1 creating Nordic capitalism – the business history of a competitive periphery

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Introduction

This book illustrates the development of the capitalist business systems in four Northern European countries: Denmark, Finland, Norway and Sweden. During recent years these Nordic business systems have served as exemplary models for leading politicians, economists and businessmen. Though small and placed on the periphery of Europe, these Nordic countries rank among the world's wealthiest and most economically competitive nations. The Nordic nations combine their successful capitalistic systems with well-developed welfare systems and a successful and large public sector. Furthermore, they each have a long democratic tradition and a well-functioning and orderly civil society. These qualities have contributed to worldwide interest among economists and politicians in Nordic general development, the Nordic welfare model and leading Nordic multinationals (MNCs) such as Nokia and IKEA.[1] Since the mid-1990s, Nordic countries have been among the world's most competitive nations, according to the World Economic Forum's rankings. In 2005–6, five of the ten most competitive nations globally were Nordic. According to Chief Economist and Director of Global Competitiveness Programme, World Economic Forum, Lopez Claros Augusto, 'the Nordics have entered virtuous circles where various factors reinforce each other to make them among the most competitive economies in the world, with world class institutions and some of the highest levels of *per capita* income in the world'.[2]

This book explains the historic backgrounds behind these 'virtuous circles' – an analysis of the interrelated factors which have made the Nordic economies the most competitive in the world. The book is a comparative analysis. We acknowledge that the Nordic region consists of four different countries, each with their own national business systems formed by their countries' national histories, cultures and values. On the other hand, it is our hypothesis that the four Nordic business systems have some fundamental common characteristics, which makes it possible to speak of a 'Nordic model of capitalism'.[3] The main question is thus: what similarities and differences can we identify between the four Nordic capitalistic business systems and what factors have caused these systems to develop as they have? In the Conclusion (Chapter 14) we will try to identify differences and similarities and discuss whether we may speak of a specific Nordic capitalist business system and, if so, how it emerged and what it consists of.

The success of the Nordic welfare societies is by no means a given fact. In the post-war decades, the Swedish *folkhem* model, in particular, was studied and admired by scholars and politicians for its success in combining high welfare with strong economic performance. But in the mid-1980s the Nordic welfare model seemed less attractive and books were published with titles such as *Paradise Lost* and *Remaking the Welfare State*.[4] Analysts argued that strengthening global competition and de-industrialization would lead to pressure on the fundamental pillars of the welfare state system. In the years before the single European Market in 1993, scholars believed that political and economic decision-making processes would gradually move from the national level towards international forums such as the WTO and the EU. As a result, organized labour would be weakened and the typical small-state national consensus between industry, state and labour would be limited. This scepticism about nationally grounded welfare states was further strengthened by a number of real economic events in the early 1990s, when the largest Nordic banks were all shaken by a fundamental financial crisis. The crises were particularly deep in Sweden and Finland, and both countries experienced three consecutive years of negative economic growth. The result was substantial national budget deficits, major unemployment and a wave of corporate bankruptcies. The Nordic societies were confronted with severe challenges: liberalization of financial markets, movement of production towards low-wage countries and an important new geo-political situation with the disappearance of the Nordic 'Sonderweg' between American-influenced western liberal societies and the Soviet Union-dominated socialist countries.[5] Considering this background, it seems surprising and unexpected that the Nordic countries economically outperformed most of world between 1995 and 2005. It is worth noting that as recently as 1973, Norway's GDP *per capita* was well below the western European average – but today Norway is one of the richest countries in the world. The point of departure of this book is an attempt to analyse the historical explanations behind this distinctive Nordic economic growth and its strong competitiveness.

Even though this 'Nordic Miracle' is apparently a phenomenon of the 1990s and 2000s we have decided to follow the Nordic capitalist economies from the outset in the mid-nineteenth century. We believe in the 'path dependency' phenomenon, meaning that all current realities have traceable historical roots. For example, if we attempt to unveil a relationship between government, labour organizations and employers in the Nordic region during the 1990s, we would need to follow this relationship back in time in order to understand its background and content. The wish to understand and describe the above-mentioned 'virtuous circles' of the Nordic countries thus requires tracing different aspects of the capitalist business systems back in time to see how and why these important aspects occurred and developed. It is our ambition to identify particular 'formative phases' in the development of Nordic capitalism when crucial political and economic decisions were taken and thus analyse how, when and by whom the recent Nordic growth and competitiveness has been formed.

This book has been written during a period when the Nordic system and capitalist societies are competitive and strong, but our intention is not to show that the Nordic systems are the best possible. The recent interest in the Nordic welfare model can be compared to the interest in the neo-liberal model of the US and the UK in the 1990s, the Japanese Keiretsus at the end of the 1980s, the German 'Wirtschaftswunder' in the 1960s and the American mass production paradigm, or 'Fordism', in the 1950s. The Keiretsu structure did not attract much attention in the late 1990s when the Japanese economy stagnated, and the Nordic capitalistic model might face the same fate and lose its current attraction in a few years. All such models should be handled cautiously when used as economic structures. Models successful in one context and period may not be as effective in others. Despite this fact, leading 'hype' models have inspired political and economic decision-makers, who have a general tendency to make predictions based on the current situation. Well-thought-out insights into different capitalistic business systems are thus important for high-quality decision-making. The reason is two-fold: on one hand we need comparative analysis, as this book provides, to understand how other capitalist business systems differ from the Nordic model. Similarly, we endeavour to provide inspiration that can make Nordic and non-Nordic readers better prepared to analyse and perhaps even reform aspects of their future national business systems. The three key words in the title of the book are 'Creating', 'Nordic' and 'Capitalism', and this Introduction is centred on these three terms. First, there is a short introduction to the most important economic system in the western world: capitalism. Then follows a description of the Nordic region, and finally the introduction is rounded off by a discussion of the difficult but important concept: change.

Capitalism: business systems and varieties

According to the neo-liberal Nobel Prize winner Milton Friedman the present liberal democratic époque is rather exceptional. In general, the long history of mankind has been dominated by tyranny, servitude and misery. The western world of the nineteenth and twentieth centuries thus stand outs as exceptional and according to Friedman 'History suggests only that capitalism is a necessary condition for political freedom'.[6]

It is on the other hand important to stress that political democracy and capitalistic principles do not necessarily accompany each other. The economy in Nazi Germany, for instance, was marked by the importance and growth of large private enterprises such as IG Farben, Siemens and Volkswagen while Chinese development after 1990 shows that economic capitalist principles can be introduced to a political system marked by a one-party system. Extraordinary growth, as in recent Chinese and South Korean development, does not imply that capitalism is by definition good – or even that capitalism by definition leads to richer and better societies. On the contrary, it most often exalts material values over spiritual ones and market forces may have harsh consequences.

Capitalism differs over time and between countries. The four national business systems analysed in this book thus represent different varieties of capitalism. Despite the differences, however, we believe these four characteristics are central to any capitalist systems:

- Capitalist systems are market economies and a substantial part of the economic co-ordination within the system should be market-based.
- Private property is protected and there is widespread private ownership of the means of production.
- Labour is a commodity and wages are paid in money.
- Accumulated wealth is, to a large extent, reproductively employed.

Besides these more formal characteristics, capitalism certainly has its cultural and psychological aspects. The interaction of these elements gives capitalist systems their restless dynamic, their crises and periods of growth: what the

Austrian economist, Joseph Schumpeter, labelled 'creative destruction'. 'Stabilized capitalism is', stated Schumpeter already in 1939, 'a contradiction in terms'.[7]

Capitalism as a system gradually grew out of the European feudal societies, having roots back to about the eleventh century in the city-states of northern Italy. Under the protection and support of the strong mercantilist state, a more significant commercial capitalist class emerged in the Netherlands, the UK and France. During the first industrial revolution emerging in Britain from the 1760s, capitalism got a strong foothold in the production of goods. During the nineteenth century industrial capitalism also spread to the Nordic countries – as will be studied closer in later chapters.

The company as the fundamental institution

In the centre of this dynamic economic system we find one particular institution, namely 'the company'. The company, although essential to an analysis of capitalist development, should be analysed in the context of the surrounding society. Thus this book on the capitalist development of the Nordic countries from roughly 1850 to 2005 consists of a combination of country chapters and company cases. Researchers from various disciplines have tried to explain the existence and importance of the company as a key economic organization – we can thus find corporate *raison d'être* arguments based on juridical, philosophical and economic disciplines.

A juridical explanation is that an officially registered company possesses some of the legal rights of a human being (it can own property, register patents, employ people, etc.) but in contrast to people it is theoretically immortal.[8] Companies can exist for centuries and reinvent themselves over and over again. One example is the Finnish company, Nokia, founded in 1865 as a pulp and paper producer. In the 1960s Nokia became an industrial conglomerate and in recent decades has been transformed into the world's dominant producer of cellular phones.

The American economist Milton Friedman has a more ideological view on the strengths of the company. According to Friedman, the strength of the capitalist company *per se* built upon its single *raison d'être*, namely, profitability. In Friedman's words: 'The corporation is an instrument of the stockholders who own it', and the 'instruments' can organize thousands and in some cases hundreds of thousands of employees who accept this primary aim and work for it. Prior to capitalism, large organizations had religious, political or cultural *raison d'être*s. In contrast to the religious orders or the state-controlled administrations, companies fight for more profitability, and this competition causes endless technological, organizational and commercial innovation. In the 1990s the neo-liberal 'shareholder value' approach was widely debated and the so-called 'stakeholder value' school suggested that the existence – and strength – of the company relied on its relationship to various stakeholders including employees, customers, the broad society including the environment, etc.[9]

Joseph Schumpeter has suggested a third explanation of the success of the company. According to Schumpeter, it was through this institution that entrepreneurs changed societies by developing new technologies and new organizational methods. It is essential to any capitalist society that entrepreneurs have the right to found companies and have access to capital. These rights and options may sound obvious today. But most societies before the 1850s were based on centrally controlled privileges to establish firms and shops. The financial infrastructure based on privately owned banks was in place only in the most advanced societies such as Great Britain, the US and Germany by the end of the nineteenth century.

In this book we have decided to illustrate the characteristics of Nordic business systems in different periods by two extensive company cases from each country. These companies are not necessarily archetypical for the nations, but they all exemplify important issues of one or more particular phases in the national business system at a particular time.

Analysing capitalism with the 'business systems' concept

Even though early capitalism had its specific national forms, these variations were given little attention. Differences between socialist economic systems and capitalist economic systems were, however, a main theme in many textbooks. Only following the breakdown of communism in the late 1980s has the study of varieties of capitalism been given a more systematic consideration. Alfred D. Chandler, Jr is one of the business historians who has contributed most to our understanding of how capitalist systems vary, primarily between nations. In his book *Scale and Scope*, he conceptualizes capitalism in the US as 'competitive managerial capitalism', in Britain as 'personal capitalism' and in Germany as 'co-operative managerial capitalism'.[10] Inspired by Chandler, the Norwegian historian Francis Sejersted has called Norwegian capitalism 'democratic capitalism'.[11] Democratic capitalism mirrored a high degree of equality and participation within the decision-making processes, in the private, the economic and the political spheres.

While Chandler's different types of national capitalism are based on descriptive characteristics, the 'business system' approach takes a step further and tries to map and explain how capitalist systems work. The business system is a core concept in our book. Systems consist of elements and the relationships between them. In a business system, the main elements are those who make, manage and regulate business: firms, banks, infrastructural operators, consumers, public authorities and organizations such as labour unions and industrial associations. A special focus is given to the co-ordination of transactions and the interaction between them. A business system is a system of co-ordination for economic transactions.

Transaction co-ordination depends on the institutions that make up the structure of business systems. The economic historian Douglass C. North has defined institutions as 'the rules of the game in a society' or, 'the humanly devised constraints that shape human interaction'.[12] As North has stated, the institutions in society can be compared to the rules of the games in a football match. A football match is based on a long series of formal and informal rules, and the game only makes sense because all players are aware of these rules and behave according to them – and if they don't, the referee can punish the illegal act – just as in society. Competition laws, EU directives, technical standards and formal and informal rules for the conduct of negotiations between trade unions and employers' organizations are only a few such institutions in society. Institutions define and limit the set of choices for an individual, or group, but also reduce uncertainty. Institutions are decisive for the relative significance of markets, networks and hierarchies in the co-ordination of transactions between business systems. Differences in the relative significance of these co-ordination mechanisms make up an important distinction between national business systems (see Figure 1.1). Because many of the institutions

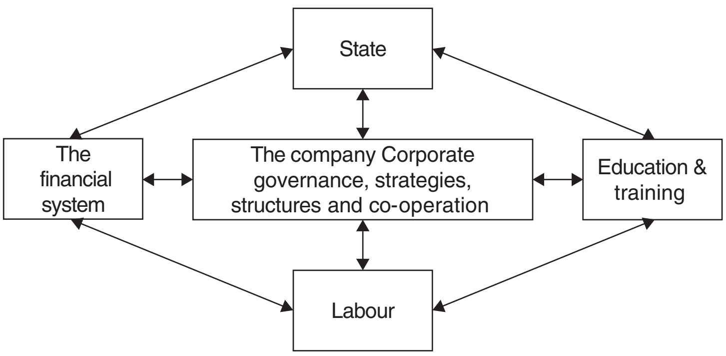

Figure 1.1 ***The business systems of the Nordic countries***

that make up the environment of business are created or ratified by the nation-state, national organizations or politics at a national level, business systems are mostly considered as national systems. Nonetheless, there is no a *priori* reason that the most important institutions will always have such a primarily national character. The most internationalized Nordic telecommunication companies, for instance, are probably more dependent on international and global institutions than on national regulation and policy.

Inspired by the British sociologist Richard Whitley, the main contributor to the comparative business system approach, the analysis of the Nordic capitalism in this book builds on four major contextual arenas regarded as important for the structuring of the business system: the state, the financial system, education and training, and the labour market. The core of the business system approach consists of the essential institution in any capitalist economy – the company.

Primarily, Whitley is concerned with the extent to which companies are dependent on a strong, cohesive *state*. He focuses on the states' commitment to industrial and economic development. According to Whitley, states that were established before the industrial revolution – as for instance in Great Britain – have often been less committed to industrial development than states established in line with industrialization. The late-movers Germany and the US are more committed to playing an active role in the industrialization process. The comparative nature of this book makes it possible to unveil differences in the role of the state between the old Nordic countries, Sweden and Denmark, and the younger states Norway (1905) and particularly Finland, which only got its independence in 1917.

The second important arena is the *financial system*. In the continental credit-based financial system, such as in France and Germany and the Nordic countries, the banks have traditionally played a very active role as investors, owners and occasionally board members. For instance, the Finnish banking system resembled the Germanic universal bank system, with the banks being an important source of credit financing, but also an important actor in the entrepreneurial development of Finnish big business through board membership and concrete influence on, for example, mergers and acquisitions (M&As). In the Anglo-Saxon capital market-oriented systems, such as the US and Great Britain, the role of the banks has been more limited, while shareholders and institutional investors have played a larger role in, for instance, corporate structural changes such as M&As.

The third arena – the *education and training system* – concerns the organization and structure of educational institutions and their relation to the labour market. Education plays a key role for companies' recruitment, promotion and organization. As emphasized by the American economic historian, Joel Mokyr, small, open economies in particular rely on investments in human capital, as companies from these countries needs to define niches in which they can be competitive – even on foreign markets and often against larger competitors.[13]

Finally, the fourth contextual aspect in the business system is the *labour market* and the strength of *skill-based trade unions*. The labour market affects the firm's management practices and ways of structuring employment relations. According to Whitley, societies with strong employment and personnel practices are much more homogeneous and standardized, while societies with weak unions are more dependent on the worth of a particular employer than on the collective organization to which the individual belongs.

The state of the Nordic region

The Nordic countries (Denmark, the Faroe Islands, Greenland, Finland, Åland, Iceland, Norway and Sweden) have a combined population of around 25 million compared with nearly 313 million for the twelve Euro countries and nearly 300 million in the US. Despite the dissimilarities in size, the Nordic economies belong to the very richest in the world in terms of *per capita* income. GDP *per capita* in 2005 was €29,300 compared with €24,800 in the twelve Euro countries and €34,800 in the US.[14] Around 1850 – when the analysis in this book begins – the Nordic region was on the economic periphery of Europe, with the centre consisting of early-industrialized countries such as Great Britain, the Netherlands and the German states. The Nordic countries were marked by large unexploited and underdeveloped areas, such as Norrland in Sweden, the long and rough coastline in Norway and the flat and sparsely inhabited interior of Finland. Denmark was the exception – this country was small, densely populated and well connected through trade routes to the important markets in the German states, the Netherlands and Great Britain. In the early capitalist period, Denmark was the only Nordic country that was above or close to the average size of western European *per capita* GDP. Denmark had its industrial breakthrough in the late part of the nineteenth century, while the other Nordic countries had theirs in the early part of the twentieth century.[15] Finland had a fairly strong performance during the inter-war years compared to the rest of western Europe, but the Civil War (1918)

Table 1.1 ***GDP per capita (1990 international $): the Nordic countries, UK and western Europe, 1820–2006***

Country	*1820*	*1870*	*1913*	*1950*	*1973*	*1990*	*1998*	*2006*[1]
Denmark	1274	2003	3912	6946	13,945	18,463	22,123	24,871
Finland	781	1140	2111	4253	11,085	16,868	18,324	23,191
Norway	1104	1432	2501	5463	11,246	18,470	23,660	27,774
Sweden	1198	1664	3096	6738	13,493	17,680	18,685	23,870
UK	1707	3191	4921	6907	12,022	16,411	18,714	22,933
Western Europe	1270	2086	3688	5013	12,159	16,872	18,742	21,582

Note: 1. www.gdc.net.
Source: Maddison (2001), p. 185.

and the Second World War meant heavy losses for the economy, which makes the growth figures for this period fairly modest. In the tumultuous years of 1913–50 Sweden and Norway had the highest annual growth rates in GDP *per capita* in the western world. As shown in Table 1.2 (p.11), the average annual growth rate was 2.13 per cent in Norway and 2.12 per cent in Sweden in contrast to 0.83 in western Europe, which experienced two world wars during this period. In Denmark, the agricultural sector continued played an important role, while the manufacturing corporations played a key role for the Swedish economy in the first half of the twentieth century. High growth in Sweden was based on a combination of the success of large export-oriented corporations such as L.M. Ericsson, ASEA and Bofors and a rich forest of small- and medium-sized manufacturing enterprises (SMEs). In Norway, growth was based on export and improvement of natural resources such as timber, mineral ores and fish, combined with an extensive commercial fleet. Finland's take-off in the late nineteenth century was also heavily dependent on resource-based industries, particularly forest resources, and their export.[16]

Table 1.1 illustrates the economically peripheral position of the Nordic countries in the period known as the 'second industrial revolution', the late 1800s. Nevertheless, Table 1.1 reveals two interesting characteristics of Nordic development after 1950. First of all the Norwegian development is notable, especially from a GDP *per capita* viewpoint, from being below the western European average in 1973 to one of the highest GDP *per capita* in 2006. This 'Norwegian Miracle' is a direct cause of the successful exploitation of natural resources – particularly the Norwegian oil policy of state-owned oil funds and state-controlled oil companies. Political institutions and decision-making are important in this case. As the experience of some South American and Middle Eastern countries shows, access to oil resources does not automatically lead to

Table 1.2 ***GDP per capita growth rates (per cent): the Nordic countries and western Europe, 1820–1998***

Country	*1820–70*	*1870–1913*	*1913–50*	*1950–73*	*1973–98*
Denmark	0.91	1.57	1.56	3.08	1.86
Finland	0.76	1.44	1.91	4.25	2.03
Norway	0.52	1.30	2.13	3.19	3.02
Sweden	0.66	1.46	2.12	3.07	1.31
UK	1.26	1.01	0.92	2.44	1.79
Western Europe	1.00	1.33	0.83	3.93	1.75

Source: Maddison (2001), p. 186.

top performance on a national economic level. Another important lesson from Table 1.1 is that the economic development in the Nordic countries differed. The GDP *per capita* of Finland was below the western European average in all benchmark years from 1814 to 1998, while the Swedish GDP *per capita* was close to, or above, the average since 1950. At the end of the twentieth century, the Nordic countries were four of the richest and most successful countries in Europe, with two countries well above and two countries just below the western European GDP *per capita* average. Additionally, as Table 1.2 shows, three of the four Nordic countries maintained a GDP *per capita* average growth rate above the western European average in the period 1973–98.

The strong economic performance of the Nordic economies in the last decades of the twentieth century was marked by a strong growth in international trade and capital flows. This development took place simultaneously with important international trade agreements such as the European Common Market in 1993, the European Monetary Union in the late 1990s and the various WTO agreements. Traditionally, foreign trade with large powers has been the preferred explanation for the capitalist growth of small- and medium-sized West European countries.[17] Notwithstanding, in more recent research foreign trade has only been regarded as the 'fuel' for the real 'engine' of the economies, namely the essential internal factors. In Denmark, Norway, Sweden and Finland these internal factors also included institutional elements such as the agricultural enclosure reforms – which stimulated urbanization – and the early liberal market reforms in the 1860s and 1870s, which created a domestic market based on private property and the freedom to establish businesses. The role of the educational reforms in the early twentieth century should also be stressed as they resulted in growing general literacy and thus, industrial production and innovation, including inward transfer of foreign technology. Finnish basic education also developed in the late nineteenth century, but a general, compulsory primary education lasting six years did not take root until 1921. This did not mean that all the children went to school for six years. Particularly in the countryside the length of school attendance were often shorter. However, the educational level rose gradually after the declaration of independence in 1917, although the development clearly occurred later than in the other Nordic countries.

Our assumption that capitalism in the Nordic countries was based on internal institutional factors fuelled by international trade is reflected in the structure of this book. The four country chapters on Sweden, Finland, Denmark and Norway (Chapters 2, 5, 8 and 11) include important political, cultural, legal and economic institutional factors while the essential 'fuel' of a capitalist economy, namely the company and its trade and technological innovation, is included and elucidated via the eight company cases.

History and the 'formative' periods of change

So far, this book has treated business systems as if they were rather stable phenomena – with no reference to time. And indeed the business system approach has been criticized for not taking change seriously enough and certainly not from a historian's point of view.[18] No matter which business system approach we use, we must look to the past for its origins. It is implicit that some formative periods in the past, when the main structure of the business system was set, must have had a lasting influence. Formative periods are periods of change when the development of a business system takes a new direction; it is a time of crossroads, where there could have been multiple possible outcomes. Formative periods are important time-arenas for strategic economic and political decisions. The business system structure developed in a formative period could have a long life. Formative periods create institutional 'lock-ins' or path dependence, and are usually followed by more stable periods.[19]

Formative periods are often the combined result of internal and external pressures acting on the established economic structure. Wars, economic and political crises, or occupation by foreign powers are examples of challenges to established orders that demand economic and political responses. Such responses may have lasting imprints on a national business system. The Allied occupation of Japan after the Second World War had some significant effects on the Japanese business system, even if the result was far from what the Americans had aimed for. On the other hand, the Japanese occupation of Korea has definitely had an impact on the South Korean business system. Some business system characteristics are connected to pre-industrial periods. The lack of any heavy pre-capitalist societal organization in the Nordic countries may explain some of the differences between the four countries and part of the European continent – that is, the more egalitarian values connected to the social democratic aspects of the business systems.

Our intention is to combine the 'business system model' and 'formative periods' perspectives. We might accept that modern Nordic business systems of today could be classified as co-ordinated market economies. We might also accept that within this class of business system they are what Whitley calls 'collaborative business systems' and the regulation school calls 'social democratic business systems'. But we want to show how the system characteristics were formed, to identify the formative periods of the four Nordic business systems. And since history matters, what sort of economic organization preceded the co-ordinated market economy, or the collaborative model, or the social democratic model? For some period of time, the business systems of the Nordic countries were closer to the liberal market economy than today, and the whole establishment of a liberal, industrial-based market economy has a history of its own in the four countries.

To describe and explain how Nordic business systems, through different paths, developed some important common traits is, however, only one of the aims of this book. We are just as eager to show the significant differences between our four business systems, to show the different paths and time periods in which these business systems developed. Only with this historic and dynamic approach can we understand how the Nordic capitalism evolved.

Dealing with change: three industrial revolutions, five 'Kondratiev waves', or economic evolution?

This book is about the development of capitalism in the Nordic countries from approximately 1850 to 2000. The development in these 150 years was obviously a very complex process, with innumerable actors, events and facts. Historians make order out of historical facts through periodization, and in economic and business history one of the most used periodizations is the distinction between the first, second and third industrial revolutions. The 'revolution' metaphor is rather misleading: there is no economic equivalent to the French revolution in 1789 or the Russian revolution in 1917. Economies developed through a gradual, slow-moving and highly complex process. On the other hand the total outcome of this process was rather revolutionary. The creation of the first machine-based industries – and later human societies – substituted inanimate for animate sources of power. One steam-driven train could transport more goods than hundreds of packhorses, one textile factory based on a division of labour was 100-fold more efficient than the previous home-based production while the telegraph even in the 1860s made it possible to communicate transcontinentally in real time. According to the British historian, Paul Kennedy, these changes were just as fundamental as the transformation of savage Palaeolithic hunting people to domesticated Neolithic farming people.[20]

The characteristics of the three industrial revolutions can be divided in three categories: chronology and geography, industrial processes and typical new products.

The first industrial revolution began in the 1780s. It was lead by Great Britain with the Netherlands, France and the German-speaking regions following. The first factory-based mechanization of production was introduced, particularly in the cotton and pottery industries. In 1831 the first railway between Manchester and Liverpool was opened and along with steam ships these new technologies transformed the infrastructure of western societies in the following decades.

The second industrial revolution took off in the 1880s with Germany and the US as the leading countries of science-based mass production. The most important principles were mass production, mass distribution and mass marketing. These phenomena were made possible by a combination of new technologies based upon the invention of electricity and the gasoline-powered engine and new large organizations. 'Big business' appeared, including the need for professional managers – and thus business schools. The third industrial revolution, very much based on information and communication technology (ICT), began in the 1970s. The most important new aspect was probably the IT-based new internet-related infrastructure and the new production methods based upon microprocessors. These new technologies changed almost any advanced organization often towards more decentralization, outsourcing and network-based relations.

The industrial revolutions provide a helpful overview but do not explain how and why each different industrial revolution emerged, developed and disappeared. Another type of periodization, which tries to conceptualize economic development, is the five 'Kondratiev waves'.[21] According to the techno-economic 'Kondratiev wave' theory the economic development in

Table 1.3 ***The five "Kandratiev waves" 1870–1973***

The paradigm	*Core industries*	*Infrastructure*	*New organizations*	*Time (Up-down-swing)*	*Place*
1. Water-powered mechanization of industry	Cotton spinning Textiles Iron products	Canals Turnpike roads Sailing ships	Factory systems Partnerships	1780–1815 1815–48	GB
2. Steam-powered mechanization of industry & transport	Railways Steam engines Machine tools Electrical equip.	Railways Telegraph Steam ships	Joint stock comps Subcontracting to craft workers	1848–73 1873–95	GB US Ger
3. Electrification of industry, transport and the home	Heavy engineering Heavy chemicals Steel products Automobiles	Steel railways Steel ships Telephone	Professional management 'Taylorism' Giant firms	1895–1918 1918–40	US Eur
4. Motorization of transport, civil economy and war	Trucks and tractors Diesel engines Aircraft Refineries Computers	Radio Motorways Airports Airlines	Mass production and consumption 'Fordism' Giant firms	1941–73 1973	US Jap Eur
5. Computerization of entire economy	Software Telecoms. Biotechnology	'Information highways' Internet	Networks–internal, local and global		US China EU

Source: Freeman and Louçã (2001), p. 141.

industrialized societies has followed a wave-like movement in which different technical and organizational paradigms have succeeded each other.[22] Each technical and organizational paradigm has an upswing and a downswing, and in the centre of these paradigms we find a specific technology, new type of infrastructure, and one or a few new core industries and new types of organizations. The first wave is labelled the 'water-powered mechanization' of industry, it was primarily a British phenomenon and its upswing was from the 1780s to 1815 and the downswing from 1815 to 1848. This wave was based on improvements in water-powered technology, which made it possible to introduce water power on a large scale in industrial production particular in the British textile industry. The dynamic in the model consists of the idea that each old paradigm is being challenged by the new succeeding one. Water-powered production was then challenged by steam-powered technology in the mid-nineteenth century. Later on, steam power was replaced by electrification, etc. Old technologies and infrastructures do not necessarily disappear (railways and electricity still exist) but the dynamic in the societies is the new technological paradigms which established new types of work, companies, etc. and also changed the old companies and their way of organizing themselves (Table 1.3).

Alfred D. Chandler, Jr once wrote: 'a historian's task is not merely to borrow other people's theories or even to test their theories for them. It is to use existing concepts and models to explore the data he has collected in order to answer his own particular questions and concerns.'[23] We will not use this book to test the idea of three industrial revolutions or the techno-economic revolution in relation to the Nordic countries. We use these chronological categories only to place the development of the Nordic countries' economies and business systems in a larger context. In this way, these concepts may help our understanding of the particular national development of capitalism in the Nordic countries.

Structure of the book

This book intends to explain how the Nordic capitalist systems could historically bridge two apparently conflicting situations, namely, the expensive welfare systems and highly competitive economies. The explanation is posited on three fundamental assumptions:

- The Nordic countries have a number of common characteristics, which make it possible to speak of a 'Nordic model of capitalism'.

- The company is the core institution of capitalism. The company should be analysed in the context of the surrounding societies – that is, as an essential part of the broad business systems.
- The content and construction of Nordic capitalism can be understood only through a historical understanding of how different parts of the capitalist systems developed over time.

The four country chapters describe and analyse the capitalist development of, respectively, Denmark, Sweden, Norway and Finland in the 150 years from 1850 to 2000. Each country chapter touches upon the particular aspects of the business systems that we find in the different nations in different periods: companies and the contextual factors in terms of the state, the financial system, education and training and the labour market. In each country chapter we will define specific time periods and the formative periods that shaped the business systems.

As we believe that companies and entrepreneurs were essential to the capitalist development in the Nordic countries, we give case studies a key role in this book. Each country chapter will be followed by two case studies. Even if we have not been able to mirror all important aspects of the national business systems, these cases mirror and explain some important characteristics of each system. It would hard to explain the development of Danish capitalism without reference to the agricultural sector. The dairy company, Arla (Chapter 9), reflects a self-understanding from within the agricultural sector based on terms such 'democratic' management, co-operative ownership and a distinct contrast to industrial urbanization. In the Finnish case, the large role of the forest industry, particularly the pulp and paper industry, obviously makes the selection of Stora-Enso (Chapter 6) as a case study quite natural. The Finnish business system and the economic policy was during the most of the twentieth century until today, organized in order to secure a favourable working environment for the large-scale export industry, a feature we will develop further in the country chapter. The Swedish case of Wallenberg (Chapter 3) on the other hand, reflects the political, economical and cultural power of a Swedish industrial dynasty, while the development of Norwegian capitalism would be difficult to understand without an analysis of the relationship between the Norwegian state and crucial resource-based industries such as Elkem (Chapter 12).

The title of the book consists of three key concepts: 'Creating', 'Nordic' and 'Capitalism'. 'Creating' refers to the importance of history and the importance of understanding change. 'Nordic' is the geographical focus of the book, while

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'Capitalism' is regarded as the national economic system and thus the subject and essential focus of the book. In the preceding sections we have defined these three keywords in depth and thus prepared the reader for a journey through more than 150 years of capitalism in the world's most competitive and egalitarian periphery.

Notes

1. An illustrative example can be found in Thomas K. McCraw's biography of Joseph Schumpeter. McCraw mentions the world's most well-known innovative twenty-first-century companies: Microsoft, IKEA, Nokia, and Google, two of which two have origins in the relatively small Nordic region (McCraw, 2007, p. 179).
2. *Global Competitiveness Report 2005–2006*: Interview with Lopez Claros Augusto, September 29 2005.
3. Lindert (2004).
4. Marklund (1988)
5. Francis Sejersted has described the Nordic capitalist systems as a particular type of 'democratic capitalism', see n. 11.
6. Friedman (2002), p. 10.
7. Schumpeter, (1939), pp. 90, 1033.
8. Micklewait and Wooldridge, (2001), p xv.
9. Met Blair (1995), and Kelly *et al.* (1997).
10. Chandler, Jr (1990), p. 59.
11. Sejersted (1993), p. 269.
12. North (1990), p. 208.
13. Mokyr (2006).
14. *Nordic Statistical Yearbook 2006*, Nordic Council of Ministers.
15. Krantz in Kryger-Larsen (2001), p. 40.
16. Kryger-Larsen (2001).
17. Kryger-Larsen (2001), p. 12.
18. Morgan *et al.* (2005), pp. 3–4.
19. David (1986).
20. Kennedy (1988), p. 186.
21. See Freeman and Louçã (2001) for a comprehensive introduction to 'Kondratiev waves'.
22. Freeman and Louçã (2001).
23. Chandler (1971), p. 305.

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prologue to the Swedish chapter

We start this journey by analysing the factors behind welfare capitalism in Sweden. The development has not been straightforward, but there are some elements that make it possible to talk about continuity back to the mid nineteenth century, where certain social–liberal institutions re-shaped business and society. Naturally, Sweden has a lot in common with other small European economies, such as the Netherlands and Switzerland, in terms of cultural orientation, number of MNCs and type of governance. However, a geographical location in the periphery of Europe brings about both advantages and disadvantages – for example, vast natural resources but high transportation costs. The country chapter will also show how firms have been clustered in certain capital-intensive industries, where they have played the same role as in larger economies.

Sweden was once admired by many experts for a constructive, smooth combination of private and public resources, including a labour market with nearly no strikes at all. In fact, this middle way, balancing between socialism and capitalism by taking the best from both regimes, was for a long time seen as ideal model for democratic capitalism. The country chapter (Chapter 2) describes what happened after the golden age, when the land of milk and honey was hit by several structural crises. Finally, the Swedish story is a good example of the capacity of a state to adapt to a changing environment, re-shape the institutions and support new types of businesses. Thus, this country chapter provides us with an insight into the linkages between creative destruction, flexibility of institutions and internationalization processes, all captured in the on-going transformation of the business system.

The case chapter on Bonnier and Wallenberg (Chapter 3) treats two types of family capitalism. We often think of family firms as small- and medium-sized. Another view is that mature industrial firms are owned and governed by large institutions or more or less anonymous and dispersed owners. This is, of course, not true. Sweden is the country of origin for many international large family firms operating in a wide range of sectors – for example, Tetra Pak, IKEA and Hennes & Mauritz. The Wallenberg group is also a good example of traditional family-based ownership that still plays a role in international business. While the active long-term minority-based ownership in the Wallenberg group ranges over many different industrial and service sectors, the holdings by the Bonnier group are both wholly owned and concentrated on just one sector, the media sector. These two contrasted types of co-ordination of family activities, in the fifth and sixth generations from the founder, give us an excellent view on how family values can be used to build strong entrepreneurship and take the lead in the transformation of business.

In the country chapter you will see that one reason behind the success of Swedish welfare capitalism is the many MNCs in the forefront of new technology, which has guaranteed a high level of employment, new skills and economic performance. The case of ASEA (Chapter 4), stemming from the inventions of Jonas Wenström and continuously thriving on new innovations in electro-mechanics, is chosen to illustrate this common track in Swedish business history. Since the domestic market is small, all these technology-based companies became internationalized very early. ASEA is good example of an MNC, internationalized almost from its inception, evolving through a spectacular merger in 1988 into a globally active MNC, namely Asea Brown Boveri, ABB. The case on ASEA/ABB illustrates how managerial, strategic and organizational capabilities can be created both endogenously and in interaction with the socio-economic context and, not least, how state-owned and private companies in Sweden very often have collaborated in large-scale investments and successful innovations.