

Paper for the EBHA conference 2007, Geneva

Capability and Opportunity The global breakthrough of the Danish shipping industry, 1985-2007

Martin Jes Iversen and Henrik Sornn-Friese
Copenhagen Business School

This is a work in progress – please do not quote without permission from the authors

1. Introduction

In all major historical epochs the majority of trade has been transported by sea. It has been estimated that in the “new global economy” of today ships carry more than 90 percent of world trade.¹ It follows that shipping is a vulnerable industry with shipping cycles generated by business cycles in the world economy. Following upon the Second Oil Crisis global shipping faced its deepest and most severe crisis since 1945. World trade by sea decreased continuously four years in a row from 3,715 million tons in 1979 to 3,090 million tons in 1983.² The crisis was strengthened by slow structural adjustment of supply to the difficult demand circumstances: Orders for new ships often ran over several years and labour intensive shipyards and prestigious national fleets continued to receive state subsidies. The world merchant fleet consequently continued to grow until 1985 resulting in overcapacity, low freight rates and the diffusion of open low cost registers (flags of convenience such as the Bahamas, Liberia and Panama).³

The crisis was also felt in Denmark. According to annual reports from the Danish Shipowners’ Association (various years) the size of the merchant fleet went down from 8.7 million tons deadweight (DWT) in 1979 to 6.8 million DWT in 1986.⁴ The drop in the number of ships was even more severe as the Danish merchant fleet was reduced from 909 ships in 1977 to 525 ships in 1989. The developments hit hard on the Danish economy. In the 1960s and 1970s the foreign currency income from the shipping sector had been an important contributor to the Danish balance of payments, but by the mid-1980s this was no longer the case. The economic imbalances and the aggravated situation for the shipping industry were serious issues and on June 3, 1987 the Danish government published an important memorandum on Shipping Policy. The conclusion was marked by the difficulties for the industry and the economy.⁵

Since the Viking Age ships have connected Denmark to the surrounding world. [...] There have been periods in the medieval times and after the wars with England when a large part of Danish shipping was taken over by others, but every time it has proven possible to reconstruct an efficient merchant fleet. Today we are probably meeting the largest challenge in our shipping history. [...] Future generations will rightly blame us if we do not understand that to prevent the threatening extinction of the Danish merchant fleet action is needed now.

¹ Danish Shipowners’ Association (2007).

² Danish Shipowners’ Association (1987).

³ Norway was particularly hard hit by the advent of open registry. By July 1986 a record of almost 45 percent of its merchant fleet was registered outside Norway. See, for example, Danish Shipowners’ Association (1986).

⁴ The Danish merchant fleet is defined as all privately owned cargo and passenger ships, ferries, cruise ships and the like (but fishing vessels not included) of more than 100 Gross Tonnes (GT) capacity, where GT is a cubic measure for the total of all the enclosed spaces within a ship expressed in tonnes, each of which is equivalent to 100 cubic feet.

⁵ Ministry of Industry (1987).

The merchant fleet did not die out after the crisis. Now, two decades later the revered shipping magazine Lloyd's List has elected Denmark as one of the leading maritime countries in Europe.⁶ Danish shipping companies control an estimated seven percent of the world's merchant fleet, carry an estimated ten percent of world trade and, even though a substantial part of the transport takes place on chartered in ships, the size of the Danish-owned fleet has almost doubled from 13.9 million DWT in 1997 to 24.9 million DWT in 2006.⁷ Danish shipping now includes a global leader; namely the container operator Maersk Line (formerly Maersk Sealand, a wholly-owned subsidiary of the Danish shipping group A.P. Moeller-Maersk), which in the beginning of 2007 operated approximately 510 container vessels and a world market share of 16-17 percent.⁸ Even more importantly, the gross foreign currency income from the shipping industry more than tripled from around 50 billion DKK in 1999 to 160 billion DKK in 2006 – or from nine to sixteen percent of the total Danish export.⁹ With such developments, Denmark as a whole, and Copenhagen in particular, has become a new world centre for shipping.¹⁰ At the present time the self-confidence of Danish shipping is sky-high. The Danish Shipowners' Association declares that Denmark has become the leading European shipping nation. According to its Executive Vice President, Denmark is "presently Europe's largest shipping nation and our target is to become the world's largest".

These developments invite intriguing questions as regards the strategies and competitiveness of firms, industries and nations. How can we explain the global breakthrough of the Danish shipping industry? Why has it been so effectively able to gain from the opportunities of world trade since the early 1990s so as to obtain European leadership and to now perceive world leadership to be just a stone's throw away? What is the relationship between the performance of Danish shipping companies and the growth of the national economy? These are the kinds of questions, which the present article confronts.

The article is organised along the following lines. In the following section we introduce three explanations to the development of the Danish shipping industry: the industrial champion explanation, the cluster-based explanation and the political-economic focus on the institutional setting. Then follows an analytical section describing the general development of Danish shipping from 1987 to 2007. We focus on three variables in the period: The general trade outlook, the state of the Danish merchant fleet and the relevant institutional changes. This provides a historical context for the company case study that follows. The article traces the specific development of one the old large Danish shipping companies, the Steamship Company Norden ("NORDEN"). In this section we seek to unveil the changes in actual corporate strategies and organisational structures, which were fundamental to the global breakthrough of the Danish shipping from 1987 to 2007. In the final section of the article we discuss the capabilities of the Danish shipping companies that, in combination with the changing formal institutions, can help explain why and how the Danish shipping industry was able to overcome the crisis of the 1980s and later respond effectively to the opportunities provided by the rising global trade of the 1990s and in to the new millennium.

Using industry statistics, interviews, archival records, various documents written by insiders and annual accounts from NORDEN, as well as secondary sources, we analyse the key developments of the Danish shipping industry over the period as well as the concomitant development paths of NORDEN. With regards to the industry, we examine the major institutional,

⁶ Lloyd's List (2006)

⁷ Own estimations from figures on Danish ships on foreign flags from Danish Shipowners' Association and Danish Shipping, figures – May 2005

⁸ Dynamar (2005).

⁹ Danish Shipowners' Association (2007).

¹⁰ *Focus Denmark*, September 2004 ("Copenhagen – world centre for shipping").

organisational and technological developments and, as for the company, we examine its perceptions of productive opportunities, the choices it made, and its underlying capabilities.

2. Industrial champion, cluster effects or institutional consequences?

In a book from 2004 Jakobsen et. al. proposed that the strong Danish maritime sector was hinging on the performance of the diversified shipping group A. P. Moeller-Maersk (“MAERSK”).¹¹ Indeed, according to a special report from Lloyd’s List the status of Denmark as a shipping nation is largely pinned on the fortunes of this “Copenhagen-based shipping colossus”.¹² The idea that a big company can be instrumental to the development of an industry or even of a small country is not entirely exotic.¹³ However, there are other important Danish companies, several of which have been present in the shipping industry since its inception in the late 19th century. Venerable companies such as the Steamship Company Norden (“NORDEN”), the Steamship Company Torm (“TORM”) and the shipping group J. Lauritzen (“LAURITZEN”) as well as more recent shipping companies such as Unifeeder (“UNIFEEDER”) and the Clipper Group (“CLIPPER”) have all played their part in reviving the Danish shipping industry. These companies have quietly built up their fleets over the 1990s with a huge raft of chartered tonnage that has allowed them to successfully join the recently booming markets. In a longer time frame, it should also be noted that in the 1970s LAURITZEN and the likewise time-honoured East-Asiatic Company (“EAC”) were in many ways adjunct to A. P. Møller-Maersk. Furthermore, much of the recent success of Danish shipping has taken place within the bulk market, which is also where most of the boom in international trade has occurred in recent years.¹⁴ And with more than 250 Danish operated product tankers, of which MAERSK only has a minor share, Copenhagen has become the major world hub in the liquid bulk market.

Table 1: The tonnage of the largest Danish shipping companies, 1970-1999, number of ships and tonnage

Shipping Company(founding year)	1970	1980	1990	1999
A.P. Møller (1904)	1.650	3.302	2.939	3.064
ØK (1897)	265	591	189	31
J. Lauritzen (1895)	169	134	170	139
DFDS (1866)	154	128	91	245
Torm (1889)	109	163	132	357
Norden (1871)	29	98	220	266

Source: Jeppesen et al. (2001)

Others argue that the success of Danish shipping owes generally to the fact that Denmark is host to a number of maritime industries interconnected through a web of pecuniary and social relationships and supported by an institutional set-up consisting of a maritime mindset and social norms as well as formal maritime and related organisations. Indeed, the Danish maritime cluster (nicknamed *Blue Denmark*) is believed to foster innovation and represent a critical mass of maritime competence, thus providing an attractive setting for conducting maritime business.¹⁵ The

¹¹ See, e.g., Jakobsen et al. (2004)

¹² *Lloyd’s List*, 7 July 2004 (“Maersk white star shines bright on Blue Denmark”).

¹³ Similar accounts’ can be found on the role of other big companies in small countries such as Nokia in the Finnish economy. See, for example, Ali-Yrkkö (2001) or Hirvonen (2004).

¹⁴ On a note, it is worth mentioning that MAERSK, which has always been admired for its foresight, sold off its bulk division a few years prior to the bulk market boom.

¹⁵ On the Danish maritime cluster see Danish Maritime Authority (1999, 2002, 2003), Ministry of Economic and Business Affairs (2006), Ministry of Industry (1991), Sornn-Friese (2003) and Wijnolst (2006). The cluster-based story has been told for other European shipping nations such as the Finnish (Vittanen et al. 2003), the Swedish (Einarsson et al. 2004, Palmberg et al. 2006), the Norwegian (Benito et al. 2000, 2003, Karlsen 2005, Midelfart-Knarvik and Steen

growing numbers of foreign shipping companies locating their headquarters in Copenhagen is witness to this effect.

Finally, by invoking an image of particular Danish societal forces that have led to a so-called Danish miracle, a third perspective seeks to explain the recent success of the Danish economy in general. Within this *economics-political tradition* (which includes the influential perspectives of *Varieties of Capitalism* and *National Business Systems*) it has been argued that the upsurge of the Danish economy after 1995 has resulted from national institutions such as the historically grounded ability of Danes to reach compromises and negotiate between various economic interests, the flexible and highly skilled Danish labour market as well as the culturally and linguistically homogenous Danish population.¹⁶ Although this tradition does not specifically address the development of any specific industry, it seems worth mentioning that managers within the Danish shipping industry has pointed to a Danish ability to negotiate with partners worldwide and the high sense of responsibility as important factors for recent success.¹⁷ Indeed, the Danish mentality and the general gearing of Danish maritime education to focus on problem solving and independence are ideal for developing outstanding ship's officers, according to former Director of the Svendborg International Maritime Academy (SIMAC), Per Michael Johansen.¹⁸ It could also be argued that the Danish International Ship (DIS) register inaugurated in 1988 is a particular national-institutional feature that helps explaining the recent success of Danish shipping.

That *history matters*, meaning that the present is formed by the past through the continuity of a society's institutions, is hardly controversial.¹⁹ We believe that it is important to include in our analysis the formal institutions (i.e., the devised rules of the game) of the shipping industry. When it comes to this particular industry, however, society's institutions transcend national borders and we therefore need to take into account not only the national institutional set-up, but also more profoundly the international rules of the game. More than 95 percent of the Danish shipping revenue originates from cross-trade (that is, trade between foreign ports). Indeed, shipping is the most international of all trades and the main vehicle for the process of globalisation.²⁰ The shipping industry therefore depends on supra-national rules and regulations. On the other hand, the registration of ships and owners has also made national legislation important to the shipping industry. The formal institutions considered in our analysis thus include the national, regional and supra-national laws, rules and regulations under which the shipping industry works. We focus on the corporate responses to and economic consequences of the relevant institutions – we do not intend to explain the origin of those institutions or measure their efficiency as such.²¹

Our analysis also considers the organisational capabilities of major Danish shipping companies. With her emphasis on managerial skills, human resources and psychological motivations for growth British economist Edith Penrose introduced the analysis of the internal dynamics of firms.²² American business historian Alfred Chandler followed her lead and introduced

1997, Reve and Jakobsen 2001, Wijnolst et al. 2003, Wijnolst 2006), and the Dutch (de Langen 2002, van Klink and de Langen 2001, Wijnolst et al. 2003, Wijnolst 2006).

¹⁶ See, e.g., Campbell et al. (2006) or Hall and Soskice (2001).

¹⁷ Personal interviews (Spring 2007).

¹⁸ *Focus Denmark*, No. 1, 2006 (“World-class training behind quality shipping”).

¹⁹ See, e.g., North (1990).

²⁰ Kumar and Hoffmann (2002, p. 36) illustrates just how global a trade shipping really is: “A Greek owned vessel, built in Korea, may be chartered to a Danish operator, who employs Philippine seafarers via a Cypriot crewing agent, is registered in Panama, insured in the UK, and transports German made cargo in the name of a Swiss freight forwarder from a Dutch port to Argentina, through terminals that are concessioned to port operators from Hong Kong and Australia”.

²¹ By also considering other than national institutions, and by focusing on the responses to and consequences of these institutions, our analysis differs from the economics-political tradition mentioned above.

²² Penrose (1959).

the concept of organizational capabilities, which he saw as the combination of physical facilities and managerial skills.²³ It should be noticed that managers often have a stake in the existing strategy and organisation of their company.²⁴ They tend to be conservative by nature and therefore new growth strategies are formulated and organisational structures altered only in the case of strong impetuses for change. An internal impetus could be the appointment of a new CEO. New strategies and organisational structures often follow by changes of the persons in the management team, and the new management thus reflects and personifies a new regime consisting of specific strategies and structures.²⁵ Important formal institutional changes (such as the European Common Market), the entrance of a superior competitor and path breaking new technologies are typical external impetuses for change. These impetuses have been met by strategic responses that have sometimes been innovative (in terms of being different than the existing practices of competitors) and on other occasions adaptive (meaning that they follow the existing practices of the market).

3. From the deepest crisis to the global breakthrough, Danish Shipping, 1987-2007

In the spring of 1986 the president of the Danish Shipowners' Association, Knud Pontoppidan, and 73-years old Maersk McKinney-Moeller, CEO and chairman of MAERSK, discussed the difficulties facing Danish shipping, which was in a deep crisis: the size of the fleet had decreased from 7,882 DWT in 1982 to 6,854 DWT in 1986 while the net currency income from shipping had dwindled from 6.1 billion DKK to 3.8 billion DKK. Consequently, the shipping industry was no longer an essential contributor to the Danish balance of payments. There were at least three important backgrounds for the crisis: world economic stagnation, new national protectionism and large technological shifts in international shipping.

With the second oil crisis international shipping entered its deepest and most severe post-WWII economic crisis. Tanker transportation of oil peaked in 1978 and subsequently fell dramatically. Even more importantly, the world economic stagnation of the early 1980s resulted in a decrease in the total trade transported by sea (from 1,776 million tons in 1979 to 1,159 million tons in 1985). The structural response to the decreasing trade was slow and partial. From 1979 the total size of the world fleet even increased from a tonnage of 413,021 DWT in 1979 to 424,590 DWT in 1982. The consequence was lower freight rates and the annual average of time charter rates fell by twenty percent from 60.0 in 1984 to 50.6 in 1986 (1974=100).²⁶ Tonnage stagnated after 1982.

The second important factor were changes in regulation and restrictions on competition. The tradition of liberal access to the seas and ports originates back in 1849 when the British government opened up for competition on sea transportation within the British Empire. The second half of the 19th century, when the above-mentioned pioneering Danish shipping companies were founded, was marked by intense competition and falling freight rates combined with large investments in steam engine driven ships. In response, shipping companies developed two notable techniques of shipowning.²⁷ The first of these was the bringing together of hitherto separate lines "under one

²³ Chandler (1990).

²⁴ See, e.g., Fligstein (1990).

²⁵ To give an example: MAERSK has always been known for its conservative profile, but in 2005 it started investing insistently in new ships and in acquiring other companies. With the consent of the new chairman of MAERSK, Michael Pram Rasmussen, the CEO, Jess Soederberg, decided to buy P&O Nedlloyd for the amount of 18 billion DKK. There were clear external impulsions behind such drastic change in strategy, but it is also likely that Mr. Pram Rasmussen needed to powerfully send the message to relevant stakeholders that in 2003 he had replaced Maersk McKinney-Moeller as chairman of the shipping group.

²⁶ Danish Shipowners' Association (1987).

²⁷ See Fayle (1933), chapter 8.

umbrella,” either by mergers and acquisitions or by some sort of strategic alliance. The second was the establishment of *Liner Conferences*, which was a classical type of competition regulation: the members committed themselves to charge the same freight rates and often the Conference was supplemented by a *pool agreement*, which meant that members shared the freight incomes. These self-regulating conferences are still an important part of the international shipping environment.

A peculiar American relation to free trade appeared in 1934 when Franklin D. Roosevelt’s government introduced an actual flag discrimination by stating that American vessels should carry all export goods financed by governmental authorities. Argentina and Brazil followed suit by establishing a national fleet protected by preferences for the national shipping. After WWII the problems of protectionism continued as it was decided that at least 50 percent of the transport related to the Marshall Aid should take place on American vessels.

In 1948 the Organisation for European Economic Cooperation (OEEC) adopted the convention of free maritime trade, but the resulting International Maritime Organization (IMO) did not meet until 1959. The main task of IMO was to develop and maintain a regulatory framework for maritime security and shipping efficiency. While members of the Organisation for Economic Cooperation and Development (OECD), the successor to OEEC, were obliged to follow the IMO agreements, the South American and African states could continue flag discrimination. In IMO it was recognized that global action was needed but the developing countries dominated the United Nations Conference on Trade and Development (UNCTAD), which had been established in 1964 to assist the developing countries through expanded trade and aid, and it proved difficult to compromise the interests of the old shipping nations and the developing countries that were eager to build up their own national merchant fleets.

In 1974 the UNCTAD Liner Code was adopted.²⁸ Seven Western European countries, Denmark included, voted against the compromise – a compromise “which minimized unhappiness and maximized nothing,” according to Sturmeijer.²⁹ A key provision of the Code was its 40-40-20 division of cargoes between trading partners and cross-traders, which stated that forty percent of the shipping was reserved for the exporting country, forty percent for the importing country and only twenty percent for cross-traders. This 40-40-20 Code would favour large countries such as Germany and France, whereas the highly international Danish fleet would suffer. Denmark and Great Britain began to lobby for a new shipping policy within the IMO and the European Community (EC). In 1979 it was agreed that UNCTAD rules should apply within the OECD and that the developing countries would have preference of forty percent of their trade, while the remaining sixty percent would be due to open competition. The EC, for the first time, became engaged in shipping policy but it was only in December 1986 that the Council adopted a real shipping policy consisting of four directives regulating competition and providing common action against third countries, which restricted access to cargoes.

The EC policy did not solve the growing problem perceived with ships registering under flag of convenience. In 1960 only 12 percent of the world tonnage was under flag of convenience, but the importance of such registry grew substantially from 1970 to 1980 (see Table 1). From around the mid-1980s flags of convenience and new protectionism constituted serious challenges to Danish shipping.³⁰

²⁸ Sturmeijer (1986) provides an excellent historical account of the UNCTAD committee on shipping and the development of the Liner Code.

²⁹ Ibid. (p. 200).

³⁰ By 1980 only five percent of the Danish merchant fleet sailed under open registry, by the mid-1980s it had increased to 10-12 percent and by April 1988 the figure had risen to an alarming 47 percent. The income from these ships did not contribute to the Danish economy and the expertise of the Danish staff was fading away, see, e.g., Knud Pontoppidan in *Morgenavisen Jyllands-Posten*, September 30, 1987 (“Nyt dansk skibsregister vil stoppe tonnage-flugten”).

Table 2. Flags of convenience and their proportion of the world merchant fleet (million gross tonnage)

Country	1960	1970	1980	1985	1990	1997	2007
Liberia	11,3	33,3	80,3	58,2	54,7	60,5	66,5
Panama	4,2	5,6	24,2	40,7	39,3	98,2	151,8
Cyprn	-	1,1	2,1	8,2	18,3	18,3	19,2
Bahama	-	1,0	1,7	3,9	13,6	27,7	39,1
Singapore*	-	-	7,7	-	-	-	-
Others	0,3	0,7	0,6	-	-	-	-
Total	15,8	41,7	116,6		125,9	209,7	276,6
Percentage of world tonn.	12	19	28	27	30	40	40

* Singapore closed its open registry in 1981.

Source: Danish Shipowners, Annual Report various years

The third important factor behind the crisis of Danish shipping in the mid-1980s was the shift in shipping technologies. Prolonged loading times in the ports and the limited ability to exploit economies of scale on the dominant small and medium sized vessels meant that the profitability of the traditional cargo-liner ships came under pressure in the late 1960s and early 1970s. Companies such as MAERSK, EAC, TORM and NORDEN had long traditions within the tramp service and cargo-liner traffic with rather small flexible ships, but through large investments in bulk carriers, product tankers and container ships this structure changed dramatically in 20 years from the mid-1960s to the mid-1980s. From the second half of the 1980s the Danish shipping industry, as well as other Danish maritime industries, made further long-term business decisions with major investments in new technology and especially in quality shipping (“Project ship” being a prime example).³¹

Table 3. Structure of the Danish merchant fleet, percentage of G.R.T., 1964-

	Liner service	Tramp trade	Tank trade	Average age of the fleet
1965	34,3	25,8	39,3	
1970	24	31,2	44,8	14,6 years
1975	19,4	25,8	54,8	14,7 years
1980	22,8	20,1	57,1	14,8 years
1985	33,7	14,3	52,0	8,2 years
1994	35,2	22,1	41,6	
2007	67,2	6,4	24,4	7,1 years

Source: The Danish Shipowners Association, Annual Report, various years.

There are two important lessons to learn from Table 3. Firstly, the table shows a dramatic change in the importance of liner services to the Danish shipping industry. From 1980 to 1985 the relative importance of liner services rose from one fifth to one fourth of the total fleet, reflecting the huge investments in new containerships. In the same period, the average age of the Danish fleet fell from 14,8 years in 1980 to 8,2 years in 1985. The problem was that as late as 1980 the Danish merchant fleet was strictly outdated, not only in terms of age but also in terms of specialisation (types of ships). The dominating tanker fleet was in a very difficult market in the early 1980s when

³¹ While this was expensive to the shipping companies at the time, such investments meant the creation of unique organisational capabilities that may have proven essential for competitiveness in a longer term. Especially, the move of towards quality shipping have provided a competitive edge, despite a high domestic cost base, which has later proven imperative for the ability of Danish shipping to become a leading shipping nation.

total transport of oil decreased from 10.495 billion ton/sea-miles in 1979 to 5.155 billion ton/sea-miles in 1985. At the same time, two of the largest Danish shipping companies, A.P. Møller and EAC faced huge investments in container ships and container facilities. The first-mover was EAC, which already in 1971 and 1972 received four large container ships. A.P. Møller, which received the first fleet of containerships in 1975-1976, made large investments in ports and land based infrastructure and was thus able to create a successful trade container system which linked North America with South East Asia. EAC on the other hand proved to be unable to exploit any possible first mover advantages. This old "Trade Company" – which still was the largest enterprise in Denmark by the mid 1970s – alienated its fleet in the early 1990s following a large but unsuccessful investment in small, flexible ships on the competitive trans-pacific market.³²

In the annual report from May 1987 the Danish Shipowners' Association stated that the development within liner services had been characterized by "... a transition to larger container ships, which now dominate the overseas routes, and a concentration on fewer and larger shipping companies." This development was mirrored in the structure of the Danish shipping industry, which became increasingly dominated by MAERSK.

In the mid-1980s Danish shipping was thus faced with fast and capital demanding changes in the shipping technologies and it was the combination with closed markets, expanding flags of convenience and generally falling markets that caused the most serious situation since 1945.

Against this background Mr. McKinney-Moeller in the spring of 1986 asked Mr. Pontoppidan to prepare a detailed report with suggestions on how to clear away legal-political hindrances to the growth of the industry. The resulting 58 pages report was published in October 1986. It consisted of 35 concrete suggestions for legal-institutional improvements of the national shipping capabilities – including changing requirements to crewing and more flexible certificate procedures.³³ Only half a year later, however, Pontoppidan realised that these suggestions were insufficient and that much more radical steps were needed for two reasons. The first reason was that in 1987, with still more shipping companies registering under open registry, the Danish merchant fleet was reduced from 564 ships to 510 ships. At the end of 1986 it had been about one fifth of the fleet, but now development accelerated. In the first quarter of 1987 alone the total number of reflagging ships was as high as in the whole of 1986. If this development continued half or more of the Danish owned fleet would be under foreign flag by the end of 1988.

The second reason for taking more radical steps was that in July 1987 the Norwegian authorities established a second Norwegian registry, called the Norwegian International Ship (NIS) register, based on non-taxation of foreign ship owners, tax free salaries to seamen and less restrictive requirements to equipment and crewing. Since the late 19th century, Norway had been one of the world's leading shipping nations, and the advent of flags of open registry had had stricter consequences in Norway than in Denmark. Similar initiatives were taken in Great Britain with a "cheap" register on Isle of Man and in France. For Danish shipping companies these new Western European registers provided new opportunities for ship owners to save on running costs. On the other hand, for the Danish society they endangered both the future currency income from the shipping industry and the continued existence of a Danish national shipping industry as such.

On June 3, 1987 the Danish Ministry of Industry published the perhaps most important public shipping document in recent Danish history – the Shipping Policy Memorandum of 1987.³⁴ It laid out the first concrete suggestion for establishing a Danish International Ship (DIS) register with the

³² Bjerrum (1993)

³³ Danish Shipowners' Association (1986)

³⁴ Ministry of Industry (1987)

purpose to “make it attractive to the shipping industry to continue operating under the Danish flag” as an accelerated reflagging would have “serious consequences for the Danish economy and society”.³⁵ Among other things it would cause the loss of valuable shipping know-how, which would be impossible to rebuild in the short term “...when freight rates once again develops in a more positive direction.”³⁶

The DIS proposal was followed by a heated debate in Danish media during autumn 1987 and spring 1988. The trade unions and the Social Democrats opposed the proposal, as they were afraid that it would lead to loss of Danish jobs and lower quality onboard Danish ships. The ship owners and the conservative-liberal government, on the other hand, ensured that every ship would have a quota of Danish seamen and follow all international IMO standards that Denmark had ratified. Mr. Pontoppidan wrote an interesting feature article in the Danish daily *Morgenavisen Jyllands-Posten*.³⁷ Here, he introduced the term “Blue Denmark,” arguing that a passive maritime policy would have consequences not only for the Danish shipping industry but also for the entire maritime cluster, including the shipyards, the specialized sub-suppliers and maritime research units.³⁸ In the following years, several maritime reports referred to the cluster perspective, which was politically being enforced by the popularity of Michael E. Porter’s book *The Competitive Advantage of Nations*.³⁹

In March 1988 the Danish politicians were about to decide on the matter. The government needed the vote of the small but influential Social-Liberal Party, which was rather concerned with the employment effects of DIS. At first the Social-Liberals wanted written guarantees that DIS would mean increasing Danish employment onboard Danish ships under DIS. However, they soon relaxed this requirement and instead would be satisfied with oral statements from the ship owners that they “would anticipate more Danish seamen, were DIS to pass through parliament”.⁴⁰ Several Danish shipping companies came to the government’s aid. On March 6, 1988 LAURITZEN announced that 10-12 large ships would immediately be re-flagged in DIS. Soon after EAC, NORDEN, TORM and a few smaller shipping companies followed suit.⁴¹ Taken together, these companies controlled more than 25 percent of the Danish owned fleet under foreign flag. The Social-Liberal Party thus voted for the DIS law, however, on the condition that it should be due to revision after two years. DIS was passed through Parliament on June 23, 1988. In contrast to NIS it was open for Danish owned ships only. Perhaps most importantly, the labour onboard Danish owned ships under DIS was now tax free and subject to new competitive labour agreements, and crewing regulations were relaxed (but still complying with the IMO security agreements).

In the annual report of 1988-1989 the Danish Shipowners’ Association stated that DIS had had the expected results. Almost all the relevant Danish registered ships plus around 50 ships, which formerly had sailed under flag of convenience, had been placed under DIS. The ship owners stated that DIS was established in a strong corporation between public authorities, shipping companies and the seamen. In conclusion, the association indicated that the shipping companies now had responsibility to use the improved institutional conditions: “DIS has improved the

³⁵ Ministry of Industry (1987)

³⁶ Ibid.

³⁷ *Morgenavisen Jyllands-Posten*, September 30, 1987 (“Nyt dansk skibsregister vil stoppe tonnage-flugten”).

³⁸ Pontoppidan claimed that Blue Denmark counted 45.000 employees endangered by fierce competition and the high level of costs in Denmark.

³⁹ Porter (1990). For a critical appraisal of Porter’s influence on cluster thinking in general see, for example, Drejer et al. (1999) or Martin and Sunley (2003)

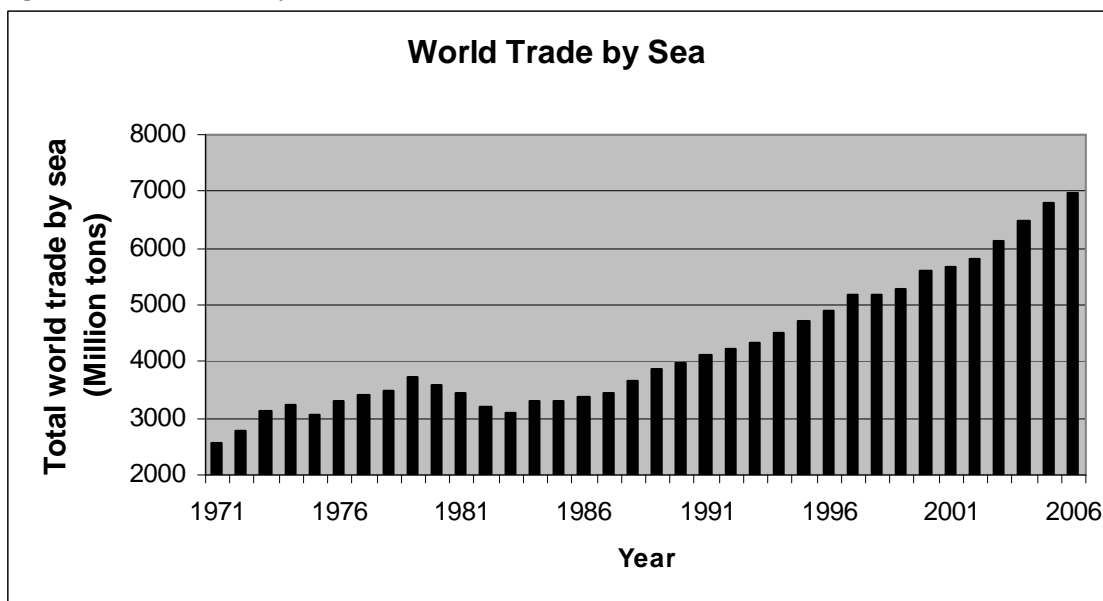
⁴⁰ *Politiken*, 28 March, 1988 (“De radikale bøjer sig for rederne”)

⁴¹ Letter from the Danish Shipowners’ Association to the Social-Liberals’ spokesman on shipping, Hans Larsen-Ledet, dated 15 March 1988.

competitiveness of Danish ships substantially. However, in order to maintain our competitiveness it is necessary that the shipping companies constantly renew their tonnage.”⁴²

The total world trade by sea stagnated and grew only slowly in the long term economic recession from 1973 (3120 million tons) to 1987 (3460 million tons). At the end of 1980s and in the 1990s this picture changed gradually. Figure one illustrates that it took 18 years to raise trade from 3000 million tons to above 4000 million tons (from 1973 to 1991). But from 1991 to 2006 world trade by sea grew substantially – and constantly - from these 4000 million tons to almost 7000 million tons. This growth in world trade mirrored three important developments. Firstly and extraordinary growth on the North American market from around 1994 to 2007, secondly a large wave of out-sourcing due to cheaper transport costs and better IT control of distant production and the final factor was the opening of the east Asian markets particularly the Chinese markets after 2003.

Figure 1. World Trade by Sea, 1971-2009 (million tons)



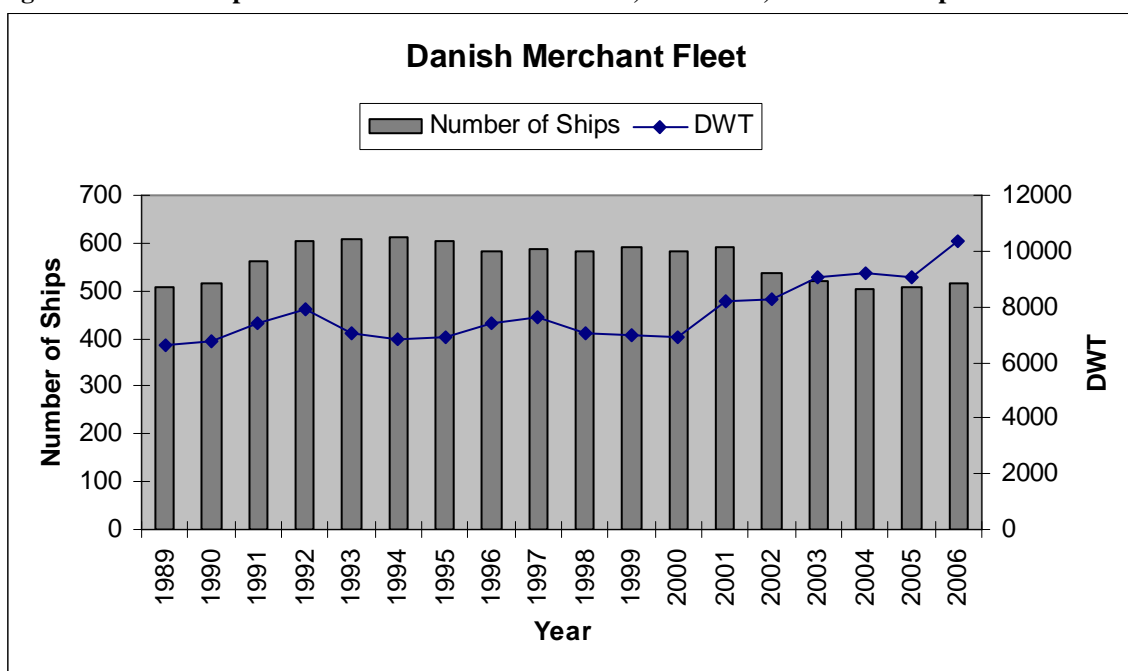
Source: The Danish Shipowners Association, Annual Reports, various years

Even though the number of Danish registered merchant ships increased from 1989 to 1993 then the growth of world trade by sea in the 1990s did not correspond with any immediate upswing in the DWT size of the Danish shipping sector (see figure two). Firstly because the still very large number of old ships built in the 1960s and 1970s caused low freight rates on dry cargo was stagnating and even falling from 1990 to 2000 – except around year 1995. Secondly the Danish shipping companies had a long tradition for “quality shipping” meaning precise shipping with technologically advanced ships and relatively expensive personnel. This caused large investments and in the period from 1990 to 2007 Danish shipping focussed on two important growth directions: Specialization in container shipping and in operator business – meaning the flexible long term and short lease of dry-cargo ships operated often for particular large customers with whom a trustful relation is needed. Two shipping companies particularly represented these growth directions: the worlds largest container enterprise Maersk Line and the specialized dry cargo operator m/s NORDEN – the business case of this article.

⁴² Danish Shipowners’ Association (1989).

Maersk Line initiated its investments in the container technologies in 1975 – not as a first mover but rather after following the experiences of other shipping companies – among them the Danish EAC. One of the lessons to learn from EAC’s failures was that substantial investments were needed in order to exploit the advantages of the technology. Based on incomes from its conglomerate of shipping, manufacturing industries, an aviation company, a retail chain and the oil businesses A.P. Møller in the mid 1980s invested in container ports, land-based infra structure and fast container ships. As a result in 1984 Maersk Line had only one traditional liner ship left. By year 2000 Maersk Line already operated approximately 250 containerships but through acquisitions of the American shipping company Sea-Land in 1999 and P&O Nedlloyd in 2006 combined with the organic expansion the figure rose to 510 ships by January 2007.

Figure 2: The development of the Danish merchant fleet, 1989-2006, Number of ships / DWT



In total the size of the Danish merchant fleet almost doubled 6.64 million DWT in 1989 to 10.36 million DWT in 2006. Figure two unveils two important characteristics of the Danish fleet development. First of all the expansion came late – that is from the 6872 million DWT in 2000 towards 10.363 TDW in 2006. Secondly the late growth of the total fleet corresponded with a decrease on the total number of ships from 590 ships in 2001 towards 515 in 2006. In other words the Danish shipping companies reacted to the latest increase of world trade by sea through a fast growth of the fleet with larger ships. These larger ships were particularly apparent in the container business dominated by Maersk Line.

In the rise of the Danish fleet after 1990 the classical ship owning trade in Denmark was supplemented with a high degree of operator business.⁴³ This is historically contingent on the fact that Danish shipping companies have lacked the financial strength to buy the ships otherwise perceived necessary to meet the challenges of the developments in global maritime trade. Entering into various chartering arrangements and strategic alliances with foreign ship owners has been a deliberate growth strategy of the Danish companies. Chartering of tonnage has thus developed into a Danish specialty and provided Danish shipping with a significant volume boost over the past few

⁴³ In the 1970s a number of Danish ship owners experimented with chartering in vessels...

decades.⁴⁴ This development has been especially noticeable since the late 1990s. The total tonnage controlled from Copenhagen has been almost doubled since 1998 and more than half the income of the Danish shipping industry today derives from chartering and operating tonnage from foreign flag states. The Danish Shipowners' Association estimates that in total Denmark now controls tonnage of more than 55 million TDW and on this basis has a hand in about ten percent of total world maritime trade.⁴⁵ It is with numbers such as these that Denmark is now believed to have outdone Norway and to be on its way to equal Greece, which is presently the largest shipping nation in the world. It is generally held that the growth in chartered tonnage makes Denmark an international centre for knowledge intensive commercial operation of ships and there is confidence that maritime know-how within this area provides a solid foundation for the future of Danish shipping.

The institutional structure of the Danish shipping was marked by stability in the 1990s and 2000s with the unaltered international ship register, DIS. Until 2002 the Danish shipping companies paid ordinary corporate tax (but at a low level due to advantageous rules of depreciations) and after 2002 they paid fixed low tonnage tax. This policy was intended. As the Danish Minister of Taxation explained in a response to a member of the Danish parliament in 2005, the low tax level "reflects similar conditions in other countries, and it would not have been possible to retain the fleet in Denmark by having considerably worse conditions here."⁴⁶ Table 4 illustrates the low tax level and also the fact that the introduction of the fixed low tonnage tax in 2002 did not have any substantially negative effect in terms of lower tax revenue generated by the shipping industry.

Table 4. The tax of revenues (million DKK) and the Gross income (billion DKK) of all the Danish shipping companies, 1989-2003

Year	Tax of revenues (million DKK)	Gross income (billion DKK)
1989	94	3.7
1990	85	3.7
1991	60	5.2
1992	43	4.9
1993	223	5.9
1994	119	4.7
1995	243	5.7
1996	239	5.7
1997	101	6.8
1998	95	6.7
1999	101	6.7
2000	67	11.1
2001	41	9.7
2002	61	8.9
2003	228	11.4

Source: Ministry of Taxation, 2005

Obviously low, fixed tax combined with the increasing world trade after 2001 created a very promising business environment. In fact the Danish ship owners association has pointed at the stable institutional conditions for the shipping industry in the 1990s and early 2000s as one of the main reasons for the successful development of the industry.⁴⁷ Shipping has always been marked by large, long-term investments in new assets and certainty on the stability of the legal environment was thus regarded as important. The fixed tonnage tax system was not a peculiar Danish invention –

⁴⁴ Erlund (2006).

⁴⁵ Danish Shipowners' Association (2007).

⁴⁶ Danish Ministry of Taxation, j. nr. 2005-618-0052

⁴⁷ Interview with Jan Fritz Hansen, Danish Ship Owners Association, January 2007.

most of the important shipping nations such as Norway, Greece, Great Britain and The Netherlands introduced the tonnage taxation it was therefore rather part of a trend in the international shipping policy. And indeed shipping of the 1990s was marked by increasing importance of the international legal regimes rather than only the national setting.

The European Union initiated its shipping policy with the first Maritime Package adopted by the Council in December 1986.⁴⁸ This package consisted of two proposals on regulating competition within the internal market and the two other on countering protectionism from the outside. The package did not solve the problem of out flagging and it was estimated that from the 1985 to 1995 the number of seafarers on ships with Community-flags had fallen from 206.000 to 129.000. The French fleet alone had lost two-thirds of its tonnage and on this background the Commission proposed a second shipping package in August 1989.⁴⁹ The heart of the second package was a common European register of ships which should protect European rather than national employment by requiring that half of crew should be from the Community. The register should also be follow by specific reference to the carriage of EC food aid and perhaps more important access to EC cabotage (intra-European shipping) should be limited to Europe's vessels – a system known from the US. The proposal gained support from labour interests but strong opposition from the ship owners, including the Danish association, which were afraid that new European protectionism would tempt others to sanction against European shipping. It was only France, Italy and Spain which supported a common register and the three important shipping nations Britain, Denmark and The Netherlands demanded a separate resolution for the cabotage proposals which gain was denied by a southern group of Greece, Portugal, Spain and Italy. The Commission had to withdraw their ambitious plan. Eight years later, in 1996, a new proposal for shipping was formulated – excluding a common European register. This report recognized the global nature of the shipping industry and thus proposed to combine common standards within the national EC registers and the foreign registers with programs for training and research. Basically this approach recognised that the International Maritime Organisation (IMO) was continuously important in order to ensure the global openness of the industry and high environmental security including demands to the technical standard of the ships and the competences of the crew.

4. The Steamship Company Norden: Organisational response to economic and institutional change

The Steamship Company Norden, founded in 1871 by the hardworking carpenter and visionary entrepreneur Mads Christian Holm (1827-1892), engaged in tramp shipping and carrying coal, grain and other homogeneous bulk commodities worldwide on a “one ship, one cargo” basis.⁵⁰ Although the company has developed and changed significantly over the course of its lifetime, this principal concept of handling dry cargo ships suitable for tramp shipping worldwide remained for more than a hundred years. It is now a fully integrated, independent shipping company listed on the Copenhagen Stock Exchange and operating worldwide in dry bulk and tankers. The company has been extremely successful over the past ten or so years.

To understand the company of today, we must go back to the 1960s when it did not perform so well. In 1957, the company had contracted a geared bulk carrier with the shipyard in Nakskov to

⁴⁸ Stevens, Handley: *Transport Policy in the European Union*, Palgrave Macmillan, 2004.

⁴⁹ The European Commissions: "Towards a New Maritime Strategy, Brussels, 13.03.1996.

⁵⁰ As an insightful and inspired entrepreneur in shipping, Mr. Holm's ventures go beyond the founding of NORDEN. Two decades earlier, in 1852, he had founded a small shipyard in Oakland, CA. In 1881, he founded Elsinore Shipyard, which was later acquired by DFDS, and together with the other leading shipowners in Copenhagen at the time he was the co-founder, in 1884, of what is today known as the Danish Shipowners' Association.

be bareboat chartered out to the Skaarup Shipping Corporation (“SKAARUP”). The ship, named M.S. Morven, was delivered in 1961 and SKAARUP placed it under Liberian flag of convenience. It was the last ship delivered to NORDEN for more than a decade. By 1970, its fleet was down to four ships and there was great pessimism among staff about the future of NORDEN. In 1969, the company’s chartering manager, Erik Munch Andersen, who had been with the company for 33 years, became President and CEO. He set in motion the company’s passage away from tramp shipping and liner services towards bulk shipping. M.S. Morven was still bareboated-in by SKAARUP and sailing under Liberian flag as a bulk vessel, but Mr. Munch Andersen stationed a Master and a Chief Engineer onboard to learn the operation of a bulk carrier and evaluate the feasibility of this type of ship.⁵¹

To secure the survival of NORDEN as a shipping company the board of directors needed to make a decision on fleet renewal. 1972 was a landmark year in which the company made the fundamental decision of continuing as a fully integrated and independent ship owning company. At a critical board meeting in April 1972 the directors discussed the future of the company. Mrs. Gunvor Reimann, who had been a board member since 1970, convinced the board that NORDEN should continue owning ships, and with the development of a new and much larger bulk carrier by the Japanese Mitsui Shipbuilding & Engineering Company (“MITSUI”) some of the directors saw an opportunity for the company to expand. This marked a new era for the company with the switch from liner tramp to bulk shipping. Soon after the meeting, the company contracted its first bulk carrier, which was delivered from MITSUI in 1973. The ship, a bulk carrier of 34,000 DWT with six cranes, was named M.S. Nordtramp. Between 1974 and 1985, MITSUI delivered five more bulk carriers to NORDEN. The company had for many years enjoyed an image as a trustworthy partner with well-maintained ships operated by competent officers and crew. It now had to build up a similar reputation within the bulk sector. In retrospect, the switch happened quickly and smoothly.⁵² The subsequent investments in Handysize bulk carriers positioned the company well within the bulk sector as a serious and committed participant.

In 1988, Mr. Steen Riddervold Krabbe was headhunted for president and CEO of the company. He came with 27 years of valuable experience from MAERSK, where he had occupied management positions in its tanker division (Maersk Tankers), its dry bulk division (Maersk Bulk) and its ship broking business (in the subsidiary company Maersk Broker). He had also been stationed for a number of years in New York and later on in Tokyo, thus gaining international experience and building important personal networks.⁵³ Mr. Krabbe started the NORDENs venture into the tanker sector. This diversification into a related and well-known area of business was a natural development for the company, which had been building up relevant financial and technical capabilities in this sector. While the diversification extended the operating scope of the company it also increased its robustness against cyclical changes in the bulk market.⁵⁴ In addition, Mr. Krabbe began to gradually move the company away from spot charter market operations towards long-term

⁵¹ The founder of SKAARUP, Ole Skaarup, was in fact the principal designer of the modern, purpose-built bulk carrier, the first of which Mr. Skaarup, together with the world-famous Swedish entrepreneur Marcus Wallenberg, contracted with the Swedish Kockums Shipyard in 1954. Ole Skaarup had realized that the cargo stowage factor, which is a measure for how many cubic metres of hold space is occupied by a ton of a given cargo, could be optimised by modifying the design of the classical bulk carrier and that this would greatly improve efficiency in bulk carriage.

⁵² Falkenstein (1996).

⁵³ In the years prior to his death in 2005 he was also chairman of the Danish Shipowners’ Association; the Herlufsholm Foundation; and the Danish committee of the International Chamber of Commerce (ICC). He has held a number of honorary offices in the international shipping community, among these the International Association of Independent Tanker Owners (Intertanko).

⁵⁴ Indeed, it has been demonstrated that, at least since the 1980s, the tanker and bulk markets have to some extent been isolated from each other (Stopford 2003).

charters, thus seeking to increase its planning horizon and reduce market uncertainty even further. NORDEN has subsequently reinvented itself from being a small and internationally oriented Danish shipping company into becoming a major and highly successful global player in the dry bulk sector, with headquarter in Copenhagen and offices in Singapore, Annapolis (USA), Shanghai (China), Rio de Janeiro (Brazil) and Mumbai (India).

The recent developments of NORDEN have in many ways been based on company values echoing Mr. Krabbe's personal values: a focus on attending customers and their needs; modesty; trustworthiness; respect for other people and other cultures; and professionalism.⁵⁵ These are values carried on by the new president and CEO Carsten Mortensen, who became crown prince of the company when he entered its board of directors in 2004. "The way he looked at the business is largely how I look at things. We were two generations apart and the words may be different, but the core values are there. The company has retained the management team around Steen, so there is no need for me to reinvent", Mr. Mortensen said.⁵⁶

Being present locally with own offices and local employees is an important element in the company's customer-orientation. In its Shanghai office, the company employs three Danes and four Chinese and the latter are vital for the company. For example, many of the Chinese that do business with NORDEN do not understand English very well and it can be difficult to communicate the details of a transaction. More generally, NORDEN opts to expand its network in China, since networks are essential to doing business in China.⁵⁷ China is characterised by great operational uncertainty and information asymmetry is high, according to Peter Borup who is the managing director of the company's Singapore office.⁵⁸ "Your options in the market differ greatly depending on whether you are present or not. It is the opposite of Australia, to give an example, which is an easy market to operate within", said Mr. Borup and continued: "We want to know who pulls the strings. You have to understand the ports – this will save you time and allow you to make money. You need particular knowledge about local Chinese norms and this kind of knowledge you cannot gain from Singapore or from other countries".⁵⁹

Since the early 1980s, the company has pursued an option-based business model with the use of long-term chartering of ships as an alternative to owning the ships. It opts for a mix of own ships, long-term charters with buying options and vessels on timecharter (t/c). The company owns 14 ships but operates more than 150 ships. Ships chartered in on a long-term basis are painted in NORDEN's colours and show its symbol and name. For a large portion of its chartered-in fleet, the company has obtained long-term arrangements with options to buying at prearranged prices and, this way, retain upside and controlling downside by securing assets to very competitive charter rates. At the same time, the company has obtained a favourable position to partake in the money-spinning global 10 billion US dollars Sale & Purchase market. This highly successful "asset play"

⁵⁵ In line with its customer orientation, the company has developed three guiding business principles to achieve customer satisfaction. These are reliability (delivering on promises), flexibility (matching time, location and operation) and empathy (respect and understanding of the local culture and traditions of the customer).

⁵⁶ *Lloyd's List*, 15 July 2005 ("Norden continues its vision of growth alongside tradition").

⁵⁷ As part of its efforts in this regard, the company has entered into close partnership with Shanghai Maritime University, donating five scholarships a year, arranging workshops and opting to annually enrol two Chinese students as trainees in the company's Danish headquarters.

⁵⁸ *RB-Børsen*, December 1 2006 ("Norden: Kina er et svært marked, og det gavner os").

⁵⁹ A recent study found that there are still considerable barriers to entry and operation in the shipping industry in China (Panayides 2002). The process of being approved for entry is complex and time consuming and, subsequent to entry, there are bureaucratic administrative procedures, inefficient coordination among government departments, unclear or even contradictory laws and weak monitoring and evaluation mechanisms, causing unfair competition and market distortions.

policy has given the company a competitive edge and nowadays we see shipping companies worldwide trying to imitate it.

Especially since around 1997-1998, the company has pursued its option-based business model forcefully. One of its top executives describes 1998 as a year of sloughing, or paradigm shift, in which NORDEN got low-priced and strategically advantageous access to a number of Handymax bulkers from Japanese shipowners and trading houses on long-term charter (between three and five years) with purchase options. The timing of this paradigm shift was exceptional since the control over Japanese owned tonnage prepared the company for the Chinese-led boom in bulk shipping in 2003. Mr. Krabbe commented: "I think the way we have positioned ourselves and taken advantage of the market is very exciting, also in relation to long-term chartering. We have been lucky to catch the market when it was soft".⁶⁰ The terms of the deals have remained a well-kept secret, as they were concluded directly with the Japanese shipowners and trading houses.

From a financial viewpoint, the company was able to charter-in tonnage at much lower than expected rates and thus acquired an extraordinarily inexpensive fleet. This has to be seen in light of the financial crisis in Japan in the mid-1980s. The Japanese shipping industry had been hit hard by the rapid appreciation of the value of the yen and the concurrent weakening of the US dollar between 1985 and 1987 (doubling the value of the yen against the US dollar). As a direct result of the crisis, Japanese shipping companies faced skyrocketing costs and plummeting earnings. Income from merchant shipping (the majority of which is earned in dollars) was bisected, while labour costs for Japanese seamen doubled on a dollar-basis. Japanese shipping companies continued to face hardship up until the latter part of the 1990s, fighting intense competition, a weak domestic economy, a strong yen, and a general slowdown in international trade. Competitors from the new maritime East Asian countries (China, Hong Kong, South Korea and Taiwan) managed to secure large market shares from Japanese shipping companies.

The company would not have been able to charter in Japanese owned tonnage on these favourable terms had it not been for the financial crisis, but that is not the whole story.⁶¹ The company was in a particularly privileged situation for engaging with the Japanese shipowners, a privilege that owed to its ability to bring long-standing maritime traditions, personal and trust-based relationships and empathic leadership to bear. Although the company's success in East Asia owes much to Mr. Krabbe, NORDEN has in fact had close relationships with Japanese trading houses, shipbuilders and shipowners throughout its lifetime. The company's very first steamer, the "S.S. Norden", which served in Chinese and Far Eastern coastal trade during 1875-1877 and soon became an important forerunner for the company's later overseas traditions, had called Nagasaki as early as 1876.⁶² In the interwar period, the company's ships were engaged in cross-trade between the US West Coast and Japan. And since the early 1970s, the company had bought a number of large bulk carriers at MITSUI and other Japanese shipyards, including the Koyo Dockyard Company, the Minami-Nippon Shipbuilding Company and the Shin Kurushima Dockyard Company. But when it comes to personal and trust-based relationships and empathetic leadership, the significance of

⁶⁰ *Lloyd's List*, March 16, 2000 ("Improved Norden ready to meet market upturn").

⁶¹ The financial part of the story is similar to that of the Bahamas-registered Teekay Shipping Group ("TEEKAY"), a decade earlier. In 1973, the Danish ship operator Jens T. Karlshøj founded TEEKAY with the aim of managing and operating tankers chartered-in from independent shipowners. In 1985, his affiliated company, Palm Shipping Inc. (established in 1975), signed a deal with Japanese shipowner Sanko Steamship to charter-in twelve of its aframax vessels on a two-year t/c. This was possible only because Sanko Steamship, which had been the most powerful aframax operator in the world, were in severe financial troubles. The deal turned out to be a major success for TEEKAY. The company gained important momentum, which allowed it to grow into one of the world's leading oil tanker operators.

⁶² "I think that having a long historical tradition means a lot. When we go to Japan and tell them that our first ship called Nagasaki in 1876, they lend an ear" said Mr. Krabbe to *Reuter Finans*, 1 December 2004 ("Dansk søfart frem, sejler med 10 pct af verdenshandel").

individuals for the subsequent development of the company cannot be overstated. The special values and skills of Mr. Krabbe together with his experience and personal contacts in Japan proved essential to the ability of NORDEN to enter such favourable deals with the Japanese.

NORDEN has proven one of the fastest growing enterprises in the recent Danish business environment. In only four years its annual revenue has quintupled from 262 million US dollars in 2002 to more than 1.2 billion US dollars in 2006 and by the end of that year NORDEN operated 153 ships worldwide of which 14 was fully owned and 29 long-term chartered-in with buying options. Especially, in former President and CEO, Mr. Steen Krabbe's regime from 1988 to 2005 the company grew dramatically and developed into one of the world's leading dry bulk operators. In the Superhandymax sector it presently controls about ten percent of the world fleet, and in the Handymax sector it is among the world's Top 3 operators.⁶³ And since 2004, it has been among Top 5 of the world's 74 largest publicly quoted shipping companies in creating value for its owners, according to annual analyses from the shipping monthly maritime financial magazine *Marine Money International*.

3. Conclusion

This article attempts to explain the remarkable success of the Danish shipping industry from 1985 to 2007. The responses of Danish shipping companies to the economic and institutional changes that have evolved over these two decades are paramount to the accomplishments of Denmark as a major shipping nation. Overall, these responses entail a complex process in which various technological, political, economic and cultural factors have interacted. In contrast to the early international business (IB) studies in the 1950s and 1960s of primarily US exporting manufacturing companies, such complexity has become the order of present studies of IB phenomena.⁶⁴ In the present analysis we have attempted to comprehend this complexity by taking into account the long-term organisational dynamics of individual shipping companies as well as the institutional dynamics of the shipping industry, focusing on the period from the mid-1980s.⁶⁵

In order to understand the development of Danish shipping from 1987 to 2007 we suggest three explanatory patterns which embrace three analytical levels: from the strictly exogenous macro-economic explanation via the combined exo- and endogenous institutional explanations towards the truly endogenous organisational capabilities.

The exogenous macro economic explanation consists of the changing market conditions within the shipping industry. First of all it is important to keep in mind that the Danish shipping crisis in the mid 1980s was based upon the post-traumatic economic shocks following the second oil crisis in 1979. Equally the rise of Danish shipping from the 1990s to the mid 2000s built on a macro economic upswing – particularly the rising American demand for imported goods and the opening of the Chinese market was in important in this respect. Isolated this exogenous macro economic pattern does not explain much. As Joseph Schumpeter stated in an article already in 1947 it is the responses to such external changes which makes the cognitive difference.⁶⁶ As mentioned in the introduction Schumpeter distinguished between creative responses – outside the exiting

⁶³ Handymax is the naval architecture term for a bulk carrier between 30.000 and 50.000 dwt. A Superhandymax is a bulk carrier between 50.000 and 60.000 dwt.

⁶⁴ Dunning (2001).

⁶⁵ We thus follow the lead of IB scholar Geoffrey Jones, who in an influential book from the mid 1990s and in a recent article stressed two important perspectives of IB research: Firstly to study internal organisational dynamics in combination with external institutional settings and secondly to incorporating longitudinal studies into IB research.⁶⁵ Jones (1996).

⁶⁶ Schumpeter (1947)

practices on the market - and the well-known adaptive responses. The maritime institutional changes around 1987 in Denmark could be characterized as a “imitated creative response”: The Danish International Shipregister (DIS) was new in a Danish context but well known – and already existing – in an international context. DIS was formulated and established by the Danish authorities, but as we have shown in the article the formulation of this policy resulted from a very co-operative triangular process which included the Danish politicians, the Shipowner’s associations and the shipping companies. In that respect it was neither a clear exogenous or endogenous process – still it was an important process particularly as the fundamental maritime institutional setting in Denmark was kept unaltered in the following decade. The shipping industry is thus an interesting example of the dynamics which can result from fixed, predictable institutional settings which allows for long-term planning and investment and thus assists dynamic economic growth.

The institutional setting on the European level on the other hand proved to be less important as it was marked by conflicting interests between Nordic and Mediterranean member states and as the ambitious Commission plans in 1988 for a common ship register was abandoned. The shipping industry is, as already mentioned, truly global in its nature, and the relevant trans-national institutional setting seems to be rather on a global than regional level. Still the European Community has played an important role as a strong force within the global IMO organisation and the primary aim of the EU has been to keep market access open and to ensure certain security and competence standards. In that respect the international institutional setting proved to be extremely important in the 1990s and 2000s and in combination with the predictable and attractive Danish legal environment it constituted an important ingredient for the success of the Danish shipping industry. The third important aspect is the organisational settings. Again Schumpeters distinction between creative and adaptive response to external impetus for changes seems to be a helpful analytical tool. We have analysed the case of D/S NORDEN, which in the two relevant decades became one of the worlds most successful dry bulk operators. This success built upon a combination of the long term mercantile competences within the shipping company and the specific capabilities of Steen Krabbes managerial regime from 1988 to 2004. In this respect a managerial regime does not consist of one single person but rather the spirit, the culture and the personal competences which the total management in the period represented. Krabbes regime provided a creative response to the difficult and competitive shipping situation in South East Asia around 1997 and 1998. Due to NORDEN’s and Mr. Krabbe’s long term contacts in Japan the Danish company was able to get access to a number of Handymax bulkers on very attractive terms which included purchase options. These long term contracts were obviously also a risky business which dependent on the market fluctuations but in the case of NORDEN the agreements coincided with the rising demand for shipping on the Chinese markets from 2001 onwards. In short one could say that NORDEN possessed some historically and managerially founded “latent competences” which under the right conditions would lead to fast growth and potential market leadership.

The triangle of favourable macro economic conditions, stable institutional settings and these “latent” organisational capabilities can help us to identify the fundamental forces behind the rise of Danish shipping 1987-2007. As in any historical process other factors such as chance, technology and culture also played an important role. Still we can conclude that in *combination* with each other these three factors - the rising global trade, the attractive institutional setting and the concrete managerial competences – were essential to the global break through of Danish shipping from 1987 to 2007.

References:

- Ali-Yrkkö, J. (2001). The Role of Nokia in the Finnish Economy. *The Finnish Economy and Society*, 1: 72-80.
- Benito, G. R. G., E. Berger, M. de la Forest and J. Shum (2000). *Den maritime sektor i Norge sett i et klyngeperspektiv*. BI Report No. 8. Sandvika: Norwegian School of Management BI.
- Benito, G. R. G., E. Berger, M. de la Forest and J. Shum (2003). A cluster analysis of the maritime sector in Norway. *International Journal of Transport Management*, 1(4): 203–215.
- Bjerrum, C. (1993). *ØK i uvejr, da ØK's aktiekapital sank i Stillehavet*. København, Danmark: Børsen Bøger
- Campbell, J. L., J. A. Hall and O. K. Pedersen (2006). *National Identity and the Varieties of Capitalism. The Danish Experience*. Copenhagen: DJØF.
- Chandler, A. (1990): *Scale and Scope. The Dynamics of Industrial Capitalism*. Cambridge, MA: Harvard University Press.
- Danish Maritime Authority (1999). *Det Blå Danmark 1999*. Copenhagen: Danish Maritime Authority.
- (2002). *Den blå landevej*. Copenhagen: Danish Maritime Authority.
- (2003). *Søfartspolitik Vækststrategi. Kompetencer og vækst*. Copenhagen: Danish Maritime Authority.
- Danish Shipowners' Association (1986). *Dansk Skibsfarts konkurrencevilkår*. Copenhagen: Danish Shipowners' Association.
- (1987). *Skibsfartsberetning 1986/1987*. Copenhagen: Danish Shipowners' Association.
- (1989). *Skibsfartsberetning 1988/1989*. Copenhagen: Danish Shipowners' Association.
- (2007). *Dansk skibsfart 2006*. Copenhagen: Danish Shipowners' Association.
- de Langen, P. W. (2002). Clustering and performance: the case of maritime clustering in The Netherlands. *Maritime Policy and Management*, 29(3): 209-221.
- Drejer, I., F. S. Kristensen and K. Laursen (1999). Cluster Studies as a Basis for Industrial Policy: The Case of Denmark. *Industry and Innovation*, 6(2): 171-190.
- Dunning, J. H. (2001): The Key Literature on IB Activities: 1960-2000. In *The Oxford Handbook of International Business*. Oxford University Press, pp. 36-68.
- Einarsson, H., B. Johansson, C. Karlsson and D. Nilsson (2004). *Sjöfartens roll i den svenska ekonomin – en klusteranalys*. Jönköping: Institutet för Näringslivsanalys, Internationella Handelshögskolan i Jönköping.
- Erlund, J. (2006). Shipping. In C. MacCarthy and W. Schmidt (eds.), *Denmark Limited – Global by Design*. Copenhagen: Gads Forlag A/S.
- Falkenstein, J. (1996). *Dampskibsselskabet "NORDEN" 1871-1996. 125 Years on the High Seas*. Copenhagen: Norden.
- Fligstein, N. (1990). *The Transformation of Corporate Control*, Cambridge, Mass., USA: Harvard University Press.
- Fayle, C. E. (1933). *A Short History of the World's Shipping Industry*. New York: The Dial Press.
- Hirvonen, T. (2004). From Wood to Nokia: The Impact of the ICT Sector in the Finnish Economy. *ECFIN Country Focus*, 1(11): 1-7.
- ISL (2007). *Shipping Statistics and Market Review*, 51(1/2). Bremen: Institute of Shipping Economics and Logistics.
- Jacobsen, E. W., A. Mortensen, M. Vikesland and A. W. Cappelen (2004). Attracting the Wwinners. The competitiveness of five European maritime industries. Oslo: Kolofon.
- Jeppesen, H. et. al. (2001). *Dansk søfarts historie bind 7, 1960-2000*. København, Danmark: Gyldendal.
- Jones, G. (1996): *The Evolution of International Business*. Oxford, UK: Oxford University Press.
- Jones, G. and T. Khanna (2006): Bringing history (back) into international business. *Journal of International Business Studies*, 37: 453-468.
- Karlsen, A. (2005). The dynamics of regional specialization and cluster formation: dividing trajectories of maritime industries in two Norwegian regions. *Entrepreneurship and Regional Development*, 17(5): 313-338.
- Kumar, S. and J. Hoffmann (2002). Globalization: The Maritime Nexus. In C. T. Grammenos (ed.), *The Handbook of Maritime Economics and Business*, London: LLP, pp.35-64.
- Lloyd's List (2006, May 22): *Insight & Opinion: Scandinavian Paradox*.
- Martin, R. and P. Sunley (2003): Deconstructing Clusters: Chaotic Concepts or Policy Panacea? *Journal of Economic Geography*, 3(1): 5-35.
- Midelfart-Knarvik, K. H. and F. Steen (1997). Self-reinforcing Agglomerations? An Empirical Study of the Norwegian Maritime Industry. SNF Report 57/97. Bergen: SNF.
- Ministry of Economic and Business Affairs (2006). *Danmark som Europas førende søfartsnation*. Copenhagen: Ministry of Economic and Business Affairs.
- Ministry of Industry (1987). *Skibsfartspolitik Redegørelse*. Copenhagen: Ministry of Industry.
- (1991). *Det Blå Danmark*. Copenhagen: Ministry of Industry.
- North, D. (1990). *Institutions, institutional change and economic performance*, Cambridge, UK: Cambridge University Press.

- Palmberg, J., B. Johansson and C. Karlsson (2006). *Den svenska sjöfartsnäringens ekonomiska och geografiska nätverk och kluster*. Jönköping: Institutet för Näringslivsanalys, Internationella Handelshögskolan i Jönköping.
- Panayides, P. M. (2002). International Market Entry Strategies in China: Lessons from Ocean Shipping and Logistics Multinationals. In T.-W. Lee, M. Roe, R. Gray and M. Shen (eds.), *Shipping in China*. Hampshire, UK: Ashgate Publishing Limited.
- Penrose, E. (1959): *The Theory of the Growth of the Firm*. London: Basil Blackwell.
- Reve, T. and E. W. Jakobsen (2001). *Et verdiskapende Norge*. Oslo: Universitetsforlaget.
- Schumpeter, J. A.. (1947): The Creative Response in Economic History. *The Journal of Economic History*, 7(2): 149-159.
- Sornn-Friese, H. (2003). Navigating Blue Denmark. The Structural Dynamics and Evolution of the Danish Maritime Cluster. Copenhagen: Danish Maritime Authority.
- Stevens, H. (2004): *Transport Policy in the European Union*, Hampshire, UK: Palgrave Macmillan.
- Sturmey, S. G. (1986). The Code of Conduct for liner conferences: A 1985 view [1]. *Maritime Policy and Management*, 13(3): 185-221.
- Svendsen, A. S. (1981). The role of the entrepreneur in the shipping industry. *Maritime Policy & Management*, 8(3): 137-140.
- van Klink, A. and P. de Langen (2001). Cycles in industrial clusters: the case of the shipbuilding industry in the Northern Netherlands. *Tijdschrift voor Economische en Sociale Geografie*, 92(4): 449-463.
- Vittanen, M., T. Karvonen, J. Vaiste and H. Hernesniemi (2003). The Finnish maritime cluster. *Technological Review*, 145: 1-187.
- Wijnolst, N., J. I. Jenssen and S. Sødal (2003). *European Maritime Clusters*. Delft: DUP Satellite, an imprint of Delft University Press.
- Wijnolst, N. (ed.) (2006). *Dynamic European Maritime Clusters*. Amsterdam: IOS Press BV.
www.dynamar.com