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Linköping University Post Print

N.B.: When citing this work, cite the original article.

Original Publication:

Hans Sjögren, Thomas Taro Lennerfors and Rene Taudal Poulsen, The Transformation of Swedish Shipping, 1970-2010, 2012, Business history review, (86), 3, 417-445.

<http://dx.doi.org/10.1017/S0007680512000761>

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<http://www.cambridge.org/uk/>

Postprint available at: Linköping University Electronic Press

<http://urn.kb.se/resolve?urn=urn:nbn:se:liu:diva-86389>

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and René Taudal Poulsen*

The Transformation of Swedish Shipping, 1970–2010

Since the early 1970s, as shipping has undergone a period of structural change, Swedish shipping has rapidly declined from a position of global importance. The Swedish-controlled fleet has dwindled, and the structure of the industry itself has changed. This article explores the influence of shipping markets, shipping regulations, company strategies, maritime know-how, and financial resources on the development of Swedish shipping from 1970 to 2010. A comparison is made between, on the one hand, the direction taken by two failing companies and, on the other, the courses followed by two companies that managed to grow despite difficult conditions. On a broader level, the article traces the development of expertise in a declining industry.

History abounds with examples of declining industries, of which Swedish shipping is one. In the 1960s, Swedish companies were active in all the main shipping markets, and the country's vessels sailed worldwide. Moreover, Swedish companies controlled the country's shipyards, which held a global market share of approximately 10 percent. The cities of Stockholm and Gothenburg housed two dynamic shipping centers that were the headquarters of several large, expanding companies. Over the last four decades, however, the importance of shipping to the Swedish economy has dwindled markedly, and both centers have declined.¹ Between 1973 and 1987, all the old, large shipping companies

The authors wish to thank the participants of the Nordic Shipping History seminars, held from 2009 to 2011, and three anonymous reviewers for valuable advice and comments to the article. They are grateful to NOS-HS for financing the Nordic Shipping History seminars. Hans Sjögren would like to thank Stiftelsen Marcus and Amalia Wallenbergs Minnesfond and René Taudal Poulsen would like to thank the Danish Maritime Fund for generous financing.

¹ Johanna Palmberg, Börje Johansson, and Charlie Karlsson, *Den svenska sjöfartsnärings ekonomiska och geografiska nätverk och kluster* (Jönköping, 2006).

Business History Review 86 (Autumn 2012): 417–445. doi:10.1017/S0007680512000761
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failed, and Swedish operations collapsed. The Swedish-controlled fleet has dwindled by several orders of magnitude. Other European maritime centers have also had their share of problems in the decades after 1970, but the Swedish case represents one of the sector's most radical transformations during these years. The decline of Swedish shipping—as well as the few notable examples of its growth—is the topic of this article. Our objective is to explain the trends in the industry from 1970 to 2010.

We apply an analytical scheme to structure our discussion of the causes of the remarkable development of Swedish shipping. (See Figure 1.) This scheme makes two important distinctions. Along the vertical axis, it distinguishes between structural and organizational conditions. Structural conditions are common to several or all players in the field of shipping, while organizational conditions are individual and differ among firms. In other words, structural conditions are found at the macro level, while organizational conditions belong to the micro level, where they are associated with the various companies. Along the horizontal axis, the analytical scheme makes a distinction between economic and policy conditions. Economic conditions refer to the demand for shipping services, as well as to the properties of the agents supplying such services, while policy conditions refer to decisions made by regulators and corporate managers.

In the intersections of the various conditions there are four explanatory factors: markets, regulations, strategies, and know-how and resources. Markets are economic and global by nature and hence common to all players. Know-how and resources are also economic by nature, but differ greatly among companies. Thus, they are also part of organizational conditions. Regulation concerns policy and is common for businesses in the same country, when imposed by national governments, or common to the shipping industry at large, when imposed

Figure 1. Analytical framework. (See Hans Sjögren, *Spelet i Saléninvest: Staten, bankerna, ägarna och ledningen, 1973–97* [Stockholm, 1999], 35.)

internationally. Strategies vary greatly among firms, depending on individual choices of market or technology. We analyze the influence of each of the four explanatory factors on the development of Swedish shipping.

The scheme is dynamic, since all factors could change over time, and they are all interrelated. For example, firms' strategies could impact the state of the market, and regulation might stifle development of expertise. Our scheme only serves to structure our analysis, and does not include hypotheses for a quantitative analysis, as no such quantitative data are available.

We first take up the topic of shipping markets. While the fluctuations of shipping markets have been studied internationally, we will assess their specific impact on Swedish shipping.² We then analyze how regulations influenced the development of Swedish shipping companies, a subject that has only received fragmentary research. Since the 1970s, Swedish shipowners have criticized various Swedish governments for insufficiently supporting the industry, even going so far as to accuse them of causing the industry's decline. These critics contrast the regulations imposed by Swedish governments with those passed by Denmark and Norway, which, these critics point out, increased the competitiveness of their national shipping industries. Labor unions are accused by shipowners of having exacerbated the government's neglect, and the Swedish government's preferred treatment of other industry segments is blamed as well.³ However, the limited scope of our article does not permit us to go beyond these primary indications to discuss the reasons for the inadequacies of Swedish regulation.

According to our third explanatory factor, we then analyze the strategies of the shipping companies. Previous research in a Swedish context has focused on individual companies.⁴ Hence, there is a need

²On studies of decline in the twentieth century shipping industry, see Stig Tenold, *Tankers in Trouble: Norwegian Shipping and the Crisis of the 1970s and 1980s* (Newfoundland, 2006); Yrjö Kaukainen, *A History of Finnish Shipping* (London, 1993); Lewis Fischer and Even Lange, eds., *International Merchant Shipping in the Nineteenth and Twentieth Centuries: The Comparative Dimension* (Newfoundland, 2008); Gelina Harlaftis and John Theotokas, "Maritime Business during the Twentieth Century: Continuity and Change," in *Handbook of Maritime Economics and Business*, ed. Costas Th. Grammenos (London, 2002), 9–34.

³For an analysis of Swedish shipping policies of the 1970s and 1980s, see Hans Sjögren, *Spelet i Saléninvest: Staten, bankerna, ägarna och ledningen, 1973–97* (Stockholm, 1999), 159–217. For an industry viewpoint on Swedish shipping policies of the 2000s, see for instance *Svensk Sjöfarts Tidning* no. 10 (2001): 11; no. 25 (2001): 117–19; no. 1 (2007): 11; no. 15 (2008): 11; no. 8 (2009): 11.

⁴For main research on Swedish shipping history post-1960, see Martin Fritz and Kent Olsson, "Twentieth-Century Shipping Strategies: Broström and Transatlantic, Gothenburg's Leading Shipping Companies," in *Research in Maritime History* 6 (1994): 91–109; Kent Olsson, *Göteborgs historia: Näringsliv och samhällsutveckling* 3 (Stockholm, 1996); Jan Kuuse

for a more coherent and comparative approach that will link the fragments of earlier research to subsequent studies.

The fourth subject of our study, shipping resources and know-how, is the most novel. Possibly because know-how is elusive, the consequences of industry decline on its development in the shipping sector have not been well researched. We try to address this research gap. In one of few studies that explicitly takes up issues of know-how, Jan Kuuse and Kent Olsen, writing about the transformations of Swedish shipping in the 1970s and 1980s, concluded that "an old economic structure was transformed through a crisis into a new and viable structure, following a Schumpeterian scheme of creative destruction [where] the know-how survived."⁵ In 1997, Kuuse and Olsson found that knowledge was preserved in Swedish shipping, despite the massive structural changes that the industry had undergone. Although the old companies had left the business, considerable know-how remained. Writing fifteen years later, we update and revise Kuuse and Olsson's findings.

We have divided the article into four parts, based on our analytical framework. We start by examining markets and regulations and then look at strategies and know-how and resources. In our analysis of markets and regulations, we discuss major changes in market and policy conditions. In addition, we compare Swedish policies with their Danish and Norwegian counterparts in order to assess Swedish institutional arrangements in a broader international context. To analyze strategies and know-how and resources, we compare four main cases (Broströms, Stena, Saléninvest, and Wallenius) from the two predominant Swedish shipping centers, Gothenburg and Stockholm. Instead of covering all the companies in full, we look at certain corporate strategies in depth and assess the factor of specific expertise. Based on the diverse cases, we analyze both the general and the specific conditions encountered by Swedish companies in all the main shipping markets during this period. Broströms and Saléninvest, which represent the old maritime conglomerates, collapsed in the early 1980s. Stena and Wallenius, on the other hand, were newcomers that represent rare examples of growth. In order

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and Kent Olsson, *Sjöfart och sjöförsäkring under 125 år* (Gothenburg, 1997); Sjögren, *Spillet*; Hans Sjögren, "Shipping as Gambling: Governance Mechanisms and the 1984 Bankruptcy of Saléninvest," *Scandinavian Economic History Review* 47, no. 1 (1999): 48–64; René Taudal Poulsen, "Liner Shipping and Technological Innovation: Ostasiat and the Container Revolution, 1963–75," *Scandinavian Economic History Review* 55, no. 2 (2007): 83–100; Erik Lindgren, Erik Stenberg, and Sarah Villa, *Stena—Beskrivning av en Sfär* (Gothenburg, 2008); Thomas Taro Lennerfors, *Stockholmsrederierna—Ågandet och nätverkens betydelse för tanksjöfartens utveckling i Stockholm, 1980–2000* (Gothenburg, 2009); René Taudal Poulsen, "The Emergence of New Organisational Forms in Liner Shipping: Swedish Liner Shipping and International Consortia, 1960–75," *Journal of Transport History* 31, no. 1 (2010): 69–88.

⁵Olsson and Kuuse, *Sjöförsäkring*, 382.

to assess how the choice of strategies contributed to the decline of Swedish shipping, we ask whether Stena's and Wallenius' strategies were unique. We choose the two examples of successful growth in order to contrast them with the general decline taking place in Swedish shipping and to illuminate the strategic challenges faced by Swedish companies.

Markets

The world economy set the pace of the shipping industry, and ship-owners depended on the balance between supply of, and demand for, seaborne transportation. While demand was determined by the global economy, changes in the average haul (the distance between producers and consumers) were strong influences as well. Shipping supply was determined by many factors, including the size, speed, and efficiency of the existing fleet and the global shipbuilding capacity.⁶

In the postwar period, growth in the countries that belonged to the Organisation for Economic Co-operation and Development (OECD) fueled a long period of expansion in shipping. Demand rose by several orders of magnitude from 1950 to 1973, particularly for oil-tanker shipping. Political changes, notably conflict in the Middle East, led to periods of boom and bust, but generally the postwar years were prosperous ones for the sector, and the world fleet grew rapidly in response.⁷

In 1973, market conditions changed quickly following the oil-price increases initiated by Organization of the Petroleum Exporting Countries (OPEC). The oil crisis contributed to structural problems in Western economies, where stagnation and inflation had slowed demand for shipping. Gradually changing energy consumption patterns in the OECD countries reduced the average haulage of oil transportation, and the oil-shipping markets contracted. Problems started in the oil-tanker market but gradually cascaded across other segments as combination carriers, capable of carrying both oil and dry-bulk cargoes, shifted from the oil trades to dry-bulk markets. Similarly, oil tankers on order were converted to other ship types. As a result, the shipping industry's problems accelerated throughout the 1970s.⁸

Globally, shipbuilders held large order books in the 1970s. Looking at events in retrospect, it is clear that between 1972 and 1976 the substantial increase in the world fleet reduced business opportunities for many years. When shipping-company managers finally realized that there was a surplus in supply, their difficulties in reducing global shipbuilding only prolonged the problem of overcapacity. European

⁶ Martin Stopford, *Maritime Economics* (New York, 2009).

⁷ *Ibid.*, 93–134.

⁸ Tenold, *Tankers*.

Figure 2. Swedish-registered fleet, 1960–2009, GT in thousands and number of vessels. The category “GT, Tankers” includes combination carriers (oil/ore carriers) for the period 1960–77. From a peak of thirty vessels in 1964, the fleet of combination carriers had declined to six vessels in 1977 and never regained its former significance. From 1978 on, combination carriers have been included in the “GT, Total Fleet” category. No specific data on “GT, Tankers” are available for 2005 and 2007–09. (Based on data from SCB, *SOS: Sjöfart, 1960–2009* [Stockholm, 1961–2011].)

governments, including Sweden’s, subsidized yards to maintain employment.⁹ The Iranian revolution in 1979 and the subsequent oil crisis caused further problems for shipowners. Demand remained low, and global shipping overcapacity continued into the late 1980s.

Fueled by the optimism of the 1960s, the Swedish fleet, particularly its tankers, had grown rapidly, but the direction of its growth radically slowed after 1975. While this development reflected the European trend, the Swedish contraction was particularly strong.¹⁰ Not only did the Swedish merchant fleet shrink, but all the prominent firms that had built shipping and shipbuilding conglomerates since the nineteenth and early twentieth centuries were also forced by either outright bankruptcy or disinvestment to exit from the sector. By the late 1980s, the main structure of the industry was gone. (See Figure 2.)

⁹ Sjögren, *Spelet*; Daniel Todd, *Industrial Dislocation: The Case of Global Shipbuilding* (London, 1999); Bo Stråth, *The Politics of De-Industrialisation: The Contraction of West-European Shipbuilding Industry* (London, 1987); René Taudal Poulsen and Henrik Sornn-Friese, “Downfall Delayed: Danish Shipbuilding and Industrial Dislocation,” *Business History* 53, no. 4 (2011): 557–82.

¹⁰ Sjögren, *Spelet*, 56–58.

Demand for shipping rose again in the late 1980s, albeit at a low rate. Scrapping of ships and shipyard closures had reduced shipping overcapacity.¹¹ Most notably, the market for container ships increased, and global carriers emerged with liner networks that spanned the globe.¹² The tanker and dry-bulk segments also recovered, but niches such as car transport proved more expansive.

New Swedish shipowners responded positively to the growth prospects. From the early 1980s, several new Swedish companies emerged and expanded under foreign flags, investing in oil tankers and dry-bulk carriers. Swedish owners disinvested from container shipping, however, and the fleet under the Swedish flag stagnated throughout the 1990s. The Swedish-controlled fleet sailing under foreign flags grew much larger than the Swedish-flagged fleet.¹³ Growth in the Swedish-controlled fleet operating under foreign flags, however, came to an abrupt halt around the year 2000, when several Swedish tanker shipping companies were acquired by foreign owners. The foreign-flagged fleet dropped sharply and has never reached previous levels, and the companies' headquarters were moved abroad by the new owners.¹⁴ (See Figure 3.)

After freight prices hit rock bottom in the summer of 2002, shipping-freight markets began to rise at the end of that year, driven mainly by China's booming economy. Freight markets skyrocketed, and large-scale orders were placed.¹⁵ In contrast, the Swedish-owned fleet stagnated, indicating that Swedish shipowners did not utilize the boom to the same extent as their foreign competitors, partly because several Swedish companies had been acquired by owners from other countries at the end of the 1990s. Among the remaining Swedish shipping companies, the Stena Group and Wallenius stood out for their successes in expanding within the growing markets. Otherwise, only a few small companies expanded in the product tanker markets.¹⁶

Shipping markets collapsed en masse in 2008, when the financial crisis caused demand in all shipping segments to stagnate or decline. Numerous ships were sent into layup, but shipbuilders still held large order books. Despite the difficult market conditions, the global fleet's capacity is set to rise rapidly in the years to come.¹⁷

¹¹Stopford, *Economics*.

¹²Frank Broeze, *Globalization of the Oceans: Containerization from the 1950s to the Present* (Newfoundland, 2002).

¹³*Svensk Sjöfarts Tidning* no. 25 (2001): 117.

¹⁴Lennerfors, *Stockholmsrederierna*.

¹⁵Stopford, *Economics*, 118–30.

¹⁶On Swedish investments in product tankers, see Daniel Friberg, *Donsörederierna: Från dåtid till framtid* (Gothenburg, 2007).

¹⁷Stopford, *Economics*; Niko Wijnolst and Tor Wergeland, *Shipping Innovation* (Amsterdam, 2009).

Figure 3. Swedish fleet under Swedish and foreign flag, 1991–2010, million deadweight tonnes. The data set in this figure are not directly comparable with Figure 2 because the data set for Figure 2 does not include the foreign-flagged fleet. Data for this figure are only available for 1991 on. This figure provides the most accurate reflection of the development of the Swedish-controlled fleet after 1990. (Based on data from *Sveriges Redareförening* and Light-house, *Svensk Sjöfart Nyckeltal Januari 2010* [Göteborg, 2010].)

It is clear that changing markets set the pace of shipping and heavily influenced Swedish shipping companies' results. The deep recession that lasted from 1973 to 1987 explains why old Swedish shipping structures came under heavy strain. However, the changing market conditions were common to all firms in shipping and cannot explain why most Swedish companies continued to underperform after 1973. The peculiarities of the Swedish sector contributed to this development.

Regulations

Swedish shipowners have repeatedly argued that their country's policies have hampered the development of Swedish shipping, and that they continue to do so.¹⁸ In this section, we address these shipowners' arguments by assessing the impact of regulations on the performance of their companies. Stated differently, did Swedish policies put Swedish shipowners at a disadvantage vis-à-vis their foreign competitors?

¹⁸ For such views, see Robert Hermansson, *Sveriges Redareförening 100 år, 1906–2006* (Gothenburg, 2006); Thorsten Rinman and Rigmor Brodefors, *Sjöfartens historia* (Gothenburg, 1982); *Svensk Sjöfarts Tidning* no. 25 (2002): 117–19.

International shipping regulation requires shipowners to register their vessels in a flag state. The flag of a vessel has a symbolic significance, but more critically it has a direct bearing on operational costs. Flag-state policies vary, and operational costs vary accordingly. Since at least the sixteenth century, shipowners have registered ships under low-cost flags, a practice that accelerated after 1945. In 1950, an estimated 5 percent of the world fleet was registered under the so-called flags of convenience that imposed low-cost regulation. By 1987, this figure had grown to 32 percent.¹⁹ In 2005, an estimated 48 percent of the world fleet flew flags of convenience.²⁰ Panama and Liberia were the two most popular low-cost flags, but there were many others, and new ones continuously came into existence. After 1945, this development contributed to the changes in the competitive structure of the industry.²¹ European shipowners and politicians had to consider the issue carefully.

The costs of flying the Swedish flag exceeded those incurred, for example, in flying the Liberian flag. From the mid-1970s, the issue of low-cost flags was discussed extensively in Sweden. Shipowners and labor clashed, but the opponents of outflagging prevailed. In 1977, a law was enacted that restricted the ability of Swedish shipowners to operate under low-cost flags. Under the law, neither a Swedish ship nor a Swedish share in a ship was allowed to sail under the aegis of a low-cost flag without prior permission from the Swedish government. The law contributed to the strong decline in Swedish shipping after 1977.²² Once foreign competitors became able to use low-cost alternatives more easily, approximately 160 Swedish ships were sold abroad between 1975 and 1979.²³

During the 1980s, shipowners increasingly turned to the policy of adopting flags of convenience in order to reduce operational costs. Western European seamen's salaries were high relative to the pay earned by seafarers from low-cost countries, such as the Philippines and India, placing European shipowners and policymakers in a difficult situation.²⁴ In Sweden, an internationalization agreement (*Internationaliseringsavtalet*) was reached in 1983 that allowed Swedish seamen living in Sweden to work on Swedish-owned ships flying foreign flags and

¹⁹ Stig Tenold, *Changes in the Distribution of the World Fleet, 1970–87* (Bergen, 2000), 7.

²⁰ Stopford, *Economics*, 670.

²¹ Rodney P. Carlisle, *Sovereignty for Sale: The Origins and Evolution of the Panamanian and Liberian Flags of Convenience* (Annapolis, Md., 1981); Stopford, *Economics*, 666–75; Elizabeth R. De Sombre, *Flagging Standards: Globalization and Environmental, Safety, and Labor Regulations at Sea* (Cambridge, Mass., 2006).

²² Sjögren, *Spelet*, 160–87.

²³ Lennerfors, *Stockholmsrederierna*.

²⁴ René Taudal Poulsen, "Shifts in the Maritime Labour Market: Drivers of Demand for and Supply of Seafarers, ca. 1965–2008," in *Maritime People*, ed. Jeroen ter Brugge, Arthur Credland, and Harald Hamre (Stavanger, 2011), 36–48.

to receive substantial tax relief if they worked for more than 183 days a year. While this arrangement reduced certain crewing costs for Swedish owners, it did not give them the level of savings that foreign shipping registers achieved through the use of foreign crews.²⁵ Many European countries took drastic measures to counteract the outflagging by, for example, setting up international registers of shipping. The European Union attempted to establish a common European register (EUROS).²⁶ However, once the Norwegian International Register of Shipping (NIS) was established in 1987, followed by the Danish International Register of Shipping (DIS) and the German International Register of Shipping (GIS), the concept of second registers became predominant in Europe. Denmark and Norway successfully boosted their national flags in this way.²⁷ Shipowners operating in second registers were allowed to employ Asians and eastern Europeans at local salary levels, which made them competitive against the traditional flags of convenience, and safety standards were generally high.²⁸

Sweden did not establish an international register of shipping, and clearly Swedish shipping companies preferred to register new ships under foreign flags. The fleet under the Swedish flag had declined after the 1970s but then stabilized at a low level in the late 1980s and 1990s. In contrast, the foreign-flagged fleet controlled by Swedish owners tripled during the ten years after 1987. Newly established shipping companies in Stockholm and Gothenburg began to expand their fleet of foreign-flagged crude-oil tankers.²⁹ Attempts by the Swedish shipping industry, seafarers' associations, and the government to unite around a shipping policy generally failed. Nevertheless, the Swedish government gradually began to change its policies in the 1990s, and in 1992 it abolished the Flag Act of 1977. Crewing costs under the Swedish flag remained high, however. In the 1990s, at least two studies of Swedish shipping's competitive conditions identified clear Swedish disadvantages relative to foreign competitors.³⁰ In a report from 1998, the

²⁵ Lennerfors, *Stockholmsrederierna*, 164.

²⁶ P. Aspden, *Shipping Law Faces Europe: European Policy, Competition, and Environment*, International Colloquium held on 16, 17 and 18 November (Antwerp, 1995), 84–85. Interview with Per Sjöberger, Swedish Shipowners' Association, Gothenburg, 9 Mar. 2009.

²⁷ Tenold, *Tankers*; Hans Jeppesen, Svend Aage Andersen, and Hans Chr. Johansen, *Containere og koncentration: Dansk søfarts historie, 1960–2000* (Copenhagen, 2001), 147–48; Henrik Sornn-Friese and Martin Jes Iversen, "The Making of the Danish International Ship Register (DIS)—Foreshadowing of the Danish Maritime Cluster: A History of Responsive Policy to Structural Change in International Shipping," unpublished manuscript.

²⁸ De Sombre, *Flagging*.

²⁹ *Svensk Sjöfarts Tidning* no. 25 (2001): 117; Lennerfors, *Stockholmsrederierna*.

³⁰ Statens offentliga utredningar (SOU), *Svensk sjöfartsnäring hot och möjligheter* (Stockholm, 1998), 129; Sjöfartsverket, *Den svenskflaggade handelsflottans konkurrenssituation* (Stockholm, 1998).

Swedish maritime authorities (*Sjöfartsverket*) concluded that the labor costs of Swedish shipowners operating under the Swedish flag were often 45 percent higher than those incurred by owners registered under the Norwegian (NIS) or Danish (DIS) flags.³¹

After joining the European Union in 1995, Sweden gradually changed its shipping policies. Critical to the changes was the establishment in 1998 of the TAP system (*Tillfälligt Anställd Personal*—Temporarily Employed Personnel) after the Swedish government reached an agreement with the employers' associations and the unions. The TAP system legalized the employment of workers who were not members of the EU on half of the positions on board Swedish-flagged ships. Non-EU citizens received local salaries, which were lower than those paid to Swedish citizens. The TAP system required the captain and the chief engineer to have a Swedish nautical education. While improving Swedish competitiveness, the system did not fully remove the Swedish cost disadvantage. In 1999, Swedish-flagged vessels had an average cost disadvantage of 24 percent, 25 percent, and 30 percent relative to the Danish, Norwegian, and Dutch flags, respectively.³²

In 2001, the Swedish government introduced a new type of shipping-industry aid: the net-wage system. Swedish shipowners received a tax rebate equaling mariners' income taxes. Under this system, shipowners would pay mariners only net wages, thus saving considerable manning costs. These conditions resembled the terms offered to Danish and Norwegian owners under the rules set out in the Danish and Norwegian registries. Obviously, this was good news for Swedish shipowners.³³ However, the government's stance soon changed again.

Around 2000, most European countries replaced ordinary corporate taxes on shipping companies with tonnage tax regimes. Under this system, companies paid taxes based on the tonnage they controlled, regardless of profits and losses. The principle was simple: the higher the tonnage, the higher the tax. Shipowners argued that tonnage taxes ensured that sound commercial decisions were made within shipping. Under the ordinary taxation regime, shipowners had noncommercial, tax-related incentives to invest in ships. A committee composed of tax experts, government officials, and the Swedish Shipowners' Association was established in 2004 to examine the tonnage-tax issue. In 2006, the committee recommended the formation of a tonnage-tax regime that

³¹ *Sjöfartsverket, Konkurrenssituation.*

³² Näringsdepartementet, *Den svenska sjöfartspolitik* (Stockholm, 2001), 39. *Sjöfartsverket* has still only approved the Philippine education system, which means that there are only Philipinos sailing on Swedish-flagged ships under the TAP system. By 2008, around 1,000 people worked under the TAP system.

³³ *Svensk Sjöfarts Tidning* no. 25 (2001): 1, 117–19.

would establish competitive conditions for Swedish-based companies and ensure that a Swedish fleet and maritime know-how remained in Sweden.³⁴ The committee predicted that the initiative would result in no negative consequences to Swedish taxpayers. A tonnage tax would generate tax revenue equal to the amount the Swedish government received from the existing system.³⁵

In 2006, there was a shift in government from the Social Democrats to the Conservatives. By setting aside the committee's advice, the new government chose not to implement such tax legislation. Ever since, Swedish shipowners have criticized the government for insufficiently supporting the industry.³⁶ Their arguments for the tonnage tax indicate that this issue ranked high on their agenda. Indeed, the owners considered themselves to be at a disadvantage vis-à-vis their foreign competitors, although it is difficult to precisely measure the negative impact of the country's tax regime. In 2009, the Swedish Shipowners' Association announced its support for individual shipowners who wish to operate their vessels under the auspices of more competitive foreign flags, and several companies did so in 2010.³⁷

In 2010, the Swedish government issued a report in which it reassessed the competitive position of the country's shipping and reconsidered the possibility of introducing a Swedish international shipping register. While the report did not discuss the issue of tonnage taxes, it reconfirmed existing Swedish policies and pointed out that an international register would require amendments to Swedish labor legislation and would contravene international conventions that Sweden had ratified. Moreover, such a register could lead to undesirable claims from other Swedish sectors demanding similar conditions.³⁸

In sum, Swedish shipping institutions have not been as helpful to their constituents as have their counterparts in Denmark or Norway. Since the 1970s, the Swedish government has reacted slowly to aid the shipping industry. In fact, several of its actions actually hampered the sector, as exemplified by passage of the Flag Act of 1977, the government's refusal to establish an international shipping register in the late

³⁴ SOU, *Betänkande av Tonnageskatteutredningen* (Stockholm, 2006), 20.

³⁵ *Ibid.*, 25.

³⁶ Sveriges Redareförening, *Sveriges Redareföreningens Verksamhet Sjöfartsåret, 2004* (Gothenburg, 2005), 4, 10; Sveriges Redareförening, *Sveriges Redareföreningens Verksamhet Sjöfartsåret, 2006–07* (Gothenburg, 2007), 6; Sveriges Redareförening, *Sveriges Redareföreningens Verksamhet Sjöfartsåret, 2007–08* (Gothenburg, 2008), 4–6; Sveriges Redareförening, *Sveriges Redareföreningens Verksamhet Sjöfartsåret, 08–09* (Gothenburg, 2009), 4–5. The lack of a tonnage tax was also a favorite topic in the editorial of *Svensk Sjöfarts Tidning* in the 2000s, see for instance no. 13 (2004): 11; no. 19 (2006): 11; no. 7 (2007): 11; no. 5 (2009): 11; no. 8 (2009): 11.

³⁷ *Svensk Sjöfarts Tidning* no. 10 (2009): 20–21.

³⁸ SOU, *Svensk sjöfarts konkurrensförutsättningar* (Stockholm, 2010), 73.

1980s, and its continued rejection of a tonnage-tax regime in the mid-2000s. In sum, the government contributed to this industry's decline, as its negative policy conditions have added to the poor Swedish performance since the 1970s.

The reasons for the discouraging Swedish policies have never been properly researched. It is possible that the policies were influenced by the state's traumatic involvement in shipbuilding in the 1970s and 1980s, when all the major shipyards were owned by the government. To save employment in the sector, the government implemented large reconstruction programs that ultimately failed.³⁹ Because shipping employed fewer people than the yards, it received less attention from the government. Moreover, key managers in the shipping industry adopted an adversarial approach to the government, which did not win them political friends.⁴⁰ The fact that shipping issues are handled by the Ministry of Communications and Infrastructure indicates that government officials perceive shipping in terms of Swedish imports and exports, rather than in a global perspective. In contrast, Danish shipping issues are handled by the Danish Ministry of Economic and Business Affairs. In the 1990s and 2000s, the Danish administration worked hard to support Danish shipping companies, as demonstrated by its plan, launched in 2006, to transform Denmark into "Europe's leading shipping nation."⁴¹

Strategies

Corporate managers often must respond to industries that are undergoing structural changes in new ways. In our scheme, we define strategies as corporate decisions by the board and top management about directing the business. We look at the extent of the new strategies that emerged in Swedish shipping after 1970 and examine how particular strategies influenced the competitiveness of certain of the country's shipping companies.

Broströms. For a century, the Gothenburg shipping industry was dominated by Broströms.⁴² In 1865, Broströms started in traditional tramp shipping, but soon expanded into more specialized segments by adding ore carriers and crude-oil tankers. In the early twentieth

³⁹ Olsson, *Göteborgs*; Kuuse and Olsson, *Sjöförsäkring*.

⁴⁰ For example, Saléninvest's CEO, who repeatedly stated that Saléninvest will never pay one Swedish krona in profit tax. See Lennerfors, *Stockholmsrederierna*.

⁴¹ Økonomi- og Erhvervsministeriet, *Danmark som Europas førende sefartsnation* (Copenhagen, 2006).

⁴² Fritz and Olsson, *Strategies*; Algot Mattson, ed., *Tre generationer på sju hav: Broströmskoncernen, 1865–1965* (Gothenburg, 1965).

century, Broströms was a leading developer of overseas liner services from Sweden.⁴³ By the 1930s, the company had successfully grown into a maritime conglomerate, owning the Eriksberg shipyard in Gothenburg and other industries. Broströms, together with the other Gothenburg-based liner shipping group Transatlantic, continued to dominate the city's shipping scene until the 1970s.

In the 1960s and early 1970s, container ships replaced conventional liners and revolutionized liner shipping. Broströms successfully participated in this process, building several advanced container vessels and combined roll-on-roll-off container ships. Moreover, Broströms joined with several foreign lines to form international liner shipping consortia in order to build its core strategy on international cooperation, thereby ensuring its position in liner shipping in the 1960s and 1970s.⁴⁴ The 1970s and 1980s were difficult times for container shipping, and most liner services incurred substantial losses.⁴⁵ In depressed markets, the international consortia proved unstable, often plagued by internal rivalries between the partners and hampered by inefficient decision-making. During the 1980s, one member of a consortium would buy the other members' shares. Such transactions occurred in several of the consortia in which the Swedes were participants, undermining Broströms' cooperative approach. Broströms did not have the resources to invest single-handedly in container shipping.⁴⁶ In 1984, Broströms attempted to rationalize operations by transferring its problematic liner business to its Gothenburg-based colleague, Transatlantic.⁴⁷

In addition to liner operations, tanker and dry-bulk shipping was highly important to the Broströms Group, which operated a large fleet of such ships. Moreover, the Group's yard specialized in building the same types of vessels. Broströms followed the industry trend of ordering ever-larger ships, investing in oil tankers and very large ore carriers; during the 1960s, it extended the yard to accommodate some of the largest vessels. After 1973, however, the shipping investments and basic shipyard operations were eroded by the oil crisis. Eriksberg rapidly developed liquidity problems and was transferred to the Swedish government in 1977 at a high cost to Broströms. The group's debts skyrocketed, and it had to place additional orders at the yard. The Group's agreement with the Swedish government proved to be very expensive and continued to hamper its development into the

⁴³ Sören Larsson and Jaak Saving, *Nordstjernen inifrån, 1890–1990* (Stockholm, 1990).

⁴⁴ Poulsen, *Ostasiat and Consortia*.

⁴⁵ Broeze, *Globalization*, 79–113.

⁴⁶ Rederi AB Transatlantic, *Annual Report, 1983* (Gothenburg, 1984); Transkoncernen, *Annual Reports, 1984–88* (Gothenburg, 1985–89), 2–5; Poulsen, *Ostasiat and Consortia*.

⁴⁷ Transatlantic-koncernen, *Annual Report, 1985* (Gothenburg, 1986), 2–5.

1980s.⁴⁸ The Broströms ships often went into layup, their value plummeted before a sale to foreign owners could be transacted, and the company finally left the tanker and dry-bulk business in the mid-1980s.

Broströms undertook its diversification strategy in order to reduce risks, compensating for losses in one market by achieving gains in another. However, the crisis of the 1970s and 1980s affected all shipping segments and shipbuilding at the same time. The unfortunate investments in tankers and ore carriers, disappointing results in liner shipping, and the ailing shipyard drained the Group's resources. The color of the year's results for the companies in the group shifted to red.⁴⁹ Subsequently, the solvency of the Broströms holding company, Rederi AB Tirfing, dropped from 44 percent in 1970 to 8 percent in 1980, a typical development for Swedish shipping companies in that period.⁵⁰

Saléninvest. In 1970, Stockholm was an international shipping center, housing shipping conglomerates of the same type and scale as those in Gothenburg. Saléninvest was one such conglomerate that, with the Nordstjernan Group, dominated the Stockholm shipping community for decades.⁵¹ Established by Sven Salén in 1915, Saléninvest was active in several markets and possessed considerable shipping expertise. However, the company went bankrupt in 1984 following an aggressive expansion, and it failed at the same time as Broströms collapsed.

Saléninvest was a global market leader for refrigerated shipping of fruits, fish, and meat, using reefer vessels, which were equipped with refrigerated holds. In the 1950s, it diversified into oil shipping and expanded into dry-cargo shipping, acquiring the Stockholm-based shipping company Rexrederierna in 1967. Saléninvest also diversified into fruit distribution and retail, car imports, oil drilling, oil-tanker cleaning systems, and aviation. However, shipping continued to be the Group's main enterprise. In the early 1970s, Saléninvest was the largest Swedish shipping company in terms of tonnage and had the world's largest reefer fleet.⁵²

Multiple factors caused Saléninvest's bankruptcy. Shortly before the oil crisis, the company had ordered seven supertankers, but the planned expansion failed after the collapse of the tanker market. The management's view that shipping was a gamble had disastrous consequences in the depressed markets of the late 1970s and early 1980s. The

⁴⁸ Broströms Rederi AB, *Annual Report, 1978* (Gothenburg, 1979), 3–4; Broströms Rederi AB, *Annual Report, 1981* (Gothenburg, 1982), 3.

⁴⁹ Ångfartygs AB Tirfing, *Annual Reports, 1972–75* (Gothenburg, 1973–86); Broströms Rederi AB, *Annual Reports, 1975–81* (Gothenburg, 1976–82).

⁵⁰ Sjögren, *Spelet*, 382–83.

⁵¹ On Nordstjernan, see Thorsten Rinman, *Rederiet: Johnson Line under 100 år* (Gothenburg 1990) and Larsson and Sävning, *Inifrån*.

⁵² Sjögren, *Spelet*, 65–114.

dry-cargo market also proved to be problematic. The reefer division remained profitable in the 1970s, but generated heavy losses after 1982. Saléninvest's investments in the Gothenburg shipyard Götaverken also became a burden. Saléninvest's decision to adopt a strategy of expansion and diversification in the 1960s and 1970s eroded the company's position during a period of severe and prolonged shipping recession.⁵³

Wallenius. The Wallenius case is an exception to the story of Swedish shipping's remarkable decline.⁵⁴ During this period, Wallenius managed to resist the tide by expanding into a global leader in the field of deep-sea roll-on-roll-off vessels ("ro/ros"). Moreover, the company's results improved at a time when most other Swedish companies were struggling for survival.⁵⁵

Founded by Olof Wallenius in 1934, Wallenius built up a fleet of oil tankers and bulkers in the postwar period, thus adopting a strategy that resembled Saléninvest's and Broströms' investments in tankers. In the 1950s, however, Wallenius ventured into car shipping, an emerging niche fueled by the expansion of private motoring. Bengt Törnkvist, a Wallenius master mariner, developed a system for transporting cars in dry-cargo vessels, and the world's first purpose-built car carriers were delivered to Wallenius in 1955. With the insertion of removable car decks, dry-cargo vessels could be converted into carriers, enabling cars to be loaded by cranes or through side ramps. In 1963, Wallenius developed the ro/ro-concept, which enabled cars to drive on board the vessels through the stern or the bow, thus replacing time-consuming crane loading. Initially, ro/ros were used only in short sea shipping, but then purpose-built ro/ro car carriers superseded traditional car and bulk carriers in the deep-sea trades during the 1970s. Since then, ro/ro car carriers have dominated the business and have continued to expand. Wallenius's innovative edge in the early years of car shipping paved the way for its subsequent success.

The car-carrier business constitutes a niche within the shipping sector. Thus, the ability of shipping companies to maintain good relations with car manufacturers was a key to their success. Because barriers to entry are higher than in other shipping sectors, a few companies have dominated the market since its emergence in the 1950s. Wallenius was one of the first companies to see the value of this market and to utilize it

⁵³ Sjögren, *Spelet*; Lennerfors, *Stockholmsrederierna*.

⁵⁴ This section is based on Lennerfors, *Stockholmsrederierna*; Bo Björklund, Bengt Fris, and Annika Röhl, eds., *Walleniusrederierna, 1934–1984: Glimtar ur rederiets historia med anledning av 50-årsjubileet den 23 november 1984* (Stockholm, 1984); and Hans Sjögren, "Stockholms sjöfart i omvandling," in *Tillväxt and Tradition: Perspektiv på Stockholms moderna ekonomiska historia*, ed. Håkan Lindgren and Tom Petersson (Stockholm, 2008), 215–48.

⁵⁵ Sjögren, *Spelet*, 382–83.

effectively.⁵⁶ Wallenius signed a long-term contract for transporting German, British, and American cars between America and Europe in 1954. In 1965, responding to the plans of Japanese manufacturers to export their cars to Europe and the United States, Wallenius became the first non-Japanese carrier to ship cars for the expanding Japanese manufacturers. In addition to its investments in car carriers, Wallenius expanded its fleet of ever-larger oil tankers in the 1950s and 1960s.

Beginning in the early 1970s, Wallenius focused on deep-sea ro/ro shipping, divesting from short-sea and tanker shipping. The sale of its last oil tanker in 1973, shortly before the tanker market collapsed, proved fortunate. One advantage conferred by the oil crisis was the surge in popularity of small, economical Japanese cars, and Japanese car exports subsequently increased. For this reason, Wallenius achieved a much stronger position in the 1970s and 1980s than Saléninvest and Broströms.

In the 1980s and early 1990s, Wallenius diversified, buying shares in Consafe, an offshore accommodation company; in Argonaut, an oil-tanker company; and in Bilspedition, a road-transportation group. In all cases, the investments turned out to be disappointments. In contrast to the experiences of Broströms and Saléninvest, however, its efforts to diversify did not drain Wallenius of resources, and the company was able to focus successfully on car shipping. In 1999, it formed a thriving joint commercial and operating company, Wallenius Wilhelmsen, which it co-owned with the Norwegian Wilhelmsen Lines. Wallenius Wilhelmsen expanded the fleet by adding several new buildings and acquiring 80 percent of Hyundai Merchant Marine's car-carrier division in 2002.⁵⁷

From 1970 to 2010, Wallenius changed its strategy several times. While its efforts to diversify never succeeded, the company made several fortunate decisions that propelled its growth into a global car carrier. It divested from oil tankers shortly before the oil crisis and built strong relations with car manufacturers. Moreover, it may have gained some first-mover advantages by building technically advanced car carriers at a time when that market was still immature. Its decision to concentrate on car shipping, a profitable segment since the 1950s, was clearly the key to Wallenius's growth. The Wallenius case demonstrates the viability of niche strategy in a period of structural change and explains the company's success in averting the general decline in Swedish shipping. The singular nature of the car-carrier market meant that other

⁵⁶ Stopford, *Economics*, 492–96; Espen Ekberg, "The Growth of the Deep-Sea Car-Carrying Industry, 1960–2008," in *Research in Maritime History* no. 46, ed. Lewis R. Fischer and Even Lange (St. John's, Newfoundland, 2011), 253–79.

⁵⁷ Wilh. Wilhelmsen, *Annual Reports, 2000–2008* (Oslo, 2001–9).

Swedish shipping companies could not easily pursue a similar strategy. The Wallenius case was clearly unique.

Stena. Established in 1939 by Sten Allan Olsson, Stena started out trading in metal scrap before expanding into a northern European ferry business during the 1960s. The Stena Group, which was controlled by the Olsson family of Gothenburg, diversified into offshore support and real estate in the 1970s and early 1980s.⁵⁸ In 1982, Stena AB, the Stena Group holding company, established the fully owned subsidiary Stena Bulk AB. Two years later, the Group took another important step into the tanker and dry-bulk markets by establishing Concordia Maritime AB, which was listed on the Stockholm stock exchange. The Stena Group held a controlling interest in Concordia; its goal was to build a business through engaging in asset play within the tanker and dry-bulk markets. In asset play shipping, the main profits are generated from the sale and purchase of vessels, rather than through the operation of those vessels. As such, Stena's strategy was similar to the schemes devised by Broströms and Saléninvest, but its timing proved superior to theirs. Concordia Maritime AB acquired six second-hand tankers at prices close to scrap value and then sold some of the vessels shortly afterward at a profit. Trading as such was less crucial to Concordia Maritime AB than to its competitors; thus it accepted, and even anticipated, losses from daily operations.⁵⁹ In contrast to Saléninvest and Broströms, Stena and Concordia succeeded in their asset-play strategy because they timed their entries well.

Because its initial investments in old second-hand vessels did not require massive financial resources, Stena was able to gradually build its market position by acquiring two ultra-large crude carriers (ULCCs) and six very large crude carriers (VLCCs) second hand in 1988–89. Asset play remained part of the Stena strategy in the 1990s and beyond, as did negotiations of long-term contracts and collaborations with the oil majors, including Texaco, Sonangol, Total, and Neste Oil. In its 1989 annual report, Concordia Maritime stated that the company was “taking the long-term view in chartering with first-class charterers.”⁶⁰

Further expansion took place in 2001 when the company took delivery of two shallow-draft VLCCs for which it had signed a long-term contract with a customer. In 2004, Stena introduced the two shallow-draft VLCC and other vessels in a company called Arlington Tankers to the New York Stock Exchange, which was part of a strategic change towards the markets for medium-sized oil tankers and

⁵⁸ Lindgren, Stenberg, and Villa, *Stena*.

⁵⁹ The following is based on Concordia Maritime AB, *Annual Report and Accounts, 1984–2010* (Gothenburg, 1985–2011).

⁶⁰ Concordia, *Annual Report, 1990*, 8.

ice-strengthened tankers. Throughout this period, the Stena and Concordia ships were listed mainly in foreign registers and thus were not directly affected by the Swedish government's shipping policies. Despite the growth of Concordia Maritime and Stena Bulk, tanker and dry-bulk shipping accounted for less than a third of the Stena Group's revenue and assets, and the Group continues to rely mainly on the metal business, real estate, drilling, and short sea-ferry services.⁶¹

In contrast to the experiences of Saléninvest, Broströms, and Wallenius, Stena's efforts to diversify were more successful. While its strategy was not unique, Stena timed its ventures better than the conglomerates. Unlike Broströms, Saléninvest, and other companies, Stena had not invested in problematic tankers and bulk shipping in the 1970s, and it timed its entry into the markets to occur in the mid-1980s when the market cycle was at its lowest, thus paving the way for expansion. The Stena case demonstrates that unique strategies were not a prerequisite for growth in shipping in the 1980s, but that timing was crucial. In contrast to most of its Swedish colleagues, Stena did not carry a legacy of loss from the 1970s, and it had the resources to invest in the 1980s when most others failed. Neither Stena nor Wallenius are equal to the old shipping conglomerates, but both have managed to keep shipping as a going concern, despite Sweden's difficult regulatory arrangement.

Know-how and Resources

Maritime know-how is critical to management success in both commercial and technical shipping operations. Commercial know-how refers to shipowners' relations with customers and the timing of vessel sales and purchases. In the oil and dry-bulk markets, freight rates, and hence vessel values, fluctuate wildly, which makes it crucial to correctly gauge the timing of contracting, sales, and purchases. Because shipping is also a capital-intensive business, committed financiers are a prerequisite for shipping investments. While shipping companies rarely dictate market conditions, they can manipulate operational costs. Thus, fleet management, including hiring crews and overseeing maintenance, is important. Because the design of new ships also influences the competitive position of shipping companies, innovative designs may provide a competitive advantage. Thus, awareness of the technical components of fleet operations and new building projects is a critical aspect of maritime know-how.⁶²

⁶¹ Lindgren, Stenberg, and Villa, *Stena*, 8–11.

⁶² Peter Lorange, *Shipping Strategy: Innovating for Success* (Cambridge, U.K., 2009); Wijnolst and Wergeland, *Innovation*; Stopford, *Economics*.

In a declining industry, access to expertise becomes increasingly difficult to gain: from the 1980s, the remaining Swedish shipowners had to work hard to develop the shipping industry. Moreover, employees in the failing companies had to ask themselves hard questions. Should they apply for similar jobs in the few remaining Swedish shipping companies? Should they look for openings in foreign companies? Or should they find employment in other industries? Alternatively, they could try to mobilize resources to set up their own shipping companies. We evaluate the role of both technical and commercial expertise in the transformation of Swedish shipping and ask what part they played in the Broströms and Saléninvest collapses. Looking at the remarkable growth of Wallenius and Stena, we ask, To what extent did these firms absorb know-how and key personnel from companies like Saléninvest and Broströms?

Broströms. The Broströms Group possessed considerable technical and commercial know-how. The Group's technical organization anticipated completing several new projects, such as innovative designs for liner and container ships.⁶³ Broströms employees also gained valuable insights about the nature of tanker, dry-bulk, and container markets, which were reflected in the firm's operation of a fleet of more than eighty-five ships by 1965.⁶⁴ Nevertheless, when the Group collapsed in the early 1980s, employees had to reconsider their situations and ask themselves whether they could apply the expertise they had gained to new ventures.

Container-shipping know-how, both commercial and technical, was lost in less than a decade. Attempts to improve profitability in Broströms' and Transatlantic's liner services were disappointing, and after 1988, Bilspedition, the new owner of the Gothenburg lines, experienced problems similar to the old ones. Liner services were gradually sold to foreign partners who already possessed considerable liner-shipping know-how within their own organizations. Since Swedish expertise was not unique, it was difficult to restrict it to Sweden. Nor was setting up new, independent Swedish liner-shipping companies a viable option, as barriers to entry prevented former Broströms and Transatlantic employees from doing so. In order to reap economies of scale in container shipping, large-scale operations were required. No individual Swedish entrepreneur possessed such resources.⁶⁵ For this reason, considerable

⁶³ Poulsen, *Ostasiat and Consortia*.

⁶⁴ Mattson, *The generationer*.

⁶⁵ Transatlantic-koncernen, *Annual Reports, 1985–1988* (Gothenburg, 1986–89). See also Mary Brooks, *Sea Change in Liner Shipping: Regulation and Managerial Decision-making in a Global Industry* (Oxford, 2000) on liner shipping and entry barriers into this business.

liner-shipping expertise, both commercial and technical, disappeared from Sweden in the 1980s and early 1990s. However, the commercial know-how that existed in the tanker and dry-bulk markets was preserved in Gothenburg, since some of Broströms' knowledge was transferred to Stena.

Stena. In 1984, the expansive Stena Group set up Concordia Maritime AB. As a new organization, Concordia itself did not possess sufficient shipping know-how. Therefore, full operative responsibility for running tankers and bulkers was assumed by Stena Bulk AB. The Stena Group announced that it offered commercial and technical know-how: "Very sound shipping knowledge, built up over a period of many years, is available within the Stena Group. Concordia Maritime has entrusted Stena with responsibility for freights, marketing, operational and administrative services, with respect to all the ships."⁶⁶ However, Stena needed more manpower and knowledge in order to expand into tanker and dry-bulk shipping, and it was able to take advantage of the expertise that was readily available from the Broströms Group. Three key Broströms employees, Ulf G. Ryder, Joakim Ullman, and Lars Carlsson, were recruited to Concordia Maritime AB and Stena Bulk AB. Ryder had worked as chartering manager at Scanscot Freighters, a dry bulk pool operated by Broströms, and he was appointed managing director of Stena Bulk AB. Ullman, who possessed experience in liner shipping and charter brokering, was appointed vice managing director of Stena Bulk AB, while Lars Carlsson was named the first CEO of Concordia Maritime AB in 1984. According to Stena's publicity material, Ryder, Carlsson, and Ullman were nicknamed, respectively, the "accelerator," the "brake," and the "clutch."⁶⁷ Carlsson left Concordia in 2004, Ryder continued as president and CEO of Stena Bulk AB, and Ullman remained as chief strategic officer and executive vice president of Stena Bulk AB.⁶⁸

In their early phases, Stena Bulk and Concordia Maritime focused on the assets they had in the form of second-hand vessels and did not plan new undertakings. For this reason, Stena did not need advanced technical know-how for new building projects from Broströms. The Stena Group gradually changed its strategy and recruited staff from the technical department at the Uddevalla Shipyard, which had closed down in 1988. The Uddevalla ship designers formed the technical department of Stena, which became critical to the transformation of the

⁶⁶ Concordia, *Annual Report, 1984*, 3.

⁶⁷ Robert Hermansson, *Historien om Stena Bulk* (Gothenburg, 2007), 14–18.

⁶⁸ Concordia Maritime AB and Stena AB, *Annual Reports, 1984–2010* (Gothenburg, 1985–2011).

Group's tanker and dry-bulk strategy from one of opportunism to innovative, quality shipping.⁶⁹ Stena's technological focus was further strengthened when Dan Sten Olsson took over the firm's chairmanship from his father, Sten A. Olsson, in 1983. Sten A. was generally considered to be a trader, while his son, who was educated as an engineer, is often described as an industrialist who focuses on the long term.⁷⁰ Much of Stena Bulk's expertise comes from the ability to create, build, and maintain relations with the oil majors. The Stena story exemplifies an expanding shipping company that successfully absorbed know-how from failing colleagues in a declining industry at exactly the right time.

Saléninvest. The Saléninvest bankruptcy in 1984 did not result in any great loss to Stockholm of shipping know-how. On the contrary, the Saléninvest case illustrates how resources can be quickly mobilized to establish several new companies following bankruptcy. Its commercial and technical know-how remained even after the old company disappeared, preserved by key individuals who continued to work in the industry. Thus, commercial know-how and financial capital were still available after the Saléninvest bankruptcy.⁷¹

Reconstruction of the Reefer Business

When Saléninvest went into bankruptcy, key personnel at Salén's reefer division formed a new company, Cool Carriers.⁷² Familiarity with the original company's commercial expertise, including knowledge about customers, was crucial to the new company's formation and to its subsequent operations. The leading players realized that they needed to gain ownership of the reefer fleet in order to keep Saléninvest's old customer base. They acquired the information from companies that were affiliated with Cool Carriers but were owned privately by important people from the Salén network. Cool Carriers changed ownership several times in the following decades, but people who had been commercially affiliated with Saléninvest continued to be important. For example, in 2001, a long-time Danish competitor, J. Lauritzen, acquired Cool Carriers AB. Lauritzen had its own large reefer organization in Copenhagen. Nevertheless, the Lauritzen reefer headquarters were transferred

⁶⁹ Stena AB, *Annual Reports, 1986/87–2009* (Gothenburg, 1988–2010), clearly shows the expansion of the technical expertise in-house in Stena. From 1993 onwards, the reports contained a chapter titled "Stena Teknik," which described the in-house development of new vessel designs both for the ferry services and for Concordia Maritime.

⁷⁰ Lennerfors, *Stockholmsrederierna*.

⁷¹ Sjögren, *Spelet*, 281–335; Lennerfors, *Stockholmsrederierna*.

⁷² Sjögren, *Spelet*, 219–335; Per-Göran Olofsson, *Konkurs eller frivillig rekonstruktion? Rederiet Saléninvests finansiella kris, förhandlingarna, konkurs och tiden därefter* (Stockholm, 2000), 97–131.

to Stockholm.⁷³ Although it is now owned by the Japanese shipping giant NYK and renamed NYK Cool, the company has maintained the Stockholm headquarters. The transactions in Cool Carriers indicate that commercial reefer knowledge in Stockholm was still highly valued almost two decades after Saléninvest collapsed.

Holy House Shipping is another Swedish company in the reefer business that also originated from Saléninvest. It was established in 1986 by Mats Ruhne, a key player in the formation of Cool Carriers. Presently, Holy House Shipping trades with a fleet of fifteen, mainly old, reefers from Stockholm. The advanced age of the vessels reflects the bleak outlook of the reefer trade.⁷⁴ Within the last few years, the reefer business has contracted as ships equipped with refrigerated containers have encroached on the market. Shipping analysts predict that the reefer market will decline further as containers continue to replace specialized reefer vessels.⁷⁵

Reconstruction of the Tanker and Dry Cargo Business in Stockholm

In addition to the reefer business, Saléninvest had accrued considerable expertise about the tanker and dry-bulk markets, enabling its former employees to set up new companies. Argonaut was an example of such a company. Led by Mats Jansson, a former employee of Saléninvest, it expanded its operations in oil tankers, dry-bulk shipping, and offshore drilling, and for approximately ten years, Wallenius owned a large share of the company. ICB, another newcomer in Swedish oil-tanker shipping, was established by Clarence Dybeck in 1986. Dybeck, who had once been the CEO of Salén Tankers, built a fleet of oil tankers at ICB with financial support from a Swedish consortium.⁷⁶ Stockholm-based Frontline also absorbed expertise from Saléninvest, originally named UV Shipping. UV Shipping was formed by the Swedish state to manage a state-owned fleet of tankers and dry-cargo ships that were originally built by foreign owners in Swedish government-owned yards who then were unable to pay for them. UV Shipping was sold by the government at an IPO in 1989, and the Salén family soon acquired stakes. Renamed Frontline, it focused on industrial shipping with oil-bulk-ore

⁷³J. Lauritzen A/S, *Annual Reports and Accounts, 2002–04* (Copenhagen, 2003–05); Ole Lange, *Logbog for Lauritzen, 1884–1995: Historien om konsulen, hans sønner og Lauritzen Gruppen* (Copenhagen, 1995).

⁷⁴*Svensk Sjöfarts Tidning* no. 1 (2008): 18–21; no. 1 (2010): 9.

⁷⁵*Svensk Sjöfarts Tidning* no. 7 (2009): 56; Stopford, *Economics*, 488–92, 584, 590; “Specialised Reefer Fleet to Shrink Further,” *Lloyd’s List*, 14 Sept. 2010.

⁷⁶The following sections are based on Lennerfors, *Stockholmsrederierna*.

carriers, but lack of capital and unfortunate timing prevented it from achieving a sufficient scale. Nordström & Thulin, another shipping company partially built on know-how it had gleaned from Saléninvest, expanded its activities in oil shipping, dry cargo, and ferry services in the 1980s and 1990s. In 1992, the new shipping companies controlled close to seventy ships, in total about ten million deadweight tonnes.

Saléninvest transformed its technical organization into a consulting company, Saltech Consultants. Stockholm Chartering, another company that managed commercial fleets, also emerged from the bankruptcy, assuming the commercial management of ten to fifteen tankers and dry-cargo vessels that were owned by Argonaut, various banks, and other companies under the leadership of Dybeck, the company's first CEO. Dybeck's career reflects the continuity that existed in Stockholm shipping after the Saléninvest bankruptcy. Both Stockholm Chartering and Saltech Consultants still exist in Stockholm.⁷⁷

Losses in Frontline, combined with an unstable owner structure, opened the door for foreign investors who were interested in the assets—the vessels—rather than in the organization and the employees' know-how. In 1997, Norwegian shipping tycoon John Fredriksen acquired the company and moved its headquarters from Stockholm to Norway. He also took control of most of ICB's vessels, resulting in a loss of expertise for Sweden. Only three employees from these two companies migrated with Fredriksen to Norway. Fredriksen wished to acquire the material assets of ICB and Frontline, and was not interested in its human resources.

Wallenius took over the shares in Argonaut but soon sold them in order to focus on car shipping. In 1998, Stockholm-based Nordström & Thulin, having acquired the majority share of Argonaut, formed N&T Argonaut. N&T Argonaut, however, was soon fully bought by Hong Kong-based World-Wide Shipping, which was led by Helmut Sohmen, an Austrian business man married to the daughter of Yue-Kong Pao, the owner and founder of World-Wide Shipping, and in 2000 the company ceased operations in Stockholm. In contrast, when World-Wide Shipping acquired the Norwegian tanker and gas-carrier company Bergesen d.y. ASA in 2003, he kept the gas-carrying operations in Oslo.⁷⁸ In so doing, he made it clear that World-Wide Shipping was not interested in Swedish shipping know-how, but was looking to acquire tonnage at a discount. Because Fredriksen's and Sohmen's large-scale firms already possessed considerable commercial know-how, their Swedish acquisitions had nothing unique to offer them. Thus, the foreign

⁷⁷<http://www.saltech.se/> and <http://www.stochart.com/> (accessed 8 Aug. 2012).

⁷⁸BW Gas, *Annual Report, 2008* (Oslo, 2009).

takeovers ended Stockholm's involvement in the large oil-tanker and dry-bulk markets.

Both the Salén family and Skandinaviska Enskilda Banken (SEB), Saléninvest's main bank, played critical parts in preserving maritime know-how in Stockholm. The Salén family acted as a temporary incubator of many of the new Stockholm shipping businesses and provided financial resources, know-how, and trustworthy networks, while SEB provided financial expertise.⁷⁹ The new shipping companies could grow under the auspices of the incubators, but they were all plagued by ownership problems and were eventually acquired by larger, foreign companies. The post-Salén case shows how closely know-how and capital assets were linked. Access to financial capital enabled companies to hold on to their know-how and to maintain and support knowledgeable players for more than a decade.

Wallenius

Wallenius recruited its top management from former employees of the failed old Swedish shipping companies. Most notably, Arne Koch, who served as CEO at Wallenius from 1980 to 1990, had worked at Atlantic Container Lines and Broströms Linjeagentur, where he acquired considerable commercial expertise in liner shipping.⁸⁰ In 1990, Koch was succeeded by Christer Olsson, who had worked with various Broströms liner companies before being employed by Wallenius.⁸¹ Olsson stayed in office until 2005, when Lone Fønss Schröder, a Dane, became the director. Schröder had worked for many years as the director of A. P. Møller-Maersk. Her leadership demonstrated that management of the remaining Swedish shipping companies had assumed a more international character and that commercial know-how came from abroad.

Wallenius has traditionally demonstrated an investment in technological know-how, exemplified by its successful introduction of the ro/ro technology in the 1950s. By constantly upgrading and enlarging its fleet, the firm developed its business, creating a new, environmental image and demonstrating a technological vision and ability to plan for future ships that has been lacking in many other Swedish shipping companies. Wallenius collaborates with international companies, most notably with Wilhelmsen. In this way, the firm demonstrates the importance of recognizing when resources or know-how are lacking and of collaborating with others in order to acquire those resources.

⁷⁹ Lennerfors, *Stockholmsrederierna*, 43–61, 117–18. Olofsson, *Konkurs*, 121–31.

⁸⁰ Lennerfors, *Stockholmsrederierna*, 71.

⁸¹ *Ibid.*, 76.

Conclusion

Markets, regulations, strategies, and know-how played decisive parts in the transformation of Swedish shipping from 1970 to 2010. Swedish shipping companies found themselves at the mercy of the world economy and global trade, and they depended strongly on the balance between supply and demand. Freight rates were high at the beginning of the 1970s, but fell sharply after the first oil crisis. Global tonnage overcapacity between 1973 and 1987 resulted in low or negative shipping profits. Following a period of optimism at the end of the 1980s, the markets descended into new lows before showing some signs of recovery in the 1990s. Boom conditions in international shipping returned at the end of 2002, driven by the Chinese growth that led to large-scale demand. Clearly, changing markets had a substantial impact on Swedish companies. The deep recession that lasted from 1973 to 1987 is one explanation for the heavy strain that was imposed on the old Swedish shipping structures. However, shipping markets have always fluctuated, and changing markets do not alone explain the Swedish decline relative to the records of foreign competitors that were exposed to similar market conditions. Moreover, Swedish shipping stagnated in the 2000s during a period when the world shipping markets were booming, leading to the conclusion that Swedish peculiarities contributed to this development.

The country's regulations had a negative impact on the competitiveness of its shipping companies. The flag law passed by the Swedish government prevented Swedish shipping companies from sailing under the flags of countries with low shipping costs. Unlike most other foreign competitors, the Swedish government did not establish an international register of shipping in the late 1980s, and even today the government has not implemented a tonnage tax regime, such as those in common use in Europe. The Swedish government also moved more slowly to extend shipping aid than many other governments, and the country's shipping institutions were clearly less favorable than those established, for example, by Norway and Denmark, especially after those two countries introduced their international shipping registers. Shipowners often argue that the Swedish government's less than adequate response was the result of its failure to understand the industry's needs. However, it might also have been due to the Swedish government's willful neglect of the shipping industry. The government probably did not consider shipping a vital industry. Unfavorable state policies led to an irreversible process that imposed many unforeseen and long-term consequences on the whole sector. The Swedish case offers new insights on the importance of effective formal institutions to shipping or indeed to any industry.

Before 1973, the Swedish shipping industry experienced a state of optimism when freight rates were high. Many believed that economic growth would continue over the long term, fueled by cheap oil. Before the oil crisis, Broströms and Saléninvest followed the international trend of ordering aggressively, reflecting both the general expectation of growth and the owners' financial resources. We conclude that the shipowners' strategies contributed to the sector's depressed markets in the 1980s, revealing the close interrelations between strategic and market variables in our analytical framework. Market changes triggered responses, but many shipowners devised ineffective strategies for handling change during this period. Moreover, diversification proved dangerous in times of general recession in shipping and shipbuilding, contributing to the downfall of both Broströms and Saléninvest.

In the new ventures emerging in the 1980s, Stena started with asset play, but gradually adopted a more industrial strategy that involved long-term, extensive collaboration with customers. Stena's strategy was not unique, but its timing proved superior, and, unlike most Swedish firms, the company was not burdened by the legacy of loss from the 1970s. Wallenius, on the other hand, pursued a unique strategy in the attractive car-carrier market, having gained first-mover advantages in this niche in the 1950s and 1960s that other companies were unable to emulate due to the particular nature of that market. Stena and Wallenius represent the two most remarkable cases of growth in the Swedish shipping industry after 1970, and their expansive development also demonstrates what most other Swedish companies were lacking at the time. These two exceptions enhance our understanding of the reasons for the Swedish industry's general decline.

Know-how is a critical factor of competitiveness in international shipping. The Broströms, Saléninvest, Stena, and Wallenius cases illustrate the general issues that were at stake in the Swedish industry. While both Broströms and Saléninvest failed in the early 1980s, their employees had accrued a massive pool of expertise. Key employees in Saléninvest had the entrepreneurial daring and knowledge that enabled them to set up new companies, and banks were willing to support their ventures. Financial resources were also provided by various private risk capitalists. Cool Carriers rapidly took over Saléninvest's position in the reefer business, and several tanker and dry-bulk companies were established just as quickly. The support of competent capital in Stockholm enabled shipping know-how to be preserved. Evidently, the Schumpeterian concept of creative destruction applies to these Swedish cases.⁸²

⁸² Joseph A. Schumpeter, *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle* (Cambridge, Mass., 1934).

In Gothenburg, the tanker and dry-bulk knowledge gathered by the owners of the ailing Broströms was partly absorbed by the strong Stena Group, which timed its successful entry into these markets. Expertise was readily available, and ship prices were very low. Today, both Stena Bulk and Concordia Maritime AB are still headed by ex-Broströms and Transatlantic employees. Like the Saléninvest case, the Stena story demonstrates that expertise can be more enduring than the physical artifacts—the companies and vessels—of the industry.

The owners of the new Stockholm companies generally focused on asset play, and they had a short-term perspective on shipping. Others had enough of the shipping market and turned to more profitable sectors, such as air transport. In the late 1990s, when foreign companies offered to acquire the Stockholm companies, the Swedish owners accepted. As a result, these tanker companies were lost from Stockholm for good. While Stena's owners also engaged in asset play, the Olsson family demonstrated a long-term perspective on shipping, which might explain why Stena is the only remaining Swedish company involved in transporting crude oil.

Swedish expertise in container shipping markets disappeared more quickly than experience in the tanker and bulk sectors. Within a decade, from the mid-1980s to the mid-1990s, most Swedish liner services were sold to foreign partners. In the bulk, reefer, and tanker markets, entrepreneurs built new businesses from the ashes of the failed old conglomerates. Entry barriers prevented similar rescues from occurring in the liner business. Since requirements for high investments in an industry with large economies of scale greatly exceeded the financial capabilities of individual Swedish entrepreneurs, Sweden lost its liner knowledge and today relies completely on foreign shipping lines.

In the 1960s, Swedish shipping companies and shipyards possessed considerable technical and commercial maritime know-how, and their personnel were often at the forefront of the industry. The structural crisis of Swedish shipping after 1973, however, caused the pool of maritime expertise to contract considerably. Technical know-how was lost when the yards closed down, and commercial know-how was reduced as shipping operations were sold abroad. When the old generation of employees from Broströms and Saléninvest retired, shipping experience in Sweden faded away. Without new players or supportive national policies, career opportunities in Swedish shipping contracted, and a new generation of maritime managers has not materialized since the 1990s.

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