Woosung	£100,000 (Jardine, Matheson)
Taku-Tientsin	£50,000 (Jardine, Matheson)
Canton-Hankow	£10,000,000 (Investor: Jardine, Matheson)
Shanhaikuan-Newchwang	£2,300,000 (British and Chinese Corporation (Jardine, Matheson and the Hongkong & Shanghai Bank)
Shanghai-Nanking	£3,250,000 (British and Chinese Corporation as above)
Canton-Kowloon	£1,500.000 (British and Chinese Corporation as above)
Tientsin-Pukow	£7,400,000 (British and Chinese Corporation with Deutsche Asiatische Bank)
Shanghai-Hangchow-Ningpo	£1,500,000 (British and Chinese Corporation)

The combined contribution of Jardine, Matheson and the Hongkong and Shanghai Bank – operating as the British and Chinese Corporation – to railway development was £26 million. The issue of railway investment arises again in a discussion of the firm's relationship with government.

Beyond China – Opportunity for Exploration in Japan and Southeast Asia

As much as Jardine, Matheson had grown from trader to investor – and as large as the firm was at that time – the opportunity for still greater growth lay ahead – not just in China but in Japan and in Southeast Asia.

There was dramatic development of natural resources throughout Asia from the 1860s through 1914, made more opportune to nominally British, Asia-based investors and their investment groups in London because of the relationship between Britain and countries under treaty or protection. These countries included the Crown Colony of the Straits Settlements (comprising Singapore, Penang, Malacca, Province Wellesley and the Dindings); the Four Malay States of Perak, Selangor, Negri, Sembilan and Pahang; and the Five Federated States of Johore, Trengganu, Kelantan, Kedah and Perlis, which were under treaty obligations to follow the advice of British advisors in all matters other than those of religion or custom.

The tin "industry" is an example of an early geographic cluster. Tin was mined in the five Federated States and smelted in Malaya. Tin smelting was Malaya's only important industry and was located in Singapore. Singapore refined not only the tin of Malaya, but also tin from Siam, Indo-China, Burma, Australia, China, Central and South Africa.

Railways, necessary for transporting tin from the mining center of Larut to Singapore's Port Weld – eight miles distant on a deep-water inlet of the Larut River – were constructed in 1884. In the same year a railway, twenty-two miles long was built from Kuala Lumpur to Klang. In 1895, a railway was completed from the port of Teluk Anson to Ipoh. The west Coast Railway was completed and Singapore was linked with Bangkok through Kedah there were 1909 miles of road and 805 of railways by 1914.

During this period Burma was administered by a Lieutenant Governor appointed by the Government of India, part of the British Empire and under Treaty regulations. Burma's total rice output was 1,500,000 to 2,000,000 tons a year, most of it going to countries within the British Empire.

Boring for oil in Burma began in 1887, but results were negligible till two years later. By 1904 production had reached a total of 118½ million gallons. In 1913 it totaled 277½ gallons. Exports scarcely totaled 2 ½ million gallons in 1910-11; by 1913-14 it had reached 22 million gallons. Sarawak in North Borneo began petroleum production in 1910, when the first well was sunk.

To transport the oil, railways were built to link Rangoon to Prome in 1877; Rangoon to Mandalay in 1889, and a branch line from Thazi to Myingyan in November 1899, and so on.

In Siam and the Netherlands East Indies, while there were no official treaties that promoted trade and development, but contribution was made by entrepreneurial capital.

Trade with Japan during this period involved the exportation of raw materials – raw cotton from India; rubber, iron ore, tin and spices from Malaya and the Netherlands East Indies, Siam, Indo-China, Burma and Borneo – largely through Singapore, which had become a great entrepot for Western Pacific trade – as well as wool from Australia and timber and pulp from Canada. Of the value of Japan's export trade, 8.5% derived from India, the Straits, Australia, South Africa and Canada and 5.1% from Great Britain. Like China and the markets described above, Japan needed foreign capital. The first foreign loan, which was for railway construction, was floated in London in 1870 and secured on Customs duties and railway earnings.

Chart 11 looks at imports/exports across Asia from 1860 to 1914

Chart 11: Asian Imports, Exports, 1860-1914

To and from	**'68 Millions**	**Millions**	**'00 Millions**	**Millions**	**"14 Millions**	**Millions**
	Export	**Import**	**Export**	**Import**	**Export**	**Import**
China -Taels	103	39	115	182	238	458
India -Rupees	4.7	1.4	776	616.5	1,267.4	990
Japan- Yen	16.6 ('73)	18	191.3	355	515	503.4
Malaya- Straits Dollars	20.6	16.6	152.4	170	161	194.5
Philippines- US Dollars	—	—	5.9	4.3	70	64.2
Indonesia- Guilders	—	83.1	—	154.8	415	276.7

Source: B.R. Mitchell, *International Historical Statistics, Africa and Asia*, (New York: New York University Press, 1982).

Because the cash contribution necessary to fund massive infrastructure or mining projects was beyond the means of a single firm, collaboration was a survival technique. **Chart 12**, on the next page, identifies some of Asia's early private investors, including a number of Jardine, Matheson's competitors and the spread of their business interests.

Chart 12: Jardine, Matheson & Company and Competitors in East Asia

Competitor	Location	Business	Partner Capital	Group Capital
Palmer & Co.	Calcutta 1781	Banking, Indigo Mills, Shipping, Sugar Mills	0.4 (1830)	5.0 (1830)
Binney & Co.	Madras 1799	Coffee plantations, Cotton mills, Sugar, Woolen Mills	0.12 (1906)	
Ogilvy, Gillanders	Calcutta 1824	Copper mines, Diamond mines, Gold mines, Jute	.75 (1906)	
Jardine, Matheson	Canton 1832	Banking, Shipping, Insurance, Cotton, Mines, Railways	.2 (1906)	1.72 (1891)
E.D. Sassoon & co.	Bombay 1833	Banking, Breweries, Cotton Mills, Shipping, Tramways	1.25-1.50 (1909)	6.-7 (1920)
Bonstead & Co.	Singapore 1831	Banking, Petroleum, Rubber, Tea estates	.3-.5 (1908)	
Finlay & Co.	Bombay 1862	Banking, Cotton Mills, Shipping, Tea estates	1.0 (1909)	4.36 (1898)
Guthrie & Co.	Singapore 1821	Banking, oil palm plantations, rubber estates	.45 (1912)	
Jardine, Skinner	Calcutta 1840	Indigo mills, jute mills, paper mills, sugar mills, tea estates		1.46 (1914)
Mackinnon, Mackenzie	Calcutta 1847	Jute mills, Shipping, Tea	.2 (1901)	3.2 (1909)
Wallace Bros.	Bombay 1847	Banking, cotton mills, rubber estates	0.8 (1901)	3.2 (1909)
Ralli Bros.	Calcutta 1851	Banking, cotton mills		4.2 (1902)
Henderson	Singapore 1856	Gold mines, jute mills, paper mills, rubber estates	0.5 (1908)	0.3 (1913)
Butterfield & Swire	Shanghai 1867	Banking, harbors and docks petroleum, shipping, railways	.75 (1896)	4.15 (1900)
M. Samuel & Co.	Yokohama 1878	Banking, petroleum, shipping	1.29 (1903)	3.0 (1,903)
Harrison & Crosfield	Malaya	Tea estates, tobacco plantation	.2 (1901)	

Source: S.D. Chapman, "British-based Investment Groups before 1914," Economic History Review, 2nd ser., XXXVIII (1985).

Jardine, Matheson's Early Foreign Direct Investment

In the years after 1870, Jardine, Matheson & Company placed more emphasis on Japan and began to explore new business opportunities in Southeast Asia. A report on tin mines at Selangor, Malaya was requested in April 1884, in order to ascertain their investment value. There is also mention of a Matheson & Company report on Yangtze copper ore that "is worth prospecting and securing and we should endeavor to be in safe manner connected with it.[112]

The Parkes Papers reveal Jardine, Matheson was considering a suggestion that a company be formed to build a railway from Inchon (Chemulpo) to Seoul. In 1883, the firm already had an exclusive mining concession in Northwest Korea, an agency had opened in Seoul to supervise exploration of the concession and the firm had a contract to carry tribute rice on a Jardine steamer from the southern ports to Seoul. Jardine, Matheson was active in mining ventures in the region but lost interest in the Korean mining venture because: "Even if we should eventually find a mine with gold in paying quantity we should have to expend a large capital and to contend with all the difficulties raised by obstructive officials and a very inept people."[113]

Jardine, Matheson began selling small amounts of Russian oil, carried via Suez, at Shanghai in the early 1870's. By 1880, imports had risen to 250,000 gallons. A new concentration process at Shanghai allowed the oil to be sold at a price that put it within the reach of millions, and imports rose as a result to 839,000 gallons by 1884. Jardine, Matheson began to import American oil in 1881 and handled smaller consignments of Sumatran oil from 1883. In the mid 1880's the firm was anticipating growing demand and had imported as much as 380,000 gallons/annum on joint account with a Shanghai businessman, whose hold on the kerosene market in China was unchallenged in the 1880's and 1890's. Jardine, Matheson also acted as agent for American Tidewater Company, a Standard Oil associate, through whom the firm placed most orders. In 1893, Jardine offered to become agents for both Standard Oil and Tidewater throughout Asia in return for assuming managing agency of Standard's new Sumatra concessions. Despite intense negotiations and Jardine's readiness, the bid failed.

Companies like Jardine, Matheson (or Matheson & Company, its investment arm) made substantial direct foreign investments in Asian development. Direct foreign investment is defined as investment abroad for business purposes with the investors intending to control

[112] UC, HK-Sh., to W. Paterson, April 17, 1884, JM.
[113] PLB, Sh-HK, to W. Keswick, May 28, 1884, JM.

and run the business abroad. John Dunning suggests that some 30% of British overseas investments before World War I were direct investments (rather than bank loans or portfolio investments where the investor had an arm's length relationship with the recipient.)[114] Michael Edelstein[115] estimates that the private trade made some 35% of net foreign investment. **Chart 13** shows the dramatic increase in foreign investment beginning in 1861 and continuing into the 20th century.

Chart 13: Total Net Foreign Investment and GDP, 1831-1910

Decade	Net Foreign Investment (Millions £/Annum)	Rate NFI/GDP
1831-40	4.5	1.2
1841-050	6.5	1.4
1851-60	20	3.3
1861-70	37.2	3.7
1871-80	52.2	4.1
1881-90	74.9	5.5
1891-1900	49.8	3
1901-10	97.5	4.7

Source: Michael Edelstein, *Overseas Investment in the Age of High Imperialism*, Columbia University Press, 1982.

Jardine, Matheson – through Matheson & Company, its investment house – had invested £7,514,790 in Hong Kong and China, not including railway loans of £26 million, and actively sought other investment opportunities in Europe, the United States and Latin America. Mira Wilkens[116] describes Matheson & Company as an example of a "free standing company," the purpose of which was to obtain capital by bringing together profitable or potentially profitable operations overseas with British investors seeking financial opportunities superior to those at home." Like other "freestanding companies," Matheson & Company would have provided stock or investment promotion and legal services, but even more importantly, the existence of a British company traded on British markets, with securities denominated in sterling, encouraged the investment of British individuals and financial intermediaries.

114 J.H. Dunning, "Changes in the Level and Structure of International Production: the Last One Hundred Years," The Growth of International Business, Mark Casson, ed (London: G. Allen & Unwin,1983).

115 Michael Edelstein, Overseas Investment in the Age of High Imperialism (Columbia University Press: New York, 1982).

116 Mira Wilkens, "The Free-standing Company, 1870-1914: An Important Type of British Foreign Direct Investment," Economic History Review, 2nd ser., XLI No. 2 (1988), p. 272.

Matheson & Company connected the overseas project to potential investors. The skill acquired in doing this for one venture enabled the promoter to repeat it many times, and develop a reputation for experience and access to resources.

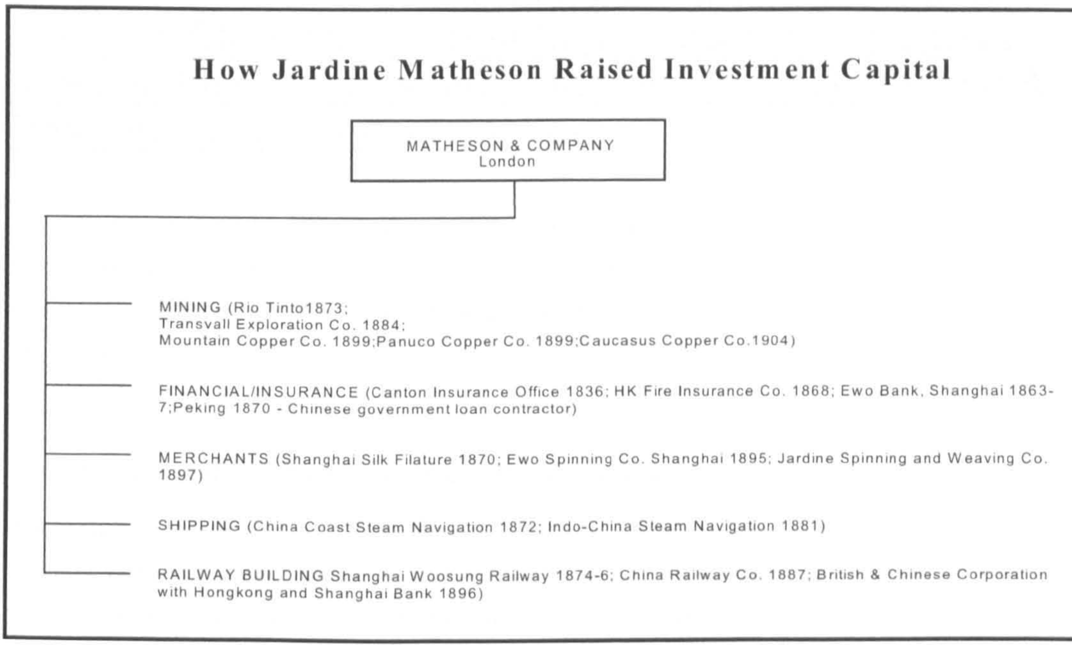
For example, Hugh Matheson, the senior partner of Matheson & Company, who had taken part in other investment promotions, was sought by German merchant Heinrich Doetsch to raise investment capital for trading and mining interests in southern Spain. Doetsch needed financiers "with appropriate experience and resources in the promotion of a new venture, to purchase, modernize and operate the mines." Matheson formed a syndicate to raise money to buy the mine from the government of Spain, after which the Rio Tinto Company was floated on the British market. Respectable financiers and a Member of Parliament were put on the board. Doetsch received a cash commission of £80,000. Matheson & Company would act as commercial agents for RioTinto throughout the world and receive a commission on sales and purchases. The Rio Tinto mines were ceded in perpetuity to the syndicate for £3,680,000, of which Deutsche National Bank owned 56%; Matheson 24% and railway construction firm Clark Punchard and Company 20% and were entitled to proceeds. The investment was not intended to be arms-length, but ongoing and supportive of the interests and business requirements of the investors.

Harvey's 1981[117] study of the Rio Tinto Mining Company identifies investment in new mining ventures – gold in the Transvaal, for example – rather than forward or backward integration as the motive behind Matheson's decision-making.

At Hugh Matheson's death in 1898, the role of Chairman was taken over by John Keswick, former Jardine, Matheson Taipan and, in 1898, director of Matheson & Company. This appointment underlined the continuing executive level involvement of Matheson & Company in the operation and development of Rio Tinto. Rio Tinto built Matheson & Company's reputation in mining and exposed Matheson & Company to other mining opportunities.

[117] Charles Harvey, History of the Rio Tinto Mining Company (Cornwall, UK: Allison Hodge, 1981), p. 188.

The following diagram shows Matheson & Company's investments through 1914.



Chapter 4: Section 3: Jardine, Matheson's Resource / Services Choices, Contributing Factors, Development of Market Institutions and Fundraising Mechanisms: A Resource-based Interpretation

Returning to the four questions posed in this Chapter, do the research findings support a Resource-based interpretation? Each question and response is examined from a Resource-based perspective. Attention is paid to alternative Harvard and Chicago school interpretations.

The Basis for Jardine, Matheson's Early Resource and Services Choices (Question 1)

A Resource-based response to Question 1 would argue that the firm made strategic choices, because of need or perceived opportunity, based on distinctive capabilities, rather than to achieve a monopoly position (Harvard School) or ownership advantage (Chicago School). The resource and services choices made by Jardine, Matheson were necessitated by the trade, the distance, the risk, and the cultural divide between Chinese and Indian and private English participants, as well as the piratical practices that prevailed on the high seas and coastal waters. Chapter 4: Section 1 looked the demand for security among private traders and their clientele, in the midst of high risk and political volatility endemic to trade and particularly to the burgeoning private trade. Trading credits loans and insurance on every facet of the trade reduced risk for buyers and sellers; hence financial management, insurance, banking, shipping and trading became the cluster of capabilities known as "agency services."

The security of buyers and sellers depended largely on the financial probity of the agency house, a factor that was intangible, hence ascertainable largely through reputation. The pursuit of security was an overweening concern of Jardine, Matheson and Company, exemplified in the firm's abjuring speculation at all costs and disciplining agents who speculated on their own account and jeopardized the reputation of the firm. The Jardine Matheson archives are full of letters to agents remonstrating against speculation and recommending they adhere to a commission business only. When a house was operating on commission, the goods were not paid for until the house had received payment from its customers. Since no security was required, in effect, merchants gained credit for as much as two years. Letters of credit, operating similarly to endorsed checks and drafts, otherwise known as bills of exchange, acted partly as the machinery of remittance but also as sources of credit in their own right. The commercial letter of credit issued by the merchant's bank authorized the seller of goods or produce to draw upon the bank under certain stated terms.

Jardine, Matheson itself offered credit facilities both to its agents and to suppliers, making substantial returns from interest on credit transactions. Indeed, before the Honking & Shanghai Bank in 1865, Jardine and its agency house competitors were the principal bankers in East Asia. As noted earlier in the chapter, depositors could rely on returns of 6% or more, and interest rate charges on short-term loans improved working capital.

Realizing how business continuity depended on reputation, Jardine, Matheson jealously guarded its financial reputation and the reputation of firms on which it depended. Recall James Matheson and William Garden's concern that their bills be drawn against American banks and also their pursuit of information about the reputation of British and American banking houses.

Security also depended on a network of inter-firm relationships and shared routines. Cutting across trading, shipping and financial services, the second of Garden's distinctive capabilities was its network of relationships or relational contracts, both internal and external. These relationships included the house, associated shippers, distributors, customers and suppliers. Such relationships were essential to the total supply and demand chain that extended from manufactured goods and commodities through a network of value-added steps including financing, insurance, sales contracts and transportation links until it reached the ultimate consumer. John Kay[118] calls the series of relational contracts we have described the firm's "architecture." Its value lies in the capacity of organizations, which establish it to create organizational knowledge and routines, to respond flexibly to changing circumstances and to achieve easy and open exchanges of information.

When Jardine, Matheson expanded its upstream activities to include cotton and silk milling (as owner of mills in China and Japan) and mining (through Rio Tint and other ventures), the firm was well on its way to becoming early supply chain experts. This expertise including planning and execution functions, risk assessment, demand planning, distribution planning, transportation planning and production planning. Each function required collaboration with supply chain partners to plan and optimize the supply chain.

We *know* that Jardine, Matheson was performing those planning functions from the letters, which speak of Matheson & Company's chartering activities to keep the firm's ships full on inbound and outbound journeys.

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118 John Kay, ibid., p. 63.

Internal and External Factors Responsible for Jardine, Matheson's Resource and Services Choices (Question 2)

A Resource-based response to Question 2 would argue that Jardine, Matheson's choice of resources and services for development and growth derive from the very special business, social and political environment into which Jardine and Matheson entered, and the firm's concentration on building up a pattern of relationships within and outside the business which would foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners. On the other hand, a Harvard school interpretation would find the environment of Canton/Hong Kong more influential than any choices made by the firm itself. A Chicago school interpretation would place ownership and British rule of law at the center of strategic decisions.

There can be little doubt that the environment rewarded financial probity, but the environment was not conducive to the achievement of a monopoly position. The private trade was young; early traders were in the business precisely because they could participate while owning nothing for low working capital. There were opportunities for everyone, as Jardine, Matheson's founders explained in their letters.

The more prosperous trading firms sought to own their own ships. Given the capital-intensive nature of the shipping industry (the investment in ships, in warehouses at point of embarkation and disembarkation, security and ground transportation), it was a costly endeavor to expand market penetration. Not surprisingly, forging substantive strategic partnerships or alliances was attractive to Jardine, Matheson because it allowed the firm to accomplish market expansion with less risk and cost, gain a national, regional or global presence in the market and to co-opt the routes and market presence of partners to complement one's own market coverage. Jardine, Matheson & Company joined John Samuel Swire's Shipping Conference which, even to the present, sets shipping routes and discourages participants from engaging in a competitive fight to the finish.

Jardine, Matheson's range and flexibility increased dramatically when partnerships were created that linked Hong Kong and Calcutta, Hong Kong and Singapore, Hong Kong and London. As noted above, relationships with American and British manufacturers increased the firm's access to capital and investments. The political risks of war and blockade became more manageable because cargoes could be diverted to other ports, like Manila in the case of James Matheson and the opium blockade. Even when the Chinese government forced British traders out of Canton, Jardine, Matheson & Company continued its trade using competitive American firms as intermediaries.

The captains or supercargoes of foreign merchant ships were useful partners, strengthening shipping interests, increasing international contracts and introducing into the firm associates who knew another aspect of the import-export trade.

During the early period, collaboration with competitors was also means of survival in the insurance business. Jardine, Matheson and Dent & Company shared management responsibility for the Canton Insurance Company and pooled their resources to manage the risks of piracy, storms at sea, spoilage among other potential hazards to which they and their customers were exposed.

The Treaty Port system had an extraordinary effect on trade and development in Asia, making trade more predictable, opening new markets to trade and development, and exposing trading firms like Jardine, Matheson to opportunities for investment that required a whole new way of doing business, through a "free-standing" investment house associated with the trading company – the London firm of Matheson & Company associated with Jardine, Matheson & Company in Hong Kong.

Jardine, Matheson's Role in the Development of Market Institutions (Question 4)

A Resource-based interpretation of the early period would acknowledge the existence of only rudimentary market institutions and the importance of firms in creating such institutions.

A Harvard interpretation would argue that there was already a market, if fragmented, and that Jardine, Matheson would have used its advantage to get all of the market for itself by signaling strategy, erecting entry barriers, encouraging competitors to leave – or buying them out. But that was not at all the case in the early period. Private traders were more often collaborators in the development of market institutions – setting and agreeing to interest rate commissions on agency services, pooling resources for paying insurance claims and establishing shipping routes.

A Chicago school interpretation would argue that creating a market means increasing demand and sale of already existing products by being more efficient and reducing price to increase total sales and profits. During the early period Jardine, Matheson & Company, Dent & Company and others in the private trade committed themselves to live by a set of rates for agency services. The price of the commodities they traded was communicated in "The Price Current," a bi-monthly insert in <u>The Canton Register</u>.

A Resource-based interpretation makes far better sense of the challenge and opportunity private firms shared operating in the shadow of the East India Company. In the early period, private traders were more often collaborators in the development of market institutions –

setting and agreeing to interest rate commissions on agency services, pooling resources for paying insurance claims and establishing shipping routes.

As explained in earlier in this Chapter, during the early period Jardine, Matheson & Company, Dent & Company and peer firms in the private trade committed themselves to live by a set of rates for agency services. Jardine, Matheson & Company used the weekly Canton Register to communicate its insurance rates and commodity prices (and those of peer and competitive firms) so that buyers and sellers in the market were in such free interaction that the prices of the same goods tended to equality easily and quickly.

From 1810 to 1906, Jardine, Matheson & Company generated some 200,000 letters to its constituents and agents, framing business arrangements, making payment and insurance promises and disciplining agents.

Jardine, Matheson sought to build its reputation on financial wisdom and a network of relationships that its constituents could rely upon. The firm had to absorb the trading risk of its constituents by basing its own bills on trustworthy financiers in Britain and the United States. Essential to financial wisdom was the firm's avoidance of speculation, which had brought down many agency houses.

The personal efforts of William Jardine and James Matheson to secure the trade resulted in the ceding of Hong Kong to Britain, and the creation of the Treaty Port system, which provided for the first time a level of regularity to trade and predictability to the costs of trade with China, Singapore, Malaysia, Philippines, South Africa and Japan that lasted until WWII.

The creation of Matheson & Company, a freestanding investment house, provided shared benefits and limited risks among institutional and private investors, using Jardine, Matheson's superior market knowledge to identify new prospects for funding. The outcome for Jardine, Matheson & Company was indeed enhanced wealth, but competitors (like Butterfield & Swire) were welcome. Jardine Matheson & Company and Butterfield & Swire were collaborators on railway and other projects, with government as a public partner, well into the twentieth century.

How Jardine, Matheson Raised Funds for New Investments (Question 7)

A Resource-based response to Question 7 would argue that raising funds, when necessary, is part of the managerial or entrepreneurial task. This task might be accomplished through an "external organization" in which the raising of funds is relatively easy – or through intrafirm boards that review and approve fundraising projects to safeguard against opportunism and to consider the potential project in light of its larger effect on businesses currently managed by the holding company. A Harvard school interpretation would emphasize a rigorous competitive analysis of fundraising projects to support fundraising efforts. A Chicago school interpretation would similarly emphasize a rigorous cost/benefit analysis to defend new ownership schemes.

For the early trading firm with low working capital, the notion of locking up the firm's own resources as the sole owner or sole investor was short-sighted at best. Bringing investor capital into the firm limited risk for the trading firm and potential investors, while supplying the venture with enough capital to grow.[119]

The creation of Matheson & Company, a freestanding investment house, provided shared benefits and limited risks among institutional and private investors, using the trading company's superior market knowledge and reputation to identify new prospects for funding. The outcome for Jardine, Matheson & Company was indeed enhanced wealth, but competitors (like Butterfield & Swire) were welcome.

Opportunity enough for all at the cost of one's reputation defines the atmosphere of trade and investment in the 19th century. It was a life for which the cash-poor but entrepreneurial private traders were well suited, if they continued to base their business dealings on what they knew. Speculation was the unmaking of firms like Palmers, Dent and Russell that had been market leaders. Jardine, Matheson survived because the firm was more successful than peer firms in limiting the speculative activities of its agents – a testament to the administrative control the firm exerted predominantly through its management letters and selection of agents were.

The firm's strategic choices were indeed made on the basis of capabilities that were valued by the market during this period – financial probity, sound judgment, information sharing, recognizing that customers and suppliers alike depended on frequent communication to asses the soundness of their own business judgments. On these strengths Jardine, Matheson built a reputation and attracted trading partners. Consider again:

- The firm's growing **reputation** for sound finance and information saw Jardine, Matheson through credit crises when competitors like Dent & Company, Palmer & Company went bankrupt. By end of the first period, Jardine, Matheson and Butterfield & Swire were the leading shipping firms, although the Japanese were beginning to compete with them for the Yangtze. Through the establishment of the shipping conferences, Jardine, Matheson and Butterfield & Swire virtually controlled the shipping industry in the Pacific. Jardine,

[119] Harvey's history of the Rio Tinto mines describes the fundraising activities of Matheson & Company as well as the promoter role played by Hugh Matheson.

- Matheson added to its reputation – and to its information access – by becoming a business partner and later member of the board of the Hongkong & Shanghai Bank.

- The firm's **internal and external organization**, consisting of a network of correspondents, grew from some 50 in 1810 to 150 by 1832 throughout Bombay, Calcutta and Madras. The network also included the captains of Jardine's ships, the firm's suppliers and peer companies like Dent and Butterfield & Swire.

- The firm's **innovation** included its communications routines the management letters as well as the publication of the first English language newspaper in Canton; the commissioning of faster sailing vessels for faster exchange of letters between Jardine's correspondents and to meet the increasing demand for tea, and the creation of a freestanding investment house to turn the trading company's superior knowledge of development opportunities for investment opportunities for institutional and private investors. Another form of innovation, flexible strategies enabled the firm to make timely business decisions, even if these would change the nature of the business – like the move out of opium when Sassoon & Company began to offer production credits.

These capabilities were developed as a response to the particular circumstances of the market Jardine, Matheson sought to enter. Together they contributed to the establishment of market institutions that made trading relationships more dependable before the advent of the treaty ports.

Chapter 4 Chart

Chart 1 Frequency and Disposition of Correspondence, 1801-1906

MARKET	GENERAL		PRIVATE		SUPPLEMENTAL	MARKET SUBTOTAL
Africa	1825-1881	185	1813-1836	8		193
America	1821-1898	5176				5176
Amoy	1833-1901	4298	1845-1872	104		4402
Australia	1824-1859	1056	1837-1882	31	47	5961
	1860-1898	4827				
Bombay	1822-1833	3200	1827-1872	283	31	16674
	1834-1881	13160				
Calcutta	1818-1893	8540	1815-1867	390	20	8950
Canton	1815-1848	1678	1846-1859	1155	218	
	1849-1904	12706	1805-1872	2492		18249
Chefoo	1842-1901	810	1865-1885	9		819
Chinchew	1833-1863	600				600
Chinhai	1853-1871	14				14
Chiukiang	1863-1901	1146	1868-1870	9		1155
Chuenpee	1840	8	1835-1841	5		13
Chusan	1840-1860	24	1837-1843	63		87
Coast	1825-1893	935		291		1226
East India	1821-1898	11133	1813-1882	188	33	11354
Europe	1820-1855	800	1828-1882	7	148	6975
	1856-1891	6020				
Foochow & River	1846-1881	4083				4083
Formosa	1865-1881	209				209
Hankow	1861-1901	1948				1948
Hoihow	1876-1881	49				49
Honam	1858-1869	352				352
Hong Kong	1833-1905	14309	1829-1886	1090	404	15803
Great Britain	1822-1891	8130	1829-1873	171	62	8363
India	1819-1898	1601	1813-1869	85		
			1820-1867	69		1755
Ichang	1883	1				1
Japan	1859-1892	3661	1859-1887	196	21	3878
Kahing	1869	1				
	1876, 1878	2				3
Kapsingmum	1830-1891	24	1831-1837	15		39
Kienning	1861-1864	3	1865-1868	7		10
Kienyang	1863-1864	3				3
Kiukiang	1861-1886	1266	1865-1872	23		1289
Korea	1883-1884	190				190
Kowloon	1837-1900	9				9
Kumsingmun	1835-1856	1355	1835-1852	34		1389
Lintin	1823-1853	120	1824-1838	51		171
London	1814-1898	20751	1812-1882	203	63	21017
Lookong	1847-1854	74				74

Chart 1 Frequency and Disposition of Correspondence, 1801-1906

MARKET	GENERAL		PRIVATE		SUPPLEMENTAL	MARKET SUBTOTAL
Madras	1823-1881	2153	1838-1850	11		2164
Macao	1823-1849	2660	1813-1872	665	50	11638
	1850-1891	8263				
Namoa	1844-1860	27				27
Newchang	1861-1901	470				470
Ningpo	1844-1883	1052				1052
Pagoda Island	1855-1858	3				3
Pakhoi	1877-1880	52				52
Pekin	1860-1901	29				29
Pingtu	1886	1				1
Port Aurthur	1886-1901	3				3
Shanghai	1824-1891	10805	1848-1888	1411	15	12231
Shungwan	1861	1				1
Suiching	1857-1863	4				4
Suyeada	1869	1				1
Suykut	1861	1				1
Swatow	1853-1880	2910				2910
Taitau	1851-1856	5				5
Taku	1860-1871	5				5
Tientsin	1860-1901	1166				1166
Toonkoo	1839-1840	109				109
Tsingsan	1864-1901	3				3
Tamsui	1860-1898	941				941
Tungshaw	1861	1				1
Twatutia	1872,1879	2				2
Wei-hai-wei	1859	4				4
Wenchow	1877-1878	2				2
Whampoa	1825-1885	1253				1253
Woosung	1854-1871	646				646
Wuhu	1883-1884	121				121
Other	1813-1900	5690				5690
TOTAL		171239		8981	1112	183018

Hong Kong/China	40%
London/Great Britain	17%
India	15%

Source: Jardine, Matheson Archives, Cambridge University

Chapter 5: Jardine, Matheson & Company, 1961-1996: Resource/Services Choices, Explanation with Failure and Fundraising for Investment

Introduction

Chapter 5 deals with the history of Jardine, Matheson and its strategic management, in the 20th century, after the near destruction of the firm and its assets, and the imprisonment and death of many of the firm's managers in WWII. There was little left after the war – beyond the ambition of the Keswicks to rebuild in an uncertain environment they believed they knew far better than the Europeans and Americans who saw advantage in marketing their products in China.

As noted in Chapter 1, Section 2, the chapter contributes to the architecture of the current study by providing an analytical history of Jardine, Matheson from 1961 to 1996, a period of intense acquisition and divestiture activity. Like the preceding chapter in its treatment of the early history, it uses firm history to answer questions about the firm's resource and services choices, the experience of failure, the raising of funds for project investment – and the continued development of market institutions to make trading and investment conditions more reliable. The questions are:

- How and why did Jardine, Matheson's founders and managers choose to develop particular resources and services? (Question 1)
- The firm's choices met with some notable successes - and some notable failures. How are the firm's failures explained? (Question 3)
- How did Jardine, Matheson's managers raise funds to finance investment? (Question 7)

Sections 2 through 5 deal with the resource and services choices (Question 1) during four periods of acquisition and divestiture. Section 5 deals with the firm's experience and explanation of failure (Question 3) – and its impact on strategic management. Section 6 deals with the fundraising mechanisms employed by the firm (Question 7). Section 7 uses the questions to frame a Resource-based interpretation of strategic management in Jardine, Matheson. The section also touches base with the Harvard and Chicago school views. The complete Chapter outline follows:

Chapter 5: Section 1: Resource/Services Choices and Contributing Factors to 1961 establishes the 20th century political and economic context for Jardine, Matheson's resource/services choices, including the decision to go public in 1961.

Chapter 5: Section 2: Building on Historic Capabilities: Stepping Stones Period, 1961-1971 describes the firm's resource and services choices during the first of Jardine, Matheson's growth periods, including cautious expansion into new geographic markets and extensive investment in the economic development of Hong Kong.

Chapter 5: Section 3: Speculating in Commodities and Manufactures: Exploit and Develop Period, 1972-1977 describes the resource and services choices made during Jardine, Matheson's aggressive international expansion into new and unrelated businesses, including manufacturing and natural resources.

Chapter 5: Section 4: Rationalizing Commodities and Manufactures: Harvest and Divest Period, 1978-1983 describes the resource and services choices made during an equally intense period of divestiture activity, during which Jardine, Matheson rationalized both businesses and markets in response to internal and environmental factors.

Chapter 5: Section 5: Explanation of Failure: Focus on Distinctive Capabilities Period, 1984-1996 describes a period of reduced acquisition activity during which the firm concentrated on core businesses and new competencies in retail and services. The section deals with Jardine's experience and explanation of failure.

Chapter 5: Section 6: Fundraising for Investment describes the self-financed growth of the "Stepping Stones" period and the increasingly leveraged growth of the "Exploit and Develop" period.

Chapter 5: Section 7: Choices, Failure and Investment: Interpretation of Jardine, Matheson's Growth Strategy Using Resource-based Theory compares the proposed Resource-based interpretation of Jardine, Matheson's choice of resources and services based on capabilities with the alternative explanations of the Harvard and Chicago school.

Chapter 5: Section 1: Resource/Services Choices and Contributing Factors to 1961

Well into the twentieth century, foreign trade continued to give Jardine, Matheson a role in the national agenda of China and its trading partners in the Pacific. Jardine's bread and butter business was importing into the Far East hundreds of lines of British, Canadian and American consumer and capital goods, everything and anything from packages of Ovaltine to Westinghouse transformers. Jardine, Matheson acted as principal, consultant or agent in trading with the Chinese. As an agent for British and Australian companies, it sold to the Chinese livestock, wool, cotton, hides, aircraft, rolling mills, machine tools and complete chemical plants. As a principal, Jardine bought and resold commodities such as soy beans, broad beans, vegetable oils, hog bristles and furs, as well as tea, rice, gold and diamonds.[120]

But day-to-day business in the China trade was volatile and dangerous:

- In the summer of 1937 Japanese forces attacked China in an attempt to expand Japanese commercial and strategic interests to the Asian mainland. A number of Jardine, Matheson's management were captured and imprisoned. The company's textile factories were looted and the Chinese staff was dispersed.
- In December 1941, Japanese forces invaded British colonies in Asia, including Hong Kong. Jardine, Matheson officials in the colony were again imprisoned. Jardine Taipan John Keswick, who had managed to escape to Ceylon, returned to Hong Kong after the War to rebuild the small airline, textile mills, wharves, brewery and cold storage facilities which were all that remained of the firm's physical assets.
- In 1949, Communist forces seized control of the mainland after four years of civil war. Jardine, Matheson attempted to build a relationship with the Communist regime.
- By 1950, new government policies increased taxes, restricted currency exchanges and banned layoffs. Jardine's Ewo Brewery in Shanghai was forced to reduce its prices by 17%, and to remain open at a $4 million annual loss. Companies based in Hong Kong were bound to observe a British trade embargo against China because of the Korean War.

120 Allen T Demaree, "The Old China Hands Who Know How to Live with the New Asia," Fortune (November 1971), p. 133.

- Compelled to close its operations in China, Jardine, Matheson entered into negotiations with the Communist government and, in 1954, wrote off $20 million in losses. While little of the physical assets remained, the skills of Jardine, Matheson's managers were intact – although removed to Matheson & Company, London.

- With trade inside China closed, Jardine, Matheson continued to trade with China from its London base, although such trade was limited.

To survive and grow in the midst of adversity in China and uncertainty in Hong Kong, the firm investigated new Asian markets, both for itself as principal, and for the British, Canadian and Americans firms for whom the firm acted as agent. And to do so it needed an infusion of cash.

Jardine, Matheson & Company was 129 years old when it went public in 1961, abandoning the partnership system under which the firm had been administered since 1832. The listing of the company's stock on the Hong Kong Stock Exchange marked the beginning of a search for expansion and diversification fueled by investor capital, which was cheaper than bank loans during the period.

The firm was not alone in its pursuit of other Asian markets at this time. World trade had begun to exceed the growth of world production during the mid-1950s, and by the early 1960s firms sought to grow by direct foreign investment [121] :

- in the developing countries of Japan, Korea, Taiwan, Singapore and Malaysia across a wide range of industries;

- by exploiting knowledge and expertise gained in one country's markets in other countries at low cost, and

- by offsetting the unavoidable extra costs of doing business in foreign nations.

This chapter tracks the growth of Jardine, Matheson from 1961 through 1996, as principal, agent, consultant and multinational, continuing to work in a loose federation of associates and subsidiaries, and growing by diversification.

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[121] Edward Chen, "Economic Restructuring and Intrustrial Development in the Asia Pacific: Competition or Complementarity?," Business & the Comtempory World (Spring, 1993), p. 68.

Chapter 5: Section 2: Building on Historic Capabilities: Stepping Stones Period, 1961-1971

The 1961 stock prospectus described Jardine, Matheson as a firm "which participates widely in the commerce and industry of the Far East, in the merchanting of imports and exports, the distribution and servicing of engineering products, the shipping industry, air transport business, insurance, investment management, agency business and general merchant adventure." [122]

The new public company was family owned – the family of James Keswick had bought out the remaining shares of the Jardine family and had arranged the public offering with three London banks. Until 1973, the firm did not report "turnover" or revenue in its official statements, arguing that the firm's operations were too diverse to supply such figures. The net operating profit in 1961 was HK$9,207,000, reflecting the sale of investments sufficient to fund the reorganization of the capital of the company. The firm was organized along geographic lines and consisted of a head office and a few wholly owned subsidiaries.

All of the departments and the subsidiaries reported into the Hong Kong head office. The departments included: the Imports and Exports Departments, Jardine Engineering Corporation, Airways and Insurance Departments, Shipping Department, Jardine Dyeing & Finishing Company, Matheson & Company Ltd (with investment, shipping and chartering sections) in London, and the China Trading Department (closely allied to Matheson & Company Ltd.).

In addition, Jardine, Matheson possessed several wholly owned subsidiaries, including Jardine, Matheson & Co., Japan, Ltd.; Jardine, Matheson & Company Ltd. – Taiwan, and Jardine Waugh Ltd. – Malaysia (expansion of an investment initiated in 1954).

While the Company's trade with China was relatively small, the men who ran Jardine's China Trading Department saw China as a market with vast long-term potential. The five executives in the China Trading Department – all Chinese – combed the mainland press, reading between the lines for subtle hints of change in China's purchasing priorities. As Chinese, they had more freedom than Westerners to move around the mainland. They also had personal contacts in China's seven state trading corporations, and they had intimate knowledge of the protocol, tactics, and taboos of the China trade.

When Jardines' traders bought a commodity from China, they simply placed an order via cable to Peking. On major deals they accompanied clients on trade missions to Peking or

[122] Jardine, Matheson & Company Stock Prospectus 1961.

Shanghai. They attended the month-long trade fairs in Canton in the spring and fall, where the People's Republic conducted as much as half of its trade with the outside world.

Chart 14, Stepping Stones, 1961-1971, at the end of this chapter, depicts the firm's cautious expansion into new geographic markets with existing capabilities – trading, finance, shipping and insurance services – and extensive investment in unrelated industries in Hong Kong and Australia.

The word "cautious" is used because Jardine, Matheson and other investors made their plans with an eye toward the turnover in 1997 of lands adjacent to Hong Kong that had been leased to the British. Since Hong Kong was dependent on these lands for water and industrial space, many Hong Kong residents expected that the Colony would be taken over by the Communists. The Cultural Revolution did not assuage their fear. Jardine's caution played itself out in two ways: (1) acquirers like Jardine, Matheson & Company sought to recoup their investments in 3-5 years,[123] (2) acquirers sought to spread their risk by expanding across the Pacific rim.

Along with caution, there was optimism that Hong Kong would be a financial leader and world light-industrial center. The economy was booming. Corporate income tax was 15%, among the lowest in the world, with no tax levied on dividends, capital gains or income generated outside the colony. The currency was among the strongest in Asia and was maintained by a colonial policy of virtually uninterrupted budget surpluses.

Further, the influx of skilled Chinese workers into Hong Kong from the Mainland, the rising standards of living of the people in the territories (i.e., the New Territories that lie along the border of Kowloon and China) and the accompanying commercial and industrial expansion afforded reason to believe that the Hong Kong home market offered growth opportunities in every area of the economy. Broader trade with Asia depended on the trading requirements of the more prosperous European and North American countries.

Cautiously stepping from market to market, Jardine, Matheson moved into Australia in 1964, establishing a holding company with interests in importing and exporting, aviation, real estate, textiles, sugar manufacturing, shipping and timber. The firm had very long-term contacts in Australia and interests – some of them dating back to the nineteenth century – in Japan, Malaysia, Singapore, Brunei, Thailand, Laos, Taiwan and the Cook and Fiji Islands.

The firm used the holding company construct as an anchor for the eventual creation of economic hubs like Hong Kong, located in deepwater ports, such as Australia, Japan, South

[123] Allen T. Demaree, "The Old China Hands Know How to Live with the New China," Fortune (November 1971), p.134.

Africa and Singapore and the Pacific Coast of the United for shipping, commodities trading, finance and insurance.

Among key investments during the period:

- Jardine Waugh Ltd. was merged with Guthries, and its trading interests in Singapore, Malaysia and Brunei were rationalized. The new firm, Guthrie Waugh Berhad, was moved to Hong Kong to avoid double taxation on dividends paid out of Thailand profits.
- Matheson & Company acquired Turnbull Gibson & Co., Ltd., a freight and insurance broker located in Zambia.
- Jardine, Matheson & Company (Australia) Pty. Ltd. acquired 50% of a vehicle deck container ship, the "Matthew Flinders," owned jointly with H.C. Sleigh Ltd.
- The firm re-acquired the Indo-China Steam Navigation Co., Ltd. The shipping firm had been founded by Jardine, Matheson in the nineteenth century and was subsequently sold to the Chinese.
- In 1970, Jardine, Matheson initiated a new investment management and financial services joint venture with Robert Fleming & Co., London. The new firm was called Jardine, Fleming & Co., Ltd.
- In 1970 the firm launched its first venture in the United States in San Francisco, planning to build it into a holding company along Australian lines.
- In Hong Kong, the firm acquired a new wholly owned subsidiary, the Empire Finance Co., Ltd., a brokerage firm that traded in Hong Kong and Japanese stocks. The firm's Japanese subsidiary improved with "liberalization of the entry of foreign business and imports into Japan. It would seem to be in Japan's long-term interests to move faster towards the ultimate goal of complete freedom for the entry of overseas capital now that its foreign currency position is so strong and the country is becoming an exporter of capital."[124]
- Jardine, Matheson and the Hongkong Land Company entered into agreement to develop hotel and apartment projects at East Point.
- In Hong Kong, Jardine, Matheson & Company took on new insurance subsidiaries like the Lombard Insurance Company (descendant of the 10th Canton Insurance Company), and new acquisitions – like Chinese International Underwriters, Ltd. in the hull insurance-

[124] Jardine, Matheson & Company 1969 Annual Report, Chairman's Letter, p.14.

broking field and Hong Kong Security Ltd. in the field of security services. The firm initiated a new marketing partnership with Alfred Dunhill Ltd.

Financial Analysis

At the end of the period, consolidated trading profit before taxes was HK$72 million, an increase of 500% since the firm went public in 1961. Fixed assets, mainly ships and property, had increased from HK$39 million in 1961 to HK$139 million in 1971. Investments in subsidiary and associated companies increased from HK$27.8 million in 1961 to HK$292 million in 1971. **See Chart 15 Summary Financial Data, 1961-1969; compare with Chart 17 Summary Financial Data, 1970-1979**, end of chapter. Return on equity increased from 8.51% in 1961 to 18.83% in 1971. Return on total assets increased from 7.82% in 1961 to 16.12% in 1969, and began a slow decline to 15.05% in 1970 and 13.31% in 1971 - a decline which became increasingly evident during the 1970s as assets mounted. See **Chart 15.1 Key Management Ratios, 1961-1971**, below.

Chart 15.1 Key Management Ratios, 1961-1971

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
ROE	8.51%	7.60%	10.23%	10.49%	11.03%	11.51%	12.27%	15.01%	18.73%	17.76%	18.83%
ROTA	7.82%	7.00%	9.47%	7.89%	7.84%	8.97%	9.65%	12.41%	16.12%	15.05%	13.31%
Added Value	39.07%	35.24%	43.08%	45.92%	45.18%	45.81%	41.28%	45.84%	47.14%	-	-

The sale of stock – some 12 million shares in 1970 and 1971, and the sale of Hong Kong property for redevelopment during the decade created a net capital surplus that went directly to reserves to finance new growth. Added value, the ratio of retained earnings or transfers to reserves over trading profit began the decade at 39% and ended at 47.14%. No turnover data were available until 1972; hence the use of trading profit for added value calculations.

Chapter 5: Section 3: Speculating in Commodities and Manufactures: Exploit and Develop Period, 1972-1977

From 1972-1977, the firm pursued two paths toward growth. The first was a continuation of its Stepping Stones approach into new markets. The second, concurrent and radical approach, was expansion into 46 markets with product offerings that spanned 152 individual lines of business.

One might call period **Exploit and Develop,** based roughly on Birger Wernerfelt's typology in which the growth of the firm involves a balance between the exploitation of existing resources and the development of new ones. See **Chart 16 Exploit and Develop, 1972-1977** at the end of this chapter.

Looking at the firm's investment decisions during this period, we can hypothesize a hybrid growth strategy that executives at Jardine, Matheson could summarize as follows:

- We will continue to invest heavily in our home market, Hong Kong;
- We will continue to expand the market reach of our related businesses - trading shipping, finance, insurance, where physical resources and skills are shared;
- We will invest in unrelated businesses where we can't lose and maybe we'll win. Investment prospects with easy exit (high current ratio gives the firm the ability to convert its accounts receivable into cash or borrow to repay current creditors) and high returns on equity (high profit margin, low cost labor);
- We will exploit our managerial skills (approximately 10% of total employees) in finance, management, marketing, engineering, supply chain/logistics, industry specialists to simplify and replicate the work effort of unskilled or blue collar labor common across our businesses (some 90% of employees);
- We will consider that we have succeeded if we achieve 25% return on investment within three years (If yes, exploit, develop, raise ownership percentage, create subsidiary, create holding company for further acquisitions; if not, sell and commit net surplus capital to reserves).

Beginning in 1972, Jardine, Matheson experimented with stock sales and long-term debt to finance the acquisition or investment in firms whose products and services were related and complementary to Jardine, Matheson's existing products and services, for example, real estate in London's financial district and in Hawaii – and to access additional investment capital for growth.

In that year, Jardine, Matheson made the largest acquisition in its history – the London real estate company, Reunion Properties Company, Ltd., reported to be the biggest landlord in London's financial district, for HK$133 million – the first time issuing new stock that found ready buyers among institutional investors. Before the year was out, the Reunion deal was followed by a HK$55 million takeover bid for Theo. H. Davies & Co., Ltd., an old Hawaii trading company with sugar cane and real estate holdings. This was Jardine, Matheson's first major acquisition in the United States and, again, it was made possible by issuing new stock. For the first time since the Communists seized its vast Shanghai holdings after 1949, Jardine, Matheson held greater assets outside Hong Kong than it held in the Crown Colony.

As importantly, the availability of cheap labor and raw materials, coupled with increasing although limited GDP, justified the firm's diversification into unrelated product/services in the emerging markets of Asia (Thailand, Korea,) and Africa (South Africa, Zambia, Zimbabwe, Lesotho) and its investment of low cost capital into high risk, high potential positions in forest products, sugar and oil exploration. Jardine's Chairman Henry Keswick saw a bright future for raw materials and natural resources in these new markets: "Jardine, Matheson & Company are now well involved – either through subsidiaries, joint ventures or associates – in the production of wood products, rubber, palm oil and sugar. We also intend to participate in the rapidly expanding oil industry in South East Asia through services and exploration."[125]

Among key investments:

- In Thailand, Fedders (Thailand) Ltd. was formed, which was a joint venture with Thai interests and Theo. Davies & Co., Ltd. of Hawaii to manufacture room air conditioners.
- Jardine, Matheson & Company (Japan) initiated a forest products joint venture with Mac Millan Bloedel, Ltd. of Vancouver. The new company was named MacMillan Jardine (Japan, Ltd.).
- In Malaysia, a plywood and block board plant was planned in Pahang by Mentega Forest Products, Sdn. Bhd. in which MacMillan Jardine had an interest.
- Jardine, Matheson & Company acquired a substantial minority holding (40%) in Hunts Holdings Ltd., a small holding in Southern Pacific Properties that was developing a tourist resort at Deuba in Fiji, as well as a shareholding in the Cook Islands Trading Corporation.

[125] Jardine, Matheson & Company 1973 Annual Report, Chairman's Letter. p. 16.

- Jardine, Matheson & Company's United States development program was underway with four initial investments in real estate, building materials, tourist services and computer components.

By the end of 1972, net operating profit was HK$18.5 million up 60% over the previous year. The compound growth rate in adjusted earnings per stock unit was now 27% per annum. Stockholders equity was HK$114.6 million, and increased to HK$290 million in 1973. The announcement of a cease-fire agreement in Vietnam improved the political climate throughout the Far East and raised investor confidence in Asia as a place to do business.

The firm continued to grow its shipping, financial services and insurance operations by initiating joint venture arrangements with other overseas and Hong Kong partners who had leading positions and expertise in their own sub-sector of finance – be it deposit and foreign exchange-broking, hire purchase finance, stock-broking, or bullion dealing; as well as insurance – including life, marine, fire insurance, or reinsurance; and transportation – including containerization, freight forwarding, and other shipping agency services.

- Jardine's wholly owned subsidiary, the Indo-China Steamship Navigation Company, acquired minority interests in Wah Kwong Shipping & Investment Co. (Hongkong) Ltd. and Grand Marine Holdings Ltd, two leading Hong Kong public shipping companies with nearly one million tons of deadweight tonnage afloat.

- The Lombard Insurance Co., Ltd. acquired South Australian Insurance Holdings Ltd. in Australia.

- The Hongkong and Far Eastern Investment Company, Ltd. issued new shares in exchange for certain of Jardine, Matheson & Company's long-term investments and changed its name to Jardine Securities Ltd., holding investments in many large public companies. Jardine Securities Ltd. was added to the list of finance and investment companies that now included the Empire Finance Company, with interests in smaller well-managed Hong Kong companies that it brought to the market, and Jardine Fleming, now a leading merchant bank offering investment management, underwriting and corporate finance services with offices in Tokyo, Singapore and Sydney.

Jardine, Matheson & Company's real estate developments continued with the 1000-room Excelsior Hotel and its adjacent shopping center in Hong Kong, now fully operational; the construction of the May Tower apartment and the Hong Kong World Trade Center, underway and planned for completion in 1974 and 1975 respectively.

The organization – as well as the capital structure – of the firm was beginning to change from a purely geographic to a functional alignment. The Hong Kong Head Office, first referred to as "the parent company" in 1972, was changing from an operating company to an active holding company, with a strong focus on better balance sheet management of the parent and of the principal operating subsidiaries and associates of the firm.

While the Hong Kong office continued its long-standing departmental activities, four departments had been spun off as public companies with subsidiaries and associates of their own:

- Jardine Industries Ltd. (trading, manufacturing and real estate);
- The Indo-China Steam Navigation Company, Ltd. (shipping);
- The Lombard Insurance Company Ltd. (insurance);
- Jardine Securities Ltd., an associated company (investment).

By mid 1973 the net assets of Jardine, Matheson & Company, Pty. Ltd. were HK $170 million and those of Matheson & Company Ltd. approximately HK$350 million, representing the parent company's equity and loan funds. The firm continued to increase its overseas assets.

- The firm reorganized Jardine Waugh & Company, changing its name to Jardine, Matheson & Company (South East Asia) Ltd. and reorganizing its capital structure to enlarge the equity base of the company for future expansion in a geographic area that had great potential. Chairman Henry Keswick explained, "Our immediate objective is to consolidate our position as a major international trading, services and financial group with headquarters in Hong Kong and operating throughout the Pacific region and in the United Kingdom."[126]
- In the U.S.A., Jardine undertook a joint venture with Grosvenor International (Hawaii) Ltd. for real estate development in Hawaii under the name Grosvenor Jardine Inc. In 1972 three projects were underway.

Management expertise was critical to the continued growth of the firm, Henry Keswick acknowledged, "Over the years we have had a consistent policy of recruiting annually an intake of young graduates and other professionally qualified specialists of all nationalities. This policy stands us in good stead today as we have developed an experienced management team in depth that will continue to provide a strong base for the Company's future expansion."[127] Commenting on the appointment of three new directors of the company, Keswick was pleased to say that the average age of executive directors of the Company was 37 years.

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126 Jardine, Matheson & Company, 1972 Annual Report, Chairman's Letter, p. 14.

127 Jardine, Matheson & Company, 1972 Annual Report, Chairman's Letter, p. 16.

Henry Keswick called 1973 "one of the most challenging years in Jardine's recent history – starting in a period of intense boom conditions in Hong Kong and ending in an international energy and inflation crisis."[128] The geographic spread of assets and earnings during 1973 had changed significantly from 1972 as the company moved to increase its business activities in South East Asia, Australasia, Europe and North America.

Regions	**Net Assets HK$ 1973**	**Net Assets HK$ 1972**	**Net Earnings % 1973**	**Net Earnings % 1972**
Hong Kong	734	512	55	82
N.E. Asia	27	13	10	7
S.E. Asia	167	18	13	3
Australasia	100	76	4	4
N. America	145b	7	5	-
Europe	536	32	13	4
TOTAL	**1709**	**658**	**100**	**100**
Loans	251	85		
ADJ.TOTAL	**1458**	**573**		

Having invested so heavily in world markets, Jardine, Matheson & Company would bear the impact of the energy crisis of 1973 and worldwide monetary uncertainties as both supplier and customer.

Development and expansion of Jardine's portfolio of businesses, geographic spread, use and source of funds were analyzed in the 1974 Annual Report for the first time. The firm had grown very large, very fast. "Such is the diversity of Jardine, Matheson & Company's business that large movements are likely to occur between the categories from year to year. Nevertheless, the Board's policy is to balance the activities and areas so that there is no undue reliance on any one area or activity on a continuing basis."

In 1974, Jardine, Matheson & Company's capital expenditures totaled HK$370 million. Investments had been made in ships, existing property ventures, and acquisition of minority interests in subsidiary companies in the oil servicing industries. These investments had been funded largely from internal resources and term finance. The major portion of Jardine,

128 Jardine, Matheson & Company, 1973 Annual Report, Chairman's Letter, p. 14.

Matheson & Company's total fixed assets were in property and dry cargo ships. In the next three years, some HK$122 million would be invested in modernizing the sugar plantations and sugar mills of Theo. Davies & Company, the firm's acquisition in Hawaii.

For the first time in its public record keeping, the firm introduced an historical account of its development and strategy in 1974. The link with the past is reflected in the opening paragraph of the Annual Report: "Jardine, Matheson & Company played a major role in the founding of Hong Kong and in its subsequent emergence as a major trading, financial and manufacturing center in South-East Asia." The firm's business activities are described as a "wide range of interests" that "stem largely from an historic ability to deal with any business situation that arose." The organizational development of the firm, which employed 21,000 people in 12 Asian and Pacific countries as well as the United States, is described as follows: "Now there are specific divisions, departments, subsidiaries and associates which can provide almost any type of commercial service throughout Asia and the Pacific. The earlier traditions are thus maintained in today's diverse international corporation."[129] Jardine Matheson's widespread interests were identified as: "trading and light industry; service activities including shipping, air transport, insurance and security; financial services, including merchant banking, money, commodity- and stock-broking; property; and natural resources."

1975 was another year of continued capital expenditures, including the acquisition of all the issued capital of Gammon (Hong Kong) Ltd, a leading Hong Kong construction and civil engineering group with substantial commercial property holdings; the successful cash and share offer for 75% of Zung Fu Company Ltd., a firm with widespread automotive, engineering, trading and aviation interests in Hong Kong and Australia; and the acquisition for HK$175 million of 53% of Rennies Consolidated Holdings Ltd., a firm operating in eight South African countries in shipping, transportation, trading and light industry, hotels and tourism.

In his statement to stockholders, new Chairman David Newbigging articulated the firm's business development and expansion strategy: "We intend to continue the policy of developing our existing interests and of seeking new activities in fields compatible with them. As our business grows, both functionally and geographically, the demands on management and staff at all levels increase. Constant attention will be paid to this with a view toward assuring that management in depth is available for any new projects we undertake."[130] The firm more than doubled its employees from 21,000 in 1974 to 46,000 in 1975.

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[129] Jardine, Matheson & Company, 1974 Annual Report, p.1.

[130] Jardine, Matheson & Company, 1975 Annual Report, Chairman's Letter, p. 16.

Exceptionally high world sugar prices increased Jardine, Matheson & Company's returns from its sugar interests, but sounded an alarm bell. Considerable effort was spent in 1975 on achieving a more even spread of activities to insulate the firm against major short term variances – whether high or low – in the more volatile elements of their business, particularly commodity prices.

To provide additional financial strength and flexibility, the firm issued HK$500 million in 7.5% Convertible Subordinated Unsecured Loan Stock due 1990, with the intention of refinancing on improved terms its short and medium term debt and providing more working capital for continued growth and investment.[131]

- Jardine, Matheson consolidated its ship-owning and marine insurance in Hong Kong in 1976, acquiring for cash all the outstanding shares of two previously publicly quoted subsidiaries, the Indo-China Steam Navigation Company (Hong Kong Ltd.) at a cost of HK$30 million and Lombard Insurance Company Ltd. at a cost of HK$17 million.

- The firm made another striking geographical move in 1976 with its first major investment in the Middle East, a significant minority shareholding in Transportation and Trading Company (TTI), a company affiliated with the Olayan Saudi Holding Company, which operated through subsidiaries and associates, principally in Saudi Arabia and Kuwait. TTI was involved in the distribution and marketing of construction and engineering equipment, vehicles and machinery, food products, transportation and contracting.[132] At the close of 1976 an agreement was reached with Diamond M. Drilling Company of Houston, Texas to manage the drillship in which Jardine, Matheson & Company had a substantial minority shareholding through International Petroleum Ltd., now operating in the Far East.

- In the same year in Hong Kong, Jardine, Matheson & Company went into partnership with Barclays Bank International Ltd. as Jardine Barclays Ltd. to acquire Union Dominion Trust Ltd. This company provided consumer finance services through two local joint ventures – United Merchants Finance Ltd. in Hong Kong and Jardine Manila Finance Inc., the Philippines.

In his statement to stockholders, David Newbigging, who was Chairman of Jardine, Matheson during 1975-1980, articulated the firm's business development and expansion strategy: "We intend to continue the policy of developing our existing interests and seeking

131 Jardine, Matheson & Company, 1975 Annual Report, Chairman's Letter, p. 14.

132 Jardine, Matheson & Company, 1976 Annual Report, Chairman's Letter, p. 16.

new activities in fields compatible with them. As our business grows, both functionally and geographically, the demands on management and staff at all levels increase. Constant attention will be paid to this with a view toward assuring that management in depth is available for any new projects we undertake."[133]

During this period a total of 437 acquisitions were made for a total investment of HK$8253 millions in finance, transportation, trade and service, manufacturing and natural resources. Through investments and acquisitions, Jardine Matheson was now represented in 46 markets. Indeed, such aggressive expansion required what David Newbigging called "management in depth."

In a 1975 interview, David Newbigging painted a picture of organizational life and culture in the mid 1970s

Jardine, Matheson had 13 directors, one of whom was Chinese, and 140 managers, all expatriates, recruited from Oxford and Cambridge, on a three-year contract with the firm. A consequence of the imprisonment of Jardine's managers during World War II and casualties during the war and the Korean conflict, the Company's "old guard" had been replaced by a cadre of very young graduates, who reported to managers only slightly older, and were responsible for very large profit centers. Newbigging commented, "We drop them in at the deep end. We say, 'okay, you think you are good, now prove it'."[134]

Jardine's departments and subsidiaries were run as profit centers. Tight financial control and reporting systems ensured that no profit center could fall behind even for one month and pass unnoticed. Each was submitted to the discipline of forecasting three years in advance on a monthly basis. Henry Keswick pushed through strict cash control and reporting measures: "If I want to know the overheads of our air conditioning plant in Thailand, I can find it straight away. Every month we produce group results. I can see how a profit center has done, compared with budget, and the financial people highlight what has gone wrong. Every month we update our forecast for the year. And every quarter."[135]

The firm's management structure was informal. There were no organization charts, only a single-sheet list of directors' responsibilities on which the directors were listed not by name but by initial with instructions to "liaise with".

Executive directors assembled by 9 a.m. every workday – and Jardine's 30 associate directors met weekly – for a meeting known as "prayers," to tell each other what they had

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133 Jardine, Matheson & Company, 1975 Annual Report, Chairman's Letter, p. 16.
134 Roy Hill, "Venerable Trading House Youth At the Helm, " International Management (August 1975), p. 33.
135 Ibid., p. 34.

done the previous day, or the previous week. Once a month, everyone who headed a profit center in Hong Kong – 10 directors, 50 department heads – came together for their version of the "prayers" meeting.

The branch offices kept in touch with headquarters through regular weekly telephone calls in which the head of the profit center in, say Singapore, would speak to the director in Hong Kong, to whom he reported.

David Newbigging noted in an interview that Jardine, Matheson's interests could have been rationalized, that if the firm had existed in London it might have been divisionalized. In Newbigging's view entrepreneurship depended both on responsibility and on incentive. He said, "There are benefits in having many companies, particularly if you have joint ventures. And if you want to bring in an expert and give him a slice of the action, the only way to do it is to have a separate company."[136]

Commenting on the firm's diversification strategy, Chairman Henry Keswick said, "There is industrial logic in what we do. We never buy a business just as a financial exercise. We never strip assets. We only expand into areas where we can inject our own methods."[137]

Acquisitions and investments had to have board approval - and followed a standard process for assessing the current financial health/operating effectiveness of the target firm. First Jardine, Matheson would send in a team to look at prospects. Members might include an operational director, finance director and legal and taxmen. With smaller acquisition prospects, the examination of the books might be left to an accountant and a management representative.

Financial Analysis

By 1977, turnover (reported as of 1973, previously called consolidated trading profit) was HK$4419 million, reflecting the contribution of subsidiary and associated companies. Fixed assets continued to rise from HK$310 million in 1972 to HK$2551 million in 1977. Investments in subsidiary and associated companies increased from HK$418 million in 1972 to HK$1392 million in 1977. **See Chart 17 Summary Financial Data, 1970-1979,** end of chapter and **Chart 17.1 Key Management Ratios, 1970-1979,** on the next page. Return on equity was 16.06% in 1972 and 15.33% in 1977. Return on total assets was 13.40% in 1972 and 10.89% in 1977. Retained earnings over turnover – or Added Value – continued to decline from 6% in 1973 to 5% in 1977, reflective of high growth, high expenses in the face of amounting assets. The ratio of debt to equity, which was 40% in 1972, increased to 53.8% in 1977. Sales margins declined from 14.5% at the beginning of the period to 10.8%

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136 Ibid., p. 34.
137 Ibid., p.34.

in 1977. Working capital to sales declined from 10.8% at the beginning of the period to 7% in 1977.

Chart 17.1 Key Management Ratios, 1970-1979

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
ROE	17.76%	18.83%	16.06%	9.40%	11.70%	13.30%	15.19%	15.33%	14.51%	15.28%
ROTA	15.05%	13.31%	13.40%	7.91%	18.54%	9.97%	10.39%	10.89%	11.33%	11.84%
Added Value	-	-	-	0.06	0.058	0.05	0.03	0.05	0.054	0.055

Had Jardine, Matheson continued to pursue its horizontal and vertical acquisition program, what would have been the firm's value in 1985 and what risk would banks have been willing to take for further unrelated diversification? Model 1 values the firm as if the Exploit and Develop scenario, using the modeling methodology of Ciaran Walsh,[138] specifically, the following concepts:

- **Horizon Period**: The number of years for which current strategies will continue to add value to the company. The number is usually 6 to 10 years. Our model uses 6 years.
- **Forecasts**: For each of the years in the horizon period, operating and investment cash flows are forecasted, based on known operating and investment cash flows. In Model 1, a linear regression of actual cash flows from 1970-1979 was used to produce a growth rate that assumed the same broad "Exploit and Develop" acquisition strategy for the next six years.
- **Cash Flow to the Firm**: Profit available for appropriation or earnings before interest and tax [(EBIT) (1-tax rate) + depreciation] minus capital expenditures, minus change in working capital. Where it appears, the change in assets is due to cash conversion, not to write-offs.
- **Discount Rate**: Each year is discounted back to the present using a discount factor based on the weighted average cost of capital (WACC). The WACC is estimated at 10%.

[138] Ciaran Walsh, Key Financial Ratios, (London: Financial Times Press, 1990).

- **Terminal Value**: The final year's cash flow is capitalized using the long-term cost of capital (net operating profit after taxes X 10). This gives the terminal value at the end of the horizon period.
- **Total Enterprise Value**: The terminal value is discounted back to the present again, using the WACC; cash flows are added, including the terminal value, to produce the total enterprise value.
- **Added Value**: Liabilities are subtracted from the total enterprise value to derive accumulated added value. In the context of cash flow analysis, added value is what the banks would be willing to lend for unrelated diversification.

Model 1 – Continuation of Exploit and Develop Acquisition Strategy

Actual Historic Cash Flows 1970 – 1979 (US Millions)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Profit Available	46	58	92	137	215	265	259	367	432	495
+/- Fixed Assets		64	114	717	49	1,030	346	-201	-554	-86
+/-Net Working Capital		39	-29	236	110	393	-80	-44	314	45
Net Cash Flow		-45	7	-816	56	-1,158	-7	612	672	536

Projected Cash Flows 1980-1985 (US Millions)

		1980	1981	1982	1983	1984	1985
Projected Cash Flow		577	695	814	932	1,051	1,169
Discounted at 10% WACC		525	574	612	636	652	660
Total Present Value	'80-'85	3,659					
+Present Value of Terminal Value		6,600					
Entity Value-Total Liabilities	Funds Employed	10,259 - 5136					
Accumulated Added Value		5,123					

Note: Added value here is what the bank might be willing to lend for unrelated diversification.

Actual Cash Flows 1980-1985 (US Millions)

		1980	1981	1982	1983	1984	1985
Profit Available		525	723	708	139	80	157
+/- Fixed Assets		154	437	684	-801	205	-1,035
+/-Net Working Capital		-269	729	-254	47	-640	-462
Net Cash Flow		640	-443	278	893	515	1,654

Actual cash flows for 1980-1985 fell below those projected for 1981-1984, a consequence of high assets to sales, itself a consequence of Jardine, Matheson's very aggressive acquisition program.

To meet its cash flow projections and avoid raiding reserves, the firm might have reduced its growth to a level it could safely absorb by increasing retained profits (for example, through additional asset sales) or by reducing internal costs, specifically the cost of sales, which is captured in its assets to sales ratio – or by instituting a combination strategy to wipe out the cash deficit and restore a balance between profits, assets and growth. This balance is what

Ciaran Walsh calls "growth equilibrium," defined as the rate of growth that a company can sustain from its operating cash flow. The concept of "growth equilibrium" enables management to manipulate three cash flow drivers – the relation of assets to sales, retained earnings to sales and growth in sales. The self-funding rate of growth for a company is calculated by expressing retained earnings as a percentage of owner's funds. When the growth equilibrium (GE) = 1, cash flow is not in deficit and is positive when GE = 1 + x.

Taking 1977 as an example, assets to sales are 706/4419 = .159. Each $1 sales requires .159 to carry it. Looking at the relationship of retained earnings to sales for the same year gives 129/4419 = .029. Each extra $1 sales generates .029 of retained earnings which goes into balance sheet funds. But each extra $1 sales requires .159. Therefore, $1.30 of sales in any year are required to fund $1 sales the following year. This ratio of $1 extra sales for every $1.30 existing sales, means the company should decrease current assets or increase owners funds by 130%.

Setting GE=1, then decreasing assets, increasing owners funds or both would have improved Jardine, Matheson's cash flows as follows:

Growth Rate Sustainable by Cash Flows – Sensitivity Analysis (US Millions)

	1980	1981	1982	1983	1984	1985
Current Assets	796	1,525	1,271	1,318	678	216
Sales	7,467	9,266	11,240	10,644	8,881	10,497
Owners Funds	5,235	6,600	6,288	5,261	4,224	4,774
Retained	815	633	-177	-113	834	-310
Current Growth is	**15.5**	**9.5**	**-2.8**	**-2.1**	**19.7**	**-6.4**
Asset cost of ea. $1 sale	0.106	0.164	0.113	0.123	0.076	0.02
Retained earnings generated by $1 sale	0.109	0.068	-0.015	-0.01	0.093	-0.029
Sales this year required to fund $1 sales next year	.97	2.41	-7.53	-12.3	0.817	-.689
Rate of growth that can be funded from retained earnings	103%	41.4%	N/A	N/A	122%	N/A

Acquisitions and divestitures affect year-to-year figures.

In fact, Jardine, Matheson made significant divestitures between 1978 and 1979, including its investments in shipping and overseas properties that were unprofitable, as well as its interests in several subsidiaries. The firm expected that these asset sales would be sufficient to increase working capital and cash flows (200% increase by 1985). The growth rate was anticipated to be approximately 14% from 1980 to 1985, close to the actual Heng Seng Index (HSI) earnings growth rate of 16%. However, the Hong Kong Land stock swap put additional demands on Jardine, Matheson's cash flow and debt coverage. See the end of Chapter 5, Section 4: Harvest and Divest for further analysis and cash flow projections.

Chapter 5: Section 4: Rationalizing Commodities and Manufactures: Harvest and Divest Period, 1978-1983

From 1978-1983, the firm began to rationalize products and markets, building a more focused portfolio that could be replicated in each market.

This period was characterized by two waves of divestitures. The first, from 1978-79 and the second wave, 1981-1983. The interpretation of this period, which we'll call Harvest and Divest, is based on the diversification and divestiture research of Hoskisson, Johnson and Moesel and D.D. Bergh and G.F, Holbein,[139] which relates divestiture to deliberate, voluntary resource reallocation and strategy choices.

Hoskisson et al. describes a phenomenon they call "strategic divestiture," the reshuffling of asset portfolios through divestiture and voluntary restructuring linked to strategy formulation. What sets the Hoskisson research apart is its finding that strategic decisions – more than performance and weak governance – are the primary cause of high levels of divestment intensity.

A voluntary restructuring program aided by input from McKinsey and Company accompanied the first wave of Jardine, Matheson's divestitures during 1978-79. The second wave of divestitures was initiated to get the company out of high debt, caused by its stock swap with the Hongkong Land Company. **Chart 18: Harvest and Divest, 1978-1983**, at the end of this chapter, presents the scope of Jardine, Matheson's divestments during the period 1978-1983.

With fixed assets and returns on invested capital more or less static, and the firm's debt to equity ratio at 54.8%, it is not surprising that Jardine, Matheson & Company turned to management consultant McKinsey & Company in 1978 to restructure the firm. The result was to place more of the day-to-day business with the operating companies and the activities of the Chairman and his team of senior managers on planning and policy issues and overall firm strategy, which included exploration of growth opportunities in China.

Through its investments in commodities, the firm's earnings had become subject to widespread political, economic and monetary uncertainty. After a meteoric rise to over 60 US cents per pound, the world price of sugar fell to 15 US cents in six months, taking the

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[139] Donald D. Bergh and Gordon F. Holbein, "Assessment and Redirection of Longitudenal Analysis: Demonstration with A Study of the Diversification and Divestiture Relationship," Strategic Management Journal, Vol. 18, No. 7, p. 561: Robert E. Hoskisson, Richard A. Johnson, Douglas D. Moesel, "Corporate Divestiture Intensity in Restructuring Firms: Effects of Governance, Strategy and Performance," Academy of Management Journal, Vol. 37, No. 5 (1994), p. 1208.

profits of Jardine, Matheson & Company's Hawaii and Philippines operations with it. A sharp deterioration in the South African economy dealt a similar blow to Rennies. The OPEC oil shock and near collapse of Indonesia's state oil company sent troubling ripple effects through the economies of Hong Kong and South East Asia.

David Newbigging wrote, "During the year (1978) we conducted an in-depth review of a number of our investments in associated companies...where we have held the investment for several years without receiving dividends. Following this review we have now made provisions totaling HK $90 million for certain of these investments,"[140] including:

- In Hong Kong, Jardine Industries Ltd. 's shareholdings in three companies in three consumer electronics manufacturing companies were sold, taking Jardine Industries out of the manufacture and sale of consumer electronics.
- In 1979, the firm disposed of HK$201 million in investments, including Promet Engineering Pte. Ltd. and Toft Bros. Industries Ltd. and their subsidiaries, shipbuilders.
- With a depression in local property markets, Jardine, Matheson & Company sold Reunion Properties as well as its shareholding in Singapore Land Ltd. and its interests in the Gotanda office building in Tokyo, and the Excelsior Hotel and Shopping Center complex in Hong Kong.

The emergence of China from the anarchic Cultural Revolution to the more stable era of the Four Modernizations appeared about to open China's untapped consumer market. Indeed, Jardine, Matheson expanded its China Trading Division to support and benefit from the government's modernization program, which included the expansion of foreign trade, among its Four Modernizations. Jardine's Beijing office became the focal point of the effort. A second office was added in Guangzhou (Canton) to deal with traditional export and import activities as well as joint-venture industrial investments and compensation trading. Jardine, Matheson and its joint-venture partner A.G. Schindler, with the China Construction Machinery Corporation, established the China Schindler Elevator Co. Ltd. in March 1980 to manufacture and distribute lifts and escalators for sale within China as well as for export.

The "modernization" of China encouraged many businesses to seek representation in Hong Kong as a way into China. Overseas Chinese seeking secure investments and business developers created additional demand for Hong Kong property. As a result, the last years of the 1970's had seen an unprecedented property boom in Hong Kong. Rents for top-quality offices in the Central District rose from some HK$6 per square foot in 1975 to nearly HK$30 in 1980, and the price of a luxury flat from HK$1.5 million to HK$8 million.

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[140] Jardine, Matheson & Company, 1978 Annual Report, Chairman's Letter, p. 16.

The Hongkong Land Company held a unique portfolio of top quality office and residential property, and was very active in property development. Its other main interests included the Mandarin Oriental group of deluxe hotels and the Dairy Farm food distribution group with major supermarket chains in Hong Kong, Australia and Singapore.

When Hongkong Land signed a cooperative agreement with its rival, Cheung Kong Holdings Ltd., which had been raiding property companies in Hong Kong, Jardine, Matheson – then owning 26% of Hongkong Land – sprang into action to avoid what it anticipated to be a takeover bid.

In the late summer and early autumn of 1980, Jardine increased its holdings in Hongkong Land to 32%, financing the purchase by property sales, and the sale of a large block of shares and warrants in the Hongkong & Kowloon Wharf & Godown Company Ltd.

On the morning of November 3, amid intense speculation and press comment, and following the expenditure of HK$2.2 billion in the stock market that day, Jardine, Matheson & Company announced that the firm now owned 40% of Hongkong Land.

Commenting on his firm's purchase of 659.1 million shares in the property company, Jardine, Matheson Chairman David Newbigging tried to put a positive spin on the firm's debt position: "An investment on this scale would not have been possible but for the sound financial basis on which Jardine, Matheson & Company had been built up over several years. Our policy of reducing the ratio of debt to equity during the latter part of the 1970's enabled us to borrow the substantial funds needed for these stock market purchases on favorable terms. Although these borrowings have resulted in the debt/equity ratio rising to a level of .87:1, we believe that this will not inhibit our future expansion and that the continued growth of the group overall, coupled with the expected earnings and cash flow from our investment in Hongkong Land, will more than compensate for this temporary effect."[141]

Concurrently, Hongkong Land was also increasing its holdings in Jardine, Matheson & Company and, following a series of corporate moves and acquisitions through the stock market, Hongkong Land announced that it owned approximately 40% of Jardine, Matheson & Company, making Hongkong Land the firm's single largest shareholder. Compounding what amounted to a mutual hostage-taking situation, Jardine invited two of Hongkong Land's senior directors to join the board of Jardine, Matheson & Company, namely Trevor Bedford, Managing Director of Hongkong Land, and George Ho, Deputy Chairman and Managing Director of Hongkong Commercial Broadcasting Company Ltd. and a director of Hongkong

[141] Jardine, Matheson & Company, 1980 Annual Report, Chairman's Letter, p. 16.

Land. Their appointments paralleled the appointments of two Jardine, Matheson & Company directors to the board of Hongkong Land, David McLeod and R.C. Kwok.[142]

The year saw a significant increase in investments of HK$5,030 million and of additions (and fewer disposals) to fixed assets of HK$316 million, funded by cash generated from operations of HK$1,175 million, increases in term debt of HK$ 2,996 million and the issue of shares totaling HK$753 million. Total term debt rose to HK$3,921 million by December 31, 1980, with 2/3 of that largely in medium term debt.

- Investments included the purchase of Glanvill Enthoven & Co. Ltd, a long-established firm of Lloyd's insurance brokers based in London. Jardine acquired the whole of the outstanding capital of that company – and then amalgamated its existing insurance-broking interests with those of Glanvills.
- The firm initiated a five-year oil exploration program with two major US companies and was awarded, through Matheson Petroleum, an exploration and production lease in the United Kingdom sector of the North Sea.

Despite borrowings and interest costs associated with Hongkong Land, Jardine Chairman David Newbigging tried to remain optimistic: "We will continue to reduce indebtedness by improving cash flow from operations and disposing of businesses which are either not closely related to our main activities or are producing an unsatisfactory return. However, we do not consider it necessary to dispose of good quality assets and investments solely to reduce the level of debt. Our 1981 results demonstrate that the current level of interest cost is well within the group's capacity."[143]

With a substantial drop in property trading profits, 1982 proved a very bad year for Hongkong Land. Local property markets declined. Several of Hongkong Land's joint ventures in Hong Kong with other partners met with serious difficulties because of the depressed state of the property market and the failure of partners to meet their commitments. Hongkong Land conducted a thorough review of all its joint ventures and decided to make substantial extraordinary provisions where either the project in its current form was not viable or its partners unable to meet their obligations. Due to Jardine, Matheson & Company's new equity accounting procedures, these provisions now showed up on Jardine, Matheson & Company's accounts where they had a negative effect on results.

They did not, however, show up on Hongkong Land's accounts. Hongkong Land's decision to account for their shareholding in Jardine, Matheson & Company on the basis of dividends

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142 Jardine, Matheson & Company, 1980 Annual Report, Chairman's Letter, p. 16.
143 Jardine, Matheson & Company, 1981 Annual Report, Chairman's Letter, p. 16.

received, and not on an equity basis, had consequential effects on Jardine, Matheson & Company's own accounts. Chairman Simon Keswick reported, "We believe, given the level of our shareholding and board representation, that Jardine, Matheson & Company should continue to equity account the results of Hongkong Land (including any dividend received from Jardine, Matheson & Company) and therefore will no longer make any allowance for the cross-holding effect of Hongkong Land's shareholding in Jardine, Matheson & Company. We have also absorbed direct to reserves our proportion of the reduction in Hongkong Land's property revaluation surplus on December 31, 1983. The net effect has been to reduce the carrying value of our investment to HK$5.88 per Hongkong Land share compared with its underlying net asset value of HK$6.41 per share at December 31, 1983."[144]

During 1983 Jardine Matheson disposed of surplus assets to raise cash, extended regional joint ventures to breathe new life into two businesses – Lombard Insurance and the Indo China Steamship Company – that needed access to specialist skills and further capital to expand, and trimmed overheads.

- In February 1983, Jardine reached agreement with The Continental Corporation to develop jointly their insurance underwriting interests in the Asia Pacific region. This amounted to the Lombard Insurance Company, formerly a wholly owned subsidiary, being owned 60% by Continental and 40% by Jardine, Matheson & Company.
- The Indo-China Steamship Company, a wholly owned subsidiary of Jardine, Matheson, was sold.
- Jardine, Matheson's sale of its 53% stake in Rennies Consolidated Holding for HK$1,272 millions generated a surplus over book value of HK $760 million.
- Negotiations for the sale of Jardine, Matheson & Company's Hawaiian sugar interests continued throughout 1983.

By the end of December 1983, Jardine had reduced its debt to equity ratio from .81 to .75. But the moves made during 1983 were insufficient to solve Jardine, Matheson & Company's problems – low working capital to sales, high assets to sales – low profitability in the face of high debt and interest expenses. The firm announced its intention to put more effort into developing several of its functional businesses to the point where they could stand-alone. Insurance brokerage was already in this position. Following its acquisition of Bache Insurance Brokers Inc, now renamed Jardine Insurance Brokers Inc., Jardine had become a major international insurance-broking business in most of the countries in which it operated.

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[144] Jardine, Matheson & Company, 1983 Annual Report, Chairman's Letter, p. 16.

Now, the firm intended to develop its freight forwarding and shipping agency interests along similar lines.

In January 1984 Jardine Fleming & Company Ltd. arranged on behalf of Hongkong Land a needed HK$4,000 million eight-year syndicated bank loan, secured mainly against properties in Hong Kong's Central District. This loan replaced some of Hongkong Land's short term borrowings and meant that all of its current borrowing requirements for its Hong Kong Telephone, Hongkong Electric and Exchange Square real estate purchases could be met by medium to long term financing.

Jardine, Matheson & Company would take further steps in 1984 to manage its balance sheet, making more provisions against property and shipping. While Jardine, Matheson & Company's ship management and shipping agency businesses would continue to be developed, the firm "should progressively withdraw from its ship owning activities, including those related to offshore oil servicing."[145]

Financial Analysis

The asset sales of the late 1970s were, in fact, followed by asset acquisitions in 1980-1981, notably in real estate, as Jardine, Matheson built up extensive holdings in Hongkong Land at a time when the cost of funds was high. The firm's debt to equity ratio was .87:1.00 in 1981. By 1984, total debt was more than two times equity. Return on assets in 1984 declined 50% from peak 1981 levels. This reflects the firm's high debt and low income levels and points to an unrealistic dividend payout policy in the face of rising debt and reduced earnings. Return on equity dropped from a high of 11% in 1982 to 1.89% in 1984. This reflects the firm's high debt and low income levels. The firm's current ratio was low throughout the period, approximately 1.18 in 1984 dropping from a high of 1.29 in 1981. A low current ratio meant that Jardine, Matheson could make an easy exit from investments.

Net cash flows during the period were far lower than expected, but not in deficit, despite net sales growing 20% a year and the relationship of cost of goods sold to sales at 93.5%. See **Chart 17 Summary Financials, 1970-1979** and **Chart 19, Summary Financial Data, 1980-1989,** end of chapter and embedded **Chart 19.1**, on the next page.

[145] Jardine, Matheson & Company, 1984 Annual Report, Chairman's Statement, p. 16.

Chart 19.1, Key Management Ratios, 1978-1985

	1978	1979	1980	1981	1982	1983	1984	1985
ROE	14.51%	15.25%	10.02%	10.63%	11.26%	2.64%	1.89%	3.29%
ROTA	11.33%	11.84%	8.88%	9.65%	9.65%	5.65%	4.66%	6.71%
Added Value	5.4%	5.5%	11%	6.8%	0	0	0	2.9%

If Jardine, Matheson had not reorganized in 1985, what would its enterprise value have been in 1990? Using 1985 as the starting year, **Model 2**, on the next page, allows us to see the impact, if any, on cash flow of Jardine, Matheson's asset sales and stricter cash management.

Model 2 – Harvest and Divest, Without Reorganization

Projected Cash Flows 1986-1990

	1986	1987	1988	1989	1990
Projected Cash Flow	946	1,024	1,102	1,180	1,259
Discounted at 10% WACC	860	846	827	806	781
Total Present Value 1986-1990	4,120				
+Present Value of Terminal Value	7,817				
Entity Value	11,937				
-Total Liabilities (Funds Employed)	8,426				
Added Value	3,511				

Net cash flows were far lower than expected, but not in deficit, despite net sales growing 20% a year and the relationship of cost of goods sold to sales at 93.5%. The debt/equity ratio was reduced dramatically from an average 66% in the early 1980's to 10% in the last four years of the decade and ROE from a low of 1.89 in 1984 to 14% in 1989. Beginning with the reorganization of 1985, Jardine, Matheson had begun to increase owner's funds. The five-year average in 1989 was 21.89% (versus – 0.13% over the five years beginning 1982-1987).

Actual Cash Flows 1986-1989

	1986	1987	1988	1989
Profit Available	479	785	1,113	1,577
+/- Fixed Assets	-222	351	262	329
+/- Net Working Capital	758	-5	-580	-239
Net Cash Flow	-57	439	1,431	1,487

Chapter 5: Section 5: Experience of Failure: Focus on Distinctive Capabilities Period, 1984-1996

The acquisition by Jardine, Matheson & Company of 40% of Hongkong Land Company and vice versa had long-range management consequences for both companies. Jardine and Hong Kong Land had made their acquisitions near the peak of Hong Kong's land boom. The subsequent collapse in the property market and soaring interest rates became the single largest burden on Jardine. When earnings plunged and debt soared, local entrepreneurs like Li Ka'shing and Y.K. Pao began to view Jardine, Matheson (and Hongkong Land) as takeover targets. Jardine had to sell valuable – and profitable – assets to survive. A major reorganization plan was deployed with changes amounting to the dismantling of Hongkong Land and the creation of a complex web of mutually owned corporations, fortifying the firm's defenses against future takeovers and strengthening the firm's governance in innovative ways.

The Hongkong Land affair was the firm's first, truly major and unanticipated taste of failure. The chagrin is evident in Simon Keswick's assessment of the actions necessary to secure the company, for, indeed, Keswick believed that Jardine, Matheson's survival as a family-owned firm was at risk.

In the 1984 Annual Report, Simon Keswick reflected on the rise and fall of Hong Kong property market and Jardine, Matheson & Company's relationship with Hong Kong Land. This is the strategy in Keswick's own words:

> Our first corrective moves in both companies were to cut dividends and to cancel or defer all unnecessary capital expenditure, confining ourselves to those projects for which we had entered into firm commitments, together with a few others which passed stringent tests for return on capital. Simultaneously, we streamlined management and set about re-defining our business objectives and strategy.
>
> At Jardine, Matheson & Company, we instituted a major program of reduction of overheads and tightened our worldwide cash management. Next, we analyzed our major activities to determine which were to be regarded as core businesses, with growth potential and the ability to prosper on a stand-alone basis with decentralized management. Those that failed to pass this test were earmarked for possible disposal.
>
> While we were taking these actions at Jardine, Matheson & Company, Hongkong Land, as has been documented in its reports to its shareholders, was taking similar

strong measures to extricate itself from joint ventures, to restructure its debt and to concentrate on its own three core activities – property, food and hotels.

In addition to winding up or disposing of those projects and businesses for which we saw no promising future, both companies used favorable market conditions to raise capital or to sell certain assets, such as Atlas House in London and Hongkong Land's shareholdings in Hong Kong Telephone and Hongkong Electric, where the investments, although of high quality, were not integral to our operations. We also introduced partners to some of Jardine, Matheson & Company's businesses where we considered that the specialized expertise of our partners, as well as their capital, would be of value.[146]

From 1984-1996, business interests were reduced and new governance schemes introduced to protect information and closely monitor expenses and investments. Growth continued, but far less visibly, through related diversification strategies pursued by subsidiary and associated companies. The firm continues on this track through 2000.

In 1985, Hongkong Land's residential real estate portfolio was sold to Australian investors and in 1986, Hongkong Land's Dairy Farm food subsidiary and Mardarin Oriental hotel chain were spun off as separate companies. Hongkong Land's remaining interest in Jardine, Matheson was contributed to a new investment company, Hongkong Investors Ltd. The new company was merged with Jardine Securities Ltd. to form Jardine Strategic Holdings Ltd. Jardine Strategic, with net assets of more than HK$ 5.5 billion, was the single largest shareholder in Jardine Matheson, Hongkong Land, Dairy Farm and the Mandarin Oriental hotel chain. Like Jardine, Matheson Holdings, Jardine Strategic was incorporated in Bermuda. At its founding in 1986, Jardine Strategic had a 25% stake in Jardine, Matheson; 15% stake in Hongkong Land; 27% stake in Dairy Farm and 35% in Mandarin Oriental. Unlike Hong Kong-based investment concerns, Jardine, Matheson had the right to repurchase its own shares – and did so repeatedly through 1996. **Chart 20: Governance and Structure, 1981-1996**, at the end of the chapter.

Simon Keswick removed David Newbigging as taipan. Keswick cleaned house of 40 other executives at Jardine, Matheson responsible for lines of business that had been discontinued with the asset sales of the late 1970s.

The capital base of a number of Jardine, Matheson's affiliated companies was enlarged, including the placement of 30 million new shares with Jardine Strategic for HK$600 million.

146 Jardine, Matheson & Company, 1984 Annual Report, p.17.

Jardine Strategic raised $US200 million in the Euromarket, and Dairy Farm placed new shares valued at HK$454 million with Jardine Strategic. The purpose of these issues was to take advantage of favorable market conditions to build group equity to finance acquisitions and expansion without excessive borrowing.[147]

Jardine, Matheson entered a joint venture with Moet Hennnessy S.A. and United Distillers Group of Guiness Plc for the distribution of an expanded range of brands on long-term contracts in Japan, Hong Kong and North East Asia. The firm also expanded its franchise interests through the acquisition of additional fast food and convenience store franchises in Hong Kong, the United Kingdom, Canada and Australia. In the United Kingdom, Dairy Farm acquired 25% of Kwik Save Group, Plc, a leading discount supermarket operator.

Compared with 1986's consolidated net earnings of HK$479 million, Jardine, Matheson recorded earnings of HK$784 million in 1987 – a 64% increase. Net extraordinary profit of HK$278 million in 1987 – compared with HK$52 million in 1986 – arose mainly from three items: the Company's share of Hongkong Land's property and land bank sales and profits arising from business restructuring within Jardine, Matheson, less a provision against the Company's investment in Jardine Strategic.

In 1988, Jardine, Matheson continued to strengthen its shareholding in major affiliates – a policy and program, according to Simon Keswick, "that enabled the firm to increase its share of current profits and the future growth of businesses which we know well and for which we see promising prospects."[148]

In 1989 Jardine Strategic increased its share of Dairy Farm from 27% to 41%, permitting Dairy Farm to acquire from Jardine, Matheson & Company the firm's 7-Eleven franchises in Hong Kong, Singapore and Malaysia for a consideration of HK$450 million to be satisfied mainly by the issue of 67.1 million new Dairy Farm shares.

In terms of managerial structure, the most significant event of 1989 was the formation of Jardine, Pacific, which grouped together all of Jardine, Matheson's Asia Pacific businesses into a region-wide trading and services operation. By 1990, Jardine Pacific had created joint ventures in life assurance, air conditioning and security and increased its investment in restaurant franchises in Australia and Taiwan.

Jardine, Matheson's motor vehicle operations in Hong Kong, China, Australia and the United Kingdom were amalgamated to form Jardine International Motor Holdings Limited. Jardine Insurance Brokers continued to enlarge its network of acquisitions in the United States,

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147 Jardine, Matheson & Company, 1987 Annual Report, Chairman's Statement, p. 7.
148 Jardine, Matheson & Company, 1988 Annual Report, Chairman's Statement, p. 7.

Australia and Singapore, while Jardine Fleming consolidated its position as one of the leading investment and merchant banking houses in Asia Pacific.

Dairy Farm completed two new strategic acquisitions in 1990, buying major supermarket chains in Spain and New Zealand. In March 1993, Eurodollar convertible preference shares were issued to raise some US$200 million for Dairy Farm and US $350 million for Jardine Strategic. Dairy Farm intended to deploy the proceeds of its issue to fund its expansion program, including a joint venture with Nestle to manufacture dairy products in Hong Kong and China, and the acquisition of the Cold Storage retail chain in Singapore. Jardine Strategic's issue would provide funds for its portion of Dairy Farm and its refinancing of the company's investment in Cycle & Carriage to a level of 16%.[149]

On July 1, 1994, the Bermuda Takeover Code, which provided statutory takeovers protection for the Company's shareholders equivalent to London's City Code on Takeovers and Mergers, came into force. The law formalized the protection Jardine, Matheson & Company had required in undertaking its move to Bermuda in 1984.

In 1994, Jardine, Matheson & Company's secondary listing on the Hong Kong stock exchange was withdrawn and Asian time zone trading in the Company's securities began to take place mainly on the Singapore Stock Exchange. The Company's primary listing on the London Stock Exchange and its other secondary listings were not affected.[150]

In 1995, the firm articulated this vision of its businesses, partnerships, focus, management and value:

> The Jardine, Matheson Group comprises eight main businesses, each of which has its own individual strategy while benefiting from Jardine, Matheson & Company's support as a shareholder with long-standing experience of the Asia-Pacific Region...Partnership: The Group has a policy of cultivating partnerships with major international corporations so as to combine the advantages of market knowledge and industry expertise. The Group also makes strategic investments in growth companies that offer the prospect of cooperation with one or more of Jardine, Matheson & Company's businesses...Asia-Pacific Focus: Based on its existing strengths in Asia, Jardine, Matheson & Company's strategy is to build its business into market leaders more widely throughout the Asia-Pacific Region, where some 85% of the Group's profits originates...Management: To achieve its objectives, the Group recruits, trains and develops managers, drawn both from Asia and from the

149 Jardine, Matheson & Company, 1993 Annual Report, Chairman's Statement, p. 7.
150 Jardine, Matheson & Company, 1994 Annual Report, Chairman's Statement, p. 8.

rest of the world, who combine international business skills with a cultural affinity with the region…Creating long-term value: The Group takes a long-term view of business and aims to strike a balance between mature cash-producing activities and investments in new developments. The maintenance of financial strength through prudent financing is fundamental to the Group's philosophy.

By 1996, Jardine, Matheson & Company had 60,000 employees in Hong Kong – 200,000 overall in its subsidiary undertakings and associates. With interests in 30 countries, Jardine, Matheson & Company derived 80% of its profit from the Asia-Pacific Region. The firm's business lines included:

- Jardine Pacific, the group's Asia-Pacific trading and services business. Its activities fall into five industry groupings: Marketing & Distribution, Engineering & Construction, Aviation & Shipping Services, Property Services and Financial Services. The firm provides 26% of the Group's profits and is 100% owned by Jardine, Matheson & Company. Jardine Pacific accounts for 16% of the Parent's equity.

- Jardine International Motors, a Hong Kong Listed company engaged in the sale and service of quality motor vehicles, with an emphasis on Mercedes-Benz. It has operations in Asia, Europe and the United States. The firm provides 14% of the Group's profits and is 75% owned by Jardine, Matheson & Company. Jardine International Motors accounts for 8% of the Parent's equity.

- Jardine, Fleming, a joint venture with Robert Fleming of London, is a leading financial services group in Asia Pacific. It undertakes investment management, securities broking, corporate finance, capital markets and banking. This joint venture provides 15% of the Group's profits and is 50% owned by Jardine Matheson. Jardine, Fleming accounts for 7% of the Parent's equity.

- Jardine Lloyd Thompson, a listed international specialist insurance broker. The recently merged company combines specialist skills in the London insurance market with an international network, especially in the Asia-Pacific Region. The firm provides 1% of the Group's profits. Jardine Lloyd Thompson accounts for 1% of the Parent's equity.

- Dairy Farm, a listed international food retailer with supermarket and other interests across Asia, in Australasia and in Europe. It has joint venture interests in restaurants through Maxim's in Hong Kong and in manufacturing through Nestle Dairy Farm. The firm provides 10% of the Group's profits and is 52% owned by

Jardine, Matheson & Company. Dairy Farm accounts for 9% of the Parent's equity.

- Hongkong Land, a major listed property group, with some 5 million square feet of prime commercial property in the heart of Hong Kong. The group is focusing on high quality property and infrastructure investments in Asia. The firm provides 21% of the Group's profits and is 32% owned by Jardine Strategic. Hongkong Land accounts for 46% of the Parent's equity.
- Mandarin Oriental manages a group of luxury hotels principally in the Asia Pacific region. The listed company holds equity in most of its hotels, which include Mandarin Oriental, Hong Kong and The Oriental, Bangkok. The firm provides 5% of the Group's profits and is 51% owned by Jardine Strategic. Mandarin Oriental accounts for 9% of the Parent's equity.
- Cycle & Carriage a leading Singapore-listed company with two core business areas: motor vehicles, with operations in Singapore, Malaysia, Australia, New Zealand, Thailand and Vietnam; and property investment and development in Singapore and Malaysia. The firm provides 5% of the Group's profits and is 23% owned by Jardine Strategic. Cycle & Carriage accounts for 4% of the Parent's equity.

In 1996, 64% of Jardine, Matheson's profit came from Hong Kong and China; 14% from the greater Asia Pacific area, 6% from Europe and 16% from North America for a total of $US356 million. Jardine, Matheson & Company drew 60% of its equity from Hong Kong and China, 22% from the rest of Asia Pacific, 8% from Europe and 10% from North America and liquid funds, for a total of US $4,096 million.

South East Asia remained a focus, as highlighted by the acquisition of a 23% interest in Cycle and Carriage in Singapore and more recent investments in EON Berhad in Malaysia (9% shareholding acquired in June 1995) and Tata Industries in India (20% shareholding acquired in March 1996).

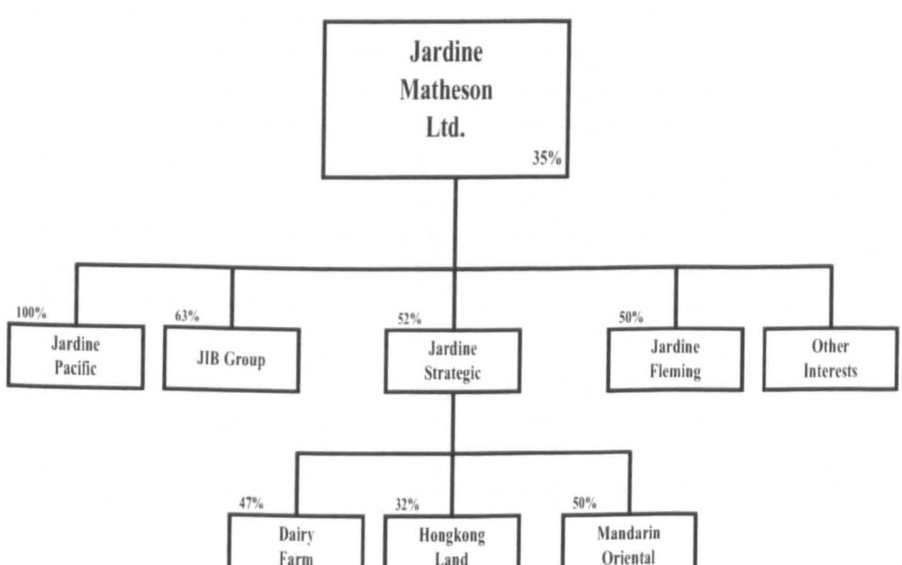
By 1996 all eight of Jardine's core companies – Jardine Pacific, Jardine International Motors, Jardine Fleming, Jardine Lloyd Thompson, Dairy Farm, Mandarin Oriental Hotel, Cycle and Carr and HongKong Land were pursuing expansion abroad. Hongkong Land with nearly half the prime real estate in Hong Kong's Central District was pursuing investments in Philippines, Singapore, Vietnam as well as China. Jardine, Pacific was investing in toll roads in Indonesia, water treatment plants in China, and drugstores in Singapore

Financial Analysis

The Hongkong Land stock swap had significant repercussions on firm governance that continued through the end of the study period. For Simon Keswick, the disclosure of information by Hongkong Land to a Jardine competitor had resulted in Jardine, Matheson – as well as the Land Company – being potential takeover targets by Hutchison's Li Ka'shing and ship owner Y.K. Pao. Further, Hongkong Land's financials followed an accounting code different from Jardine's, allowing Jardine to account for Hongkong Land's exposure but the Land Company to look unscathed.

Going forward, Keswick looked to unique governance structures to manage risk. In 1986, a new structure was introduced linking the subsidiaries to Jardine Strategic and Jardine, Matheson & Company by ownership percentage. The embedded **Chart 21: Ownership Structure of Jardine, Matheson & Company 1992** is illustrative. Here, a new holding company, Jardine Strategic, manages businesses, which formerly belonged to Hongkong Land (as well as some of the newer ventures, not mentioned here). Jardine, Matheson Holdings manages the older portfolio, consisting of Jardine Pacific, Jardine Insurance Brokers, Jardine Fleming, Jardine Strategic and other interests. From a qualitative viewpoint, Jardine Strategic imposes a layer of management between higher risk businesses and Jardine, Matheson Holdings. Management theorists and equity analysts might view Jardine Strategic as a cost center, draining resources from the Jardine Group – as indefensible as corporate services are to value-minded management.

Chart 21: Ownership Structure of Jardine, Matheson & Company 1992



But Jardine, Matheson & Company's managers are astute financiers and look for risk reduction and incremental profit from Jardine, Strategic, as the following analysis indicates.

Using 1992 as an average year (in terms of ownership percentage), the embedded chart shows that Jardine Strategic is worth more to Jardine, Matheson Holdings than the individual companies it manages, contributing 100% of the profits expected but at less risk.

The role of Jardine Strategic – indeed the role of any of the firm's holding companies in governing Jardine, Matheson's widespread interests – is an example of organizational innovation.

In a unique way a holding company can become a vehicle for creating more value for Jardine, Matheson and for its subsidiaries than would be created by market mediation or internalization. Critical is the ability of the subsidiary to raise shareholder capital in excess of Jardine, Strategic's ownership percentage.

The embedded **Chart 22**, below, uses after-tax operating profit for each of Jardine, Matheson's subsidiaries from 1986 to 1996 to calculate the variability of annual results. Jardine Strategic's profits are calculated over the same period. With less variability, Jardine Strategic contributes 100% of profit while taking only 86% of the risk.

Chart 22: Is Jardine Strategic Worth More than Its Pieces?
(US Millions based on After-tax Operating Profit)

Year	Jardine Pacific	JIB	Jardine Fleming	Dairy Farm	Hongkong Land	Mandarin Oriental	Jardine Strategic
1986	10	9.6	26	37.5	111	18.5	72.19
1987	43.75	10	48	58	123.5	31	107.61
1988	72.5	12	46	100	154	44.5	153.61
1989	87.5	15.66	67	125.2	194	50.5	190.73
1990	98	19.5	73	150.2	267	45	228.41
1991	100	35.5	83	147	277.5	38	232.85
1992	107	31.5	80	303	301	40	314.1
1993	109	32	200	189	517.5	41	353.25
1994	126	38	208	224	371	48	334.64
1995	145	34.5	123	187	262.5	54	276.91
1996	93.5	26.5	82.1	105	649.4	60.6	339.34
N	11	11	11	11	11	11	11
M	90.2	24.06	94.1	147.8	293.4	42.92	236.69
SD	37.41	10.96	59.7	76.1	166.2	11.4	97.03
SD/M	0.41	0.45	0.64	0.52	0.57	0.27	0.41
.41/.4736 =	86% of average variation	100% of profits taking only 86% of risks					

To understand the contribution of mutual ownership to firm value, imagine a company named Jardine, Matheson Direct (a veiled reference to Jardine Matheson Holdings and all the companies it manages, minus Jardine Strategic) with investments in three companies, Jardine Pacific, Jardine Fleming and Jardine Insurance Brokers. We will use 1991 betas (derived from Datastream) and 1992 earnings as reported in the Jardine, Matheson & Company Annual Report and Heng Seng Index. The Capital asset Pricing Model (CAPM) is calculated thus:

- CAPM = Risk free rate X ß (Market Rate - Risk free rate). The risk free rate is estimated at .06 and the market return is estimated at .20.

US Millions	Jardine Pacific	JIB	Jardine Fleming	Jardine, Matheson Direct
ß	3.04	3.37	1.55	2.08
Earnings	107	31.5	80	166.8
Fraction Owned by Jardine, Matheson Direct	1	0.63	0.5	
$M to Jardine, Matheson Direct	107	19.8	40	166.8
CAPM	0.49	0.53	0.28	0.35
Cost	220	37	144	
Total		401		
Total Value		474.94		
Added Value		18.4%		

If Jardine, Matheson Direct had to buy these investments on the open market the cost would be $474.94M, a savings of $73.94M to Jardine, Matheson Direct – and an increase to Jardine, Matheson Direct of 18.4% Added Value.

Another scenario proposes a company called Jardine Strategic Direct, with investments in Dairy Farm, Hongkong Land and Mandarin Oriental. Using 1991 betas and 1992 earnings, the model looks like this:

US$ Millions	Dairy Farm	Hongkong Land	Mandarin Oriental	Jardine Strategic Direct
ß	1.33	1.07	0.32	1.01
Earnings	303	301	40	255.7
Jardine Strategic Direct Ownership Fraction	0.46	0.32	0.5	
$M to Jardine Strategic Direct	139.38	96.32	20	255.7
CAPM	0.25	0.21	0.1	0.2
Cost	566	459	191	
Total		1,216		
Total Value		1,269		
Added Value		4.5%		

In each scenario, the fractional ownership of high-risk businesses affords Jardine, Matheson Direct and Jardine Strategic Direct added value at less risk. Was the governance structure designed for this purpose? Certainly, the foregoing makes the case that Jardine, Matheson & Company's complicated ownership structure was designed for this purpose. Whether or not the evidence proves design, this is certainly an example showing that added value could occur due to governance structure, that is to say, due to firm architecture.

Financial Analysis

Based on actual cash flows from 1990 through 1996, the firm is valued to the Year 2002, based on current strategies. Following the asset sales of the late 1970's and early 1980's, the firm has focused on a limited portfolio of business services and high margin, consumer businesses.

Actual and Projected Cash Flows 1990-2002 (US Millions)

Actual	**'90**	**'91**	**'92**	**'93**	**'94**	**'95**	**'96**
Cash Flow	6.4	134.4	344.1	-182.3	1,070.2	1,131.8	1,193.7
Projected	**'97**	**'98**	**'99**	**'00**	**'01**	**'02**	Total Value
Present Value Next 5 Years	1,426	1,650	1,875	2,000	2,323	2,548	25,480
Discount at 10% WACC	1,296	1,364	1,408	1,366	1,442	1,438	14,380
Total Present Value 1997-2002	8,201						
+Present Value of Terminal Value	14,380						
Total Value 1996	22,581						
- Liabilities	7,788						
Added Value	14,793						

The reported 1996 market value of Jardine, Matheson was $36 billion.

The cash flow analysis suggests that Jardine, Matheson & Company is in a strong bargaining position for loans for unrelated diversification. The firm has made a solid comeback after the asset sales of the late 1970s and early 1980s. The firm's value has doubled with anticipated growth of 10%.

Despite the firm's commitment to Hong Kong and investment in China, much of the actual revenue growth over the period 1990-1996 came from investments outside Hong Kong, which had averaged 9.69% from 1982-1987; 56.29% from 1985-1990, and 69.64% in 1991-

1996. Foreign sales as a percentage of total sales over the same period increased to 68.08% from 1991-1996. Foreign income as a percent of total income increased from 45.47% in 1982-1987 to 279.69% in 1991-1996. The following **Chart 23** depicts the returns on Jardine, Matheson's major businesses from 1987-1996.

Chart 23: Return on Equity (%) of Jardine, Matheson Businesses 1987-1996

Year	JM	JS	HKL	DF	MO	JIM	JLT	C&C
1996	9.12	7.64	8.69	2.71	6.05	19.91	0.12	17.15
1995	12.87	7.42	2.83	13.6	5.49	39.56	34.03	17.5
1994	16.67	10.15	4.77	25.68	5.85	37.21	32.31	14.04
1993	21.07	14.07	10.16	25.93	6.27	51.51	41.93	11.37
1992	21.1	14.92	7.01	55.43	6.23	128.19	44.22	12.29
1991	27.68	17.96	9.87	30.57	5.87	34.21	47.07	15.96
1990	15.54	8.97	8.29	22.75	9.58	23.57	48.71	15.79
1989	21.45	10.52	3.57	18.09	7.65	58.02	51.96	12.43
1988		9.75	5.11	18.01		48.64		7.12
1987		27.41	15.95	40.36		44.18		5.84

Legend: JM Jardine Matheson; JS Jardine Strategic; HKL Hongkong Land; DF Dairy Farm; MO Mandarin Oriental; JIM Jardine International Motors; JLT Jardine Lloyd Thompson; C&C Cycle & Carriage. Source: Worldscope. Comparable data not available for Jardine Fleming.

Chapter 5: Section 6: Fundraising for Investment

Speaking of the firm's entrée into the United States as the conclusion of a pan-Pacific coverage objective, Henry Keswick wrote, "The establishment of the San Francisco office means that we now have coverage by direct representation across the Pacific region." He promised, "to continue to build up our management resources in order to increase the profitability of our present business to the maximum. At the same time the search for new enterprises in which to invest our assets and skills will continue."[151]

As he would explain to *The New York Times*, the company accomplished product/market expansion through investments, purchasing (mainly but not entirely) minority positions with a guaranteed voice in policy. Jardine did not dilute equity by buying a company with stock, and during this period acquired little long-term debt.

The firm's ability to expand its influence in Hong Kong, while parlaying its reputation and wide network of business relationships in new markets, lay in its unique governance and organization methods - building on historical alliances and interlocking directorships that dated back to the early days of British commercial enterprise in the East, and supported by minority control. It was a way to manage businesses when distance was great and direct intervention impossible.

In Hong Kong, Jardine, Matheson used both money and managerial skill to establish many of Hong Kong's important ventures, including utilities, wharf companies and hotels. As these grew, Jardine floated them off in public offerings, retaining only a small equity interest.

The articles of fifteen Hong Kong companies permanently appointed officials of Jardine, Matheson as chairmen or otherwise awarded them policy-making authority. The chairmen of Hong Kong's largest wharf company, the Hongkong & Kowloon Godown Company, and biggest real-estate developer, Hongkong Land Company, were both Jardine, Matheson executives, although the firm owned less than 10% of their equity. The articles of Lombard Insurance Company, established by Jardine, Matheson in 1836, gave the firm virtually unlimited management authority so long as the firm owned 10 shares. Such extraordinary powers could be abolished only by a vote representing three-quarters of the total shares.

Jardine, Matheson had management or ownership links with public utilities - including the tramway, ferry, electric and telephone companies – and no legal requirement prevented these companies from favoring Jardine, Matheson as a supplier. The firm and its competitors jointly set the colony's insurance rates (much as Jardine, Matheson, Dent &

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151 Jardine, Matheson & Company 1970 Annual Report, Chairman's Letter, p. 14.

Company and the Canton Insurance Company had done a hundred years before), subject to no regulation. Jardine, Matheson could buy or sell stock in its own $35 million portfolio, or in the funds it managed, on the basis of advance information gathered at directors' meetings. There were no "insider" trading rules in Hong Kong. The "advantage" was shared by the taipans of Jardine, Matheson, Swire, Hutchison and other British commercial interests, who sat in the colonial government's council.

In addition to its growing contribution to Hong Kong, Jardine, Matheson entered new Asian markets, buying firms that engaged in finance, insurance and shipping (the firm's core capabilities) and expanding the reach of these capabilities throughout the Pacific. In the past, Jardine, Matheson had dipped into its treasury for cash whenever it wanted to take over a company. As Hong Kong and the ASEAN became increasingly attractive to investors, equity financing was used to finance Jardine's growth. Hence, the firm would choose to make new diversification moves in line with capital market expectations

Of the 437 acquisitions made in the Exploit and Develop period, 1972-1977 and 223 made in the Harvest and Divest period, 1978-1984, some 216 were divested during 1978-1979. These divestitures were made for strategic reasons – failure to meet the firm's 25% hurdle rate after 3 years. All funds from divested firms were plowed into reserves to finance more growth. Among divestments made in 1978-79 were investments in shipping and overseas properties that were unprofitable, as well as its interests in several subsidiaries. The firm expected that these asset sales would be sufficient to increase working capital and cash flows (200% increase by 1985). The growth rate was anticipated to be approximately 14% from 1980 to 1985, close to the actual Heng Seng Index (HSI) earnings growth rate of 16%.

The asset sales of the late 1970s were followed by asset acquisitions in 1980-1981, notably in real estate, as Jardine, Matheson built up extensive holdings in Hongkong Land at a time when the cost of funds was high. The firm's debt to equity ratio was .87:1.00 in 1981. By 1984, total debt was more than two times equity. Return on assets in 1984 declined 50% from peak 1981 levels. This reflects the firm's high debt and low income levels and points to an unrealistic dividend payout policy in the face of rising debt and reduced earnings.

Some 120 divestitures took place in 1981-1983 to reduce the firm's indebtedness resulting from the Hongkong Land stock purchase and new equity-based accounting procedures were mandated in the publicly traded firms.

Divestment did not mean ex-growth, however. In 1986 Simon Keswick introduced a new cross-ownership governance structure, described in detail in the previous section, that stimulated fundraising activity by all of the major subsidiaries while setting rigid revenue targets.

Chapter 5: Section 7: Choices, Failure and Investment: Interpretation of Strategic Management in Jardine, Matheson Using Resource-based Theory

This Chapter concludes with a review of questions addressed in previous sections, offering a Resource-based interpretation and touching base with alternative Harvard and Chicago school views. Those questions were:

- How and why did Jardine, Matheson's founders and managers choose to develop particular resources and services? (Question 1)
- The firm's choices met with some notable successes – and some notable failures. How are the firm's failures explained? (Question 3)
- How did Jardine, Matheson's managers raise funds to finance investment? (Question 7)

Basis of Resource and Services Choices (Question 1)

A Resource-based response would argue that Jardine, Matheson's product/services choices were based on capabilities, mapped to an analysis of environmental needs. Again, a Harvard school response would emphasize monopoly positioning; a Chicago school response would emphasize the role of vertical integration or ownership.

Even in this Chapter, where acquisitions are discussed at a very high level, it is clear that Jardine, Matheson attempted to put its capabilities to use in response to perceived opportunity and environmental requirements, as the company understood them. The assessment of Henry Keswick that the firm sought to infuse its own methods into, but not to strip the assets of, acquired companies provides some insight into firm thinking.

From 1961-1971, Jardine, Matheson sought to deepen its involvement in Hong Kong, diversifying into growing textile and electronics businesses while building its core financial services, shipping, insurance and trading businesses in the Colony. The firm also sought to, export its core businesses into new markets, like Australia, Japan, South Africa and Singapore through joint ventures and acquisitions.

Jardine's market diversification - from Hong Kong and China into Australasia, Northeast Asia and Southeast Asia - reflects the firm's long history in Asia, where company financial strength and prestige are persuasive yet unspoken messages that sell products and make deals. Jardine capitalized on its reputation in finance, insurance, trading and shipping to build some powerful Jardine named-brands in related industries, specifically: **financial**

services – Jardine Fleming in Hong Kong, Japan, Singapore, Philippines, Australia and United Kingdom; **insurance** – Jardine Lloyd Thompson in Hong Kong, one of Asia's largest insurers; **trading**: Jardine Pacific in 30 Asian nations; and **transportation** – Jardine Ship Management throughout Asia Pacific and the Middle East. Jardine has been able to turn this reputation to advantage in Asia. By extension Jardine's reputation for property management, investment and development has helped to extend formerly local brands like Hongkong Land to Singapore with Singapore Land and China with China Land, associated with commercial and infrastructure development projects, and the Mandarin Oriental chain of hotels, now in Hong Kong, Singapore and Macau.

The firm's reputation has given the firm exclusive rights in Asian markets to privileged franchises like Dunhill, Moet Hennessy, Caterpillar, Sherwin-Williams, Chubb, IKEA and Taco Bell.

The firm's diversification into raw materials, natural resources and manufactures was an innovative, if risky, solution to the problem of the excess physical capability of its fleet and the opportunity to provide access to markets to producers of raw materials, natural resources and manufactures in the ASEAN. These firms required shipment from one location to another as primary goods and manufactures were transformed into end-user goods, marketed and distributed. Such goods could fill existing Jardine ships at several value chain stages – and the firm, its customers and its joint venture partners could realize savings from Jardine, Matheson's integrated end-to-end shipping services. By making the appropriate investments, Jardine, Matheson could capture and appropriate more of the value available from upstream and downstream stages of the value chain.

Jardine, Matheson's Explanation of Failure (Question 3)

The firm's choices met with some notable successes – and some notable failures. A Resource-based response to Question 3 would argue that strategic choices are based on capabilities, hence failure can be attributed to the firm's misunderstanding of its existing capabilities or the capabilities required in a new market. A Harvard school interpretation would argue that Jardine; Matheson's strategic choices were based on the pursuit of monopoly positions. Where the firm's strategy failed, failure can be attributed to changes in industry structure that could have been predicted – and avoided by investment in entry barriers, signaling and pricing strategy. A Chicago School response would argue that Jardine, Matheson's strategic choices were based on the pursuit of ownership advantages. Where the firm's strategy failed, the firm was trapped into short term, higher cost contracts that did not provide the cost and time efficiencies possible through direct ownership.

Shipping had been an historic strength of Jardine, Matheson. It was difficult for Simon Keswick to see the firm's shipping interests as "non-strategic," the firm had "grown up with shipping." But during the mid 1970s and early 1980s, Jardine, Matheson had become too asset heavy, and the shipping and oil servicing businesses were very capital intensive. To raise funds to support shipping and oil, Jardine borrowed – or increasingly frequently sold property to the Hongkong Land Company, of which it was a 12% owner. When the Hongkong property market declined, Jardine, Matheson lost significantly, both as an investor and as a seller; but it was Jardine's reputation for financial savvy that took a beating. Jardine's real estate sell-offs (using Hongkong Land as a bank) were seen by entrepreneurs like Li Ka'shing as a sign of management weakness, and the Keswick family's 10% ownership – which was low-enough to stimulate investment by other firms – also made Jardine, Matheson a possible takeover target. Li Ka'Shing made a bid for Hongkong Land. Jardine retaliated by buying 40% of Hongkong Land. The Land Company retaliated by buying 40% of Jardine, Matheson. The mutual hostage taking moves were protective – and very costly. They were made to protect the Keswick family's interest in Jardine, Matheson. To protect them in the longer term required a an aggressive management stance: more stringent controls on investment projects through governance structures like Jardine Strategic, the public sacking of execs who had worked in property, oil and shipping (when the areas they represented were divested), the reorganization of Hongkong Land, and the removal of corporate headquarters from Hong Kong to Bermuda, so that the firm would be under British law and under a different takeover code.

How Jardine, Matheson Raised Funds for New Investments (Question 7)

A Resource-based interpretation would suggest that raising funds, when necessary, is part of the managerial or entrepreneurial task. This task might be accomplished through "external organization" in which the raising of funds is relatively easy – or through intrafirm firm boards that review and approve fundraising projects to safeguard against opportunism and to consider the potential project in light of its larger effect on businesses currently managed by the holding company. A Harvard interpretation would emphasize the existence of internal routines for analyzing the market, competitors, new entrants as well as the needs of buyers and sellers. New projects would be put through a rigorous competitive analysis. A Chicago school interpretation would affirm that there are internal routines for fundraising for projects. Managerial initiative and opportunism are handled through rigorous cost/benefit analysis, the establishment of hurdle rates and bonuses are based on project returns.

Until 1972, funds for investment derived from internal sources, during the Exploit and Develop period, the firm borrowed to support growth. Jardine, Matheson established aggressive targets for acquired firms, and sold non-performing investments within three years, returning the proceeds of asset sales to reserves for future growth.

In 1987, to even out the spread of profits and reduce risk, Jardine, Matheson created a novel governance form – the holding company reporting to a holding company parent and paying a fixed return to the parent. Jardine Strategic reduced the risk in Jardine, Matheson's portfolio. It was further found that Jardine, Matheson's use of Jardine Strategic to manage its high risk subsidiaries – indeed the use of holding companies for this purpose – actually added financial value to the firm without additional governance cost and provided subsidiaries the opportunity to raise their own equity.

Chapter 5 Charts

Chart 14 Stepping Stones, 1961-1971

Market\ Resource	HongKong	London	Japan	Taiwan	Malaysia	Australia	Zambia	San Fran US	Thailand	Fiji	Hawaii	Phillipines
Trading	X		X			X		X				X
Shipping	X	X	X									
Chartering		X										
Dyeing/ Finishing	X											
Engineering	X				X	X						
Airways	X											
Insurance	X					X						
Financial Services	X	X	X			X						
Electronics	X											
Cocoa Products/ Candy	X											
Property	X	X				X						
Ship Owning	X					X						
Water Treatment	X											
Fire Alarms	X											
Toy/Youth Electronics	X											
Container Reconditioning	X											
Hospital Cleaning	X											
Toy Exports	X											
Container Operations	X											
Hotels and Casinos	X					X						
Hotel Management	X											
Office Partitioning	X											
Manufacturing	X											
Air Charter	X					X						
Air Cargo Forwarding	X											
Precious and Semi-Precious Stones	X											
Constuction	X											
Cargo Holding and Storage	X											
Diamonds	X											
Diamond Trading	X											
Guiness Product Marketing	X											
Trading and Leather Goods Manufactu	X											
Real Estate	X					X					X	
Hull Insurance Broking	X											
Air Cargo Terminal	X											
Convention Center Management	X											
Security Services	X					X						
Airport Services	X											
Waste Disposal Services	X											
Oil Industry Supplies	X											
Drillship Investment	X											
TV Film Distribution	X											
Regional Financial Services	X											
Engineering and Aviation Sales	X											
Oil Equipment	X											
Merchant Banking	X											
Offshore Service Vessel Ownership	X											
Garment Manufacturing	X					X						
Commodity Broking	X											
TV Rental	X					X						
Securities	X											
Forest Products	X		X		X							
Jewelry Manufacture	X											
Publishing	X											
Property Development	X											
Deposit and Exchange Brokers	X											
Investment	X					X						
Pension and Provident Fund	X											
Consultation	X											
Waste Disposal and Cleaning	X					X						
Repair and Delivery Service	X											

Chart 14 Stepping Stones, 1961-1971

Market\ Resource	HongKong	London	Japan	Taiwan	Malaysia	Australia	Zambia	San Fran US	Thailand	Fiji	Hawaii	Phillipines
Elevator Sales and Installation	X											
Container Owning and Leasing	X											
Airport Security	X											
Watch Parts Manufacture	X											
Electronic Recting	X											
Rainwear Manuf.	X											
Water Tour Operating	X											
Electric Motors	X											
Sewage and Effluent Disposal	X											
Car Park Owning and Engineering Sales	X											
Ship Operating	X											
Ship Broking	X											
Marketing						X						
Computer Services						X						
Registrars of Public Co.						X						
Export factoring						X						
Container Freight Station						X						
Customs Agents						X						
Road Transportation						X						
Holding	X					X						
Transportation						X						
Vehicle Leasing Finance						X						
Equipment Leasing						X						
Transportation						X						
Utility Furniture						X						
Property Management and Construction						X						
Property Development						X						
Commodity Trading						X						
Sugar Harvesting Equip. Manuf.						X						
Scientific Equipment Manuf. Marketing						X						
Dunhill Marketing	X											
Air Conditioner Manuf.									X			
Tourist Resort										X		

Chart 15 Summary Financial Data, 1961-1969

Jardine, Matheson & Company, Ltd.
Summary Financial Data
1961 - 1969
(HK$)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
Fixed Assets	39,394,000	23,379,000	24,569,000	85,812,000	106,056,000	99,179,000	96,604,000	85,810,000	82,782,000
Loans Secured on Fleet				30,240,000	39,840,000	24,320,000	23,371,000	15,714,000	9,679,000
Trade Investments and Unconsolidated Subsidiaries	27,800,000	39,895,000	42,062,000	39,681,000	43,593,000	49,029,000	56,809,000	64,742,000	94,617,000
Other Investments and Current Assets less Uabilities and Provisions	50,582,000	56,830,000	62,516,000	60,042,000	55,330,000	56,340,000	57,289,000	68,747,000	61,332,000
Minority Interests	9,549,000	9,468,000	956,000	15,743,000	19,448,000	20.830.00	20,574,000	22,206,000	23,585,000
Stockholder Funds	108,227,000	110,638,000	119,561,000	139,552,000	145,691,000	159,398,000	165,757,000	181,379,000	205,467,000
Trading Profit	15,246,000	14,135,000	18,326,000	19,762,000	22,373,000	26,172,000	28,083,000	34,588,000	45,576,000
Taxes	5,378,000	5,213,000	5,431,000	4,697,000	5,106,000	6,014,000	6,550,000	5,745,000	5,819,000
Net Profit less Minority Shareholder Interest	9,207,000	8,412,000	12,229,000	14,637,000	16,066,000	18,346,000	20,333,000	27,218,000	38,485,000
Dividends to Stockholders	3,251,000	3,431,000	4,334,000	5,562,000	5,959,000	6,357,000	8,741,000	11,363,000	17,000,000

Chart 16 Exploit and Develop, 1972-1977

Market\ Resource	Hong Kong	London	Japan	Malaysia	Australia	Zambia	San Fran US	Thailand	Fiji	Hawaii	Philippines	Botswana	Kenya	Liberia	Lesotho	Indonesia	India	Korea	Malawi	Brazil	Brunei	Iran	Bermuda	Mexico	Micronesia	Monaco	Middle East	Mozambique	Namibia	Neth. Ant.	New Zea	Nigeria	Panama	S. Africa	Zimbabwe Rhodesia	Singapore	South Korea	Swaziland	Taiwan
Trading	X		X		X		X		X		X																							X		X			X
Shipping	X	X	X																									X											X
Chartering		X																																					
Dyeing/Finishing	X																																						
Engineering	X			X	X																															X			X
Airways	X																																						
Insurance	X			X	X		X		X		X																	X			X			X		X			
Financial/Investment	X	X	X		X						X												X							X				X				X	X
Electronics	X																																						
Cocoa	X			X							X														X											X			
Property	X	X	X		X		X									X																		X		X			
Ship Owning	X				X									X																			X						
Water	X																																						
Fire Alarms	X																																						
Toy/Youth	X																													X									
Container	X																																						
Hospital Cleaning	X																																						
Toy Exports	X																																						
Container Operations	X																																	X					
Hotels and Casinos	X				X							X			X	X																		X	X		X	X	
Hotel Management	X								X																														
Office Partitioning	X																																						
Manufacturing	X																																						
Air Charter	X				X																													X					
Air Cargo Forwarding	X												X																					X					X
Precious and Semi-P	X																																						
Construction	X								X																														
Cargo Holding and S	X																																						
Diamonds	X																																						
Diamond Trading	X																																			X			
Guiness Product Mar	X																																						
Trading and Leather	X																																	X					
Real Estate	X		X		X					X																													
Hull Insurance Broki	X																																						
Air Cargo	X																																	X					
Convention Center M	X																																						
Security Services	X				X																													X					
Airport Services	X																																						
Waste Disposal Serv	X																																						
Oil Industry Supplies	X			X																																X			
Drillship Investment	X																						X							X									
TV Film Distribution	X																																						
Regional Financial Se	X																																						
Engineering and Avi	X			X																																X			
Oil Equipment	X																																						
Merchant Banking	X																																						
Offshore Service Ves	X																																X						
Garment Manufactur	X				X																																		
Commodity Broking	X			X																																X			
TV Rental	X		X	X	X		X													X				X								X	X	X					
Securities	X																																						
Forest Products	X		X	X							X																												
Jewelry Manufacture	X																																						

Chart 16 Exploit and Develop, 1972-1977

Market\ Resource	HongKong	London	Japan	Malaysia	Australia	Zambia	San Fran US	Thailand	Fiji	Hawaii	Philippines	Botswana	Kenya	Liberia	Lesotho	Indonesia	India	Korea	Malawi	Brazil	Brunei	Iran	Bermuda	Mexico	Micronesia	Monaco	Middle East	Mozambique	Namibia	Neth. Ant.	New Zea.	Nigeria	Panama	S. Africa	Zimbabwe Rhodesia	Singapore	South Korea	Swaziland	Taiwan
Publishing	X																																						
Property Developme	X																																						
Deposit and Exchang	X																																						
Investment Banking	X		X		X																													X					
Pension and Provider	X																																						
Consultation	X																																						
Waste Disposal and (	X				X																																		
Repair and Delivery S	X																																						
Elevator Sales and In	X			X																																X			
Container Owning an	X																																						
Airport Security	X																																						
Watch Parts Manufac	X			X																																			
Electronic Recting	X																																						
Rainwear Manuf.	X																																						
Water Tour Operatin	X																																						
Electric Motors	X																																						
Sewage and Effluent	X																																						
Car Park Owning and	X																																						
Ship Operating	X																									X										X			
Ship Broking	X																																						
Marketing				X	X																																		
Computer Services					X																																		
Registrars of Public Co.					X																																		
Export factoring					X																																		
Container Freight Station					X																																		
Customs Agents					X																																		X
Road Transportation					X																																		
Holding	X				X						X																X												
Transportation					X																																		
Vehicle Leasing Finance					X																																		
Equipment Leasing				X	X																																		
Transportation					X																													X					
Utility Furniture					X																																		
Property Management and					X																																		
Property Development					X																																		
Commodity Trading					X																																		
Sugar Harvesting Equip.					X		X			X	X									X																			
Scientific/Med. Equipment				X																																X			
Manuf. Marketing					X																																		
Dunhill Marketing	X		X																																				
Air Conditioner Manuf.								X			X																												
Tourist Resort				X					X																														
Life Insurance				X							X																												
Industrial Machinery				X							X																												
Machinery Distrib.				X			X				X																												
Ship Building and Repair				X							X																												
Tea				X													X																						
Interior Design				X																																			
Rubber Estates				X																																			
Trust Fund Managers				X																																			
Investment Holding and Mgmt.				X																	X		X																
Shipping Agents				X																									X					X					
Dental Equipment Supplies				X																																X			

Chart 16 Exploit and Develop, 1972-1977

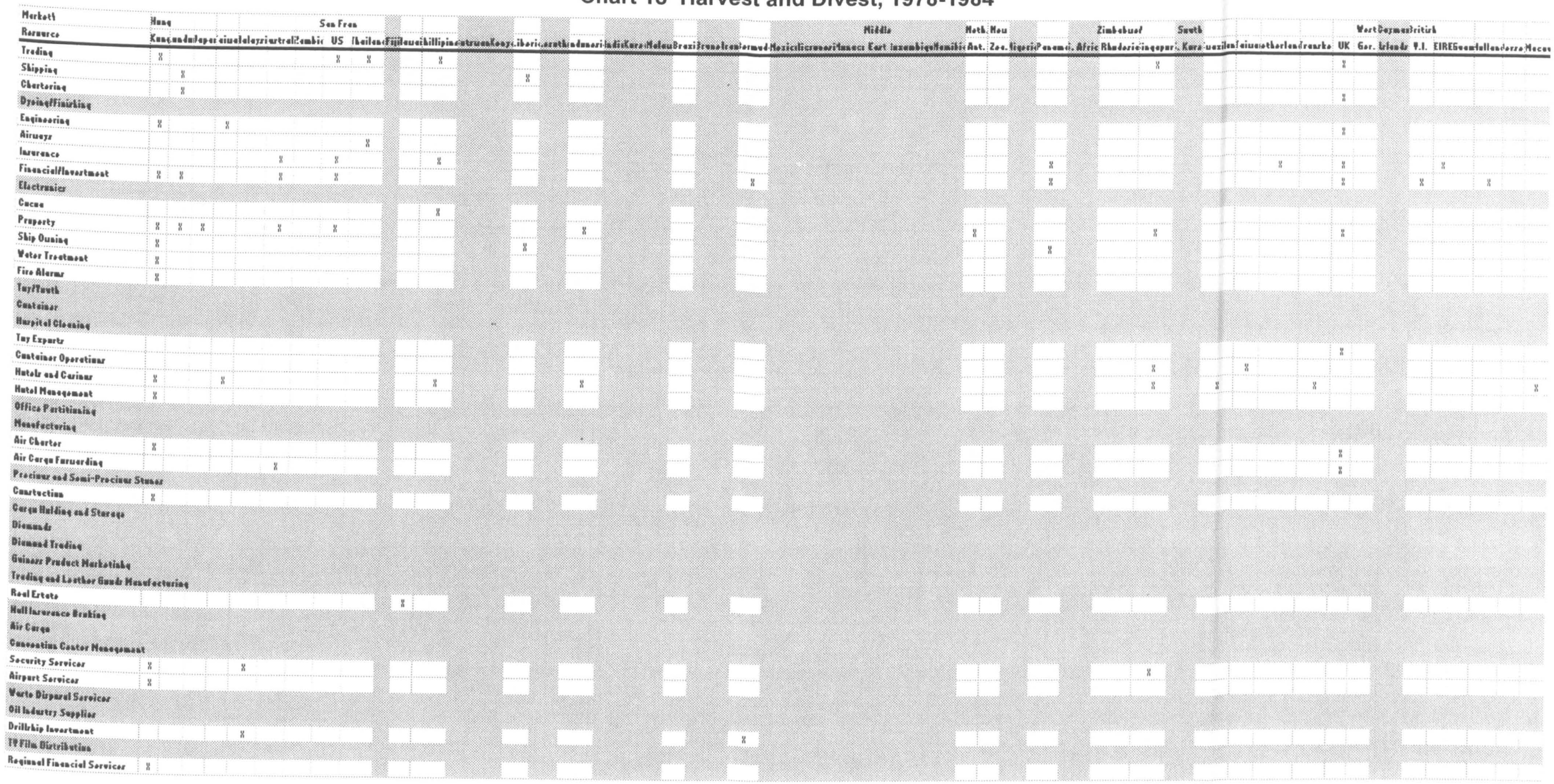
Market\							San Fran																												Zimbabwe		South		
Resource	Hong Kong	London	Japan	Malaysia	Australia	Zambia	US	Thailand	Fiji	Hawaii	Philippines	Botswana	Kenya	Liberia	Lesotho	Indonesia	India	Korea	Malawi	Brazil	Brunei	Iran	Bermuda	Mexico	Micronesia	Monaco	Middle East	Mozambique	Namibia	Neth. Ant.	New Zea.	Nigeria	Panama	S. Africa	Rhodesia	Singapore	Korea	Swaziland	Taiwan
Advertising Agency				X																														X					
Travel and Tours, Cleaning,				X		X	X												X															X		X			
Shipping, Airfreight							X											X																					
Representative																						X																	
Duty Free Wholesaling									X																														
Bakery Products Manu.									X																														
Refrigerated Storage									X																														
Soft Drink Manu.									X																														
Kodak agents									X																									X	X				
Retailing, wholesaling,									X																														
Investment									X																														
Piping and aluminum components									X																									X	X				
Liquor Wholesalers																														X				X		X			
Marine engineering and construction																																		X					
Inland Tours																																		X					
Shoes/Sporting Goods																																		X					
Pallet and Wooden																																				X			
Management of oil																																				X			
Laundry operating																																		X	X				
Shipping and marine																																		X					
Insurance																																		X					
Freight Forwarding																																		X					
Parcel Delivery/Courier																																		X					
Abnormal Load Transport																																		X					
Outdoor Equipment																																		X					
Lloyd's Agents																																		X					
Car Hire																																		X					
Outdoor Equipment																																		X					
Capital Project Planning																																				X			
Paint																																				X			
Steel Coating																																				X			
Steel Fabrication																																				X			
Steel Foundry																																				X			
Money Broking																																				X			
Oil Rig Equipment																																				X			
Industrial marine cleaning and maintenance																																				X			
Electrical Supplies							X																																
Grocery Broking							X																																
Building Materials							X																																
Hydraulic Sales & Services							X																																
Irrigation							X																																
Agricultural Equip Manu.							X																																
Sugar Growing & Milling							X																																
Machine Parts							X																																
Goodyear Tires							X																																
Cattle Ranching							X																																

Chart 17 Summary Financial Data, 1970-1979

Jardine, Matheson & Company, Ltd.
Summary Finandal Data
1970 - 1979
(HK$m)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Group profit and loss accounts										
Turnover				1,264	2,323	2,935	3,969	4,419	5,175	5,723
Profit before taxation	56	72	117	184	479	400	461	482	509	608
Taxation	10	11	19	34	239	90	94	112	124	123
Profit after taxation	46	61	98	150	240	310	367	370	385	485
Minority interests		3	6	13	25	45	65	56	49	82
Profit after taxation and minority interests	46	58	92	137	215	265	302	314	336	403
Net exchange translation differences								59	86	55
Extraordinary items							(43)	(6)	10	37
Profit available for appropriation	46	58	92	137	215	265	259	367	432	495
Dividends	21	26	40	64	87	116	130	140	152	179
Transfer to reserves	25	32	52	73	128	149	129	227	280	316
Earnings per stock unit(HK$)	0.32	0.41	0.65	0.88	1.25	1.40	1.47	1.51	1.59	1.86
Dividends per stock unlt(HK$)	0.15	0.19	0.28	0.39	0.49	0.57	0.63	0.67	0.71	0.82
Group balance sheets										
Fixed assets	132	196	310	1,027	1,076	2,106	2,452	2,251	1,697	1,611
Net assets of subsidiary insurance companies		31	54	45	20	28	57	77	90	101
investments	159	194	418	928	1,051	1,052	1,180	1,392	1,617	2,267
Long-term receivables									67	92
Net current assets	81	120	91	327	437	830	750	706	1,020	1,085
Employment of funds	372	541	873	2,327	2,584	4,014	4,439	4,426	4,491	5,136
Share capital	120	132	241	781	824	1,110	1,239	1,259	1,287	1,310
Reserves	139	176	332	677	813	883	749	789	1,029	1,327
Stockholders' funds	259	308	573	1,458	1,837	1,993	1,988	2,048	2,316	2,637
Minority interests	30	42	49	203	207	469	497	473	457	933
Convertible loan stock						250	500	548	553	559
Term loans	35	144	189	581	624	1,180	1,240	1,234	1,050	925
Deferred liabilities	48	47	62	85	116	122	114	123	115	82
Funds employed	372	541	873	2,327	2,584	4,014	4,339	4,426	4,491	5,136
Per stock unit(HK$)	1.82	2.16	3.97	8.73	9.29	9.79	10.11	9.76	10.79	12.07

Chart 18 Harvest and Divest, 1978-1984



Note: Shading indicates Service/Market exit during this period

Chart 18 Harvest and Divest, 1978-1984

Markets	Hong							San Fran																				Middle			Neth.	New				Zimbabwe/		South						West	Cayman	British					
Resource	Kong	Canada	Japan	China	Malaysia	Australia	Zambia	US	Thailand	Fiji	Hawaii	Philippines	[illegible]	Kenya	Liberia	[illegible]	Indonesia	India	Korea	[illegible]	Brazil	Brunei	Iran	Bermuda	Mexico	Micronesia	Monaco	East	Mozambique	Namibia	Ant.	Zea.	Nigeria	Panama	S. Africa	Rhodesia	Singapore	Korea	Swaziland	Taiwan	Netherlands	Denmark	UK	Ger.	Islands	V.I.	EIRE	Guam	Holland	Andorra	Macau
Engineering and Aviation Sales																																																			
Oil Equipment																																																			
Merchant Banking	X																																				X						X								
Offshore Service Vessel Ownership																																		X			X														
Garment Manufacturing																																																			
Commodity Broking																																												X							
TV Rental																																																			
Securities	X																																																		
Forest Products																																																			
Jewelry Manufacture																																																			
Publishing																																																			
Property Development	X		X																																																
Deposit and Exchange Brokers	X																																																		
Investment																																																			
Pension and Provident Fund																																																			
Consultation																																																			
Waste Disposal and Cleaning																																																			
Repair and Delivery Service																																																			
Elevator Sales and Installation	X																																				X														
Container Owning and Leasing																																																			
Airport Security	X																																																		
Watch Parts Manufacture																																																			
Electronic Racking																																																			
Seasoner Manuf.																																																			
Water Tour Operating																																																			
Electric Motors																																																			
Sewage and Effluent Disposal																																																			
Car Park Owning and Engineering																																																			
Ship Operating	X																																										X								
Ship Broking	X																																																		
Marketing	X		X			X																																													
Computer Services																																																			
Registrars of Public Co.																																																			
Export Factoring																																																			
Container Freight Station																																																			
Customs Agents						X																																													
Road Transportation																																																			
Holding						X									X																			X							X		X						X		
Transportation						X						X																									X														
Vehicle Leasing Finance																																																			
Equipment Leasing																																																			
Transportation																																																			
Utility Furniture																																																			
Property Management and																																																			

Note: Shading indicates Service/Market exit during this period

Chart 18 Harvest and Divest, 1978-1984

Markets / Resource	Hong Kong	anada	Japan	aiwan	Malaysia	ustralia	Zambia	San Fran US	Thailand	Fiji	Hawaii	Philippines	atemala	Kenya	Liberia	arath	ndonesia	India	Korea	Malaw	Brazil	Brunei	Iran	ermuda	Mexico	icronesia	onaco	Middle East	ozambique	Namibia	Neth. Ant.	New Zea.	igeria	Panama	S. Afric	Zimbabwe/ Rhodesia	ingapore	South Kore	waziland	witzerland	etherlands	enmark	UK	West Ger.	Cayman Islands	British V.I.	EIRE	Guern	allen	ndorra	Macau
Property Development	X																																																		
Commodity Trading																																																			
Sugar Harvesting Equip.											X										X																														
Scientific/Med. Equipment	X																																																		
Manuf. Marketing																																																			
Dunhill Marketing			X																																																
Air Conditioner Manuf.																																																			
Tourist Resort																																																			
Life Insurance												X												X																											
Industrial Machinery												X																																							
Machinery Distrib.																																																			
Ship Building and Repair																																																			
Tea																																																			
Interior Design																																																			
Rubber Estates																																																			
Trust Fund Managers																																																			
Investment Holding and Mgmt.																								X																											
Shipping Agents	X			X				X	X			X																																							
Dental Equipment Supplies																																																			
Advertising Agency																																																			
Travel and Tourist,							X																																												
Cleaning,																																																			
Shipping, Airfreight	X							X																																											
Representative																																																			
Duty Free Wholesaling																																																			
Bakery Products Manu.																																																			
Refrigerated Storage																																																			
Soft Drink Manu.																																																			
Kodak agents																																																			
Retailing, wholesaling,																																				X	X														
Investment																																																			
Piping and aluminum components																																																			
Liquor Wholesalers	X		X																																	X															
Marine engineering and construction																															X																				
Island Tours																																																			
Shoes/Sporting Goods																																																			
Pallet and Wooden																																																			
Management of oil																																																			
Laundry operating																																																			
Shipping and marine																																				X															
Insurance																																																			
Freight Forwarding								X																																			X								
Parcel Delivery/Courier																																																			

Note: Shading indicates Service/Market exit during this period

Chart 18 Harvest and Divest, 1978-1984

Markets	Hong							San Fran																				Middle			Neth.	New				Zimbabwe/		South						West	Cayman	British					
Resource	Kong	undu	Japa	aina	alaysi	ustral	Zambia	US	Thailan	Fiji	Hawai	hillipine	otswana	Keny	iberi	South	ndonesi	India	Korea	Malaw	Brazi	Brune	Icen	ermud	Mexic	icronesi	unasi	East	ozambiqu	Namibi	Ant.	Zea.	Nigeri	Panama	S. Afric	Rhodesia	ingapor	Korea	uezilan	aiwa	etherland	enmark	UK	Ger.	Islands	V.I.	EIRE	Guern	Isllan	Jerse	Macau
Abnormal Load Transport																																																			
Outdoor Equipment																																																			
Lloyd's Agents																																											x								
Car Hire																																																		
Outdoor Equipment																																																		
Capital Project Planning																																																		
Paint																																																		
Steel Casting																																																		
Steel Fabrication																																																		
Steel Foundry																																																		
Money Broking	x																																																	
Oil Rig Equipment																																																		
Industrial marine cleaning and																																																		
Maintenance																																																		
Electrical Supplies																																																		
Grocery Broking	x																																																	
Building Materials																																																		
Hydraulic Sales & Services																																																		
Irrigation																																																		
Agricultural Equip Manu.																																																		
Sugar Growing & Miling																																																		
Machine Parts																																																		
Goodyear Tires																																																		
Cattle Ranching																																																		
Restaurants	x					x		x																																											
Hotel Supplies																																																		
Supermarkets	x					x																															x														
Motor Distribution	x					x		x																																			x								
Retail Broking	x							x																								x											x								
Trademark Holding																								x																											
Non-life Insurance						x																																					x								
Reinsurance	x					x		x																																			x								
Stock Broking																																																		
Food Retailing	x																																				x														
Wholesale Broking																																											x								
Fast Food								x																																								x			
Asbestos Cement											x																																								
Asbestos Cement Product Mfg.											x																																								
Container Terminal																																								x				x							
Oil and Gas Exploration								x																																			x								
Seismic data leasing								x																																											
Oil refining																																																		
Computer Software	x																																																	
Ground handling services	x																																																	

Note: Shading indicates Service/Market exit during this period

Chart 18 Harvest and Divest, 1978-1984

Market\ Resource	Hong Kong	Japan	Taiwan	Malaysia	Australia	Zambia	San Fran US	Thailand	Fiji	Hawaii	Phillipines	Botswana	Kenya	Liberia	[illegible]	Indonesia	India	Korea	Malawi	Brazil	Brunei	Iran	Bermuda	Mexico	Micronesia	Monaco	Middle East	Mozambique	Namibia	Neth. Ant.	New Zea.	Nigeria	Panama	S. Africa	Zimbabwe/ Rhodesia	Singapore	South Korea	Swaziland	Taiwan	Netherlands	Denmark	UK	West Ger.	Cayman Islands	British V.I.	EIRE	Guam	Holland	Jersey	Macau
Intern. Movement of																																																		
Valuables	X																																																	
Dairy Products	X																																																	
Dairy Farm	X																																																	
Telephone Services	X																																																	
Canvas Webbing	X																																																	
Canvas Products	X																																																	
Electricity - Generation &	X																																																	
Servicing																																																		
Telecommunications services	X																																																	
Lift Engineering	X																																X																X	
Licensing																																																	X	
Convenience Stores	X			X																																														
Stevedoring and marine																																				X														
Services																																																		
Bulk cargo handling							X																													X														
Electrical Equipment							X																													X														
Distribution																																																		
Management Consultancy																																										X								

Note: Shading indicates Service/Market exit during this period

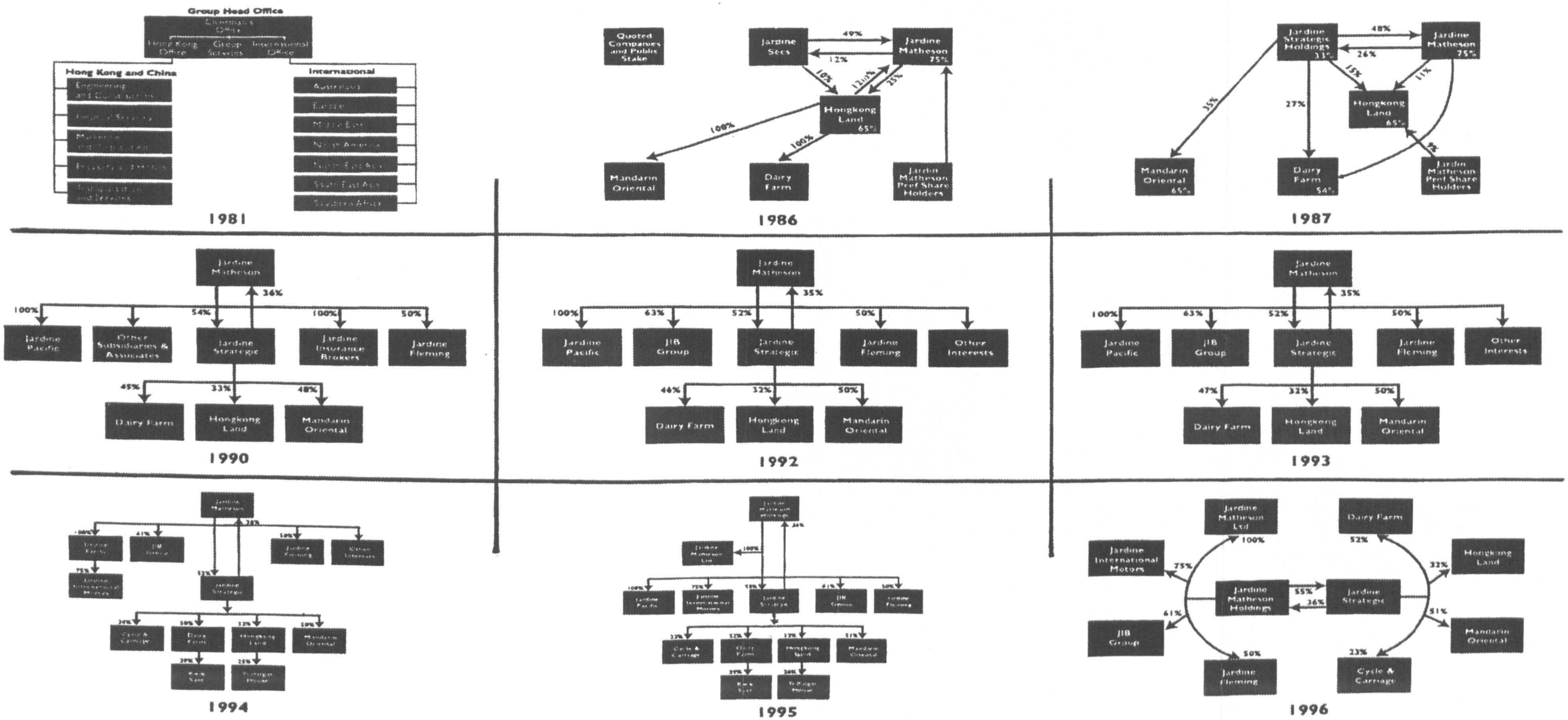
Chart 19 Summary Financial Data, 1980-1989

Jardine, Matheson & Company, Ltd.
Summary Financial Data
1980-1989
(HK $m)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Consolidated profit and loss accounts										
Turnover	7,467	9,266	11,240	10,644	8,881	10,497	10,416	12,720	14,817	15,058
Pnofit before taxation	968	1,300	1,287	567	431	565	900	1,237	1,607	2,306
Taxation	(290)	(320)	(286)	(328)	(276)	(292)	(343)	(341)	(314)	(507)
Profit after taxation	678	980	981	239	155	273	557	896	1,293	1,799
Minority interests	(153)	(257)	(273)	(100)	(75)	(116)	(78)	(111)	(180)	(222)
Profit after taxation and minority interests	525	723	708	139	80	157	479	785	1,113	1,577
Extraordinary Items	548	226	(561)	(88)	(873)	(426)	50	281	(33)	534
	1,073	949	147	51	(793)	(269)	529	1,066	1,080	2,111
Dividends	(258)	(316)	(324)	(164)	(41)	(41)	(165)	(293)	(404)	(595)
Transfer to reserves	815	633	(177)	(113)	(834)	(310)	364	773	676	1,516
Earnings per share (HK$)	1.15	1.13	1.26	0.20	0.13	0.30	0.90	1.47	2.04	2.95
Dividends per share (HK$)	0.50	0.57	0.57	0.29	0.07	0.07	0.29	0.48	0.65	0.95
Consolidated balance sheets										
Fixed assets	1,765	2,202	2,886	2,085	2,290	1,255	1,033	1,384	1,646	1,975
Associated companies	8	9,145	8,563	6,171	5,887	6,599	6,127	4,818	8,940	11,040
Other investments	481	599	624	464	402	356	216	239	415	409
Net current assets(liabilities)	796	1,525	1,271	1,318	678	216	794	789	209	(224)
Employment of funds	10,903	13,471	13,344	10,038	9,257	8,426	8,170	7,230	11,210	13,200
Share capital	1,834	2,004	2,437	2,457	824	825	827	1,234	1,243	1,254
Reserves	3,401	4,536	3,851	2,804	3,400	3,949	4,192	4,952	8,597	10,109
Shareholders' funds	5,235	6,800	6,288	5,261	4,224	4,774	5,019	6,186	9,840	11,363
Minority interests	1,327	1,645	1,474	811	803	948	245	311	343	414
Tenn loans	3,963	4,804	5,114	3,966	4,230	2,704	2,906	684	842	1,232
Deferred liabilities	378	422	468					49	185	191
Funds employed	10,903	13,471	13,344	10,038	9,257	8,426	8,170	7,230	11,210	13,200
Net asset value per share(HK$)	9.67	11.91	11.06	9.18	7.32	8.26	8.67	10.02	15.83	18.13

Jardine Matheson & Company

Chart 20: Governance and Structure, 1981-1996



Chapter 6: "Industrial Logic" – Strategic Management through Acquisition and Divestiture

Introduction

As noted in Chapter 1, Section 2, the extraordinary range of product/market choices made by Jardine, Matheson during the period covered in Chapter 5 might be explained by a loss of focus with painful consequences, leading to a re-examination and re-focusing of the company along the lines of its historic capabilities. While the final outcome was indeed a re-focusing, the internal and external factors responsible for the firm's choices defend their logic, consistency, insight into industrial development, and real productive opportunity for extending historical capabilities and relationships into new business areas. Hence, Chapter 6 contributes to the architecture of this study by offering an in-depth analysis of the firm's investments, its acquisitions and divestitures from 1972 to 1996 to understand the industry (external) and skills (internal) factors responsible for Jardine, Matheson's resource and services choices (Question 2).

From 1961 to 1996, Jardine, Matheson made approximately 850 acquisitions or investments at 20% of book value or more in very diverse businesses across the Pacific. Jardine, Matheson exploited sectoral opportunities in the ASEAN where these existed while it supported the continued development of Hong Kong as an industrial district.

Without industry and market understanding, such frenetic activity, followed by rationalization in the mid 1980s, would appear to be a matter of vaulting corporate ambition with no clear and pragmatic strategic intent, until high debt and eroding profit necessitated a return to core competencies.

A Resource-based interpretation argues that a firm grows by building on its resources and capabilities, transforming its physical and skill resources to create new products and markets. Firms might use equity, debt and trading relationships to extend their resource and capabilities outreach, building a network that extends well outside the firm – an external organization, as it were, governed by long-term relationships with well-known expectations and financial rewards, utilizing virtually frictionless contracts. Chapter 6, Sections 1-4 sets the stage for the discussion of Jardine, Matheson's external organization in Chapter 6, Section 5.

To find a diversification pattern – or pathways – and ultimately understand the relationships between associated companies, their customers and even their competitors, this study used as its starting point an SIC-based methodology. The standard industrial classification system

(SIC) has been widely adopted as the standard coding system used to define and analyze industry structure. With SIC code analysis, materials, processes, logistics and end-uses emerge as connections between businesses and related skills.

The precedent for SIC code analysis to establish the relatedness of businesses was set by the empirical research of Amit and Livnat,[152] Krishna Palepu,[153] Chatterjee and Wernerfelt,[154] and Grant, Jammine and Thomas.[155] Moshe Farjoun[156] broadened the discussion to include the relationship of skills required by each industry. He used SIC codes to establish business relatedness – and U.S. Bureau of Labor Statistics data to identify the skills required for each SIC code – and compared them for manufacturing businesses.

Like Farjoun's analysis, this study then progressed to a consideration of the skills required by each industry. Finally, the study looked to national and sectoral characteristics and foreign direct investment flows to establish a diversity pattern. The diversification and diversity patterns were then compared with those of other companies during the same time periods.

The Chapter is structured as follows:

Chapter 6: Section 1: External Factors – Jardine, Matheson's Acquisitions and Divestitures by Industry analyzes acquisitions and divestments by industry group and major category over each of the strategic sub-periods;

Chapter 6: Section 2: Internal Factors – Skills Required by Acquired Firms identifies and compares the skills required by the firm's manufacturing, resource and services acquisitions with those required by Jardine, Matheson's core businesses.

Chapter 6: Section 3: Geographic Spread of Jardine, Matheson's Acquisitions and Divestitures analyzes the entry and exit strategies of the firm;

Chapter 6: Section 4: Comparison of Jardine, Matheson's Acquisitions with Those of Other International Firms During the Same Periods looks at trends and patterns of acquisition activity across industries and geographies for the same period;

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152 Amit, R. and J. Livnat, "Diversification Strategies, Business Cycles and Economic Performance," Strategic Management Journal, Vol. 9, No. 2 (1988), pp. 99-110.

153 Krishna Palepu, "Diversification Strategy, Profit Performance and the Entropy Measure," Strategic Management Journal, Vol. 6, No. 3 (1985), pp. 239-255.

154 Sayan Chatterjee and Birger Wernerfelt, "The Link Between Resources and Type of Diversification: Theory and Evidence," Strategic Management Journal, Vol. 12, No. 1 (1991); pp. 33-48.

155 Grant, R.M. and A.P. Jammine and H. Thomas, "Diversity, Diversification and Profitability Among British Manufacturing Companies, 1972-1984, Academy of Management Journal, Vo. 31, No. 4 (1988), pp. 771-801.

156 Moshe Farjoun, "The Independent and Joint Effects of the Skill and Physical Basis of Relatedness in Diversification," Strategic Management Journal, Vol. 19, No. 7 (July 1, 1998), p. 611-630.

Chapter 6: Section 5: Could Jardine, Matheson Leverage Its Distinctive Capabilities More Effectively By Building An External Organization? The section examines the advantages to Jardine, Matheson of its "external organization," that is, its network of equity and trade relationships, versus market transactions.

Chapter 6: Section 6: The Internal and External Factors Responsible for Jardine, Matheson's Resource/Services Choices: A Resource-based Interpretation. The Resource-based view is compared with Harvard and Chicago interpretations.

Chapter 6: Section 1: External Factors – Jardine, Matheson's Acquisitions and Divestitures by Industry

This section analyzes Jardine, Matheson's acquisitions and divestments, fitting them into industry group and major category to understand how industries were structured; to asses how close to or distant they were from Jardine, Matheson's core businesses; to measure the extent of continued investment in core businesses versus new and unrelated businesses; to discover the logic of Jardine, Matheson's divestitures over the same period and to discern how Jardine, Matheson's senior leadership may have assessed the productive opportunity afforded by the 850 investments made during 1972-1996.

To define and analyze industry structure and compare Jardine's investments, the standard industrial classification system (SIC) was used. The first two digits of the SIC code system, called Major Group, divide economic activity into the following ten major divisions. Note that not all two-digit classifications fall within a major group:

Division	Title	Two Digit Major Group
A	Agriculture, Forestry and Fishing	01-09
B	Mining	10-14
C	Construction	15-17
D	Manufacturing	20-39
E	Transportation, Communication, Electric, Gas and Sanitary Services	40-49
F	Wholesale Trade	50-51
G	Retail Trade	52-59
H	Finance, Insurance and Real Estate	60-67
I	Services	70-89
J	Public Administration	91-97

The third-digit subdivides activity into a more specific industry group, and the fourth digit defines a particular industry. This progressive refinement is illustrated by the example of Wholesale Trade, given below:

Division F	Wholesale Trade	
Major Group	Wholesale Trade-Durable Goods	50
Industry Group	Machine Equipment and Supplies	508
Industry	Industrial Machinery and Equipment	5084

The four-digit SIC code is assigned on the basis of what the business does. If a corporation has subsidiaries, it is assigned a four-digit SIC code based on its own activities and the activities of its direct and indirect subsidiaries. Subsidiaries are assigned four-digit SIC codes solely on the basis of their own activities unless they in turn have subsidiaries.

When a company's activities cover multiple SIC codes, they are listed in descending order of importance, measured by the percent of total dollar volume produced or the order of importance cited by management when the exact percentage is not provided.

All of Jardine, Matheson's acquisitions and investments from 1961 to 1996 were charted along with country of operations, year acquired, year divested, percent owned, line of business and primary SIC code. Only those investments valued at 20% or more of book were reported in the firm's consolidated Annual Report; lesser holdings were not reported.

The spreadsheet program employed permits multiple views of the same information. The charts referenced in this chapter reflect these views.

In this section, we will look at several views:

- Total number of acquisitions and divestitures by year 1972-1996;
- Total acquisitions by 4-digit SIC Code, number of acquired firms and description of activity;
- Total acquisitions by major group by year;
- Total divestitures by major group by year;
- Total number of acquisitions and divestitures within division and within major group during sub-strategic periods: Exploit and Develop (1972-1977); Harvest and Divest (1978-1983); Focus on Distinctive Capabilities (1984-1996).
- Total number of horizontal (between major groups) and vertical (between industry groups) acquisitions and divestitures.

In **Chart 24**, on the next page, we can see clearly the years of greatest acquisition and divestiture activity for the firm. It is evident from the table that divestiture was an ongoing process, averaging three divestitures for every five acquisitions. The firm was always divesting non-performing assets, according to previously cited Annual Reports. In ten years the number of divestitures was equal to or exceeded the number of acquisitions. In 10 out of 24 years the ratio of acquisitions to divestitures was: 3-1 or better.

Chart 24: Total Number of Acquisitions and Divestitures by Year 1972-1996

Year	Number of Acquisitions	Number of Divestitures
1972	22	
1973	10	4
1974	153	
1975	160	11
1976	46	19
1977	45	59
1978	39	51
1979	37	165
1980	15	2
1981	24	10
1982	67	55
1983	12	10
1984	29	23
1985	19	32
1986		0
1987	35	9
1988	20	9
1989	29	19
1990	14	6
1991	14	20
1992	9	9
1993	17	5
1994	8	13
1995	14	7
1996	8	
Total	**846**	**538**

Acquisitions for the period as a whole fell into 152 separate SIC codes, spread over 112 industries in 49 major groups. **See Chart 25: Total Acquisitions by Industries and 4-digit SIC Codes**, at the end of this chapter.

Acquisitions and divestitures by major group by years are accounted for in **Charts 26 and 27**, on the following pages. A number of patterns emerged leading to the identification of four growth periods between 1961 and 1996.

Chart 26: Total Acquisitions by Major Group by Year

Year	01-09	10-14	15-17	20-39	40-49	50-51	52-59	60-67	70-89	91-97	TOTAL
1972			1	2	2	5		10	2		22
1973					1			9			10
1974	3		3	39	24	22	2	49	12		154
1975		3	6	20	42	19	2	48	20		160
1976		3		4	11	6		13	9		46
1977				10	12	2	1	13	7		45
1978		1	1	3	12	1		15	6		39
1979				2	10	3		15	7		37
1980				1		1		12	1		15
1981				1	1	1	1	13	7		24
1982		2	2	3	15	4	1	39	1		67
1983		1			1		3	7			12
1984		2		3	5	3	4	10	2		29
1985		1			5	3	1	8	1		19
1986											
1987			1	4	2	1	3	21	3		35
1988					1	1	3	9	6		20
1989					2	1	3	21	2		29
1990					1	1	3	8	1	1	15
1991						2	2	8	2		14
1992						3	4	1	1		9
1993				2		3	2	5	5		17
1994			1			1	1	5			8
1995					1	2	1	8	2		14
1996			1			2		2	3		8
TOTAL	**3**	**13**	**16**	**94**	**146**	**87**	**37**	**349**	**100**	**1**	**848**

Chart 27: Total Divestitures by Major Group by Year

Year	01-09	10-14	15-17	20-39	40-49	50-51	52-59	60-67	70-89	91-97	TOTAL
1972											
1973					1	1		2			4
1974											
1975					4	4		1	2		11
1976		1		5	3	1		6	3		19
1977				9	11	10		21	8		59
1978		1	1	14	9	5		14	7		51
1979	1	3	5	19	45	15	1	55	21		165
1980								2			2
1981			1		2	1		6			10
1982				3	7	21		17	7		55
1983					2	1		7			10
1984				5	4	3		11			23
1985		1	1	3	6	3		16	2		32
1986											
1987						1	1	5	2		9
1988				1				8			9
1989				2	2	2	1	9	3		19
1990								6			6
1991				1	2	1	3	10	2	1	20
1992				1		1	1	5	1		9
1993			1				3		1		5
1994					2	1	1	7	2		13
1995				1		1	1	1	3		7
1996											
TOTAL	**1**	**6**	**9**	**64**	**100**	**72**	**12**	**209**	**64**	**1**	**538**

The first period identified was one of sequential growth to 1971 during which time the firm used its trading, shipping, finance and insurance core businesses to move into new markets, establish a representative office, usually a holding company, often by investing in or acquiring a local trading business. For purposes of classification, I called this period "Stepping Stones."

The second period from 1972-1977 was characterized by very aggressive growth pursued simultaneously along two paths. The first path was a continuation of its Stepping Stones approach into new geographic markets. The second path involved building chains of related businesses or clusters within specific industries and across geographies. A total of 427 acquisitions or investments were made (and 93 divestitures). Some 65.5% of acquisitions during the period were in finance, insurance and real estate; transportation and trading/wholesaling; primary goods, machine tools and other manufacturing interests as well as retail sales (some 35.5% of acquisitions, including 17% manufacturing, 12.6% in retail, 2% primary goods). I called this period "Exploit and Develop," because the firm was building or extending existing capabilities to new markets while acquiring new capabilities. Of the divestitures made during this period 70% were of non-performing assets in core businesses.

	Acquisitions	**Divestitures**
Agriculture and forestry (01-09)	3	0
Mining (10-14)	6	1
Construction (15-17)	10	0
Manufacturing (20-39)	75	14
Shipping, Transportation (40-49)	92	19
Wholesale Trade (50-51)	54	16
Retail Trade (52-59)	5	0
Finance, Insurance and Real Estate (60-67)	142	30
Business Services (70-89)	50	13
Other (91-97)	0	0
Total	**437**	**93**

From 1978 through 1984 the firm began to rationalize products and markets, building a more focused portfolio that could be replicated in each market. A total of 223 acquisitions were made, compared with 317 divestitures. Of acquisitions, 75% were in core businesses (50% in finance, insurance and real estate; 20% in transportation and 5% in wholesaling). Of divestitures, 74% were in core businesses, 12% in manufacturing, and 10% in services. I classified this third period "Harvest and Divest." The period was characterized by exit from businesses the firm believed to be no longer strategic and the spin off of successful businesses to new owners, including Swire, Hutchison and Old Mutual/Safren.

	Acquisitions	Divestitures
Agriculture and forestry(01-09)	0	1
Mining(10-14)	6	4
Construction(15-17)	3	7
Manufacturing(20-39)	13	41
Shipping, Transportation(40-49)	44	69
Wholesale Trade(50-51)	13	47
Retail Trade(52-59)	9	1
Finance, Insurance and Real Estate(60-67)	111	112
Business Services(70-89)	24	35
Other (91-97)		
Total	**223**	**317**

From 1984-1997, Jardine, Matheson's business interests were reduced. Growth continued, but far less visibly, through the diversification strategies of subsidiary and associated companies. The firm continued on this track through 1996 (the end of the period covered by this dissertation). During this time, 67% of acquisitions and 70% of divestitures were in financial, insurance and real estate; 26% of acquisitions were in retail and services. I classified this period "Focus on Distinctive Capabilities," because the firm's intention was to limit investment to a few core businesses, while the experimentation and innovation was taking place at the level of the firm's associated companies.

	Acquisitions	Divestitures
Agriculture and forestry (01-09)	1	0
Mining (10-14)	1	1
Construction (15-17)	3	2
Manufacturing (20-39)	6	9
Shipping, Transportation (40-49)	12	12
Wholesale Trade (50-51)	20	10
Retail Trade (52-59)	20	13
Finance, Insurance and Real Estate (60-67)	87	67
Business Services (70-89)	26	16
Other (91-97)	1	1
Total	**188**	**128**

Chapter 6: Section 2: Internal Factors – Skills Required by Acquired Businesses; Comparison with Skills Required by Historic Core Businesses

Moshe Farjoun's 1998 study presents an analysis of skills required across manufacturing businesses. Farjoun used SIC codes to identify individual lines of business within a firm and U.S. Bureau of Labor Statistics Occupational Employment Survey (OES) data to identify the skills required within those lines of business. The similarity in required skills was used as an indirect indicator of diversification related to firm-specific resources. After a discussion of Farjoun's methodology, the same methodology will be applied to an analysis of the skills required by Jardine, Matheson's acquired businesses.

Looking at manufacturing firms only (SIC codes 20-39), Farjoun drew a sample of firms from the TRINET data set [157] and Fortune 500 manufacturing firms. Using a skill-based approach, he characterized each industry by its underlying profile of specialties, defined as the different types and extent of human skills required in the industry, as identified by occupational distributions. Farjoun then grouped industries with similar skill profiles.

To measure the human skills requirements, Farjoun used OES data, which defines industries at the 3-digit SIC code level of detail. The OES contains data about the percentage distribution of 480 occupations in all industries. The occupational employment ratios are an indicator of both the different types of human expertise needed in industry and the extent to which they are required.

In developing skills profiles, Farjoun used all major groups of occupations employed in manufacturing, from management to marketing and sales, administration, service, production and agriculture – 38 types of skills in all – to create an industry-by-industry "similarity-in-skill matrix" that would subsequently be used to cluster businesses within manufacturing.

Farjoun's matrix groups each occupational variable by its Major Group affiliation. It further details the distribution of the standardized occupational variable in each of 8 skill-related industry groups identified in the cluster analysis. See embedded **Chart 28: Analysis of Manufacturing Acquisitions – Types of Skills and Chart 29: Analysis of Manufacturing Acquisitions – Cross Tabulation of Skills and Industries.** These two tables capture both physical and skill-based systems. The skill-based system uses skill profiles to group industries that require similar production skills, scientific and engineering know how, and

157 Davis, R. and I. M. Duhaime, "Diversification, Industry Analysis and Vertical Integration: New Perspectives and Measurement," *Strategic Management Journal*, Vo. 13, No. 7 (1993), pp. 511-524.

administration, and to a lesser extent service and marketing skills. The physical-based system captures similarity in raw materials, physical production processes and end use. Farjoun predicted that these two systems – physical and skills-based – will agree that industries are related when they employ similar production technology, require similar skills and use similar physical processes, and that the classifications will disagree when the grouping is based on an aspect that is specific to only one system.

Chart 28: Analysis of Manufacturing Acquisitions - Types of Skills

Industry Clusters

Skills	Mean	S.D.	1	2	3	4	5	6	7	8
Top Management	2.81	1.34	0.16	-0.15	0.11	0.02	-0.38	-1.41	0.18	1.38
Financial Managers	0.36	0.17	-2.06	-0.27	-0.99	0.10	0.95	0.16	1.38	-0.04
Marketing Adv. Pr.	0.41	0.26	-1.58	-0.31	-0.97	0.09	0.92	0.03	0.99	1.32
Human Resources	0.23	0.11	-2.15	-0.12	-0.93	0.10	0.68	0.08	1.31	-0.64
Purchasing Manager	0.15	0.07	-2.01	-0.28	-0.87	0.34	1.01	1.46	0.73	-0.95
All Other Managers	2.01	1.22	-1.18	-0.40	-0.72	-0.21	1.60	3.01	0.88	0.63
Management Support	2.07	1.38	-1.08	-0.35	-0.90	0.04	1.29	4.06	0.81	-0.60
Aeronautic Engineers	0.07	0.50	-0.15	-0.15	-0.15	-0.12	-0.06	6.14	-0.15	-0.15
Chemical Engineers	0.23	0.58	-0.39	-0.24	-0.39	-0.32	-0.12	-0.10	2.21	-0.39
Electrical Engineers	0.74	1.73	-0.43	-0.38	-0.43	-0.06	2.71	1.58	-0.10	-0.43
Mechanical Engineers	0.69	0.73	-0.93	-0.53	-0.83	0.69	0.70	2.94	0.28	-0.92
Other Engineers	1.02	1.75	-0.58	-0.29	-0.47	0.13	0.56	5.11	0.06	-0.57
Life Scientists	0.09	0.47	0.00	-0.08	-0.17	-0.19	-0.02	-0.19	1.00	-0.12
Physical Scientists	0.41	0.91	-0.45	-0.18	-0.43	-0.35	-0.17	-0.24	2.28	-0.43
Other Natural Scientists	0.30	0.34	-0.88	-0.51	-0.68	-0.03	1.30	2.38	0.99	0.54
Soc. Science & Prof.	0.87	2.86	-0.30	-0.27	-0.17	-0.19	-0.06	0.11	-0.14	4.46
Technicians	2.84	2.61	-1.06	-0.54	-0.84	0.01	2.20	1.88	1.07	-0.50
Marketing and Sales	3.21	2.67	-1.15	-0.09	-0.19	-0.22	-0.07	-1.06	0.15	3.39
Admin. Support	12.19	5.69	-1.33	-0.52	-0.22	-0.12	0.62	0.18	0.36	3.58
Service Occupations	1.79	0.77	-1.48	0.38	-0.37	-0.09	-0.43	-0.02	0.38	-0.61
Superv. Blue Collar	4.46	1.33	-2.33	0.55	-0.39	-0.08	-0.84	-1.22	0.94	1.96
Construct. And Extract	1.71	3.11	-0.50	0.36	-0.29	-0.14	-0.41	-0.04	0.28	-0.50
Mechanics & Install.	4.47	2.72	0.11	0.88	-0.66	-0.40	-0.81	-0.29	0.63	-1.41
Precision Metal Work	3.31	4.76	-0.70	-0.30	-0.60	0.94	-0.05	0.39	-0.43	-0.68
Inspectors & Graders	2.88	2.14	-1.26	0.06	-0.29	0.24	0.81	0.44	-0.39	-1.24
Other Precis. Prod.	2.77	4.63	-0.60	-0.13	1.58	-0.49	-0.15	-0.51	-0.58	0.47
Machine Tool Cutting	4.24	5.93	-0.71	-0.35	-0.50	1.14	-0.31	0.02	-0.68	-0.71
Metal & Plastic Work	2.28	4.19	-0.54	0.26	-0.43	0.39	-0.37	-0.33	-0.54	-0.54
Printing Workers	1.59	5.25	-0.30	-0.15	0.77	-0.27	-0.28	-0.30	-0.30	1.63
Textile & Rltd. Work	3.31	10.87	-0.30	-0.10	1.09	-0.28	-0.28	-0.30	-0.17	-0.30
Other Machine Setting	9.48	8.49	-1.07	0.56	0.17	-0.54	-0.65	-0.86	0.68	-1.05
Precision Assemblers	1.34	2.51	-0.54	-0.52	-0.54	0.49	2.03	1.27	-0.39	-0.54
Other Assemblers	9.88	8.87	-1.10	-0.32	0.05	0.78	0.53	-0.63	-0.89	-1.02
Plant and Systems	0.68	2.14	-0.32	-0.12	-0.30	-0.28	-0.29	-0.21	1.76	-0.32
Material Moving	2.19	1.88	0.54	0.87	-0.51	-0.26	-1.02	-0.98	0.12	-0.89
Transport & M. Moving	2.21	4.48	2.97	0.55	-0.20	-0.37	-0.46	-0.39	-0.16	-0.02
Helpers and Laborers	8.46	5.63	-1.03	0.97	0.41	-0.57	-1.03	-1.29	-0.49	-0.63
Agri. Forest Fishing	0.88	6.33	9.60	-0.05	-0.10	-0.14	-0.14	-0.14	-0.11	-0.14

Percentage of employees in each occupation across all U.S. manufacturing industries.
The entries for each cluster indicate standard deviations from the mean occupational employment in all manufacturing industries.
Source: Moshe Farjoun, 1998

Chart 29: Analysis of Manufacturing Acquisitions --- Cross-tabulation of Skills and Industries

2-Digit SIC	3-Digit SIC	Industry Title	Skill Group	2-Digit SIC	3-Digit SIC	Industry Title	Skill Group
20- Food	201	Meat Products	3	28-Chemical	283	Drugs	7
	202	Dairy Products	2		284	Soap	7
	203	Preserved Fruits	2		285	Paints	7
	204	Grain Mill Products	2		286	Indus. Organic Chem	7
	205	Bakery Products	2		287	Agri. Chemicals	7
	206	Sugar	2		289	Misc. Chemicals	7
	208	Beverages	2	29-Petroleum and	291	Petr. Refining	7
	209	Misc. Food	2	Coal	295	Misc. Petr.	2
21-Tobacco	210	Tobacco	2	30-Rubber	301	Tires	7
22-Textile	221	Weaving	3		302	Rubber Products	2
	225	Knitting Mills	3		307	Misc. Plastic Prod.	2
	227	Floor Covering	2	31-Leather	311	Footwear	3
	229	Misc. Textile	2		313	Luggage	3
23-Apparel	231	Apparel	3	32-Stone, Clay	321	Flat Glass	2
	239	Misc. Apparel	3	& Glass	322	Glass & Glassware	2
24-Lumber and	241	Logging	1		327	Concrete & Gypsum	2
Wood	242	Sawmills	2		329	Other Clay	2
	243	Millwork	3	33-Primary	331	Blast Furnaces	2
	244	Wood Containers	3	Metals	332	Iron & Steel	2
	245	Wood Building	2		335	Nonferrous Rolling	2
25-Furniture and	251	Household Furniture	3		336	Nonferrous Foundries	2
Fixtures	252	Partitions	3		339	Other Primary Metals	2
	254	Office Furniture	3	34-Fabricated	341	Metal Cans	2
26-Paper	261	Pulp & Paper Mills	2	Metals	342	Cutlery	4
	264	Converted Paper	2		344	Fabric Struc. Metal	4
	265	Paperboard	2		345	Screw Machine Prod.	4
27-Printing and	271	Newspapers	8		347	Metal Coating	2
Publishing	272	Periodicals	8		348	Ordnance	4
	273	Books	8		349	Misc. Fabric. Metals	4
	274	Misc. Publishing	8	35-Industrial	351	Engines & Turbines	4
	275	Commercial Printing	3	Machinery/	352	Farm & Garden Mach	4
	278	Blankbooks	3	Equipment	353	Construction Machines	4
	279	All Other Printing	3		354	Metalworking Machines	4
28-Chemicals	281	Indus. Inorg. Chem.	7		355	Special Indus. Machine	4
	282	Plastics Materials	7		356	General Indus. Machine	4
	357	Office & Comput Equi	5	37-Transport	372	Aircraft and Parts	6
	358	Refrigeration	4	Equipment	373	Ship & boats	2
	359	Misc. Indus. Mach.	4		376	Guided Missiles	6
36-Electronic/	361	Electric Distr. Equip	4		379	All Other Trans.	4
Electric	362	Electric Ind. App.	4	38-Instruments	381	Engineering Instru	5
Equipment	363	Household Appliances	4		382	Measuring Devices	5
	364	Elec. Lighting Equip	4		384	Medical Instruments	5
	365	Elec. Household Equip	4		386	Photographic Equip	7
	366	Communication Equi	5		389	All Other Instruments	5
	367	Elec. Components	5	39-Misc.	391	Jewelry	4
	369	Misc. Elect. Equip	4	Manufacturing	393	Toys & Sporting	4
	371	Motor Vehicles	4		394	Other Manufacturing	4

Source: Moshe Farjoun 1998

Skills Required for Jardine, Matheson's Manufacturing Acquisitions

It is valuable to an understanding of Jardine, Matheson's diversification during the Exploit and Develop phase (1972-1977) to plot the firm's manufacturing acquisitions using Farjoun's approach. For comparison with Farjoun's data, I plotted only those acquisitions corresponding to the subset of manufacturing industry SIC codes Farjoun studied, as well as the OES data relating to those codes.

The skills required by Jardine, Matheson's manufacturing acquisitions are identified in **Chart 30: Jardine, Matheson's Manufacturing Acquisitions and Required Skills, 1972-1977,** below. In the chart, the first left column identifies the manufacturing industry cluster number (based on Chart 28). The second column indicates the number of manufacturing firms acquired by Jardine, Matheson from 1972-1977. The third column identifies the industry(ies) and related three-digit SIC codes, and the column on the right summarizes the skills required for each industry cluster over and above those for manufacturing as a whole.

Some 50 of Jardine, Matheson's manufacturing acquisitions during the study period fall into cluster 2, with helpers and laborers and transport and materials movers preponderant, and cluster 4, with top management and precision workers preponderant. The skills required for cluster 2 are common across frozen food, textiles, concrete and asbestos, primary metal industries and iron and steel foundries. The skills for cluster 4 are common across conveying equipment, elevator and moving machinery, machine tools, special industry machinery and printing equipment. Together, they represent 67% of Jardine, Matheson's manufacturing acquisitions between 1972-1977. Cluster 4 makes the tools and moving equipment used by businesses in cluster 2.

Chart 30: Jardine, Matheson's Manufacturing Acquisitions and Required Skills, 1972-1977

Cluster Firms	No. of Firms Acquired by Jardine	Industry (3-digit SIC)	Skills Required
(1)	3	Logging, Sugar Growing, Rubber (072-085)	Agri, Forest Fishing; transport and materials moving; top management; technicians
(2)	50	Dairy products preserved fruits; grain mill products; bakery products; sugar; beverages; misc. food; tobacco; floor covering; misc. textile; sawmills; wood building; pulp and paper mills; converted paper; paperboard; misc. petroleum; rubber products; misc. plastic products; flat glass; glass & glassware; concrete & gypsum; other clay; blast furnaces; iron & steel foundries; other primary metals; metal cans; ships & boats (202, 203, 204, 205, 206, 208, 209, 210, 227, 229, 242, 245, 261, 264, 265, 295, 302, 307, 321, 322, 327, 329, 331, 332, 335, 336, 339, 341, 347, 373)	Helpers & laborers; transport & materials moving; other machine setting; metal & plastic work; supervisory blue collar; mechanics & installers
(3)	4	Meat products; weaving; knitting mills; apparel; misc. apparel; millwork; wood containers; household furniture; partitions; office furniture; commercial printing; blankbooks; all other printing; footwear; luggage (201, 221, 225, 231, 239, 243, 244, 251, 252, 254, 275, 278, 279, 311, 313)	Top management; other precision products; textiles & related workers; helpers & laborers
(4)	24	Cutlery; plumbing & heating; fabric. Structural metal; screw machine prod. ordnance; misc. fabric metals; engines & turbines; farm & garden mach.; construction mach; spec. indus. mach; gen. Indus. mach; refrigeration; misc. indus mach; electric distr. eq; electric ind. app; household appliances; electric lighting eq.; electric household eq; misc. electric eq; motor vehicles; all other transportation; jewelry; toys;	Top management; precision metal work; machine tool cutting; precision assemblers; other assemblers

Cluster Firms	No. of Firms Acquired by Jardine	Industry (3-digit SIC)	Skills Required
		other manufacturing (342, 343, 344, 345, 348, 349, 351, 352, 353, 354, 355, 356)	
(5)	5	Office & computer eq; communications eq; electrical components; engineering instrumentation; measuring devices; medical instrumentation; all other instrumentation (357, 366, 367, 381, 382, 389)	Financial managers; marketing, advertising, pr;
(6)	1	Aircraft & parts; guided missiles (372, 376)	
(7)	1	Industrial inorganic chem; plastics materials; drugs; soap; paints; indus. org. chem; agri chem; misc. chem; petr. refining; tires; photographic eq (281, 282, 283, 284, 285, 286, 287, 289, 291, 301, 386)	
(8)	1	Newspapers; periodicals; books; misc. publishing (271, 272, 273, 274)	

There is a close relationship as well between Farjoun's clusters 4, 5 and 6 and Jardine, Matheson's core transport business, in which engineers predominate. See embedded **Chart 31: Engineers as Percent of Total Employment by Industry**, for relative percentage of engineers employed in transport vs. other businesses. Jardine, Matheson's manufacturing and core businesses required a heavy concentration of engineering talent.

Chart 31: Engineers as Percent of Total Employment by Industry

INDUSTRY	PERCENT ENGINEERS OF TOTAL EMPLOYMENT
Shipping	3.94
Motor vehicles and equipment	3.7
Aircraft and parts	3.65
Electronic components and accessories	3.62
Personnel supply services	2.13
Electric services	2.13
Measuring and controlling	1.95
Computer and office equipment	1.89
Wholesale trade	1.89
Medical Instruments and supplies	1.52
Photographic equipment	1.25
Computer and data processing services	1.23
Crude petroleum, natural gas	0.85

For comparison purposes, the cross-industry average for engineering employment according to OES data is .26%.

Skills Required for Core Jardine, Matheson Businesses Compared with Those Required for Manufacturing and Service Business Acquisitions

What is the relationship between the skills required for Jardine, Matheson's original and core businesses, and those required for manufacturing acquisitions from 1972-1977 and service acquisitions during the same and later periods? **Chart 32: Skills Required Across Jardine, Matheson's Original and Acquired Businesses**, at the end of the chapter, uses OES data to track skills required by Jardine, Matheson's original businesses and service acquisitions in the 1970's and 1980's. Concentrations of skills appear in bold. A few industries outside Jardine, Matheson's acquisitions portfolio – namely, pharmaceuticals, electric services and telecommunications – were introduced for possible comparison.

Overall, Jardine, Matheson's move into service businesses required skills that the company had accumulated in its core businesses. Each acquisition in a new industry added a few asset specific skills to the top or middle management requirements. Embedded **Chart 33: Capital and Skill Intensity of Selected Hong Kong Industries**, provides insight into the capital and skill intensity of Jardine, Matheson's bread and butter businesses. The firm's original and core businesses are marked with an asterisk. Note that import/export, shipping, finance and insurance are significantly more capital and skill intensive than manufacturing exports.

Chart 33: Capital and Skill Intensity of Selected Hong Kong Industries

Industry	Depreciation/Labor Expressed in HK$/Employee	Skill Ratio (Professionals in Major SIC Group/Total)
Manufacturing Exports	2,683	2.49
Import/Export Trade*	5,328	7.03
Wholesale Trade	2,945	2.9
Retail Trade	2,851	2.03
Shipping*	21,160	5.16
Air Transport	9,465	12.23
Communication	16,146	12.4
Storage	12,992	2.85
Finance*	5,706	5.52
Insurance*	4,618	8.12
Business Services	11,989	29.95

This suggests that the former required a higher investment in assets and human resources which Jardine, Matheson found justifiable because trading, transportation and financing continued to generate higher profits than the firm's other business lines. These were the core businesses of the firm and a source of long-term competitive advantage. **Chart 32** shows that several skills were common across these core businesses, specifically, management, marketing and finance. The expertise would likely be shared across businesses, as fast track executives from functional disciplines were given additional market or business experience.

Note that manufacturing exports, wholesale and retail trade require comparatively low capital investment and far-less-costly skills. These were businesses that could provide Jardine, Matheson with a high return on sales – but with very easy exit, if the venture proved unsuccessful after 3 years. By the end of the 1970s, Jardine, Matheson had begun to rationalize its manufacturing, ship building/ship owning and natural resources interests and refocus the enterprise on services, which could be standardized and replicated at low investment and operating costs, and staffed by local nationals. This format is characteristic of Jardine's extension of Jardine, Fleming; shipping services; Securicor and Securair security services; Jardine Insurance Group; the Mandarin Oriental Chain of hotels; Franklins and Kwik Save Supermarkets; industrial laundry and contract cleaning services, Taco Bell and other franchises.

Chapter 6: Section 3: External Factors (2) – Geographic Spread of Jardine, Matheson's Acquisitions and Divestitures

Jardine, Matheson's desire to broaden its outreach in Asia and reduce its dependency on Hong Kong and China is clear from a geographic market-by-market review of the firm's acquisitions and divestitures. While committed to building its presence in Hong Kong, the firm was not alone in its pursuit of other Asian markets at this time. World trade had begun to exceed the growth of world production during the mid-1950s, and by the early 1960s firms sought to grow by direct foreign investment in the developing countries of Japan, Korea, Taiwan, Singapore and Malaysia across a wide range of industries. The strategy was to exploit knowledge and expertise gained in one Pacific market elsewhere in the region.[158]

At the same time, it is obvious from the breadth of acquisitions that Jardine, Matheson wanted to sustain its competitive advantage in Hong Kong, where GDP was rising 10% per year, interest rates were low and the island was emerging as an important regional finance center.

This section establishes the factors responsible for GDP growth and the flow of foreign direct investment into the ASEAN and Hong Kong from the 1960s through 1990s and reviews Jardine, Matheson's investments in the area and contribution to GDP growth from 1961-1996.

GDP Growth and Foreign Direct Investment in Hong Kong and the ASEAN

Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand – the original member states of the Association of South East Asian Nations (ASEAN) experienced dramatic growth in real GDP. Between 1965-1985, GDP rose 4.8% in Indonesia; 4.4% in Malaysia; 2.3% in Philippines; 7.6% in Singapore and 4.0% in Thailand, largely from corporate foreign direct investment, a significant portion of which came from Hong Kong firms.[159]

Between 1967 and 1993, Japan and Hong Kong were the two largest investors in Indonesia, measured in terms of foreign direct investment, and in terms of *cumulative* foreign direct investment, Hong Kong was among the top three largest investors in Indonesia, the Philippines and Thailand. Between 1967 and 1997, Hong Kong invested some US$14.6

158 Edward Chen, "Economic Restructuring and Industrial Development in the Asia Pacific: Competition or Complementarity?" Business & the Comtempory World (Spring, 1993), p. 68.

159 Henry Wai-Chung Yeung, Transnational Corporation and Business Networks (London: Routledge), pp. 18-19 GDP growth in Hong Kong and ASEAN; p. 86 Hong Kong FDI flows to ASEAN.

billion in Indonesia; in Malaysia, Hong Kong's paid-up capital in approved foreign direct investment projects in the manufacturing sector was US$256 million (or 4.2% of the total). In the Philippines, Hong Kong firms invested up to US$233 million (or 6.3% of the total) in cumulative foreign equity investment between 1965 and 1991. In Singapore, Hong Kong's cumulative foreign equity investment between 1981 and 1994 was US$3.3 billion or 2.5% of the total.

Hong Kong firms looked to ASEAN countries for specific sectoral advantages: Indonesia and the Philippines offered greater competitiveness in resource-rich primary and labor intensive manufacturing industries. Malaysia and Thailand were more competitive in manufacturing industries that required higher technological and capital inputs. In cumulative terms, from 1967 to 1993, some 70% of Hong Kong's foreign direct investment in Indonesia WAS concentrated mainly in six industries – textiles (US$838 million); office building (US$792 million); paper (US$658 million); hotels and restaurants (US$606 million), the chemical industry (US$604) and the basic metal industry (US$596 million). The top four manufacturing industries are related to resources abundant in Indonesia. For the textile industry, the availability of labor is an important factor, whereas the availability of natural resources is crucial to the chemical and basic metal industries.

In Malaysia, between the years 1975 to 1994, the majority of Hong Kong's foreign direct investment went into five industries: textiles, chemicals, electronics, food manufacturing and wood products. These five industries accounted for 94% of total Hong Kong foreign direct investment in 1975 and 87% in 1994. The textile, electronics and wood industries were the top employers in Malaysia – some 35,000 were employed by Hong Kong firms, the largest employer in that industry.

In the Philippines, agro-industries, mining/ mineral and chemical industries attracted most of the Hong Kong foreign direct investment from 1972 to 1987. Since 1982, the service sector has absorbed 51% of Hong Kong's total foreign direct investment.

As early as 1963, Hong Kong's foreign direct investment in Singapore's manufacturing sector represented 9% of total manufacturing foreign direct investment. Since 1985, the leading sector for Hong Kong's foreign direct investment has been financial and business services.

In 1970, Hong Kong's foreign direct investment in Thailand was concentrated in three sectors – trade, industry and construction, representing 87% of Hong Kong's total foreign direct investment. In 1980, the commercial and services sectors reemerged as the leading sectors for foreign direct investment. The five major industries or sectors were: financial institutions; trade; services; housing; and hotels. In the manufacturing sector, electrical appliances and chemicals were the leading industries for Hong Kong's foreign direct investment in 1980. From 1980-1995, the service sector dominated, at some 63% of total foreign direct investment, with financial institutions and real estate the two largest recipients of foreign direct investment.

Jardine, Matheson's Investment and Acquisition Strategy in Hong Kong and the ASEAN

Hong Kong had been Jardine, Matheson's home market for 129 years and the firm enjoyed a formidable reputation for financial strength and political influence. From 1961 to 1974, Jardine expanded its interests in Hong Kong, acquiring firms engaged in finance, insurance and real estate, as well as manufacturing, construction, transportation, wholesale and retail, and personal and business services.

Jardine, Matheson began the decade with investments in finance (a new investment management and financial services joint venture with Robert Fleming & Co., London and the Empire Finance Company), insurance-broking (Turnbull Gibson and Lombard), ship owning (Indo-China Steam Navigation Company), engineering (Jardine Engineering) diamond trading (Gregory), marketing (Harry Wicking, Inc., Dunhill, Inc.) and security services (Hong Kong Security, Chubb).

By 1974 the firm began to expand its range of transportation services to accommodate Hong Kong's entrepot trade, buying container operations (Dominion Line), container services (Hui Kong), container reconditioning and expanding into air charter operations (Eupo-Air), air cargo forwarding (Freight Express), cargo handling and storage (Gateway), and air cargo terminal (Hong Kong Air Cargo terminal). Jardine, Matheson had seven Hong Kong registered ship owning companies in 1974.

By the same year, the firm had acquired six financial services, merchant banking or securities firms and 11 property and insurance companies, reflecting confidence in the development of Hong Kong as a major economic center and entry point for international firms looking to do business with Asia, but with limited risk. Jardine, Matheson had five insurance underwriting and brokerage firms in Hong Kong in 1974 – Turnbull Gibson, Lombard Insurance Company, Chinese International Underwriters, Jardine, Matheson Insurance Brokers and Hong Kong Fire Insurance Company.

In addition to its real estate investments, Jardine, Matheson also invested in a number of construction companies beginning in 1974 (Schindler and Gammon).

Taking advantage of low-cost labor and the re-export market, the firm invested in local manufacturing businesses, including jewelry manufacture, office partitioning, toys and radios for export, precious and semiprecious stones, canvas and webbing equipment, watch parts manufacture, rainwear, and electronic plating, as well as business services, hospital and contract cleaning, car park and garage (Zung Fu Motors), hotels (Excelsior) and TV rentals (Rentacolor). See **Chart 34, Jardine, Matheson Market Presence: Hong Kong, 1972-1996,** at the end of the chapter.

Chart 35, below, shows that some 75% of Jardine, Matheson's acquisitions were made in Asia, including 40% in Hong Kong or China and 25% in Southeast Asia. Hong Kong predominates with 226 service area acquisitions. But Singapore, Malaysia, Philippines, Japan, Thailand and Indonesia – and even more prominently South Africa – were also major markets for Jardine, Matheson's investment, particularly in manufacturing and services. Jardine, Matheson's manufacturing investments in the ASEAN supplied product to the firm's Hong Kong's wholesale and retail trade investments.

Chart 35: Geographic Spread of Manufacturing, Service and Natural Resources Acquisitions and Investments – 1961-1984

REGION	MANUFACTURING	SERVICES	RESOURCES
Africa	7	119	4
Hong Kong/China	24	226	
Singapore	18	46	5
Malaysia	9	35	3
Philippines	16	17	
Europe		120	
US	8	46	7
North East Asia		14	1
Other	5	107	19
Total	**87**	**722**	**39**

By 1974, Jardine, Matheson had made significant investments in Singapore in ship owning, container freight stations, road transportation, agricultural industry manufacturing, textiles, scientific equipment, medical and hospital supplies. The firm invested in oil exploration in 1974 and bought three Singaporean companies engaged in oil industry supplies, manufacturing and servicing. In 1975, Jardine, Matheson acquired two firms to manage its oil interests and service oil rigs. Also in 1975, the firm brought in Jardine Fleming, Schindler Elevators, Rentacolor and a Hongkong Land-type property company, Singapore Land. Jardine acquired Promet Berhad, a company that undertook civil engineering and construction, steel fabrication and marine transportation. See **Chart 36: Jardine, Matheson Market Presence: Singapore, 1972-1996,** at the end of the chapter.

Jardine, Matheson entered the Philippines with the acquisition of two life insurance companies and holdings in three sugar milling companies, an air conditioning and TV manufacturing company, a joint venture with Sherwin Williams to manufacture industrial machinery and the acquisition of a machinery distribution company. In 1975 Jardine, Matheson established Jardine, Davies, a holding company with Theo. Davies, long associated with sugar plantations in the East Indies, to manage a portfolio of food and kindred products, timber trading, clothing and machine tools manufacture. Shipbuilding and repair was added in the same year. Financial services was added in 1978. See **Chart 37: Jardine, Matheson Market Presence: Philippines, 1974-1996,** at the end of the chapter.

Jardine entered South Africa in 1974 with the acquisition of Holiday Inn franchise licenses and local companies engaged in clothing, luggage and outdoor equipment manufacture. In 1975, Jardine, Matheson acquired 53% of Rennies, a 165 year old trading conglomerate, based in Johannesburg with interests in shipping, ship owning and tourism. The association quickly became extremely profitable, very quickly, with the subsidiary contributing 12% to parent company profits by the end of the decade and operating in eight African nations. From 34 acquisitions by the end of 1977, the firm reduced its holding to 23 in 1979 and had sold off all of its African holdings by 1980. See **Chart 38: Jardine, Matheson Market Presence: South Africa: 1974-1979,** at the end of the chapter.

Like other Asian, European Community and United States investors during the early 1970s, Jardine, Matheson made a significant investment in Australia. It was Jardine's plan to create another Hong Kong, that is to say, another home base in Australia.

In what became the firm's signature style, Jardine, Matheson established holding companies in anticipation of exporting its finance, insurance and retail "brands." By 1977, Jardine had acquired 18 firms engaged in finance, insurance and real estate – ship owning, shipping services, airways, security services, sugar harvesting equipment manufacture (to accommodate the firm's sugar milling businesses elsewhere in the Pacific), commodity-broking, sanitation services, refuse removal and other personal and business services, as well as manufacturing businesses. From 22 businesses acquired during the Exploit and Develop period, Jardine, Matheson's holdings in Australia were reduced or consolidated to 7 in the Harvest and Divest period and to 5 in the Focus on Distinctive Capabilities period, ending up with 1 in financial services; 1 in property, 1 in holding, AND 2 in supermarkets. Jardine, Matheson went from 22 wholly owned subsidiaries in 1978 to 6 in 1980 and 2 in 1996. See **Chart 39: Jardine, Matheson Market Presence: Australia, 1972-1996,** at the end of the chapter.

Jardine, Matheson Contribution to GDP Growth in Hong Kong and the ASEAN

In 1972, 82% of the firm's profits derived from Hong Kong, as well as 78% of its equity. In the same year, Northeast Asia (largely Japan) contributed 7% to profits and represented 2% of firm equity. Southeast Asia (largely Singapore, Indonesia, Malaysia and the Philippines) contributed 3% to profits and represented 3% of firm equity. But by 1978, Hong Kong was contributing 45% to profits and represented only 37% of equity. Japan was contributing 12% to profits and represented 5% of equity; Singapore, Indonesia, Malaysia and the Philippines were contributing 6% to profits and 12% of equity. See embedded **Chart 40: Jardine, Matheson's Profits and Equity Holdings by Geography and Sector, 1972-1982,** below.

Chart 40, Jardine, Matheson's Profits and Equity Holdings by Geography & Sector 1972-1982

	1972	1973	1974	1975	1976	1977	1978	1979	1981	1982
PROFITS %										
Hong Kong	82	55	15	49	54	57	45	49	71	51
N.E. Asia	7	10	5	7	8	7	12	9	4	4
S.E. Asia	3	13	11	13	7	4	6	6	7	13
Australasia	4	4	4	5	7	7	2			
N. America	-	5	49	15	4	7	15	8		
Europe	4	13	16	9	14	7	5	6	6	6
Souther Africa				2	6	5	6	8	9	12
Middle East						6	9	14	3	3
TOTAL	100	100	100	100	100	100	100	100	100	100
EQUITY %										
Hong Kong	78	43	35	45	39	37	37	38	74	69
N.E. Asia	2	1.5	4	3	4	5	5	4	2	2
S.E. Asia	2.7	9.7	10	11	11	10	12	14	5	5
Australasia	11.5	5.8	10	10	12	14	11	8	1	1
N. America	1.06	8.4	11	6	7	8	8	9	9	9
Europe	4.8	31	30	19	16	15	12	13	5	6
Southern Africa				6	6	5	5	6	5	6
Middle East					5	6	10	8		
TOTAL	100	100	100	100	100	100	100	100		
PROFIITS % BY SECTOR										
Trading and Light Industry			19	23	24	23	23	30		
Services (and Transportation)			22	22	31	24	22	29	15	18
Financial Services			2	26	19	17	19	12	24	24
Natural Resources			46	17	21	8	10	6	-2	3
Property			11	12	5	28	26	23	25	10
Engineering and Construction									20	25
Marketing and Distribution									18	20
TOTAL			100	100	100	100	100	100	100	100

Indeed, Jardine, Matheson had an extraordinary impact on the national economies in which it invested so heavily. With Hong Kong representing 37% of turnover in 1977, Jardine, Matheson represented 3.9% of Hong Kong's GDP. With Singapore, Indonesia. Malaysia and the Philippines representing 4% of turnover in 1977, Jardine, Matheson represented 2% of their combined GDP. South Africa represented 5% of the firm's turnover in 1977 and 2% of the nation's GDP. See **Chart 41: Jardine, Matheson Contribution to GDP,** at the end of the chapter.

During the period examined in this paper (1961-1996) peer firms like Swire and Hutchison Whampoa never took the multi-market approach of Jardine, Matheson, making it part of their strategy to focus on Hong Kong and China. Only in the mid 1970s, when Swire was issuing shares, did Swire's contribution to Hong Kong GDP begin to rise to 1.9% at the end of the decade. By 1984, Swire had eclipsed Jardine, Matheson's contribution to the colony. By 1986 Hutchison Whampoa was contributing 2.1% to Hong Kong GDP. **Chart 42: Comparison of Jardine, Matheson with Competitors, Contribution to GDP and Added Value,** at the end of the chapter.

Chapter 6: Section 4: Comparison of Jardine, Matheson's Acquisitions with Those of Other International Firms During the Same Period

This section looks at trends and patterns of acquisition activity across industries and geographies for the same period.

A study by R.S. Khemani [160] of recent worldwide trends in merger and acquisition activity classifies merging parties into 29 industrial categories for the consolidated years of 1978-1979, 1983-1984 and 1988-1989. Within manufacturing, the categories correspond generally to the two-digit SIC (major group) codes, whereas outside manufacturing they represent one or more industrial divisions (i.e. several major groups). Hence, the numbering system used by Khemani is unique to this investigator, but the industrial categories correspond to the verbal descriptions of the two-digit Standard Industrial Classification (SIC) codes, which have been used throughout this Chapter. Khemani's industrial categories are:

1. Agriculture
2. Forestry
3. Fishing and Trapping
4. Mines, Quarrying, Oil Wells
5. Food and Beverages
6. Tobacco Products
7. Rubber
8. Leather
9. Textiles
10. Knitting Mills
11. Clothing
12. Wood
13. Furniture and Fixtures
14. Paper
15. Printing, Publishing
16. Primary Metals
17. Metal Fabricating
18. Machinery
19. Transportation Equipment
20. Electrical Products
21. Non-metallic Mineral Products
22. Petroleum and Coal Products
23. Chemicals and Chemical Products
24. Misc. Manufacturing
25. Construction
26 Transportation, Construction, Utilities
27. Trade
28. Finance, Insurance and Real Estate
29. Community, Business or Personal Services

160 R.S. Khemani, "Recent Trends in Merger and Acquisition Activity in Canada and Selected Countries," *Corporate Globalization through Mergers and Acquisitions*, p. 1-22.

Comparing these figures, it is notable that the majority of mergers and acquisitions studied by Khemani over the time period tend to be broadly horizontal – approximately 57% of total activity in the years 1978-79 and 1983-84, and at a significantly higher level of 66% in 1988-89. But there is considerable variation in horizontal merger activity within different industry categories during the three time periods.

Also of interest is the variation in total merger activity in the different industry categories. That is to say, the level tends to be high when the acquiring firm falls into one of the following categories: Transportation, Communications and Utilities; Wholesale and Retail Trade; Finance, Insurance and Real Estate; and Community, Business and Personal Services. The number of mergers and acquisitions is also high in mining – Mines, Quarrying and Oil Wells, particularly in the years 1978-79 and 1988-89. Toward the end of the 1980s, M&A activity was also pronounced in the Food and Beverage Sector, most of which tended to be horizontal.

Another striking observation is the proportion of firms in Wholesale and Retail Trade, which were acquired by firms outside that category. Acquisitions in this category increased from 14% in 1978-79 to 70% in 1983-84 and were at 57% in 1988-89. This may reflect forward integration of economic activity by firms located in different industries. Also striking is the number of acquisitions made by firms in Finance, Insurance and Real Estate spanning the broad spectrum of the non-financial sector. The magnitude of these mergers and acquisitions increased from 17% to 82% and then dropped to 62% over the three time periods. This trend reflects the changing regulatory environment, which governs the operation of financial companies and the removal of certain barriers between different segments of financial markets.

Using Khemani's methodology, and the same industrial categories and charting formats, Jardine, Matheson's acquisitions were tracked over five periods. Two earlier periods were included, because Jardine, Matheson's acquisition strategy was well underway in 1972-74 and at its apex in 1975-77. As noted above, the firm made a total of 437 acquisitions – 32.5% in finance, insurance and real estate; 21% in transportation, 17% in manufacturing and 13.5% in wholesale and retail trade, 11.4% in services, 2% in mining and agriculture. See **Chart 43: Jardine, Matheson & Company Compared to Global Firms, Trends in Mergers & Acquisitions, 1972-74 and Chart 44: Jardine, Matheson & Company Compared to Global Firms, Trends in Mergers & Acquisitions, 1975-77** at the end of the chapter. Jardine's very broad horizontal M&A activity, including 18% in manufacturing and resources, is similar to that of the trading and financial companies Khemani studied. Overall, a full 32% of Jardine, Matheson's acquisitions were horizontally distributed.

In the subsequent series of **Charts 45 through 47: Jardine, Matheson & Company Compared to Global Firms, Trends in Mergers & Acquisitions**, Jardine, Matheson's activities are highlighted in gray and can be compared directly with Khemani's findings for the same time sequences. In reviewing these charts, it should be noted that the totals along the diagonal in these figures represent the number of acquiring and acquired firms that fall into the same broad industrial category. The transactions may be viewed as "broadly horizontal" in nature (i.e. where the firms have operations in the same or similar products). The industry categories are sufficiently broad; however, that these numbers include related product diversification as well. The totals at the base of the columns indicate the industry categories in which the target (acquired) firms operate. Similarly, the totals at the end of the rows indicate the total number of firms in each industry category in which the acquiring firms are based. The number of mergers and acquisitions not located on the diagonal suggest the extent of non-horizontal activity; these include transactions that are conglomerate and vertical (forward-backward) in nature.

By 1978-79 Jardine, Matheson's M&A activity in manufacturing and resources is reduced. As previously noted, the firm had reduced many of its non-core holdings. The 1983-84 and 1988-89 charts reflect reduced and highly focused M&A activity in the areas of finance and transportation, retail and services. See **Charts 45, 46 and 47, Jardine, Matheson & Company Compared to Global Firms Trends in Mergers & Acquisitions, 1978-1979, 1983-1984, and 1988-1989**, at the end of the chapter.

Hence, the overall shape of Jardine, Matheson's acquisition pattern was familiar to that of trading and financial firms studied by Klemani, broadly horizontal at the outset (for Jardine, Matheson this was 1972-77, not 1978-79) with increasing contraction through 1988-89.

Chapter 6: Section 5: Could Jardine, Matheson Leverage Its Capabilities More Effectively Through An External Organization Than Through Contractual Relations with Outside Parties?

This section examines the advantages to Jardine, Matheson of its "external organization," an "industrial district" spread across the Pacific, linked by shipping, insurance, finance and distribution services: in what way was this network of equity and trade relationships more advantageous to Jardine, Matheson than vertical integration or market transactions?

Henry Keswick had made the claim that Jardine, Matheson's acquisition strategy had "industrial logic" behind it. At the very least, the claim implies strategic choice and superior knowledge. To examine what kind of strategic choices Jardine, Matheson made during the period, we examined Jardine, Matheson's investment in associated and subsidiary firms across 152 business lines, the relationship between businesses and required skills, Jardine's choice of geographic markets.

This section now turns to the clustering of skills sets within geographic markets of skill sets held by associated and subsidiary firms, and available to the business as a whole and examines the financial benefits of intra-organizational contracting for the parent firm and its associates.

In addition, this section examines two additional areas related to superior knowledge that explain the perceived value to the firm and to its associates of Jardine, Matheson's strategic resource and services choices justifying the mutual advantage of what may be described as an "external organization," in the Marshallian sense of a pattern of relationships within and outside the business.

Industrial Clusters

One can look at the three-digit SIC codes represented among Jardine, Matheson's investments – that is, major industry – and plot these by stage in the value chain (primary goods or resources; manufacturing; services) and by geography. This shows the interdependence of Jardine, Matheson's acquired companies within product systems for materials and metals (the steel product system), forest products, transportation, textiles, oil and gas and sugar, producing what might be called "Industrial Clusters."

The analysis of these "Industrial Clusters" revealed that many firms acquired by Jardine, Matheson between 1972-1977 were steel dependent. Included were oil refining, shore drilling and offshore services, construction and elevator installation, sugar milling, sugar harvesting equipment manufacture, ship building and repair, steel foundry, piping and components, machine parts, agricultural equipment manufacturing, air conditioning manufacturing, electricity and supply, motor distribution, steel fabrication, hydraulic components, crane and winch trading, industrial equipment, oil equipment and services. See **Chart 48: Industry Clusters,** at the end of the chapter.

Further, this analysis shows how the separate product systems actually related to each other and to Jardine, Matheson's own historical capabilities.

For example, the steel product system supplied flexible steel for cladding and decking to the transportation (shipbuilding) product system; machinery to both oil and gas as well as sugar product systems. The steel product system also supplied piping and aluminum components to the oil and gas product system, and the transportation product system supplied shotblasting and marine engineering services to that product system. A dramatic example of product system interdependencies was the impact of the energy price crisis of 1973 on shipbuilding and – domino-like – on the steel industry. The energy crisis hit the automobile industry and the housing industry in the industrialized West (US, UK, Europe) and in Japan; demand for steel slumped. But in the newly industrializing nations of Australia, Malaysia, Philippines, Singapore and South Africa demand for steel produced and used in the same region accelerated with GDP growth – and Jardine, Matheson was there with the capabilities to take advantage of a spectacular opportunity.

While Jardine, Matheson was largely involved in its core activity of matching buyers and sellers of diverse products, the firm was also entrenched in a number of key industries. This was not on a one-time, ad hoc basis, but on a recurring basis and at very different stages of the value chain. Relying on its broad architecture, its relational contracts, Jardine, Matheson would purchase raw materials, assemble them, coordinate their flow from firm to firm, through the production and distribution chain, using its own vessels and supporting the effort with its own marketing services. The firm would not only buy and sell the product at various stages, it would arrange the logistics, handle the foreign exchange aspects, documentation, customs clearance and other details.

Financing was another important aspect of Jardine, Matheson's service to client and associated firms. The firm acted as a retailer of loans, borrowing wholesale at preferential rates and re-lending the money to finance the trade. Because of its intimate customer contact and its insurance-broking services, Jardine, Matheson had the highest quality credit information on current and prospective clients. The firm's capacity to gather and distribute information was an important commodity.

How was clustering an advantage to Jardine, Matheson, the parent company? The range of related services that Jardine provided to firms in its network generated commissions to Jardine and its shipping/ transportation services, financing, insurance, distribution and marketing businesses.

At each stage, from production to final sale, Jardine, Matheson both provided value – knowledge and know how – and extracted value as a buyer or a seller, on its own account or as a broker or shipper, operating on commission and absorbing the risk for companies in the chain. Using 1977 as an example, Jardine, Matheson's value chain for steel offered at least 61 separate points at which the firm could extract value, make a commission as it were, going back to the firm's history in the commission business.

How Jardine, Matheson Extracted Value At Each Stage of the Steel Value Chain

STAGES	BUY OPTIONS	SELL OPTIONS
Iron Ore	**Local and International** Own account Broker Ship Finance, insure	**Local and International** Own account Broker Ship Finance, insure
Blast Furnace	Product mix Contract	Product mix Unused Capacity Contract
Steel Ingots	**Local or International** Own account Broker Contract Ship Finance, insure	**Local or International** Own account Broker Contract Ship Finance, insure
Manufactures	**Local or International** Own account Broker Contract Ship Finance, insure	**Local or International** Own account Broker Contract Ship Finance, insure
Engineering and Construction	**Local or International** Own account Broker Contract Finance, insure	**Local or International** Own account Broker Contract Finance, insure

Looking back at the classification scheme used earlier in this section to discuss Jardine, Matheson's growth periods, it is evident that the opportunities that the firm and its managers saw for capturing value changed dramatically between 1974 ("Exploit and Develop") and 1978 ("Harvest and Divest" period). The data derive from the firm's Annual Reports: In 1974, the firm made 19 cents of every dollar buying and selling the manufactures of associated firms; 22 cents on transporting goods; 2 cents on financial services. By 1978, the firm was making 30 cents on every dollar from making and selling manufactures, 29 cents from transportation and 22 cents on financial services to its associated firms. By 1981 this configuration had changed. The firm had divested its manufacturing interests, divested its ship owning interests, and was building a business concentrating on service delivery. For every dollar of profit generated in 1981, 77 cents was derived from services, versus 53 cents in 1974 and 61 cents in 1979.

The External Organization as Quasi-Insurer

As noted in an earlier section, some 75% of acquisitions were made in the Asia Pacific Region, 40% in Hong Kong and China and 25% in Southeast Asia. North East Asia represented only 10% of acquisitions because import quotas and trade restrictions limited entry.

The availability of low cost labor in the Asia Pacific was attractive to Jardine, Matheson, particularly when the firm was entering manufacturing and resource businesses, unrelated to its core finance, insurance, shipping and trading businesses. Entry into unrelated businesses depended on ease of exit (reflected in a low current ratio) and the potential for high returns. **Chart 49 Return on Equity and Current Ratio for Selected Industries, Worldwide Statistics – 1967-1998,** end of chapter, provides insight into these characteristics. In geographies where labor and energy costs were low, the firm could expect to appropriate more of its total revenue. With low exit costs, the firm could easily divest a non-performing investment and add proceeds to reserves to fund future growth. As documented earlier in this chapter, half as many divestitures as acquisitions were made from 1972-1996.

Knowledge about investment opportunities and available returns was obtainable on site through the firm's trading and shipping experiences. In cases like Rennies of South Africa, Guthries of Singapore and Theo.Davies of Hawaii, the acquired firms were large trading firms that shared scope of activity and long-experience with Jardine. Jardine, Matheson also had access to information brokers like Lloyd's List and Drewry's Shipping Consultants.

The value to Jardine, Matheson of dependable long-term relationships with businesses in Asia Pacific was higher returns and lower-cost inter-firm transactions. Lower-cost inter-firm transactions were also of direct benefit to Jardine's associated firms.

To evaluate the ability of the Jardine, Matheson network to retain more profitable revenue than any individual firm, we looked at the ratio of taxes paid to profits, reserves to stockholders funds, and operating profits to operating costs; see **Chart 50: Higher Profits,**

Lower Costs Available through Jardine, Matheson's External Organization during Exploit and Develop Period, 1972-1977, below.

Chart 50: Higher Profits, Lower Costs Available through Jardine, Matheson's External Organization during Exploit and Develop Period, 1972-1977

		'72	'73	'74	'75	'76	'77
Taxes/		19	34	239	90	94	112
Profit Attributable		92	137	215	265	259	367
	Ratio	**20.6%**	**24.8%**	**111%**	**34%**	**36.2%**	**30.5%**
Trans. to Reserves/		73	128	149	129	227	280
Stockholders Funds		573	1,458	1,637	1,993	1,988	2,048
	Ratio	**13%**	**8.7%**	**9%**	**6.4%**	**11.4%**	**13.6%**
Operating Profit		117	184	479	400	461	482
Cost of Operations			1080	1844	2535	3508	3937
	Ratio		**17%**	**26%**	**15.7%**	**13%**	**12.2%**

Source: Jardine, Matheson Annual Report

During 1972-1977, Jardine's taxes paid as a percentage of earnings was dramatically lower than for individual firms engaged in manufacturing or resource industries, an average of 29.32% (excluding 1974) versus 33.35%. The highest taxes affected the resource group, which averaged 46.61% during this period. Jardine, Matheson also achieved a higher operating profit- to-costs ratio – an average of 16.78% per annum versus 15.14% per annum. For a comparison with individual, publicly traded firms within industries included in Jardine, Matheson's portfolio, see **Chart 51: Profits and Costs Available to Individual Firms, Across Business Sectors, 1967-1983**, on the next page.

Chart 51: Profits and Costs Available to Individual Firms, Across Business Sectors, 1967-1983

Industrials Composite

	'67	'72	'73	'74	75	76	'77
Taxes/Profit Attributable	29%	30.4%	32%	36.5%	35.2%	35%	26.4%
Operating Profit/Ops Cost	15.55%	15.06%	15.84	15.36	14.38%	14.42%	14.36%
		'78	'79	'80	'81	'82	'83
Taxes/Profit Attributable		33.5%	33.3%	31.7%	29.1%	25.6%	26.5%
Operating Profit/Ops Cost		14.40%	14.37%	13.16%	12.92%	12.78%	13.64%

Resources Composite

	'67	'72	'73	'74	75	76	'77
Taxes/Profit Attributable	23.3%	37%	39.5%	52.7%	53%	48.3%	49.2%
Operating Profit/Ops Cost	21.55%	22.32%	25.22%	22.89%	19.87%	17.37%	16.48%
		'78	'79	'80	'81	'82	'83
Taxes/Profit Attributable		46.1%	47%	44.8%	38.9%	34.6%	34.5%
Operating Profit/Ops Cost		16.04%	18.09%	15.53%	13.87%	13.86%	16.29%

Machinery

	'67	'72	'73	'74	'75	'76	'77
Taxes/Profit Attributable	39%	39%	39%	34.7%	32.3%	33%	34%
Operating Profit/Ops Cost	15.81%	17.71%	17.38%	16.01%	15.79%	15.35%	16.43%
		'78	'79	'80	'81	'82	'83
Taxes/Profit Attributable		37.9%	34.65	34.1%	35.1%	30.3%	48.2%
Operating Profit/Ops Cost		12.55%	12.48%	11.46%	12.35%	9.81%	7.36%

Iron & Steel

	'67	'72	'73	'74	'75	'76	'77
Taxes/Profit Attributable	14%	15%	23.6%	32%	17.7%	7.1%	-30%
Operating Profit/Ops Cost	14.75%	11.26	12.04%	14.54%	10.30%	8.64%	5.59%
		'78	'79	'80	'81	'82	'83
Taxes/Profit Attributable		15.2%	2.7%	6.8%	30.4%	-55.5%	-17.4%
Operating Profit/Ops Cost		8.91%	7.97%	6.45%	7.81%	2.28%	4.23%

Paper & Forest Products

	'67	'72	'73	'74	'75	'76	'77
Taxes/Profit Attributable	23.2%	20.7%	27%	32%	26.7%	25.3%	23%
Operating Profit/Ops Cost	14.49%	12.24%	14.67%	16.43%	15.50%	15.69%	14.87%
		'78	'79	'80	'81	'82	'83
Taxes/Profit Attributable		254.2	28,3%	22.5%	28.3%	10.5%	12.7%
Operating Profit/Ops Cost		14.55%	13.69%	11.94%	10.60%	8.42%	10.72%

Source: Standard & Poors Data 1967-1983

Experienced financiers and insurers, Jardine, Matheson achieved higher profits, retained more income for future growth, and maintained lower operating costs overall as a member of an external organization than the average individual firm dealing with suppliers on a contract basis. The anticipated financial value would have been important to Jardine, Matheson, but also minimizing the peaks and valleys of profits and costs in an uncertain environment would have been important both to Jardine and its associated firms.

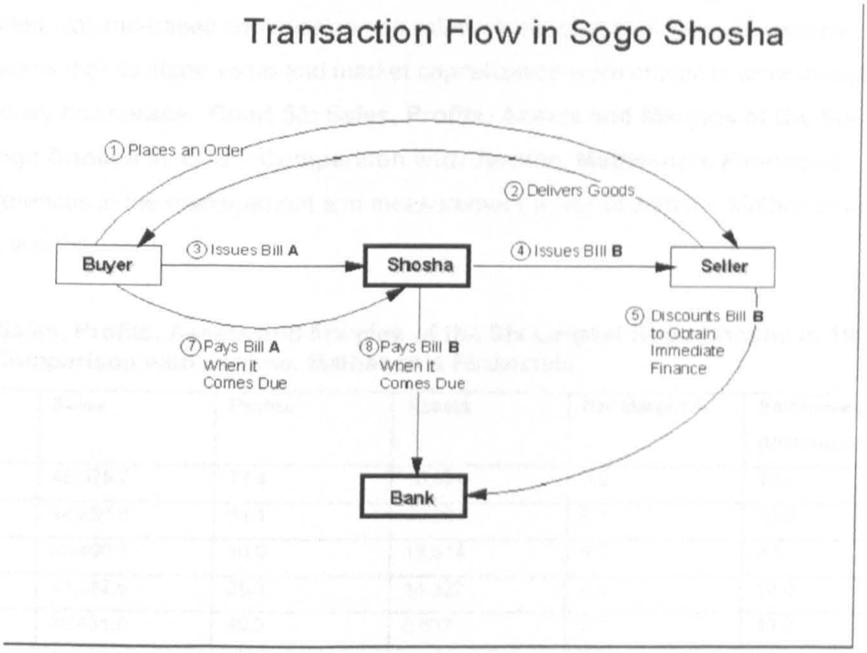
Comparison of Jardine, Matheson's Internal and External Organization with the Japanese Sogo Shosha

In studying Jardine, Matheson & Company and its external organization, it is useful to compare this firm with the Japanese general trading company, or sogo shosha. Both share a similar history: the sogo shosha that came into being in Japan at the same time as the agency house in Canton.

Like Jardine, Matheson, the primary function of the sogo shosha was trading – that is, matching buyers and sellers of diverse products. In performing this core activity, it was entrenched in a number of key industries, at different stages of the value chain, from the purchase of raw materials to the marketing of the final product. It played a role in vertically integrated commodity systems, particularly in basic commodities such as textiles, iron and steel, nonferrous metals, chemicals and foodstuffs. The sogo shosha, like Jardine, Matheson, provided essential links between stages in a product system for a client firm, only one stage of which was trading.

The Japanese general trading company entered the transaction as an intermediary between the supplier and the purchaser, accepting payment from the buyer in the firm of a bill of payment and issuing its own bill to the supplier. The supplier's extension of credit was to the trading company, not to the purchaser. Similarly, the liability of the purchaser was to the trading company rather than to the supplier. The trading company's role was analogous to that of an insurance agency. Although the trading company didn't receive insurance premiums directly, it was actually in the insurance business and it received commission income, usually a small percentage of the value of the transaction. See **Chart 52: Transaction Flow In Sogo Shosha,** following

Chart 52: Transaction Flow in Sogo Shosha



A recent study by Chee Ng et al.[161] uses SIC code analysis to identify the length of credit terms extended by the sogo shosha. It was possible depending on the extent of value chain activities – raw materials, manufacturing, wholesale, services and transportation between points – that as much as two years of credit was extended by the trading firm, who WHICH brokered all of the transactions.

Importantly, both Jardine, Matheson and the sogo shosha were linked to the associated and subsidiary firms in their network as well as to national GDP through trade, through investment, through trade credits and through employment. The impact of the six major sogo shosha on Japan's GDP was estimated by Sheard at 28% per annum in 1979. Jardine, Matheson's contribution to Hong Kong's GDP was 4% in that year, and to Singapore 2% and South Africa.

While the similarities between Jardine, Matheson and the sogo shosha were extraordinary, the differences are also interesting. Unlike the sogo shosha, Jardine, Matheson was in business to maximize retained earnings for growth. While the sogo shosha did not aim to maximize trading profit by buying low and selling high into the market, Jardine, Matheson 's basic modus operandi was to comb the market looking for the opportunities with the best prospect for high yields. While the sogo shosha was compensated for acting largely as a

161 Ng Chee et al., "Evidence on the determinants of credit terms used in inter-firm trade," The Journal of Finance (June 1,1999), p. 1118.

purchasing agent for a relatively fixed group of long-term clients, for which it received a predetermined, volume-based commission or a relatively modest trading profit, Jardine, Matheson knew that its share value and market capitalization were critical to draw investors to its subsidiary businesses. **Chart 53: Sales, Profits, Assets and Margins of the Six Largest Sogo Shosha in 1979 – Comparison with Jardine, Matheson's Financials** reflects differences in the management and measurement styles of Jardine, Matheson and the leading shosha.

Chart 53: Sales, Profits, Assets and Margins of the Six Largest Sogo Shosha in 1979 – Comparison with Jardine, Matheson's Financials

Company	Sales	Profits	Assets	Net Margin %	Employees (thousands)
Mitsubishi	48,325.2	77.4	18,824	0.2	13.0
Mitsui	44,886.6	54.1	20,964	0.1	13.6
C. Itoh	35,490.7	10.9	13,614	0.0	9.8
Marubeni	33,592.6	38.3	14,322	0.1	10.0
Sumitomo	30,438.9	40.3	8,637	0.1	10.0
Nissho-Iwai	23,106.8	17.5	8,541	0.1	8.3
Jardine Matheson	14,540.0	99.0	344	6.8	50.0

During the mid 1970s, the Japanese general trading companies and Jardine, Matheson were most similar in their activities, and both were concentrated in the basic sectors of the newly industrializing ASEAN economies – metals, fuels, food, fibers, machinery and construction. To Jardine, Matheson's advantage, the sogo shosha supplied only the Japanese market at this time. That left Jardine, Matheson to explore other Pacific markets as well as to deepen its relationship with Hong Kong.

Jardine, Matheson offered something more to its customers and investment partners than the sogo shosha. While the sogo shosha did relatively little business involving brand name consumer products that required extensive advertising and service, Jardine Matheson built an Asian presence and awareness for international brands like Dunhill, Moet-Hennessy, Caterpillar, Sherwin Williams, MacMillan Bloedel. More recently it did the same KFC, Taco Bell and Ikea. Its point of differentiation was its superior marketing ability. Jardine, Matheson's advertising joint venture, MacMillan Jardine, provided marketing and advertising services to a raft of brand names handled by Jardine.

Chapter 7 continues the discussion of Jardine, Matheson's internal and external organization and its contribution the management of uncertainty.

Chapter 6: Section 6: The Internal and External Factors Responsible for Jardine, Matheson's Resource and Services Choices: A Resource-based Interpretation

This concluding section of Chapter 6 reviews the internal and external factors responsible for Jardine, Matheson's resource/services choices (Question 2) from 1961 to 1996.

A central theme of this study has been the Resource-based view Jardine, Matheson developed a pattern of relationships within and outside the business which would foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners. Chapter 6 took an in-depth look at the equity-based relationships Jardine, Matheson built with hundreds of firms engaged in a cluster of industries to understand how the businesses related to each and the unique role they played in their industry.

From 1972 to 1996, Jardine, Matheson made half as many divestitures as acquisitions, 300 of which were in broadly horizontal businesses and 500 in vertical businesses. There was a significant increase in divestiture activity during the Harvest and Divest period 1978-1984, particularly among Jardine's manufacturing and resource acquisitions, but divestment was integral to firm strategy throughout the study period.

Chapter 6 closely tracked Jardine, Matheson's these vertical industry acquisitions and divestitures to uncover the relationship if any between businesses within the same industry. The firm made 146 investments in the transportation industry, including warehouses, container ports, containers, transshipment, airfreight and security services for container ports – some 28 four-digit SIC codes in all – across Hong Kong and China, Singapore, South Africa, Australia and the Philippines. On average 20% or more of every transaction Jardine, Matheson made between 1972 and 1984 derived from transportation services.

Finance, insurance (major category 60-67) accounted for 198 of the acquisitions Jardine, Matheson made during the period. These acquisitions involved some 16 four-digit SIC codes. From the beginning of the decade at 2% of every transaction to the end of the 1970s when 29% of every transaction involved financial or insurance services, financing was a very important aspect of Jardine, Matheson's service to client and associated firms. The firm acted as a retailer of loans, borrowing wholesale at preferential rates and re-lending the money to finance the trade. Because of its intimate customer contact and its insurance-broking services, Jardine, Matheson had the highest quality credit information on current and prospective clients. The firm's capacity to gather and distribute information was an important commodity.

In studying the skills associated with Jardine, Matheson core trading, finance, insurance and transportation businesses and comparing these skills with the requirements of Jardine, Matheson's manufacturing, resource and later retail and other businesses, it is striking that Jardine, Matheson's trading and financial services core businesses put a high demand on top management, marketing and financial management skills that were transferable across the firm's newly acquired businesses. While Jardine, Matheson's manufacturing acquisitions relied on low cost labor available in the ASEAN between 1972 and 1977, the firm's expansion into new retail and grocery industries in the 1980s required investment in industry-specific skills.

Jardine, Matheson's reasons for divesting its manufacturing and resource acquisitions In the late 1970s are not too different from its reasons for divestment – the critical dependencies that could provide additional sources of value to the firm, could also destroy value all along the value chain.

For example, the steel product system supplied flexible steel for cladding and decking to the transportation (shipbuilding) product system; machinery to both oil and gas as well as sugar product systems. The steel product system also supplied piping and aluminum components to the oil and gas product system, and the transportation product system supplied shotblasting and marine engineering services to that product system. A dramatic example of product system interdependencies was the impact of the energy price crisis of 1973 on shipbuilding and – domino-like – on the steel industry.

Jardine, Matheson retreated from manufacturing and focused on services acquisitions about five years before this became an acquisition strategy of the international firms studied by Khemani whose activities are detailed in this Chapter.

A Harvard school interpretation would argue that the specific advantages of Hong Kong and the cluster of expatriate competitors clustered there had more influence on Jardine, Matheson's resource and service portfolio than the firm's explicit management choices. But, as in the early period, Jardine, Matheson was a creator of such clusters of industries within a very large industrial district framed by the Pacific, Indian and South Atlantic oceans. Jardine, Matheson sought to create hubs very similar to Hong Kong – with deep water ports and facilities for finance, insurance and transportation – in Australia , Singapore, South Africa and Hawaii.

While a Chicago view would argue that Jardine Matheson's choice of resources and services was based on ownership opportunity – enhanced by the British rule of law in Hong Kong, which enabled and protected private ownership, that interpretation would hold only in Hong Kong. Elsewhere in the Pacific, the geographic spread of Jardine, Matheson's acquisitions and the firm's strategy of pursuing only minority equity holdings does not support that interpretation. Instead, the clustering of resources in deep water ports around the Pacific created an "industrial district," in the Marshallian sense, where shipping, financing, insurance, distribution and marketing were the *lingua franca* for transportation, oil servicing, sugar, leather, textile and other industries in which Jardine, Matheson invested.

As noted here, the dense network of relationships Jardine, Matheson built with associated firms is reminiscent of the Japanese sogo shosha, the general trading company whose relationships with firms in the keiretsu were likewise built on trade, equity and credit.

Jardine, Matheson was compared with the Japanese general trading company, acting as a quasi insurance-agent, providing trading and production credits to customer and supplier firms and deriving competitive advantage, from a hybrid governance arrangement that was neither internalization (vertical integration) nor market governance (commodities purchase in the open market).

Jardine, Matheson was far more interested in potential profits coming from the knowledge of its subsidiaries and associates than the government-sponsored sogo shosha.

Chapter 6 Charts

Chart 25 Table Acquisitions by Industry and 4-digit SIC Codes		
Industry	**4-Digit SIC**	**Number Acquired**
Oil and gas extraction	1311	4
Oil and gas field services	1382	7
Oil and gas field services, not otherwise classified	1389	4
General Building contractors	1542	2
Construction other than building construction	1611	13
Construction - misc. special trade contractors	1799	2
Food and kindred products - Ice cream and frozen desserts	2024	3
Food and Kindred Products - Frozen bakery products	2053	1
Food and kindred products - Sugar cane except refining	2061	7
Food and kindred products -Candy and other confectionery products	2064	1
Food and kindred products - Malt beverages	2082	1
Food and kindred products - Bottled and canned soft drinks and carbonated waters	2086	2
Food and kindred products - Misc. food preparations	2099	1
Textile mill products - Yarn spinning mills	2281	1
Textile mill products - misc. textile goods	2299	1
Apparel and other finished products made - misc. apparel and accessories	2389	5
Lumber and wood products - millwork, veneer, plywood and structural wood	2431	1
Lumber and wood products - millwork, veneer, plywood and structural wood; Hardwood veneer and plywood	2435	1
Furniture and fixtures - Wood household furniture	2512	1
Printing, publishing and allied industries - Books, publishing and printing	2731	1
Printing publishing and allied industries -Plate making and related services	2796	1
Petroleum and related products - Petroleum refining	2911	1
Leather and leather products - Men's footwear except athletic	3143	1
Leather and leather products - luggage	3161	1
Stone, clay, glass and concrete products - cement, hydraulic	3241	2
Stone, clay, glass and concrete products - Clay refractors	3255	1
Stone clay, glass and concrete products - Abrasive, asbestos and nonmetallic mineral products	3292	1
Primary metal industries - blast furnaces and steel works and rolling and finishing mills	3312	5
Primary metal industries - iron and steel foundries	3325	1
Fabricated metal products, except machinery and transportation equipment - coating, engraving and allied services	3479	1
Machinery, except electrical - Conveyors and conveying equipment	3535	1
Machinery except electrical - Elevators and moving stairways	3534	9
Machinery, except electrical - Machine tools, metal cutting types	3541	4
Machinery, except electrical - Food products machinery	3556	1
Machinery, except electrical; Printing trades machinery and equipment	3555	4
Machinery, except electrical ; Special industry machinery	3559	4

Chart 25 Table Acquisitions by Industry and 4-digit SIC Codes		
Industry	**4-Digit SIC**	**Number Acquired**
Machinery, except electrical - Refrigeration and service industry equipment	3589	2
Machinery, except electrical; Industrial and commercial machinery and equipment	3599	1
Electrical and electronic machinery; Telephone and telegraph apparatus	3661	1
Electrical and electronic machinery; Electronic coils, transformers and other inductors	3677	1
Electrical and electronic machinery; electronic components	3679	3
Transportation equipment - Motor vehicles and motor vehicle equipment	3711	2
Transportation equipment - misc. transportation equipment	3799	1
Measuring, analyzing and controlling - Surgical, medical and dental instruments and supplies	3841	7
Measuring, analyzing and controlling; Watches, clocks, clockwork operated devices and parts	3873	1
Misc. manufacturing industries; Jewelry, precious metal	3911	3
Games, toys and children's vehicles, except dolls and bicycles	3944	1
Sporting and athletic goods	3949	1
Costume Jewelry and Costume Novelties	3961	1
Motor freight transportation and warehousing -	4222	1
Motor freight transportation; Terminal and joint terminal maintenance facilities for motor freight	4231	1
Water transportation; Deep sea foreign transportation of freight	4412	4
Water transportation of passengers	4499	43
Transportation by air; scheduled	4512	1
Transportation by air; air courier services	4513	3
Transportation by air; nonscheduled	4522	3
Transportation by air; airports, flying fields and airport terminal services	4581	4
Transportation services; travel agencies	4724	9
Transportation services; tour operators	4725	4
Transportation services; arrangement of transportation of freight or cargo	4731	64
Transportation services; packing and crating	4783	15
Transportation services; not elsewhere classified	4789	2
Communication - Telephone communications	4813	1
Electric, gas and sanitary services; electric services	4911	1
Electric, gas and sanitary services; Water supply	4941	2
Electric, gas and sanitary services; Sewerage systems	4952	1
Electric, gas and sanitary services; Refuse systems	4953	1
Wholesale trade -durable goods; motor vehicles	5012	12
Wholesale trade - durable goods; automotive supplies and new parts	5013	2
Wholesale trade - durable goods; furniture and home furnishings	5023	3
Wholesale trade - durable goods - lumber and other construction materials	5031	3
Wholesale trade - durable goods; Photographic equipment and supplies	5043	1
Wholesale trade - durable; Medical, dental and hospital	5047	2

Chart 25 Table Acquisitions by Industry and 4-digit SIC Codes		
Industry	**4-Digit SIC**	**Number Acquired**
equipment and supplies		
Wholesale trade - durable goods - Metals service centers ad offices	5051	1
Wholesale trade - durable goods; Electrical apparatus and equipment, wiring supplies and construction equipment	5063	1
Wholesale trade - durable goods; Electronic parts and equipment, not elsewhere classified	5065	1
Wholesale goods - durable; Warm air heating and air conditioning equipment and supplies	5075	5
Machinery equipment and supplies; Construction and mining (except petroleum) machinery and equipment	5082	1
Machinery equipment and supplies; Industrial machinery and equipment	5084	9
Machinery, equipment and supplies; Transportation equipment and supplies, except motor vehicles	5088	1
Wholesale goods - durable; Toys and hobby goods and supplies	5092	7
Wholesale goods - durable; Jewelry, watches, precious stones and semiprecious stones	5094	7
Wholesale goods; durable, not elsewhere classified	5099	7
Wholesale trade - nondurable goods; drugs, drug proprietaries and druggists' sundries	5122	3
Wholesale trade - nondurable goods - nondurable goods; apparel, piece goods and notions	5131	1
Wholesale trade - nondurable goods ; Groceries and related products; general line;	5141	1
Wholesale trade - nondurable goods; Groceries and related products; fresh fruits and vegetables	5148	1
Wholesale trade - nondurable goods; Groceries and related products; not elsewhere classified	5149	2
Wholesale trade; Farm-product raw materials	5153	1
Wholesale trade - nondurable goods; Beer, wine and distilled alcoholic beverages	5181	1
Wholesale trade, nondurable goods; Wine and distilled alcoholic beverages	5182	8
Wholesale trade - nondurable goods; Tobacco and tobacco products	5194	1
Wholesale trade - nondurable goods; Paints, varnishes and supplies	5198	3
Wholesale trade, nondurable goods; npot elsewhere classified	5199	5
Retail trade; Grocery stores	5411	16
Retail trade; Automotive dealers and gasoline service stations; motor vehicle dealers	5511	3
Retail trade; Furniture and furnishings and equipment stores	5712	2
Retail trade; Misc. Furniture and furnishings stores	5719	1
Retail trade; Eating and drinking places	5812	10
Retail trade; Drugstores and proprietary stores	5912	2
Retail trade; Hobby, toy and game shops	5945	5
Depository institutions; Commercial and stock savings banks	6021	1
Depository institutions; commercial banks	6022	8
Depository institutions; commercial banks not elsewhere classified	6029	2

Chart 25 Table Acquisitions by Industry and 4-digit SIC Codes		
Industry	**4-Digit SIC**	**Number Acquired**
Savings Institutions	6036	1
Business credit institutions; short-term	6153	1
Business credit institutions; miscellaneous	6159	3
Mortgage bankers and brokers and loan correspondents	6162	1
Mortgage bankers and brokers; loan brokers	6163	5
Security and commodity brokers and dealers; Security brokers, dealers and flotation companies	6211	17
Security and commodity brokers and dealers; commodity contracts brokers and dealers	6221	7
	6289	6
Insurance; Life insurance	6311	4
Insurance; Pension, health and welfare funds	6399	2
Insurance; Insurance carriers		1
Insurance; Insurance agents	6411	86
Real estate; Operators of nonresidential buildings	6512	31
	6519	2
Real estate; agents and managers	6531	3
Real estate; Subdividers and developers	6552	5
Holding and other investment offices	6712	3
Holding and other investment offices; offices not elsewhere classified	6719	126
Holding and other investment offices; Unit investment trusts	6726	6
Holding and other investment offices; Trusts	6733	9
Holding and other investment offices; Patent owners and lessors	6794	2
Holding and other investment offices; real estate investment trusts	6798	7
Holding and other investment offices; investors	6799	1
Hotels, rooming houses, camp and other lodging places	7011	30
Personal Services; Miscellaneous, not elsewhere classified	7299	1
Business Services; Advertising	7311	1
Business Services; Building cleaning and maintenance services	7349	3
Business Services; News syndicates	7359	5
Business Services; help supply services	7363	2
Business Services; computer and data processing services	7372	1
Business Services; computer related, not elsewhere classified	7379	2
Business Services; Detective, guard and armored car services	7381	2
Business Services; Security systems services	7382	7
Business services; not elsewhere classified	7389	8
Automotive repair, services and ; passenger car leasing	7515	1
Automotive repair, services and garages; automobile parking	7521	1
Automotive repair, services and garages; tire retreading and repair shops	7534	2
Automotive repair, services and garages; general automotive repair shops	7538	1
Automotive repair, services and garages; automotive services except repair and car washes	7549	1
Miscellaneous repair services; refrigeration and air conditioning repair	7623	1
Motion picture and TV distribution services; Video tape rental	7841	1
Engineering, Architectural and Surveying Services; engineering	8711	6

Chart 25 Table Acquisitions by Industry and 4-digit SIC Codes		
Industry	**4-Digit SIC**	**Number Acquired**
services		
Engineering, Architectural and Surveying Services; Surveying	8713	1
Engineering, Architectural and Surveying Services; Commercial economic, sociological and educational research	8732	2
Management and Public Relations Services; Management services	8741	4
Management and Public Relations Services; Management consulting	8742	14
	9280	1
Nonclassifiable establishments	9999	55
Other		37
Total		**949**

Chart 32 Skills Required Across Jardine, Matheson's Original and Acquired Businesses

TYPES OF SKILLS IN INTERNATIONAL TRADE

	Skills	Water Transport	Freight Transport Arrangement	Wholesale Trade	Retail Trade	Security & Commodity Exchanges	Commercial Banks	Fire, Marine, Casualty Insurance	Hotels, Lodging Places	Dairy Products	Motor Vehicle Dealers	Water Supply& Sanitation	CONTROL: Telcomms	CONTROL: Drugs
1	Freight, stock,and materials moving	13.88	0.4	3.22	1.2					3.74				
2	Able seamen, ordinary seamen	11.03												
3	Captains and pilots	6.94												
4	All other material, moving equipment operators	6.2												
5	All other food preparation and service workers	4.24							0.93	0.55				
6	Mates, ship, boat and barge	4.06												
7	Ship Engineers	3.94												
8	Blue collar worker supervisors	3.31	0.81	1.34					0.22	4.31		3.39	2.82	
9	All other helpers, laborers and material movers, hand	2.54							0.28					
10	Industrial truck and tractor operators	2.43		1.08	0.54					2.78		0.97		
11	Maintenance repairers, general utility	2.32			0.63			0.18	3.28					
12	General office clerks	2.29	9.15	3.58		5.56	0.19		0.51			3.12		
13	All other transportation and material moving equipment operators	2.2	0.51				3.85				0.26	0.67		
14	Communications, transport, and utilities operations manager	2.08	4.86	0.3	0.21							1.18	1.78	
15	Bookkeeping, acct. and auditing clerks	1.84	4.65	2.85	1.42	4.16		2.42	1.48	1.39	4.04	1.61	1.47	
16	Industrial machinery mechanics						3.67			2.92		1.9		
17	All other sales and related workers	1.57			13.51					2.06	6.3	2.03	4.87	6.2
18	Secretaries, except medical and legal	1.56	2.7	2.44	1.19	8.43	0.65	4.45	1.03	0.86		2.18	1.12	4.17
19	Traffic, shipping and receiving clerks	1.5		3.52	3.26		3.55			2.45				
20	General managers and top executives	1.42	7.02	5.84	3.38	7.71	2.97	2.81	1.79	1.72	4.2	4.2	2.02	1.58
21	Crane and tower operators	1.19		0.11										
22	Small engine specialists	1.18												
23	Billing, cost and rate clerks	1.17	5.71	0.62	0.28			1.03						
24	All other service workers	1.16							2.15	0.5				
25	Cashiers	1.1			0.97		0.19		2.53	0.37	2.19	0.39		
26	All other cleaning and building service workers	0.8	0.28				0.19		0.61			1.33		
27	All other engineers	0.8										0.37		
28	Truck drivers, light and heavy	0.77		5.34	2.22					7.29	2.06	12.78		
29	All other mechanics, installers and repairers	0.77	0.19		0.16					0.19		0.97	0.79	
30	Welders and cutters	0.74												
31	Accountants and auditors	0.68	1.64	0.92	0.44	2.82		1.37	0.7	0.55	0.7	0.92		
32	Service station attendants	0.63					1.34							
33	All other clerical and admin. support workers	0.5	0.95		0.43	1.58		3.16	0.21			0.47	1.56	
34	All other managers and administrators	0.49			0.5	1.27	1.39	2.18	0.61	1.25		0.74	2.84	2.55
35	Guards	0.45				0.63	0.97		1.57			0.26		
36	Dispatchers, except fire, police and ambulance	0.44					0.33				1.01	0.85		
37	Riggers	0.42												
38	Bus and truck mechanics and diesel engine specialists	0.4	0.35							0.7	0.39			
39	All other management support workers	0.35		0.08	0.45	12.33		2.69	0.16	0.47		0.45	1.14	2.18
40	Mobile heavy equipment mechanics	0.35												
41	Financial Managers	0.34	0.46	0.44	0.29	5.06		0.82	0.65	0.49	0.17	0.49		
42	Carpenters	0.33					6.07							
43	Painters and paperhangers, construction and maintenance	0.31												
44	Marketing and sales worker supervisors	0.3	2.28	3.09	2.74	1.43	0.21	0.79	0.54	0.78	5.18	0.28	0.88	
45	Payroll and timekeeping clerks	0.3	0.17						0.18	0.28		0.2		
46	Marketing, advertising and p.r. managers	0.26	0.35	0.71	0.56	0.77		0.65	0.46	0.51	2.14	0.92	0.76	1.57
47	Stock clerks	0.26	1.47	3.5	2.23	0.18	0.37	0.2		0.82	1.17	0.43		
48	All other professional workers		0.23		0.71	1.21		1.22	0.16	1.14		0.41	1.26	
49	Administrative services managers	0.21	0.25			0.36	0.51	0.46						
50	Personnel, training and labor relations manager	0.21			0.28	0.32	0.55	0.38	0.26			0.19		

Source: Industry/Skills Matrix, OES Data

Chart 32 Skills Required Across Jardine, Matheson's Original and Acquired Businesses

TYPES OF SKILLS IN INTERNATIONAL TRADE

Skills	Water Transport	Freight Transport Arrangement	Wholesale Trade	Retail Trade	Security & Commodity Exchanges	Commercial Banks	Fire, Marine, Casualty Insurance	Hotels, Lodging Places	Dairy Products	Motor Vehicle Dealers	Water Supply& Sanitation	CONTROL: Telcomms	CONTROL: Drugs	CONTROL: Electric Services
51 Production, planning and expediting clerks	0.21			0.33					0.38			0.86		
52 Inspectors, testers, graders and precision	0.21			0.79					0.9		0.36	0.81	2.7	
53 Electricians	0.2								0.27		0.19			
54 Painters, transportation equipment	0.17													
55 Purchasing agents, except wholesale, retail and farm products	0.16				0.17				0.17					
56 Personnel, training and labor relations specialist	0.16													
57 Hoist and winch operators	0.16					0.5								
58 Database administrators, computer support specialists and all other computer scientists	0.14	0.6	0.57		0.59	0.15	0.39		0.19					
59 All other technicians	0.15													
60 Baggage porters and bellhops	0.13							1.54						
61 Computer programmers	0.13		0.56	0.57	2.54		2.13					0.94		
62 Purchasing managers	0.13		1.05	0.5		0.7			0.24					
63 Systems analysts	0.13	0.41	0.31	0.31	2.5		1.67					0.8	1.61	
64 All other sales and related workers			19.22		2	0.73		0.93						
65 General office clerks			3.58	3.38			4.73	0.51	1.78	4.19		4.49		
66 Order fillers, wholesale and retail sales			2.95	3.12										
67 Salespersons, retail			2.5	3.53				0.45	0.89	21.33	0.22			
68 All other assemblers, fabricators and hand workers			1.99						0.41		0.19		1.35	
69 Clerical supervisors and managers		4.93	1.91	1.57	4.26		4.99	1.08	0.87	2.02	2.31	2.77		
70 Order clerks, materials, merchandise and service		2.09	1.88	9.94		6.37			0.59		0.15	0.68		
71 All other helpers, laborers and material movers, hand		2.06	1.71	0.9					5.45	2.76	5.3			
72 Electrical and electronic technicians and technologists			1.39									0.88		
73 Wholesale and retail buyers, expect farm products			1.3	0.71										
74 Office machine and cash register services			1.24											
75 Hand packers and packagers			1.19	1.44					3.62					
76 Maintenance repairers, general utility		0.48	1.08		0.33				1.72		2.77			
77 Receptionists and information clerks		1.28	1.01	0.21	1.75		0.74	0.23	0.26		0.31			
78 Driver/sales workers			0.96	6.32		0.94			4.57					
79 Adjustment Clerks		2.17	0.74	6.32	0.63		0.77		0.39		0.27	1.21		
80 All other machine operators, tenders, setters and set-up operators			0.69			1.28			3.38		0.33		2.24	
81 Data processing equipment repairers			0.66											
82 Bill and account collectors			0.63	0.44	0.23		0.42				0.78	0.76		
83 Securities and financial services sales workers					8.82									
84 Brokerage clerks					6.39	1.28								
85 Data entry keyers, except composing		1.34		1.12		0.35	1.33		0.34					
86 Computer operators except peripheral equipment		0.78		0.44	1.14	0.92	0.57							
87 Economists					0.7	0.8								
88 Mail clerks, except mail machine operators		0.25		0.63	0.66		0.79							
89 Duplicating, mail and other office machine operators				0.37	0.59	0.31	0.48							
90 Lawyers					0.56	1.01	1.07							
91 Public relations specialists and publicity writers					0.55						0.15			
92 Statistical clerks					0.48		0.31							
93 Engineering, science and computer systems mgrs.					0.48		0.44		0.29		0.85			
94 Switchboard operators		0.15		0.16	0.43	0.36	0.42	0.74						
95 Personnel training and labor rel specialists					0.39	0.5	0.67		0.32		0.24			
96 Credit checkers					0.39									
97 Budget Analysts					0.36									
98 Correspondence clerks				0.15	0.29		0.15							
99 File clerks		0.38			0.28		2.25							
100 Statement clerks					0.26	1.11								
101 Bank tellers					0.25	27.27								

Source: Industry/Skills Matrix, OES Data

Chart 32 Skills Required Across Jardine, Matheson's Original and Acquired Businesses

	TYPES OF SKILLS IN INTERNATIONAL TRADE Skills	Water Transport	Freight Transport Arrangement	Wholesale Trade	Retail Trade	Security & Commodity Exchanges	Commercial Banks	Fire, Marine, Casualty Insurance	Hotels, Lodging Places	Dairy Products	Motor Vehicle Dealers	Water Supply& Sanitation	CONTROL: Telcomms	CONTROL: Drugs	CONTROL: Electric Services
102	Electrical and electronics engineers					0.22							1.44		
103	All other material recording, scheduling and distribution workers		0.43		0.5	0.2				0.23					
104	Computer engineers					0.17									
105	Credit analysts					0.17									
106	Legal secretaries					0.17	0.74	0.57			1.57				
107	All other communications equipment operators					0.16							2.36		
108	Management analysts					0.16		0.19							
109	Insurance sales workers					0.16	0.28	6.39							
110	All other legal assistants, incl. Law clerks					0.15	0.16	0.18							
111	Loan officers and counselors						6.35								
112	New accounts clerks, banking						5.66								
113	Loan and credit clerks						5.13								
114	Janitors and cleaners, incl. Maids, housekeeping				0.52		0.95	0.27	23.62	0.94	1.21				
115	Loan interviewers						0.45								
116	Messengers		0.91				0.43								
117	Billing, posting and calculating machine operators		0.58				0.39			0.28	1.08	0.34			
118	Management analysts						0.28								
119	Peripheral computer equipment operators						0.27								
120	Typists, incl. Word processing						0.25								
121	Operations research analysts						0.19	0.3							
122	Reservation and transportation ticket agents		0.3						0.36						
123	Weighers, measurers, checkers, samplers		0.21												
124	All other material moving equipment operators		0.18									0.4			
125	Automotive mechanics		0.17							0.3	17.84	0.87			
126	Insurance adjusters, examiners, investigators							12.18							
127	Insurance policy processing clerks							6.73							
128	Underwriters							6.64							
129	Claims examiners, property and casualty							4.28							
130	Insurance claims clerks							4.17							
131	All other adjusters and investigators							1.13							
132	Personnel clerks, except payroll							0.3	0.18	0.18					
133	Paralegals							0.18							
134	Correspondence clerks														
135	Coin and vending machine servicers, repairers				3.61										
136	Food preparation workers				2.04				4.01						
137	Food counter, fountain and related workers				2.02				2.64						
138	Pharmacy technicians				0.55										
139	Packaging and filling machine operators and tenders				0.51					8.75			7.06		
140	Cooks, short order and fast food				0.39				0.31						
141	Artists and commercial artists				0.34										
142	Sewing machine operators, garment				0.21										
143	Designers, except interior designers				0.19										
144	Procurement clerks				0.16										
145	Home appliance and power tool repair				0.15										
146	Counter and rental clerks				0.15										
147	Administrative services managers				0.16				0.26			0.22			
148	Waiters and waitresses								9.45						
149	Hotel desk clerks								8.24						
150	Cooks, restaurant								3.93						
151	Dining room and cafeteria attendants, bar helpers								2.81						
152	Amusement and recreation attendants								2.56						
153	Bartenders								2.37						
154	Food service and lodging managers								2.36						
155	Institutional cleaning supervisors								2.27						
156	Laundry and drycleaning machine operators and tenders, ex. Pressing								1.92						
157	Gardeners, nursery workers and laborers, landscaping, grounds								1.32						

Source: Industry/Skills Matrix, OES Data

Chart 32 Skills Required Across Jardine, Matheson's Original and Acquired Businesses

TYPES OF SKILLS IN INTERNATIONAL TRADE

	Skills	Water Transport	Freight Transport Arrangement	Wholesale Trade	Retail Trade	Security & Commodity Exchanges	Commercial Banks	Fire, Marine, Casualty Insurance	Hotels, Lodging Places	Dairy Products	Motor Vehicle Dealers	Water Supply& Sanitation	CONTROL: Telcomms	CONTROL: Drugs	CONTROL: Electric Services
158	Hosts and hostesses, restaurant, lounge, coffee shop								1.07						
159	Tax drivers and chauffeurs								0.33						
160	Recreation workers								0.4						
161	Parking lot attendants								0.3						
162	Cooks, institution or cafeteria								0.23						
163	Detectives and investigators, exc. Public								0.21						
164	Painters and paperhangers, construction and maintenance								0.18						
165	Dairy processing equipment operators, incl. Setters									8.94					
166	All other precision food and tobacco workers									3.26					
167	Science and mathematics technicians									1.33		0.46	4.95		
168	Industrial production managers									1.27				1.53	
169	Machine feeders and offbearers									0.93					
170	Extruding and forming machine setters, operators and tenders									0.56					
171	Crushing and mixing machine operators and tenders									0.51				1.78	
172	Separating and still machine operators and tenders									0.5					
173	Cannery workers									0.25					
174	Vehicle washers and equipment cleaners									0.86	6.16				
175	Cutting and slicinng machine operators and tenders, food, tobacco									0.83					
176	Bus and truck mechanics and diesel engine specialists									0.7		2.44			
177	Mechanical engineers									0.2					
178	Heat , air conditioning and refrigeration mechanics and installers									0.19					
179	Carpenters									0.16					
180	Chemists									0.15		0.34		3.68	
181	Stationary engineers									0.15		0.28			
182	Painters, transportation equipment										0.56				
183	Service station attendants										0.25				
184	Refuse collectors											15.35			
185	Water and liquid waste treatment plant and system operators											3.79			
186	Meter readers, utilities											1.39			
187	Customer service representatives, utilities											1.25	9.23		4.24
188	Power generating and reactor plant operators											0.89			
189	All other engineering technicians and technologists											0.85			
190	Welders and cutters											0.83			
191	Plumbers, pipefitters and steamfitters											0.52			
192	Grader, bulldozer and scaper operators											0.49			
193	Pipelayers and pipelaying fitters											0.24			
194	Civil engineers, incl. Traffic engineers											0.24			
195	Mobile heavy equipment mechanics											0.21			
196	Geologists, geophysicists and oceanographers											0.16			
197	Telephone and cable TV line installers and repairers												12.31		
198	Central office and PBX installers and repairers												8.62		
199	Station installers and repairers, telephone												4.05		
200	Electrical powerline installers and repairers														
201	Electrical and electronics engineers														
202	Biological scientists													4.59	
203	Engineering, science and computer systems managers													2.15	
204	Crushing and mixing machine operators and tenders														
205	Agricultural and food scientists													1.69	
206	Medical scientists													1.47	

Source: Industry/Skills Matrix, OES Data

Chart 34 Jardine, Matheson Market Presence: Hong Kong, 1972-1996

Business Area	SIC Code	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Finance																										
Property & Investment Securities		1	1	6	7	6	4	4	3		6	6	6	4	4		6	6	5	3	2	2	2	2	3	3
Diamonds				2	5	5	6	6	4		7	5	3	3	2		2	3	4	7	6	3	3	3	3	3
Trading		1	1	1	1	1	1	0																		
Management & Marketing		1	1	3	3	4	3	4	3	2	4	4	5	1	1		1	0			1	1	1	1	1	0
Security Service														5	4		2	1	1	1	1	1	6	5	6	6
Ship chartering		1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Jewelry Mfg.		1	1	1	1	1	1	1	1		1	1	1	1	1			0								
Ship owning		1	1	2	2	2	2	2	2	0																
Ship Operating		1	1	7	2	2	6	7	8		4	6	0													
Ship Management				1	1	0																				
Engineering											1	1	1	1	1		0									
Insurance Broking		1	1	2	6	6	6	6	5	1	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2
Real Estate		2	2	5	5	6	7	6	7		5	7	6	4	3		2	1	1	1	1	3	1	1	1	1
Property Services			1	5	9	8	6	6	6		7	6	3	5	3		2	2	2	1	1	0			1	1
Deposits & Exchange Broker																								1	1	1
Holding			1	1	1	1	1	1	2	2	1	1	1	1	0											
Toy Exports & Radios					7	7	7	4	4	6	4	3	0													
Office Partitioning				2	2	2	2	2	1	0																
Share Registrars				1	1	1	1	0																		
Fire Alarm Systems				1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Container Reconditioning				1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	0			
Hospital Cleaning					2	0																				
Precious & Semi Precious				1	1	0																				
Manufacturing (Steel)				1	1	1	1	1	1		0															
Container Ops				1	1	1	1	1	1		1	1	1	1	1		0									
Container Services				1	1	1	1	1	0																	
Hotels																		1	1	1	1	1	1	1	1	1
Air Charter Ops				1	1	2	2	2	0		2	3	3	1	1		2	2	2	2	2	2	2	2	2	2
Air Cargo Forwarding				1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Cargo Handling & Storage				1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	0				
Air Cargo Terminal				1	1	0																				
Convention Center Mgmt				1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Electronic Companies Mfg.				1	1	1	1	0			1															
Airport Services				1	0																					
Dist. TV Films				1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Comodity Broking				1	1	1	1	0																		
Forest Products				1	1	1	1	0																		
Commercial Cleaning				1	1	1	1	1	1		1	2	0													
TV Rentals				1	1	1	1	1	1		0										1	1				1
Elevators				1	2	2	2	2	2	0																
Airport Security				1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Watch Parts Mfg.				1	1	1	1	1	1	0							1	1	1	2	2	2	1	1	1	1
Electronic Plating				1	1	1	1	0																		
Rainwear Mfg.				1	1	1	1	0																		
Container Depot				2	1	1	0																			
Water Tours					1	1	1	1	1	0																
Electronic Mfg.				1	1	1	1	1	1	0							1	1	1	0						
Pension & Provident Fund					1	1	2	0																		
Publishing					1	0																				
Construction				1	1	1	0																			
Car Park					1	1	1	2	2		2	2	2	2	2		1	1	1	1	1	1	0			
Drillship Investment					1	1	1	1	1	0																
Oil Industry Supplies					1	1	1	1	1	0																
Oil Equipment					1	1	1	0																		
Offshore Oil Equipment Operating					1	1	0																			
Offshore Serv. Vessel Ownership					1	1	0																			
Offshore Serv. Vessel Operation					1	1	1	1	1	0																
Garment Mfg.					1	1	1	1	1	0																
Electric Motors						1	1	1	1	0																
Waste Disposal Serv.						1	1	0																		
Repair & Delivery						1	1	1	1	0																
Transport Specialists/Motor Dist						1	0																			
Offshore Contracting							1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Water Treatment							1	0																		
Sewage & Effluent Disposal									1	1	1	1	0													
Restaurants									1	1	1	1	1	0												
Dairy Farming/cold storage											1	1	1	1												
HK Telephone											1	1	1	1	1		2	3	3	3	3	3	4	4	4	4
HK Electric											1	1	0													
Shipping Agents												1	1	1	0											
Medical Supplies												3	1	1	1		1	1	1	1	1	1	0			
Computer Software												1	1	1	1		1	1	1	0						
Ground Handling Service																	1	0								1
Optical Products																		1	1	1	1	1	1	1	1	1
Drugstores																		1	1	1	1	0				
Convenience Stores																					1	1	11	1	1	1
Intl. Movement of Valuables																					1	1	1	1	1	1
Furniture Retailing																		1	1	0						
Corporate Intelligence																	1	1	1	1	1	1	1	0		
Air Conditioning (China)																		1	1	0						
																								1	1	1

Chart 36 Jardine, Matheson Market Presence: Singapore, 1972-1996

Business Area	SIC Code	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Diamond Trading																										
Medical & Scientific				1																						
Oil Industry Supplies & Services				1	1	1	1																			
Oil Rig Broking				3	4	4	3																			
Mgmt. Oilk Interests					1	1																				
Confectionery					1	1	1																			
Dental Supplies					1	1																				
Money Broking					1	1	1																			
Engineering & Aviation					1	1	1																			
Merchant Banking					1	1	1																			
Holding					1	1	1																			
Insurance					2	2																				
Steel Products Mfg.					1	1	1																			
Commodity Broking					2	2																				
Marine Engineering Contractors					1	1																				
Shipbuilding and Engineering					1	1																				
Television Rental					1	1																				
Elevator Sales & Installation					1	1																				
Shotblasting					1	1																				
Property					1	1																				
Vessel Mgmt					1	1																				
Crane & Winch Trading						1	1																			
Insurance						1	1																			
Container Freight Station					4	4		3	2	3		3	2	2	2		2	1		1				1		1
Ship Owning				1		0																				
Road Trans. Holding (Fleetways)				2	1	1	1	1	1	0																
Utility Furn.				1																						
Textile Imports, Garment Manf.				1	0																					
Project Mgmt & Construction				1	1	1	1	0																		
TV Rental				1	1	1	0																			
Hotel Supplies				1	2	2	2	1	1	0																
Sugar Harvest/Equipment Mfg.				1	1	1	1	1	1	1		1	0													
Scientific Equipment				1	1	1	1	1	0																	
Vehicle Lease Fin (Fleetways)					1	1	1	1	1	0																
Trading					1	1	1	1	0																	
Refuse Disp.					1	1	1	1	1	0																
Transport (Fleetways)						1	1	1	1	0																
Security Service (Fleetways)				1	1	1	1	2	2				1	1	2				0							
Commodity Broking						1	1	1	1	0																
Engineering						1	1	0																		
Watch & Jewelry						1	1	1	1	0																
Aircraft Sales, Hire & Servicing						1	1	1	0																	
Custom Agents						1	1	1	0																	
Finance							1	1	0																	
Supermarkets							2	2	2			1	1	1	0											
Restaurants											1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Motor Distribution																				1	3	2	2	2	2	2
Airfreight															1		1	1	1	1	1	1	1	1	0	
															1		0									

Notes: Insurance -- A. Hoffman, asoc at 46% to 100% in 1976. In 1977, Jardine Insurance Brokers est. at 100%
After leaving property in 1987, JM came back in 1994 with 60% ownership in Colliers, Jardine.

	1972	1974	100% Own	1975	100% Own	1978	100% Own	1979	100% Own	1980	100% Own	1985	100% Own	1996	100% Own
Subsidiaries	1	14	4	18	7	30	22	27	19	8	6	8	3	5	2
Associates		9		11		5		2		0		2			

Chart 37 Jardine, Matheson Market Presence: Philippines, 1972-1996

Business Area	SIC Code	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Insurance				2	2	2	2	2	2			4	4	4	2		1	1	1	0						
Sugar Milling				3	3	3	3	3	3			3	3	3	3		2	2	2	1	1	1	1	1	1	
Industrial Machinery Mfg.				1	1	1	2	2	1	0																
Air Cond & TV Mfg.				1	1	1	1	1	1			1	0													
Machinery Dist				1	1	1	1	1	1			1	1	1	0											
Asbestos Cement Products Mfg.				2	1	1	1	1				2	2	2	0											
Ship Building & Repair					1	1	1	0																		1
Coconut & By-products					1	1	1	1	0																	
Clothing & Wearing Apparel					1	1	1	0																		
Holding & Mgmt.					1	1	1	1	1			1	1	1	1		1	1	1	1	1	1	1	1	1	1
Hotels					1	1	1	1	1												1	1	1	1	1	1
Timber Trading					1	1	2	2	0																	
Machine Tools					1	0																				
TV Rental							1	1	0																	
Finance								1	0																	
Transportation (Shipping Agents)													1	1	1		0									

	1974	1975		1976		1977	1978	100% Own	1982	100% Own	1987	1992	1996	100% Own
Subsidiary	5	7		7		7	7	0	7	2	3	2	2	0
Associates	5	10		9		11	19		3		1	1	2	

Chart 38 Jardine, Matheson Market Presence: South Africa,, 1974-1979

Business Area	1974	1975	1976	1977	1978	1979
Outdoor Equipment	1		1	1		
Luggage	1	1	1	1		
Stevedoring Shipping	1					
Hotel	1	1	1	1	1	2
Garage	1					
Wholesaling	1	1	1	2	1	1
Container Freight Handling	1	1	1	1	1	1
Sports & Fashion Mfg.	1		1	1	1	1
Security & Courier Service		1	1	1	1	1
Leather Products Mfg.		1	1	1	1	
Travel & Shipping Service		1	2	2	2	1
Pallet & Wooden Container		2	2	1		
Plant Hire		1	1			
Self Drive Truck Hire		1	1	1		
Freight Forwarding		2	2	2	2	1
Aircraft Owning & Chartering		2	2	1	1	
Bulk Handling Terminal		1	1	1	1	1
Confirming & Financing		1	1	1		
Holding & Mgmt		2	2	6	5	7
Parcel Delivery Service		1	1	1	1	
Abnormal Load Trans.		1	1			
Insurance Claims		1	1	1	1	
Insurance Broking					1	1
Shoes, Outdoor Equipment, Sport		1	1	1	1	1
Capital Project Planning		1	1	1		
Property		1	1	1	1	1
Transport & Warehousing		1	1	1	1	
Shipping		1	1	1	1	1
Liquor Stores			1	1	1	
Wine & Spirits			1	1	1	
Inland Tours			1			
TV Rental				1	1	1
Shipping Agents						1
Finance						1

Chart 39: Jardine, Matheson Market Presence: Australia, 1972-1996

Business Area	SIC Code	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Holding		1			2	3	3	5	5	3	1	3	2	1	1			1	1	1	1	1	0			
Property				11	12			8	9			2	1	1			0							1	1	1
Insurance					4	4		3	2	3		3	2	2	2		2	1		1				1		1
Container Freight Sta				1		0																				
Ship Owning				2	1	1	1	1	1	0																
Road Trans Holding (Fleetways)				1																						
Utility Furn.				1	0																					
Textile Imports, Garment Manf.					1	1	1	0																		
Project Mgmt & Construction				1	1	1	0																			
TV Rental				1	2	2	2	1	1	0																
Hotel Supplies				1	1	1	1	1	1	1		1	0													
Sugar Harv. Equip, Mtg.				1	1	1	1	1	0																	
Scientific Equipment					1	1	1	1	1	0																
Vehicle Lease Fin. (Fleetways)					1	1	1	1	0																	
Trading					1	1	1	1	1	0																
Refuse Disp.						1	1	1	1	0																
Transportation (Fleetways)				1	1	1	1	2	2				1	1	2				0							
Security Serv. (Fleetways)						1	1	1	1	0																
Commodity Broking						1	1	0																		
Engineering (Fleet Forge)						1	1	1	1	0																
Watch and Jewelry						1	1	1	0																	
Aircraft Sales, Hire & Servicng						1	1	1	0																	
Custom Agents							1	1	0																	
Finance							2	2	2			1	1	1	0											
Supermarkets											1	1	1	1	1		1	1	1	1	1	1	1	1	1	1
Restaurants																				1	3	2	2	2	2	2
Motor Distribution															1		1	1	1	1	1	1	1	1	0	
Airfreight															1		0									

Notes: Insurance -- A. Hoffman, Assoc at 46% to 100% in 1976. In 1977, Jardine Insurance Brokers est. at 100%
After leaving property in 1987, JM came back in 1994 with 60% ownership in Colliers, Jardine.

	1972	1974	100% Own	1975	100% Own	1978	100% Own	1979	100% Own	1980	100% Own	1985	100% Own	1989	100% Own
Subsidiaries	1	14	4	18	7	30	22	27	19	8	6	8	7	5	2
Associates		9		11		5		2		0		2		1	

Chart 41: Jardine Matheson's Contribution to GDP

JARDINE, MATHESON - CONTRIBUTION TO GDP												
US$MILLIONS												
	1977 %Turnover	US$M	%GDP	1978 %Turnover	US$M	%GDP	1979 %Turnover	US$M	%GDP	1980 %Turnover	US$M	%GDP
S. Africa	5%	220.95	2%	6%	310.50	3%	8%	457.84	3%			
Europe	7%	309.33		5%	258.75		6%	343.38				
N.A.	7%	309.33		15%	776.25		8%	457.84				
Australasi	7%	309.33		2%	103.50							
S.E.A.	4%	176.76	2%	6%	310.50	2%	6%	343.38	3%			
N.E.A.	7%	309.33		12%	621.00		9%	515.07				
ME	6%	265.14		9%	465.75		14%	801.22				
HK	37%	1635.03	3%	45%	2328.75	4%	49%	2804.27	3%	47%	3509.49	4%

Legend
Australasia = Australia and New Zealanc
S.E. Asia = Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam
N.E. Asia = Japan, Korea

Historic exchange rates from Pacific.commerce
GDP from UN Statistical Yearbook

Chart 42: Comparison of Jardine, Matheson with Competitions, Contribution to GDP and Added Value

CONTRIBUTION TO HONG KONG GDP - JARDINE, MATHESON AND COMPETITORS
(US$MILLIONS)

	Jardine, Matheson			Swire Pacific			Hutchison Whampoa			First Pacific			CITIC Pacific			Wheelock		
	Turnover	AV	GDP	Turnover	AV	GDP	Turnover	AV	GDP	Turnover	AV	GDP	Turnover	AV	GDP	Turnover	AV	GDP
1973	164.15	5.7																
1974	301.68	5.5																
1975	381.16	5	4.1															
1976	515.45	3.2 *																
1977	573.89	5.1 *																
1978	672.07	5.4	3.9															
1979	743.24	5.5	3.4	514.36 *		1.9												
1980	1454	12.5	3.5	646.05 *		1.9												
1981	1628	7.1	4	901.79 *		2.5												
1982	1459.74	-0.0035	4.7	1033.14 *		2.7												
1983	1368	1.7	4.8	1314.23 *		3.8												
1984	1136	-10.7	3.5	1558.02 *		4												
1985	1344	3.9	3.9	1778.2 *		4.3												
1986	1352.72	2.3	3.3	2156.31 *		4.4	977.79 *		2.1									
1987	1637	5.9	3.3	2619.01	29	4.4	1366.75	44	2.4	957.995		1.9						
1988	1897	26	3.2	3260.72	32	4.6	1672.07	11	2.5	980.9	11.6	1.6						
1989	4638.1	8.5	6.9	4888.74	15	6	2264	38	3	1622.9	0.036	2.4						
1990	6034.5	3.4	8.07	4145.19	4.5	4.6	2074	13	2.4	1984.8	-0.08	2.6	3145.5		3.7			
1991	7190.2	3.6	8.36	4366.05	18.2	4.2	2463	16	2.5	2424.4	1.9	2.8	1537.33	394	1.6			
1992	7899.5	4.1	7.8	5055.06	28.2	4.1	2695	22	2.4	2786.9	2.7	2.7	1090.144	46	0.09			
1993	8424.5	8.7	7.2	5293.89	38	3.7	3202	53.3	2.4	3084.4	6.1	2.6	1498.52	95	1.1	286.38		0.02
1994	9559	6.1	7.2	6185.32	20.8	3.8	3903	5.5	2.6	3681.9	1.3	2.8	1574.415	30	1	289.1	743	0.02
1995	10636	0.028	8.6	6968.31	0.057	4.6	4531	2.2	3.3	5249.7	7.4	4.2	1238.83	14.2	0.09	315.96	70	0.02
1996	11605	7.2	8.06	4981.29	77	2.8	8174	2	5.1	7025.7	9.5	4.8	1656.62	77	1	302.71	-13.5	0.02
1997	11521.6															758.41	113	

*Information unavailable.
GDP: UN Statistical Yearbook

Chart 43: Jardine, Matheson and Company Compared to Global Firms, Trends in Mergers and Acquisition, 1972-1974

Acquired Firm Industry Category

Acquiring Firm Industry Category	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	(Total)
1																														0
2																														0
3																														0
4																														0
5																														0
6																														0
7																														0
8																														0
9																														0
10																														0
11																														0
12																														0
13																														0
14																														0
15																														0
16																														0
17																														0
18																														0
19																														0
20																														0
21																														0
22																														0
23																														0
24																														0
25																														0
26																														0
27																														0
28	1	2			4		2	1	2		4	1	1		1	1		5	1		1			4	3	36	35	58	20	183
29																														0
	1	2	0	0	4	0	2	1	2	0	4	1	1	0	1	1	0	5	1	0	1	0	0	4	3	36	35	58	20	183

Source: Annual Report data

Industry Codes

1. Agriculture
2. Forestry
3 Fishing and Trapping
4. Mines, Quarrying, Oil Wells
5. Food and Beverage
6. Tobacco Products
7. Rubber
8. Leather
9. Textiles
10. Knitting Mills
11. Clothing
12. Wood
13. Furniture and Fixtures
14. Paper
15. Printing, Publishing
16. Primary Metal
17. Metal Fabricating
18. Machinery
19. Transportation Equipment
20. Electrical Products
21 Non-metallic Mineral Products
22. Petroleum and Coal Products
23. Chemicals and Chemical Products
24. Miscellaneous Manufacturing
25. Construction
26. Transportation, Communication, Utilities
27. Trade
28. Finance, Insurance, Real Estate
29. Community, Business or Personal Services

Chart 44: Jardine, Matheson and Company Compared to Global Firms, Trends in Mergers and Acquisition, 1975-1977

Acquiring Firm Industry Category	Acquired Firm Industry Category																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	(Total)
1																														0
2																														0
3																														0
4																														0
5																														0
6																														0
7																														0
8																														0
9																														0
10																														0
11																														0
12																														0
13																														0
14																														0
15																														0
16																														0
17																														0
18																														0
19																														0
20																														0
21																														0
22																														0
23																														0
24																														0
25																														0
26																														0
27																														0
28				8	5				1		2	4				2	2	1	4	2	1			3	4	48	24	48	30	189
29																														0
	0	0	0	8	5	0	0	0	1	0	2	4	0	0	0	2	2	1	4	2	1	0	0	3	4	48	24	48	30	189

Source: Annual Report data

Industry Codes

1. Agriculture
2. Forestry
3 Fishing and Trapping
4. Mines, Quarrying, Oil Wells
5. Food and Beverage
6. Tobacco Products
7. Rubber
8. Leather
9. Textiles
10. Knitting Mills
11. Clothing
12. Wood
13. Furniture and Fixtures
14. Paper
15. Printing, Publishing
16. Primary Metal
17. Metal Fabricating
18. Machinery
19. Transportation Equipment
20. Electrical Products
21.Non-metallic Mineral Products
22. Petroleum and Coal Products
23. Chemicals and Chemical Products
24. Miscellaneous Manufacturing
25. Construction
26. Transportation, Communication, Utilities
27. Trade
28. Finance, Insurance, Real Estate
29. Community, Business or Personal Services

Chart 45: Jardine, Matheson and Company Compared to Global Firms, Trends in Mergers and Acquisition, 1978-1979

Acquiring Firm Industry Category / Acquired Firm Industry Category

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	(Total)
1	4				1																					2		5		12
2												1																		1
3			1																											1
4				67												1					1	2			1			14		86
5	2				40	1																						5		48
6																														0
7							5											2												7
8								2																						2
9									9														1			1		1		12
10																														0
11											3												1					5		9
12												23								1		1	2				1	8		36
13													10							1				2				2		15
14		1										2		5	3															11
15					1										16									1		2		5		25
16																2										1	1	1		5
17													4	3		1	27	3	2	1			2	1			5	8		57
18					1												1	17	5	2				1	1	1	1	6		36
19																	3	1	14					2				6		26
20				1													1	3	1	19								6	1	32
21				3																	7	1			2			9		22
22				1																		4				1				6
23				2	2				1		1			1						1		2	29				1	10		50
24								1				1					2			1			1	12			1	11		30
25				2																					12					14
26			1	1	3										1		1		1							55	1	8	1	73
27				4	5	1		2			1			1	4	1	8	18	5	10	1	4	14	13		1	80	41	2	216
28				2											1		1		2		1			2			1	54	1	65
																		1						1		8	6	20	9	45
29				1	4										2		1	3	2	1		2		2		2	2	41	65	128
	6	1	2	84	57	2	5	5	10	0	5	27	14	10	27	5	45	48	32	37	10	16	50	37	16	74	100	266	79	1070

Source: Merger Register, Bureau of Competition Policy, 1978 and 1979; Jardine, Matheson Annual Report Data

Diagonal Total:582

Industry Codes

1. Agriculture
2. Forestry
3 Fishing and Trapping
4. Mines, Quarrying, Oil Wells
5. Food and Beverage
6. Tobacco Products
7. Rubber
8. Leather
9. Textiles
10. Knitting Mills
11. Clothing
12. Wood
13. Furniture and Fixtures
14. Paper
15. Printing, Publishing
16. Primary Metal
17. Metal Fabricating
18. Machinery
19. Transportation Equipment
20. Electrical Products
21. Non-metallic Mineral Products
22. Petroleum and Coal Products
23. Chemicals and Chemical Products
24. Miscellaneous Manufacturing
25. Construction
26. Transportation, Communication, Utilities
27. Trade
28. Finance, Insurance, Real Estate
29. Community, Business or Personal Services

Chart 46: Jardine, Matheson and Company Compared to Global Firms, Trends in Mergers and Acquisition, 1983-1984

Acquiring Firm Industry Category / Acquired Firm Industry Category

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	(Total)
1	3																													3
2		3																												3
3																														0
4			4	28	1													3		2	1		2				1	1	3	46
5					27														1				1				5		3	37
6					1	2																								3
7							1																				1			2
8																														0
9									11	1											1						1			14
10																											1			1
11											6												1				1			8
12												8																		8
13									1			1	3				1							2			3			11
14					2							1		21										2			3		1	30
15															28			2		1							3		3	37
16																														0
17					1								1				41	2		1	1		1				7		1	56
18																1	1	32	1	2			2				10		1	50
19																1		1	20		1		1	2			8		1	35
20									1								2	3		43				2			25		7	83
21																		1			15		3		1		2		1	23
22																						1					7		1	9
23			1	1												3					2		46				12		8	73
24							1	1								3					2		1	14			16	1	3	42
25																1	1								12				1	15
26				2										1										1		53	4	1		62
27				1						1	1						1	2	2	1	1	1	1	2			74		4	92
28		1	7	7			2		1		3	4	1	7	2	2	20	8	8	12	9		18	13	2	9	57	59	84	336
				7																		1			4	7	11	22	1	53
29															1		1	2		1	1						6		155	167
	3	4	12	46	32	2	4	1	14	2	10	14	5	29	31	11	68	56	32	63	34	3	77	38	19	69	258	84	278	1299

Source: Merger Register, Bureau of Competition Policy, 1978 and 1979; Jardine, Matheson Annual Report Data

Diagonal Total:710(excludes unclassified)

Industry Codes

1. Agriculture
2. Forestry
3 Fishing and Trapping
4. Mines, Quarrying, Oil Wells
5. Food and Beverage
6. Tobacco Products
7. Rubber
8. Leather
9. Textiles
10. Knitting Mills
11. Clothing
12. Wood
13. Furniture and Fixtures
14. Paper
15. Printing, Publishing
16. Primary Metal
17. Metal Fabricating
18. Machinery
19. Transportation Equipment
20. Electrical Products
21 Non-metallic Mineral Products
22. Petroleum and Coal Products
23. Chemicals and Chemical Products
24. Miscellaneous Manufacturing
25. Construction
26. Transportation, Communication, Utilities
27. Trade
28. Finance, Insurance, Real Estate
29. Community, Business or Personal Services

Chart 47: Jardine, Matheson and Company Compared to Global Firms, Trends in Mergers and Acquisition, 1988-1989

Acquiring Firm Industry Category	Acquired Firm Industry Category																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	(Total)
1	5																													5
2																														0
3			2																											2
4				152	1						1	1			2		1	2		1	1		2	2		2	3	3	1	175
5	1				95																			1		1	7		4	109
6					1																									1
7							2		1																		6			9
8								1																			1			2
9									1	1			1														1			4
10																														0
11											8																1			9
12												14					2										1			17
13												1	8																	9
14												2		14			1						1	2			1			21
15															72	1	1		4					2		1	1		2	84
16				1												4	32						1							38
17															1	1	4	3	4					1			8		1	23
18																	1	19		2							2		1	25
19																	2		19	1							5	1	3	31
20				1											1			1	2	33			1	1	2	11	19	1	14	87
21				4								1									26		1				2			34
22				1																		1	2				12	2	1	19
23							2										1						30				19	1	4	57
24				1											1			1					1	19			7		1	31
25				1														1	1						7				3	13
26				4											2					1			1			103	3	1	9	124
27					2							1					1	3		1			1				116		8	133
28	1	2	1	10	10		2	1	1		1		2	5	10	1	14	9	13	9	3		9	14	3	17	48	149	63	398
																										2	9	14	2	27
29											1						1						1			2	6	6	139	156
	7	2	3	175	109	0	6	2	3	1	11	20	11	19	89	7	61	39	43	48	30	1	51	42	12	139	278	178	256	1643

Source: Merger Register, Bureau of Competition Policy, 1978 and 1979; Jardine, Matheson Annual Report Data

Industry Codes

1. Agriculture
2. Forestry
3. Fishing and Trapping
4. Mines, Quarrying, Oil Wells
5. Food and Beverage
6. Tobacco Products
7. Rubber
8. Leather
9. Textiles
10. Knitting Mills
11. Clothing
12. Wood
13. Furniture and Fixtures
14. Paper
15. Printing, Publishing
16. Primary Metal
17. Metal Fabricating
18. Machinery
19. Transportation Equipment
20. Electrical Products
21. Non-metallic Mineral Products
22. Petroleum and Coal Products
23. Chemicals and Chemical Products
24. Miscellaneous Manufacturing
25. Construction
26. Transportation, Communication, Utilities
27. Trade
28. Finance, Insurance, Real Estate
29. Community, Business or Personal Services

Chart 48: Jardine, Matheson and Company – Industry Clusters

Primary Goods	Materials/Metals	Market	Forest Products	Market	Petroleum	Market	Transportation	Market	Textiles	Market	Sugar			
	Iron and Steel Promet Steel Foundry Singapore Steel	 Singapore Singapore	Timber MacMillan Jardine Timber Products MacMillan Jardine Forest Products Pagadanan Timber	 Malaysia HK Phillipines	Oil and Gas Exploration Jardine Drillships Investment	USA Tehran HK Bermuda N.Antilles	Shipbuilding Promet Dynamarine	 Singapore Phillipines	Fabrics Isherwood & Dreyfuss	 Australia	Plantation Honokaa Sugar Co. Laupahoehoe Sugar Co.	 Hawaii Hawaii		
	Fabricated Iron and Steel Promet- Steel Products Mfg. Diaward Steel Works Khinco Sdn. Bhd. Steel products Non-ferrous Metals Pipes and Aluminum Components	 Singapore HK Malaysia Singapore Fiji	Fabricated Wood Cemac-Office Partitions Acme Plywood & Veneer Paper MacMillanBloedel	 HK Phillipines CA Japan	Oil Refining Diamond M	 USA	Ship Owning Elegance Citation Compania Progress	 Liberia Panama	Apparel Mfg. Jardine Wicking Spencer Hay Intercontinent Garment Mfg. Footwear Jordan & Co. Shoes	 HK S. Africa Phillipines S. Africa	Sugar Milling Bogo-Medellin Honokaa Sugar Co. Layoahoehoe San Carlos Milling Hawaiian- Phillipine Co.	 Phillipines Hawaii Hawaii Phillipines Phillipines		
	Metal Manufactures Flexible steel	 Singapore	Wood Mfg. MacRall Hold. Wooden container, pallets	 S. Africa	Oil Service Equip Jardine Fearnley Oil Serv. Equip. Antah Holdings	 HK Malaysia	Marine Equipment Mardarin Coatings Steel Ship Coating Promet Marine	 Singapore Singapore	Luggage Rennies Luggage Holdings	 S. Africa	Sugar Harvesting Equip. Toft Bros.	 Australia		
Machinery	Toft Bros. Indus. Sugar Harvesting Equip. Stubenberg Co. Sugar Harvesting Machine Parts Lift Instalation Hilo Iron Works Jardine Schindler Lift Instalation Machine Tools	 Australia Brazil Hawaii Hawaii Singapore Hawaii HK Singaore Malaysia Phillipines			Arrow Intl. Logistics Promet Contractors Offshore Serv.	 Singapore Singapore	Engineering Contractors Promet Shotblasting Eng. Serv. Redland Jardine Indus. Serv.	 Singapore HK			Sugar Goods Mfg. Assoc. Bakery Mfg.	 Fiji		
Services	Jardine Engineering Pacific Machinery Machinery Dist. P.J. Jaya Mandarin Agung Engineering Sales & Dist. Sherwin Williams Marketing & Dist.	HK Hawaii Indonesia Phillipines	MacMillanJardine Marketing	HK	Offshore services Oil Rig Broking Offshore Vessel Operation Mgmt. Of Oil Interests Jack Enen & Co. Oil Industry supplies Compania Progress Co.	HK Panama Singapore Singapore Malaysia Singapore Panama	Matheson Chartering Co. Indo-China Steam Navigation Co. Jardine Shipping Agencies - customs clearance	HK HK Thailand	Harry Wicking Rennies	HK S. Africa	Hawaiian Fluid Power Co. - hydraulic components Hawaiian Irrigation	Hawaii Hawaii	Plantation Agencies - Sdn Bhd.	 Malaysia

Chart 49: Return on Equity and Current Ratio for Selected Industries, Worldwide Statistics 1967-1998

CODE	DESCRIPTION	NUMBER	ROE 1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
4	Agri-crops	1											
4	Agri-livestock	1											
8	Forestry	1	8.79	9.17	9.76	7.32	8.52	8.32	13.14	16.93	12.79	13.44	12.36
13	Oil & gas extraction	7	14.79	16.14	16.49	15.24	12.8	14.47	14.56	18.98	22.34	22.11	19.93
15	Building and construction	2											
20	Food	5	12.98	12.38	12.38	13.1	13.76	13.66	14.46	14.5	13.18	15.76	16.11
24	Lumber, wood products	2											
25	Furniture, fixtures	2	14.73	15.64	17.5	15.62	15.77	20.16	21.17	8.41	13.82	16.47	15.59
27	Printing, publishing	1	15.94	14.92	14.46	12.43	11.6	13.58	15.64	12.12	13.84	16.56	18.59
31	Leather products	1											
33	Iron & Steel Foundries	1	6.37	7.84	6.88	4.47	4.37	5.44	8.6	15.4	9.17	7.14	def
35	Machinery-non electrical	2	16.62	17.68	16.08	14.65	14.15	14.39	16.25	16.27	15.8	16.49	18.34
36	Electrical/electronic equipment	3	15.35	15.83	15.88	14.67	14.55	15.69	14.8	13.19	13.4	16.35	17.58
37	Transport Equip	3											
38	Med Sci Instruments	3											
44	Water Transport	3											
49	Elec.gas, sanitary	6	12.6	12.13	9.54	9.71	11.16	12.24	10.56	6.01	12.59	14.28	14.3
50	Wholesale-durables	10											
51	Chemicals												
52	Building materials	2	7.7	8.81	9.25	7.05	8.38	10.97	12.75	10.31	7.58	10.77	13.91
59	Misc Retail	3											
60	Banking	4											
62	Security, commodity brokers	4											
63	Insurance	4											12.82
65	Real Estate	4											
67	Holding, other investment	4											
70	Hotels	4	9.87	11.44	13.3	11	9.87	10.55	10.95	7.83	11.5	9.35	11.96
73	Business Services	8											

CODE	DESCRIPTION	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
4	Agri-crops										
4	Agri-livestock										
8	Forestry	12.55	15.77	12.41	13.19	4.03	7.83	9.56	8.16	11.02	14.84
13	Oil & gas extraction	21.3	20.78	20.69	23.19	17.18	8.48	8.67	2.49	def	0.52
15	Building and construction						4.24	3.79	def	2.94	def
20	Food	16.64	17.25	17.14	15.4	14.2	19	22.92	19.49	19.83	21.02
24	Lumber, wood products										
25	Furniture, fixtures	15.23	14.86	13.2	13.27	8.66	14.19	15.69	10.88	13.36	14.5
27	Printing, publishing	21.12	26.63	24.37	25	20.83	20.81	28.37	29.74	50.28	N/A
31	Leather products										
33	Iron & Steel Foundries	7.76	4.1	6.93	11.91	def	def	def	def	def	11.23
35	Machinery-non electrical	19.43	18.18	18.11	15.51	14.96	17.33	18.78	14.96	11.85	14.39
36	Electrical/electronic equipment	17.54	17.16	15.52	16.84	15.82	12.75	18.35	18.2	17.31	19.29
37	Transport Equip										
38	Med Sci Instruments										
44	Water Transport										
49	Elec.gas, sanitary	14.91	15.87	9.66	15.76	17.46	16.7	21.22	22.86	28.56	23.91
50	Wholesale-durables										
51	Chemicals								6.85	23.41	21.8
52	Building materials	18.12	14.76	12.05	9.98	4.9	8.54	12.43	24.27	24.11	24.7
59	Misc Retail										
60	Banking										
62	Security, commodity brokers										
63	Insurance	14.33	12.85	12.52	12.23	8.95	10.83	10.49	10.28	11.53	11.71
65	Real Estate										
67	Holding, other investment										
70	Hotels	14.18	16.35	18.49	16.58	9.95	14.74	15.93	18.28	18.19	67.9
73	Business Services										

CODE	DESCRIPTION	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
4	Agri-crops										
4	Agri-livestock										
8	Forestry	18.82	16.04	9.31	3.85	3.79	4.1	7.12	20.15	5.79	
13	Oil & gas extraction	7.72	9.7	12.94	14.91	8.63	9.71	15.07	15.39	17.03	
15	Building and construction	def	11.98	12.79	11.73	11.86	14.06	def	14.77	17.66	
20	Food	27.52	31.19	21.26	35.02	22.03	24.82	23.31	25.82	24.92	
24	Lumber, wood products	6.1	1	3.3	10.5	11.8	1.5	3.3	2.5	6	7.8
25	Furniture, fixtures	13.81	12.84	6.31	5.9	0.65	13.64	22.98	11.59	24.27	
27	Printing, publishing	N/A	2.35	def	def	3.34	def	def	def	94.98	
31	Leather products	2.7	0.9	4.4	13.2	15.6	7.7	6.3	12.1	18.3	16
33	Iron & Steel Foundries	18.85	13.69	def	def	def	def	25.86	27.29	10.17	
35	Machinery-non electrical	15.57	8.11	10.69	def	def	def	8.19	14.42	16.33	
36	Electrical/electronic equipment	29.05	27.96	26.72	21.3	26.18	25.31	31.55	41.49	40.26	
37	Transport Equip	6.3	4.7	3.4	7	6.8	8.2	7	11.1	6.9	5.3
38	Med Sci Instruments										
44	Water Transport										
49	Elec.gas, sanitary	29.19	27.64	35.01	25.9	37.36	29.26	41.92	44.84	20.32	
50	Wholesale-durables	9.8	12.7	12.9	10.2	11	14	12.4	12.6	13.5	
51	Chemicals	57.37	14.54	38.38	def	41.63	35.65	29.8	32.8	8.78	
52	Building materials	20.7	28.72	26.74	32.94	38.28	48.51	54.49	67.32	41.08	
59	Misc Retail										
60	Banking										
62	Security, commodity brokers										
63	Insurance	9.41	13.23	11.5	12.15	14.63	12.9	13.17	11.84	8.13	
65	Real Estate										
67	Holding, other investment										
70	Hotels	60.78	26.91	17.43	14.72	14.28	15.27	17.45	15.77	17.58	
73	Business Services										

CODE	DESCRIPTION	NUMBER	CURRENT RATIO 1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
4	Agri-crops	1	1.4	1.5	1.3	1.4	1.5	1.5	1.5	1.5	1.6	1.5
4	Agri-livestock	1	1.2	1.2	1.4	1.4	1.5	1.4	1.3	1.3	1.3	1.4
8	Forestry	1	1.3	1.5	1.6	1.6	1.6	1.6	1.7	2.5	1.5	1.6
13	Oil & gas extraction	7	2.7	1.4	1.7	1.2	1.2	1.3	2.4	1.3	1.1	1.5
15	Building and construction	2	1.4	1.8	1.5	2.3	1.3	1.5	1.5	1.2	1.1	1.1
20	Food	5	2.2	1.5	1.3	1.3	1.7	1.5	1.4	1.6	1.3	1.5
24	Lumber, wood products	2	1.1	1.2	1.3	1.3	1.5	1.7	1.2	1.1	1	1.1
25	Furniture, fixtures	2	2.2	2.3	2.3	2.3	2.1	1.8	2.2	2	2	2
27	Printing, publishing	1	1.7	1.7	1.6	1.5	1.5	1.7	1.5	1.5	1.5	1.4
31	Leather products	1	1.8	1.7	1.8	1.8	1.8	1.8	1.8	2	1.7	1.8
33	Iron & Steel Foundries	1	2	1.6	1.7	1.7	1.8	1.9	1.6	2	1.6	1.8
35	Machinery-non electrical	2	1.7	1.8	1.6	1.7	1.7	1.5	1.5	2.5	1.6	1.4
36	Electrical/electronic equipment	3	1.5	1.7	1.9	2.1	1.9	1.3	1.3	1.2	1.6	1.6
37	Transport Equip	3	1.8	1.6	0.9	1	1	1.4	1.3	1.3	1.2	1.3
38	Med Sci Instruments	3	1.6	1.7	1.4	2.6	1.7	2	1.8	1.7	1.9	1.8
44	Water Transport	3	1.3	1.4	1.3	1.5	1.3	1.3	1.2	1.1	1.1	1.3
49	Elec.gas, sanitary	6	1.1	1.3	1.1	1	1.1	1	0.8	0.8	0.8	0.7
50	Wholesale-durables	10	1.6	1.4	1.4	1.4	1.4	1.5	1.5	2.3	1.3	1.3
51	Chemicals		2.7	1.6	1.5	1.4	1.5	1.7	1.5	1.6	1.5	1.5
52	Building materials	2	2	2	2	1.8	2	2	1.9	2	2.1	2.1
59	Misc Retail	3	2.2	2.1	2.2	2.1	2	2	1.9	1.6	1.8	1.7
60	Banking	4	1	1	1	1	1	1	1	1	1	1
62	Security, commodity brokers	4	0.8	0.9	0.9	0.9	0.9	0.8	1	0.8	0.8	0.8
63	Insurance	4	2.8	2.5	3.4	3.9	3.2	3.5	3.1	3.5	2.6	2
65	Real Estate	4	1.2	1.4	1	1.1	1	1.1	1.1	1.1	1	1.1
67	Holding, other investment	4	1.5	1.5	1.2	1.1	1.2	1.1	0.9	0.9	0.8	0.9
70	Hotels	4										
73	Business Services	8	1.4	1.4	1.4	1.5	1.5	2.5	1.5	1.2	1.2	1.2

Source: Standard & Poor's

Chapter 7: Managing Uncertainty – The Internal and External Corporation

Introduction

As noted in Chapter 1, Section 2, the firm's ability to grow depended on the capability and experience of its managers – including the ability to foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners. Hence, Chapter 7 contributes to the architecture of the current study by focusing the organizational structure of the firm, including both internal and external organizations, that allowed for consistent business routines and promoted organizational learning (Question 5). The chapter deals with organizational learning from the viewpoint of management processes, including the training of high potential management; the involvement of the firm's senior managers on the boards of influential external bodies, and the surfacing, review and approval of new investment ideas. The chapter also covers the management processes that protected the Company from ill-considered or opportunistic projects sponsored by departments or by associated or subsidiary firms (Question 6).

The ability of a sprawling international conglomerate like Jardine, to invest in – and manage its affairs through – joint ventures and acquisitions in multiple locations imposes a challenge to firm governance, resource use and information sharing.

This chapter seeks answers to two of the questions posed in Chapter 1, Section 2:

- What was the organizational structure of the firm, including both internal and external organizations that allowed for consistent business routines and promoted organizational learning? (Question 5)
- How did Jardine, Matheson promote managerial initiative while curbing opportunism? (Question 6)

Chapter 7 focuses on both internal and external institutional mechanisms and is divided into sections as follows:

Chapter 7: Section 1: Interpersonal Networks tracks some 200 of Jardine, Matheson's managers from 1972 to 1996 to determine how managers contribute to the intra- and inter-firm network.

Chapter 7: Section 2: Internal and External Relationships: Parent and Subsidiary Firms - Affiliational Ties discusses resource dispersion and networks at Jardine, Matheson.

Chapter 7: Section 3: Encouraging Initiative While Curbing Opportunism discusses the role of boards in decision-making at Jardine, Matheson.

Chapter 7: Section 4: External Relationships – Impact on Influence and Reputation discusses the information gathering, influence and decision-making roles played by Jardine, Matheson executives on the boards of government, bank and social/political clubs.

Chapter 7: Section 5: Internal and External Organization and Growth discusses the roles of organization (Question 5) and managerial initiative (Question 6) in firm strategic management, and compares a Resource-based interpretation with alternative Harvard and Chicago school views.

Chapter 7: Section 1: Interpersonal Networks

The internal and external organization of Jardine, Matheson & Company has been an important factor underpinning the firm's resilience in the face of external shocks to competitiveness and its propensity to carry out longer-term structural adjustments in response. Jardine's organization is based on flexible institutional mechanisms well suited for adaptation to change. The emphasis is on resilience, sustainability, not success or sustainable competitive advantage.

Interpersonal networks connect Jardine, Matheson's vast geographically dispersed and internally differentiated businesses. Given the impossibility of building a fully connected network across all the individuals within the organization, the alternative is a network that relies on having at least a few individuals in each subsidiary who have a wide range of ties, what might be called "social capital" within and across the subsidiaries' boundaries.

For the dissertation, the actual movements of 200 of Jardine, Matheson's managers were charted from 1972 to 1996 on a spreadsheet. Almost all of Jardine, Matheson's new hires or "cadets" were drawn from Oxford and Cambridge. They undertook a three-year training program and were mentored by senior managers. But that was only the starting point. To assess the on-the-job development of "social capital" within Jardine, Matheson & Company, I looked at:

- average tenure, based on the notion that individuals with longer tenure will have a greater range of both interdepartmental and inter-subsidiary contacts;
- amount of time prior to promotion to associate or director;
- how managers on a "fast track" were assigned to multiple geographic and functional posts – and the number of moves made, pursuing the idea that the greater the number of departments an individual worked in, the larger the range of interdepartmental contacts, and the greater the number of subsidiaries an individual has worked in, the larger the range of inter-subsidiary contacts;
- the extent to which headquarters and subsidiaries were represented on the firm's multiple boards of directors; the process by which investment decisions were made – top down, bottom up, composition of review councils, etc.;
- the role of senior executives on government and investment councils -- and their role in decision-making;
- the extent of local autonomy and local resource availability.

The Jardine, Matheson & Company Annual Reports 1972-1996 are a rich source of information on management movements. It was important for the firm's external contacts to know the rank and decisionmaking authority of their local Jardine, Matheson contact. Each annual report included names of the members of the parent board, regional and Hong Kong boards, and heads of local offices, making it possible to see which individuals got promoted, how fast and with what cross-geographic or cross-functional skills. See **Chart 54: Succession Planning and Management Development, 1972-1996**, at the end of this chapter.

The findings are interesting: Some 40 of Jardine, Matheson managers went on to become members of the parent board. On average, Jardine's managers enjoyed a length of service of 20 years or more. They made an average of three cross-functional moves, most often from finance, most often to general management, at a regional office. Jardine's managers made on average of three cross-geographic moves in their career. A senior manager at Jardine (associate director and above) reached board level in four years. In any year, two new members were added to the board, and two retired. The number of outsiders on the board at any time was two. The average tenure of board members was 12 years. The percentage of expatriates in board seats was 90% as late as 1996. Experience in key markets and businesses was critical to board appointments. Take, for example, a few representative executive profiles:

Nigel Rich was a general manager for Finance in the Hong Kong office in 1975. Rich had one-year stints in South Africa and the Philippines prior to his appointment to associate director, Philippines in 1979. In 1981, he moved back to the Hong Kong Chairman's office and in 1982 was put in charge of property and hotels. Rich was appointed an executive director and member of the parent company board in 1983. When Jardine, Matheson created the Asia Pacific Regional Board to validate proposals prior to presentation to the parent company board, Rich was appointed a director of the new board. He became managing director of Jardine, Matheson Holdings in 1988, a position he held until 1992, when Alasdair Morrison replaced him.

Alasdair Morrison was appointed general manager, Jardine Industries in 1975, an umbrella group newly established to provide management oversight to small manufacturing and trading companies. In 1979, he became general manager, Philippines, under Nigel Rich. Morrison was appointed general manager, Europe in 1982 – and appointed associate director in 1983. He was appointed a director of the company and member of the parent company board in 1984. He became a member of the Asia Pacific Regional Board in 1987 and was named to the board of Hongkong Land in the same year. In 1993, Morrison became managing director, Jardine, Matheson Holdings and continued in that position until 1999.

Anthony L. Nightingale was appointed general manager, Japan in 1979, a post he held for two years before becoming general manager, Hong Kong in 1981. Nightingale was appointed associate director, Middle East in 1982. In 1987 he was appointed a director of the Asia Pacific Board and, in 1991, appointed director, Jardine Pacific. He became an executive director of the parent company board in 1991 and continued in that role through 1996.

Long-term employment, single-firm careers were and remain the norm at Jardine, Matheson & Company. To manage relations with subsidiaries and associates, Jardine, Matheson's directors were selected for representation on the subsidiary's board of directors. Since Jardine, Matheson's directors were responsible for firm strategy, they played an additional role representing the subsidiary's interests in Hong Kong, in Asia Pacific regional and global Jardine, Matheson strategy.

Beginning in 1992, the practice changed somewhat as Dairy Farm, Cycle & Carriage and Jardine International Motors went through a rapid succession of chief executives. The board of each of these public companies remained essentially the same, while the changing chief executive guard reflected Jardine, Matheson's desire to change the public image of these companies.

Despite the exceptions, the 1999 appointment of Percy Weatherall to the position of managing director reinforces the original model. He is a long-term Jardine, Matheson man, born in Dumphries, extensive experience in Hong Kong Land and Dairy Farm before his appointment.

Chapter 7: Section 2: Intrafirm Relationships: Parent and Subsidiary Firms – Affiliational Ties

The relationships among Jardine, Matheson's associated and subsidiary firms involved highly localized networks of dense transactions, creating a stable framework of exchange – with periodic collective action, as in the case of the Jardine Pacific and Asia Pacific Board activities noted above. Former managing director Jeremy Brown contrasted Jardine's style of governance with that of Hong Kong rival, Hutchison Whampoa: The latter's acquired firms were autonomous; Jardine, Matheson's governance style was midway between Chandler's "visible hand" (formal administration) and Adam Smith's "invisible hand" (autonomously self-regulating): "We imposed some organization and controls on our subsidiaries, while Hutchison's subsidiaries rode off in all directions at once."[162]

Governance was based on the nature of Jardine, Matheson's acquisitions – and the firm's expectations of its acquisitions, specifically:

(1) Jardine, Matheson chose high-potential acquisition prospects that would benefit from an infusion of cash, but could be expected to yield high returns within a relatively short period;

(2) Jardine, Matheson owned 40% or less of roughly half the firms it acquired. The firm expected acquisitions to raise additional equity capital;

(3) Half of all acquired firms were or became subsidiaries, if they met the firm's 25% hurdle rate within three years.

(4) Divested firms continued to be successful – like Rennies and Hong Kong Electric and Gas, among others and Jardine, Matheson enjoyed a continued relationship with these firms

(5) Resources were very widely dispersed among associated and subsidiary firms.

In fact, part of the selection process for such firms was their ability to provide resource access in a part of the world where access was needed. Associates and subsidiaries were expected to participate in Jardine, Matheson's inter-firm market, that is to say, the identifiable flows of goods, services and resources among technologically separable units that transform raw materials into finished products. The product systems referenced in an earlier section, and coordinated by Jardine, Matheson, comprised an intermediate business model between the poles of corporate administration and market governance. It had the organizational

[162] Jeremy Brown to Carol Connell, interview at Matheson & Company, London, May 1998.

routines, information sharing and flexibility of the former and the cost advantages of the latter.

For example,

- Jardine, Matheson ran sugar plantations in Australia, the Philippines and Hawaii. The firm harvested its own sugar as well as sugar from other plantations with equipment from the sugar harvesting equipment plants it owned. Jardine sent the raw sugar to one of three sugar milling firms it owned and shipped the sugar to world ports in its own vessels – or stored it in its own container terminals. The sugar process involved the interaction of some four to six Jardine subsidiaries.
- Jardine, Matheson had a cluster of services available to its business lines in each major market. Jardine Fleming financed the bailout of Hongkong Land. Jardine Engineering Corporation was awarded construction projects by Gammon Construction and the elevators installed were Schindler Lifts
- In transportation and shipping services, Jardine, Matheson and its subsidiaries provided ship management and shipping agencies, terminal operations, logistics services (including air freight, warehousing and distribution from locations in China, Hong Kong, Taiwan, Singapore, Malaysia and the Philippines.

To each of its subsidiaries and to the firms for which it acted as principal and agent, Jardine, Matheson provided a cluster of capabilities that included trading, banking, maritime insurance and shipping – the same services historically known in the China trade as "agency services." Underlying these was a network of relationships built and sustained by frequent communications and the development of logistical and organizational routines to facilitate trade. Jardine, Matheson not only handled direct imports and exports to and from Hong Kong, but also handled third-country' trade, where the firm acted as a middleman. Jardine purchased raw materials and sold finished products throughout the world, served as the eyes and ears of major clients, provided them with global market information and analysis through its associates and subsidiaries, and helped smooth out the rocky road their clients faced in dealing with foreign languages, foreign currencies and foreign governments.

To manage relations with subsidiaries and associates, Jardine, Matheson's directors were selected for representation on the associate or subsidiary's board of directors. Jardine, Matheson & Company never held an interest without voting power in an associated firm. Jardine's directors were responsible for setting financial goals and communicating overall firm strategy, and they represented the associate's interests on the Hong Kong, Asia Pacific regional and Jardine, Matheson Holdings boards.

For example, M.A.R. Young-Herries joined Jardine, Matheson in 1948 and served in Hong Kong, Japan and Singapore. Herries was appointed managing director in 1962, and chairman and managing director in 1963. A 1971 biography describes Herries as chairman of these Jardine, Matheson Holdings:

Bangour Investments	International Pacific Securities Co., Ltd.
Empire Finance Co., Ltd.	The Jardine Engineering Corporation, Ltd.
Ewo Breweries Ltd.	Jardine, Matheson & Co. (Japan) Ltd.
Harry Wicking & Co, Ltd.	Jardine, Matheson & Co. (Taiwan) Ltd.
Hongkong & China Property Co. Ltd.	Jardine, Matheson & Co. (Australia) Ltd.
Hongkong Clays & Kaolin Co., Ltd.	Jardine Waugh Ltd.
The Hongkong Fire Insurance Co., Ltd.	Lombard Insurance Co. Ltd.
Hongkong & Far Eastern Investment Co. Ltd.	Pedder Industries Ltd.; Pedder Ventures Ltd.
The Hongkong &Kowloon Wharf & Godown Co. Ltd.	The Shanghai & Hongkong Wharf Co. Ltd.
The Hongkong Land Investment & Agency Co., Ltd.	Plantation Agencies Ltd.
Hongkong Tramways Ltd.	The "Star" Ferry Co., Ltd.
The Indo-China Steamship Co., Ltd.	

Young-Herries is listed as alternate chairman of Eastern Securities Co. Ltd, Hong Kong and Aircraft engineering Co. Ltd. He is listed as director of Dairy Farm Ice & Cold Storage Co., Ltd.; Dominion Far East Line Pty. Ltd; Harbour Center Development Ltd; The Hongkong Electric Co., Ltd.; The Hongkong Telephone Co. Ltd.; The Hongkong & Shanghai Banking Corporation; MacMillan Jardine, Ltd.; Mercantile Bank Ltd.; Shanghai Dockyards Ltd.; The Sheko Development Co., Ltd.; and the South China Morning Post.

The historical practice of interlocking directorates continues. The embedded **Chart 55** shows the interrelatedness of Jardine's subsidiary businesses in 1992, a small slice of the overall picture but evocative of the principle in practice.

Chart 55: Jardine, Matheson & Company – Cross-board Seat Holdings 1992

Director	**JM Holdings**	**Jardine Strategic**	**Dairy Farm**	**Hongkong Land**	**Matheson & Company**	**Mandarin Oriental**
Henry Keswick	Chairman	Chairman	Director	Director	Chairman	Director
Nigel Rich	Managing Director	Managing Director	Managing Director	Managing Director		Managing Director
C.I. Cowan	Director	Director	Director			
R.C. Kwok	Director	Director	Director	Director		Director
R.E. Moore	Director	Director	Director	Director		
Gregory Terry	Director		Director			Director
George Ho				Director		
Simon Keswick			Chairman	Chairman	Director	Chairman
C.G.R. Leach		Director	Director	Director	Director	Director
Sir Charles Powell			Director	Director		Director

Chapter 7: Section 3: Encouraging Initiative While Curbing Opportunism

Prior to 1980, Jardine, Matheson & Company was organized on a functional basis in Hong Kong and on a geographic basis overseas. After 1983, functional management and grouping of related activities took priority over geographic organization. Distinct business units within Jardine, Matheson's core businesses were run as profit centers. The board of directors gave the managing directors of operating units near autonomy in running their businesses. Subsidiaries and associates made their own operating decisions. The parent company board approved every major investment decision. New investment opportunities were generated in two ways:

(1) markets were identified where expertise in an existing core business would give the firm a competitive advantage and

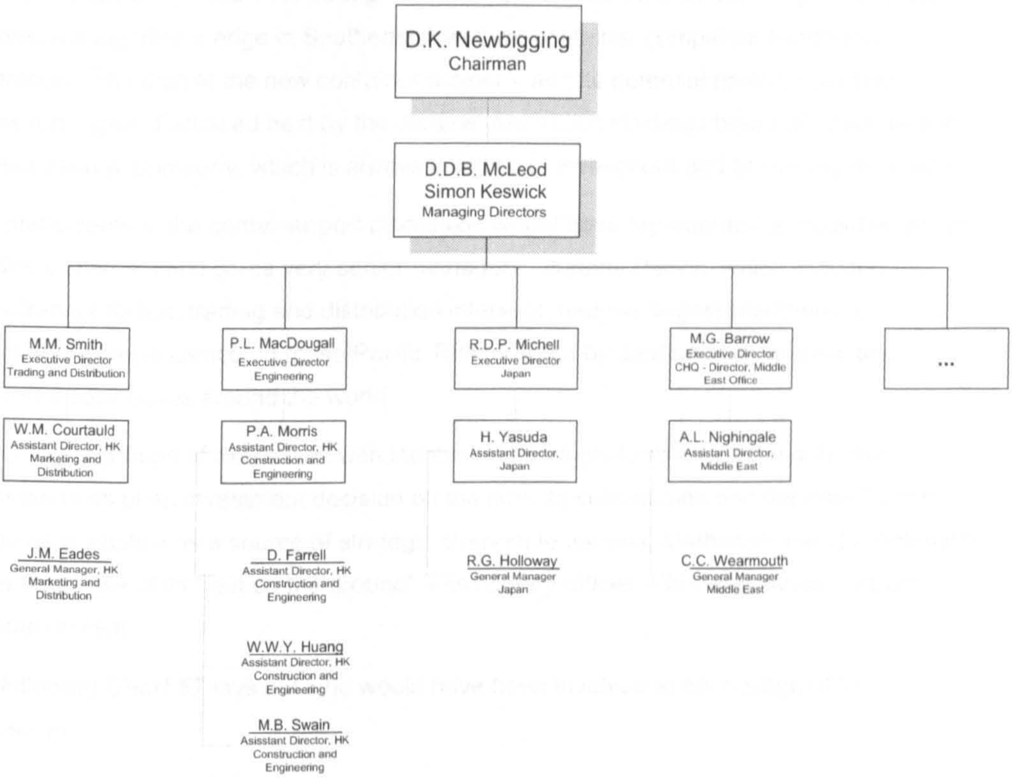
(2) key geographical areas were selected for expansion and viable businesses subsequently identified for investment.

Responsibility for presenting the investment proposal to the board lay with the board member responsible for a function (business line) or geography. Jeremy Brown, former managing director of Jardine, Matheson during the mid 1970s confirms, "There tended to be over that period an alternation between a regional and a functional basis for management control purposes but, however they were defined, each area was always the responsibility of a main board director.[163] Functional and geographic organizations reported to an executive director. Executive directors were members of the board. **Chart 56: Organigram 1984 – Microcosm of Jardine, Matheson & Company,** on the next page, shows functional and geographic organizations reporting to an executive director.

[163] Jeremy Brown, Esq. to Carol Connell, June 1998.

Chart 56: Organigram 1984 - Microcosm of Jardine, Matheson & Company

with Functional and Geographic Organizations reporting to an Executive Director (Board Member)



In 1986 an additional board was created, the Asia Pacific board, consisting of the managing director of Jardine, Matheson Holdings and the heads of Jardine's regional offices. Its purpose was to review the investment proposals, examining their potential impact on the region as a whole and assuring that the required supporting information and documentation had been evinced before a presentation was made to the Jardine, Matheson Holdings Board. This additional review opportunity – or approval layer – was one of several corrections made in the aftermath of the Hongkong Land stock swap. It was intended to ensure that information critical to decision-making was shared and evaluated across the company.

Consider the hypothetical situation of an investment proposal for a new container port in Hong Kong. The Hong Kong head office, specifically the Ship Management Group, generates the initial investment proposal. The proposed container port will impact much of the import/export trade of Jardine Pacific; hence, Jardine Pacific vets the proposal. The port will handle re-exports from a number of Asia Pacific countries in which Jardine, Matheson has interests.

The proposal goes next to the Asia Pacific board where the container port's consequences for the broader pacific region are considered. The new Hong Kong container port is seen to have a potentially heavy impact on Jardine, Matheson's trade with Southeast Asia, which is expected to grow by 10 to 14% through the year 2006. The investment will give Jardine, Matheson a significant edge in Southeast Asia over container competitor Hutchison Whampoa. The cost of the new container project – and its potential profit for Jardine, Matheson – gets discussed next by the Jardine, Matheson Holdings board of directors and by Matheson & Company, which is always involved in investment and borrowing decisions.

The participants in the container port discussion would have represented a cross-section of the firm's interests and some very senior managers. Jardine Pacific, which included the firm's transportation, trading and distribution interests, had the largest membership – reflecting the dependence on these Pacific Rim services by Jardine's geographic and functional businesses around the world.

The ability of groups of executives with increasing oversight to examine the potential consequences of an investment decision on the firm, its subsidiaries and the Asia Pacific region as a whole was a source of strategic strength to Jardine, Matheson and characteristic of the firm's use of its "feet on the ground" – its country offices and subsidiaries – as an information club.

The following **Chart 57** lays out who would have been involved at each stage of the discussion:

Chart 57: Jardine, Matheson & Company Functional Boards, 1988 Example

Hong Kong Head Office (Local Issues)	Jardine Pacific Management Group (Trading Issues)	Asia Pacific Regional Board (Regional Issues)	Jardine Matheson Holdings Board (Corporate Issues)
RDP Michell, Director	GJ Terry	MG Barrow	Simon Keswick, Chairman
R.J.O. Barton, Jardine Insurance Brokers	R.C. Sutton, Australia	Nigel Rich	Nigel Rich, MD
W.M. Courtauld	D. Hon, Canada	R.J. Collins	P.J. Collins, ED
D.A. Heenan, Theo Davies Hawaii	A.J.L. Nightingale, Hong Kong	R.S. Sutton, Australia	George Ho, OBE
R.G. Lee	H. Gunther, Indonesia	R.C. Kwok	Henry Keswick, ED
	H. Yasuda, Japan	D.A. Heenan, Theo. Davies, Hawaii	R.C. Kwok
	P. Po, Beijing	R.E. Moore, head, Bermuda, Operations	CGR Leach, head of Europe/UK
	K.C. Sitt, Shanghai	A.G. Morrison, Hongkong Land	RE Moore, head, Bermuda Operations
	M. Lo, Guangzhou	R.D.P. Michell	
	E.P.W. Weatherall, Philippines	A.J.L. Nightingale, Hong Kong	
	Y.C. Boon, Singapore	O.P. Howell-Price, Dairy Farm	
	C.C. Willis, Jr., South Korea	R.E. Riley, Mandarin Oriental	
	A. Mackinnon, Taiwan	A.H.Smith, Jardine Fleming	
	K. Sarasin, Thailand	G.J. Terry	
	D.A. Heenan, Theo. Davies, Hawaii	H. Yasuda, Japan	

Hong Kong Head Office (Local Issues)	Jardine Pacific Management Group (Trading Issues)	Asia Pacific Regional Board (Regional Issues)	Jardine Matheson Holdings Board (Corporate Issues)
	R.E. Moore, head, Bermuda Operations C.G.R. Leach, Europe/UK	R.J.O. Barton, Jardine Insurance Brokers	
	R.B. Wilson, Middle East	Y.C. Boon, Singapore	
	R.H. Gunn, Netherlands		
	A.H. Smith, Jardine Fleming		
	O.P. Howell-Price, Dairy Farm		
	A.G. Morrison, Hongkong Land		
	R.E. Riley, Mandarin Oriental		
	R.J.O. Barton, Jardine Insurance Brokers		

Chapter 7: Section 4: External Relationships – Impact on Influence and Reputation

Jardine, Matheson's senior executives also played important external roles on behalf of the Company and its influence in Hong Kong – as well as in London's financial district.

Representation on the Hong Kong Legislative Council

Until 1997, the "unofficial" members of the Governor's Council were representatives of Hong Kong business and banking. "Unofficial" was an actual title. Two of the thirteen unofficial members of the Legislative Council were appointed as a result of an election by the Unofficial Justices of the Peace and by the Hong Kong General Chamber of Commerce. From 1958 to 1962, H.D. M. Barton of Jardine, Matheson held a seat. From 1962 to 1968, S.S. Gordon, a chartered accountant, former chairman of the Hong Kong General Chamber of Commerce and a director of Jardine, Matheson, held a seat. From 1971 to 1978, M.A.R. Young-Herries, managing director of Jardine, Matheson, held a seat.

As an "unofficial," the seat holder had no vote, but access to information was complete, and influence could be brought to bear on the Governor and on the Standing Finance Committee in private. Unofficial influence secured the withdrawal of bills even after their introduction into the Legislative Council. For example, the Commissions of Inquiry Bill of 1966 was withdrawn when the Attorney General acknowledged the misgivings which had been expressed to him by the unofficial and by the Incorporated Law Society of Hong Kong since publication of the bill.

The "unofficials" represented a majority on the Standing Finance Committee and exerted the most influence there, where meetings were held in private and their proceedings were not published. Since most legislative and executives acts involved finance, the Standing Finance Committee discussed most aspects of Government policy, although discussions were limited to expenditures, not to revenue.

Because the strength of the British Colonial Government rested on the alliance between British officials and the Chinese business community, support to both sides was assured by the British business community, which collectively contributed in excess of 12% to the GDP of Hong Kong and formed a highly influential power bloc. It consisted of Jardine, Matheson & Company; Butterfield and Swire, Hutchison International, the Dairy Farm Ice & Cold Storage Company; Wheelock Marden & Co., and the Hong Kong & Shanghai Banking Corporation.

The meetings of the Standing Finance Committee were sometimes held at the Royal Hong Kong Jockey Club, whose stewards in 1969 included J.A.H. Saunders, chairman of the Jockey Club, member of the Executive Council and chairman of the Hong Kong & Shanghai Banking Corporation; Sir Sik-nin Chau, chairman of Dairy Farm Ice & Cold Storage; J.L. Marden, member of the Executive Council and chairman of Wheelock Marden; J.D. Clague, director of Dairy Farm and member of the Executive Council; Fung Ping-fan, member of the Legislative Council; M.A.R. Young-Herries, chairman, Jardine, Matheson & Company and member of the Legislative Council; and Djun J. Ruttonjee, formerly senior official in the Legislative Council. The exclusive club was immensely influential. The Jockey Club held a monopoly on legalized gambling in Hong Kong and its stewards were responsible for making lavish charitable donations from gambling earnings. Representatives of Jardine, Matheson also sat on specific committees of the Legislative and Executive Councils.

Board Membership – Hongkong & Shanghai Bank

From 1877 through 1996, members of Jardine, Matheson sat on the Board of Directors and the London Advisory Council of the Hongkong & Shanghai Banking Corporation. See **Charts 58 and 59**, following. So did Jardine, Matheson's major competitors or peers in Hong Kong. The dozen or so rivals included Swire, Wheelock, and Cheung Kong (Hutchison Whampoa) among a dozen or so, as well as local competitors such as Dodwell's and Gibb Livingston. Therefore, these seats were even more important to information access – and potential collaboration – than to influence and individual firm advantage.

Chart 58: Hongkong & Shanghai Banking Corporation - Board of Directors

COMPANY	SUBSIDIARY	YEARS REPRESENTED
Jardine, Matheson		1877 1962-1985
Swire Group	Butterfield & Swire	1914 1962-1974
	John Swire & Sons	1974-1985
Inchcape (HK)	Gilman & Co.	1864 1962-1985
	Dodwell & Co.	1895 1962-1985
Mackinnon, Mackenzie		1929 1962-1974
Imperial Chemical Industries		1946 1962-1974
Caldbeck, Macgregor		1956 1962-1965
Sir Elly Kadoorie & Sons		1957 1962-1967
John D. Hutchison		1930 1962-1976
Union Insurance Company of Canton		1966-1968
Hongkong Bank		1941

COMPANY	SUBSIDIARY	YEARS REPRESENTED
		1962-1985
Deacon & Co.		1969-1980
Wheelock Marden & Co.		1972-1985
World Wide Shipping		1972-1985
Central Development		1974-1985
Mass Transit Railway		1979-1985
Heng Seng Bank		1979-1985
Cheung Kong		1980-1985
Hong Kong Electric		1980-1985
Gibb, Livingston & Co.		1,869

Source: HKSB and Banking Commissioner's Office from Y.C. Jao in *Eastern Banking*.

Chart 59: Jardine, Matheson & Company – Executive Representation on the Board of Directors and London Advisory Council, Hongkong & Shanghai Banking Corporation

JARDINE, MATHESON EXECUTIVE	BOARD OF DIRECTORS	LONDON ADVISORY COUNCIL
William Keswick	1877, Deputy Chairman 1879-80; Chairman 1880-81; Resigned 1886	
F.B. Johnson	1881-1886	
J. Bell-Irving	1886; Deputy Chairman 1887; Chairman 1888-89, Resigned 1889; Returned 1893; Deputy Chairman 1897-98; Chairman 1898-99; Deputy Chairman 1902-03	
J. J. Keswick	1890-95; 1899-00; Chairman 1901-02	
H.D.M. Barton	Chairman 1962-64	
J.H. Keswick		1962-70
M.A.R. Young-Herries	1965-70	1970-75
H.S.I. Keswick	1971-75	1975-Present
D.K. Newbigging	1975-83	
S.L. Keswick	1984-Present	

Source: HKSB and Banking Commissioner's Office from Y.C. Jao in *Eastern Banking*.

Jardine, Matheson & Company and the Hongkong & Shanghai Bank became partners in at least six Jardine owned businesses: Central Registration – Hong Kong, 1973 (HKSB had 50% equity;) East Point Reinsurance in 1979 (HKSB held 15% equity); Jardine Matheson Holdings (HKSB held 5% equity); British & Chinese Corp. (HKSB had 50% equity); Far Eastern Economic Review (HKSB held 50% equity) and South China Morning Post (HKSB held 40% equity).

The British & Chinese Corporation was a 20th century relic of the firm co-founded by Jardine, Matheson and the Hongkong & Shanghai Bank to fund railroads in China. The collaboration continued deep into the 20th century, during the 1960s and 1970s, the period of Hong

Kong's industrial development. As discussed earlier, Jardine, Matheson & Company invested in every sector of Hong Kong business. At the same time, the Hongkong & Shanghai Bank made HK$976 million in loans and advances to local Hong Kong firms, often to companies which enjoyed a relationship with Jardine, Matheson in the areas of manufacturing, textiles, electrical and electronics, transport, electricity and gas, building construction and general commerce.

The record of actual loans and advances made by the Hongkong & Shanghai Bank understates the whole investment story. The bank assisted local manufacturers through a phenomenon called "packing credits," bills of credit drawn on the Hongkong & Shanghai Bank by manufacturers for purchase orders from firms such as Jardine, Matheson; Gibb, Livingston; Dodwell's and Hutchison for the sale of merchandise. The packing credit provided an advance to the small manufacturer for the raw materials necessary to produce goods for shipment and sale. The packing credit is an example of the use of an unofficial, short-to-medium term loan to facilitate trade, where one or more of the participants has low working capital. Jardine, Matheson also made use of this convention in its relations with subsidiaries and customers.

Chapter 7: Section 5: The Firm's Internal and External Organization and Growth

Chapter 7 explicitly deals with the role of Jardine, Matheson's managers and directors in building, guiding and managing the relationships between the parent firm and its subsidiaries and associated firms on the one hand, and negotiating the parent firm's relationships with the outside world on the other.

This section concludes the discussion by returning to two questions were posed at the beginning of Chapter 7: What was the organizational structure of the firm, including both internal and external organizations, that allowed for consistent business routines and promoted organizational learning? (Question 5) And, how did Jardine, Matheson promote managerial initiative while curbing opportunism? (Question 6).

The Internal and External Organization of the Firm (Question 5)

A Resource-based response to question 5 would suggest that Jardine, Matheson's founders and subsequent managers developed an "architecture" or "administrative framework" for learning and collaboration. This framework included interorganizational linkages that were mutually beneficial to participants and important to Jardine, Matheson for the development of capabilities, trustworthiness, and consistent patterns of behavior and effective forms of governance. Jardine, Matheson's plan for interorganizational continuity and growth required the exposure of high potential managers to a variety of geographic and functional assignments over time. This was accomplished without disruption to the business by a succession scheme under which junior managers would be groomed to replace senior managers who had been elevated to associate director and above.

Senior members of the staff mentored junior associates for a three-year trial period until juniors were put in charge of a profit center and given the chance to prove themselves. The culture was a close one.

Jardine, Matheson's managers on a fast track were expected to play a public role in the life of Hong Kong and the regions. As described in this Chapter, this life might include membership on the Hong Kong Legislative Council – or membership on the Hong Kong or London board of the Hongkong & Shanghai Bank.

A Harvard interpretation would suggest that firm architecture is merely a response to industry structure, which has a strong influence in determining the competitive rules of the game as well as the strategies potentially available to the firm. The credo might be "It's About

Competition." But it was not about competition. It *was* about information, getting a piece of the opportunity for Jardine, building a community in which Jardine, Matheson was an influential player.

Jardine, Matheson's knowledge-based culture was not at all above increasing efficiencies. Although the majority of the firm's relationships with customers and partners were the outcome of long-term contracts, the perceived benefit of these relationships was not, as a Chicago interpretation would have it, was not only (or most importantly) that they kept transaction costs low. While a Chicago interpretation would admit that firm architecture promotes and encourages organizational learning, the benefit – knowing how to resolve minor problems such as ones arising from contracts, for example, and the rules are for effective contract administration – was far from Jardine, Matheson's objective.

The environment of risk and uncertainty made collaboration essential to survival. This meant collaboration between headquarters and associated firms – as well as between and among Jardine, Matheson's associated firms. The description in Chapter 6 of the geographic spread of Jardine, Matheson's resources, embedded in associated and subsidiary firms, and their involvement in the value chain of diverse industries supports the notion that this was a highly collaborative firm. In Chapter 7, the review boards established by Jardine, Matheson to assure that the potential for broader, geographic and organizational impact was explored before a decision was rendered on a potential investment, is a further example of organizational commitment to learning and sharing. While there is little doubt that the Jardine, Matheson's analysts saw cost reduction advantages to frictionless contracting among members of an external organization, the objective was collaboration not merely cost reduction.

Encouraging Initiative while curbing opportunism (Question 6)

In the Resource-based view, initiative or "enterprise" is rewarded and opportunism is more often depicted as opportunity – the opportunity to extend the firm's interorganizational linkages to include a new but familiar business partner with known and consistent business behaviors, making partners out of a competitors. In the Harvard and Chicago views initiative is rewarded, and opportunism curbed, by managerial bonuses based on over-achievement of results. In this section, the opportunism of competitors and associated firms is considered first, then managerial opportunism.

As in the early period, bringing potential competitors into their orbit - making collaborators of competitors, like the Swire Group or Hutchison Whampoa – served Jardine, Matheson's interests very well. Collaboration opened new opportunities for shared investment, access to information from different markets, and reduced the risk of commodity price and shipping rate fluctuations.[164]

In the twentieth century, Jardine, Matheson built a network of trade and minority equity-based relationships with associated Hong Kong and ASEAN firms. As the network builder, Jardine, Matheson encouraged the initiative of local firms for which it served as a source of financial services, insurance and shipping. Jardine, Matheson's pattern of minority positions left the bulk of the fundraising to local firms, achieving growth at the expense of control. But Jardine's influence surpassed its equity stake. In building this network or "external organization," described in Chapter 7, Jardine, Matheson made itself indispensable to manufacturers, retailers and service establishments alike, who could expect credit terms of up to two years, as well as transportation, distribution and marketing services from their Hong Kong partner

The firm avoided the fate of many merchant intermediaries who could be locked out or eased of business if their contractual agreements with manufacturers were not renewed. Network relationships were based on trust not contract. The advantages derived from the ongoing relationship with Jardine, Matheson were perceived by associated firms to be greater than the gains of opportunistic behavior.

Resource-based, Harvard and Chicago interpretations all recognize that the best managers need to be compensated to remain with the firm to grow firm business. The key issue is incentive-compatibility. The distribution of knowledge in the firm (and among members of its external organization) may provide opportunities for individuals to gain by concealing or misrepresenting their private information, while reducing overall efficiency. However, restoring efficiency allows for gains all around, and so "farsighted" contracting permits the design of incentive structures which ensure disclosure of private information, if necessary, by putting the owner of this private information in charge. Examples of this kind of incentive structure includes the comprehensive education of Jardine, Matheson's high potential managers who were groomed for leadership, or creation of a board seat on the board of Jardine, Matheson & Company for the head of the Hongkong Land Company after the mutual stock swap and takeover attempt in the 1980s.

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[164] During the 1970s and 1980s, examples of investment partners included the Swire Group, a joint venture partner in real estate; Mac Millan Bloedel in timber; Schindler in elevators and Securicor in security services..

A Resource-based response to would argue that opportunism is often an opportunity to extend the firm's interorganizational linkages to include a new but familiar business partner with known and consistent business behaviors. A Harvard school response argues that initiative is rewarded and opportunism curbed by managerial bonuses based on over-achievement of results. Similar to that of the Harvard school, a Chicago school interpretation recognizes that agents are effort averse, owner-managers are paid higher bonuses or better benefits to attract and retain the best managers to grow its business. The point of view is based on the quid pro quo nature of contracts.

Jardine, Matheson was very aware of the potential for opportunism, and used collaborative tactics – interorganizational linkages, cross-board holdings, equity accounting, multi-board reviews, and pro-active government and bank relationships, among other inventions – to circumvent it.

Chapter 7 Chart

Chart 54: Jardine, Matheson & Company, Succession Planning and Management Development, 1972-1996

70																										
Organization	6500		17,000	30,000/21,00(	30,000/46,00(	36,000/49,00(	41,00/50,000	43,000/50,00(	43,000/50,00(	37,000/37,00(	15,000	39,000/43,00(	39,000/18,00(	39,000/18,00(	35,000/19,400		25,000/76,00(	25,000/83,000					200,000			
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Executive														Note HK Board created			Note JardPac	Note AP Reg	Board							
Barnes, WSD				GM/FI	GM/FI	GM/FI			AD/HKFI	AD/HKFI	AD/HKFI	AD/HKFI							DIR , AP Reg	Board						
Barrow, M.G.					AD/JP	AD/JP	AD/JP	ED	ED	ED	ED	ED	ED	ED, HK DIR	ED, HK DIR		DIR JardPacRegBd		DIR, AP Reg	DIR, HK	DIR, HK	DIR, HK	DIR, HK	DIR, HK	DIR, HK	ED
											Olayan	Olayan	JM&Vo.	HK, DIR	HK, DIR		DIR, JardPacRegBd		DIR, AP Reg	DIR, HK	DIR, HK	DIR ,HK		DIR, HK	DIR, HK	
Barton, RJO									GM/PH	GM/UK	AD/EU	AD/HKFI	AD	JIB Group	JIB Group		DIR HK Bd	JIB Group	DIR ,AP Reg	JIB Group	JIB Group	JIB Group	JIB Group	JIB Group		
Bedford, TJ										ED	ED															
Blott, CLC	ED											ED														
Boey, KTF										GM/HKTRAD	GM/EU	GM/HKMKT														
Boldero, JM										JM Malays	JM Malays															
Brown, CME				GM/Chief	GM/Chief	GM/Group Chief			GM/HK Treas(	GM/HK	AD/HK	AD/HK	AD													
Brown, JJG		ED	ED	MD	MD	MD	MD	ED	ED	ED	ED		ED	ED	ED, DIR Matheson											
Chan, JC									GM/HK Trans(	GM/HK Trans(	GM/HK Gr Se	GM/HK Gr Serv.		HK, DIR	HK, DIR		HK, DIR									
Cheung, FCY					GM/J-IND	GM/Jard. Indu	GM/J-IND		GM/HK New	GM/HK New	GM/HK New	GM/HK New														
Chiang, B.Y					*Singapore					*	JMH Sing-	JMH Sing-	JMH Sing	Singapore												
Chu, DYL										GM/HK Proper	GM/HK Proper	GM/HK Property														
Collins, JM					GM/Head	GM/			AD/HK TRANS	AD/HK TRANS	AD/HK TRANS	AD/HK TRANS	AD	HK, DIR												
Collins, PJ							*Singapore		GM/HK Tradin	GM/Saudi Ara	AD/ME	AD/HR	D	ED	ED		ED, DIR JardF	ED, DIR AP R	ED, DIR, AP R	ED, DIR, HK	ED, DIR, HK		ED			
Cortez, GE										*																
Courtauld, WM							GM/Singapore		AD/HK	AD/HK	AD/HK	AD/HK Mktg.&	AD	HK, DIR	HK, DIR		DIR, HK Bd									
Denning, RJ									GM/HK Tradin	GM/HK Tradin	GM/HK Mktg.&	GM/HK Gr	Head Of													
Dickinson, B					ED	ED	ED		ED	ED	ED	ED	ED													
							JMH			JMH	JMReg H	SEA Reg	SEA Reg													
DouglasWithers, JKI				AD/PRSNL	AD/PRSNL	AD/PRSNL																				
Downey, WJ		ED	ED	ED	ED	ED	ED	ED	ED	ED	ED	ED	ED													
Eades, JM									GM/HK Mgmt	GM/HK Mgmt	GM/HK Mgmt	GM/HK Mktg &Dist														
Edwards, NT											JM EU															
Farrall, D.												GM/HK Eng &Cons														
Fiddian-Green, C W,					ED	ED	ED	ED	ED	ED	ED	ED														
											Rennies SA	Rennies,SA														
Fordwood, JI											GM/HK Res	GM/NA		JM North America												
Friend, RV				GM/Trading	AD/MKTG	AD/MKTG	AD/MKTG		AD/HKTRAD	AD/HKTRAD	AD/HKMKTG	AD/HKINTL	AD													
													SEA Reg	Office												
Gerard-									AD/HKPRSNL	AD/HKPRSNL	AD/HKPRSNL	AD/HKPRSNL														
Giddings, HC											JM(Orient)	JM(Orient)														
Goddard, SDI												Indonesia														
Godfray, JV										*																
Graham, DP				GM/Raw Mate	GM/Thailanl	GM/Thailand																				
Grant, IFH		ED	Resigned																							
Gunn, RH												Indonesia	Indonesia	Indonesia			JM EU	JM EU	JM EU	JM EU						
																	Indonesia	Indonesia								
Guntur, H										*																
Hardy, C				GM/Ship Mgm	GM/Ship Mgm	GM/Ship Mgm	GM/SHIPMGT/	Ship MGM/SF	GM/HKSHIPP/	GM/HKSHIPP/	GM/HKTRAN/	HK Trans&Serv														
Harley, TT				AD/INS	AD/HQ		AD/HQ		AD/INS	AD/INS	AD/HQ															
												JM EU	JM EU	JM EU	JM EU											

Chart 54: Jardine, Matheson & Company, Succession Planning and Management Development, 1972-1996

Organization		6500		17,000	30,000/21,00(	30,000/46,00(	36,000/49,00(	41,00/50,000	43,000/50,00(	43,000/50,00(	37,000/37,00(	15,000	39,000/43,00(	39,000/18,00(	39,000/18,00(	35,000/19,400		25,000/76,00(	25,000/83,000					200,000			
		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Haskamp,WH						GMU-IND/Jarc	GMU-IND/Jard Industries																				
Hastings-Bass													JM China	JM China	Beijing												
Heenan, DA												Theo Davies	Theo Davies	Theo Davies	Theo Davies	Theo Davies		DIR JardPac	Theo, Davies	DIR, AP Reg	Theo Davies	Theo Davies	Theo Davies				
Herries, SirM	Chr Far East	Chr Mathesor	D	D	ED				ED	ED	ED	ED		ED	ED	ED		ED									
Heywood,JA			ED	ED	ED	ED	ED	ED	Dep MD	Dep MD	MD	MD															
Ho, G											ED	ED	ED	ED	ED	ED		ED	ED		ED	ED	ED	ED	ED	ED	ED
Holloway, RG										GM/JP/	GM/JP/	GM/JP/	GM/JP/		JM Wines & S	JM Wines & Spirits											
											*				Jard Wines&S	Jard Wines &Spirits											
Hsu, HY			D	D	ED				ED	ED	ED	ED															
Huang, WWY										GM/HK/HK Ne	GM/HK/HK Ne	GM/HKENG/H	GM/HKENG/HK Eng. & Cons.													PRC	PRC
Hutt, EJV			ED	ED	ED	ED		ED	ED	ED	ED	ED	ED	ED						ED							
Jardine, JM											*				Shanghai												
Johnstone,RD					AD/CONSUM	AD/TRAD																					
Keswick, S				ED	ED	ED		ED, Matheson	ED	ED		ED	MD	Chr,MD	Chr, MD	Chr , MD		Chr	Chr		ED	ED	ED	ED	ED	ED	ED
Keswick, SirJ		Chr	D	ED	D					ED		ED								ED							
Keswick,H		Sr MD	Chr		Chr MD	Chr , Matheson &			ED	ED		ED		ED	ED	ED, DIR Matheson		ED	ED, DIR Math	Chr	Chr	Chr	Chr	Chr	Chr	Chr	Chr
Keyes, MP					AD/REG	AD/REG	AD/REG																				
Kwok, RC			ED	ED	ED	ED		ED	ED	ED	ED	ED	ED	ED	ED, HK DIR	ED, HK DIR		ED,JardPac&I	ED,DIRJardP	ED, DIR Ap, F	ED, DIR HK	ED	ED	ED	ED, DIR , HK	ED, DIR, HK	ED
Landale,DWN			ED	ED	ED	D, Matheson &																					
Lawson,JH											*																
LeF Edwards, DC			ED	ED	ED	ED	ED	ED																			
Ling, ECM											GM/HKHQ/HK	GM/HKHQ/HK	GM/HKHQ/HK	Chr Office	HK, DIR	HK DIR		HK, DIR									
Lo, KF										GM/HKINS/HK	GM/HKINS/HK	GM/HKFI/HK F	GM/HKFI/HK Fin Serv							Guangzhou							
Louie,JC					GMU-ENG/Jar	AD/HKHQ	AD/HKHQ	AD/HKHQ		AD/HKHQ	AD/HKTRAD	AD/HKENG															
Lukban,JP											*																
Macdougall, PL								AD/PRSNL	ED	ED	ED	ED	ED	ED	ED												
Mackay,BH											Indonesia		JM (Taiwan)	JM(Taiwan)													
Magnaye,BS											*																
Mathew,DC											JM China																
McCallum,A												JM Taiwan															
McKenzie, GJ					AD/TOK	AD/REG	AD/REG	AD/REG		AD/HKINTL	AD/HKINTL	AD/HKINTL	AD/EU														
McLeod,DDB				ED	ED	ED	ED	ED	Dep MD	Dep MD	MD	MD	Dep.Ch, MD														
Michell,RDP											JM JP	JM(JP)	N E Asia		HK, DIR	HK, DIR		DIR JardPacReg Bd			Jard Davies P	Jard Davies P	JardDaviesPH	JMSEAsia, Sing			
Mitchell, RDP					AD/TRAD	ED	ED	ED	ED	ED	ED	ED	ED	ED	ED, HK DIR	ED, HK DIR		DIR, HK Bd	DIR JardPacF	DIR AP Reg (	Jard Davies F	Jard Davies PH					
Moore, RE				ED	ED	ED	ED	ED	ED	ED	ED	ED	ED	ED	ED	ED		ED,JardPacR	ED,DIR JardF	ED,DIR, AP R	ED, DIR HK	ED, DIR, HK	ED,DIR HK	ED			
Morris, DA												AD/HKENG	AD/HKENG	AD		HK DIR											
Morrison, AG						GMU-ENG/Jar	GMU-ENG/Jar	GMU-ENG/Jard Industries		GM/PH/	GM/PH/	GM/PH/	GM/EU/	AD	HK, DIR	HK DIR		DIR, JardPacF	DIR AP Reg (	DIR AP Reg (	HK Land	HK Land	HK Land	MD DIR,HK	MD,DIR, HK	MD,DIR, HK	MD, DIR, HK
Murray, S					GM/TRAD/Tra	AD/J-ENG	AD/J-ENG	AD/J-ENG																			
Nanjo,K						*JP					*																
Nevill, PAC										GM/HKTRAD/	GM/HKTRAD/	GM/HKINTL/H	GM/HKINTL/HK-														
Newbigging, DK		MD	MD	MD	MD	Chr SMD	Chr,SMD	Chr SMD	Chr DMD	Chr SMD	Chr SMD	Chr SMD	Chr SMD					and HK Board									
Nightingale, AJL										GM/JP/JP	GM/JP/	GM/HKHQ/HK	AD/ME	AD	Olayan Saudi	Olayan Saudi		DIR, JardPacF	DIR, AP Reg (	DIR, AP Reg (	Jard Pac	JardPac	JardPac	ED	ED, DIR, HL	ED,DIR, HK	ED
Osborne,K											*																
Paice,PJ										GM/HKTRAD/	GM/HKTRAD/	GM/HKMOT/H	GM/HKMOT/HK-														
Partridge,RM					GM/AIR/Airway	GM/AIR/Airway	GM/AIR/Airway	GM/AIR/Airways Div																			
Pearse,JRS																											
Pickup,MH				ED	ED	ED	ED																				
Po,P											*				Guangzhou	Guangzhou		Guangzhou			Beijing	PRC	PRC	PRC			
Polk, RB					AD/TH	AD/LON	AD/LON	AD/LON		AD/AU	AD/AU	AD/AU															
Powers,BM																ED		MD,DIRJardP	ED, JardPac&HKBd								
Rendall, TM											GM/FI/HK Fin	GM/HKFI/HK F	GM/AU/Australia														
Rich, NMS						GM/HQ/Head	GM/PH/South	GM/PH/		AD/PH	AD/PH	AD/HKHQ	AD/PROP	ED	ED	ED		DIR, JardPacF	MD, DIR , AP F	MD,DIR, AP R	MD,DIR HKBd	MD, DIR HKB	MD,DIR HKBd				
												GM/PH/	GM/PH/														
Russell, AW																											

Chart 54: Jardine, Matheson & Company, Succession Planning and Management Development, 1972-1996

Organization	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
	6500		17,000	30,000/21,00(	30,000/46,00(	36,000/49,00(	41,00/50,000	43,000/50,00(	43,000/50,00(	37,000/37,00(	15,000	39,000/43,00(	39,000/18,00(	39,000/18,00(	35,000/19,400		25,000/76,00(	25,000/83,000					200,000			
Sherrard,sP												JMH	JMH				JM JP									
Smith, M.M				AD/J-ENG	ED	ED	ED	ED	ED	ED	ED	ED														
Sommerville,						GM/INS/Insura	GM/INS/Insurance		AD/HKINS	AD/HKINS	AD/HKFI	AD/HKFI		Lombard Insu	Lombard Insurance											
Spence,JM										GM/HQ/HK Of	GM/HKFI/HK F	GM/HKHQ/HK Office														
Sutton, R C				GM/J-PAC/Jar	AD/J-PAC	AD/HON	AD/USA	ED	ED	ED	ED	ED	ED	ED	ED		DIR,JardPacF	DIR, AP Reg	DIR, AP Reg	JM Australia	JM Australia	JM Australia	JM Australia			JM Australia
Swain,MB												GM/HK/HK-														
Tam,KL					GM/SERV/Ser	GM/SERV/Ser	GM/SERV/Serv		GM/HKFI/HK F	GM/HKFI/HK Finance		GM/HKFI/HK Fin. Serv.														
Vorster,EG					ED	ED	ED	ED	ED	ED	ED															
Wearmouth, CC											GM/HKSEA/SE	GM/ME/														
Westinghouse,TA										GM/HKINTL/H	GM/PH/	GM/PH/	AD													
Wigan, D												GM/HKCH/HK-China Trade														
Wilson, RB											JM(Thail)	JM (Thailand)		Jard. Davies, I	Jard. Davies PH			Olayan Saudi				JM Malaysia	JM Malaysia			
Wong, MCH										GM/HA/Hawai	GM/HA/Hawai	GMHKFI/HK Fin. Serv														
Yasuda, H											AD/HKINTL	AD/JP	AD	JM JP	JM JP		DIR, JardPacF	DIR., AP Reg	DIR AP Reg.	JM JP	JM JP	JM JP	JM JP	JM JP	JM JP	JM JP
Yau, TW				GM/SHIPAG/S	GM/SHIPAG/S	GM/SHIPAG/S	GM/SHIPAG/S	GM/SHIPAG																		
Young, KW				GM	GM	GM	GM		AD/HK	AD/HK	AD/HK	AD/HK	AD													

Chapter 8: Organizational Learning and Innovation – Strategic Audit of the Firm and the Industry

Introduction

The contribution of Chapter 8 to the architecture of this study was noted in Chapter 1, Section 2, specifically: To support a Resource-based interpretation of resource/services choices based on capabilities, the management of uncertainty, the development of external insight and continued organizational learning, Chapter 8 looks at the history of strategic management at Jardine, at four breakpoints – 1832, 1885, 1977 and 1996.

As Brian Loasby has noted, "Human action is often the result of human design; but human design is inherently fallible, however secure its logic, since it is based on knowledge that is usually incomplete or erroneous."[165] Humans and their organizations respond to uncertainty using coping strategies, the strict observance of routines and decision rules, the building of reserves and the generation of alternative institutions and artifacts on which future decisionmaking will be based. Loasby reasons, "on observing the outcomes they may select among them, according to the theories by which they impute causality and their criteria for what is desirable.... These ex post selections may lead to the generation of further hypotheses, sometimes...in a closely coupled way. Such evolutionary processes are likely to be an effective means of progress, though not always an improvement in terms of human welfare."[166]

Hence, each of the chosen years finds the firm in a different industry, with different competitors. The resulting maps reveal the extent to which business models were changing, geographic boundaries were changing or disappearing, new competitors were emerging and new relationships were changing competitors into collaborators for survival and advantage in Hong Kong and the ASEAN.

- 1832, the year the firm was formally constituted. As discussed in Chapter 4, the firm was descended from a line of partnerships unbroken since 1810;
- 1885, the year the firm's accounts begin to show significant investments in manufacturing, mines and railroads;
- 1977, at the height of the Exploit and Develop period;
- 1996, during the Focus on Distinctive Capabilities period.

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165 Brian J. Loasby, "The Evolution of Knowledge," DRUID Conference, Aalborg, May 11, 2001, p. 4.
166 Ibid. p.6.

The chapter is based on the notion that auditing the past can provide insight and lead to a better understanding of current knowledge. However, no reasonable attempt can be made to deduce fresh knowledge, to predict future decisions or future outcomes, because information is incomplete and ambiguous and judgments made on the basis of this information possibly erroneous.

As Loasby points out, "The difficulty of putting boundaries around the capabilities of individuals and organizations and the ambiguity of their range of application is a prominent theme of Nelson & Winter and underlies Penrose's emphasis on the need to perceive by non-logical means, how resources may be directed towards productive services." [167]

Given the foregoing caveats, can one justify the notion of auditing the past? Knight provides the best support for this approach, when we says, "in order to live intelligently in our world...we must use the principle that things similar in some respects will behave similarly in certain other respects even when they are very different in still other respects." [168]

Again, back to Loasby's argument, "If we succeed in making new connections which constitute new knowledge, these connections will provide us with new rules and routines, releasing cognitive capacity for new applications, as in Penrose's (1959) conception of the use of the receding managerial limit."[169]

Therefore, we go forward with this audit in the hope of shedding light on the changing characteristics of the marketplace and the opportunities they presented, as Jardine, Matheson might have perceived them, including their impact on relationships, organization and capabilities. .

Chapter 8 is organized into three sections as follows:

Chapter 8: Section 1: Strategic Audit of the Environment and the Industry 1832-1996 begins with a series of questions aimed at identifying Jardine, Matheson's principal external relationships with suppliers, customers and competitors, and how those relationships changed over time.

Chapter 8: Section 2: Strategic Audit of the Firm, Jardine, Matheson & Company. 1832-1996 considers how Jardine, Matheson's capabilities have been deployed in the firm's chosen markets, how appropriable were their returns, and the extent to which the firm's capabilities changed over time to meet changing business needs.

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167 Brian J. Loasby, ibid., p. 11.
168 Frank H. Knight, Risk, Uncertainty and Profit, ibid., p. 206
169 Idem, p. 10-11.

Chapter 8: Section 3: Implications for Learning and Innovation considers the change in value and use of resources and capabilities over time to detect human action, intention, and perception of possibilities

Chapter 8: Section 1: The Strategic Audit of the Environment and the Industry, 1832-1996

The Audit Questions and Answers

The answers to a standard set of questions, proposed by John Kay[170] and comprising a "strategic audit of the industry," enable the identification of environmental factors as well as the firm's principal external relationships with suppliers, customers and competitors, to see how advantage established in the markets in which it competes and to assess how these factors are likely to evolve.

A few terms used in the audit require some definition:

- The **industry** is defined as a group of firms producing technically related products.
- The **strategic group** is composed of firms that adopt similar strategies and hence see themselves as in direct competition.
- A **resource** is what a company needs to have to perform its capabilities. That is to say, behind every distinctive capability, there is a resource or team of resources. Resources can be tangible (human, physical assets, capital) or intangible (brands).
- A **core competence or capability** is what a company needs to do in order to achieve its unique strategic positions. Capabilities and competencies perform. By nature, they reside within people.
- A **distinctive capability** is what a company needs to have in order to offer a differentiated value to the market.
- **Added value** consists of the reserve financial assets a company develops to adapt to changes in its environment and sustain its ability to compete.
- **Reputation** is a distinctive capability; a name for high quality characteristics that cannot easily be monitored; enables contracts to be made or made on better terms than would otherwise be possible.
- **Innovation** is often used to refer to technology, but here it characterizes new products, processes or styles of relationship.

170 John Kay, The Foundations of Corporate Success (Oxford: Oxford University Press, 1996).

- **Architecture** is a distinctive collection of relational contracts the benefits of which typically rest in the development of organizational knowledge, flexibility in response and information exchange within or between organizations.

- A **strategic asset** is a source of competitive advantage derived from factors external to the firm, rather than from it's own distinctive capabilities

The questions included in this audit are:

- What is the industry?
- Which are the major strategic groups? Who are their members?
- What are the principal trends in industry and market?
- Is there a relevant regulatory environment?
- What markets are served? Define as many distinct markets as possible in product and geographic terms.
- What are the key product characteristics, in terms of consumer needs?
- How do consumers learn about these characteristics?
- Define the value chain; include previous and subsequent stages of production.
- What are the main influences on costs at each stage?
- What firms in the industry add value? Construct added value statements and identify marginal players
- Is innovation important? Can it be protected?
- Do firms have internal or external architecture and what specific benefits do they gain from them?
- Are there long-term experience characteristics for which reputation matters? Do such reputations exist?
- Are there strategic assets? What is their origin? Are they durable?
- Define the range of distinctive capabilities which appear in these markets.

- Which firms enjoy them?
- How effectively are they translated into competitive advantage?
- Are these competitive advantages sustainable, appropriable?
- What is the profitability of the marginal firm?
- Is competitive advantage reflected in added value?

The questions and their answers have been put into two grids, **Charts 60 and Chart 61**, following.

Chart 60: INDUSTRY AUDIT – 19TH CENTURY: 1832 AND 1885

	INDUSTRY BACKGROUND	**1832 (I)**	**1885 (II)**
1	What is the industry?	Trading in commodities	Trading in commodities; Investment
2	What are the major strategic groups?	Government trading monopoly Private traders	Private traders; banks; investment groups
3	Who are their members?	East India Company for the monopoly; Jardine, Matheson & Company, Dent & Co. for the private trade	Jardine, Matheson & Co., Butterfield & Swire and some 100 agency houses; London investment houses like Matheson & Company, Hongkong & Shanghai Bank
4	What are the principal trends in industry and market?	Houses of agency, Low working capital: Bills of credit on purchase and sale of goods; insurance of goods during shipping	Investment in China manufacturers and infrastructure; wealth through investment in raw materials, mines
5	Is there a relevant regulatory environment?	Opium Commissioner H.M. Superintendent of Trade	Treaty Port System, Treaty Commissioner
	Demand and Markets		
6	What markets are served, in product and geographic terms?	Opium – Canton and coastal Cotton – Canton Tea – Great Britain Silk – Great Britain and Europe	China: 15 treaty ports London: Investors

	INDUSTRY BACKGROUND	1832 (I)	1885 (II)
7	What are key product characteristics (in terms of consumer needs, not producer technology)?	Tea must be kept dry and suffers if on the ocean a long time; faster arrival times from Canton to Mincing Lane a plus. Tea has many grades; clientele has sophisticated tastes. Silk has many grades; silk culture impacted by weather and disease. Some high quality not always available. British cottons of limited appeal, but market required to off-load excess manufactures Opium is illegal and sale suffers when government enforces anti-smoking laws	China: Cottons – Treaty Port System assuring more purchases of British cottons, but Chinese textile firms opening with joint venture money from Western agency houses; Railroads mines – investments and loans to government through agency houses and banks Japan: Cotton and silk factories opening with joint venture money from Western agency houses. London: All tea and silk through private trade
8	How do consumers learn about these characteristics?	Local newspapers. Co-Hong merchants in Canton; agents in Great Britain	Local newspapers; Agents in treaty ports,
	Costs and Value		
9	What is the value chain, including previous and subsequent stages of production?	Suppliers in India ->private receiving ship to Canton -> Sell to Co-Hong in Canton, (offer financing) purchase teas, silks on behalf of London, Glasgow, West Indies clients (offer financing, insurance) -> private clipper ship to West Indies, London, Manchester-> sell teas, silks; buy spices, tin, steel, textiles (to sell on consignment)	Suppliers in India, Japan, Singapore, Malaysia ->private steamship to one of 15 treaty ports –>sell to merchants at the treaty port, purchase tea, silks -→private steamship to London → purchase steel, textiles (to sell on consignment)
10	What are the main influences at each stage?	From India to Canton – price volatility, risk of piracy, shipwreck; at Canton, Co-Hong loan default, government restrictions; from Canton to London – weather, price volatility	From India, Japan, etc. supply insufficiency, price volatility; at the Treaty Ports, tariff regulation; at London, angry merchants wanting to offload more textiles on China market.
11	Which firms in the industry add value?	Garden, Matheson Dent & Company	Jardine, Matheson Butterfield & Swire Finlay & Company E.D. Sassoon
	Distinctive Capabilities and Strategic Assets		
12	Is innovation important? Can it be protected?	Innovation in speed, routes, communication essential.	When business model is changing, innovation is the only way to capture value
13	Do firms have internal or external architecture and what specific benefits – information flows, flexibility of response, organizational knowledge – do they gain from them?	Firms have agents in supply and demand markets for trade as well as information flow.	Same as earlier – except more markets opening – Japan, Malaysia, Siam, Borneo.
14	Are there long-term experience characteristics for which reputation matters?	Sound financial management is essential	Same as earlier, but relationships with government insiders and would be insiders critical. Traders became ASEAN

	INDUSTRY BACKGROUND	1832 (I)	1885 (II)
15	Do such reputations exist?	Yes, but rare in the private trade. Speculation caused demise of houses like Palmer & Co., Dent & Co., among others.	Yes, again rare in the private trade. Competition with banks on reputation for investment capital.
16	Are there strategic assets?	No.	Yes, the Treaty Port System; railway contracts; shipping routes
17	What is their origin – incumbency, cost structure, and regulation?	N/A	Regulation – Treaties guarantee trade and line-of-sight duties; government contracts for railways; Far East Shipping Conferences for shipping routes and commissions.
	Competitive Advantage		
18	What is the range of distinctive capabilities, which appear in these markets?	Architecture – feet on the ground in major markets; innovation –speed, new routes, new sources, communications; reputation – sound financial management, excellent credit, influence in London and/or China	Architecture – same as earlier BUT includes access to London investors; Innovation same as earlier BUT includes working the value chain to competitive advantage; Reputation – increasingly important to work with Chinese bureaucracy
19	Which firms enjoy them?	Architecture – Jardine, Matheson; Dent & Co.; Palmer & Co. Innovation – Jardine, Matheson & Co., Russell & Co. (American) Reputation – Jardine, Matheson & Co.	Innovation – Sassoon & Co. – Offered production credits to opium suppliers and captured opium advantage; Butterfield & Swire, bought Russell & Co., and captured shipping advantage; Reputation – Jardine, Matheson & Co., Hongkong & Shanghai Bank
20	How are they translated into competitive advantages?	More agents, more overall trading business	More Chinese government contracts; more London investors in raw materials, mining contracts
21	Are these competitive advantages sustainable, appropriable?	Yes, until there is a change in the business model – for example, Sassoon's achieved competitive advantage by offering production advances to Indian suppliers.	Yes, until there is a change in the business model. For example, competition in risks from banks, like Hongkong & Shanghai Bank; competition in shipping from Butterfield & Swire after vertical integration of American shipbuilder Russell & Company
22	What is the profitability of the marginal firm?	Binney & Co., Madras (founded 179) – .2 million (coffee plantation)	Henderson & Co., Singapore (founded 1856) – 1.46 million (jute, paper)
23	Is competitive advantage reflected in added value?	Not necessarily. It was the practice of many early firms that partners remove their money when they retired from the business.	Yes. Competitive advantage would increase the amount available for investment and loan, hence Jardine, Matheson's investments in the Hongkong & Shanghai Bank, sugar, warehouses, cold storage and other firms, as well as its absorption of 26 million in railroad loans suggest extraordinary competitive advantage.

Chart 61: INDUSTRY AUDIT – 20^{th} CENTURY: 1977-1996

	INDUSTRY BACKGROUND	1977 (I)	1996 (II)
1	What is the industry?	Trading in commodities	International brand representatives
2	What are the major strategic groups?	Traditional commodities specialists Commodities generalists	Multi-industry conglomerates
3	Who are their members?	Traditional commodities specialists: S&W Berisford, Booker McConnell, Daigety, James Finlay and service: Inchcape, Sime Darby; Single country or single product: Steel Brothers, United City Merchants, Wood Hall Trust. Generalists: Jardine, Matheson Gill & Duffus, Harrisons & Crosfield, S. Hoffnung	Swire Pacific, Hutchison Whampoa, First Pacific, Wheelock, CITIC
4	What are the principal trends in industry and market?	Investment in Hong Kong Internationalization China Entry	Intermediary role to Asian trade has faded but still vital to franchises with equity involvement Investment in China manufacturers and infrastructure Service business focus
5	Is there a relevant regulatory environment?	Liberal government; low corporate tax rates; some protectionism in Singapore, Indonesia.	Takeover Code in Hong Kong; China government approval of joint venture partners.
	Demand and Markets		
6	What markets are served in product and geographic terms?	Hong Kong – Supplier of manufactures; entrepot; property market S.E. Asia – Raw materials, manufactures, engineering and construction contracts Europe – source of manufactures for sale to China North America – source of manufactures for sale to China South Africa – Raw materials; textiles	Hong Kong – Property N. E. Asia – market for merchant banking, luxury autos, business services S.E. Asia – market for business services, franchise Australasia – market for business services, franchise N. America – market for insurance, merchant banking Europe – market for property development, instance, merchant banking
7	What are key product characteristics (in terms of consumer needs, not producer technology)?	Could be anything at all, from noodles to missiles	Luxury goods and services – Automobiles, hotels with international brand names Franchises – Consistent, recognizable quality Supply chain management – Transportation Merchant Banking and Insurance – international Brand names
8	How do consumers learn about these characteristics?	Extensive local advertising	Extensive trade advertising

	INDUSTRY BACKGROUND	1977 (I)	1996 (II)
	Costs and Value		
9	What is the value chain? Including previous and subsequent stages of production?	Using steel as an example, raw materials by Liberian vessel (Jardine owned ship) ->blast furnace or manufacturing site (Jardine, Matheson associated firm)->intermediate goods (steel ingots) by Liberian vessel (Jardine owned ship) or road transport vehicle (Jardine owned) -> industrial client	Using transportation services as an example, Jardine Ship Management arranges warehousing, documentation, financing and insurance for IKEA furniture manufactures bound for Singapore->ship arranged with Rennies & Safmarine, South Africa, ship owners -> furniture warehoused at Jardine container freight station, Singapore facility->carried by Jardine truck to IKEA outlets, Singapore, franchise held by Jardine, Matheson
10	What are the main influences at each stage?	Raw material prices->unused capacity at blast furnace, product mix issues-> freight transportation commission rates (depends on overall ships capacity)-> industrial client accepts shipment and pays. Payment can be 2 years out.	Total volume to be shipped = commission fees charged; financing and insurance = interest rates ->ship chartering fees->warehousing fees->ground transportation fees->% of each sale benefits franchisee
11	Which firms in the industry add value?	From added value table: Jardine Matheson – 14% Sime Darby – 10.6% James Finlay – 8.3% Inchcape – Profit 6.1% Harrison's & Crosfield – 3.4%	From added value table: CITIC – 55% (but issuing shares) Jardine, Matheson – 22.40% Swire Pacific – 22% Hutchison – 20% First Pacific – 22% Wheelock – 19%
	Distinctive Capabilities and Strategic Assets		
12	Is innovation important? Can it be protected?	Innovation – finding ways to increase profit margin. Of competitors, Jardine, Matheson had highest profit margin—14% on a sale because of its value capture. First shipping company in Asia Pacific to adopt cellular telephone use	When business model is changing, innovation is a way to re-capture value – at another stage of the value chain.
13	Do firms have internal or external architecture and what specific benefits – information flows, flexibility of response, organizational knowledge – do they gain from them?	Feet on the ground essential – 50,000 employees	Feet on the ground essential – 200,000 employees.
14	Are there long-term experience characteristics for which reputation matters?	Sound financial management is essential.	Same as earlier, but relationships with government insiders and would be insiders critical.

	INDUSTRY BACKGROUND	1977 (I)	1996 (II)
15	Do such reputations exist?	Yes. Inchcape, Butterfield & Swire have such reputations	Yes. But China approval is a more useful reputation – hence CITIC and Hutchison Whampoa, part of the Cheung Kong group, which has substantial China support.
16	Are there strategic assets?	First mover advantages in ASEAN markets after ASEAN; Far Eastern Shipping Conferences; Hong Kong government contracts and licenses	Some first mover contract advantages in China.
17	What is their origin – incumbency, cost structure, and regulation?	Incumbency and regulation.	Incumbency, willingness to invest in China for less or diminishing ownership.
	Competitive Advantage		
18	What is the range of distinctive capabilities that appear in these markets?	Architecture – feet on the ground in major markets; innovation – speed, new routes, new sources, communications; reputation – sound financial management, excellent credit, influence in London and/or China	Architecture – same as earlier BUT includes access to London investors; Innovation – same as earlier BUT includes working the value chain to competitive advantage; Reputation – increasingly important to work with Chinese bureaucracy
19	Which firms enjoy them?	Jardine, Matheson, Butterfield & Swire, Wheelock Marden	Swire Pacific, Hutchison Whampoa, CITIC, First Pacific, Wheelock, and Jardine Matheson
20	How are they translated into competitive advantages?	More agents, more overall trading business	More Chinese government contracts; more London investors in raw materials, mining contracts
21	Are these competitive advantages sustainable, appropriable?	No, sustainability means constant change, because over dependence on a single market or single sector of the economy can be fatal. Exchange rate risk limits appropriability.	Same as earlier period. However, concentration on services, a few international brands and franchises increases profits attributable.
22	What is the profitability of the marginal firm?	1.9% S&W Berisford	Wheelock – 6.94%
23	Is competitive advantage reflected in added value?	Yes.	Yes, although profitability and added value have a misleading relationship. For example marginal firm Wheelock has high added value because of divestments but profitability is low.

The Environmental and Industry Audit Comparison – 1832-1885; 1977-1996

Industry Background 1832-1885

As shown in **Chart 60.I. 1** the industry in 1832 was trading in commodities, largely carried on by the British East India Company, which had for two centuries dominated trade, raised armies, minted money and demolished nations. It was the operational arm of Britain in China, Australia, India and the American colonies. Trade outside of the East India Company's jurisdiction was called the "private trade," and it was largely "business-to-business" or "merchant-to-merchant." The relationship between government monopoly and private trade was symbiotic: a portion of the cash raised by the private trade financed the East India Company's China tea purchases.

There were two strategic groups at the outset of this study (**Chart 60.I. 2**) – the government trading monopoly and the growing private trade. The early private trade was characterized by independent merchants who, for low working capital, could earn up to 45 cents on commission from every transaction dollar by absorbing the risks of their customers. The wealthier of these merchants through investment or partnerships would integrate forward into shipping, finance and insurance to appropriate more of the value of the transaction.

In 1832, the largest of the private traders, with large teams of agents working on their behalf, were Jardine, Matheson & Company and Dent & Company. Palmer & Company had been the leading competitor, until 1830, when the firm was bankrupted in a speculation crisis. (**Chart 60.I. 3**)

The principal trend in the industry in 1832 (**Chart 60.I. 4**) were the emergence of the agency house with many associated private merchants, and the institutionalization of the group of services which became known as "agency services." While the agency house was primarily a trading firm, through its "agency services," it also acted as banker, bill-broker, ship owner, freighter, insurance agent and purveyor, maintaining a growing network of branch houses and agents. The agency house reduced the entry barriers for would-be traders with low working capital: they could become associated agents. The agency house reduced as well the risks for buyers and sellers – offering credit or insurance at each stage of a transaction for a commission, as depicted in Chapter 5, Commissions Charged by Agents.

The environment for trade in 1832 was volatile (**Chart 60.I. 5**), because Chinese government pursuit of private traders intermittently suspended business activities – and because piracy was an everyday threat.

In contrast, **Chart 60.II. 1** depicts aggressive expansion in the industry by 1885 – the movement beyond trading in commodities to investment, the establishment of an associated investment house as a "free standing company." The investment house was not a repository for trading wealth, but for information about investment opportunities, gained from trading.

The strategic groups (**Chart 60.II. 2**) have changed, the trading firm with associated investment house is now in competition with banks and investment houses, located not in the Far East but in London.

The major members of the strategic group (**Chart 60.II. 3**) are Jardine, Matheson & Company, and Butterfield & Swire – still competing in Far East with a hundred other agency houses – and the London investment offices of Matheson & Company, John Swire & Sons, and the Hongkong & Shanghai Bank.

The principal trends in the industry of 1885 (**Chart 60.II. 4**) are the development of the free standing investment houses, associated with a Pacific or otherwise distant trading firm – and the investment in infrastructure (railroads) and manufactures, raw materials and mines in the Far East, Africa, South Africa, even parts of Southern Europe. Knowledge of investment opportunities and operational management of the mining or manufacturing or railroad project were the roles that fell to the Far East trading company. The associated investment house lined up the investors and offered an "independent" evaluation of the merits of the investment.

The Treaty Port system (**Chart 60.II. 5**) opened markets to dependable trade at fixed tariffs, reducing trading risk and encouraging commerce.

Demand and Markets 1832-1885

In 1832 (**Chart 60.I. 6**), the long list of commodities offered for sale could be reduced to four staples, three of which were legal, two of which were sold to Great Britain and Europe, that is tea and silk; and two sold to the Chinese, cotton and opium, the former at less than cost to keep the machines running in Lancashire, the latter more profitably. The legitimate trading frontier was limited to Canton – the opium trade included the China Coast.

Demand (**Chart 60.I. 7**) was affected by product quality in the case of tea, silk and cotton. Local weather and transport could affect tea quality. Some higher grades were not always available. Tea had to be kept dry and suffered if it was at sea too long. Quality degradation resulted in lower prices paid by London tea buyers.

Silk culture was impacted by weather and disease – and high quality varieties of silk were not always available. Lesser quality silk did not sell.

British cottons were of very limited appeal in China, but required to off-load excess manufactures. The private traders had more success selling Madras cotton to the Chinese.

Opium was illegal and its sale suffered when the Opium Commissioner enforced antismoking laws.

In 1832, buyers and sellers learned about the prices and quantities and anticipated shipments of commodities from trade papers like the Canton Register and the Straits Times – and from the private traders to their suppliers and major customers (**Chart 60.I. 8**). The Co-Hong merchants in China communicated to their clientele.

By 1885, the Treaty Port System (**Chart 60. II. 7**) guaranteed a minimum purchase of British cotton. But the rich agency houses formed joint ventures for textile manufacture in China, as well as cotton and silk factories in Japan. By this time, the agency houses brokered all of the tea and silk sales; the East India Company was long out of the picture.

The investment houses associated with the trading firms brokered the demand for investment opportunities. By 1885, some 35% of British overseas investments were solicited by investment houses associated with trading firms (**Chart 60.II.8**).

Costs and Value 1832-1885

The value chain of the trading firm in 1832 (**Chart 60.I.9**) began with suppliers in India (1), loading goods onto a receiving ship bound for Canton. Payment was made via letter of credit from the merchant's bank. Goods were sold to co-Hong merchants in Canton (on financing terms). In return, teas, silks were purchased on behalf of merchants in London, Glasgow, and West Indies (for finance credit, insurance). Goods were transported via ship to West Indies, London, Manchester, where they were sold, and where tin, steel, textiles, etc. were picked up to sell on consignment.

Each stage of the value chain (**Chart 60.I.10**) had associated risks – from India to Canton, price volatility, risk of piracy or shipwreck; at Canton, loan default on the part of co-Hong merchants, government restrictions on trade; from Canton to London, weather that could slow or damage, and price volatility.

The 1832, firms with a reputation for strong financial management as well as architecture (a long-lasting network of local relationships) added value. The data is insufficient to offer added value statements for 1832. The argument for strong financial management can be made on the basis of leading firm Palmer & Company, whose group capital was $5 million in 1830, the year the firm went bankrupt. (**Chart 60.I.11**)

The value chain looked different in 1885 (**Chart 60.II.9**), because the treaty port markets added to the number of supplier and purchaser markets. Suppliers in India, Japan, Singapore, Malaysia boarded their goods onto merchant steamers bound for one of 15 treaty ports in China. Payment was made via letter of credit from the merchant's bank. Goods were sold to merchants in the treaty ports (on financing terms); tea and silks were purchased for sale in resale in London (for finance credit, insurance). At London, steel and textiles were purchased for resale at the treaty ports (on consignment). The transaction opportunities (and credit financing opportunities) increased as the number of supplier and purchaser markets increased.

In 1885 the supply insufficiency from India and Japan were major influences on value (**Chart 60.II.10**), resulting in higher prices. At the Treaty Ports, tariff regulation was an issue. In London, angry merchants pushed the agency houses to sell more textiles for China.

In 1885, four firms established before 1885 were thriving and adding value, as evidenced in their ability to undertake investments (**Chart 60.I.11**). Group capital estimates for these firms are derived from **Chapter 4, Chart 13**.

- Jardine, Matheson & Company, established in Canton, with 1.72M (1891) – trading, banking, shipping, insurance, cotton, mines, railways;
- Finlay & Company, established in Bombay, with 4.36M (1898) – trading, banking, shipping, cotton mills and tea estates;
- Butterfield & Swire, established in Shanghai, with 4.15M (1900) – trading, banking, harbors and docks, shipping, railways, petroleum;
- E.D. Sassoon & Company, established in Bombay, with 6-7M(1920) – trading, shipping, banking, breweries, cotton mills, tramways. The group capital figure is late, but was the only figure I could find. Nevertheless, the archives of the period indicate E.D. Sassoon had taken over the lucrative opium market as early as the 1860s.
- Note: Dent & Company was no longer in existence in 1885.

Distinctive Capabilities and Strategic Assets (1832-1885)

Innovation – in speed, in routes, in financing and in communications – was important and competitive advantage depended on it (**Chart 60.I.12**). Architecture was essential to what was essentially an inter-firm market, and strong architecture provided the information flow that communicated information about supply, demand and risk conditions (**Chart 60.I. 13**).

A trading firm's ability to broker risks depended on a reputation for sound financial judgment. A very few firms in the industry could charge higher prices because of this reputation (**Chart 60.I. 14 and 15**).

In 1832, other than the British East India Company, trading firms enjoyed no strategic assets, that is to say, owned advantages external to the firm (**Chart 60.I.16 and 17**).

By 1885, the business model had changed, from pure trading house to trading house with associated investment house (**Chart 60.II.12**). Innovation was critical to respond to new opportunities to benefit from investment in fixed assets, from license and contract arrangements. Trading firms put their architecture to work identifying investment opportunities in the supply and demand markers (**Chart 60.II. 13**). The reputation of a trading house and that of an investment house are different, hence the move by trading firms to establish independent "free standing companies" with veto power over investment proposals. Investment houses were headed by members of the trading firm who had gone home to London and had constituencies there – in both the metaphorical and literal sense. Some heads of investment houses were former traders turned ASEAN. Relationships with government as investment partners were critical. (**Chart 60.II. 14 and 15**).

A stunning revelation that the strategic audit permits is the search evident by 1885 for a claim to a fixed, external advantage, evidenced in the Treaty Port System, railway contracts, licensed shipping routes, and fixed assets like gold and tin mines (**Chart 60.II. 16**). Regulation is the origin of these strategic assets: treaties guaranteed trade and line-of-sight duties; railway contracts were supported by government; and what became known as the Far East Shipping Conferences literally amounted to industry self-regulation (**Chart 60.II. 17**).

Competitive Advantage

In 1832, competitive advantage depended on innovation, architecture and reputation (**Chart 60.I.18**). In that year, Jardine, Matheson & Company and Dent & Company enjoyed a breadth and depth of architecture unmatched in the industry. Jardine, Matheson & Company and Russell & Company (the latter an American firm) built innovative new ships, powered by sail, later by steam, for faster access to markets and faster communications. Jardine, Matheson & Company preempted the field in reputation for financial probity (**Chart 60.I. 19**). Firms strong in these distinctive capabilities attracted more agents and more business-to-business trade (**Chart 60.I. 20**). The advantage provided by architecture and reputation was sustainable, because it was built on self-selected business behavior that was also very important to the China market, where long-term relationships were favored over spot contracts (**Chart 60.I. 21**). However, sustainability could be (and was) challenged by changes in the business model: for example, the move from pure commission to advances on future sales that gave Sassoon's the edge.

In 1832, the marginal firm – an individual merchant or private partnership – could appropriate 35% of earnings, with 10% for meager office, warehouse and staff; 55% for cost of goods sold (**Chart 60.I. 22.**)

In 1832, competitive advantage was not necessarily reflected in added value (**Chart 60.I. 24**). It was the practice of many early firms for partners to remove all of their accumulated capital when they retired from the business. So, available financials would give an incomplete view.

By 1885, architecture, innovation and reputation are equally as important as in 1832 – but reputation has become far more important to the accumulation of strategic assets (**Chart 60.II. 18**).

When Butterfield & Swire bought innovative American ship builders Russell & Company, they accumulated the largest fleet in the Pacific and captured the shipping advantage. Jardine, Matheson & Company joined the Hongkong & Shanghai Bank, an advanced its reputation in finance and investment. Both Buttterfield & Swire and Jardine, Matheson & Company were displaced in the opium business by E.D. Sassoon & Company, who offered production credits to opium suppliers and captured the advantage in that industry (**Chart 60.II. 19**).

Reputation translated into more Chinese government contracts in 1885 – and more London investors for raw materials and mining projects (**Chart 60.II. 20**).

The advantage derived from distinctive capabilities was sustainable, so long as firms continued to grow and evolve those capabilities to address changes in the business model. It is obvious from the behavior of firms in 1885 that the acquisition of strategic assets appeared to offer a guarantee of sustainability and appropriability beyond that afforded by distinctive capabilities alone (**Chart 60.II. 23**).

The Industry Background 1977-1996

In 1977, the industry is trading in commodities. (**Chart 61.I. 1**). There were at least two strategic groups, defined by security analysts of the period (**Chart 61.I. 2**):

- Traditional commodities specialists, focused on a single country, single product or service.
- Commodities generalists, including the sogo shosha or general trading companies.

In 1977, traditional commodities specialists included S&W Berisford, Booker McConnell, Daigety and James Finlay.

Generalists included Jardine, Matheson, Gill & Duffus, Harrisons & Crosfield, S. Hoffnung and also Mitsubishi, Mitsui, Marubeni – the latter, Japanese general trading companies (**Chart 61.I. 3**).

The principal trends in the industry were intertwined: the opening of China to trade made investment in Hong Kong, the financial capital of Asia, desirable both on the part of Hong Kong based firms and North American and European firms looking to establish an office close to China. Members of the industry served as intermediaries or consultants to firms seeking an Asian presence (**Chart 61.I.4**).

The government of Hong Kong had a reputation for liberalism and tax rates were low. There was variable protectionism in the ASEAN markets (**Chart 61.I. 4**).

By 1996, the industry had changed dramatically: it is known as the multi-industry conglomerate sector (**Chart 61.II. 1**). The strategic groups are:

- The largest members were Swire Pacific (descended from Butterfield & Swire); Hutchison Whampoa; Wheelock (descended from Wheelock Marden), Jardine, Matheson, First Pacific and the Chinese investment conglomerate, CITIC (**Chart 61.II. 3**).
- The intermediary role to Asian trade is still vital to privileged franchise expansion, but the Pacific trade and distribution (or trade and marketing) segment of the conglomerate's business is one spoke in the wheel of businesses which may be very diverse – telecommunications, infrastructure, aviation, banking, property and development (**Chart 61.II. 4**).
- Under the Takeover Code, Hong Kong would return to China in 1997. The business atmosphere was apprehensive (**Chart 61.II. 5**).

Demand and Markets 1977-1996

In 1977, the trading company was selling on its own account and as an agent of foreign firms. Hong Kong was a supplier of manufactures, a major entrepot for export, import, re-export, and a booming property market. Southeast Asia was a source market for materials, manufactures, engineering and construction contracts. South Africa was a source market for raw materials, textiles, and leather. North America and Europe were a source of manufactures for sale to China – and a demand market for Southeast Asian and South African raw materials (**Chart 61.I. 6**).

Outside of Hong Kong, the industry was business-to-business in 1977 (**Chart 61.I.7**). Commodities traders brokered everything sold to international business customers from noodles to missiles.

Business-to-business communications was largely through Lloyds' List, the respected publication of the commodities and shipping industries, the Financial Times, South China Morning Post, Far East Asian Review, and local advertising (**Chart 61.I.8**).

By 1996, Hong Kong was largely a container port and property market for the conglomerates. Northeast Asia had become a market for merchant banking, luxury autos and business services. Australasia and Southeast Asia were markets for business services and franchises. China was a market for infrastructure investment, manufacturing and privileged franchises. North America and Europe were markets for merchant banking, insurance and property development (**Chart 61.II.6**)

By 1996, the conglomerates had bought the right to sell international brand names in Asia – luxury cars, hotels, restaurants. They owned basic services – transportation, electricity and telephone – or sophisticated business services, international brand names in merchant banking, insurance and aviation. They owned privileged franchises (**Chart 61.II. 7**).

Extensive trade and brand advertising campaigns were launched to support their offerings (**Chart 61.II.8**).

Costs and Value 1977-1996

In 1977, commodities traders, like the early private traders, brokered the whole transaction. Using steel as an example, the trading firm would up the raw product in its own vessel, transport it to a blast furnace or manufacturing site, and pick up the steel ingots or product of manufacture for transport by sea or road to an industrial client (**Chart 61.I. 9**).

Raw material prices might be impacted by unused capacity at the blast furnace – or product mix issues. Freight transportation commission rates depended on ship capacity. By the time the industrial client accepts the goods and pays, perhaps two years have elapsed (**Chart 61, I. 10**).

For the trader, the credit terms he can extend to industrial clients on the one end of the value chain and raw materials producers at the other are a source of his advantage to this market.

In 1977, firms able to profit from the arrangement included Jardine Matheson at 14%; Sime Darby at 10.6%; James Finlay at 9.3%, Inchcape at 6.1% and Harrisons & Crosfield at 3.4% (**Chart 61.I.11**).

By 1996, the value chain has changed. The conglomerate more often than not doesn't have its own ships. Its expertise on behalf of an industrial client may be supply chain management at a distance: arranging warehousing documentation, financing and insurance for international IKEA brand furniture bound for Singapore; ship arranged through Safmarine & Rennies, South African ship owners. The furniture might we warehoused at a container freight station in Singapore, them carried by truck to IKEA outlets. The conglomerate might do all of the supply chain management for franchise business it has an equity stake in (**Chart 61.II. 9**).

At each stage of the value chain there are charges. There is a commission charged on the total volume to be shipped. There are interest rates on any financing and insurance provided. There are ship chartering feeds, warehousing fees and ground transportation fees – and a percent of each sale benefits the franchisee (**Chart 61.II. 10**).

Looking at the largest conglomerates in 1996, CITIC has achieved an added value of 55%, because it issued new shares in 1996. Jardine, Matheson's added value is 22.4%; Swire Pacific's and First Pacific's are both 22%; Hutchison's is 19% (**Chart 61.II. 11**).

The industry and its ability to add value have undergone tremendous change since 1977. And many of the major players are entirely different.

Distinctive Capabilities and Strategic Assets

In 1977, innovation was important, bringing new technology to bear on communications (cell phones, faxes) and logistics (EDI) would for a time provide an advantage to firms on the leading edge of the new technology. But the technology was not proprietary to the trading firm and was easily copied or purchased. Other innovations were more lasting in their impact. Like the particular business model a firm chose (**Chart 61.I. 12**). Architecture was even more important in 1977, because a firm's international business customers were looking for everything they didn't have in Asia – relationships, knowledge, impact and influence (**Chart 61.I. 13**).

In 1977, the long-term experience in Asia of trading firms like Jardine, Matheson, Harrisons & Crosfield, James Finlay and others was a powerful advantage in the eyes of firms looking for knowledgeable agents or strategic partners. Such prospective partners would be looking for long-term profitability and added value as an indication of sound financial management and sustainable competitive advantage (**Chart 61.I. 14 and 15**).

To the extent that first mover advantages can be strategic assets, such existed in the ASEAN after WWII. The Far Eastern Shipping Conferences, still in existence in 1977, erected barrier for new entrants into Asian shipping. There was considerable competition for Hong Kong government contracts and licenses – and all of the old trading companies made sure they had representatives on the Legislative Council, on the board of the Hongkong & Shanghai Bank and among the stewards of the Jockey Club, so they maintained access to information and influence (**Chart 61.I. 16**). The origin of strategic assets was incumbency and influence (**Chart 61.I. 17**).

By 1996, the conglomerates were beginning to be held to the same standards as modern businesses – cash flow analysis, valuation modes, EVA being used to determine the contribution of individual businesses in conglomerate hands, the strength of cash flows and the impact of the holding company or corporate center to add value. Innovative business routines and architecture were important capabilities in 1996 (**Chart 61.II.12 and 13**).

Long-term experience became a double-edged sword in 1996, when an opium past would be held against some of the old trading companies, now conglomerates, wishing to establish joint ventures in China. A strong relationship with China's government was seen as a better reputation to have, evidence the strong positions CITIC, Hutchison Whampoa and Swire Pacific have been able to achieve (**Chart 61.II. 15**).

Some first mover or privileged joint venture contract advantages existed in China in 1996 (**Chart 61.II, 16**). Their origin is incumbency and willingness to invest in China's infrastructure.

Competitive Advantage

In 1977, architecture, both internal and external, was crucial to the general trading company, whose advantage lay in its dense network of inter-firm relationships. (**Chart 61.I.18**). Relationships were important to the specialist commodities traders, and a constant flow of information was essential to both strategic groups.

The Japanese sogo shosha – Mitsubishi, Mitsui, among others – enjoyed these capabilities, as did a few of the old agency houses, like Jardine, Matheson & Company and the Inchcape Group. They distinguished themselves from potential competitors by choosing to follow a very different business model – one very similar to the agency services model, but providing a complete value chain to its industry clients (**Chart 61.I. 18**).

The competitive advantage of the sogo shosha model is its ability to provide credit to primary goods producers and manufacturers.

Chapter 8: Section 2: The Strategic Audit of the Firm, Jardine, Matheson & Company, 1832-1996

The answers to a standard set of questions – again proposed by John Kay and comprising a "strategic audit of the firm" – define the firm's corporate and business strategy.

The questions are:

- What are the firm's distinctive capabilities – reputation, architecture, and innovation?
- What strategic assets does it hold?
- Are there incumbent advantages, licenses or other protection, access to scarce factors?
- What are the relevant markets? Identify the product and geographic dimensions. What are the markets in which its distinctive capabilities and strategic assets are valuable?
- Are there other markets, linked to these by scale or scope economies, which it pays to serve even if there is no direct competitive advantage?
- What competitive advantages are derived from these distinctive capabilities? Over whom?
- How do industry conditions affect the translation of competitive advantage into added value?
- Relate added value to share-price/cash-flow performance?
- Review the sustainability and appropriability of competitive advantage
- Does the firm's distinctive capability dictate its market positioning? If not, review positioning relative to competition
- Is the competitive environment stable or unstable? Can stability be increased?
- In a stable environment, review industry pricing policies and rules
- In an unstable environment, review pricing strategies relative to competition
- Are economic markets as fully segmented as possible?

- How do customers obtain information in the principal markets?
- Can reputation/brands be extended and where?
- What functions do brands serve in these markets?
- Review sustainability of brands/reputations and evaluate relative to competitors.
- Define principal relationships with suppliers/distributors
- What is the relationship to market structure?
- Is added value defended from customers and suppliers?
- How do vertical relationships divide risks create incentives and protect against opportunism?
- What is the appropriate contract style – relational, classical or spot?

These questions and answers are laid out in **Charts 62 and 63**, below.

Chart 62: FIRM AUDIT – 19th CENTURY: 1832 and 1885

	FIRM	1832 (I)	1885 (II)
	CORPORATE STRATEGY		
1	What are the firm's distinctive capabilities?	Architecture – 50 agents on the ground in major markets; innovation –speed – 12 clippers, new routes, coastal; communications – management letters; reputation – sound financial management, excellent credit, member of Parliament in Great Britain.	Architecture – 150 agents on the ground; access to London investors; Innovation – steam ships replaced clippers; Reputation – Member of London Advisory Council and Board of Hongkong & Shanghai Bank. Strong relationship with Chinese government
2	What strategic assets does it hold? Are there incumbent advantages, licenses or other protection, access to scarce factors?	U.K. government protection: From Napier to Palmerston. First Opium War and cessation of Hong Kong largely the result of a campaign of British merchants organized by Jardine, Matheson.	In China, government railway development contracts shared with Butterfield & Swire in the name of th British and Chinese Corporation
3	What are the relevant markets in terms of product and geographical dimensions?	Canton/Macau – Buy tea, silk; pay through opium, cash India – Buy opium, pay through bills of credit Great Britain – Buy cotton, pay through bills of credit; sell tea, silk London – Influence	1 Treaty Ports in China – Purchase of tea, silk; sale of cottons Treaty Port in Japan – purchase of silk London – Influence
4	What are the markets in which its distinctive capabilities and strategic assets are valuable?	Same as relevant markets.	15 Treaty Ports in China Treaty Port in Japan London

	FIRM	1832 (I)	1885 (II)
5	Are there other markets, linked to these by scale or scope economies, which it pays to serve even if there is no direct competitive advantage?	East Indies – Source of commodities Ceylon – Being built into buy/sell market with Chinese labor Australia – being built into buy/sell market with Chinese labor	Treaty territories like Singapore, Straitts, Malaysia, Siam, Borneo – tin, rubber, petroleum, gold investments
6	What competitive advantages are derived from these distinctive capabilities? Over whom?	Architecture – More agents than Dent & Co., largest competitor Innovation – Faster ships than Dent & Co. Reputation – Sound finance; Dent & Co., Palmer & Co., major competitors, succumb to credit crises	Architecture – Fewer agents than Sassoon & Co., lead competitor in opium Innovation – Rivals with Butterfeld & Swire in steamship wars with Japanese Reputation – Jardine, Matheson preeminent in Hong Kong and London.
7	How do industry conditions affect the translation of competitive advantage into value added?	Trading firms operated mostly on commission. Capital requirements were low. Competitive advantage was very appropriable	Same at earlier, but added value, accumulated I period 1 enabled Jardine, Matheson to establish textile manufacturing, sugar milling and warehousing Facilities.
8	What is the relationship of added value to share price/cash flow performance?	With working capital low and purchases on bills of credit, the firm that adhered closely to a commission business could put aside up to 46% of a transaction (minus actual shipping and carrying costs)	Based on firm and partner data in 1875, added value was 40% of overall turnover.
9	How sustainable or appropriable is competitive advantage?	Operating on a commission basis, competitive advantage was wholly appropriable to the trading firm.	Operating on a commission basis, competitive advantage was wholly appropriable to the trading firm. With the business model changing to a loan/investment basis, there was greater risk of when governments were involved.
	Business Strategy		
	Pricing and Positioning		
10	Does the firm's distinctive capability dictate its market positioning?	Yes. Relational contacts are important to all stages of the value chain; buyers and sellers alike trust a firm with a solid reputation; innovation essential to capturing more opportunity.	Yes. Reputation is responsible for government contracts and investor capital.
11	If not, review positioning relative to competition in a stable environment, review-pricing strategies relative to competition.	Jardine, Matheson was able to charge more for shipping services because of its reputation.	N/A
12	Is the competitive environment stable or unstable?	Unstable – Speculation and reliance on credit has undermined firms. Information access has been an important differentiator.	Stable – Trading competitors more firmly grounded in commission business.
13	Can stability be increased?	Yes.	No.
14	Are economic markets as fully segmented as possible	No, because Imperial government limitations on trade prevail.	No, because access to China and Japan is through Treaty Ports only.
	Branding and Advertising		

	FIRM	1832 (I)	1885 (II)
15	How do customers obtain informatio in the principal markets?	The trade, including the Co-Hong has the Canton Register for product, pricing information.	Lloyds List and local circulars.
16	Can reputation/brands be extended, and where?	London	Ceylon, Australia, Malaysia, Siam, Borneo through trade and/or investment
17	What functions do brands serve in these markets?	The trading company is the brand.	The trading company and the investment house are separate brands targeted at different audiences.
18	What is the sustainability of brands and reputation and evaluate relative to competition.	Reputation is important. Jardine, Matheson's reputation for sound finance has given it a 2/3 lead over competitors.	Reputation is important, enhanced by membership of the board of the Hong Kong & Shanghai Bank and London Advisory Council.
	Vertical relationships		
19	Define principal relationships with suppliers and distributors.	Biggest supplier J. Jeejeebhoy Distributors/Agents: E. de Otadui, Remington	Biggest supplier: Governments – China, Japan Distributors/Agents: Matheson & Co
20	What is the relationship to market structure?	Identical.	Identical
21	Is added value defended from customers and suppliers?	Yes, strict commission basis assures this.	Yes, strict commission basis assures this.
22	How do vertical relationships divide risks, create incentives, and protect against opportunism?	There were no vertical relationships originally. Principal-agent behavior allowed trading on own account; the desire for future trade was the only protection against opportunism.	Matheson & Company has emerged as a separate investment house entity; has veto power over financial commitments of Jardine, Matheson & Co.
23	What is the appropriate contract style – relational, classical, or spot?	Relational between firm and its major supplier and agents; elsewhere, spot	Relational between firm and its major supplier and agents; relational with investors; elsewhere, spot

Chart 63: FIRM AUDIT: 1977 – 1996

	FIRM	1977 (I)	1996 (II)
	CORPORATE STRATEGY		
1	What are the firm's distinctive capabilities? Consider innovation, reputation and architecture.	Architecture –50,000 employees; 41,000 in Asia. Innovation – Speed in communications, first to use cell phones, EDI in Asia Pacific; three-year plans updated monthly; working the value chain to capture higher value; reputation – sound financial management, excellent credit, "unofficial" member of Hong Kong legislative council	Architecture – 200,000 employees agents on the ground; access through brokers to Asian and worldwide investors. Reputation – Strong cash flows, But weakened Net Asset Value versus competitors. Known as international brand builder because of success with Chubb, IKEA, Moet-Hennessy, Taco Bell, KFC, and own brands Dairy Farm, Jardine Fleming, Mandarin Oriental.
2	What strategic assets does it hold? Are there incumbent advantages, licenses or other protection, access to scarce factors?	Trading/shipping routes protected by Fast East Shipping; leases. First mover advantage in Singapore, Malaysia, Australia and Japan. Conferences; Hong Kong government contracts; Jardine Matheson represented 17% of the total capitalization of Hong Kong stock exchange; contribution to GDP in Hong Kong at 3.9% higher than competitors, same or higher in Singapore, Japan, South Africa alone among competitors.	Leases and contracts with international franchisers. Contribution to Hong Kong GDP at 8.06% exceeded only by competitor First Pacific Ltd.
3	What are the relevant markets? Identify the product and geographical dimensions.	Hong Kong – Home market; Industrializing; regional financial center; major entrepot N. America and Europe – Import/Export with Hong Kong Southern Africa, N.E. Asia, S.E. Asia and Australasia – Source markets; potential entrepots	Hong Kong – Home market; Major financial center; major entrepot; link to China market for Americas and Europe China – Infrastructure projects; manufacturing; franchises N.E. Asia, S.E. Asia and Australasia – Entrepots, services, franchises
4	What are the markets in which its distinctive capabilities and strategic assets are valuable?	**Markets – Percentage Profit Contribution; Equity Contribution** Hong Kong – 57%; 37% Australasia – 7%; 14% N. America – 7%; 8% Europe – 7%; 8% Southern Africa – 5%; 5% Middle East – 6%; 6%	**Markets – Percentage Profit Contribution** Hong Kong and China – 61% NE Asia –14.5% SE Asia –11.9% Australasia –1.6% N.America –1.03% Europe and Middle East – 9.7%
5	Are there other markets, linked to these by scale or scope economies, which it pays to serve even if there is no direct competitive advantage?	SE Asia – 4%; 10% NE Asia – 7%; 5% China	Australasia – 1.6% Americas – 1.03% China

	FIRM	1977 (I)	1996 (II)
6	What competitive advantages are derived from these distinctive capabilities? Over whom?	Innovative routines – investments have 3 years to meet hurdle rate of 25% or they are divested; 3 year performance plans updated monthly Reputation –Essential to enable connections to Asia for N. American and European firms.	Innovative routines – investments have 3 years to meet hurdle rate of 25% or they are divested; highest quick ratio in business. Reputation – Somewhat tarnished in investor circles from high debt 1970's, and decreasingly important to Europe and N. America for trade.
7	How do industry conditions affect the translation of competitive advantage into value added?	Jardine, Matheson's profit margin at 14%, higher than all competitors in commodities specialist, single product and manufactures sales and a service groups	Added value can grow very large for reasons of stock issue (CITIC) or divestments (Wheelock) without competitive advantage.
8	Relate added value to share price/cash flow performance.	High cash flows; but heavy indebtedness. Added value at 5%.	High, stable cash flows; added value at 20%, far lower than Swire at 26% and equal to Hutchison at 20%
9	Review the sustainability and appropriability of competitive advantage	Yes, depends on flexible adjustment to change in value source	Yes, depends on flexible adjustment to change in value source.
	Business Strategy		
	Pricing and Positioning		
10	Does the firm's distinctive capability dictate its market positioning?	Reputation causes Jardine, Matheson to be the chosen partner on deals; highest profit margins in trading at 14%, 3 percentage points higher than nearest competitor.	Jardine's reputation has contributed to Jardine Fleming being #1 financial services company in Japan, Hong Kong; Jardine Lloyd Thompson. Jardine, Matheson" architecture has contributed to Dairy Farm being #1 grocer in Asia;
11	If not, review positioning relative to competition In a stable environment review pricing strategies relative to competition.	N/A	N/A
12	Is the competitive environment stable or unstable?	Unstable.	Unstable.
13	Can stability be increased?	Yes. Jardine, Matheson sought to stabilize it with equity investment in upstream value chain activities	Yes. Focus on high margin businesses.
14	Are economic markets as fully segmented as possible	No.	Very segmented
	Branding and Advertising		
15	How do customers obtain information in the principal markets?	Local and trade advertising Coverage in investor media	Local and trade advertising Coverage in investor media
16	Can reputation/brands be extended, and where?	Geographically – Europe, North America, Latin America broadly as investor and specifically as international brand builder	Geographically – Europe, North America, Latin America as investor and brand builder

	FIRM	1977 (I)	1996 (II)
17	What functions do brands serve in these markets?	Jardine, Matheson has built several brands in Asia: financial services—Jardine Fleming; insurance – JIB Group. Brands enhance reputation, hence Jardine's move to put its name on products. Its historical expertise also valuable to international firms like Dunhill, Caterpillar, Sherwin Williams, British Steel.	Jardine, Matheson has built several big brands in Asia – Jardine Fleming, Jardine Lloyd Thompson (insurance); Cycle & Carriage; Jardine International Motors; Mandarin Oriental Hotels; Dairy Farm.
18	Review sustainability of brands and reputation and evaluate relative to competition.	Jardine, Matheson #1 trading house in Hong Kong on basis of overall revenues and profit margin.	Jardine Fleming number 1 merchant bank in Asia; Dairy Farm number 1 grocery retailer I Asia; Jardine Riche Monde (liquor) number 1 in Asia
	Vertical relationships		
19	Define principal relationships with suppliers and distributors.	Consultant to international firms wishing to supply/distribute; also, supplier/distributor on own account	Transportation, finance, insurance, marketing and distribution services to international suppliers and own account.
20	What is the relationship to market structure?	Jardine, Matheson is the industry.	Jardine, Matheson "owns" or leads transportation services, engineering and construction, and retailing and distribution financial services (First Pacific is only competitor).
21	Is added value defended from customers and suppliers?	Yes, Jardine, Matheson "owns" the product system and captures more value.	Jardine, Matheson has highest COGS in its competitive group CITIC– 92.06% Hutchison – 71.05% Swire Pacific – 76.06% First Pacific – 89.99% Jardine, Matheson – 94.49% (Note: Jardine, Matheson has lowest cash flow/sales ratio and highest return on equity)
22	How do vertical relationships divide risks, create incentives, and protect against opportunism?	Jardine, Matheson provides trading credits at each stage of the value chain from primary goods to sales and services. Jardine makes greater overall profit; "owns" the product system.	Attribute high COGS to trading credits. Impact on added value hard to ascertain because added value at 22.40% is high relative to competition.
23	What is the appropriate contract styl – relational, classical, or spot?	Relational contracts – increases stability	Relational contracts – increases stability.

The Firm Strategic Audit Comparison – 1832-1885; 1977-1996

Corporate Strategy 1832-1885

In 1832, the strength of Jardine, Matheson & Company (**Chart 62.I. 1**) lay in its reputation for sound financial judgment and its network of agents and suppliers. The partners did not speculate on commodities operated on a pure commission basis only, earning $150,000/annum in commissions. Jardine, Matheson was jealous of the dependability of the letters of credit the firm advanced to suppliers, purchasers and agents. This focus paid off. The firm earned a reputation for reliability and soundness that made it an ideal business and investment partner, as well as banker and insurer.

Jardine, Matheson inherited a network of some 50 agents in Bombay, Madras and Calcutta from predecessor partnerships, like Magniac & Company. The Jardine, Matheson archives house correspondence that continues unbroken from 1810 – predating the formal announcement of the partnership of William Jardine and James Matheson. The firm added to what was already there, without the learning curve or expense of building from scratch. The large network, even in the infancy of the partnership, provided regular information on prices and available commodities. Information from the network informed James Matheson's Canton Register, 1827-1843.

In 1832 the firm held no strategic assets (**Chart 62.I. 2**), but tried successfully to build influence by entertaining Her Majesty's Superintendent of Trade in Canton and London, and by seeking election to Parliament. In 1832, the firm sought Government protection for the Canton merchants. James Matheson had published <u>Prospects for the British Trade with China</u> set about getting suppliers and agents to sign a petition urging the British government to enforce the natural law of trade. The First Opium War and cessation of Hong Kong to Britain were largely the results of the campaign of British merchants organized by James Matheson.

The firm's major markets in 1832 – and those in which its distinctive capabilities were most valuable – (**Chart 62.I. 3**) were Canton/Macau, for the purchase of tea and silk, financed by cash and opium; India, where opium was purchased and paid for with bills of credit; Great Britain, from which the firm bought cotton, paid for with bills of credit, and sold tea and silk. Spain, Portugal and the Americas sought trade opportunities in Canton/Macau – and the access to those traders in fact extended Jardine, Matheson's reach beyond the Far East in due course (**Chart 62.I. 4**).

The Jardine, Matheson archives indicate a rich correspondence between the firm and its contacts in markets linked to the firm's major markets by scale and scope economies, namely the East Indies, a source of many commodities; Ceylon, which was beginning with Chinese labor, to be built into a tea producing nation; and Australia, also being built with Chinese labor, a source of wool and other commodities (**Chart 62.I. 5**).

The firm's competitive advantage in 1832 was its architecture and its reputation for financial prudence (**Chart 62.I. 6**). As frequently noted, at every stage the trade was financed by bills of credit. Credit crises were frequent. Palmer & Company was by far the largest competitor in 1830, with $5 M in group capital. Their bankruptcy sent shock waves through the merchant community. Jardine, Matheson's bills of credit were trustworthy, and banks in London and the United States backed them. The Jardine, Matheson archives endorse the firm's use of its agents to keep an eye on the credit-worthiness of the banks with which it did business. Hence, Jardine, Matheson enjoyed an advantage over firms that didn't have its superior reputation.

Time and again, the Jardine, Matheson correspondence – see again James Matheson's letters to nephew Hugh – inveighs against speculation and advises its agents and affiliates to adhere to a strict commission basis. With working capital requirements low, on this basis, a firm could appropriate 45% of every transaction dollar, minus actual shipping and carrying costs (**Chart 62.I. 7 and 8**).

Operating on a commission basis, competitive advantage was fully appropriable to the trading firm. Given the importance of reputation, a time and location based capability (**Chart 62.I.9**), Jardine, Matheson could expect to sustain its advantage, until the requirements of the market changed. See this point discussed in 1885.

By 1885, the market requirements had changed. Now, the Chinese government sought loans for new infrastructure projects – railways, mines, armaments – and the ability of firms to offer such loans had an impact on their access to joint venture arrangements and future business. And China wasn't alone; Japan, Thailand, Singapore, and other ASEAN nations welcomed foreign investment. This was the beginning of significant foreign direct investment by British entrepreneurs.

Jardine, Matheson had the financial strength, and the firm's sustainability in the Far East, depended on its ability to lend funds and generate investment capital. Increasingly in competition with banks as well as other trading firms for the privilege, Jardine, Matheson & Company joined the Board of the Hongkong & Shanghai Bank and its London Advisory Council (**Chart 62.II. 1**).

The acquisition of strategic assets – railway contracts, for example – involved a formidable capital investment and was often pursued with a partner, in the case of the railroads Butterfield & Swire (**Chart 62.II. 2**).

By 1885, Jardine, Matheson's relevant markets were the 15 Treaty Ports of China and the new Treaty Port in Japan. Through Matheson & Company, London, the firm was engaged in joint ventures in treaty territories like Singapore, Straits, Malaysia, Siam, Borneo for tin, rubber, petroleum and gold (**Chart 62. II. 3, 4, and 5**).

Jardine, Matheson was increasingly an investment company, in search of strategic assets on which to build sustainable advantage and added value (**Chart 62.II.6 and 7**). The firm's Far East trade had changed dramatically from 1832-1885. Inter-firm credits were a continuing fact of merchant life – but they now began to be offered by E.D. Sassoon & Company to the opium producers, at the far upstream end of the value chain, an innovation which gained the Bombay firm advantage over former opium leader, Jardine, Matheson & Company. One of Jardine, Matheson's competitors, Butterfield & Swire, established in Shanghai in 1848, bought American shipbuilders Russsell & Company, and became the largest shipper in the region.

Jardine, Matheson sought to establish its advantage in investment, through joint ventures in sugar, silk, textiles, cold storage, warehousing and docks in Hong Kong and Japan. Through Matheson & Company, its London investment house, it was well spread out in mining, finance/insurance, manufacturing, shipping and railway building. Based on available firm and partner capital data, Jardine, Matheson was able to put away 40% of overall turnover.

Business Strategy 1832-1885

In 1832, relational contracts based on trust were important to all stages of the value chain. In a high-risk business, a reputation for sound management was very valuable. Jardine, Matheson could charge more for its services (**Chart 62. I. 10 and 11**).

The competitive environment was highly unstable (**Chart 62.I. 12**); speculation and reliance on credit meant that firms were only as a strong as their decisions were sound. Access to information was critical and an important differentiator. Stability could be increased, but only with the intervention of the British government (**Chart 62.I. 13**). Market segmentation was very rudimentary. In China, the trading frontier was limited to Canton (**Chart 62.I. 14**).

Jardine, Matheson corresponded with its suppliers, agents and customers, sending letters with every ship –some 300,000 in all between (dates). The Jardine, Matheson archive is a tribute to management and marketing communications during the period. In addition to regular letters, the Canton Register provided the only source of reliable information to the merchant community in Canton (**Chart 62.I. 15**)

In 1832, the firm's reputation was its brand. If the environment had not been unstable, Jardine, Matheson might have begun extending into Europe and the Americas, because the Canton trading environment was already filled with Spanish, Portuguese and North American traders. Jardine, Matheson did take advantage of relationships with American traders, when the British merchants were expelled from Canton in 1839 and James Matheson transshipped goods to Manila in American clippers (**Chart 62.I. 16**).

Jardine, Matheson had already extended its brand to London, where partners served as MPs and sat on the Select Committee for Trade (**Chart 62. I. 16**).

In many respects, the firm's reputation was a lightening rod for suppliers, agents, customers – as well as for private individuals who used the trading firm as a deposit bank, earning returns of 8% or more. When Palmer & Company went bankrupt in 1830, it was one of six agency houses to do so (**Chart 62.I. 17 and 18**).

Jardine, Matheson inherited from Magniac & Company its relationship with Jamsetjee Jeejeebhoy, the largest supplier of opium and cotton in India. The firm provided Jamsetjee with frequent information about political conditions and market prices in China. The relationship was close and based on trust (**Chart 62.I. 19**). In 1832, the trading frontier was limited to Canton. Jardine, Matheson never got to know the merchants and consumers beyond the group of co-Hong merchants in Canton. The firm's relationships with suppliers (and lack of same with distributors) mirrored the Canton marketplace (**Chart 62.I. 20**).

In 1832, Jardine, Matheson could expect to accrue $150,000 in commissions yearly. The firm could expect a profit margin of 25% on 48,000 chests of opium, a year's supply of opium. The capital required to run the business was minimal. James Matheson called this "the snug way of the China trade" (**Chart 62.I.21**).

There were no vertical relationships as such. Jardine, Matheson's dense network of inter-firm relationships was sustained by frequent correspondence and by shared personnel. The relationships were long-term, often pre-dating the current partnership. The longevity of the relationships and desire for continued business reduced the risk of opportunism within the firm's network (**Chart 62. I. 22 and 23**).

By 1885, Jardine, Matheson was as fully engaged in investment as it was in trade; its information access and financial reputation enabling Matheson & Company to attract investors from London and Europe in a wide range of projects (**Chart 62. II. 10**).

While in 1832 the services connected with the trade – shipping, insurance, finance – were still part of the cluster of services available to members of Jardine, Matheson's trading network, by 1885, these individual services had also been spun off as a standalone business. In shipping, there was the Indo China Steamship Company with 20 vessels in 1885. There was the Canton Insurance Company, engaged in far more than marine insurance, and Jardine, Matheson & Friends, an investment bank. There was also Matheson & Company, the investment house and ship charterer. The freestanding companies produced additional customers (as well as incremental income) for Jardine, Matheson & Company.

The stability of the Treaty Port system, and the development that was going on in the Asia Pacific Region, suggested to Jardine, Matheson's managers that there existed an unmet business need for shipping, insurance and financial services by new entrants to the trade, who lacked Jardine, Matheson's resources (**Chart 62.II. 12 and 13**).

Jardine, Matheson's trading, shipping, finance and insurance services were well covered by Lloyd's List, an important international publication for trading firms. They would also have been covered by Drewry's Shipping Reports. The firm's investments would have been reported in The South China Morning Post, the Far East Asian Review, the Financial Times and the London Times (Chart 60.II. 15).

By 1885, Jardine, Matheson was immersed in building its reputation and influence in Hong Kong. William Keswick had been elected chairman of the Hongkong & Shanghai Bank in 1880, Jardine, Matheson pioneered the Hong Kong Tramways in 1884 and in 1889, James Johnstone Keswick became the first joint Permanent and Managing Director of the Hongkong Land Company.

As a trading company in 1885, Jardine, Matheson was interested in expanding its trading enterprise into western China, if transport steamers could be employed in the Upper Yangtze. The firm was also deeply involved with silk trade in Yokohama (**Chart 62.I. 16**).

The reputation and authority of foreign trading houses like Jardine, Matheson (Adamson, Bell & Company, Cornes & Company, among others) raised the status of the Japanese businessman, formerly a fourth class citizen and encouraged the expansion of native industries and the development of facilities for trading, such as banks, telegraphs, shipyards and light houses. **(Chart 62.I.17)**

The expanding Japanese export trade was largely dominated by silk. The resulting balance of foreign exchange enabled Japan to buy more raw materials, machinery and foreign goods of all kinds

As an investment house, Matheson & Company sought partners in mining, engineering and railway projects. In 1885, Jardine took over the government's Kaiping Mines, north of Tientsin, with the stipulation that the firm was to run day-to-day operations unimpeded by its government partner. By this time Matheson & Company had a reputation for finance and investment and Jardine, Matheson a reputation for sound business management (**Chart 62.I. 18**).

Corporate Strategy 1977-1996

In 1977, Jardine, Matheson & Company was engaged in an aggressive acquisition campaign that included investments in raw materials as well as manufacturing. Among Western firms trading in general commodities – like Harrisons & Crosfield, Gill & Duffus among others – the firm was unique, pursuing equity relationships with buyer and seller firms both upstream and downstream in the value chains for transportation, steel, textiles and sugar. Jardine, Matheson offered acquired firms investment, as well as financial, insurance, shipping, marketing and distribution services at lower cost than would be available in the marketplace. Jardine, Matheson had a reputation for financial management that was appealing to ASEAN firms low on working capital and the architecture necessary to secure buyers for their goods. In 1977 Jardine, Matheson had 50,000 employees – 41,000 of whom were on the ground in Asia (**Chart 63.I.1**).

Strategic assets in 1977 included the firm's trading/shipping routes, protected by the Far East Shipping Conferences, a self-governing body. Jardine, Matheson used its equity relationships to establish first mover advantage in Singapore, Philippines, Malaysia, Australia and Japan. In Hong Kong, Jardine, Matheson represented 17% of the total capitalization of the Hong Kong stock exchange. The firm's contribution to Hong Kong GDP was 3.9%, higher than any competitor. The power and influence accruing to a firm that important to a national market, while based on distinctive capabilities and assets, is itself a strategic asset of the firm (**Chart 63.I. 2**).

The markets for Jardine, Matheson's distinctive capabilities (**Chart 63.I.3**) in 1977 were:

- the home market, Hong Kong, where contribution to GDP, "unofficial" involvement of the Legislative Council and Board Membership in the Hong Kong & Shanghai Bank, gave Jardine, Matheson the "ear" of the colonial government and access to government contracts. Jardine, Matheson was heavily involved in manufacturing, business services and property development in Hong Kong;
- Southern Africa and Australasia were a source of primary goods and manufacturing sites in which Jardine, Matheson invested;
- North America and Europe, interested in buying and selling in Asia Pacific, but lacking

the local contacts. Jardine, Matheson understood the value its architecture would have to firms seeking an Asian presence, and advertised its consulting services on a $30,000/month retainer.

In 1977, the profit/equity contribution (**Chart 63.I.4**) of the markets for Jardine, Matheson's distinctive capabilities was

■ Hong Kong	57%/37%
■ Australasia	7%/14%
■ N. America	7%/8%
■ Europe	7%/8%
■ Southern Africa	5%/5%
■ Middle East	6%/6%

In addition, Southeast Asia, contributing 10% of the equity, but only 4% of the profit and North East Asia, contributing 5% of the equity and 7% of the profit were important markets for Jardine, Matheson. Southeast Asia was a source of raw materials and manufacturing (**Chart 63.I. 5**).

Emulating a business model closer to the Japanese sogo shosha than to the conventional trading firm, Jardine, Matheson created a broader and different presence for itself in Asia, based on architecture. Competitors like the Swire Group and Wheelock Marden were focused mainly on Hong Kong. Jardine, Matheson bought innovation to its portfolio management scheme, giving associated firms 3 years to meet a hurdle rate of 25% – or divesting them. The year 1977 saw nearly as many divestitures as acquisitions, an extraordinary affirmation of a pipeline management strategy at play (**Chart 63.I.6**)

Compare Jardine, Matheson's corporate strategy in 1996. The firm's reputation for financial strength and its financial performance had been weakened by the Hongkong Land affair and consequent debt accumulation. The market began giving Jardine, Matheson bad grades for management and for building a defensive control mechanism in the center, Jardine Strategic, seen as getting in the way of the profitability of Jardine's businesses. It would appear that Jardine; Matheson had lost the right to grow and was unable to convince the market that the company's businesses were sufficiently strong and well run to sustain the diversion of cash and management attention to growth initiatives. Chapter 7 endorses the view that, far from ex-growth, the company continued to grow not by changing the industry structure through acquisitions and alliances, not by integrating vertically and not by expanding into new geographies, but rather by taking new approaches to marketing and distributing to existing customers; applying its superior local knowledge to managing privileged franchises; and investing in the growth of existing subsidiaries and associates.

The reputation the firm had gained for international brand marketing, made Jardine, Matheson the partner of choice for Chubb, IKEA, Taco Bell, Moet-Hennessey, among others. The firm had built several of its own brands into substantial, stand-alone businesses – Jardine Fleming in finance, Dairy Farm in grocery, Mandarin Oriental in hotels, Jardine Lloyd Thompson in insurance. (**Chart 63.II.1**)

Jardine, Matheson's strategic assets were its leases and contracts with international franchisers, in 1996 (**Chart 63.II.2**).

The firm's 1996 markets were largely confined to the Pacific region: Hong Kong and China representing 61% of the firm's profits; Northeast Asia 14%; Southeast Asia 12% (**Chart 63.II. 3 and 4**).

North America, Europe and the Middle East collectively accounted for 11% of firm profits; Australasia for another 2% – together they gave Jardine, Matheson a worldwide reach and a base from which to launch into new businesses, should the need rise (**Chart 63, II. 5**).

Jardine, Matheson's competitive advantage in 1996 derived from strong cash flows generated by its franchises and name brands. The advantage was over conglomerate competitors like Hutchison Whampoa and Swire Pacific, both of which were selling at a higher price per share than Jardine. Jardine, Matheson's added value ratio, 1992-1996 was 22%, the same as competitor Swire Pacific, compared with Hutchison Whampoa's added value ratio of 29%. (**Chart 63.II. 6,7,8**).

Compared with Hutchison Whampoa, which had built dominant and defendable positions in rapidly growing infrastructure businesses in Hong Kong and was investing in Chinese ports, Jardine, Matheson appeared in 1996 to be unable to invent a future (**Chart 63.II. 9**).

Business Strategy 1977-1996

In 1977, Jardine, Matheson's reputation and architecture made the firm a desirable trading partner. Jardine, Matheson had the highest profit margin in the commodities trading industry – some 14%, 3% over the next leading competitor (**Chart 63.I.10, 11**). Compare with 1996, brands not commodities lead. Jardine, Matheson's name brands are market leaders: Jardine, Matheson Holdings #1 in Hong Kong shipping services, Jardine Fleming #1 in Japan and Hong Kong; Dairy Farm #1 grocer in Asia; Jardine Lloyd Fleming. (**Chart 63.II. 10, 11**)

In 1977, Jardine, Matheson sought to capture more value by investing in upstream value chain activities – raw materials, manufacturing – in emerging economies, where labor costs were low. Jardine's acquisition strategy set it apart from competitors who lacked the added value to change the industry structure (acquisitions), grow outside industry boundaries (vertical integration) and expand into new geographies. Competition was unstable and it was in Jardine, Matheson's best interests to destabilize it (**Chart 63 I, 12, 13**). Compare with 1996: Jardine, Matheson was focused on its high margin brands, sending a signal to the market that it knew how to manage its businesses for profit and cost containment. But the firm is not involved as are competitors Hutchison Whampoa and Swire Pacific in developing China's infrastructure, manufacturing and technology industries. Jardine, Matheson's relationship with China had begun to thaw in 1996, but was not in the same league as Hutchison Whampoa's. Hutchison's chief Li Ka-shing had met Deng Xiaoping in 1986 and had maintained personal contact with the top five figures in central government ever since (**Chart 63.II, 12, 13**).

In 1977 Jardine, Matheson was extending its long-term experience, own-name brands (Jardine, Fleming et. al.) to new geographies as well as marketing international brands in search of an Asian presence. Jardine, Matheson was literally a floating representative office for companies like Caterpillar, Dunhill, Sherwin Williams and British Steel (**Chart 63.I. 18**). In terms of overall revenue and profit, Jardine, Matheson & Company was the number one trading house in Hong Kong in 1977.

Compare with 1996: Jardine, Matheson had built its own-name brands into leadership positions in Asia, and extended the Jardine name into luxury goods with strong results: Jardine Riche Monde (liquor and wine) was number one in Asia in 1996; Jardine International Motors was the leading Mercedes Benz dealer in Asia (**Chart 63.II.18**).

In 1977, Jardine, Matheson was the industry; the firm was vertically integrated with suppliers through equity or trade credits, which reduced opportunism and risk for participating firms.

Jardine, Matheson thus "owned" the product system or value chain and was able to capture more value and appropriate more added value (**Chart 63.I. 19-23**).

By 1996, Jardine, Matheson's businesses were largely decentralized, linked to Jardine, Matheson Holdings or to Jardine, Strategic by the financial obligations imposed by the firm's complicated cross-shareholding scheme. The firm's emphasis had shifted to evaluating business performance on a stand-alone basis. The firm's high (94.49%) cost of goods sold relative to competitors (Hutchison at 71%, Swire Pacific at 76%) suggests Jardine; Matheson was not pursuing available scale economies, perhaps attributable to the firm's desire to run each business as a separate profit center.

Chapter 8: Section 3: Implications for Learning and Innovation

The development of knowledge and skills, whether by individual managers or by the firm itself, depends and builds upon a network of existing capabilities and underlying resources, internal and external relationships, as well as routines and rules for conceptualizing and resolving problems. This section identifies summarizes the conditions creating the impetus for change, followed by a discussion of the persistent baseline against which change and innovation occurred.

Conditions Creating the Impetus for Change; Jardine, Matheson Response

Some of the major changes made by Jardine, Matheson were induced by changes in the environment and industry – or by the existence of a vacuum in strategic groups. In the midst of such change – or in the absence of competitors – Jardine, Matheson was able to apply its market knowledge to capture greater value:

- 1982 – >1885 – Value moving from trade to investment. Changes in strategic groups.
- 1977 – >1996 – Value available at many stages of the supply chain. Vacuum in strategic groups
- 1977 – >1996 – Value moving from commodities to brands. Changes in strategic groups
- 1996 – >Present – Value moving from new businesses to replication and franchise.

In **Chart 60: Industry Audit, 1832-1885**, one can see that there was been aggressive expansion in the industry, from commodities trading in 1832 to international investment in 1885. While China and the treaty countries had opened major projects for private investment and co-management by foreign firms, the root cause was excess capital (added value) from foreign trade, which made investment in railways, mines and manufactures appealing to European and London investors. The strategic group had changed to include banks and investment houses, as well as trading firms with associated investment houses.

By 1885 (**Chart 62: Firm Audit 1832-1885**), Jardine, Matheson had responded to changes in the competitive environment by setting up its own investment house, Matheson & Company, soliciting investments in mines, railways, shipping, manufactures, and finance and insurance businesses; by joining its potential competitor, the Hongkong & Shanghai Bank as a member of the Bank board and as an investment partner in Chinese railway projects; and by partnering with competitor Butterfield and Swire on a number of joint venture projects in China.

Chart 61: Industry Audit 1977-1996 depicts an industry in 1977 composed of commodities generalists and specialists barely breaking the surface of the Pacific opportunity. American and European companies wanted a Pacific presence but lacked the architecture. Companies in newly emerging and ASEAN economies had resources and low cost labor but lacked the capital and the architecture to bring their raw materials and products to market. In **Chart 63: Firm Audit 1977-1996**, the exiting industry in 1977 was inadequate to capture the value possible. Jardine Matheson changed the industry through acquisitions, alliances and vertical integration to capture more value in 1977 at many stages of the supply chain. By offering financing and insurance services to firms at upstream and downstream ends of the supply chain, Jardine, Matheson & Company was testing a new business model, similar to that of the Japanese sogo shosha.

Again, in **Chart 61: Industry Audit 1977-1996,** the industry is shifting from commodities trade to international brand marketing. The strategic groups are increasingly multi-industry conglomerates with alliances with international brand owners for distribution and marketing of brands in Hong Kong and China or in Asia. While the emphasis on outsourced architecture remains the same, the competitive focus is clearly on marketing skills. **Chart 63: Firm Audit 1977-1996**, shows Jardine, Matheson in a leadership position with finance, insurance, dairy and liquor brand offerings under its own or subsidiary firm brand names. The firm has made Asian market leaders of Caterpillar, Dunhill, Sherwin Williams and Kodak, companies that have used Jardine, Matheson as their floating representative office. A development of the 1990s is the international franchise business. In **Chart 63: Firm Audit 1977-1996,** Jardine, Matheson has franchise licenses with IKEA, Taco Bell, Seven Eleven, Kentucky Fried Chicken and Pizza Hut.

With more firms capable of extracting added value in the 1990s, there is more competition for obvious growth opportunities – and a greater role for process innovation and new business models that remove operating and asset costs from the business, while they extend the reach of the business and the value of its services.

Baseline Attributes: Capabilities and Resources

Across all four breakpoints, the customer for Jardine, Matheson's products and services was more often a business than a private individual and at a significant distance from the market for supply or demand. For example, the customer in

1832 – Chinese merchants buying opium for distribution; London merchants buying silk, tea and other commodities;

- 1885 – Asian and London merchants transporting, financing and insuring goods carried by third party ships. Investment in manufacturing plants, railways, mines; the investor sometimes a wealthy individual, more often a firm;
- 1977 – International firms seeking a market presence in Asia; Asian companies looking for a partner to finance, insure and broker the relationship with a buyer;
- 1996 – International brand owners looking to establish Asian franchises.

At each of the four breakpoints, customers have had a single goal:

- 1832 – To grow rich from trade;
- 1885 – To invest to grow richer with less effort;
- 1977 – To expand into new markets;
- 1996 – To continue expansion with less effort.

At each breakpoint, it was of highest value to the business customer to achieve wealth while lowering risk through the agency services of a trusted partner, like Jardine, Matheson.

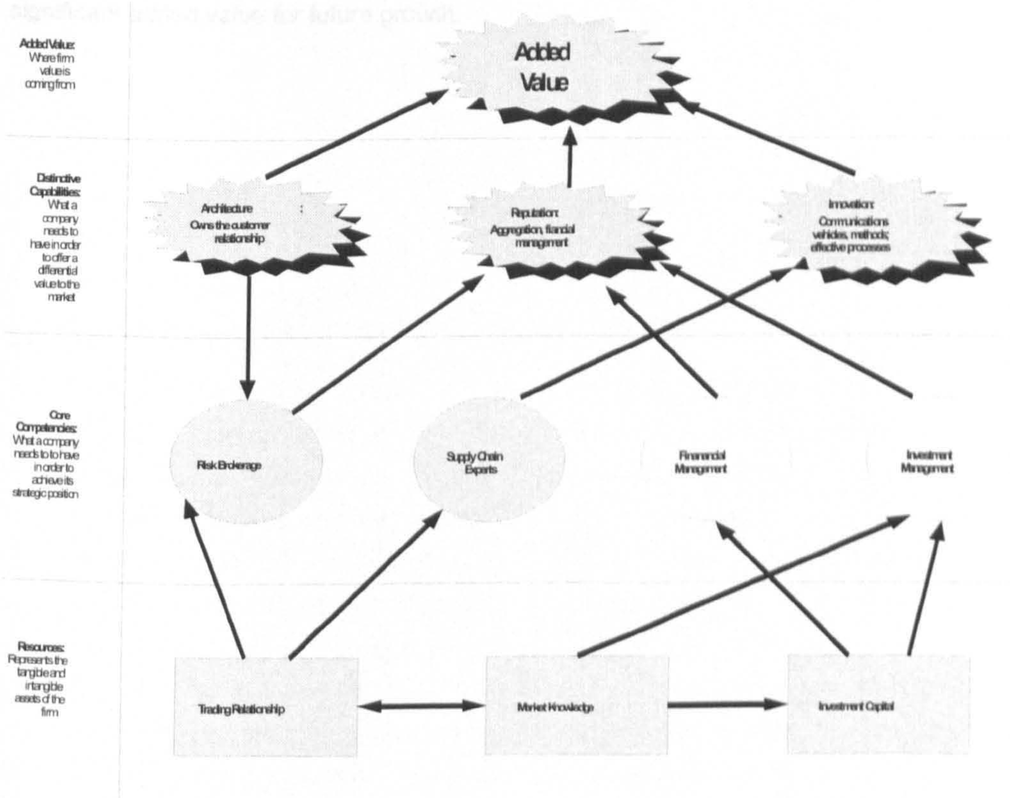
The basis of trust was reputation, built on financial probity and the ability of the firm to absorb trading risk while profiting from the experience. To absorb the risk of others, Jardine, Matheson itself required long-term internal and external relationships built on high trust and the avoidance of speculation in commodities (like indigo in the early period) – or in other business interests (like Hongkong Land) – about which information (in this case about individual investments and commitments) was incomplete.

While environmental change brought on by competition, globalization, change in the regulatory environment – and other aspects of the external environment – make it unlikely that any capability will continue to remain valuable independent of the scenario in which a firm is operating, there has been great stability in the value of Jardine, Matheson's capabilities and the resources underlying them.

The resources underlying Jardine, Matheson's distinctive capabilities are its trading relationships, market knowledge and investment capital. Risk brokerage, supply chain expertise, financial and capital management were the early capabilities or competencies of the firm on which it continues to build.

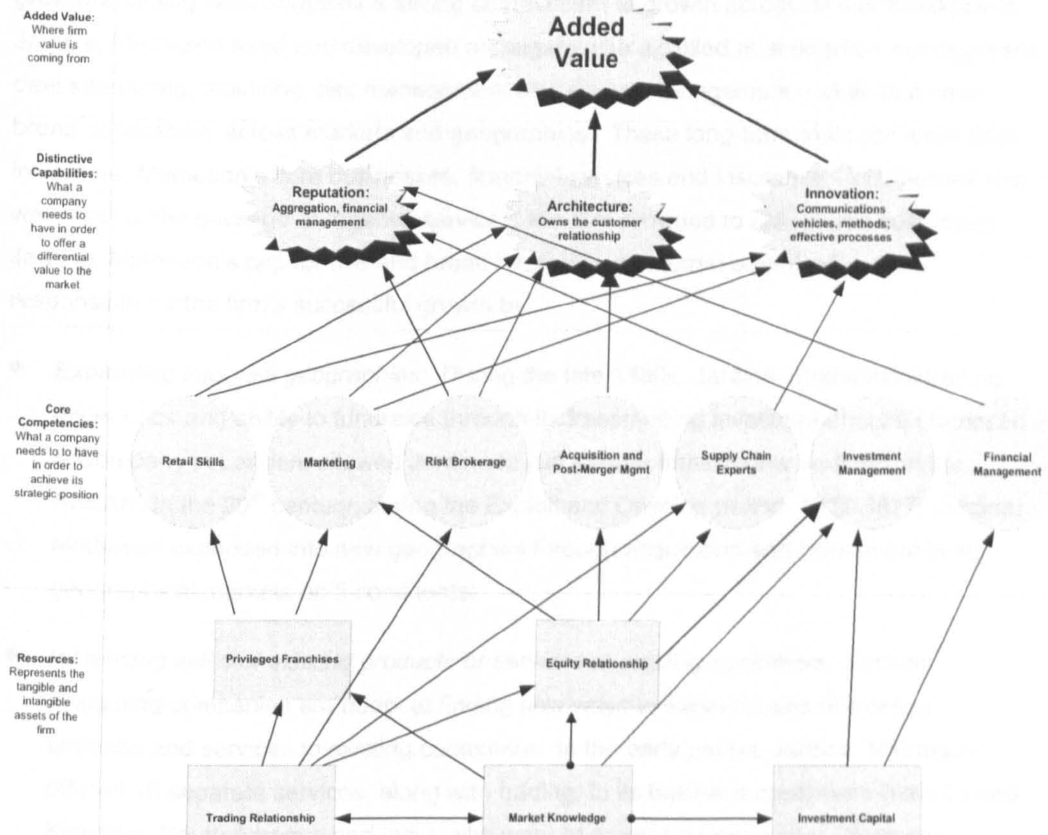
In **Chart 64: Jardine, Matheson & Company Directed Network As A Framework for Growth – 1832-1885**, below, the firm's trading relationships are a source of market knowledge and vice versa. In 1832, the firm leveraged these intangible resources to become a risk broker and supply chain expert, the basis for its strategic position in 1832. Through risk brokerage, the firm came to own the relationship between customer, agent and supplier (that is, the architecture) and to develop a reputation for financing and capital management. Managing risk and stretching capital required innovation, which further increased the firm's financial returns and freed up some of the company's financial capacity for further investments (added value). By 1885, Jardine, Matheson had applied its trading relationships, market knowledge and (some limited) investment capital to the creation of a freestanding investment house, Matheson & Company. In 1885, while still engaged in the Pacific trade, the firm leveraged these resources to become an investment manager and financier. The firm earned a reputation for financial management, risk management, capital management and deal structuring, competencies that are transferable across many markets and businesses. The firm's reputation was a source of added value for continued growth.

Chart 64: Jardine, Matheson & Company Directed Network As A Framework for Growth –1832-1885



In **Chart 65: Jardine, Matheson & Company Relationship between Resources. Competences and Capabilities – 1977-1996**, on the next page, there are new resources – which draw on existing skills and require the short-term developments of new skills. The opportunity to capture greater value from trading relationships, market knowledge and investment capital in 1977 created a new class of resources, namely equity relationships, and these have required the engagement of Jardine Matheson's existing financial management, risk management, capital management and deal structuring skills – as well as the short and medium term development of new competencies, like acquisition and post merger management skills and marketing skills. These skills added to Jardine, Matheson's reputation and architecture, while requiring heavy investment capital (and reducing added value). Strategic divestment in 1977-78 and again in 1981-83 reduced the burden of equity relationships. By 1996 another class of resources had been added, privileged franchises, built on trading relationships and market knowledge. This class of resources put less drag on investment capital, used existing financial management and marketing skills, and required the short-term development or acquisition of retailing skills. The ability to develop or acquire new skills, or to put existing skills to new uses, has added to a third distinctive capability, namely, innovation. In 1996, Jardine, Matheson & Company continues to acquire significant added value for future growth.

Chart 65: Jardine, Matheson & Company Relationship between Resources. Competences and Capabilities – 1977-1996



Baseline Attributers: Internal and External Relationships

Historically, Jardine, Matheson's talent pool had included business builders and entrepreneurs, comfortable with ambiguity and change, top-line focused, sharp decisionmakers, free to act with autonomy and mandated to create and build businesses. The founders and early taipans and managers of the firm from 1832 to 1885 practiced those skills, In the 20th centuries, Jardine's rising star business leaders held multiple cross geography, cross function appointments, and were charged with contributing to firm influence and reputation by playing active roles in Legislative, Bank and other external councils as well as occupying positions on the Boards of subsidiary companies. The appointment of Percy Weatherall, head of Hongkong Land to replace Jardine, Matheson senior managing director Alasdair Morrison in 1999, confirms a tradition of choosing leaders with long experience at Jardine and a large stake in the firm.

In the Resource-based or Penrosean firm, growth depends on the ability of a firm's managers to establish effective administrative coordination. The firm's preponderance of growth-enabling skills suggests a strong commitment to growth across all four breakpoints. Jardine, Matheson hired and developed managers who excelled at acquisition management, deal structuring, financing, risk management and capital management – skills that have broad applicability across markets and geographies. These long-term skills are embedded in Jardine, Matheson's core businesses, financial services and insurance – businesses that were part of the package of "agency services" the firm provided to risk averse customers. Jardine, Matheson's capabilities and broad internal and external organization were responsible for the firm's successful growth by

- *Expanding into new geographies:* During the late 1800s, Jardine, Matheson's trading experience and ability to fundraise through its freestanding investment house Matheson & Company in London, allowed Jardine to join partner firms in new ventures in the ASEAN. In the 20th century, during the Exploit and Develop period, 1972-1977, Jardine, Matheson expanded into new geographies through acquisition and investment in 46 geographical markets on 5 continents;

- *Increasing sales of existing products or services to existing customers.* Growth sustaining companies are adept at finding new ways to expand sales of existing products and services to existing customers. In the early period, Jardine, Matheson offered 16 separate services, along with trading, to its business customers in the United Kingdom, South America and India, who were at a great distance from China and wanted to trade at low risk. Operations were conducted through a closely-knit external organization of agents, some 150 by 1832, when the firm was formally constituted. In the later period, from 1972 to 1977, Jardine, Matheson offered the same services to primary goods producers and manufacturers in the ASEAN as well as to European and American firms with products intended for ASEAN customers. Reviewing the firm's acquisition strategy from 1972 to 1996, Jardine, Matheson's made its largest investments in financial services (SIC codes 60-67; 60%); transportation services (SIC codes 40-49; 20%) and business services (SIC codes 70-79; 20%) – the so called "agency services" of the early period. During the period, Jardine, Matheson built an external organization of some 850 firms in "industry clusters," held together by equity and trade linkages.

- *Developing better delivery systems*: In the early period, Jardine, Matheson was a leader in ship building innovation, investing in clippers and steam to move goods and speed communications with its customers and agents. In the 20th century, transportation and distribution grew from 19% of Jardine, Matheson's earnings in 1974 to 30% in 1979, 37% in 1989 and 30.9% in 1996. (A 1999 joint venture between Jardine Logistics and its Chinese partner puts the firms supply chain expertise online). The ability to deliver primary goods to manufacturers and finished goods from manufacturers to distributors reduced cost both for Jardine and its associated firms.

- *Changing the industry structure through acquisitions and alliances.* Consider Jardine, Matheson's creation of a freestanding investment house in the late 1880s, turning the firm from trading to investments, or the development of joint ventures with competitors like Butterfield & Swire to build railroads, turning competitors into collaborators. Most significantly in the 20th century, the firm's acquisition of natural resource and manufacturing firms in the Exploit and Develop period, 1972-1977, was sufficient to create complete business-to-business value chains, enhanced by finance, insurance and shipping services.

- *Establishing new competitive arenas – integrate vertically, use existing business skills in new industries, create businesses or use firm architecture to gain access to new businesses.* In the early period, Jardine, Matheson used its external organization of associated agents to sense what was happening in the marketplace and interpret developments for its customers and suppliers, In the late 1880s, Jardine used this external organization to identify new projects for investment throughout Hong Kong and the ASEAN – and its associates at Matheson & Company to identify investors. Jardine, Matheson had grown from a trading company to an investment house, where fundraising for future growth was done at a distance. In 1972-1977 Jardine, Matheson built an external organization, virtually and "vertically integrated" through minority investments in ASEAN firms, largely in manufacturing industries g and natural resources, pursuing a business model closely akin to the Japanese sogo shosha in which debt, equity and trading relationships keep the network of associated firms together. In the early 1990s, when the consumer goods market experienced a recession, Jardine, Matheson began to change its business strategy from business-to-business to business-to-consumer, based on its superior knowledge of the marketplace and customer wants and needs.

Baseline Attributes: Routines and Rules

In an uncertain environment the reputation Jardine, Matheson enjoyed for sound financial management and knowledge of trade in the Pacific was a distinctive capability and critical to the firm's competitive advantage. Uncertainty made reliance on routines and decision rules a necessity. In the early period, regular correspondence with agents railed against speculation in commodities and used the examples of the bankruptcy of Palmers and Dent to drive home the message. In the 20^{th}century, representative offices would be shut down if managers speculated on their own behalf, risking the reputation of the firm on shaky business ventures. In the 1980s, the Hongkong Land affair exposed Jardine, Matheson to speculative real estate deals that were not accounted for in Land's financial reports. Jardine, Matheson responded with drastic measures to ensure that the two firms followed identical accounting practices matched and that Hongkong Land's investment decisions were subject to review and approval by the Jardine, Matheson board.

Information about risk and impact beyond the immediate investment proposal was a second area of concern to Jardine, Matheson and responsible for a new regional review and approval process for investment schemes that came out of the Hongkong Land affair.

A third and related issue was fundraising for growth. "Use other people's money" was a common expression at Jardine, Matheson from the 1880s, when the firm established Matheson & Company as its freestanding investment house to the 20^{th} century, when the firm undertook an aggressive growth strategy, financed by minority equity investments in some 850 firms. The strategy encouraged associated firms to fundraise within and outside the Jardine, Matheson orbit to achieve their own growth objectives.

Chapter 9: Conclusions

Introduction

Chapter 9 summarizes the findings of this research, re-examines the applicability of a Resource-based – versus monopoly (Harvard) or ownership (Chicago) – interpretation of strategic management in Jardine, Matheson, examines the contribution of this study to the strategic management literature and suggests directions for further research.

The chapter is structured as follows:

Chapter 9: Section 1: Summary of Research Findings recaps the major findings of Chapters 4 through 8.

Chapter 9: Section 2: The Applicability of A Resource-based Interpretation of Strategic Management in Jardine, Matheson & Company, 1832-1996 re-examines the questions and issues proposed in Chapter 2.

Chapter 9: Section 3: Contribution of this Study to the Strategic Management Literature and Directions for Future Research

Chapter 9: Section 1: Summary of Research Findings

The purpose of this dissertation is an analysis/history of strategic management in Jardine, Matheson & Company, using Resource-based theory as an underlying framework. Chapters 4 and 5 are largely historical treatments; Chapters 6 through 8 use the history to create unique views of the firm's growth, organization and learning.

Chapter 4 focused on the early firm, 1810-1906. The primary source was handwritten correspondence now housed in the Jardine, Matheson Archives at Cambridge University. From the correspondence a picture of the firm's operations, capabilities, routines and relationships unfolds.

- Even before Jardine, Matheson was formally constituted in 1832, the firm already had long-term relationships with agents, suppliers and customers – some 50 correspondents were noted in the pre-1832 letters. The relationships were the consequence of an unbroken chain of private partnerships from 1810 to 1832. Reputation and trust were essential to the China trade and led to very long-lived relationships.
- The routine of frequent correspondence (letters dealing with management subjects not only with sales and remittances) between partners, agents, customers and suppliers was well established. The archives of the British East India Company at the British Library between 1600 and 1842 are full of such letters. Jardine, Matheson letters were modeled on the British East India Company prototypes. A Jardine, Matheson innovation was the signature of an individual partner on some 3000 letters in the Private Letter Books. These signed letters are distinctive in discussing the economics and politics of the trade, the firm's plans and enlisting the correspondent's assistance.
- The routines of the commission trade (the interest rates to be charged for shipping, insurance, banking, etc.) were well known and accepted by the emerging industry of private traders. A private trader could make 45 cents on every dollar from some 16 separate commissions called "agency services."
- Little working capital was required to run a profitable business in the Far East. As James Matheson advised his nephew Hugh, with little investment, it was possible to grow very rich "in the snug way of the China trade."

- Many private traders and agency houses went bankrupt engaging in speculation in commodities. Jardine, Matheson & Company prohibited its agents from speculating on their own account.

- The firm communicated its financial reporting and investment policies to its agents and monitored their performance, often sending junior partners to work alongside intractable agents.

- The firm was both the inheritor of a reputation for financial management and a builder of such a reputation.

- Jardine, Matheson sought to shape and did shape its political and economic environment, campaigning for government intervention in trade and later for the treaty port system. James Matheson's Prospects of the British Trade with China, published by Smith Elder, was a speech he made to Parliament urging government intervention and drawing on the principles of natural law. James Matheson, William Jardine and their successors sat on the Select Committees for Trade in London, and both founders played an active role in the founding of Hong Kong and later the Treaty Port system.

- The firm saw advantage in partnering with government in railway, mining and quarrying projects and sought investment capital abroad to finance these projects, adapting to the trend toward free-standing investment houses associated with trading firms.

- The firm invested in warehouses, textile, sugar and silk manufactures both in Japan and China, when the Chinese and Japanese governments began to allow joint manufacturing ventures.

- Jardine, Matheson partnered with Dent & Company on insurance and with Butterfield & Swire on shipping and later on investment projects with the Chinese government as a partner. Such collaboration reduced risk.

Chapter 5 focused on Jardine, Matheson's expansion, 1961-1996. The primary source was the company's complete Annual Report archives housed at Matheson & Company, London. Among key findings:

- Jardine, Matheson increased its market diversity by leveraging its reputation for sound finance, insurance, trading and shipping – that is to say, for agency services – throughout Asia.

- The period of the firm's greatest expansion and diversification occurred when the firm was a ship owner and may initially have been a response to excess physical capacity on board Jardine, Matheson's 35 vessels – as well as access to opportunities through the commodities trade.

- During 1972-1977, the firm diversified forward and backward into shipping services and made horizontal acquisitions in a number of raw materials, natural resources manufacturing, building an external organization to share knowledge and capture value at every stage of the value chain for transportation, steel, oil, sugar, coconut and other businesses.

- Jardine, Matheson corrected the course of its growth trajectory several times during the period, selling off unprofitable assets in 1978-1979 and again in 1981-1983, while giving acquired firms some three years to meet an established hurdle rate.

- Even when the firm appeared to go ex-growth after the Hong Kong Land-Jardine Matheson mutual stock swap, related diversification continued – at the level of the firm's subsidiary and associated companies.

- To even out the spread of profits and reduce risks, Jardine, Matheson created a novel governance form – the holding company reporting to a holding company parent (Jardine Strategic) and paying a fixed return to the parent (Jardine Matheson Holdings Inc.).

- Jardine Strategic reduced the risk in Jardine, Matheson's portfolio. It was further found that Jardine, Matheson's use of Jardine Strategic to manage its high risk subsidiaries – indeed the use of holding companies for this purpose – actually added financial value to the firm without additional governance cost, and provided subsidiaries the opportunity to raise their own equity for further development and expansion.

Chapter 6 focused on the nature of Jardine, Matheson's acquisitions and divestitures from 1972-1996, and the skills required by acquired businesses.

- During 1972 to 1996, Jardine, Matheson made half as many divestitures as acquisitions, 375 of which were in broadly horizontal businesses and 575 in vertical businesses. Finance, insurance and real estate (major category 60-67) accounted for 198 of the vertical businesses.

- There was a significant increase in divestiture activity during the Harvest and Divest period 1978-1984, but divestment was integral to firm strategy throughout the study period.
- Jardine, Matheson's trading and financial services core businesses put a high demand on top management, marketing and financial management skills that were transferable across the firm's newly acquired businesses.
- The firm's manufacturing acquisitions relied on low cost labor available in the ASEAN between 1972 and 1977. When the firm divested these holdings, exit was easy.
- Jardine, Matheson's expansion into new retail and grocery industries required investment in industry-specific skills
- The overall shape of Jardine, Matheson's acquisition pattern was similar to that of trading and financial firms studied by analysts of mergers and acquisitions like R.S. Khemani, that is broadly horizontal at the outset (for Jardine, Matheson, this occurred five years earlier, 1972-77, not 1978-79) with increasing contraction through 1988-1989.
- Overall, some 75% of Jardine, Matheson's acquisitions were made in Asia, including 40% in Hong Kong or China and 25% in Southeast Asia.

Chapter 7 focused on Jardine, Matheson's architecture, that is the relationships developed by the firm's managers with associated and subsidiary firms, government and banking/investment institutions. Among key findings:

- Senior management at Jardine, Matheson enjoyed long tenure.
- How much senior managers know about custom, language, doing business in a geography as well as functional knowledge is very important to Jardine, Matheson, hence the firm moved senior executives around from one function to another and from one geography to another. The firm published the names of senior executives down to the level of regional or country office head in its Annual Report. It was obviously important to the firm's customers to know that their Jardine, Matheson representative had authority and recognition.
- Jardine, Matheson's senior executives were expected to play a role on the boards of subsidiary firms, including monitoring performance, advising on investments, and sharing their functional or company knowledge.

- Jardine, Matheson's senior executives were expected to serve on the external boards of highly visible and influential government and banking/investment bodies, like the Hong Kong Legislative Council and the Hongkong & Shanghai Bank.

- Jardine, Matheson held very widely dispersed resources. That meant that the firm could supply its full range of services anywhere in the world, adding to the firm's competitive advantage. It also meant that relations between headquarters and subsidiaries were interdependent, suggesting a transnational management system.

- When compared with the Japanese sogo shosha, Jardine, Matheson also emerges as a quasi-insurance agent, providing trading and production credits to customer and supplier firms and deriving competitive advantage from a hybrid governance arrangement that was neither internalization (vertical integration) nor market governance (commodities purchase in the open market.

- Like the sogo shosha, Jardine, Matheson's architecture was based on dense inter-firm relationships that contributed to the competitive advantage of the firm and to the national economies in which the firm operated.

Chapter 8 audited the environment, the industry and the firm to develop a portrait of Jardine, Matheson across four breakpoints: 1832 when the firm was formally constituted; 1885 when the firm that developed a free standing investment house and was engaged in railways, mining and quarrying with government support and outside investment capital; 1977 at the height of the firm's Exploit and Develop Period; and 1996 during the Focus on Distinctive Capabilities Period.

- Jardine, Matheson's customer across all four breakpoints was (1) more often a business than a private individual and (2) at a significant distance from the market for supply or demand. For example, the customer in:
  - 1832 – Chinese merchants buying opium for distribution; London merchants buying silk, tea;
  - 1885 – Asian and London merchants transporting, financing and insuring goods carried by third party ships. Investment in manufacturing plants, railways, mines; the investor sometimes a wealthy individual, more often a firm;
  - 1977 – International firms seeking a market presence in Asia; Asian companies looking for a partner to finance, insure and broker the relationship with a buyer;

- 1996 – International brand owners looking to establish Asian franchises.

- At each of these breakpoints Jardine, Matheson belonged to a different strategic group within a different industry with different kinds of competitors and collaborators. Industry changes over the four breakpoints can be attributed to new opportunities to capture value.

- In 1832 the government monopoly had declined; the private trade in commodities was growing. Jardine, Matheson's value was largely commissions-based. Competitors were agency houses like Dent & Company.

- There was aggressive expansion in the industry, from commodities trading in 1832 to international investment in 1885. While China and the treaty countries had opened major projects for private investment and co-management by foreign firms, the root cause was excess capital (added value) from foreign trade, which made investment in railways, mines and manufactures appealing to European and London investors. The strategic group had changed to include banks and investment houses, as well as trading firms with associated investment houses.

- Jardine, Matheson responded to changes in the competitive environment by setting up its own investment house, Matheson & Company, engaged in soliciting foreign direct investment in mines, railways, shipping, manufactures, and finance and insurance businesses; by joining its potential competitor, the Hongkong & Shanghai Bank, as a member of the Bank board and as an investment partner in Chinese railway projects; and by partnering with competitor, Butterfield & Swire, on a number of joint venture projects in China.

- By 1977 the existing industry of generalists and specialist commodities traders was inadequate to capture the value possible from new raw material markets and manufactures. Jardine Matheson changed the industry through acquisitions, alliances and vertical integration to capture more value in 1977 at many stages of the supply chain.

- Offering financing and insurance services to firms at upstream and downstream ends of the supply chain, Jardine, Matheson & Company was testing a new business model, similar to that of the Japanese sogo shosha.

- From 1977-1996 two major changes took place: the worldwide growth in services businesses and the migration of value from commodities trading to international brand marketing. Jardine, Matheson begins a sell-off of manufacturing and other fixed assets, concentrating on business services, including marketing services to international clients like Dunhill, Moet-Hennessey, among others

- By 1996, the strategic groups were increasingly multi-industry conglomerates with alliances with international brand owners for distribution and marketing of brands in Hong Kong and China or in Asia.

- In 1996 value is moving from new businesses to replication and franchise, from business-to-business *to* business-to-consumer. Jardine, Matheson trades reputation, financial acumen and property for privileged franchises like Taco Bell, IKEA, 7 Eleven and others. The firm invests heavily in retail establishments – chain restaurants, computer hardware and software, clothing and optical store chains – under the aegis of its subsidiaries.

- Of consistent value to the market across all four breakpoints were Jardine, Matheson's distinctive capabilities, specifically: External organization or "architecture" of customers, suppliers, partners, government; distribution network; Reputation, based on architecture, but also on financing and risk management skills, capital management skills; in 1977 and after – acquisition and post-merger management, brand management; Ability to anticipate change and "innovate" organizational routines, develop new skills or bundle skills to meet changing customer needs, test new business models.

- Jardine, Matheson's distinctive capabilities have remained important to the market largely because the firm's international business customers prefer to concentrate on their strengths and to "outsource" architecture, relying on an "outsource" partner with long-lived experience and reputation in the region.

Chapter 9: Section 2: The Applicability of Resource-based Theory to An Interpretation of Strategic Management in Jardine, Matheson

Throughout this dissertation questions have been raised about the resources/services choices, failure, organizational structure, environmental factors, managerial initiative versus opportunism, and the fundraising activities of management. Specifically,

- How and why did Jardine, Matheson's founders and managers develop particular resources and services? (Question 1)
- What internal (including the firm and its agents) and external (including competition, new entrants, buyers and suppliers) factors were responsible for their choices? (Question 2)
- The firm's choices met with some notable successes – and some notable failures. How are the firm's failures explained? (Question 3)
- At the firm's origin – and again after WW2 and the Korean War – there were as yet no markets in Asia, in the sense of market institutions. What role did the firm play in the development of markets? (Question 4)
- What was the organizational structure of the firm, including both internal and external, that allowed for consistent business routines and promoted organizational learning? (Question 5)
- How did Jardine, Matheson promote managerial initiative while curbing opportunism? (Question 6)
- How did Jardine, Matheson raise funds for growth, given managerial initiative/opportunism and governance issues? (Question 7)

What follows is a summary discussion of these questions in light of Jardine, Matheson's distinctive capabilities and critical uncertainties. The Resource-based view is compared with Harvard and Chicago interpretations.

Strategic Basis of Resource/Services Choices

Overall, the research findings support a Resource-based interpretation in which firm growth is based on initial resources and capabilities and strategy evolves to take advantage of manager perceived opportunities to capture value. "Manager perception" includes entrepreneurial vision and innovation *as well as* fallible conjecture.

The resource and services choices made by Jardine, Matheson were necessitated by the trade, the distance, the risk, the cultural divide between Chinese and Indian and private English participants, as well as the piratical practices that prevailed on the High Seas and coastal waters. Chapter 4 looked the demand for security among private traders and their clientele, in the midst of high risk and political volatility endemic to trade and particularly to the burgeoning private trade. Trading credits loans and insurance on every facet of the trade reduced risk for buyers and sellers; hence financial management, insurance, banking, shipping and trading became the cluster of capabilities known as "agency services."

The security of buyers and sellers depended largely on the financial probity of the agency house, intangible, hence ascertainable largely through reputation. The pursuit of security was an overweening concern of Jardine, Matheson and Company, exemplified in the firm's abjuring speculation at all costs and disciplining agents who speculated on their own account and jeopardized the reputation of the firm. The contrast was made early with the vicarious experiments by competitors like Dent & Company and Palmer's, among many other trading firms, that engaged in speculation in commodities like indigo, and lost everything.

The pursuit of monopoly (Harvard view) was not an issue since the demise of the British East India Company. Opportunity was everywhere, but risks, too, were everywhere. Collaboration rather than competition the preferred survival tactic. Notable examples were the development of an external organization to reduce risk in the shipping and insurance businesses (specifically the Canton Insurance Company, led in alternate years by Jardine, Matheson & Company and Dent & Company, and the Shipping Conferences of the 1880s, founded by Butterfield & Swire to which the major houses like Jardine, Matheson belonged). A second example is the "freestanding" investment house, which sought to spread business risk among private investors.

In the early period, ownership (Chicago view) too was not an option. The private traders preferred the "snug way of the China trade" because their lack of working capital was not a disadvantage in a business built on commissions, reducing the cost of production through vertical integration. While British rule of law might have provided an advantage close to ownership, it was a pipe dream of the private trade until the creation of the Treaty Port system, which regularized the trade and the system of tariffs and duties for all competitors.

In the twentieth century, Jardine, Matheson attempted to put its reputation and architecture to use in response to perceived opportunity and environmental requirements, as the company understood them. The assessment of Henry Keswick, that the firm sought to infuse its own methods into – but not to strip the assets of – acquired companies, provides some insight into firm thinking.

From 1961-1971, the firm sought to deepen its involvement in Hong Kong, diversifying into growing textile and electronics businesses while building its core financial services, shipping, insurance and trading businesses in the Colony. The firm also sought to, export its core businesses into new markets, like Australia, Japan, South Africa and Singapore through joint ventures and acquisitions.

In the 1970s, the firm's diversification into raw materials, natural resources and manufactures was an innovative, if risky, solution to the problem of excess physical capability – and the opportunity to provide access to markets to producers of raw materials, natural resources and manufactures in the ASEAN. These firms required shipment from one location to another as primary goods and manufactures were transformed into end-user goods, marketed and distributed. Such goods could fill existing Jardine ships at several value chain stages – and the firm, its customers and its joint venture partners could realize savings from Jardine, Matheson's integrated end-to-end shipping services. By making the appropriate investments, Jardine's managers sought to capture more of the value available from upstream and downstream stages of the value chain.

Monopoly (Harvard) and ownership (Chicago) advantages were not operative here. As noted in Chapter 5, Jardine, Matheson & Company emerged from WW2 with few of its assets intact. The firm's decision to become a publicly traded company in 1961 – like the decision in 1885 to create a "freestanding" investment house – can be explained as a desire to grow but at less risk. Jardine, Matheson's development of an extensive external organization across the Pacific, cemented by minority equity positions and trade credits, can be explained as the pursuit of opportunity and value, and the absorption of risk for organization members who would not have found markets for their products without access to Jardine, Matheson's capabilities.

From 1977 to 1996, Jardine, Matheson's strategic moves have focused on selling off physical assets and concentrating on franchises and business services, providing to its customers the value of its architecture and reputation.

Internal and External Factors Responsible for the Firm's Resource and Services Choices

A central theme of this study has been the Resource-based view that Jardine, Matheson's development of a pattern of relationships within and outside the business which would foster the flow of information, the knowledge with which to interpret it, the ability to influence others and the reputation to attract and retain trading partners.

A Harvard school interpretation would argue that the specific advantages of Hong Kong and the cluster of expatriate competitors clustered there had more influence on Jardine, Matheson's resource and service portfolio than the firm's explicit management choices. A Chicago view would argue that Jardine Matheson's choice of resources and services was based on ownership opportunity – enhanced by the British rule of law in Hong Kong, which enabled and protected private ownership.

The Harvard and Chicago school interpretations presume the existence of a protected trading area. The story told in this dissertation predates any such protection. A single firm, Jardine, Matheson, played a major role in the establishment of Hong Kong as a trading colony and the subsequent creation of a Treaty Port system.

Again after WW2 and the Korean War, Jardine, Matheson and the Honking & Shanghai Bank financed Hong Kong's development as a light manufacturing center and regional financial hub.

In both periods, the firm and its partners anticipated market opportunity and created institutions to exploit and regularize it in an environment that was highly volatile.

In the early period, as explained in Chapter 4, an environment of high risk and uncertainty made partnerships and alliances both necessary and attractive to Jardine, Matheson. Clearly an early advantage to the firm were the 50 agents inherited from the previous partnership of Maniac & Jardine. Jardine, Matheson went on to build a network of 150 agents. Among the first steps the firm took to create community among the European traders and their suppliers and customers was the publication of the Canton Register and the firm's practice of corresponding with its constituents on issues of market conditions and social and political developments, as well as routine news of impending shipments. When Jardine, Matheson needed support for its appeal to Parliament to protect the trade, the trading community that James Matheson built signed a petition that Matheson read in the House of Commons.

While working capital requirements were low, the more prosperous trading firms like Jardine, Matheson sought to own their own ships. Given the capital-intensive nature of shipping, it was a costly endeavor to expand market penetration. Forging substantive strategic partnerships or alliances was attractive to Jardine, Matheson because it allowed the firm to accomplish market expansion with less risk and cost. Jardine, Matheson & Company joined John Samuel Swire's Shipping Conference which, even to the present, sets shipping routes and discourages participants from engaging in a competitive fight to the finish.

Jardine, Matheson's range and flexibility increased dramatically when partnerships were created that linked Hong Kong and Calcutta, Hong Kong and Singapore, Hong Kong and London. As noted above, relationships with American and British manufacturers increased the firm's access to capital and investments. The political risks of war and blockade became more manageable because cargoes could be diverted to other ports, like Manila in the case of James Matheson and the opium blockade. Even when the Chinese government forced British traders out of Canton, Jardine, Matheson & Company continued its trade using competitive American firms as intermediaries.

The captains or supercargoes of foreign merchant ships were useful partners, strengthening shipping interests, increasing international contracts and introducing into the firm associates who knew another aspect of the import-export trade.

During the early period, collaboration with competitors was also a means of survival in the insurance business. Jardine, Matheson and Dent & Company shared management responsibility for the Canton Insurance Company and pooled their resources to manage the risks of piracy, storms at sea, spoilage among other potential hazards to which they and their customers were exposed.

In the latter decades of the 19^{th} century, the Treaty Port system had an extraordinary effect on trade and development in Asia, making trade more predictable and opening new markets to trade and development. During this time, Jardine, Matheson and Butterfield & Swire were frequent investment partners in China, Jardine, Matheson found investors and partners for its manufacturing, mining and other ventures through Matheson & Company, its freestanding investment house.

As detailed in Chapter 5, Jardine, Matheson & Company invested heavily in Hong Kong, southern China and the ASEAN during the mid 20^{th} century, building an external organization through minority equity positions and joint ventures with local entrepreneurs, government and cooperating competitors. This was the period when Hong Kong experienced dramatic changes in its industrial structure and economic development. Manufacturing industries came to the forefront. Jardine, Matheson & Company and the Hongkong & Shanghai Bank offered packing credits to Hong Kong firms – or bought minority holdings in these firms.

Jardine, Matheson and its partners exerted pressure on the government in Hong Kong as "unofficial" (a formal term) but highly influential members. Under their influence, the Hong Kong government pursued a general laissez-faire approach, offering various liberal, fiscal and monetary measures such as tax incentives and free capital mobility were implemented to stimulate industrial and economic development.

In the 1980s, when the future of Hong Kong became uncertain, Jardine, Matheson's relocation of its holding company to Bermuda in 1984 was significant. As Simon Keswick said at this time, "When we are competing in the market for major long term contracts, it is undoubtedly a disadvantage to have to deal with questions regarding the long-term future of Hong Kong. We want to put these questions behind us once and for all."

The conflicting pursuit of China opportunity in the midst of political uncertainty in China is reflected in Jardine, Matheson's investments during the 1990s. Some 80% or more of the firm's capital base derives from Hong Kong and China.

Explanation of Failure

According to a Resource-based interpretation, Jardine, Matheson's strategic choices were based on the firm's interpretation of the opportunity present to which its distinctive capabilities might be put. When the firm's strategy failed, that failure could be attributed to the firm's misunderstanding of its current capabilities or the capabilities needed in a new market. A Harvard school interpretation would attribute the failure of firm strategy to changes in industry structure that could have been predicted – and avoided by investment in entry barriers, signaling and pricing strategy. In a Chicago school interpretation, strategic failure was evidenced when the firm was trapped into short term, higher cost contracts that did not provide the cost and time efficiencies possible through direct ownership.

In the early period, Jardine, Matheson considered its decision to avoid speculation to be a reason for its financial stability and the basis for the firm's reputation and sustainability. Avoiding speculation was tantamount to limiting risk by focusing on what a firm's agents did or could know about a market through local communications and sharing knowledge among agents, firm partners, suppliers and customers. Jardine, Matheson sought to instruct, discipline, send representation if necessary (in the case of Otadui & Company) and penalize associated agents who speculated on their own behalf. Into the early 20th century, the firm would close offices if necessary: for example, Jardine, Matheson's New York office was closed in the early 1930s because the associates speculated in dog fur.

There was a natural tension between the type of personality attracted to trading – and the safekeeping (or risk averse) personality required to protect the assets of customers and the reputation of the company. More will be said about the potential for opportunism in section 6.

Jardine, Matheson sought to develop an entrepreneurial culture that was based on accumulating and sharing local market knowledge, on the basis of which sound judgments were made. That the firm was successful in this aim is demonstrated by its ability to survive the credit crises that bankrupted firms like Palmers and Dents.

In the mid 20th century, Jardine, Matheson confronted its first experience of failure as a public company. During the late 1970s and early 1980s, to support its capital intensive shipping and oil servicing businesses, Jardine borrowed from, or increasingly frequently sold property to, the Hongkong Land Company, of which it was a 12% owner. When in the early 1980s, the Hong Kong property market began a swift and steady decline, Jardine, Matheson lost significantly, both as an investor and as a seller. However, it was Jardine's reputation for financial management that took a beating with the press and the firm's investors. Jardine's real estate sell-offs (using Hongkong Land as a bank) were seen by entrepreneurs like Li Ka'shing as a sign of management weakness, and the Keswick family's 10% ownership – which was low-enough to stimulate investment by other firms – also made Jardine, Matheson a possible takeover target. Li Ka'Shing made a bid for Hongkong Land. Jardine retaliated by buying 40% of Hongkong Land. The Land Company retaliated by buying 40% of Jardine, Matheson. The mutual hostage taking moves were protective – and very costly. They were made to protect the Keswick family's interest in Jardine, Matheson. To protect these interests in the longer term, Jardine, Matheson adopted a more aggressive management stance: more stringent controls on investment projects through governance structures like Jardine Strategic; the public sacking of executives who had worked in property, oil and shipping (when the areas they represented were divested); the reorganization of Hongkong Land, and the removal of corporate headquarters from Hong Kong to Bermuda, to ensure the firm would be under British law and under a different takeover code.

In its public acknowledgement of the failure, Jardine, Matheson blamed its ignorance of the extent of the contracts Hongkong Land held for highly speculative real estate development projects. (Hongkong Land did not operate on equity accounting convention; hence its investments were not transparent to Jardine, Matheson.) The "judgment" of former Jardine, Matheson Taipan David Newbigging was called into question and Newbigging was fired.

The failure in Jardine, Matheson's view was lack of information, or failure to pursue information, necessary to make sound financial judgments. Unlike episodes in the pre-public history of the firm, this failure of the public company had a significant impact on Jardine, Matheson's reputation and the reputation of the firm's owner, the Keswick Family – who perceived the reputation of family and firm to be one and the same.

The Role of Jardine, Matheson & Company in Creating Market Institutions

A Resource-based interpretation would acknowledge the existence of only rudimentary market institutions and the importance of firms in creating such institutions. A Harvard interpretation would argue that there was already a market, if fragmented, and that Jardine, Matheson would have used its advantage to get all of the market for itself by signaling strategy, erecting entry barriers, encouraging competitors to leave – or buying them out. A Chicago school interpretation would argue that creating a market means increasing demand and sale of already existing products by being more efficient and reducing price to increase total sales and profits.

A Resource-based interpretation makes far better sense of the challenge and opportunity Jardine, Matheson shared with other private firms operating in the shadow of the East India Company in 1832 – and again recovering from the shocks of WW2 and the Korean War in 1961.

While the East India Company had held a monopoly on trade in the East, Jardine, Matheson and peer firms lacked the Royal Charter, the self-perpetuating institutions of minting money and raising a militia. Out of the East India Company came a rich heritage of management letters. From 1810 to 1906, Jardine, Matheson & Company added its own letters to that history, generating some 200,000 letters to its constituents and agents, framing business arrangements, making payment and insurance promises and disciplining agents.

Without the East India Company's Royal Charter, firms needed to rely on their own capabilities, reputation, relationships, and innovation, to build consumer confidence and secure the trade. Jardine, Matheson sought to build its reputation on financial wisdom and a network of relationships that its constituents could rely upon. The firm had to absorb the trading risk of its constituents by basing its own bills on trustworthy financiers in Britain and the United States. Essential to financial wisdom was the firm's avoidance of speculation, which had brought down many agency houses.

In the early period, private traders were more often collaborators in the development of market institutions – setting and agreeing to interest rate commissions on agency services, pooling resources for paying insurance claims and establishing shipping routes.

As explained in Chapter 5, during the early period Jardine, Matheson & Company, Dent & Company and others in the private trade committed themselves to live by a set of rates for agency services. The price of the commodities they traded was communicated broadly in "The Price Current," a bi-monthly insert in The Canton Register, the first English-language newspaper in China, published by Jardine, Matheson & Company.

The personal efforts of William Jardine and James Matheson to secure the trade resulted in the ceding of Hong Kong to Britain, and the creation of the Treaty Port system, which provided for the first time a level of regularity to trade and predictability to the costs of trade with China, Singapore, Malaysia, Philippines, South Africa and Japan that lasted until WW2.

The creation of Matheson & Company, a freestanding investment house, provided shared benefits and limited risks among institutional and private investors, using Jardine, Matheson's superior market knowledge to identify new prospects for funding. The outcome for Jardine, Matheson & Company was indeed enhanced wealth, but competitors (like Butterfield & Swire) were welcome. Jardine Matheson & Company and Butterfield & Swire were collaborators on railway and other projects, with government as a public partner, well into the twentieth century.

In the late 19th and early 20th centuries, Jardine, Matheson & Company was one of the first Hong Kong firms to provide foreign direct investment to growth in the ASEAN. The firm's development of an external organization linked by minority equity holdings throughout the ASEAN was an adaptation of the Japanese general trading company or network organization model and allowed participating firms with limited working capital – and little if any access to markets – to benefit from Jardine, Matheson's market knowledge, and financing, insurance and shipping and distribution services.

The Internal and External Organization of the Firm

Jardine, Matheson's founders and subsequent managers developed an 'architecture' or 'administrative framework' for learning and collaboration. This framework included interorganizational linkages for risk reduction and learning important for developing capabilities, trustworthiness, and consistent patterns of behavior and effective forms of governance. It was part of interorganizational succession planning that managers could be moved from one geography to another, one function to another, with enhanced effectiveness and without disruption of the business. A Harvard interpretation would suggest that firm architecture is merely a response to industry structure, which has a strong influence in determining the competitive rules of the game as well as the strategies potentially available to the firm. It's about competition. Learning is based on a rigorous analysis of the market, the industry and the strengths and weaknesses of competitors. The Chicago school would see firm architecture as a way of increasing efficiencies and rents through ownership or long-term contracts that keep transaction costs low. Firm architecture promotes and encourages organizational learning – specifically knowing how to resolve minor problems arising from contracts, for example, and what the rules are for effective contract administration. A further example, learning also takes place in the production area where it is accomplished through on the job training or more formal training and education.

The environment described in Chapter 6 made collaboration essential to survival. This meant collaboration between headquarters and associated firms – as well as between and among Jardine, Matheson's associated firms. The description in Chapter 6 of the geographic spread of Jardine, Matheson's resources, distributed among associated and subsidiary firms and their involvement in the value chains of diverse industries supports the notion that this was a highly collaborative firm. In Chapter 7, the review boards established by Jardine, Matheson assure that the potential for broader, geographic and organizational impact was explored before a go/no go decision rendered on a potential investment, is a further example of organizational commitment to learning and sharing.

Historically, Jardine, Matheson's management team has included business builders and entrepreneurs, comfortable with ambiguity and change, top-line focused, sharp decisionmakers, free to act with autonomy and mandated to create and build businesses. Chapter 7 demonstrated that Jardine's rising star business leaders held multiple cross geography, cross function appointments, and were charged with contributing to firm influence and reputation by playing active roles of Legislative, Bank and other external councils as well as occupying cross-board positions on the Boards of subsidiary companies. (The appointment of Percy Weatherall, head of Hongkong Land to replace Jardine, Matheson senior managing director Alasdair Morrison in 1999, confirms a tradition of choosing leaders with long experience at Jardine and a large stake in the firm).

Encouraging initiative while curbing opportunism

In the Resource-based view, initiative or "enterprise" is rewarded and opportunism is more often depicted as opportunity – the opportunity to extend the firm's interorganizational linkages to include a new but familiar business partner with known and consistent business behaviors, making partners out of a competitors. In the Harvard and Chicago views, initiative is rewarded, and opportunism curbed, by managerial bonuses based on over-achievement of results.

Bringing potential competitors into their orbit – making collaborators of competitors, like Dent and Russell and Butterfield & Swire – served Jardine, Matheson's interests very well. Collaboration opened new opportunities for shared investment, access to information from different markets, and reduced the risk of price and shipping rate fluctuations.

In the twentieth century, Jardine, Matheson built a network of trade and equity-based relationships with associated Hong Kong and ASEAN firms. As the network builder, Jardine, Matheson encouraged the initiative of local firms to which it served as a single source for financial services, insurance and shipping. In building this network or "external organization," described in Chapter 7, Jardine, Matheson made itself indispensable to manufacturers, retailers and service establishments alike, who could expect credit terms of up to two years. The advantages derived from the ongoing relationship were perceived by its members to be greater than the gains of opportunistic behavior.

Another source of managerial initiative and potential opportunism was Jardine, Matheson's cadre of agents in the field and managers at headquarters and in the branch offices.

As evidenced in Chapter 4, Jardine, Matheson's early taipans were attentive to the training and disciplining of those who would be the keepers and brokers of the firm's reputation. Instruction in company routines and desired behavior was conducted via frequent management letter and, whenever possible, in person.

Agents were strongly discouraged from speculating on their own behalf. They would be reprimanded or, like John Shilaber and E. de Otadui, might be visited by a Jardine associate with a mandate to set the business straight. In the early 20th century, representative offices might be closed if the firm could not control its associates from speculating on their own behalf, losing the company's money and endangering its reputation.

Nevertheless, entrepreneurship was strongly encouraged, as in the story of David Newbigging and the cadet-run profit centers told in Chapter 5. As described in Chapter 7, associates with high potential were groomed for senior management and given cross-functional and cross-geographic experience to round out their knowledge and understanding of Jardine, Matheson's businesses and build social capital that would make them effective directors and, eventually, members of the board. The average term of employment with Jardine, Matheson was 20 years or more; the average length of time to a board seat from associate director was 4 years; the average length of time on the board was 12 years. Employment with Jardine, Matheson is another example of a long-term relationship built on trust, where the advantages outweighed the potential rewards of opportunism.

Resource-based, Harvard and Chicago interpretations all recognize that the best managers need to be compensated to remain with the firm to grow firm business. The key issue is incentive-compatibility. The distribution of knowledge in the firm (and among members of its external organization) may provide opportunities for individuals to gain by concealing or misrepresenting their private information, while reducing overall efficiency. However, restoring efficiency allows for gains all around, and so "farsighted" contracting permits the design of incentive structures which ensure disclosure of private information, if necessary, by putting the owner of this private information in charge. Examples of this behavior include the comprehensive education of Jardine, Matheson's high potential managers who were groomed for leadership, or creation of a board seat on the board of Jardine, Matheson &

Company for the head of the Hongkong Land Company after the mutual stock swap and takeover attempt in the 1980s.

How Jardine, Matheson Raised Funds for New Investments

In the Resource-based view, raising funds, when necessary, is part of the managerial or entrepreneurial task. This task might be accomplished through an "external organization" in which the raising of funds is relatively easy – or through intrafirm boards that review and approve fundraising projects.

In the Harvard view, there are internal routines for analyzing the market, competitors, and new entrants as well as the needs of buyers and sellers. New projects would be put through a rigorous competitive analysis. In the Chicago view, there are internal routines for fundraising for projects, including the establishment of hurdle rates and bonuses based on project returns.

From 1885 to 1961 Matheson & Company, the firm's freestanding investment house, raised funds from European and American investors to finance new projects, like the silk and textile mills in China and Japan, mining expeditions in Africa, Spain and Korea. The "freestanding" investment house handled investments in other companies, as well as all investments in projects discovered by or operated by Jardine, Matheson & Company.

From 1961 to 1972, all of Jardine, Matheson's investment was internally financed. During the Exploit and Develop period, 1972-1977, the firm borrowed to support growth. Jardine, Matheson established aggressive hurdle rates for acquired firms, and sold non-performing investments within three years, returning the proceeds of asset sales to reserves for future growth.

From 1980 and through 1996, Jardine, Matheson redesigned its corporate structure a dozen times, as discussed in Chapter 5 to reduce risk and contain costs as well as to allow subsidiary and associated firms to continue to fundraise outside the Jardine, Matheson orbit.

In 1987, to even out the spread of profits and reduce risk, Jardine, Matheson created a novel governance form – the holding company reporting to a holding company parent and paying a fixed return to the parent. Jardine Strategic reduced the risk in Jardine, Matheson's portfolio. It was further found that Jardine, Matheson's use of Jardine strategic to manage its high risk subsidiaries – indeed the use of holding companies for this purpose – actually added financial value to the firm without additional governance cost and provided subsidiaries the opportunity to raise their own equity.

Chapter 9: Section 3: Contribution of this Study to the Strategic Management Literature and Directions for Future Research; Jardine, Matheson in 2001

This dissertation has attempted to use the Resource-based view to interpret the historical development of a major company, explaining that firm's sustainability and the consistency of its strategic practices, policy and management. The choice of a trading firm underlines the importance of this category to the development of the international services business.

The multinational trading company is also a worthy target of study because of its contribution to foreign direct investment and the GDP of nations in which it owns assets, employs agents and intermediates trade.

Theories of the firm have infrequently used the trading firm as a model of behavior. The Chicago school with its emphasis on ownership had a firm with owned assets like patents and processes in mind. The Harvard school with its emphasis on monopoly (or positioning) had utility companies and single product firms in mind.

Recently, researchers like Casson and Roehl and Hennart have applied transaction cost theory to an analysis of trading companies, identifying information asymmetry and opportunism as important considerations for diversification into non-trading activities. The trading company has had greater coverage among business historians, from the previously mentioned Mira Wilkins and S. Chapman to the recent work of Geoffrey Jones.[171]

What makes the early trading firm an interesting candidate for a Resource-based interpretation is, first and foremost, the lack of working capital needed to get into business (the non-existence of entry barriers), the perception of productive opportunity (managerial enterprise) independent of licenses and exclusivity contracts and physical assets (no ownership advantage), and the development by private traders, like Jardine, Matheson, of simple decision rules for profit and growth in highly uncertain times (the existence of strategic management). These rules were: Avoid speculation and use other people's money.

The decision rule "avoid speculation" was critical to the development of reputation, immensely important to customers at a vast distance from the goods to be bought or sold on

[171] Mark Casson, "The Economic Analysis of Multinational Trading Companies," in Geoffrey Jones, ed. The Multinational Traders. Also: Thomas Roehl, "A Transaction Cost Approach to International Trading Structure: The Case of the Japanese General Trading Companies," Hitosubashi Journal of Economics, 24 (1983), pp. 119-135 and Jean-Francois Hennart, "The Transaction Cost Theory of the Multinational Enterprise," in N. Pitelis and R. Sugden, The Nature of the Transnational Firm (London: Routledge, 1991). Geoffrey Jones, Merchants to Mulrinationals (Oxford: Oxford University Press, 2000).

their behalf. What was speculation and what was wise investment was oftentimes a fine line to draw, the difference between the two being history, experience, the shared knowledge of peer firms and the counsel of partners in the firm. This decision rule was the basis of Jardine, Matheson's sustainability through the credit crises of the early period and the dismemberment of the Hongkong Land Company after the stock swap and takeover attempt of the 1980s. Jardine Strategic was created in 1986 to control the speculative behavior of the firm's high growth businesses, the Hongkong Land Company and its formerly associated businesses, the Mandarin Oriental chain and Dairy Farm.

The decision rule to seek external investment capital was critical to growth and sustainability. Tying up your own money in a single venture meant that it was unavailable to pursue other opportunities as they came along, that your fortunes rose and fell with a single "stock." Pursuing this decision rule made Jardine, Matheson a collaborator, a risk-sharer, more often than a competitor in the ASEAN. This decision rule was the basis of the development of an external organization based on long-term trading relationships and minority equity holdings.

The use of Resource-based theory as an interpretive framework for strategic management in Jardine, Matheson & Company does not diminish the importance of uncertainty and risk. Since the necessary conditions for Resource-based theory are highly imperfect knowledge and cognitive limitations, any intendedly comprehensive strategy must include more than the development and application of capabilities; it requires the management of uncertainty, which is a question both of productive and marketing capabilities and of governance. The simple decision rules discussed above were intended to manage uncertainty, while building the firm's knowledge-based capabilities. There is an unavoidable tension between uncertainty and knowledge. Jardine, Matheson's decision rules were created to make the firm the best negotiator of this tension on behalf of its customers, partners and investors.

Contrast the Resource-based view with the assumptions about knowledge that underlie monopoly (Harvard) and ownership (Chicago) models. In these models, the optimal choices about portfolio management, production or marketing are inherent in the data. Everything can be known at the expense of rigorous analysis. All that is needed is a system that will make the overall optima inherent in the data also the private optima for all those who have the power of decision. Governance, therefore, is a matter of applying the known and eliminating managerial opportunism.

Resource-based theory views the constraints on governance to be (a) the perception of productive opportunities, which depends on entrepreneurial skills operating on developing capabilities and (b) the 'receding managerial limit. In Penrose's theory, raising funds is part of the managerial/entrepreneurial task and essential both to the pursuit of opportunities and the reduction of the managerial limit to expansion. In the history of Jardine, Matheson, he managerial fundraising task was expanded by the creation of an 'external organization' in which the raising of funds was relatively easy, "using other people's money." In the early period, this took the form of Matheson & Company, a freestanding investment house. In the mid 1970s, this was accomplished through minority equity holdings in hundreds of firms in a cluster of industries in Hong Kong and the ASEAN. While the relationship with Jardine, Matheson was advantageous, providing services and favorable credit terms, each of the associated firms was forced to fundraise on its own behalf. In 1980s and 1990s, the creation of a new governance model, Jardine Strategic, imposed on managed firms the obligation to seek funding outside the Jardine, Matheson orbit. In each of these cases this external organization was the result of strategic choice.

The notion that a firm may derive value from and provide value to associated companies, suppliers, customers, competitors and new entrants *by strategic choice* stands the Harvard school model on its head. That such value is obtained through trading relationships or minority equity investments *not ownership* is antithetical to a Chicago interpretation.

Unlike Farjoun, Palepu, Montgomery and others cited in this study who looked at physical relatedness and skills relatedness of acquired business for an explanation of the acquirer's growth and profitability, I am convinced that the quantification (in the sense of who buys what from whom, let us say) of the patterns of relationships built by Jardine, Matheson & Company would add support to the argument of conscious strategic choice. An increase or decrease in the value of relationships to Jardine, Matheson would result in a change in strategy – and possibly the emergence of a new network builder from the existing network, or outside it. More than the interrelatedness of resources and capabilities, the external organization through which these resources and capabilities are deployed is the real differentiator and source of new growth opportunities and the sustainability of the firm.

In 1998, I asked former managing director Jeremy Brown, how e-business would change the asset intensity of Jardine, Matheson's Asian business operations. He responded that the relationship with China required continued high levels of physical asset ownership if not investment. But, in fact, in the last three years, Jardine, Matheson has been extending its architecture and creating "virtual networks" for supply chain, customer relationship management and financial services – services that have been the firm's historic source of wealth and the basis of its reputation.

Based on the preceding discussion of external organization – and the worldwide growth of e-business – it is not surprising that Jardine, Matheson, through the computer services division of Jardine Pacific (JardineOneSolution), has partnered with CommerceOne Bank to provide

IP based supply chain and procurement services to trading partners like Swire Pacific in Hong Kong and China through a virtual trading company e-marketplace called Asia2B, a new virtual market institution for putting business service providers and customers together at low risk.

Founded in March 2001, Asia2B is a joint venture comprising SUN Microsystems eVision, the Swire Group, New World China Enterprises, Beijing Enterprises Holdings and CommerceOne.

The partnership provides collaborative commerce, procurement and fulfillment services, using the Internet to correct the inefficiencies in the traditional supply chain. The trading portal comprises many industries including aviation, automotive supply chain, building materials, computers and components, fixed and wireless telecommunications, hotels, medical and healthcare products, retail, shipping and logistics.

JardineOneSolution is the largest IT hardware, software and services provider in Hong Kong at $500M US/annually. Jardine OneSolution (JOS) has also formed of a joint venture with TELUS International Inc., a wholly owned subsidiary of TELUS Enterprise Solutions Inc., one of Canada's leading IT consulting and outsourcing services providers to provide information technology (IT) related consulting, Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) and e-Procurement outsourcing to Hong Kong and China. The Jardine/Tellus joint venture is 75% owned by Jardine OneSolution and 25 % by TELUS International. The joint venture has an initial focus on the Hong Kong market and will expand into the nearby region after establishing itself in Hong Kong.

Jardine Motors' French subsidiary, Cica, operates a range of franchises, including BMW, Ford, Mercedes, Opel and Peugeot. Exlinea, a new subsidiary created by JIMH France and other investors, is a pioneer in the use of IT to market used and new cars through its Carsat auction system and its Internet Degrifcar and Proveo sites.

In 1997, Jardine, Matheson sold its financial services company Jardine Fleming to Chase Bank for $1.2 billion US. In 2001, Jardine, Matheson is rebuilding its financial services business, under the leadership of David Keenan, recently of UBS Warburg. Jardine's new financial hub will provide secure Internet banking and mortgage banking services to consumers and businesses globally.

Using its historic capabilities – including architecture and reputation – and competencies – including financial management, risk brokerage and retail – Jardine, Matheson continues to grow and to innovate, linking its business customers to each other and to end users in an increasingly virtual marketplace. Cementing these relationships are Jardine, Matheson's historic “agency services, ” financing, insurance and distribution services. The firm is living example of the Resource-based view: making decisions that build on historic capabilities and exploit opportunities in the marketplace, learning from failure, creating new market institutions, relying on an internal and external organization to deliver business value and manage uncertainty, fundraising for growth and encouraging continued innovation.

Appendix A:
Jardine, Matheson Archives,
Management Issues 1810-1906
(Samples)

Relationships with Correspondents

- C9/1 Donald Matheson to John Abel Smith June 21, 1846:
  Mr. A. Matheson has no doubt informed you of the intended changes that are about to take place in our Agency in Manila. Mr. Otadui is now winding up his affairs with the assistance of Mr. Macleod, and the former embarks on the Colon for Cadiz about the end of July --- Mr. Barretto who has been for a length of time in our office here, goes over in a few days to take up the business of E. de Otadui & Co., and I have recommended Mr. Jones to go over at the same time, so that he may enjoy the advice and assistance of Otadui, who still possesses considerable influence with the government, besides having an intimate acquaintance with all the individual members of it. I may also mention the following favorable omen. Mr. Macleod having been entrusted with a communication regarding these bills on a former occasion, he might naturally be looked upon as your probable agent in the business, and we have just heard that for some unknown cause, the Governor has been lavishing on Mr. Macleod most unusual favors, allowing him to hold lands and houses in Manila and the other reports of Natives, etc. Mr. Otadui also writes under date June 3: 'The Intendente has asked me whether I know anything of certain bills for $300,000 for which Mr. J.A.S. had arranged to take payment here in Tobacco. It appears that the Intendente has now orders for their payment.' I think the above augurs a favorable issue...

Competition -- And Competitive Advantage

- C4/2 James Matheson to Charles Thomas, Singapore Sept. 30, 1832:
  "...in the present state of our English Exchange (which is likely to be 1/6 per dollar) as an effective bar to the arrangement which you propose for our supplying you with dollars even if the absolute scarcity of the coin were not a still more powerful obstacle. To render the plan feasible it would be necessary that we should be assured of a certain portion of your own capital being embanked in your coffee shipment, say 1/4 as security against loss on the remaining 3/4 which would be advanced by us. In the present state of your account, I do not see how this object could be obtained. Our attention, like that of the commercial community all over the world, has been called to the circumstance value of the demand for coffee being likely to exceed the production for the next 4 or 5 years, but this very circumstance of so many being on the same scent gives room for apprehension that the price may be run up beyond a prudential limit, while on the other hand, this advice cannot but have a powerful effect in checking the consumption. It is observable too that every article suitable for the Europe market is, in general, eagerly sought after by your neighbors as a mere means of remittance without any view to profit, and the same is more or less the case all over India, owing to the means of remittance being less than the trade requires, and the consequent necessity of resorting to bullion and every sort of unprofitable medium which necessity can suggest. While you speculate in the face of a high exchange and at your own risk, your neighbors do so at the risk of their constituents and often for the sake of effecting sales at anything likely to pay an indifferent exchange. ***Hence, it generally happens that those who are first in the market on these occasions, whether from priority of information or superior discernment in foreseeing a use, make handsome profits, while those who follow experience a very different fate. It is not, however, on account of these views that we feel an insuperable objection to incur the risk of such speculation. They are foreign to the line of our business, and we have neither the time nor inclination for acquiring the requisite information to give us a fair chance of avoiding the most serious errors.***

- C4/2 James Matheson to John Macvicar Nov. 14, 1832:
  If by chance you should find lower rates than ours brought to your notice in the Piece Goods department, I think you may safely refer your friend to the example of our constituents in India who confide to us so large a preponderance of the business of the Port, well knowing the lower terms of others, but having also by experience the superior

advantage of our system...I shall therefore add that we find an incalculable advantage for the extent of our concerns, rendering us a general focus or medium, a sort of clearing house* (to compare small things with great)* for transacting a preponderating amount of the business of this Port. Hence it is that we can see further and sooner than others and can take our measures by anticipation accordingly, and we are seldom or never compelled to appear in the market as applicant for what we want. Bills on England, for instance, come in upon us so regularly for our remittance from parties anxious to sell that we need never appear anxious to buy, and the difference between the relative positions is of essential consequence in making a bargain.

- C4/2 James Matheson to Duncan Matheson Nov. 13, 1833:
  Such is my impression of the extent to which the trade in British manufactures will be overdone here by the resistless impulse of steam that I cannot consider it desirable for the general merchant to engage in it in competition with the manufacturers, who will be satisfied with the lowest scale of remuneration that will enable them to work their machinery without loss. The accompanying paper of "Hints" will I think convince W. Duncan that he can supply funds here, without resorting to a remittance, either in...or in treasure and the probability is that he can obtain bills in India that will yield him a handsome profit. Should he be disposed to run the risk, of our having to draw from China at a high exchange for a part of the requisite funds, there can be no objection to the plan, and it will have the advantage of his not being called on to fork out the cash, till six months after his teas reach him, in place of having to advance it twelve months previously. It will be desirable that in this event he sent us out a credit for some part of first rate credit and the more thoroughly secure it be the better will be the rate of exchange. A credit from one of the Edinburgh Banks would answer famously. I enclose a form of the part of credits usually granted by Baring Brothers & Co. of which hundreds of thousands are annually negotiated here --- we can manage without any credit at a trifling disadvantage in the exchange - should he feel disposed to trade, he should consult Mach'cun whose address is ...as any advice which I could give from hence must of necessity be so materially modified by the nature and extent of exports in the intermediate nine months before you get this as to be quite inapplicable. Mach'cun if as I presume he has an eye to the exports going on should be able to give advice to the purpose. Cotton yarn is a bulky article and fills tonnage at little cost...

- PLB William Jardine, January 16, 1833:
  "Our idea (in building a new clipper) is that the opium trade after the expiration of the East India Company's charter is likely to be so much run upon by speculators of every description for the mere sake of remittance without a view to profit that it can hardly be worth our while pursuing on the old plan unless by operating on a large scale, and on a secure footing of always being beforehand with one's neighbors in point of intelligence."

- PLB, Hongkong to India to RW Crawford, Bombay, April 9, 1846:
  "Competition has ruined the opium trade for a time and we must wait for the trade to ruin our competitors."

- PLB India to F. F. Lidderdale, Bombay, August 17, 1868:
  "Your opium advices are again unaccountable and I am surprised that shippers are found at prices which cannot but lose money. The state of the China market appears to be ignored and it will be curious to watch how long this ruinous business can be carried on. Any permanent improvement can only be brought about by limited shipments from your side."

- PLB India to Remington & Co., Bombay, August 2, 1872:
  "The old trade of foreigners buying to supply the various northern markets has entirely died out and what little local (Hongkong-Canton) consumption goes on is supplied by (Sassoons) on credit in a sort of retail way...The trade altogether has gone to the dogs and my surprise is the infatuation still shown on your side."

Training and Development of Agents

- C4/1 James Matheson to Wm. Mathieson, Esq., Glasgow, Jan. 17, 1831:
  Your continued warm interest in my nephew John calls for a repetition of my most grateful acknowledgment. He is yet so young both in years and in business that there will be ample time to deliberate as to how he is to get on in the world. I am not in favor of young men being brought forward on the stage of life without amply previous training. In regard to your plan of making him our "safe and confidential agent" in Glasgow, I should think some years must elapse before he can be qualified for such an office. And I apprehend it will not be in our power to direct any consignments to him from this quarter, or employ him in the execution of orders for China. It appears to me that the nature of the business will be entirely in export trade, on the part of the home manufacturers to this Country and that China produce will find its ways to you only as a means of remittance.

  Consequently, prices will be so maintained here as to preclude speculations unless on account of parties at home requiring remittances who will of course be their own consignees. In the meanwhile, Mr. Macvicar has suggested that it will be desirable for John to acquire a thorough knowledge of manufacturing business by being employed for one or two years in a Manchester warehouse without salary - should you approve of this, he offers his services for carrying the plan into effect. And I will provide for his economical maintenance. Mr. Macvicar thinks the youth can afterwards with great advantage come out to India or this Country.

- C4/1 James Matheson to Hugh Matheson Nov. 4, 1831:
  I shall proceed to add a hint for your guidance. I think you should avoid engaging for any long term of years, as you did in joining I.M.H., A short partnership with liberty to separate after a notice of six months or a twelve month will be the most likely to keep all parties contented. So long as you get on well, the chances are none of you will wish to separate. As it appears possible Mr. Wm. Lyall may have formed other arrangements at home, I would not consent to be advertised until it is ascertained that he has done nothing to interfere with you. This will effectively guard against a collision of interests, and subsequent discontent. I think you should have an equal share with Mr. C. Lyall, if not now certainly in the course of a year or two. Your business this season will not be a fair criterion of what you may expect to influence to the firm after your joining it, if the foreseeable prospects of the drug and the probability of unreasonably high prices in India, our remittances and those of our friends will probably be on a more limited scale

than usual. And 2ndly the greater confidence resulting from not having to rely on a single life will, it is fair to presume, gradually induce your friends to increase their business. In saying this, however, let me warn you that the greater part of Magniac & Co.'s business must necessarily go to Fergusson & Co. You can only have a small share and the less this is known to F& Co. the better.

It will probably benefit the Firm to let your name appear in it as a partner. One of the Lyalls (Jos. or Robt.) contemplates it as desirable that you are Charles Lyall should go home in a year or two, but the utility of this I do not perceive, seeing that Wm. Lyall is always there to look after your interests and the absence of either of you would revive the objection of reliance on a single life, which now exists.

- Subsequent letter to James Lyall confirming what he said to Hugh, November 9, 1831.

- C4/2 James Matheson To Hugh Matheson May 9, 1832:
Your new partnership is the principal subject of interest which I have to advert to and that I am perfectly satisfied of its being a good arrangement, as introducing you into a thriving and united family, yet I should be wanting in candor if I did not avow that a shade of disappointment came over me on reading the particulars contained in your letter. The concern appears to me to depend more on futurity for what it expects to be than upon the degree of success which it has yet attained. If the Lyall branch of the business should increase so much as to render 1/4 of it equal to the 3/4 which you give up of yours, you will be pecuniary as well as you were before, with this difference that you will earn the same income with infinitely more travail and in place of its coming to you without asking, in the snug way of the China business, it will be derived from more precarious sources, partly depending on advances which you will have to make. But from a commission business, which you state in its second year to 'have left a small surplus after paying all the expenses of the establishment it requires a great stretch of the imagination to expect in its third year an increase 3 or 4 fold, say 30 or 40,000rs. Yet this you must have from pure commission to make your situation as good as it was and all I shall say is God grant it may be the case.

In your letter of December 24, you state that the Lyalls concurred "fully in my remarks as to the danger of speculating largely in Indigo, in the present times." Again, you say, it is not C. Lyall's wish to speculate largely in anything. Now in both these extracts there is a reservation, a loop hole, if I may so call it, which by no means agrees with the strong language used in my letter of Nov. 4 where I state that I give my opinion in favor of the partnership on the express understanding "that your house is to be one of mere agency, and that above all you must abstain from speculating in that most treacherous of articles, indigo."

All I have since heard of indigo has given me even a greater horror of it than I had before. Indeed, there seems to be scarcely an instance on record of any sort of speculation answering in Calcutta. At all events the instance of failures are infinitely more numerous than those of success.

Pursuing the same course of observation, I would further observe that 3/8 or nearly half of your emolument appears to me too great a share to be employed by a partner at home who does not share in the labors, privations and discomfort of those managing the business abroad. That the party at home should have a handsome compensation for his responsibility and influence in procuring consignments is fair and proper. But this is usually a percentage on the consignments which he actually influences. Mr. W. Lyall, as the founder of your house, may reasonably expect more, but I think 3/8 too much with due deference.

As to the plan which you hint at to Mr. Jardine of the London and Calcutta houses being amalgamated into one concern, I do not see what object is to be gained from it. The consequence will be that neither house will know what they are worth, without waiting to learn the wind up of the accounts of the other, and both will be apt to be put out of humor in suffering for unlucky or mismanaged transactions, not their own, such as occasionally occur in the best regulated concerns...

I should think Mr. Jardine would not object to let you have the loan of 15,000 rs which you apply for to pay up your capital in the concern. But at the interest of 8 percent which you propose, you could not have it without subjecting us to a loss --- and being of opinion that it will be more decorous to let the request come from yourself to Mr. Jardine direct, I would recommend your applying to him accordingly, without specifying the rate of interest.

...You are of course exempted from commission on your speculations in old Patna but both Mr. Jardine and I disapprove of you adventuring so deeply, particularly Alexander, as it does not look well in the eyes of the other assistants in the office. I am glad to think that you will make a little money by this business, but it grieves me to observe that you will require it all to make you even with the world.

Until you mentioned this, I had not the least idea that you were in debt...

- C4/2 James Matheson to Hugh Matheson, Calcutta December 15, 1832:
  It is under feelings of no ordinary anxiety that I send you...the documents by which you are constituted agents for the 10th Canton Insurance Company. To the anxiety which I must always feel for your well-being is added the consideration ...your judicious judgment and the affair will depend much of the hitherto well-maintained high character of the concern as well as our justification for going out of our way to secure you the agency. Let me beg and entreat, therefore, that you will not suffer yourself to be seduced either to the right or to the left by any selfish views or considerations of our favoritism--- but that you will in all cases be regulated by the single, straight forward principal of what may tend to the good of the concern. Let me also inculcate upon you to bear in mind who it is you are acting for and not to wound our feelings of self-estimation by hawking about your shares to parties who may be indifferent about having them. A due medium between undue humility and unbecoming hauteur will be your proper path. In regard to Fergusson & Co., and Mackintosh & Co., it will be sufficient that you intimate to them that you have learnt from us, we shall be glad to hear of their accession and that you beg to know what their intentions are. Some little deference to any wishes they may express will not be out of place. But beyond this you cannot be expected to proceed. If you take Calder and Gordon and Storm on the right tack, I have no doubt they will take shares and be disposed to support you from regard to the interests of their correspondents Dent & Co. From Fergusson & Co. I have no great expectation, but we should wish the offer to be made to them in a handsome manner to give them a fair chance of coming forward. What advantage do you anticipate from the suggestion in your letter of 26th April that your committee should consist of Houses and not of individuals? It seems an anomaly that will have an odd appearance.

Dent & Co. have made strong intent with us for continuing the agency with Mackintosh & Co., stating as a recommendation that in the first 15 months of their agency they collected 120000 or 130000 rs. in premiums. If you do as much or more, of course, we stand justified with our co-proprietors. But in your thirst for premiums, you must take care not to be reduced to the taking of ineligible risks.

Your suggestion of placing the accumulation of premiums, government securities in the names of the Committee is undoubtedly preferable to any idea of a deposit in the Union Bank or in any of the great Agency Houses.

I wish you had avoided saying anything as to conferring the London Agency on W. Lyall & Co. Your idea of their taking risks for the office in London shows a want of knowledge which I could hardly have expected and I was glad you had soon found out your error. A little more modesty of language in setting forth their pretentious would have been becoming. A variety of considerations make us averse to so total a separation of our old connections as would be implied in our passing over Fairlee & Co. in the London Agency. This is a most important department as depositaries of the London premiums which it is also possible they may be called on for heavy advances should we be unfortunate enough to meet with losses at the commencement of our career. I am aware that some little time ago, there were parties who spoke slightingly of our London friends. But we go upon good grounds in disregarding such insinuations which we know to be without foundation.

We have taken into serious consideration your idea of confining the shares of a few Houses on whom you can depend for all their support rather than aiming at a wider distribution, which might fritter away your interest without adding to your strength and we are by no means disinclined to it, if you see your way clear. Only let me have practical proof of your modesty by your being satisfied with a moderate number of shares for yourselves. In our official letter, we have suggested your having 2. This is, of course, on the supposition of your finding eligible parties willing to take the rest off your hands, and to give you corresponding support. We wrote to Cockerell & Co. that we have recommended them to you are shareholders.

In my opinion, it is of more importance to you as a young House to be recognized as the agent of a flourishing Insurance Company than the advantage of 1 or 2 thousand rupees per annum, which you might gain by every additional share appropriated to yourselves.

Finance and Insurance

- C4/2 James Matheson to Charles Thomas, Singapore July 23, 1832:
  You will receive by this conveyance your account current to 30th June, and I cannot conceal from you how much I have been disappointed to observe the very considerable sum that will be still due after crediting your Benares opium, which we have hitherto been unable to realize. Let me beg and entreat in the most earnest terms that you will give effective attention to our wishes on this subject, which did now become the more indispensable in consequence of the dissolution of our former firm, when the present firm must either resolve to take upon themselves the responsibility of your Balance or report it to Mr. Macvicar as in suspendu. For indeed am I ...apprehending that the later course will be requisite. But you will see the necessity (in order to avoid it) of reducing the amount within reasonable limits. Permit me to suggest a plan which I think you might adopt with some advantage to yourself while it would tend to tranquilize our minds, viz. that you should instruct your agents at Calcutta, Bombay London to pass your consignments to them to our credit and let us draw upon them for the profitable proceeds. Had you done so with the 300 lbs. of Camphor sent to the three above named places, it would have made a material reduction in your balance and saved you interest. The only objection which I see to it is the circumstance of your running your own risks to a certain extent. But if you would forget this doubtful advance and effect insurance in the regular manner on the full amount, I think we could make up the sacrifice to you in other ways, desirous as we are and have been of doing every thing in our power to promote your interests.

  I shall feel obliged if you will inform us of the rent obtained for your premises hypothecated to us, also who the tenants are - and if you will continue to do so, while the loan is unredeemed. I am aware that you yourself occupy one of the Houses in which Mr. Murchison resided formerly.

  I would also suggest that till your balance is reduced you shall consider as appropriate to us any eventual profits on the consignment of Norden, notwithstanding the letters which at your earnest request we sent you, for Messrs. Fergusson and Messrs. Remington & Co. and place the amount at your disposal.

  In making up your account current, we have omitted commission on bills of England remitted to you and on your bills which we have paid - Without however meaning this as a precedent for future occasions. I trust your explanations respecting commissions will soon arrive and enable us to dismiss the subject from our correspondence for the future for it is truly irksome to revert to it so often.

- C4/2 James Matheson to John Macvicar (Confidential) April 25, 1832:
  For the sake of our friends, more than from any apprehension on our own part, we were most desirous to avoid bringing themselves extensive acceptances and have fortunately been able to do so, have been abundantly supplied with bills under credit from parties of the first respectability in America, most of them guaranteed by the agent at New York of Baring Brothers & Co. By offering our endorsement to these, they are equally negotiable in India as if drawn on ourselves. I shall annex a list of the Houses on which such bills are usually drawn, as well as of some others, and we shall feel obliged by your keeping us regularly advised of any circumstance which you may hear whispered to affect their credit, particularly that of Baring Brothers & Co.

  Names of House regarding whose credit we wish to be advised from time to time:

  Baring Brothers & Co.
  Thomas Wilson & Co.
  Timothy Wiggins
  Gillespie, Moffatt, Finlay & Co. drawers of John Jacob Astor a great capitalist
  of New York
  Gowar & Marx
  Bill and Grant
  W. & J. Brown & Co., Liverpool
  Gledstone, Drysdale & Co.
  Small, Colquhoun & Co.

- C4/2 James Matheson to Hugh Matheson April 7, 1832:
  To enable you to answer any comments which you may hear in the mouths of others regarding the amount of bills in the market bearing our endorsement, I may observe that we seldom or never remit such bills except when called for by our constituents, and as the demand for them has latterly been very great, especially for Bombay (whence some would appear to have found their way to Calcutta) their amount has been considerable in proportion --- so much so that I think it likely three fourth of all the Exchange businesses of Canton have passed through our hands this season. Bills drawn by ourselves are

sought after by Parsee agents here, at a penny or a half-penny lower than those we endorse, but these we attribute to their ignorance or to the nature of their orders from Bombay, because if there be any difference those which we endorse should properly be considered preferable, having the security of the drawers in addition to ours. It would be easy for us in place of endorsing bills to remit them all to Fairlie Bonham & Co, and then draw against them, but this, it appears to us, would be weakening the security of all parties, besides the possible injury that might result to Fairlie Bonham & Co. from an enlarged amount of their acceptance being afloat in the home money market. In this remark, I am far from meaning any disparagement to their London friends but as all security in commerce is relative, we think that we afford a stronger guarantee against the hazards incident to all human affairs by distributing the risk which is inseparable from doing business, among a number of good houses, whose bills we purchase and pay for rather than by relying on any single house, however strong --- this strong home, be it remembered, being always prepared to pay in case of need in protection of our endorsement.

Of the bills which we endorse, those on Baring Brothers & Co. are always drawn under credits either from themselves or their attorney at New York, Mr. T.W. Ward, who has authority for the purpose. Other bills are drawn under credits from a known capitalist John Jacob Astor of New York, who owns lands almost equal to a principality in the United States. Bills on Gledstone, Drysdale & Co. are either drawn under credits from them or on the security of bills of lading for goods, They are a House of know property. Mr. Thomas Weeding on whom we draw is a merchant possessed of at least a lack of pounds sterling. Thomas Wyatt on whom we also pass bills is a still greater capitalist tho only an oilman. Then there are Messrs. Spode and Copeland, China ware men of solid wealth and you may have seen some of our bills on them also. On the whole, we feel that we are now committing ourselves with people of far greater solidity than those whose bills are vaunted forth at 7/10 1/2 at Calcutta. And if any disappointment should occur to us, divided as our risk is among various parties, it cannot but prove comparatively insignificant.

It may probably prove a useful preparation on future occasions of sending you bills with our endorsement to state who the drawers are, and the nature of the security on which we rely authorizing you at the same time to assure parties taking them that Fairlie Bonham & Co. will be prepared to take them in case of need for our honor. But as I have said before it is not likely that we shall trouble you with anything 'til we hear that credit is reestablished in the mercantile establishments at Calcutta.

Tell me how the bills of the United States bank are valued at your place, whether they would sell equally well with those of the first Calcutta houses. They ought in fact to sell as well as the Company's. The security to my mind is better.

You are at liberty to show this letter of course to your partner and to James and Robert Lyall but you must not let the whole of it be seen by any others for I should not wish it to be known that I have spoken so disrespectfully of the Calcutta houses

- C9/1 Donald Matheson to John Abel Smith March 25, 1846:
The gradual improvement which we were counting upon here in the market for manufacturers has had a considerable check lately by the disclosure mode at Shanghai that instead of the goods going into consumption, they were going into the Pawnbrokers' shops, or in other words, that the principal purchases of them from foreigners, finding that he could not resell them for cash, placed them at enormous interest, and when the selling day arrived at their New Year, he was of course unable to meet his engagements. The difficulties have been measured as regarding foreigners by the experience of the Consul and his adjustments in devising measures to meet the emergency. It is understood, however, that the Chinese government will compel the Bankers who have been the main cause of the evils, to assist the tea and silk dealers, till their produce which has gone to England chiefly under advance can be sold and accounted for.

China is now participating in the same scarcity of money that has been prevailing in India and Europe and it is chiefly distributed to the drain by her own Government of 21 million dollars worth of Sycee during the last three years. The wont of this Bullion for the usual remittance to India and the simultaneous scarcity there precluding any advantage from the transmission of English paper to that market must compel us to resort to the export of dollars, which being a foreign currency we have not the means of readily replacing, and thus our trade will be even more fettered than at present. If these anticipations are realized, it would be worth the attention of capitalists either to ship Spanish dollars to Europe or to influence remittances from South America by way of China and Specie....

Market Knowledge

- C4/1 William Jardine to I.H. Gladstone, March 29, 1830:
  You ask me to give my opinion of the consequence of throwing open the trade between England and China, a measure which I expect to see only partially resorted to at present. Should the trade be thrown open, it will still be carried on by Europeans, or rather English capital. Howqua is old and cautious, too much disposed to quiet and retirement, to advance his very large capital in distant speculations. Mowqua had very large landed property, but not enough of ready cash to carry on the Company's trade allotted to him, without borrowing from Europeans ...Tengqua, who conducts the business of Powkequa's Hong is too timid to embark on any uncertain speculation, and how ever since he took charge of the Hong, confined himself almost entirely to the Co-hong's business. Chunequa is neither solvent nor is the Hong broken up. I have this forenoon been requested by the creditors to draw up a chop or petition against his Hong, the Viceroy having been under a promise to bring the head of the Hong, Lord Melville back ever since September last, but has hitherto failed in doing so. Old Kingqua is still poor and in debt, though his credit is good. Falqua has neither money nor character. Gowqua had money but knows nothing of business beyond supplying teas for the company, who generally pay him cash and burthen him with as little import cargo as possible.

  So much for the Old Hongs. We have now four or five new Hongs... Some money, some character, or without money and without character ...broken down opium brokers.

  If the trade is thrown open and we or any House or individual known here can purchase a certain quantity of black or green tea annually, there will be no difficulty in procuring them and the importance or sway of the party will be propitious to the extent of the trade they carry or always supposing them to be honest, reasonable, just and honorable in all their mercantile transactions.

- C4/1 William Jardine to Magniac, Esq., November 10, 1830:
  By this conveyance, you will of course expect a copy of the accounts that should have been sent to you last season and I feel very much annoyed at being again compelled to disappoint your expectations, but the truth is this, after having gone through the whole of the opium accounts of last season, we found that Mr. Ullman had so mixed up the soled but uncleared drug of the previous season with it that it became necessary to examine

minutely the operations of that also, which has not been satisfactorily accomplished. Mr. Matheson has however made great progress in this tedious examination, and by one of the later ships of the season (we will send you) a statement that may be relied on.

In the meanwhile, I may safely say Mr.Ullman's balance of about $78,000 will be more than doubled by adding to it the profit arising from the opium account.

You may possibly recollect my repeatedly observing to you that I was satisfied Mr. Ullman's books were sufficiently correct for practical purposes but never balanced with nicety.

- Coast Letter Book, Hongkong to A.G. Dallas, Sh June 4,1852:
  "You will please bear in mind that money in China has been scarce for some time back, and as we are dependent upon the Woosung station for a considerable portion of our supplies, it would be most inconvenient were we entirely deprived of these."

  The government-controlled Bengal monopoly provided regular reports and irregular memoranda on crops and possible yields in the Benares and Behar agencies, but Jardine depended upon Jeejeebhoy and others for its knowledge of the Malwa crop and Bombay market trends to prepare instructions for commanders on the coast.

- Unbound Correspondence in Letter Box, 1848:
  "(1) What is the present amount of manufactured opium on hand in the country (i.e., Rajputana and the Native States)? Reply: 2000 chests of old drug 1846/47 and about 9000 to 10,000 of new 1847/48 now coming in, (2) Whether there is a prospect of extensive failure to the crop now sowing? Reply: the want of water will doubtless occasion a considerable reduction but the rates being so high it may be expected, and is, that every means will be taken, such as sinking fresh wells, to procure water. So suspicious, however, are those who make advances that they are waiting until the crop is high to see what water remains for the advancing stage of the poppy before they lend money. The crop cannot exceed 9000 or 10,000 chests, though ordinarily 12,000. If there are high prices just before the rains they will adulterate to 12,000 but this opium won't come in before November. The rule is...if prices are high, they adulterate, if low, store their drug.

- Unbound Correspondence, Calcutta, November 11, 1850:
  "Memo of Opium Cultivation, Behar Opium Agency, 11 November 1850: For five days rain fell incessantly, which not only has retarded the sowings but has damaged them considerably and will necessitate the resowing of a large quantity of land. On the whole it will make the crop a late one which is objectionable, a late crop of poppy never being so plentiful as an early one."

- C9/1 Donald Matheson to John Abel Smith May 25, 1846:
  Trade with China is now completely overdone, and each successive mail seems destined to transmit slightly worse accounts than its predecessor from either side, aggravated, it seems to me by an imaginary good in the shape of a prospective reduction of the tea duties. The benefit of which when they do arrive may after all be greatly overestimated. The export of green teas for the past eleven months amounts to upwards of eleven million pounds, an unusually heavy supply. Fortunately, the increase has taken place chiefly during the last two months, and as the vessels sail out of season, they will make long and irregular passages, thus extending the imports into Great Britain over a greater space of time. I trust the moderate quantity shipped by ourselves may be moved off at about ...rates, which is the best we can hope for in these times.

  The scarcity of money which I alluded to in a former letter continues both here and in India and the non receipt in the latter country of the usual supplies from China appears to be severely felt as shown in the Exchanges. We learn that considerable purchases were made of Bills in China at 200 Rs for $100/ I hope the sales of tea and silk will enable you to send to Jardine Skinner & Co. a considerable amount of Company's bills on our account.

  We have just been favored by the Government here with an extract from Mr. Gladstone's dispatches sealing the fate of Hong Kong. Increasing dissatisfaction has for some time prevailed especially among the small houses, at the gradual decline of the little trade that existed owing to the ruinous policy pursued by the local government and now that the policy has been most unconditionally approved of by the new Secretary for the Colonies, all hope is at an end. It is the sincere conviction of those who have the best means of judging that this island under the fostering care of a good government might have prospered, and to an extent which under present adverse circumstances might appear incredible, but the opportunity is even now gone. The island of Chusan is to be given up immediately, but the right of entrance into Canton, although ceded to us in writing, is denied or abandoned by us in fact.

- Coast Letter Book Hongkong to Coast, Feb 5, 1843, March 11, 1844, April 1844:
  "We are sending cotton staple to the north. There is no demand here (Hongkong-Canton) but demand is reported at Amoy (Feb. 1843) ...Raw cotton is very dull (March 1844) ...Nothing doing in cotton. Jeejeebhoy and Company advise that 1400 are being sent forward with other shipments to follow, and the article is as usual unmovable (April 1844)."

- Coast Letter Book Hongkong to A.G. Dallas, Sept. 15, 1845:
  "It will be impossible to get cash for cotton this year (1845) and we shall have to load, bye and bye, about 4000 tons of tea. We must realize on $700,000 of Jeejeebhoy cotton.":

  Jamsetjee Jeejeebhoy, with whom the firm conducted joint-account business, complained in 1846 that Jardine had not lowered its commission charges on raw cotton or opium in accord with those of many smaller dealers, particularly the Parsees who speculated in small amounts at Hong Kong or Canton. The firm replied that big operations required more capital.

- PLB, Hongkong to India to Jamsetjee Jeejeebhoy, August 18, 1846:
  "In former times when we had an establishment at Canton only, these commission charges were not considered high. Now we are compelled to keep branches at Canton, Macao, Shanghai and Amoy besides our coast stations, involving a very heavy outlay of capital and large annual disbursements."

- Coast Letter Book, Hongkong to Commanders, May 29, 1851:
  The almost simultaneous arrival of (four) vessels from the fifth and sixth Calcutta sales has caused, for the moment, a panic among the dealers and prices which had previously been well supported at our last quotations have given way....After a time, however, the market will probably rally somewhat, but, for the present you will continue to take full share of sales at current rates."

Insurance

- C4/1 James Matheson to Charles Thomas, Singapore February 9, 1832:
  I regret it is not in our power to comply with your wish for being appointed Agent for the 9th Canton Insurance Company, the present office being under the management of Dent & Co. On the 1st January next, it will be succeeded by the 10th Insurance Company under our management, and we shall then probably be able to avail ourselves of your services. But in place of receiving premiums in produce, which must be attended with great trouble and risk of loss, I would suggest as a preferable arrangement their being paid in good bills on China, London, Calcutta or Bombay, at the same rate of Exchange as the policy. Great care will be requisite in accepting only good risks and in rejecting all those of a secondary class, including small coasters and traders among the Malays or Eastern isles.

  Time policies unless where the voyage is very particularly specified and unobjectionable should also be avoided. In short it is not for the sale of the premiums to be realized that we would contemplate having an agent at Singapore. Is chief use will be to protect the interests of the office in regulating transshipments to England. But for this motive, we should feel no desire to extend our

- C4/2 James Matheson to Hugh Matheson February 25, 1832:
  In the course of the ensuing summer, it will devolve upon us to establish the 10th Canton Insurance Company. I am happy to say that Mr. Jardine is quite as much disposed to befriend you on the occasion, as I am myself, if he does not even go beyond me. It seems essential to the plan that your proposed partnership with Lyall should be carried into effect or some other of equal respectability. As you will still be a young house, it will be desirable to make a provision that the premiums, when they accumulate to a certain sum, shall be placed in the hands of some party of stronger credit than yourselves, the Union Bank for instance and in this case what interest will be bank allow?

  Hitherto the Calcutta agents have acted on their own responsibility without any committee such as the Calcutta offices have, but should you be appointed, I should think it would add to the respectability of the concern to appoint a Committee consisting of the most influential parties who might be disposed to take an interest in supporting it. Out of the 60 shares of which the office consists, Palmer & Co. had formerly 18 for distribution among their influential friends and 6 for themselves. Were you to be appointed, four shares would of course satisfy you, which would leave a greater number for distribution. The point to be ascertained therefore is how you could command an adequate portion of business, or create an interest among your friends, having the distribution of the above number of shares --- say 18 for yourselves and friends. At present we make no promises, but it would facilitate a decision when the point comes to be ultimately resolved upon, were you to turn the matter in your mind and let us know your opinion on the points I have adverted to. You will do well to avoid giving out that I have written to you on the subject --- but there will be no harm in enquiring of your friends whether in the event of your succeeding, they would be disposed to support you.

Joint Ventures

- PLB James Kewswick, Sh. - HK, to W. Keswick, January 17, 1879:
  "All I can say at the moment is that if the scheme be carried through at all we shall have the business for I do not anticipate that the Chinese will go to any other firm."

- Unbound Correspondence, Hongkong, from J. Bell-Irving, Feb. 4, 1870:
  "Our best information holds that China Cotton cannot be spun into yarn which will make gray shirtings, and that the highest count of yarn into which it can be spun is No. 20."

- PCLB, HK, G. Brown to Platt Bros. & Co., Oldham, November 14, 1878:
  "We write regarding the subject of supplying the Chinese with the plant of Machinery requisite for the establishment here of a Manufactory by which Native Cotton can be worked up into gray shirtings. This undertaking has so far advanced that certain influential Chinese have now come forward and are seeking the necessary permission from the Native Officials to form themselves into a Company for the purpose of carrying out the scheme...we may be called upon at an early data to definitely state the terms upon which we will undertake to supply the plant of Machinery...Telegraph to us the total cost in Sterling including Freight & Insurance to Shanghai...(The plant must be capable of turning out 270,000 pieces of Grey Shirtings per annum.) On receipt of your telegram we shall be in a better position to treat decidedly with the promoters...send by mail a memo of the probable Wages you would have to arrange for when engaging the following Skilled hands, viz 1 Chief Superintendent, 1 Engineer, 1 Supt. for carding and spinning machinery, 1 Supt. for the weaving machinery, 1 Mechanic to erect and set up the Plant & Machinery ready for us. All for three years....This letter we forward open through our London friends Messrs. Matheson & Co." "The Shanghai Cotton Spinning & Weaving Company" failed to attract support, although Jardine continued to pursue it and related projects, such as a government-sponsored mill.

- PCLB, F.B. Johnson to W. Keswick, March 12, 1880:
  "It is evident that the Mill, if started, will mainly have to compete with Native manufacturing industry and this is just what Li and Shen, its patrons, do not want to do."

- C39/1 Private Letter Book - Sh J.J. Keswick September 4, 1880, Nagasaki:
  (Impact on financial reporting of cost of coal per ton) I do not overlook the fact but for a

time working accounts were rendered which we supposed to show the cost of coal, but .....in conjunction with the cost statements, I do not think the figures in the working accounts could be considered strictly accurate as various payments seem to be imported into the account which are not - properly speaking - in any way connected with the working of the time.

It has been a matter of much concern to the Nahahara and to their agents to find that the clause of the agreement with the Gotos which provides that the 80 percent of the value of coal advanced by him as not immediately applied as provided for viz. to the payment of wages at the mine...

In November 1882, Jardine with a group of foreign merchants organized another joint-stock cotton mill company. The firm did not know what their legal rights to build factories in China were.

- PLB, William Paterson, Sh-HK to W. Keswick, Dec. 29, 1882:
  "Do not calculate too assuredly upon the protection to be given us by the Diplomatic Body at Peking. The rights of foreigners in respect to such enterprises are not in any way clearly set forth in the Treaties. I mean if the Chinese insist upon placing their own construction upon the wording of the treaties and appeal to their rights under the usual principles of International Law I do not feel sure that the contention of foreigners to enjoy special privileges in the settlements which are denied to natives, unless expressly granted in the treaties, would be sustained by our own government, considering the present drift of its policy.

Johnson felt that the wisest course would be to continue to establish joint-stock enterprises with Chinese investors for those needs like cotton manufacture and silk reeling which appeared likely to render good profits because of changes in domestic and foreign demand. To do this it was important to secure the participation of Chinese merchants and well-connected to the bureaucracy, but preferred not to risk their money in government supervised projects.

- Unbound Correspondence, HK-Sh F.B, Johnson to W. Paterson, Jan. 20, 1883:
  "I would recommend that the interests be tacitly allowed to grow until they become too extensive to be interfered with without inviting claims for compensation if disturbed."

An abortive scheme typical of the kind the company was willing to consider because they wanted above all else to make a cotton mill was a plan for a mill in Shanghai in cooperation with a Bombay yarn merchant.

- PLB, Sh. Hk to J. Macgregor, July 22, 1889:
  "if he can get up sufficient capital I shall endeavor to get a company formed entirely Chinese, with a separate agreement appointing Jardine, Matheson & Company as managers for a small percentage on gross, say 2%."

- PLB Sh HK to J. Keswick, June 2, 1894:
  "If it succeeds we will order more machinery at once to build a Mill on our property behind the Ningpo Wharf, Shanghai...We could get the whole of the capital from the Chinese Piece Goods dealers in Shanghai...the dealer would not put a tael in any mill where the official element appears. The time has come to exercise our rights."

Appendix B:
Jardine, Matheson Acquisitions And Investments, 1970-1996

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	Singapore	Promet Singapore Pte. Ltd.	Steel products manufacturing	3533
Subsidiary	United Kingdom	Bradley British Overseas Ltd,	Confirming agents	5099/5142
Subsidiary	Singapore	Jardine International Insurance Brokers Pte.	Insurance broking	6411
Subsidiary	Philippines	Jardine Davies Inc.	Holding and management	6719
Principal Subsidiary & Associated Companies	Hong Kong	Associated Engineers Ltd.	Engineering	8711
Subsidiary	Philippines	Allied Guarantee Insurance Company, Inc.	Insurance	6411
Subsidiary	Philippines	Hawaiian-Philippine Company	Sugar milling	2061
Subsidiary	Philippines	Sherwin-Williams Philippines Inc.	Industrial machinery	5084
Subsidiary	Singapore	Gregory Singapore (Pte.) Ltd.	Diamond trading	5094
Subsidiary	Philippines	Air Con Inc.	Air-conditioner and television manufacturing	3589
Subsidiary	United Kingdom	ASA Aeroservices Ltd.	Air chartering agents	4522
Subsidiary	United Kingdom	Jardine Shipping Agencies Pte. Ltdb	Freight forwarding	4731
Subsidiary	United Kingdom	Air Express Ltd.	Freight forwarding	4731
Subsidiary	United Kingdom	Air Express Travel Ltd.	Travel agents	4724
Subsidiary	Singapore	Parrish Pte Ltd.	Medical & scientific supplies	3841
Subsidiary	Philippines	Edward J. Nell & Co.	Machinery distributors	5084
Subsidiary	Australia	86 Berry Street Pty Ltd.	Property	6512
Subsidiary	Australia	A. Hoffman (Insurance) Pty Ltd.	Insurance broking	6411
Associates	Fiji	A.S. Farebrother Co., Ltd.		
Associates	Philippines	Acme Plywood & Veneer Co., Inc.	Wood products	2435
Subsidiary	Hong Kong	Agana Life Ltd.	Ship operating	4499
Subsidiary	United Kingdom	Air Express Ltd.	Freight forwarding	4731
Associates	Kenya	Air Freight Kenya Ltd.	Freight forwarding	4731
Subsidiary	United Kingdom	Air Shipping Agencies Ltd.	Freight forwarding	4731
Subsidiary	Philippines	Aircon Inc.	Air-conditioner and television manufacturing	3585
Associates	Hong Kong	Alfred Dunhill (Far East) Ltd.	Marketing	5099
Associates	Japan	Alfred Dunhill (Far East) Ltd. (Hong Kong)	Dunhill mktg.	5194
Subsidiary	Rhodesia	Allen Wack & Shepherd (Pvt) Ltd.	Shipping and marine insurance	4731
Subsidiary	Philippines	Allied Guarantee Insurance Co. Ltd.	Insurance	6411
Associates	Hong Kong	Allied Food Industries (Far East) Ltd.	Food services	9999
Associates	Singapore	Allied Food Industries (Far East) Ltd. (Hong Kong)	Food services	9999
Subsidiary	Philippines	Allied Guarantee Insurance Company, Inc.	Insurance	6411
Associates	Hong Kong	Almarino Navigation Ltd.	Ship owning	4499
Subsidiary	Lesotho	Amalgamated Hotels (Lesotho) (Pty) Ltd.	Hotels and casinos	7011
Associates	Republic of South Africa	Amalgamated Leisure (Pty) Ltd.	Outdoor equipment	3949
Subsidiary	Lesotho	Amalganated Hotels (Lesotho) (Pty) Ltd.	Hotels and casinos	7011
Subsidiary	Australia	Ambatta Pty Ltd.	Property	6512
Principal Subsidiary & Associated Companies	England	Anderson & Co.	Stockbroking	6211
Associates	Malaysia	Antah Avlau Sdn Bhd		
Associates	Malaysia	Antah Chartered Insurance Brokers	Insurance broking	6411
Associates	Malaysia	Antah Holding Sdn Bhd	Holding	6719
Associates	Malaysia	Antah Jardine Equipment Sdn Bhd	Offshore service equipment	9999
Associates	Malaysia	Antah Jardine Fleming Sdn Bhd	Merchant banking	6211
Associates	Malaysia	Antah Jardine Offshore Sdn	Offshore Services	7389
Associates	Malaysia	Antah Jardine Shipping Agencies	Shipping services	4731
Associates	Malaysia	Antah Offshore Sdn Bhd	Offshore petroleum	1382
Associates	Malaysia	Antah Oiltools Sdn Bhd	Offshore Supplies	5084
Associates	Malaysia	Antah Schindler (Malaysia) Sdn Bhd	Lift engineering	3534
Associates	Singapore	Arrow International Logistic Inc. (USA)	Oil industry supplies	5084
Subsidiary	Singapore	Arrow International Supply (Pte) Ltd.	Oil industry supplies and servicing	5084
Subsidiary	Hong Kong	Arvin (HongKong) Ltd.	Electronics manufacturers	3679
Subsidiary	United Kingdom	ASA Aeroservices Ltd.	Air chartering agents	4522
Associates	Liberia	Asia No. 1 Bulk Carriers	Freight Forwarding	4731
Associates	Hong Kong	Asiadata	Computer Service Bureau	9999
Principal Subsidiary & Associated Companies	Hong Kong	Associated Dairies International Ltd.	Dairy products	2024
Associates	Hong Kong	Associated Engineers Ltd.	Engineering	1611
Subsidiary	Hong Kong	Associates Engineers Ltd.	Engineering	1611
Subsidiary	Fiji	Associates Pacific Bakeries Ltd.	Bakery products manufacturing	2053
Principal Operating Companies and Investments	Australia	Astre Investments Pte Ltd.	Motor distribution	5012

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	USA	Atlas Electric Company Inc.	Electric and electronics	5063
Associates	Australia	Australian Dairy Farm Ltd.	Franklin's stores, finance & investment	6211
Associates	Thailand	Bangkok Investment Co. Ltd.	Investments	6289
Subsidiary	Hong Kong	Bangour Enterprises Ltd.	Property trading	6512
Subsidiary	Liberia	Bangour Shipping Inc.	Ship owning	4499
Subsidiary	Hong Kong	Bangour Shipping Inc. (Liberia)	Ship owning	4499
Subsidiary	Hong Kong	Bath Shipping Co. Ltd.	Ship owning	4499
Associates	Hong Kong	Biwater Treatment (Hong Kong)	Water Treatment	4941
Associates	Philippines	Bogo-Medellin Milling Co., Inc.	Sugar Milling	2061
Associates	Hong Kong	Boland Housing Ltd.	Property development	6512
Subsidiary	United Kingdom	Bradley British Overseas Ltd.	Confirming agents	5099/5142
Principal Subsidiary & Associated Companies	Hong Kong	Brink HKS Ltd.	International movement of valuables	7381
Subsidiaries	Hong Kong	British Steel (Asia) Ltd.	Trading	5051
Subsidiary	Australia	Brookeades Pty Ltd.	Scientific equipment manufacturing and marketing	3841
Associates	Malaysia	Bumimedic Sdn Bhd	Medical supplies	9999
Subsidiary	Hong Kong	CAC Ltd.	Toy exports	5092
Principal Subsidiary & Associated Companies	Hong Kong	Caledonian Far East Airways Ltd.	Ground handling services	9999
Associates	Liberia	Candid Tankers Corp.	Oil shipment	4412
Associates	Singapore	Carboline South East Asia Pte Ltd.	Wholesaling	5198
Subsidiary	Republic of South Africa	Cash Security Association (Pty) Ltd.	Security services	7382
Principal Subsidiary & Associated Companies	Hong Kong	Causeway Hotel Ltd.	Hotel ownership	7011
Principal Operating Companies and Investments	Malaysia	CCL Group Properties Sdn Bhd	Investment & development properties	6552
Associates	Hong Kong	Cemac (H.K.) Ltd.	Cement	3241
Associates	United Kingdom	Central Basinghall Investments Ltd.	Property development	6512
Subsidiary	United Kingdom	Central London Inland Clearance	Customs clearing	4731
Associates	Hong Kong	Central Registration Hong Kong	Share registrars	6289
Associates	Hong Kong	Central Registration Hong Kong Inc.	Share registrars	6289
Associates	Hong Kong	Central Registration Hong Kong Ltd.	Registrars of Public Companies	6289
Principal Operating Companies and Investments	Thailand	Chaophaya Development Corporation Ltd.	Shopping complex	1542
Subsidiary	United Kingdom	Charles Hewitt (Insurance Brokers) Ltd.	Insurance broking	6411
Subsidiary	Malaysia	Chee & Co. Sdn. Bhd.	Dental supplies	5047
Subsidiary	Singapore	Chee Kin Dental Equipment (S) Pte Ltd.	Dental supplies	5047
Subsidiary	Hong Kong	Cheshire Shipping Co. Ltd.	Ship owning	4499
Subsidiary	Hong Kong	Cheshire Shipping Company Ltd.	Ship owning	4499
Subsidiary	Hong Kong	Chi Wo Properties Ltd.	Properties investments, management & development	6531
Subsidiary	Hong Kong	Chinese International Underwriters Ltd.	Insurance broking	6411
Associates	Hong Kong	Chubb (Hong Kong) Ltd.	Security equipment	1799
Principal Operating Companies and Investments	China/Hong Kong/Taiwan	Chubb China Holdings Ltd.	Security equipment	1799
Principal Operating Companies and Investments	France	Cica	Insurance broking	6411
Associates	Hong Kong	Citation Carriers Inc. (Liberia)	Ship owning	4499
Associates	Liberia	Citation Carriers, Inc.	Ship owning	4499
Associates	Hong Kong	City Hotels Ltd.	Hotels	7011
Principal Subsidiary & Associated Companies	British Virgin Islands	Clare Investment and Trustee	Holding	6719
Associates	Republic of South Africa	Classic Luggage Co. (Pty) Ltd.	Leather goods	3161
Principal Operating Companies and Investments	Malaysia	Cold Storage (Malaysia) Bhd	Retailing & manufacturing	5149
Subsidiary	Fiji	Cold Storage Ltd.	Refrigerated storage	5411
Principal Operating Companies and Investments	Singapore	Cold Storage Singapore (1983) Pte Ltd.	Supermarkets, pharmacies & convenience stores	5411
Principal Operating Companies and Investments	Japan	Colliers Halifax Associates	Property investment & services	6798
Subsidiary	Hong Kong	Colliers Jardine (Hong Kong) Ltd.	Property services	6798
Principal Operating Companies and	Australia	Colliers Jardine Holdings (Australia) Ltd.	Property services	6798

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Investments				
Principal Operating Companies & Investments	Asia Pacific	Colliers Jardine Holdings Ltd.	Property services	6798
Subsidiary	Singapore	Colliers Jardine, Goh & Tan Pte Ltd.	Property services	6798
Associates	Republic of South Africa	Colorent (Pty) Ltd.	TV Rental	7359
Associates	Malaysia	Commercial Union Assurance (Malaysia) Sdn Bhd	Insurance broking	6411
Associates	Panama	Compania Progress Five S.A.	Ship owning	4499
Subsidiary	Panama	Compania Progress Holdings S.A.	Oil service vessel owners	6719
Principal Subsidiary & Associated Companies	Jersey	Compendium Trust Co. Inc.	Trust services	6733
Subsidiary	Hong Kong	Concept 2000 (Hong Kong) Ltd.	Toy and youth electronics	3944
Subsidiary	Netherlands Antilles	Concept 2000 N.V.	Toy and youth electronics	5092
Subsidiary	USA	Concept 2000 N.V. (Netherlands Antilles)	Toys and outh electronibx onix youth	5092
Associates	Bermuda	Connaught Investors Ltd.	Investment	6712
Associates	Australia	Consolidated Cargo Services (N.S.W.) Pty Ltd.	Transportation services	4783
Subsidiary	Eire	Consolidated Insurance Brokers Ltd.	Insurance broking	6411
Associates	Republic of South Africa	Container Bases (Pty) Ltd.	Container sales	5088
Associates	Hong Kong	Container Refurbishing Ltd.	Container reconditioning	4783
Associates	Malaysia	Convenience Shopping Sdn Bhd	Convenience store	5411
Associates	Hong Kong	Crothall Hospital Services Ltd.	Hospital sanitation	7349
Associates	United Kingdom	Culchurch Properties Ltd.	Property development	6512
Associates	Hong Kong	Curlew Navigation Ltd.	Ship owning	4499
Principal Operating Companies and Investments	Malaysia	Cycle & Carriage Bintang Bhd	Motor distribution	3711
Principal Operating Companies and Investments	Singapore	Cycle & Carriage Industries (1986) Pte Ltd.	Motor distribution	5013
Subsidiary	Hong Kong	Cyona Ltd.	Investment holding	6719
Principal Subsidiary & Associated Companies	Bermuda	Dairy Farm International Holdings	Holding operating through subsidiaries in food products, supermarkets and drug stores	6719
Principal Operating Companies and Investments	Hong Kong	Dairy Farm Management Services Ltd.	Management	5411
Subsidiary	Hong Kong	Dallas Gems & Minerals Company Ltd.	Precious and semi-precious stones	5094
Principal Subsidiary & Associated Companies	Hong Kong	Dantas Holding Ltd.	Furniture retailing	5712
Subsidiary	Hong Kong	Dantas Holdings Ltd.	Furniture retailing	5712
Subsidiary	Republic of South Africa	Datnows Industries (Pty) Ltd.		
Subsidiary	USA	Davies Brokerage, Inc.	Insurance	6411
Subsidiary	USA	Davies Building Materials, Inc.	Construction	1542
Subsidiary	USA	Davies Euromotors Ltd.	Motor dist.	5012
Subsidiary	USA	Davies Insurance Agencies, Inc.	Insurance	6411
Subsidiary	USA	Davies Marine Agencies, Inc.	Shipping services	4731
Subsidiary	USA	Davies Pacific Center Inc.	Convention mgmt.	7389
Subsidiary	USA	Davies Tire Co., Inc.	Automotive supplies	5531
Subsidiary	Australia	Deacon and Howes Pty Ltd.	Refuse disposal	4953
Subsidiary	Hong Kong	Denhart Shipping Ltd.	Ship owning	4499
Principal Operating Companies and Investments	Japan	DFI Seiyu Ltd.	Supermarkets	5411
Associates	Netherlands Antilles	Diamond Dragon Drilling Finance N.V.	Finance	6211
Associates	Netherlands Antilles	Diamond Dragon Drilling N.V.	Drillship owning	1311
Associates	Hong Kong	Diaward Steel Works Ltd.	Steel fabrication	3559
Associates	Hong Kong	Dominion Far East Line (Hong Kong) Ltd.	Shipping services	4731
Associates	Australia	Dominion Far East Line Pty Ltd.	Shipping services	4731
Subsidiary	Hong Kong	Dorset Shipping Ltd.	Ship owning	4499
Subsidiary	Republic of South Africa	Douglas Green of Paarl (Pty) Ltd.	Liquor wholesalers	5182
Subsidiary	Namibia	Douglas Green of Paarl (SWA) (Pty) Ltd.	Liquor wholesalers	5182
Subsidiary	Australia	Dukinson Pty Ltd.	Property	6512
Subsidiary	Hong Kong	Dumfries Shipping Co. Ltd.	Ship owning	4499
Associates	Philippines	Dynamarine Corporation		4731
Subsidiary	Malaysia	E.I. Parrish Sdn Bhd	Medical & scientific supplies	3841
Associates	Hong Kong	East Point Hotels Ltd.	Hotels	7011
Associates	Hong Kong	East Point Management Ltd.	Hotel management	8742
Associates	Hong Kong	East Point Reinsurance Management Company of Hong Kong Ltd.	Reinsurance	6331

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Associates	Hong Kong	Eastern Securities Co., Ltd.	Investment	6726
Subsidiary	Singapore	El Parrish (Singapore) Pte Ltd	Medical and scientific supplies	3841
Associates	Liberia	Elegance Carriers, Inc.	Ship owning	4499
Associates	Hong Kong	Elegance Carriers, Inc. (Liberia)	Ship owning	4499
Subsidiary	Hong Kong	Empire Finance Co., Ltd.	Finance company	6211
Subsidiary	Hong Kong	Empire Finance Company, Ltd.	Investment holding	6719
Associates	Philippines	Eternit Corp.	Asbestos cement	3292
Associates	Hong Kong	Eupo-Air (Holdings) Ltd.	Holdings	6719
Associates	United Kingdom	Eupo-Air Travel Service Ltd.	Transportation	4512
Associates	Malaysia	Euro Medical Industries Sdn Bhd	Medical supplies	3841
Associates	Japan	Ewo Development Ltd.	Real estate	6552
Associates	Japan	Ewoland Co., Ltd.	Real estate	6552
Associates	Macau	Excelsior -- Hotels E Investimentos Limitada	The Excelsior Hotel, Macau	7011
Principal Operating Companies and Investments	Hong Kong	Excelsior Hotel (BVI) Ltd.	Hotel ownership	7011
Subsidiary	Hong Kong	Falcon Holdings Co. , Ltd.	Ship owning	4499
Subsidiary	Hong Kong	Fardel & Company Ltd.	Trading	5137
Associates	Thailand	Fedders (Thailand) Ltd.	Air conditioning	5075
Associates	Thailand	Fedders Marketing Services Ltd.	Air conditioning	5075
Subsidiary	Republic of South Africa	Fidelity Guards (Pty) Ltd.	Security	7382
Associates	Fiji	Fiji Insurance Company Ltd.	Insurance	6411
Associates	Hong Kong	Fiji Insurance Company Ltd. (Fiji)	Insurance	6411
Associates	Singapore	Fitzpatrick's Food Supplies (Far East) Ltd.	Food and property	6512/5411
Associates	Singapore	Fitzpatrick's Ltd.	Supermarkets	5411
Principal Operating Companies and Investments	Hong Kong	Fleet Trans International Co., Ltd.	Shipping services	4731
Subsidiary	Australia	Fleetmor Customs Services Pty Ltd.	Customs agents	4731
Associates	Australia	Fleetways (Holdings) Ltd.	Holding	6719
Associates	Australia	Fleetways Finance Ltd.	Financial services	6211
Subsidiary	Australia	Fleetxpress Pty Ltd.	Transport	4731
Subsidiary	Australia	Fleetxpress Security and Watching Service Pty Ltd.	Security servuces	7382
Associates	Australia	Flinders Shipping Company Ltd.	Shipping services	4731
Subsidiary	USA	Frank R. MacNeill & Son Inc.	Managing general agent	8741
Principal Operating Companies & Investments	Australia	Franklins Ltd.	Supermarkets	5411
Associates	Australia	Franklins Ltd.	Supermarkets	5411
Associates	Australia	Franklins Self-Serve Pty Ltd.	Supermarkets	8742
Associates	Liberia	Fraternity Carriers, Inc.	Ship owning	4499
Associates	Hong Kong	Fraternity Carriers, Inc. (Liberia)	Ship owning	4499
Associates	Hong Kong	Freight Express International Ltd.	Freight forwarding	4731
Principal Subsidiary & Associated Companies	Hong Kong	Freight-Trans International Co. Ltd.	Shipping services	4731
Subsidiary	Hong Kong	Fu Tung Holdings Ltd.	Motor vehicle & transport equipment agencies	6719
Subsidiary	Fiji	Gammon (Fiji) Ltd.	Construction	1611
Subsidiary	Hong Kong	Gammon (Hong Kong) Ltd.	Construction	1611
Subsidiary	Singapore	Gammon (Hong Kong) Pte Ltd.	Construction	1611
Subsidiary	Malaysia	Gammon (Hong Kong) Sdn Bhd	Construction	1611
Associates	Hong Kong	Gammon Building Construction Ltd.	Construction	1611
Principal Subsidiary & Associated Companies	Hong Kong	Gammon Construction Ltd.	Construction	1611
Subsidiary	Hong Kong	Gammon Properties Ltd.	Property development & management	6512
Associates	Hong Kong	Gateway Terminals Ltd.	Terminal services	4731
Associates	Liberia	Gem Carriers, Inc.	Ship owning	4499
Associates	Panama	Grand Pollux Inc.	Ship owning	4499
Associates	Panama	Grand Regulus Inc.	Ship owning	4499
Associates	Hong Kong	Greatway Terminals Ltd.	Terminal services	4731
Subsidiary	Hong Kong	Gregory Holdings Ltd.	Diamonds	5094
Subsidiary	Republic of South Africa	Grosvenor Car Hire Ltd.	Car hire	7515
Principal Operating Companies and Investments	Singapore	Guardian SEA Pte Ltd.	Pharmacies	5122
Associates	Hong Kong	Guinness Stout (H.K.) Ltd.	Guinness mkg.	5181
Subsidiary	United Kingdom	H.G. Parkinson & Co. Ltd.	Insurance broking	6411
Associates	Australia	Hallmark Design Pty Ltd.		2512

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	United Arab Emirates	Harbour Engineers Ltd.	Dredge owners and contractors	4783
Subsidiary	Liberia	Harmony Carriers, Inc.	Ship owning	4499
Subsidiary	Hong Kong	Harmony Carriers, Inc. (Liberia)	Shipowning	4499
Subsidiary	Hong Kong	Harry Wicking & Co., Ltd.	Trading	5131
Subsidiary	USA	Hawaii Pizza Hut, Inc.	Fast foods	5812
Subsidiary	USA	Hawaiian Fluid Power Corp.	Water treatment	4942
Subsidiary	USA	Hawaiian Irrigation Co., Ltd.	Water treatment	4941
Principal Subsidiary & Associated Companies	USA	Hawaiian Pizza Hut, Inc.	Restaurants	5812
Subsidiary	Philippines	Hawaiian-Philippine Co.	Sugar milling	2061
Principal Subsidiary & Associated Companies	Philippines	Hawaiian-Philippine Co.	Sugar milling	2061
Subsidiary	Republic of South Africa	Heavy Transport and Plant Hire (Pty) Ltd.	Plant hire	7359
Associates	Hong Kong	Heller Factoring (Hong Kong) Ltd.	Export factoring	6153
Associates	Malaysia	Henry Designs Associates (Malaysia) Sdn Bhd	Interior design	7389
Subsidiary	USA	Hilo Iron Works, Inc.	Sugar harvesting mfg.	3556
Associates	Hong Kong	HKL (Prince's Building) Ltd.	Property investment	6519
Associates	Republic of South Africa	Hluhluwe Holiday Inn.	Hotels	7011
Associates	Republic of South Africa	Hluhluwe Motors (Pty) Ltd.	Hotels	7011
Subsidiary	Hong Kong	Hoi Kong Container Services Co., Ltd.	Container services	4731
Subsidiary	Lesotho	Holiday Inn (Lesotho) (Pty) Ltd.	Hotels and casinos	7011
Subsidiary	Transkei	Holiday Inn (Transkei) (Pty) Ltd.	Hotelier	7011
Subsidiary	Republic of South Africa	Holiday Inn Properties Ltd.	Hotels and property	7011
Subsidiary	Republic of South Africa	Holiday Inns Ltd.	Hotels	7011
Subsidiary	Botswana	Holiday Inns International (Pty) Ltd.	Hotels and casinos	7011
Associates	Republic of South Africa	Holiday Inns Kwazulu Ltd.	Hotels	7011
Subsidiary	Republic of South Africa	Holiday Inns Limited	Hotels	7011
Subsidiary	Republic of South Africa	Holiday Trail Ltd.	Tourism	4725
Subsidiary	Republic of South Africa	Holiday Trail (Pty) Ltd.	Tourism	4725
Subsidiary	Hong Kong	Hong Kong & China Property Co., Ltd.	Real estate	6512
Associates	Hong Kong	Hong Kong Air Cargo Terminals Ltd.	Terminals	4731
Associates	Hong Kong	Hong Kong Air Terminal Services Ltd.	Airport services	4581
Associates	Hong Kong	Hong Kong Convenience Stores Ltd.	Convenience stores	5411
Associates	Hong Kong	Hong Kong Convention Centre Ltd.	Mgmt. Services	8741
Subsidiary	Hong Kong	Hong Kong French Electronics Company Ltd.	Electronic component manufacturing	3679
Subsidiary	Hong Kong	Hong Kong Securities Ltd.	Security services	7382
Subsidiary	Hong Kong	Hong Kong Security Ltd.	Security services	7382
Associates	Hong Kong	Hong Kong Telephone Co. Ltd.	Telecommunication services	4813
Associates	Hong Kong	Hongkong Air Terminal Services Ltd.	Traffic handling facilities at Hong Kong Airport	4581
Associates	Hong Kong	Hongkong Electric Holdings Ltd.	Generation & supply of electricity	4911
Associates	Hong Kong	Hongkong Land (Commercial Centres) Ltd.	Property investment	9999
Associates	Netherlands Antilles	Hongkong Land (Hawaii) N.V.	Property holding	6719
Associates	Hong Kong	Hongkong Land (S.H.) Ltd.	Property investment	9280
Associates	Australia	Hongkong Land Australia Ltd.	Property holding	9999
Principal Operating Companies and Investments	Hong Kong	Hongkong Land China Holdings Ltd.	Property investment	9999
Principal Operating Companies and Investments	Hong Kong	Hongkong Land Group Ltd.	Management	8732
Principal Operating Companies and Investments	Bermuda	Hongkong Land Holdings	Holding	6719
Associates	Hong Kong	Hongkong Land Holdings Ltd.	Holding operating through subsidiaries in property development & investment, leasing & management/+	6519
Principal Operating Companies and Investments	British Virgin Islands	Hongkong Land International Holdings	Holding	5719
Principal Operating Companies and Investments	Asia	Hongkong Land International Holdings Ltd.	Property and infrastructure investment	6798
Associates	Bermuda	Hongkong Land International Ltd.	Financial services	9999
Principal Operating Companies and Investments	Hong Kong	Hongkong Land Ltd.	Management	9999
Subsidiary	USA	Honokaa Sugar Co.	Sugar Milling	2061
Subsidiary	USA	Honolulu Mortgage Co. Inc.	Investment	6162
Associates	United Kingdom	Howe Matheson & Co., Ltd.	Investment	6726

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Associates	United Kingdom	Howe Matheson Tankers Ltd.	Off shore	4412
Associates	Hong Kong	Hsin Fu Ltd.	Mfg., wholesale	9999
Principal Subsidiary & Associated Companies	Hong Kong	Hui Kong Container Services Company Ltd.	Container services	4783
Associates	Hong Kong	Humphreys Estate & Finance Company Ltd.	Residential property	6531
Associates	Singapore	Hung Chue Pedder Martin Pte Ltd.	Securities	6726
Associates	Liberia	Hussar Shipping Inc.	Freight forwarding	4731
Principal Operating Companies and Investments	United Kingdom	Hyde Park Hotel Ltd.	Hotel ownership	7011
Associates	Philippines	Illigan Coconut Industries, Inc.	Candy	2064
Associates	Liberia	Incandesce Carriers, Inc.	Ship owning	4499
Associates	Hong Kong	Incandesce Carriers, Inc. (Liberia)	Ship owning	4499
Subsidiary	United Kingdom	Industrial Freight Ltd.	Freight forwarding	4731
Subsidiary	USA	Industrial Manufacturing Group ('75) Inc.	Machine Tools	3541
Subsidiary	Hong Kong	Industrial Waste Disposals Ltd.	Waste disposal services	7349
Subsidiary	USA	Insurance Broking Group JIB Holdings Inc.	Insurance broking	6411
Subsidiary	USA	Inter Island Equipment, Inc.	Tourism	4724
Associates	Philippines	Intercontinental Garment Manufacturing Co.	Clothing Mfg.	2389
Subsidiary	Zimbabwe	International Holiday Inns (Pvt) Ltd.	Hotels	7011
Subsidiary	Rhodesia	International Holiday Inns (Rhodesia) (Pvt) Ltd.	Hotels	7011
Associates	New Zealand	International Insurance Holdings Ltd.	Insurance broking	6411
Subsidiary	Hong Kong	International Telecommunications Equipment Ltd.	Electronic equipment	3661
Subsidiary	Singapore	Interseas Shipping (Pte) Ltd.	Vessel managing	4783
Associates	Australia	Isherwood & Dreyfus Holdings Ltd.	Beverage bottling	2086
Subsidiary	Fiji	Island Bottlers of Fiji Ltd.	Soft drink manufacturing	2086
Associates	Hong Kong	Ivory Land Co. Ltd.	Property holding	6719
Associates	Bermuda	J.F.M. Drillships	Drillship owning	1311
Principal Operating Companies and Investments	United States	J.I.B. Holdings Inc.	Holding	6719
Subsidiary	Holland	J.M.I.B. Holdings B.V.	Holding & investment	6719
Associates	Singapore	Jack Enen & Associates (HK) Ltd. (Hong Kong)	Oil industry supplies	5084
Associates	Hong Kong	Jack Enen & Associates (Hong Kong) Ltd.	Oil industry supplies	5084
Associates	Singapore	Jack Enen & Associates Pte Ltd.	Oil industry supplies & servicing	5084
Subsidiary	Hong Kong	Jardindustries Entertainment's Ltd.	Distribution of television films	7841
Subsidiary	Hong Kong	Jardindustries Ltd.	Holding and management	6719
Subsidiary	Hong Kong	Jardine Drillships Ltd.	Drillship investment	1311
Subsidiary	Thailand	Jardine Matheson & Co. (SEA) Ltd. - Bangkok Branch	Engineering	1611
Subsidiary	Thailand	Jardine Shipping Agencies Ltd. (Hong Kong) - Bangkok Branch	Customs clearance and agents	4731
Subsidiary	Canada	Jardine & Rolfe Ltd.	Retail broking	6411
Subsidiary	UK	Jardine (Lloyd's) Underwriting Agents) Ltd.	Lloyd's names agents	6411
Subsidiary	USA	Jardine Air Cargo	Air freight	4513
Subsidiary	Hong Kong	Jardine Air Cargo (International) Ltd.	Holding & management	6719
Subsidiary	UK	Jardine Air Cargo (UK) Ltd.	Air freight	4581
Subsidiary	USA	Jardine Air Cargo (US) Ltd.	Air freight	4581
Subsidiary	Hong Kong	Jardine Airport Services Ltd.	Ground handling services	4231
Subsidiary	Panama	Jardine Asian Holdings Inc.	Investment holding	6719
Principal Subsidiary & Associated Companies	Australia	Jardine Australia Insurance Brokers Holdings Pty Ltd.	Retail broking	6411
Principal Operating Companies & Investments	Australia	Jardine Australian Insurance Brokers Pty Ltd.	Retail broking	6411
Subsidiary	Australia	Jardine Australian Insurance Brokers (Holdings) Pty Ltd.	Insurance broking	6411
Subsidiary	Australia	Jardine Australian Motor Holdings Pty Ltd.	Motor distribution	5012
Associates	Hong Kong	Jardine Barclays Ltd.		
Associates	Australia	Jardine Bowen & Lipman Pty Ltd.		
Principal Operating Companies & Investments	United States	Jardine California Motors Ltd.	Motor distribution	5012
Subsidiary	UK	Jardine Cargo International (UK) Ltd.	Air freight	4731
Subsidiary	Netherlands	Jardine Cargo International Holdings B.V.	Air freight	4731
Subsidiary	USA	Jardine Cargo International, (US) Inc.	Air freight	4731
Associates	Hong Kong	Jardine CMG Life Holdings Ltd.	Holding/+	6719
Subsidiary	United Kingdom	Jardine d'Ambrumenil International Ltd.	Insurance broking	6411
Subsidiary	Hong Kong	Jardine Danby Ltd.	Medical supplies	5122
Subsidiary	Philippines	Jardine Davies Inc.	Holding and management	5149

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	Philippines	Jardine Davies Insurance Brokers Inc.	Insurance broking	6411
Subsidiary	Australia	Jardine Development Pty Ltd.	Property and dry cleaning	6552
Subsidiary	USA	Jardine Emett & Chandler Inc.	Retail broking	6411
Subsidiary	USA	Jardine Energy Services Inc.	Oil exploration	1382
Subsidiary	Hong Kong	Jardine Engineering International Ltd.	Engineering and aviation sales	1611
Subsidiary	Singapore	Jardine Engineering International Pte Ltd.	Engineering and aviation	1611
Subsidiary	Singapore	Jardine Equipment Servicing Pte Ltd	Crane and winch trading	1389
Principal Subsidiary & Associated Companies	USA	Jardine Ernett & Chandler Inc.	Retail broking	6411
Associates	Hong Kong	Jardine Fearnley and Egers Syndicate	Offshore services	9999
Associates	Singapore	Jardine Fearnley Offshore Broking (Pte) Ltd.	Offshore services	9999
Associates	Singapore	Jardine Fearnley Offshore Management (Pte) Ltd.	Off shore services	9999
Associates	Hong Kong	Jardine Fearnley Offshore Operations Ltd.	Financial services	6211
Subsidiary	Hong Kong	Jardine Finance Services Ltd.	Financial services	6211
Subsidiary	Australia	Jardine Financial Services Ltd.	Finance	6211
Subsidiary	Australia	Jardine Fitzoy Pty Ltd.	Property	5812
Associates		Jardine Fleming & Co., Ltd.	Investment	6022
Associates	Australia	Jardine Fleming (Australia) Pty Ltd.	Investment management	6022
Associates	Japan	Jardine Fleming (Far East) Ltd. (Hong Kong)	Merchant banking	6211
Associates	Hong Kong	Jardine Fleming (Securities) Ltd.	Merchant banking	6211
Subsidiary	Singapore	Jardine Fleming (Singapore) Pte Ltd.	Merchant banking	6211
Associates	Singapore	Jardine Fleming (South East Asia) Pte Ltd.	Merchant banking	6211
Principal Operating Companies and Investments	Hong Kong	Jardine Fleming Bank Ltd.	Fully licensed bank	6022
Associates	Bermuda	Jardine Fleming Group Ltd.	Holding company/+	6719
Associates	Hong Kong	Jardine Fleming Holdings Ltd.	Merchant banking	6036
Associates	Japan	Jardine Fleming Investment Advisers (Japan) Ltd.	Investment management	6022
Principal Subsidiary & Associated Companies	Hong Kong	Jardine Fleming Investment Management Ltd.	Investment management	6726
Principal Operating Companies and Investments	Japan	Jardine Fleming Investment Trust and Advisory Company Ltd.	Investment advisory	6726
Associates	Hong Kong	Jardine Fleming Securities Ltd.	Merchant banking	6211
Principal Operating Companies and Investments	Australia	Jardine FlemingOrd Minnett Pty Ltd.	Securities broking, research & corporate finance	6726
Subsidiaries	Taiwan	Jardine Food Services (Taiwan) Co.., Ltd.	Restaurants	5812
Associates	West Germany	Jardine Gill Guntermann Zuckerhandels G.m.g.H.		9999
Subsidiary	UK	Jardine Glanvill (Services) Ltd.	Management consultancy	6411
Subsidiary	UK	Jardine Glanvill (UK) Ltd.	Insurance broking	6411
Subsidiary	UK	Jardine Glanvill (Underwriting Agencies) Ltd.	Underwriting agents	6411
Subsidiary	Australia	Jardine Glanvill Insurance Brokers Pty Ltd.	Insurance broking	6411
Subsidiary	UK	Jardine Glanvill Ltd.	Insurance broking	6411
Subsidiaries	USA	Jardine Hawaii Motor Holdings, Ltd.	Motor distribution	5012
Subsidiary	Hong Kong	Jardine Industries Inc.	Holding and management	6719
Subsidiary	Hong Kong	Jardine Industries Ltd.	Holding & management	6719
Subsidiaries	England	Jardine Insurance Broker Ltd.	Retail broking	6411
Subsidiary	Hong Kong	Jardine Insurance Brokers Asia Ltd.	Retail broking	6411
Subsidiary	USA	Jardine Insurance Brokers Holdings Inc.	Holding	6719
Subsidiary	USA	Jardine Insurance Brokers Inc.	Insurance broking	6411
Principal Subsidiary & Associated Companies	England	Jardine Insurance Brokers International Ltd.	Wholesale broking	6411
Subsidiaries	USA	Jardine Insurance Brokers Los Angeles	Retail broking	6411
Principal Subsidiary & Associated Companies	England	Jardine Insurance Brokers Ltd.	Retail broking	6411
Subsidiaries	USA	Jardine Insurance Brokers New York Inc.	Retail broking	6411
Subsidiary	Australia	Jardine Insurance Brokers Pty Ltd.	Insurance broking	6411
Subsidiaries	USA	Jardine Insurance Brokers San Francisco Inc.	Retail broking	6411
Subsidiary	USA	Jardine Insurance Brokers, Inc.	Insurance broking	6411
Subsidiary	England	Jardine Insurance Broking Group Ltd.	Holding	6719
Subsidiary	Panama	Jardine Insurance Holdings Inc.	Holding company	6719
Subsidiary	Hong Kong	Jardine Insurance Services Ltd.	Insurance consultancy services	6411
Subsidiary	Hong Kong	Jardine Insurance Underwriting Management Ltd.	Insurance underwriting management services	6399
Subsidiary	Bermuda	Jardine International Motor Holdings Ltd.	Holding, operating through subsidiaries in motor distribution/+	6719
Principal Operating Companies and	Hong Kong	Jardine International Motors Management Ltd.	Management	9999

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Investments				
Subsidiary	Hong Kong	Jardine International Petroleum Ltd.	Holding and management	6719
Subsidiary	Singapore	Jardine International Petroleum Management Pte Ltd.	Management of oil interests	8741
Subsidiary	UK	Jardine Investment Management Ltd.	Investment management	6022
Associates	Netherlands Antilles	Jardine Land & Marine N.V.	Marine engineering and construction	4789
Principal Subsidiary & Associated Companies	Bermuda	Jardine Life Assurance Ltd.	Life insurance Hong Kong	6311
Principal Subsidiary & Associated Companies	England	Jardine Lloyd's Underwriting Agents Ltd.	Lloyd's names agents	6411
Principal Subsidiary & Associated Companies	Hong Kong	Jardine Logica Ltd.	Computer software	7379
Associates	Hong Kong	Jardine Logica Systems Ltd.	Computer software	7379
Principal Operating Companies and Investments	Taiwan	Jardine Machinery Taiwan Ltd.	Construction equipment	5082
Subsidiary	Hong Kong	Jardine Marketing Services Ltd.	Marketing and management	5999
Subsidiary	Malaysia	Jardine Matheson Holdings (Malaysia) Sdn Bhd.	Investment and management	6022
Subsidiary	Australia	Jardine Matheson & Co. (Australia) Pty Ltd.	Holding company for Group Australian interests	6719
Subsidiary	Korea	Jardine Matheson & Co. (Orient) Ltd. (Hong Kong)	Representative office	9999
Subsidiary	Hong Kong	Jardine Matheson & Co. (South East Asia) Ltd.	Holding and management	6719
Subsidiary	Australia	Jardine Matheson (Australia) Ltd.	Holding & management	6719
Subsidiary	Brunei	Jardine Matheson (B) Ltd.	Investment holding	6719
Subsidiary	Bermuda	Jardine Matheson (Bermuda) Ltd.	Investment and finance	6719
Subsidiary	Canada	Jardine Matheson (Canada) Ltd.	Holding	4731
Subsidiary	Hong Kong	Jardine Matheson (China) Ltd.	Marketing	5999
Subsidiary	Hong Kong	Jardine Matheson (Finance) Ltd.	Finance	9999
Associates	Panama	Jardine Matheson (M.E.) Inc.	Investment and representative	9999
Subsidiary	Malaysia	Jardine Matheson (Malaysia) Sdn Bhd.	Investment and management	9999
Subsidiary	Iran	Jardine Matheson (ME) Inc. (Panama) - Tehran Branch	Representative office	9999
Subsidiary	Monaco	Jardine Matheson (Monaco) Sdn Bhd	Ship management	4783
Subsidiary	USA	Jardine Matheson (North America), Inc.	Management	9999
Subsidiary	Singapore	Jardine Matheson (Singapore) Ltd.	Holding & trading	6719
Associates	Thailand	Jardine Matheson (Thailand) Ltd.	Holdings & management	6719
Subsidiary	Australia	Jardine Matheson Australia 1980 Ltd.	Holdings & management	6719
Subsidiary	Australia	Jardine Matheson Australia Ltd.	Holding and management	6719
Subsidiary	Australia	Jardine Matheson Distributors Ltd.	Trading	5199
Subsidiary	Malaysia	Jardine Matheson Estates Sdn Bhd	Investment and management	6719
Subsidiary	Netherlands	Jardine Matheson Europe B.V.	Holding, finance and investment	6719
Subsidiary	Australia	Jardine Matheson Finance (Aust.) Ltd.	Finance	9999
Principal Subsidiary & Associated Companies	Hong Kong	Jardine Matheson Finance Ltd.	Finance	9999
Principal Subsidiary & Associated Companies	Singapore	Jardine Matheson Holdings	Holdings & management	6719
Subsidiary	Malaysia	Jardine Matheson Holdings (Malaysia) Sdn Bhd	Investment & management	6719
Subsidiary	Singapore	Jardine Matheson Holdings (SEA) Ltd.	Holding and management	6719
Subsidiary	Singapore	Jardine Matheson Holdings (Singapore) Ltd.	Investment holding and management	6719
Subsidiary	USA	Jardine Matheson Inc.	Holding company for Group USA interests	6719
Subsidiary	Australia	Jardine Matheson Industries Ltd.	Holding company	6719
Subsidiary	United Kingdom	Jardine Matheson Insurance Brokers	Insurance broking	6411
Subsidiary	Australia	Jardine Matheson Insurance Brokers (Aust.) Pty Ltd.	Holding company	6719
Subsidiary	Hong Kong	Jardine Matheson Insurance Brokers (H.K.) Ltd.	Insurance broking	6411
Subsidiary	Hong Kong	Jardine Matheson Insurance Brokers (Hong Kong) Ltd.	Insurance broking	6411
Subsidiary	Singapore	Jardine Matheson Insurance Brokers (Pte) Ltd.	Insurance broking	6411
Subsidiary	United Kingdom	Jardine Matheson Insurance Brokers (UK) Holdings Ltd.	Holding company	6719
Subsidiary	United Kingdom	Jardine Matheson Insurance Brokers (UK) Ltd.	Insurance broking	6411
Subsidiary	Hong Kong	Jardine Matheson Insurance Brokers International Ltd.	Insurance broking	6411
Subsidiary	Singapore	Jardine Matheson Insurance Brokers Pte Ltd.	Insurance broking	6411
Subsidiary	Netherlands Antilles	Jardine Matheson International N.V.	Holding, finance & investment	6719
Subsidiary	Netherlands Antilles	Jardine Matheson International N.V. (100%)	Finance, holding company	6719
Principal Subsidiary & Associated Companies	Bermuda	Jardine Matheson International Services Ltd.	Finance, holding company	6719

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	Singapore	Jardine Matheson Investments (South East Asia) Ltd.	Investment holding & management	6719
Principal Subsidiary & Associated Companies	Japan	Jardine Matheson K.K.	Marketing	5999
Subsidiary	United Kingdom	Jardine Matheson Life and Pension Brokers Ltd.	Insurance broking	6411
Subsidiaries	Bermuda	Jardine Matheson Ltd.	Management	6719
Subsidiary	Australia	Jardine Matheson Properties Ltd.	Property management	6719
Subsidiary	Australia	Jardine Matheson Properties Pty Ltd.	Property management	6719
Subsidiary	Malaysia	Jardine Matheson Properties Sdn Bhd	Investment and management	9999
Subsidiary	Singapore	Jardine Matheson Regional Holdings (SEA) Pte Ltd.	Investment holding and management	6719
Subsidiary	Hong Kong	Jardine Matheson Services Ltd.	Marketing & management	5999
Principal Operating Companies and Investments	Southeast Asia	Jardine Matheson South East Asia Pte Ltd.	Management services	9999
Principal Subsidiary & Associated Companies	British Virgin Islands	Jardine Matheson Trust Corporation	Trust services/Bermuda	6733
Subsidiary	United Kingdom	Jardine Matheson Underwriting Agencies Ltd.	Insurance underwriting agents	6411
Principal Subsidiary & Associated Companies	Australia	Jardine Matheson Victoria Ltd.	Restaurants	5812
Subsidiary	Philippines	Jardine Nell Corporation	Industrial equipment marketing	3255
Subsidiary	Hong Kong	Jardine Offshore (H.K.) Ltd.	Offshore service vessels ownership	9999
Subsidiary	Singapore	Jardine Offshore (Holdings) Pte Ltd	Management & servicing of oil equipment	9999
Subsidiary	Panama	Jardine Offshore Contractors Inc.	Offshore contracting	9999
Subsidiary	Panama	Jardine Offshore Inc.	Vessel owners	9999
Subsidiary	Singapore	Jardine Offshore Promet Pte Ltd	Engineering, shotblasting and ship-building	1611
Subsidiary	Singapore	Jardine Offshore Promet (Holdings) Pte Ltd	Investment holding and management	6719
Subsidiary	Panama	Jardine Offshore Promet S.A.	Holding company	6719
Subsidiary	Singapore	Jardine Offshore Pte Lte.	Management and servicing of oil equipment	9999
Subsidiary	Hong Kong	Jardine Offshore Vessels (H.K.) Ltd.	Offshore service vessels operation	7389
Subsidiary	Singapore	Jardine Oilfield Supplies & Service s Pte Ltd.	Oil industry supplies and servicing	7389
Subsidiary	Hong Kong	Jardine Oilfield Supplies & Services (Hong Kong) Ltd.	Oil industry supplies	5094
Subsidiary	British Virgin Islands	Jardine Pacific Finance Ltd.	Investment & finance	9999
Subsidiary	Bermuda	Jardine Pacific Holdings Ltd.	Holding/+	6719
Subsidiaries	Bermuda	Jardine Pacific Ltd.	Management	8742
Associates	Malaysia	Jardine Parrish (Malaysia) Sdn Bhd	Medical and scientific supplies	3841
Subsidiary	Singapore	Jardine Parrish (Singapore) Pte Ltd.	Medical and scientific supplies	3841
Subsidiary	Singapore	Jardine Petroleum Management Pte Ltd.	Management of oil interests	8741
Subsidiary	Hong Kong	Jardine Properties (Holdings) Ltd.	Property holding	6799
Subsidiary	Republic of South Africa	Jardine Rennie Insurance Brokers (Pty) Ltd.	Insurance	6411
Associates	Australia	Jardine Rentacolor Pty Ltd.	TV Rental	7359
Subsidiary	Canada	Jardine Rolfe Ltd.	Retail broking	6411
Associates	Malaysia	Jardine Sandilands (Malaysia) Sdn Bhd	Importer, exporter, manufacturers' representative	7389
Subsidiary	Singapore	Jardine Sandilands (Singapore) Pte Ltd.	Importer, exporter, manufacturers' representative	7389
Principal Subsidiary & Associated Companies	British Virgin Islands	Jardine Schindler (Far East) Holdings Inc.	Holding & management	6719
Subsidiary	Panama	Jardine Schindler (Far East) Holdings S.A.	Holding and management	6712
Subsidiary	Hong Kong	Jardine Schindler (Far East) Holdings S.A. (Panama)	Holding and management	6719
Subsidiary	Jersey	Jardine Schindler (Pacific) C.I. Ltd.	Lift engineering	3534
Principal Operating Companies and Investments	Hong Kong/Southeast Asia	Jardine Schindler Holdings Ltd.	Lift installation & maintenance	6794
Subsidiary	Netherlands	Jardine Schindler Pacific B.V.	Lift installation & maintenance	6794
Principal Subsidiary & Associated Companies	Jersey	Jardine Schindler Pacific C.I. Ltd.	Licensing	9999
Associates	Hong Kong	Jardine Securicor Ltd.	Security services	7381
Associates		Jardine Securities Ltd.	Investment	6719
Associates	Thailand	Jardine Services (Thailand) Ltd.	Shipping services	4731
Subsidiary	Hong Kong	Jardine Ship Management Ltd.	Ship management	4499
Associates	Thailand	Jardine Shipping (Thailand) Ltd.	Ship management	9999
Subsidiary	Hong Kong	Jardine Shipping Agencies (Hong Kong) Ltd.	Shipping agents	4499
Subsidiary	Singapore	Jardine Shipping Agencies Private Ltd.	Shipping agency representation	4731
Subsidiary	Liberia	Jardine Shipping Ltd.	Holding & management	6719

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	Hong Kong	Jardine Shipping Ltd. (Liberia)	Holding & management	6719
Subsidiary	Bermuda	Jardine Strategic Holding	Holding/+	6719
Principal Subsidiary & Associated Companies	Bermuda	Jardine Strategic Holdings Ltd.	Investment	6719
Subsidiary	Hong Kong	Jardine Technical Products Ltd.	Marketing and management	8742
Subsidiary	UK	Jardine Thompson Graham & Co. Ltd.	Reinsurance broking	6411
Subsidiary	United Kingdom	Jardine Thompson Graham Ltd.	Insurance & reinsurance broking	6411
Subsidiary	Australia	Jardine Thompson Graham Pty Ltd.	Insurance broking	6411
Principal Operating Companies and Investments	Hong Kong	Jardine Trans Air-conditioning	Air-conditioning	5075
Associates	Hong Kong	Jardine UDT Ltd.	Liquor distribution	5182
Subsidiary	Singapore/Malaysia/Thail and	Jardine Waugh Ltd.	Trading	5099
Subsidiary	Hong Kong	Jardine Wicking Ltd.	Garment manufacturing	2389
Subsidiary	Hong Kong	Jardine Wines & Spirits International Ltd.	Marketing	5182
Principal Subsidiary & Associated Companies	Japan	Jardine Wines & Spirits K.K.	Liquor distribution	5182
Subsidiary	Hong Kong	Jardine Wines & Spirits Ltd.	Marketing	5182
Associates	Malaysia	Jardine Wines & Spirits Sdn Bhd	Marketing	5182
Principal Subsidiary & Associated Companies	Hong Kong	Jardie Wines & Spirits International Bhd	Marketing	5182
Associates	New Zealand	Jardine Wrightson Ltd.	Insurance broking	6411
Associates	Hong Kong	Jardine, Gill & Duffus (Holdings) Ltd.	Holdings & management	6719
Associates	Hong Kong	Jardine, Gill & Duffus (Hong Kong) Ltd.		6221
Associates	Australia	Jardine, Gill & Duffus (Pacific) Ltd. (Fiji)		6221
Associates	United Kingdom	Jardine, Gill & Duffus (UK) Ltd.		6221
Associates	United States	Jardine, Gill & Duffus Inc.		6221
Principal Subsidiary & Associated Companies	Hong Kong	Jardine, Matheson & Co. Ltd.	Holding & trading	6719
Subsidiary	Japan	Jardine, Matheson & Co., (Japan) Ltd.	Trading	5099
Subsidiary	Japan	Jardine, Matheson & Co., (Japan) Ltd. (Hong Kong)	Trading and shipping agents	5099/4731
Subsidiary	Hong Kong	Jardine, Matheson & Co., (Orient) Ltd.	Marketing	5099
Subsidiary	Indonesia	Jardine, Matheson & Co., Ltd.	Representative office	9999
Subsidiary	Hong Kong	Jardine, Matheson & Co., Ltd. -- Taipei Branch	Trading & shipping agents	5099/4731
Subsidiary	Indonesia	Jardine, Matheson & Co., Ltd. (Hong Kong)	Representative office	9999
Subsidiary	Fiji	Jardine, Matheson & Company (Fiji) Ltd.	Holding and management	6719
Subsidiary	Hong Kong	Jardine, Matheson & Company (Orient) Ltd.	Representative office	9999
Subsidiary	South Korea	Jardine, Matheson & Company (Orient) Ltd. (Hong Kong)	Hotels and casinos	7011
Subsidiary	Hong Kong	Jardine, Matheson and Co., (Orient) Ltd.	Marketing	5099
Subsidiary	Hong Kong	Jardine, Matheson and Company (Japan) Ltd.	Trading & shipping agents	5099/4731
Associates	Philippines	Jardine-Manila Finance, Inc.	Investment	6712
Subsidiary	Hong Kong	Jardines Properties (Holdings) Ltd.	Property holding	6719
Subsidiary	Australia	Jarwon Pty Ltd.	Property	6512
Subsidiary	USA	JG Special Risk Insurance Brokers	Insurance broking	6411
Subsidiaries	England	JIB Group Plc	Holding, operating through subsidiaries in insurance broking	6719
Subsidiary	USA	JIB Holdings Inc.	Insurance broking	6411
Subsidiary	UK	JIB International Services Ltd.	Management	6719
Principal Operating Companies and Investments	British Virgin Islands	JMH Investments Ltd.	Holding	6719
Principal Operating Companies and Investments	Hong Kong	JMH Treasury Ltd.	Treasury services	9999
Subsidiary	Holland	JMIB Holdings B.V.	Holding & investing	6719
Subsidiary	Netherlands Antilles	JMIB Holdings N.V.	Holding	6719
Principal Subsidiary & Associated Companies	Netherlands	JMIB Holdings S.V.	Holding	6719
Subsidiary	Liberia	JMIB International Management Ltd.	Management	9999
Subsidiary	Hong Kong	JMIB International Management Ltd. (Liberia)	Insurance broking	6411
Subsidiary	United Kingdom	JMIB Management Ltd.	Holding & management	6719
Associates	Malaysia	JMS (M) Sdn Bhd	Holdig & Management	6719
Subsidiary	USA	John D. Sayer & Co. Inc.	Reinsurance broking	6411
Subsidiary	Republic of South Africa	John T. Rennie Son & Co. Ltd. (United Kingdom)		9999
Subsidiary	Unite d Kingdom	John T. Rennie Son & Co.. Ltd.	Shipping services	4731
Subsidiary	Republic of South Africa	Jordan & Co. Ltd.		3143

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Principal Operating Companies and Investments	Hong Kong/China	JTA China Import Ltd.	Air-conditioning	5075
Subsidiary	Rhodesia	JW Jagger & Co. (Rhodesia) Self Service Wholesalers (Pvt) Ltd.	Cash and carry wholesale	5122
Associates	Japan	K.K. Halifax		8742
Associates	Japan	K.K. Halifax Associates		8742
Principal Operating Companies and Investments	Japan	K.K. Stern Zushi	Motor distribution	5012
Principal Operating Companies and Investments	United States	Kahala Hotel Associates Limited Partnership	Hotel ownership	7011
Associates	Australia	Kalex Machining Works Pty Ltd.	Machine Tools	3541
Subsidiary	Australia	Karoo Developments Pty Ltd.	Property	6512
Associates	United States	Kawaihae Terminals, Inc.	Cargo forwarding	4731
Subsidiary	South Africa	Keens Group Company (Pty) Ltd.	Electrical equipment distribution	5065
Subsidiary	Singapore	Khinco (Singapore) Pte Ltd.	Steel products manufacturing	3312
Subsidiary	Malaysia	Khinco Sdn Bhd	Steel products manufacturing	3312
Principal Subsidiary & Associated Companies	Hong Kong	Kroll Associates Asia Ltd.	Corporate intelligence	8742
Subsidiary	Malaysia	Kuala Reman Rubber Estates Ltd. (UK)	Rubber estates	762
Subsidiary	USA	Kukaiau Ranch Co., Ltd.	Sugar plantation	762
Subsidiary	Australia	Kurralta Pty Ltd.	Property	6512
Principal Subsidiary & Associated Companies	England	Kwik Save Group Plc	Supermarkets, freezer centers, liquor & convenience stores	5411
Subsidiary	UK	Lancaster Group Holdings Ltd.	Retail motor distribution	5511
Principal Subsidiary & Associated Companies	England	Lancaster Plc	Motor distribution	6719
Subsidiary	USA	Laupahoehoe Sugar Company	Sugar Milling	2061
Associates	UK	LCI Finance Ltd.	Investment holding	6719
Associates	Malaysia	Leo Burnett Sdn Bhd	Advertising	7311
Associates	Hong Kong	Lianfaes Investments Ltd.	Property investment	6798
Associates	Philippines	Lincoln Philippine Life Insurance Company, Inc.	Life insurance	6311
Principal Subsidiary & Associated Companies	Philippines	Lincoln Philippines Life Insurance Co. Inc.	Life insurance	6311
Subsidiary	Liberia	Lisburne Shipping Ltd.	Ship owning	4499
Subsidiary	Hong Kong	Lisburne Shipping Ltd. (Liberia)	Ship owning	4499
Subsidiaries	Bermuda	Lockhart Insurance Company Ltd.	Group insurance	6371
Subsidiary	Australia	Loftus Moran John Dyson Ltd.	Hotel supplies	5023
Subsidiary	Australia	Loftus Moran John Dyson Pty Ltd.	Hotel supplies	5023
Subsidiary	Australia	Loftus Moran Ltd.	Hotel supplies	5023
Subsidiary	Hong Kong	Lombard Alliance Insurance Company	Insurance	6411
Subsidiary	Hong Kong	Lombard Alliance Insurance Company Ltd.	Insurance	6411
Associates	UK	Lombard Continental Insurance plc	Non-life insurance	6331
Subsidiary	UK	Lombard Elizabethan Insurance plc	Insurance	6411
Principal Subsidiary & Associated Companies	Hong Kong	Lombard General Insurance Ltd.	Non-life insurance	6331
Associates	Panama	Lombard Group Inc.	Insurance holding	6719
Subsidiary	Hong Kong	Lombard Insurance Co., Ltd.	Insurance	6411
Subsidiary	Australia	Lombard Insurance Company (Australia) Ltd.	Insurance	6411
Subsidiary	United Kingdom	Lombard Insurance Company (UK) Ltd.	Insurance	6411
Subsidiary	Hong Kong	Lombard Insurance Company Ltd.	Insurance	6719
Associates	Panama	Lombard Insurance Group Inc.	Insurance holding	6719
Associates	Panama	Lombard Insurance Holdings Inc.	Insurance holding	6719
Principal Subsidiary & Associated Companies	Bermuda	Lombard Life Assurance Ltd.	Life insurance/Hong Kong	6311
Subsidiary	Hong Kong	Lombard Securities Ltd.	Securities	6221
Associates	Hong Kong	Loxhall Shipping Ltd.	Shipping services	4731
Associates	Liberia	Lustre Carriers Inc.	Ship owning	4499
Subsidiary	Australia	Luya Julius Ltd.	Transport	4731
Subsidiary	Philippines	Macleod International Inc.	Transportation	4731
Associates	Japan	MacMillan Jardine (Japan) Ltd.	Forest products	5031
Associates	Malaysia	MacMillan Jardine (Malaysia) Sdn Bhd	Forest products	5031
Associates	Japan	MacMillan Jardine Ltd.	Forest products marketing	5031
Subsidiary	Republic of South Africa	MacRall Holdings (Pty) Ltd.	Holdings	6719
Subsidiary	Liberia	Majestic Carriers Ltd.	Ship owning	4499
Subsidiary	Liberia	Majestic Carriers, Inc.	Ship owning	4499
Subsidiary	Hong Kong	Majestic Carriers, Inc. (Liberia)	Shipowning	4499

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Associates	Republic of South Africa	Makro (Pty) Ltd.	Manfuacturing	5141
Principal Operating Companies and Investments	Singapore	Malayan Credit Ltd.	Investment & development properties	7359
Subsidiary	Hong Kong	Manchu Gems Ltd.	Jewelry manufacturing	3911
Associates	Hong Kong	Mandarin International Hotels Ltd.	Hotel management	7011
Principal Operating Companies and Investments	Hong Kong	Mandarin Oriental Hotel Group International Ltd.	Management	8742
Principal Operating Companies and Investments	Hong Kong	Mandarin Oriental Hotel Group Ltd.	Management	8742
Principal Subsidiary & Associated Companies	Bermuda	Mandarin Oriental Hotels Ltd.	Holding & management	6719
Principal Subsidiary & Associated Companies	Bermuda	Mandarin Oriental International Ltd.	Holding operating through subsidiaries in hotel management & ownership	6719
Principal Subsidiary & Associated Companies	Hong Kong	Mandarin Oriental, Hong Kong Ltd.	Hotel ownership	7011
Associates	Hong Kong	Mandarin Publishers Ltd.	Magazine Publishing	2731
Associates	Philippines	Manila Mandarin Hotel Inc.	Mandarin Hotel, Manila	7011
Associates	Philippines	Manila Mandarin Inc.	Holding	6719
Associates	Hong Kong	Manland Investment Company, Ltd.	Investment	9999
Subsidiaries	Hong Kong	Mannings Real Ltd.	Drugstores	5912
Principal Operating Companies & Investments	Hong Kong	Mannings Retail Ltd.	Drugstores	5912
Associates	Singapore	Marina Bay Hotel Pte Ltd.	Hotel ownership	7011
Subsidiary	Singapore	Marine Coatings Pte Ltd	Steel coating	3479
Subsidiary	New Zealand	Marlowe Agencies Ltd.	Toy wholesaling	5092
Subsidiary	Australia	Marshall's Motors (NSW) Pty Ltd.	Motor distribution	5012
Subsidiary	New Zealand	Martin's Toys & Hobbies Ltd.	Toy retailing	5945
Subsidiary	United Kingdom	Matheson & Co., Ltd.	Holding company for Group United Kingdom interests	6719
Subsidiary	United Kingdom	Matheson (Chartering) Ltd.	Ship chartering	4783
Principal Subsidiary & Associated Companies	Hong Kong	Matheson Securities Ltd.	Financial consultants	6221
Principal Operating Companies and Investments	Channel Islands	Matheson Bank (Jersey) Ltd.	Banking	6021
Principal Subsidiary & Associated Companies	England	Matheson Bank Ltd.	Banking services	6029
Associates	Kenya	Matheson Baumann Ltd.		6221
Associates	India	Matheson Bosanquet & Co. Ltd.	Tea	5199
Subsidiary	Hong Kong	Matheson Chartering (Hong Kong) Ltd.	Ship chartering	4783
Subsidiary	United Kingdom	Matheson Express Ltd.	Freight forwarding	4731
Subsidiary	Bermuda	Matheson Financial Holdings (Bermuda) Ltd.	Holding	6719
Subsidiary	England	Matheson Financial Holdings Ltd.	Investment holding	6719
Principal Subsidiary & Associated Companies	Hong Kong	Matheson Financial Planning (EAST) Ltd.	Financial & tax planning consultants	6289
Subsidiary	United Kingdom	Matheson Freight Services ltd.	Freight forwarding	4731
Subsidiary	United Kingdom	Matheson Investment Ltd.	Investment holding	6719
Principal Subsidiary & Associated Companies	England	Matheson Investment Management Ltd.	Investment management	6289
Subsidiary	UK	Matheson Motor Holdings Ltd.	Holding (retail motor distribution)	6719
Subsidiary	UK	Matheson Petroleum Co. Ltd.	Oil exploration	1311
Subsidiaries	Cayman Islands	Matheson PFC Holdings Ltd.	Financial services/+	8742
Principal Subsidiary & Associated Companies	Hong Kong	Matheson PFC Ltd.	Financial consultants	8732
Subsidiary	UK	Matheson Properties Co. Ltd.	Property investment	6512
Principal Operating Companies and Investments	Channel Islands	Matheson Securities (Channel Islands) Ltd.	Stockbroking	6159
Principal Subsidiary & Associated Companies	England	Matheson Securities Ltd.	Stockbroking	6159
Subsidiary	United Kingdom	Matheson Shipping Services Ltd.	Ship management, chartering and agents	4783
Subsidiary	Jersey	Matheson Trust Co. (Jersey) Ltd.	Trust services	6733
Subsidiary	UK	Matheson Trust Co. Ltd.	Banking services	6029
Principal Operating Companies and Investments	Channel Islands	Matheson Trust Company (Jersey) Ltd.	Trust services	6733
Subsidiary	UK	Mathesons Investments Ltd.	Investment holding	6719
Principal Subsidiary & Associated Companies	USA	Maui Gold, Inc.	Consumer continuity	3911

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Associated Companies				
Associates	Hong Kong	Maxim's Caterers Ltd.	Restaurants	5812
Associates	Hong Kong	May Tower Development Ltd.	Real estate	6552
Associates	United Kingdom	Mercator Chartering Ltd.	Shippng services	4731
Subsidiary	Australia	MGB Properties Pty Ltd.	Property	6512
Associates	Micronesia	Micronesia Industrial Corporation	Copra coconut and coconut by-products	2099
Subsidiary	Transkei	Mzamba Development (Pty) Ltd.	Hotelier	7011
Subsidiary	Transkei	Mzamba Properties (Pty) Ltd.	Property	6512
Subsidiary	Republic of South Africa	Natal Erection & Crane Hire (Pty) Ltd.	Crane & Winch rental	1389
Subsidiary	England	Neighborhood Stores (Holdings) Ltd.	Holding	6719
Principal Subsidiary & Associated Companies	England	Neighborhood Stores Plc	Convenience stores	5411
Principal Operating Companies and Investments	Hong Kong/China	Nestle Dairy Farm Holding, S.A.	Dairy products manufacturing	2024
Associates	Japan	Nihon Rentacolor K.K.	TV rental	7359
Associates	Hong Kong	Norfolk Shipping Company Ltd.	Shipping services	4731
Subsidiary	Australia	Northpoint Properties Pty Ltd.	Property	6512
Subsidiary	Australia	Northside Gardens Investment Pty Ltd.	Property	6512
Subsidiary	Hong Kong	Oriental World Trading Company Ltd.	Toy exporting	5092
Principal Subsidiary & Associated Companies	England	Orme & Co. Ltd	Stockbroking	2281
Associates	Hong Kong	Otto Wolff-Automotive Ltd.	Motor dist.	5012
Subsidiary	Hong Kong	Oxford Shipping Company Ltd.	Ship owning	4499
Subsidiary	Republic of South Africa	P&I Associates (Pte)Ltd.		9999
Subsidiary	Canada	P.H. Foods Ltd.	Restaurants	5153
Associates	Indonesia	P.J. Jaya Mandarin Agung	Hotel development	7011
Associates	Indonesia	P.T. Jakarta Land	Property	6512
Associates	Indonesia	P.T. Jaya Mandarin Agung	Hotel development	5148
Principal Operating Companies and Investments	Indonesia	P.T. Sekman Wisata	Hotel ownership	7011
Principal Operating Companies and Investments	Indonesia	P.T. Tunas Ridean	Motor distribution	5012
Associates	Liberia	Pacific Bulk Transport Inc.	Freight forwarding	4731
Principal Operating Companies and Investments	Hong Kong	Pacific Finance (Hong Kong) Ltd.	Installment finance	6163
Subsidiary	USA	Pacific Machinery, Inc.	Machine tools	3541
Associates	Singapore	Pacol Pte Ltd.		5199
Associates	Malaysia	Pacol Sdn Bhd		5199
Associates	Philippines	Pagadanan Timber Products Inc.	Timber	2431
Subsidiary	Fiji	Pearce & Company Ltd.	Trading	5199
Subsidiary	Hong Kong	Pedder Deposit Brokers Ltd.	Deposit & Exchange Brokers	6163
Subsidiary	The Netherlands	Pedder Europe B.V.	Holding and management	6719
Subsidiary	Panama	Pedder Holdings S.A.	Holding, finance and investment	6719
Associates	Hong Kong	Pedder Martin Ltd.	Money broking	6163
Subsidiary	Liberia	Pedder Shipping Inc.	Ship owning	4783
Associates	Hong Kong	Pedder Ventures Ltd.	Investment	6719
Associates	Hong Kong	Pembros Investments Ltd.	Investment	6719
Associates	Hong Kong	Pensions & Personnel Services Ltd.	Management	8742
Subsidiary	Hong Kong	Permacast (Hong Kong) Ltd.	Jewelry manufacturing	3911
Associates	Malaysia	Pernas Jardine Aviation Sales Sdn Bhd	Air transport services	4731
Associates	Hong Kong	Personal Financial Consultants Ltd.	Investment consultants	7299
Subsidiary	Canada	PH Foods Ltd.	Restaurants	5812
Subsidiary	Philippines	Philippine Machine Tool Company, Inc.	Machine tools	3541
Associates	Fiji	Photographer Distributors	Kodak distributor	5043
Subsidiary	United Kingdom	Pickford Dawson & Holland Ltd.		
Subsidiary	Guam	Pizza Hut of Guam, Inc.	Fast foods	5012
Associates	Malaysia	Plantation Agencies Sdn Bhd	Plantation mgmt.	8742
Subsidiary	W. Germany	Pracht Air Services GmbH	Freight forwarding	4731
Subsidiary	Hong Kong	Pracht International Freight Service Ltd.	Freight forwarding	4731
Associates	Malaysia	Precima Sdn Bhd	Transportation services	3679
Subsidiary	Hong Kong	Preston Shipping Co. Ltd.	Ship owning	4499
Subsidiary	Hong Kong	Promet Contractors	Offshore contracting	7389
Subsidiary	Singapore	Promet Engineering Pte Ltd	Marine engineering contractors	8711
Subsidiary	Singapore	Promet Pte Ltd	Shipbuilding and engineering	7363

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	Singapore	Promet Shipbuilders Pte Ltd	Steel fabrication	7363
Subsidiary	Hong Kong	Promet Shipping Investments Ltd.	Holding company	6719
Subsidiary	Republic of South Africa	Protea Rent-A-Bakkie Holdings (Pty) Ltd.	Car rentals	7534
Subsidiary	New Zealand	Provincal Finance Ltd.	Holding and management	6719
Subsidiary	Republic of South Africa	RCH Finance Co. (Pty) Ltd.	Finance and Investment	6163
Associates	Singapore	Redland Jardine Industrial Services (Singapore) Pte Ltd.	Steel fabrication	3312
Associates	Hong Kong	Redland Jardine Industrial Services Ltd.	Steel fabrication	3312
Associates	Liberia	Regence Carriers, Inc.	Ship owning	4499
Subsidiary	Hong Kong	Regency Electronics	Toy and radio exports	5092
Principal Operating Companies and Investments	Hong Kong/Southeast Asia	Reliance Environmental Services Co. Ltd.	Contract cleaning	7349
Associates	Hong Kong	Reliance Services Company Ltd.	Air conditioning	5075
Associates	South Africa	Renhil Properties Ltd.	Holding (property & hotels)	6719
Subsidiary	Rhodesia	Rennie Batten & Russell (Pvt) Ltd.	Shipping and marine insurance	4731
Subsidiary	Zimbabwe	Rennie Grinaker Zimbabwe Ltd.	Holding	6159
Associates	Malawi	Rennie Press (Malawi) Ltd.	Clearing, shipping & airfreight agents	4731
Subsidiary	Republic of South Africa	Rennies Air freight (Pty) Ltd.	Freight forwarding	4731
Subsidiary	Republic of South Africa	Rennies Air Holdings (Pty) Ltd.	Holding	6719
Subsidiary	Republic of South Africa	Rennies Bulk Terminals (Pty) Ltd.	Freight forwarding	4731
Subsidiary	Republic of South Africa	Rennies Confirming & Finance (Pty) Ltd.	Confirming	6163
Associates	Malawi	Rennies Consolidated (Blantyre) Ltd.	Travel and shipping services	4731
Associates	Republic of South Africa	Rennies Consolidated (Bloemfontein) (Pty) Ltd.	Shipping services and marine insurance	4731
Subsidiary	Mozambique	Rennies Consolidated (LM) Lda	Shipping services and marine insurance	4731
Associates	Namibia	Rennies Consolidated (SWA) (Pty) Ltd.	Shipping agents	4731
Subsidiary	Rhodesia	Rennies Consolidated Holdings (Rhodesia) Ltd.	Cash and carry, travel and freight	4731
Subsidiary	Zimbabwe	Rennies Consolidated Holdings (Zimbabwe Rhodesia) Ltd.	Holding	6719
Subsidiary	Republic of South Africa	Rennies Consolidated Holdings Ltd.	Holdings	6719
Subsidiary	Republic of South Africa	Rennies Container & Warehousing Services (Pty) Ltd.	Containerization	4783
Subsidiary	Republic of South Africa	Rennies Express Delivery (Pty) Ltd.	Express Delivery	4513
Subsidiary	Republic of South Africa	Rennies Heavy Haulage (Pty) Ltd.		4789
Subsidiary	Republic of South Africa	Rennies Hotel & Liquor Holdings (Pty) Ltd.	Holding	6719
Subsidiary	Republic of South Africa	Rennies International Airfreight (Pty) Ltd.	Airfreight	4513
Subsidiary	Republic of South Africa	Rennies Liquor Holdings Ltd.	Holding	6719
Subsidiary	Republic of South Africa	Rennies Luggage Holdings (Pty) Ltd.	Holding	6719
Subsidiary	Republic of South Africa	Rennies Management Services (Pty) Ltd.	Mgmt. Services	8742
Subsidiary	Republic of South Africa	Rennies Manufacturing Holdings Ltd.	Holding	6719
Subsidiary	Republic of South Africa	Rennies Murrary & Co. (Pty) Ltd.		
Subsidiary	Republic of South Africa	Rennies Projects (Pty) Ltd.	Civil Eng. Projects	8711
Subsidiary	Republic of South Africa	Rennies Property Holdings (Pty) Ltd.	Holding (trading)	6719
Subsidiary	Republic of South Africa	Rennies Security Travel & Transport (Pty) Ltd.	Holding (trading)	6719
Subsidiary	Republic of South Africa	Rennies Shipping & Transport Holdings Ltd.	Holding (trading)	6719
Subsidiary	Republic of South Africa	Rennies Shipping Holdings (Pty) Ltd.	Holding (trading)	6719
Subsidiary	Zimbabwe	Rennies Trading (Pty) Ltd.	Holding (trading)	6719
Subsidiary	South Africa	Rennies Trading Ltd.	Holding (trading)	6719
Subsidiary	Republic of South Africa	Rennies Travel & Tourism (Pty) Ltd.	Travel and tourism	4725/4724
Subsidiary	Republic of South Africa	Rennies Travel Services (Pty) Ltd.	Travel and tourism	4725/4724
Subsidiary	Republic of South Africa	Rent-A-Bakkie Holdings (Pty) Ltd.	Car rental	7534
Associates	United States	Rentacolor	Television rental	9999
Associates	Brazil	Rentacolor do Brasil Televisao Ltda	Television rental	9999
Associates		Rentacolor International Ltd.	Television rentals	9999
Associates	Hong Kong	Rentacolor Ltd.		6719
Associates	New Zealand	Rentacolor New Zealand Ltd.	Television rental	9999
Associates	Nigeria	Rentacolor Nigeria Ltd.	Television rental	9999
Associates	Philippines	Rentacolor Philippines Inc.	Television rental	9999
Associates	Singapore	Rentacolor Private Ltd.	Television rental	9999
Associates	Singapore	Rentacolor Pte Ltd.	Television rental	9999
Associates	Australia	Rentacolor Pty Ltd.	Television rental	9999
Associates	Mexico	Rentacolor S.A. de C.V.	Television rental	9999
Associates	Malaysia	Rentacolor Sdn Bhd	Television rental	9999
Associates	Hong Kong	Repco Automotive Engineering (HK) Ltd.	Engineering	8711
Subsidiary	Hong Kong	Repodel Ltd.	Repair and delivery services	7549
Associates	Philippines	Republic Cement Corporation	Cement mfg.	3241

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Subsidiary	United Kingdom	Reunion Properties Company Ltd.	Property	6512
Subsidiary	Republic of South Africa	Revelation Products (Pty) Ltd.	Garment Mfg.	2389
Associates	South Africa	Robert Enthoven & Co. (Pty) Ltd.	Insurance broking	6411
Subsidiary	Liberia	Rory Shipping Corporation	Ship owning	4499
Associates	Republic of South Africa	S.A. Cargo Depots (Pty) Ltd.	Containerization	4783
Subsidiary	Republic of South Africa	S.A. Overland Tours (Pty) Ltd.	Tourism	4724
Associates	Philippines	San Carlos Milling Co., Inc.	Sugar milling	2061
Subsidiary	Malaysia	Sandilands Buttery & Co., Ltd. (United Kingdom)	Marketing, distribution, shipping agency and insurance	4731
Subsidiary	Hong Kong	Schindler Lifes (Hong Kong) Ltd.	Elevator sales and installation	3534
Subsidiary	Singapore	Schindler Lift (S) Pte Ltd.	Elevator sales and installation	3534
Subsidiary	Singapore	Schindler Lifts	Elevator sales and installation	3534
Subsidiary	Hong Kong	Schindler Lifts (Hong Kong) Ltd.	Lift sales & installation	3534
Subsidiary	Malaysia	Schindler Lifts (M) Sdn Bdn	Elevator sales and installation	3534
Subsidiary	Malaysia	Schindler Lifts (Malaysia) Sdn Bhd	Lift sales & installation	3534
Subsidiary	Singapore	Schindler Lifts (Singapore) Pte Ltd.	Lift sales & Installation	3534
Associates	Hong Kong	Seaborne Equipment Ltd.		3799
Associates	Hong Kong	Securair Ltd.	Airport security services	7382
Principal Subsidiary & Associated Companies	Bermuda	Secure Ltd.	Group insurance	6371
Associates	Malaysia	Securicor (Malaya) Sdn Bhd	Airport security services	7382
Subsidiary	Hong Kong	Shackman Ltd.	Watch parts manufacturing	3873
Subsidiary	Philippines	Sherwin-Williams, Philippines, Inc.	Industrial machinery	3599
Subsidiary	Singapore	Shotblasting Engineering Services (Pte) Ltd.	Shotblasting	1389
Subsidiary	Singapore	Shotblasting Pte Ltd	Shotblasting services	1389
Associates	Thailand	Siam Hotel Syndicate Ltd.	The Oriental Hotel	7011
Subsidiary	Taiwan	Silo Engineering Corporation	Engineering	8711
Subsidiary	Spain	Simago, S.A.	Variety stores	5999
Associates	Singapore	Singapore Land Ltd.	Property owning and developing	6512
Subsidiary	Singapore	Singapore Steel Pte Ltd.	Steel foundry	3325
Subsidiary	Hong Kong	Sirius Enterprises Ltd.	Property owning and developing	6512
Subsidiary	Republic of South Africa	Skyflite Luggage Co. (Pty) Ltd.	Insurance	6411
Associates	France	Societe Intercontinentale d'Assurances pour le Commerce et l'Industrie S.A.	Retail broking	6411
Subsidiary	Fiji	Soqulu Plantation Ltd.	Retailing wholesaling and investment	5198
Associates	South Africa	South African Container Depots (Pty) Ltd.	Container handling	4731
Associates	South Africa	South African Stevedores Ltd.	Stevedoring & marine services	4783
Subsidiary	Australia	South Australian Insurance Holdings Ltd.	Insurance	6411
Principal Operating Companies & Investments	China	Southern Star Motor Company	Motor distribution	5012
Associates	Hong Kong	Sovereign Bracelets Ltd.	Jewelry	3961
Subsidiary	Fiji	Spar holdings Ltd.	Soft drinks and cold storage	4222
Associates	Republic of South Africa	Spencer Hey Sportswear (Pty) Ltd.	Sportwear Mfg.	2389
Subsidiary	Swaziland	St. Vincent Invesmtnes Ltd.	Investment holding company	6719
Associates	Liberia	Starlight Carriers, Inc.	Ship owning	4499
Associates	Fiji	Stinson A.H.I. Ltd.	Retailing and wholesale	5094
Subsidiary	New Zealand	Stinson Pearce (N.Z.) Ltd.	Holding and management	5092
Subsidiary	Fiji	Stinson Pearce Ltd.	Retailing and wholesaling	5094
Subsidiary	Fiji	Stinsons Investments Ltd.	Retailing and wholesaling	5198
Associates	Australia	Strawberry Hill Development Ltd.	Real estate	6531
Subsidiary	USA	Stubenberg Company, Ltd.		
Subsidiary	Hong Kong	Success Securities Ltd.	Investment and finance	6211
Subsidiary	Hong Kong	Sutherland Properties Ltd.	Property	6512
Subsidiary	Swaziland	Swazispa Holdings Ltd.	Hotels and casinos	6719
Associates	Hong Kong	Swire Sirius Ltd.	Property development	6512
Subsidiary	Hong Kong	Swiss Plating Corporation Ltd.	Electronic plating	2796
Principal Operating Companies and Investments	Hong Kong	System-Pro Computers Ltd.	Computer retailing	7372
Subsidiary	United Kingdom	T.G. Terminals Ltd.	Freight forwarding	4731
Associates	Hong Kong	T.I.S. Ltd.		6411
Principal Operating Companies and Investments	Hong Kong	T.J. Engineering Services ltd.	Air conditioning services	7623
Associates	Australia	T.P. Clark & Chapman (Reinsurance) Pty Ltd.		6411
Associates	Australia	T.P. Clark & Chapman Pty Ltd.		6719
Principal Operating Companies & Investments	Taiwan	T.P.H. Co., Ltd.	Restaurants	5812

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Companies & Investments				
Subsidiary	USA	Taco Aloha, Inc.	Fast foods	5812
Associates	Taiwan	Taiwan Consolidation Company Ltd.		4412
Associates	Hong Kong	Telemac (Hong Kong) Ltd.	Textiles	2299
Associates	Hong Kong	The Daily Farm Company Ltd.	Supermarkets	5411
Associates	Hong Kong	The Dairy Farm Ice & Cold Storage Company Ltd.	Dairy farming, cold storage, ice manufacturing, catering and supermarkets	2024
Subsidiary	Philippines	The Edward J. Nell Co.	Machinery distributors	5084
Subsidiary	United Kingdom	The Elizabeth Marine & General Insurance Company Ltd.	Insurance	6411
Principal Subsidiary & Associated Companies	Hong Kong	The Excelsior Hong Kong Ltd.	Hotel ownership	7011
Associates	Hong Kong	The Excelsior Hotel (Hong Kong) Ltd.	Hotel operator	7011
Subsidiary	Australia	The Fleet Forge Pty Ltd.	Engineering	8711
Subsidiary	Hong Kong	The Hong Kong Fire Insurance Company Ltd.	Insurance	6411
Associates	Hong Kong	The Hong Kong Land Company, Ltd.	Property holding & operating through subsidiaries in property investments, leasing & management	6512
Associates	Hong Kong	The Hongkong Fire Insurance Company Ltd.	Non-life insurance	6331
Associates	Hong Kong	The Hongkong Land Company, Ltd.	Property investment management & development	6512
Associates	Hong Kong	The Hongkong Land Property Company Ltd.	Property investment & management	6512
Subsidiary	Republic of South Africa	The Independent Brewers Corp. Limited		2082
Subsidiary	Hong Kong	The Indo-China Steam Navigation Co., Ltd.	Ship owning	4499
Subsidiary	Hong Kong	The Indo-China Steam Navigation Company (Hongkong) Ltd.	Shipowning and management	4499
Subsidiary	Hong Kong	The Jardine Engineering Corporation Ltd.	Engineering	1611
Associates	Australia	The Land Company Pty Ltd.	Investment holding	6719
Subsidiary	United Kingdom	The Maltese Cross Insurance Company, Ltd.	Insurance	6411
Associates	Hong Kong	The Mandarin Oriental Hotel Company Ltd.	Hotel investment & management	7011
Principal Subsidiary & Associated Companies	Hong Kong	The Optical Shop Ltd.	Optical products retailing	8742
Associates	Thailand	The Oriental Hotel (Thailand) Ltd.	Hotel ownership	7011
Principal Operating Companies and Investments	Thailand	The Oriental Hotel (Thailand) PCL	Hotel ownership	7011
Principal Operating Companies and Investments	Thailand	The Oriental Hotel (Thailand) PCL	Hotel ownership	7011
Subsidiary	USA	Theo Davies Euromotors Ltd.	Motor distribution	5012
Subsidiary	Canada	Theo Davies Holdings Canada Ltd.	Restaurants	5812
Subsidiary	USA	Theo. H. Davies & Co., Ltd.	Holding	6719
Subsidiary	USA	TheoDavies Bluebell, Inc.	Oil & gas exploration	1382
Subsidiary	USA	TheoDavies Euromotors, Ltd.	Oil & gas exploration	1382
Subsidiary	USA	TheoDavies Exploration, Inc.	Oil & gas exploration	1382
Subsidiary	USA	TheoDavies Marine Agencies, Inc.	Shipping agents	4731
Subsidiary	USA	TheoDavies Properties	Property development	6512
Subsidiary	USA	TheoDavies Properties, Inc.	Property development	6512
Subsidiary	USA	TheoDavies Ventures, Inc.	Oil refining	2911
Subsidiary	USA	TheoDavies-Altamont, Inc.	Oil & gas exploration	1382
Subsidiary	USA	TheoDavies-Williston, Inc.	Oil & gas exploration	1382
Subsidiary	Hong Kong	Thistle Equipment Sales (HK) Ltd.	Industrial and marine equipment	3559
Associates	USA	Thistle Inc.	Seismic data leasing	8713
Subsidiary	United Kingdom	Thistle Insurance Co. Ltd.	Insurance Motor \Motor	6411/5012
Subsidiary	Singapore	Thistle Investment Pte Ltd	Investment holding	6719
Associates	South Africa	Thomas Cook Rennies Travel (Pty) Ltd.	Travel	4724
Associates	Malaysia	Thomas Cook Sdn Bhd		4724
Subsidiary	United Kingdom	Thompson, Graham & Company Ltd.	Insurance and reinsurance broking	6411
Subsidiary	Hong Kong	Toft Bros. Export Co., Limited	Holding company	6719
Subsidiary	Australia	Toft Bros. Industries Ltd.	Sugar harvesting equipment manufacturing	3559
Subsidiary	Brazil	Toft Equipamentos Agricolas Ltda	Sugar harvesting equipment manufacturing	3559
Associates	Hong Kong	Tomafin Ltd.		
Associates	Fiji	Tourist Enterprises (Fiji) Ltd.	Tourism	4724
Principal Operating Companies & Investments	United Kingdom and Worldwide	Trafalgar House plc	Holding, operating through subsidiaries in construction & engineering, property, passenger shipping & hotels	7011

Kind of Company	Country of Operation	Name of Company (and country of registration or incorporation)	Principal product or activities	SIC Code
Associates	Malaysia	Trans-Meridian Moving System Sdn Bhn	Transport services	4731
Associates	Liberia	Transport and Trading Company Inc.	Holding company operating through affiliates in general contracting, trading & transportation	6719
Associates	Liberia	Transporting and Trading Company Inc.	Holding company operating through affiliates in general contracting, trading & transportation	6719
Associates	Middle East	Transporting and Trading Company Inc. (Liberia)	Holding company operating through affiliates in general contracting, trading and transportation	6719
Associates	UK	Transtec International Freight Services Ltd.	Freight forwarding	4731
Subsidiary	Zambia	Turnbull Gibson & Co.	Insurance	6411
Subsidiary	United Kingdom	Turnbull Gibson & Co. (Insurance Brokers) Ltd.	Insurance broking	6411
Subsidiary	Zambia	Turnbull Gibson & Co. (Zambia) Ltd.	Insurance	6411
Subsidiary	United Kingdom	Turnbull Gibson & Co. Ltd.	Freight forwarding	4731
Subsidiary	Hong Kong	Turnbull Gibson (Far East) Ltd.	Insurance broking	6411
Subsidiary	United Kingdom	Turnbull Gibson (Underwriting Agencies) Ltd.	Insurance underwriting	6411
Subsidiary	United Kingdom	Turnbull Gibson Travel Ltd.	Travel agents	4724
Subsidiary	United Kingdom	Turnbull Matheson & Co. Ltd.	Insurance broking	6411
Associates	Singapore	UIE-Promet Pte Ltd.	Steel fabrication	3312
Principal Operating Companies and Investments	Singapore	UMF Pte Ltd.	Finance	6211
Associates	Hong Kong	United Freightways Ltd.	Freight forwarding	4731
Associates	Hong Kong	United Merchants Finance Ltd.	Hire purchase finance	6022
Associates	Malaysia	United Orient Leasing Company Sdn Bhd	Equipment leasing	6022
Associates	Malaysia	United Orient Leasing Sdn Bhn	Container leasing	4783
Associates	Taiwan	United Terminals Ltd.	Container terminals	4412
Subsidiary	United Kingdom	Vatrader Ltd.	Freight forwarding	4731
Associates	Hong Kong	Vermillion Land Co. Ltd.	Property development	6512
Associates	Liberia	Viking Carriers, Inc.	Ship owning	4499
Associates	Hong Kong	Wah Ming Electrics Ltd.	Electronics	3677
Associates	India	Wallwood Plantations & Agency Ltd.	Tea	762
Principal Subsidiary & Associated Companies	Hong Kong	Waterhouse of Hong Kong Ltd.	Water tours	4724
Subsidiary	Hong Kong	Watertours of Hong Kong Ltd.	Watertour operating	4724
Subsidiary	Australia	Wathen Curnow & Cocks (Holdings) Pty Ltd.	Customs agents	4783
Subsidiary	Australia	Wathen Jardine Air Cargo Ltd.	Air freight	4731
Subsidiary	Panama	Wealden Shipping S.A.	Holding & investment	6719
Associates	Liberia	Wealth Carriers, Inc.	Ship owning	4499
Principal Operating Companies & Investments	Hong Kong	Wellcom Company Ltd.	Supermarkets	5411
Principal Subsidiary & Associated Companies	Hong Kong	Wellcome Co. Ltd.	Supermarkets	5411
Subsidiary	Taiwan	Wellcome Taiwan Company Ltd.	Supermarkets	5411
Subsidiary	Australia	Westralian Aviation (Services) Pty Ltd.	Aircraft sales, hire and servicing	4522
Subsidiary	Bermuda	Whetstone Company Ltd.	Investment and finance	6211
Associates	Hong Kong	Whitehead & Poole (Hong Kong) Ltd.		9999
Subsidiary	Transkei	Wild Coast Holiday Inn (Pty) Ltd.	Hotel & casino	7011
Subsidiary	Transkei	Wild Coast Properties (Pty) Ltd.	Hotel & casino	7011
Subsidiary	Australia	Willis & Sons Ltd.	Watch and jewelry dealing	5094
Subsidiary	Republic of South Africa	Witind Holdings Ltd.		6719
Subsidiary	New Zealand	Woolworths (New Zealand) Ltd.	Supermarkets	5411
Subsidiary	United Kingdom	Ynit Ltd.	Property	6512
Associates	Hong Kong	Young Fashions Ltd.	Garment mfg.	2389
Subsidiary	Australia	ZF Australia Pty Ltd.	Holding company	5013
Subsidiary	Hong Kong	ZF Engineering Ltd.	Car park owning and engineering sales	7521
Subsidiary	Hong Kong	ZF Garages Ltd.	Engineering services	7538
Principal Operating Companies and Investments	Hong Kong	Zung Fu Company	Motor distribution	5511
Subsidiary	Hong Kong	Zung Fu Company Ltd.	Transport and engineering equipments specialists	3711
Principal Operating Companies and Investments	Macau	Zung Fu Motors (Macau) Ltd.	Motor distribution	5511

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