Three Industrial Periods

– and their Significance for Industrial Heritage in the 2020s

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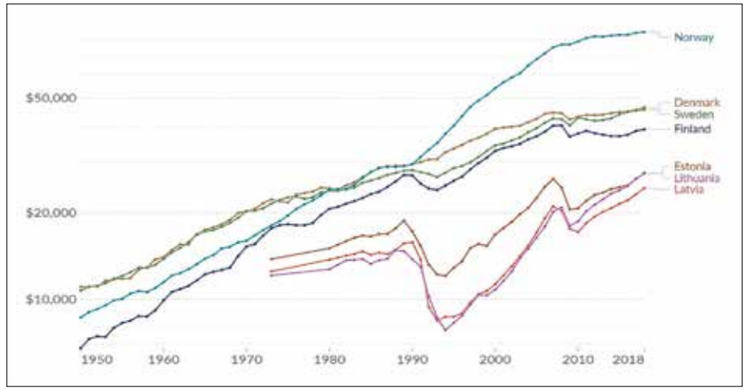


Graph 1. The development of GDP per capita development in the Nordic and Baltic states, post-war period. Source: Our World in Data, based on Madison's figures.

INTRODUCTION

In this introductory chapter we analyse the changes in global industrial and economic development in a long-time perspective, but in particular since the 1980s. We also open the way for some questions concerning how these transformations have affected perceptions of our industrial heritage in the 2020s. We present a three-phase model of the industrial transition that has occurred. We take as our point of departure the High-Industrial Period (HIP) since the 1930s which from about 1980 was followed by a Hyper-Global Industrial Period (H-GIP). During the 2010s, a period with elements of protectionism and a growing regionalization in the global economy emerged. Some even believe that a period of deglobalization will begin again. However, this seems not to be the case, at least not currently. The global economic environment is evidently going through a period of change. To capture the character of this third phase, we introduce the concept of the Multipolar-Global Industrial Period (M-GIP). Our first aim is to address the main characteristics of each phase, and discuss similarities and differences, which leads to the second aim of the chapter, which is to briefly discuss the interest in and direction of work with our industrial cultural heritage in the 2020s. This connects our text to the other chapters in this SI.

We begin with a description of the global economic and industrial transformations from the 1930s to the 2010s, in particular changes in economic and technological development and in industrial production. Shifts in ownership are also important, as well as the increasing use of global value chains and the outsourcing of industrial production from advanced industrial countries to emerging economies in Asia and in the Global South. We will also note changes in the institutional environment.

Our focus is on what happened *after* the HIP, namely the period from the 1980s onwards, when the shift from the HIP to the H-GIP took place in the industrialized world.[1)] This shift occurred gradually, and not exactly at the same time, nor to the same extent, in all countries. The HIP has been dated from around the mid-1930s in Sweden, Denmark, Norway, while Finland, Latvia, Estonia, and Lithuania are later in time, that is, after World War II (WWII).[2)] In the Nordic countries, the transition to the H-GIP can also be dated earlier; it began in the late 1970s and took place in the 1980s, while in the Baltic states it took place in the 1990s following their independence from the Soviet Union. The foundation of this transition was a shift from an essentially nationally oriented, rigid industrial production system to a flexible one, based on global supply chains and offshoring of production mainly to countries with cheap labour. This is connected to a deindustrialization in the West occurring from the end of the 1970s. However, on a global level, industrial production instead grew considerably from the beginning of the 1980s and onwards. In the West, the changes originated with the oil-producing countries' (OPEC) sharp increase in oil prices in 1973 and 1979. Added to this was increased competition from low-wage countries in Asia and Latin America that were undergoing rapid industrialization. The incipient computerization and deregulation of the financial markets also contributed to the difficulties of many old industrial companies in West. All this led to a subsequent international economic recession followed by a wave of closures of old smokestack industries. During the 1980s, the transitions continued with increasing pace, with extensive shutdown of old industrial companies and staff reductions in remaining corporations implemented by new, often anonymous, financial owners. In the wake of this followed the era of rapid globalization in the economy up to the 2010s. Despite the uncertainty of which path industrial production will take in the future, we believe that there is reason to speak of a new industrial phase. One of our aims is to identify and describe these patterns and discuss differences between the periods.

These structural changes and developments were significant also for industrial heritage policies. Municipalities, which for decades had been able to rely on prosperous large, locally rooted, industrial companies, had to take over closed and dilapidated factory buildings and large industrial areas which, if they were to attract new businesses, needed to be cleaned up and renovated. Such endeavours were possible in expansive towns, but renewal was far from general. Smaller municipalities with a one-sided business structure that had long relied on one or a few large industrial companies often faced a declining and ageing population and a declining tax base. When local politicians realized the difficulty of attracting new large industrial companies within the same or similar industries, willing to invest in the local community and its industrial buildings, some premises were rented out to associations and small businesses. However, large-scale buildings and land areas with environmentally hazardous waste were often left to their own fate, cordoned off with old fences and gates. People who had worked in the industrial enterprises or who for other reasons had memories of the successful industrial companies of the HIP in an emerging local welfare society, saw no or a bleak future. Even though there had been environmental and social problems within traditional manufacturing, the inhabitants of industrial cities and towns often had a strong industrial identity, which gradually dissolved as laid-off industrial workers moved with their families and the service sector increased its share of the workforce. As Nettleingham (2019) notes, "Deindustrialisation is not just the loss of industry. But the undermining of an image of industrial prosperity".[3)]

Manufacturing was talked about more and more as no longer representing modernity or progress, but a past form of work, stigmatized as outdated and polluting. On the other hand, with technological and structural progress, manufacturing production took new forms and became often less polluting and involved less hard manual labour. This has also opened for an interesting discussion about the nature of work in the manufacturing industry. Nevertheless, this process affected not only the economy, but had political and social consequences, both for the identities of the population and the perception of our industrial heritage and its role in the society.

INDUSTRIAL PERIODS AND INDUSTRIAL REVOLUTIONS

To understand the shift that we argue took place in the last two decades of the 20th century, we need to clarify the key features of the previous era and its time span.

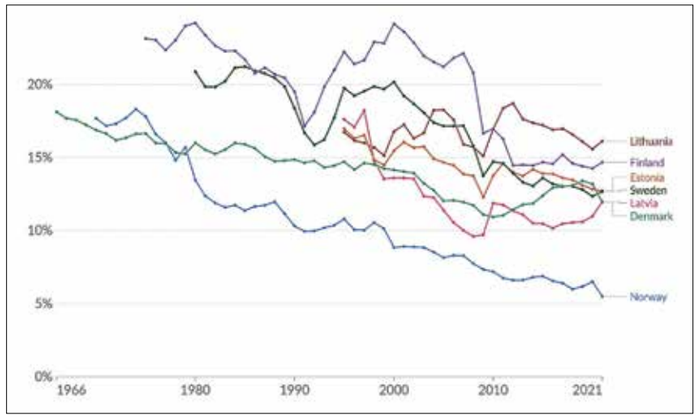
Economic history scholars tend to periodize economic and social development. One common periodization of the last two centuries is the division into three industrial revolutions. When exactly these 'revolutions' took place can vary according to different scholars and is often considered to have occurred at different points of time in different countries.

The basis for these divisions is the breakthroughs of new *core technologies* which in turn were followed by supplementary technological innovations and new social conditions, new social groups, and changes in norms, laws, and regulations. In other words, these revolutions fundamentally changed the way people lived, worked, and socialized with each other.[4)]

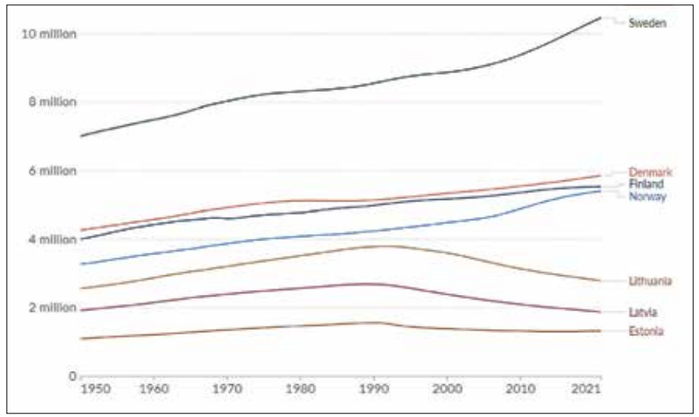
The industrial revolution occurred in Great Britain around the 1770s, which was the first industrialized country in Europe, with Germany, Belgium and France following along with the United States in the early 19th century. During the *first* industrial revolution in Great Britain, steam power and the factory system with their associated division of labour were such core technologies. During the *second* industrial revolution, the internal combustion engine, electricity, telecommunications and rationally organized mass production took on that role. The *third* industrial revolution occurred with data and container technology and the peaceful application of nuclear power. To the three revolutions, the German government in the early 2010s added a strategy for the *fourth* industrial revolution. The German government's term is used today as a designation for the smart, fully digitized factory with Artificial Intelligence, robotics and the Internet of things in our homes. Many scholars are still reluctant to talk about such a fourth industrial revolution, however.

The forces of globalization have also tended to experience different phases. Economic historians usually date a first modern globalization period as starting at the turn of the 20th century, while the second one took place after the end of WWII and continued until the 1990s, when it turned into a hyper-global era. The hyper-global industrial era as a concept is also quite widely used to compare and to contrast with the first period of globalization in the late 19th century, to show that the period in the late 20th century was different from the first globalization period.[5)]

In this chapter however, we use different concepts, of which the two first are the HIP and the H-GIP. Both connect to the con-



Graph 2. Manufacturing production as share of GDP in the Nordic and Baltic states, since 1960s. Source: Our World in Data, based on OECD figures.



Graph 3: Population development 1950s-2020. Source: our World in Data, based on UN population prospects.

cept of industrial revolutions when it comes to core technologies. Our concepts, however, are broader. We include all parts of society, not only GDP figures and industrial structure. Our concepts also have greater relevance when interpreting the impacts of industrial cultural heritage. The HIP began with the second industrial revolution and extended up to the beginning of the 1980s. It ends with the third industrial revolution, i.e. it lasted for about 50 years into the 20th century. The third industrial revolution connects to the H-GIP from the 1980s. The *fourth* industrial revolution that some claim began in the early 2010s could be considered to connect to our third concept, the M-GIP. Our three concepts should be understood as a *discourse*, i.e. as a dominant way of organizing, thinking, and talking about economics, politics, and everyday life at specific times in large parts of the industrialized world. Our focus is also first and foremost on how industrial production changes over time and its significance and effects on other parts of the societies in the Nordic and Baltic countries. Therefore, we have chosen to use a concept other than 'industrial revolution' to characterize the changes in industrial society. We want to emphasise that these kinds of periodization are often both schematic and simplified and contested by many, but they can help us to understand the long-term development. We are, however, aware of the complexities.

As we mentioned in the introduction, it is not possible to fit all seven countries in the Nordic-Baltic region exactly into the same pattern and time span when discussing the HIP and its occurrence. One very decisive difference was the institutional basis of these economies, i.e. differences in ownership and the purpose of the industrial companies. From the 1940s, the three Baltic states became part of the Soviet Union and therefore subordinated to the colonialist politics and economy of the Soviet Union. Moscow's political leaders drew up five-year plans with definite targets for the factories' production and sales for the purposes of the Soviet state. Private ownership and free markets were not allowed, more than periodically at the margins. In the four Nordic countries, on the other hand, most industrial companies had private owners who decided what to produce and to whom with the purpose of making a profit. Thus, around the Baltic Sea we had on one side countries with a centralized socialist regime, and relatively independent capitalist companies in democratic countries on the other side.

Another aspect is the pattern and pace of industrial progress. Also, economic and structural factors affect how well some countries fit the description of a high industrial country. A critical question is whether the three Baltic states can be characterized as high industrial at all. Their economic structure was quite different to Sweden for example. Possibly we could argue that Latvia, and especially certain cities such as Riga and Liepaja, can be considered to meet the criteria for a high industrial country, i.e., societies where large-scale, manufacturing production constituted a considerable share of GDP, and overall, an ideology favouring large entities. In Estonia, Tallinn and Narva fall within the concept, as well as Vilnius, Kaunas and Klaipeda in Lithuania; industrial areas and regions existed also in districts primarily considered rural, as 'industrial islands'. However, these three countries relied to a much lesser extent on manufacturing than did Sweden and Finland for example. Nevertheless, we choose to include all seven countries from the 1950s, with a reservation for deviations both in time and in characteristics.

THE HALLMARK OF THE HIP

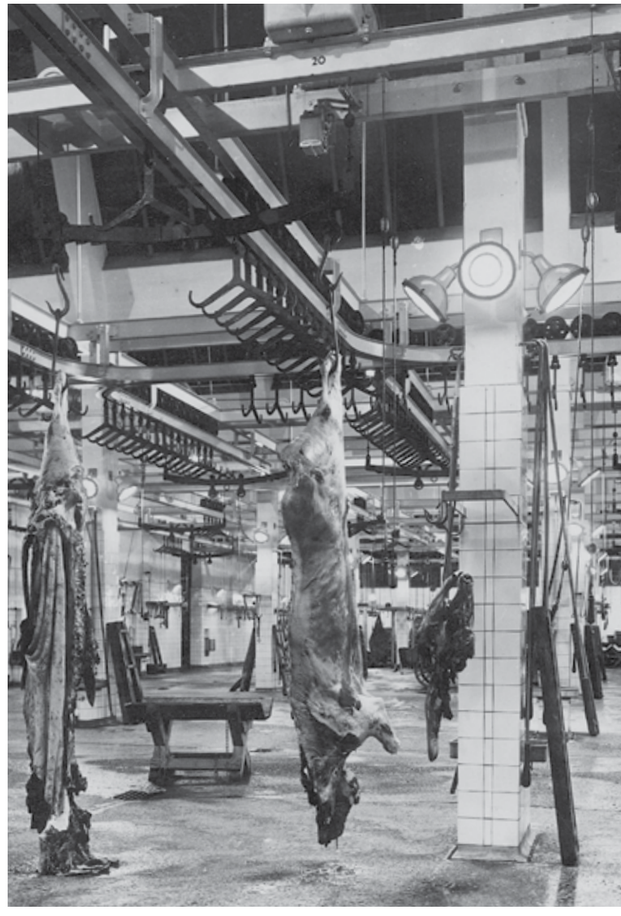
Now let's clarify the most important characteristics of the HIP, from around the mid-1930s until the early 1980s, where the core technologies and their complementary technologies led to sweeping changes in – almost – all areas of working and social life. Since we have previously described the period in more detail in several articles, we refer to them for those who want to delve deeper into this.

The core feature of this period was a preference for the *large scale* and the search for the most *rational way of conducting industrial production* (as well as subsequently all kinds of economic activity), which are two of the most fundamental characteristics of HIP, in the East and West. The importance of the *large-scale* firm is not a new claim. It has long since been empirically verified by business historians.[6] The companies never got as big in the Nordic countries as in the United States, Germany and the United Kingdom because of the smallness of these countries, but also these firms grew, were rationally planned and quite a few became multinational. Both the ideal and the development were similar in all four Nordic countries.[7]

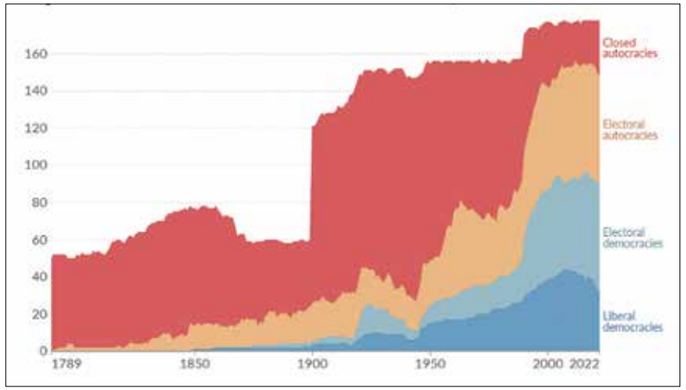
The leaders of the Soviet Empire followed the same ideals in industrialization – and even accentuated the role of the large-scale industry and created gigantic, rationally planned factories in, the Baltic states during the Soviet occupation.

Large, rationally planned factories and offices with people whose task it was to produce *standardized goods* at low unit costs, i.e. in large series with a long-term division of labour and piecework on the factory floor, is thus a central characteristic of HIP. Small-scale private business operations were outcompeted or bought up and incorporated into growing companies. The economic and industrial policies also supported this development. In the Baltic states, private ownership was negligible but existed to a limited extent in the countryside where people employed in kolkhozes were occasionally given private spaces to grow their own produce on a small scale.[8]

At the beginning of the HIP, wage labour primarily applied to men. After the WWII, with the expansion of the welfare state, women's wage labour increased, as did the *gender division of labour.* Women worked primarily in low-paid jobs in trade, service, care, and other welfare sectors and on the assembly lines of factories. Men, on the other hand, worked in leading, more qualified, and better paid positions and in blue-collar work as skilled workers. Men who moved from smaller farms in Sweden were initially assigned a place at an assembly line or were put to work doing other types of simple and lower paid jobs. But after a while they got more responsible and better-paid tasks. Immigrants, those who were not born and raised in the country, however, usually had to take the lower paid jobs, with fewer opportunities to advance.



Kødbyen in Copenhagen. The Swallow Hall 1935. Unknown photographer 1932. Københavns Museum.



Graph 4. Countries that are democracies and autocracies, World Source: Our World in Data.

Another characteristic was *centralized negotiations* in the labour market, without the influence of the state, in the Nordic countries. In the Baltic states, as part of the socialist USSR, the state had obviously a very strong position with power over all parts of economic and social life, while free wage bargaining between workers and employers was not applied.

Another tendency in the Nordic and Baltic countries from the end of the 1940s was *a geographical spread* of mass production to regions within the countries with high unemployment and low wages.[9] In Sweden, Denmark and Norway this occurred from the end of the 1950s and in Finland during the 1960s. This was followed by a continued geographical spread, but now across their national borders. Exposed to competition, mass production moved to countries with lower production costs, for instance in the south of Europe.

THE IMPORTANCE OF THE HIP

During these 50 years of the HIP, there was a shift from agriculture to urban industries, while the technology to mass-produce cheap goods spread to a growing number of producers. Meanwhile the infrastructure, the education system and the welfare system expanded; in the Nordic countries via the tax system, in other developed countries in the West via a greater element of private solutions.[10] The strong economic growth during these fifty years is explained, as Lennart Schön has stated, by "the interaction between automation, motorization and an abundant supply of energy, above all oil". Also, other scholars discussing long-term development have presented similar arguments on core resources. For example, Carlota Perez has labelled the period as the 'Age of Oil' (and Mass Production).[11] International trade grew with larger ships, trucks, and airplanes.[12]

The result was a substantial increase in income and welfare, and reduced income differences. The growing resources were used for shorter working days, longer holidays, better health through the development of medical science and global medical efforts, an improved standard of housing through the demolition of old dilapidated buildings, and extensive new construction and investments in education and transport equipment. The standard of living and life expectancy increased globally, although differences remained between countries and continents.

The world's population increased rapidly from the 1940s. In 1980, 4.5 billion people lived on the Globe, twice as many inhabitants as in the early 1940s. The number of inhabitants in the Nordic region increased from 16 million in 1930 to 22.3 million in 1980. During the same period, the population of the three Baltic states grew from approximately 5.4 to 7.4 million.[13] However, gradually birth rates started to decline with increasing prosperity. With ageing populations, the need for elderly care increased.

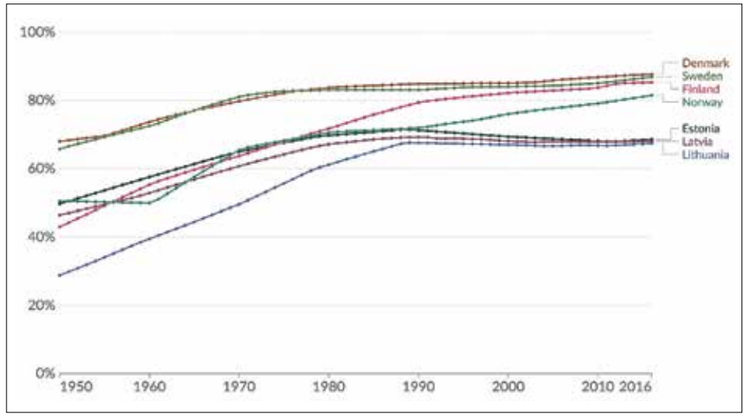
After WWII, the world became divided politically. The number of democratic states increased in some parts of the world, especially in the West, while socialist dictatorships in the East expanded after the occupation of several Eastern European countries. The decolonization of former colonial empires became playing cards in the international politics. The result was both the Cold War with a periodical increase in the threat of nuclear war and growing tensions between the Global North and South. In 1980 however, according to the organization Freedom House, around 65 of the worlds roughly 170 sovereign countries were liberal or partially liberal democracies.[14]

Urbanization and depopulation of the countryside were other consequences of the large-scale production in big companies. In Sweden, the demographic turning point took place in the early 1930s. The pattern was similar in the three other Nordic countries with some delay in Norway and Finland.

The urbanization of the Baltic countries was more complicated than the Nordics because of the Baltic-Germans leaving in 1939, mass emigration to the West in 1944, Soviet mass deportations during the 1940s, and escaping to cities because of collectivization of the farms in 1950s. In Lithuania, urban growth was speedy from the beginning of the 1950s and in 1955 about 35 percent of the population lived in urban areas. In 1970, this figure was 50 percent and 68 percent in 1992. In Estonia, urban dwellers were 47 percent in 1950, and 72 percent in 1988, of the total population.[15]

During the 20th century, Estonia was the world's largest oil producer through extraction in oil shale mines, a production that began in 1921. From 1924, oil shale was used to generate electric power, but the oil gained importance above all after conversion to gas for industrial companies and households in Estonia and in Leningrad. The increased need for electricity in the north-western Soviet Union soon led to the construction of large oil shale-fired power plants. A mining centre was Kohtla-Järve in the northern part of the country. Here, extraction reached its peak in the 1980s. Since then, mines have been closed, dilapidated or turned into museums. Today, Viru Keemia Grup, a private Estonian large-scale industrial company in Kohtla-Järve, conducts oil shale mining, combined with heat and power production as well as production and marketing of fine chemical products. Estonia still has the two largest oil shale-fired power plants in the world. In recent years, production has decreased due to the large emissions of greenhouse gases and of waste that destroys the environment. Photo: Henry Kuningas 2013.

Graph 5. Urbanization in the Nordic and Baltic countries. Source: Our World in Data, based on UN.



On the HIP's *negative account*, we have its environmental problems. The use of toxic substances and emissions of smoke and particles destroyed waterways and land, and its emissions of greenhouse gases causes global warming. *Environmental destruction*, climate change and reduced biological diversity are 'gifts' from the high industrial period to the present and future for all living things on our planet.

Awareness of the threats to the environment on Earth grew gradually during the 1960s. Very important in this was Rachel Carson's book "Silent Spring" published in 1962, which was followed by other books on the same topic in western countries. In June 1972, the first global environmental conference was held in Stockholm under the auspices of the UN. It laid the foundations for future climate conferences, but not much happened on the global level until publication of the Brundtland report "Our common future" in 1987.[16] In the report, the concept of sustainable development was launched. The following year, the UN's Intergovernmental Panel on Climate Change (IPCC) began compiling the state of research on climate change. The awareness was there but the increased emissions of greenhouse gases during the HIP did not stop; quite the opposite, carbon dioxide emissions and the threats to biodiversity increased even faster.

THE TRANSFORMATION TO AND THE CHARACTERISTICS OF THE H-GIP

The high-industrial model worked relatively well after WWII. Living standards rose, and welfare systems were gradually expanded. But at the end of the 1960s, the ideology of 'large-scale' began to be questioned in the West. Of great significance were the perceived poor working conditions in many factories,[17] large-scale industry's pollution and the broader environmental problems that could not be evaded any longer. Another problem was low economic growth, high unemployment and high inflation (stagflation) in many countries from the middle of 1970s, after the oil-producing countries had sharply increased the price of crude oil. This hit both the industrialised and the lesser developed countries hard due to dependence on this form of energy. The Golden Age of the post-war decades came to an end. In the Nordics countries the oil price increases in 1973 and 1979 also led to the gradual transition towards other energy sources, but as we know, it has been very difficult to detach from fossil fuels. Simultaneously, there was stagnation, or at least slow-down, in traditional industries in many western countries due to increased international competition from low-cost countries and fast-growing economies in new areas.[18]

Other factors also contributed to the stagnation in the international economy, especially the abolishment in 1971 of the international currency system called the Bretton-Woods System. Under this system from 1948 onwards, gold was the basis for the US dollar while other currencies were pegged to the US dollar's value. In 1971, the US terminated the convertibility, and the system came to an end. The system had suffered for some time due to an overvalued dollar, an unwillingness among many countries to stick to the rules, but more structural factors in the global economy had also made the system weaker. The aim had been to form a foundation for stable international economic development after WWII, but in the increasingly problematic economic environment, the system became unsustainable.[19]

The stagflation made traditional economic policies difficult to implement. Previously there had been a trade-off between inflation and economic growth, now there were both weak growth and inflation.

At the same time, a comprehensive deindustrialization in the old industrialised countries began, best characterised as the crises of the 'old smokestack industry'. The service sector grew and gradually took over as the main sector in the economies of the western world. New technology emerged which also furthered structural change in manufacturing industry. This made the model based on large-scale mass-producing companies with an inflexible factory system increasingly obsolete.

The growth-oriented economic and industrial policies adopted after the end of WWII started being questioned too. It was increasingly argued that neither the economic nor the industrial policies that had aimed at enhancing the existing industries and smoothing out cyclical fluctuations solved the problems in the new global economic situation. A shift in economic policy thinking occurred. In the industrialised West, free trade, the liberalization of financial and product markets, and the promotion of innovation and entrepreneurship became the new policy mix to solve the economic problems. The greatest possible flexibility also became a lodestar for all businesses, not least for industrial companies.

Some factors that explain these changes were also to be found in the international economy. Since the beginning of the 1980s, but especially from the 1990s onwards, the global economy transformed, and many less developed economies experienced an era of rapid development and catching up. This occurred first in South-East Asia, but the process spread to other countries and increasingly also to the Global South. The fall of the socialist system in Eastern Europe around 1990 meant that this group of countries also began to catch up, although they suffered a deep crisis during the first years of transition. Unfortunately, an overall shift in the division of labour in the global eco-

The Ignalina nuclear power plant in eastern Lithuania near the border with Belarus was built from 1978 to supply the Soviet empire with electricity. The first reactor was commissioned in 1983 and the second in 1987, while work on the third was suspended in 1988 after the Chernobyl disaster 1986. The power plan was at its time the largest in the world and operated for around 25 years. After Lithuania's liberation from the Soviet Union in 1990, the nuclear power plant became a vulnerable energy resource in the independent country. Money was granted from the European Bank to upgrade and secure the reactors, which, however, was not enough. For the country to become a member of the EU, the union demanded that the poorly maintained and risky plant must be closed, which also happened in 2009. Since then, the city Visaginas, which was built to shelter the workforce, has lost many inhabitants. Today, the nuclear power plant is an "anti-landscape, a wasteland awaiting new investment to bring hope to the community".(Storm 2014, p. 98). A few years into the 2020s, the nuclear power plant is being decommissioned and demolished. Plans exist, however, to create a museum or exhibition around the town of Visaginas and the Ignalina nuclear power plant. Photo Anna Storm 2010.

nomy occurred at the same time as technological development made the outsourcing and relocation of industrial production to less developed regions possible. Countries with firms that produced at significantly lower costs were now successful competitors for market shares.[20)]

The development that occurred in high-income countries at the turn of the millennium was occasionally labelled the 'new economy'.[21)] This was based on an idea that the economic foundations had somehow changed due to structural transformations and the new global environment. Although this was not really the case, the era led to rapid transformations. This phase was built foremost on new technology, especially rapid computerisation, and new communications technologies. Competition intensified globally, in particular with the catch-up of low-cost industrial countries in other parts of the world, and new 'smart IT technologies' for calculation and planning became available, which made offshoring and outsourcing possible and led to a rapidly increasing use of long supply chains.[22)]

Ignalina nuclear power plant. Photo Anna Storm 2010.

Transportation – especially shipping – costs decreased sharply with the fast-growing container technology. This enhanced the relocation of production and the development of a global supply chain system with components that were shipped between countries and continents. At the same time, institutions promoting global economic interaction, and in particular a swift liberalization of the movement of capital and goods, were introduced, which supported this development. This increasingly promoted moving production across national borders, a process that had begun after WWII, when the first global efforts to open borders and free trade were taken. But since the 1990s, this development has gained pace due to faster transportation and improved communication technology. In the Nordic Baltic region, these patterns were strengthened with the fall of the Soviet Union and the independence of the Baltic states around 1990. Globally, the movement of capital and international trade grew rapidly, and the era of what has been called Hyper-Industrial Globalization began.[23)]

In the new millennium, many countries introduced programmes to boost innovation and 'pick the winners' for the future economy, while entrepreneurship, self-employment and subcontracting was considered to be a solution to achieving a more dynamic form of the market economy. The 'network economy' became another mantra alongside the 'new economy'. Instead of large-scale integrated firms, the future was for more loosely integrated relationships and organisational forms.[24)] Small-scale start-ups and networks became indeed more common, especially in new industries, but many industrial companies continued with mass production, were still large and some even grew. This development also occurred in the new high-tech branches. However, these companies were often organized in new ways. Everything that was not considered to belong to their 'core businesses´ was outsourced. The number of employees in direct

Nord Mill's area in central Uppsala 1986. A ship is unloaded at the harbour. Grain is transported via a ship elevator to the silo building. Photo Lennart Engström 1986.

production was reduced when 'side operations' were transferred to other companies and bought in, when necessary, at the best (low) price. Corporate brands, in the form of strong and well-known company and product names, became increasingly valuable assets.

As business operations were spread across the world and linked together with subcontractors and transport companies with the requirement to deliver components or final products at exactly the right time to customers (just-in-time). The factories' own warehouses, which previously tied up capital, were minimized. At the same time, industrial companies became dependent on specialized high-tech producers of components all over the world as well as on transport companies and efficient supply chains. Solving logistics problems became a core competence. The need for own storage and service premises was significantly reduced.[25)]

The geographical spread of manufacturing production that was already established during the HIP grew faster from the beginning of the 1990s. The Baltic countries experienced an important transfer of mass production from the Nordic countries. Old and dilapidated factories in primarily Latvia and Estonia were taken over and put into operation by western industrial groups.[26)]

The investments in the Baltic Sea region became particularly extensive when the Baltic states received EU membership in 2004 and joined the euro area. For example, Estonia became an attractive investment location for foreign capital, and a large share of the foreign direct investments (FDI) in Estonia originated in the late 1990s and early 2000s from the neighbouring Nordic countries.[27)] Finnish investments in Estonia were especially important. The largest foreign-owned manufacturing company in the 1990s and early 2000s, was the Finnish-owned *Elcoteq*. It was the second highest employer in the country.[28)]

When after a while, wages rose in the Baltic countries' factories, the Nordic firms moved their industrial production further east and/or south to countries with lower labour costs, lower requirements for worker protection and weaker – if any at all – trade unions. The new countries were primarily China, India, Bangladesh and Vietnam, but also other former Soviet countries in Eastern Europe – if the companies survived at all in the intensifying global competition.[29)]

The Nordic companies, especially those in the financial sector, faced great difficulties in the Baltic countries during the financial crisis of 2008-2009. Overall, the financial crises hit the small Baltic states hard. Nevertheless, these countries experienced a growth spurt again in the 2010s.[30)] Ownership has also changed and diversified fast. Gradually, it became more interesting to invest in economic activities other than industrial production and both domestic and foreign owners became important in the Baltic states.[31)] The Swedish banking sector is still prominent in the Baltic countries, however.

The independence of the Baltic states after the dissolution of the Soviet Union was here followed by both great difficulties and new opportunities. It has not been easy to build democratic institutions that the majority of citizens' support. On the other hand, the influx of Western capital and business created new jobs after Soviet-led factories were dismantled. But countless dilapidated factories have been left to decay and old industrial towns have lost jobs and population.[32)] In the long run, indepen-

dence meant a substantial loss of population. In 1990, the number of inhabitants was the largest in the three Baltic countries. Since then, there has been a decline, partly because a large share of the Russian-speaking population has moved to Russia, but also because of high death rates and above all because young and middle-aged people have moved to the West for education and work. In 1990, the three countries had 7.93 million inhabitants. By 2020, the number had decreased to 5.94 million, i.e. on par with the number in the early 1930s.[33] Membership in the EU and NATO has simultaneously meant new economic opportunities and security. Sweden, Norway, Denmark and Finland (including Åland) have had a more positive population trend since 1990. In 1990, the number of inhabitants amounted to around 24,4 million. On January 1, 2022, the figure was 27.5 million.[34]

One could conclude that if the HIP was built on a monolith model of large-scale mass production and increasing integration, the H-GIP is marked by fragmentation, decentralisation and a 'palette' of corporate models and ideas and values. This can be assumed to influence industrial heritage culture. Where is the manufacturing production located? What is industry/manufacturing? Who are the owners and are they at all interested in preserving past industrial history? From the 1990s, these features became increasingly complex.

THE SIGNIFICANCE OF AND PROBLEMS WITH THE H-GIP

In purely economic terms, the global economic development of the H-GIP was indisputably favourable for the industrialised world, for the former socialist countries and for many of the new emerging economies; a swift economic development occurred. Manufacturing production of goods as a share of GDP decreased in the Nordic countries, and in the entire western world. On the global level, however, industrial production grew, and more and more countries industrialized. A large share of manufacturing production is often a prerequisite for catching up among late-coming countries. A rapid decline in absolute poverty globally followed. On the other hand, increasing interdependence made countries vulnerable to external shocks, and one such crisis was the global financial crisis of 2008-2009. Since then, there has been a slowdown in the expansion of global trade. The period of hyper-globalisation is over. This has become even more pronounced since the 2016 US-China trade war, the vote for Brexit in the UK, President Trump's statements to bring back production to the US, recently followed by President Joe Biden's very expensive *Inflation Reduction Act* which requires fossil-free technology to be produced in the USA. All this has forced the EU to take measures to limit the relocation of European companies to the US. The COVID-19 pandemic, the full-scale invasion by Russia in Ukraine, and rising geopolitical tensions has meant that countries have become more cautious about outsourcing core production to other countries, especially on other continents.

Thus, during the last decade there has been growing protectionism and regionalism. The geopolitical risks make countries want to decrease dependency on other countries or neighbouring regions (such as the EU). The fast-growing areas outside the western world developed their own regional cooperations and trade agreements. In fact, the increase in both capital flows and global trade is slowing down and changing shape, although not decreasing.[35] The world today is increasingly *multipolar* with several regional power centres. In addition to the EU and the US, other large countries such as Brazil, India, Russia, China, and South Africa (the BRICS countries) have aimed to strengthen their position in the global economy, although Russia and South Africa stagnated economically during the 2010s and the early 2020s. However, India and China are clearly shifting the global economy towards a more multipolar world.

Because of recurring economic crises, there is resurgent desire in Western Europe for more state-led industrial policies, and for alternative economic theories to fight inflation, partly resonating with 1970s policies. This development has been strengthened by growing environmental and social activism. In recent years, partly triggered by social media and a new type of political leader, we have globally seen stronger political polarization, with categorical opinions for or against free trade, broad collaborations, and human freedoms and rights.[36]

But does this have any significance for attitudes to industrial

	HIP 1930s-1980s	H-GIP 1980s-2010s	M-GIP 2010s forward
Industrial production	Standardized manufacturing of bulk goods Private and state-owned companies Mainly domestic owners Localized in small towns and rural areas Domestic owners	Niche production with high economic value Increased share of institutional owners; internationalization of ownership Global value chains and mass production Flexibility and just-in-time	Niche production Mass production in developing regions Institutional owners, international ownership New tendency to "bring home" development and production?
Industrial architecture	The large scale constructed by architects Manifestation of the owner and the company Standardized factories constructed by engineers Headquarters in local society	Anonymous factories in sheet metal unrelated to local traditions Efficient and flexible, spacious buildings Well-designed headquarters in big cities	Factories with limited inventories and a high degree of flexibility Well-designed headquarters in big cities
Industrial labour & work	**Blue collar workers** – in majority Stiff, physical, practical work **White collar workers** – in minority Work in hierarchical organizations Gendered division of labor	**White collar workers** – in majority in the West Digitized construction, design & service **Blue collar workers** – flexible, monitoring digital machine systems, transport and services Ethnic and gender division of labor	AI, intensified robotization Flexible, service-related production for both blue- and white-collar workers
Most important contributions	Increased range of (cheap) goods Prosperity and increased life expectancy Women's entry on labor market in low-paid service jobs	Economic growth and welfare, rapid globalization and urbanization International agreements on tariff and trade	A return of production to the Nordic-Baltic region? Large-scale investments in fossil-free production and transport
Significant problematic elements	Protectionism and domestic production Gender and classes, collectivism Urbanization, de-population in some areas Pollution of water soil and air, use of pesticides	Requirements for higher education Individualism and anti-collectivism Inequality within countries, depopulation of the countryside Carbon emissions high	Migration, anxiety, and mistrust Growing inequality Tensions between global south and north Still high emissions and rising temperature, but green transition begun

Figure 1. The three industrial periods according to main characteristics. Source: Own elaborations.

cultural heritage? The simple answer is yes. Strong right-wing nationalist currents can influence cultural heritage, while the left's attack on global capital – together with the older population's dark memories of former working conditions – can also lead to a questioning of how industrial history is told and what should be preserved. The scaled-up efforts to limit the global temperature rise to the Paris Agreement's 1.5 degrees (or in any case below 2 degrees) and the recently signed global agreement on biological diversity may also have an impact on both the views on and efforts to preserve older polluted industrial remains. Industrial cultural heritage is indeed not a completely unproblematic field or a field without tensions in view of the major contentious issues of the 2020s.

Before moving on to the next phase of industrial development, we need to clarify whether the H-GIP was distinctly different from the HIP or not. The large scale and mass-production, two of the HIP's main characteristics, persisted in many ways. However, as pointed out above the large industrial companies were organized in a different way. Strong, well-known brands became worth their weight in gold. Networks and supply chains tied together flow-like global manufacturing. Wage labour was still strong but decreased as small businesses and self-employment grew. Urbanization continued unabated while the countryside lost inhabitants and economic activity. At the same time, prosperity and living standards improved significantly all over the globe.

On the downside, from the early 1980s decades of economic equalization and narrowing class gaps were replaced in many countries by increased inequality and segregation. The gender division of labour decreased but retained its main features: women still work to a larger extent in low-wage jobs in the service and welfare sectors, while men work more often in the manufacturing sector and in particular hold management positions.

A NEW INDUSTRIAL PHASE?

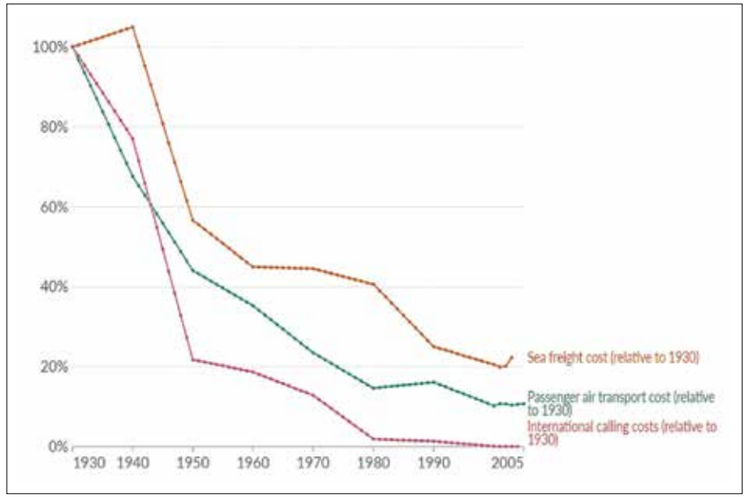
In the early 2020s, a chain of severe crises occurred, as we have mentioned before in the article. This was a new blow to global economic interactions. Are we facing not only a slow-down but an era of de-globalization?

As economic historians, we are not taught to analyse the present and we seldom speculate about the future. However, we are sure that COVID-19 showed the vulnerability of the tightly integrated world economy. The crisis was not a result of political or military hostilities, but despite this, many countries closed borders and prevented exports of crucial, especially medical, supplies. The Russian full-scale invasion in Ukraine, on the other hand, shows that economic interdependence does not prevent wars and energy became again – as in the 1970s – a key player in international politics. Thus, countries' political leaderships have rethought their dependence on other countries. Examples are the EU's and US's ambition to increase the production of key components (e.g. semiconductors) and critical resources in Europe and in the USA to assure their own advanced manufacturing.

Voices urging that countries 'take home' the production of specific key products for preparedness reasons have grown

louder lately. We can also observe a tendency among global companies to bring back part of their previously outsourced production to Europe and the USA to reduce the risk of transport disruptions and to avoid geopolitical risks, but also to better coordinate research, development, production, and sales. However, no full-scale deglobalization has yet occurred.

"Built in 1932 as a modern(istic) large-scale butchery in Copenhagen's meatpacking district, since 1991 it has hosted a range of commercial businesses, today becoming a food production facility 2.0. Located within the city, ÅBEN restores the industrial legacy of the building and turns it inside out by inviting the public into the brewing processes, consequently blurring the contemporary distinction between public and production. Originally, the space functioned as chill hall, where 980 carcasses hung from a robust meat hanging rail system for 12 hours until the caloricity had left their bodies. The rails are still present, but the carcasses are replaced with steel vessels connected by kilometres of exposed piping." Text pihlmann architects 2022. Photo Hampus Berndtson.



Graph 6. Transportation cost development, global development. Source: our World in Data, based on OECD Economic outlook

One clear tendency is that governments are strengthening their existing regional collaborations (the EU is one example) or establishing new ones to stand stronger against China, Russia, the EU, or the USA.[37] What this means in the long term for world trade is difficult to say today, but it may further limit the influence of the old, industrialized countries of the West. Their answer may be even more protectionism and strengthened regionalization of production and trade.

Another interesting question is whether, in the long term, it will also lead to a return of fully integrated companies, i.e., companies that have all their operations gathered in one place, or in any case in a country that was commonly used during the HIP? Or is this a pattern more likely for only a limited number of companies, and if so one that can be interpreted as a tendency towards increasing regionalization?

We should not only blame the geopolitical crises and the pandemic for the recent changes. Economic and technical factors also affect shifts in global trends. Because of automatization, robotization and AI, for example, the demand for cheap labour elsewhere is decreasing.[38] In addition, labour costs in many developing countries are not as low any longer. Overall, trade patterns and foreign capital flows (FDI) are changing due to economic development into new regions, in East Asia and increasingly in some countries in Africa.

Some scholars have concluded that the decline in trade is not so much dependent on protectionism as on the financial crises and structural transformations. There has been a slowdown in trade growth since the financial crises 2008-2009. The growth in international capital movements (FDI) has slowed down even more, while offshoring has been partly replaced by nearshoring and even homeshoring. The risks from the global crises commonly have more direct effects on FDI than on trade flows. Nevertheless, economic experts emphasize that although the hyper-globalization period might be over, a new era of deglobalization is not yet visible globally at full scale in any case.[39] The slow-down in the growth of trade volumes is perhaps a normalization process after an era of hyper-globalisation.

Globalisation affected the localisation of industrial production during the HIP and H-GIP periods. Services are more tied to the place where they are consumed. However, with the swift development in communication technology and the expansion of AI, many services can also be outsourced or outplayed (call centres). Nevertheless, we can also say that the death of the manufacturing industry is greatly over-exaggerated. Lately, reindustrialisation (which does not only include take-home of production) has become a new political focus in the western world, i.e. how (and if) we can renew our industrial base. This question is closely tied to the current aims for transition to green technologies.

Beyond the repercussions from the war in Ukraine and the pandemic, there are more structural factors affecting the future. Shifts in global economic power balances, in population developments, (e.g. India overtaking China as the largest country in terms of population and the rapidly ageing population in China) and the environmental issues will affect economic development in the future. A factor that in recent years has become increasingly important for the localization of industry is the availability of strategic raw materials and even more so of fossil-free energy to reduce greenhouse gas emissions and meet national environmental commitments.

The global economy is an ever-changing process. So, if the world is moving towards a more regionally limited production pattern, towards alliances with 'friends' rather than a globally open production and trade system as during the H-GIP, what should the new period be called? The economic world is still in a global era, but in a regionally more limited industrial era, a period that we prefer to name the *Multipolar-Global Industrial Period (M-GIP).*

Uppsala Nord Mill's area. Silos in cement and sheet metal behind two brick buildings along the street close to Fyrisån. The pumping station to the right will be preserved. Photo: Lennart Engström 2023.

THE MULTIPOLAR GLOBAL INDUSTRIAL PERIOD AND INDUSTRIAL HERITAGE IN THE NORDIC AND BALTIC REGION IN THE 2020s

Our interpretation of the industrial transition during the last decades begs the question if and how the perception of industrial heritage and heritage policies have changed. It is also intriguing to address the question of the ongoing industrial activity, the increase in prosperity and a more open world, alongside the ongoing industrial heritage processes. The prosperity and rise in living standards that have occurred could not have happened without the manufacturing production. On the other hand, it has also contributed to climate change and polluted areas. How can industrial production and its buildings in firms that have both rapidly transformed and, in many cases, outsourced to other countries and regions preserve its significance as heritage in a global world? It is important to investigate what is classified as industrial cultural heritage, which actors drive it, their reasons and which legislation they use in the seven Nordic Baltic countries in the 2020s.

We can assume that differences in heritage practices reflect different perceptions of the role of industrial heritage in different societies and nations. Material remains, such as buildings, technical equipment, places, and monuments, as well as people's memories, declared as heritage have local, national, and transnational dimensions, depending on the site and its place in people's memories. Overall, heritage sites get their meaning and value in that context.[40] Generally, most heritage sites are not industrial remains. Of thirty-seven world heritage sites in the Nordic-Baltic countries (including Iceland), only five are clearly industrial world heritage sites.

We recognize that the different industrial and economic natures of the Nordic and Baltic countries affect how industrial heritage is perceived, and that this has also changed extensively. Firms on the eastern side of the Baltic Sea were owned or managed for a long time by 'outsiders' (the Soviet Union during the socialist period, foreign owners from the West after the transition) or by the state. In the Nordic countries, many of the leading companies had visible owners for decades. The differences in ownership and the status of industrial production have had, and still have, an impact on people's perceptions of – and work with – industrial remains. An interesting question today in both the Nordic and Baltic countries is whether the interest in preserving modern industrial heritage has changed now that the companies in both regions are no longer domestically owned but owned by, for instance, anonymous global funds or transnational large corporations.

Rapid political transformations can also have extensive effects. In the Nordic countries, industrial companies usually represent a proud part of national history. In the Baltic states, on the other hand, industrial remains represent the domination and oppression of a neighbouring country. In Estonia, for example, there have been attempts to require by law the removal of not only 'Red monuments' but all Soviet symbolism on buildings that encompass industrial heritage.[41] Thus, "... industrial identity and memory of a place can be selectively reworked for the needs of the hour".[42]

And even in the Nordic context, there is ambivalence. Old industrial companies with anonymous owners that have bought and modernized local firms and their production units since the 1990s represent on the one hand something new and positive for a city or a region, but at the same time they often inflicted hard-to-heal wounds on many local communities because the transformation of ownership often meant fewer employees and closed premises. As Anna Storm writes in her analysis of industrial areas shut down in Europe, this left many "post-industrial landscape scars".[43]

Industrial heritage studies have often focused on industrial heartlands and on key industries, like mining, steelworks, sawmills, railways, and textile factories from early industrialization, and to a lesser extent the HIP after 1945. It has been difficult to include recent large-scale dirty, less architecturally beautiful industrial buildings on the fringes of urban areas, as well as other types of artefacts, in the accounts of the industrial heritage of local communities from the HIP and the H-GIP.

Industrial production and its legacy have been considered important and worth preserving when it represented something distant, in particular when it belonged to a period when these countries took the step from agrarian poverty to welfare state, but less so when the remains came from the modern welfare era after the 1980s. On the other hand, identities are negotiated and renegotiated over time. Thus, newer sites can also be appreciated. Moreover, both successful industrial operations and industrial heritage can co-exist at the same time in the same place.

All in all, the perception of industrial heritage and its role for the local community, regions or nations varies depending on which area, which country and which period we investigate. If we want to understand how the different actors at central, regional, and local levels in the 'heritage industry' look at industrial heritage and preservation, we also need to address small-scale industries, high-tech production, warehouses, office buildings, services, all of which are less visible than the monumental factories from the last hundred years. As industry changes, industrial identities will be rewritten, reinterpreted and reconstructed.[44]

Uppsala the ongoing transformation of Nord Mill's large area in central Uppsala into housing and offices. A "high scraper" starts from the top of the silo and works its way down. It has a sort of claw/pincer at the top and a bendable arm. It slowly "digs" into the concrete building, gripping and breaking the concrete, freeing and cutting/pulling out rebar and sheet metal. Photo Lennart Engström 2023.

The historical flour warehouse of the Rotermann industrial complex in the heart of Tallinn was built in 1904. The warehouse was reconstructed and an extension was added in 2009 (HG Arhitektuur, architects Hanno Grossschmidt, Tomomi Hayashi). Photo: Henry Kuningas 2012.

Notes

1) The era of hyper-globalization has been discussed by many, see e.g. Richard Baldwin (2022), The Peak Globalization Myth 1-4. VoxEU Working paper.
2) Fellman, Susanna & Isacson, Maths (2007), The High-Industrial Period in the Nordic and Baltic Countries, Kervanto Nevanlinna, Anja (ed.) (2007), *Industry and Modernism. Companies Architecture, and Identity in the Nordic and Baltic Countries during the High-Industrial Period.* Helsinki, Studia Fennica, pp 41-65; Isacson, Maths, Highly Industrial Period in the Nordic and Baltic Countries? *Finnish Journal of Urban Studies* 2003:3, s. 32-41; Isacson, Maths, *Industrisamhället Sverige. Arbete, ideal och kulturarv,* kap 2 Industrialismens faser, Lund: Studentlitteratur 2007; Isacson, Maths & Nisser, Marie, Industrial Transformation and Industrial Heritage – An Introduction, in Nisser, M., Isacson, M., Lundgren, A. & Cinis, A. (eds.) (2012), *Industrial Heritage Around the Baltic Sea.* Uppsala Studies in Economic History 92.
3) Nettleingham, David (2019), Beyond the heartlands: deindustrialization, naturalization and the meaning of an 'industrial' tradition *The British Journal of Sociology* Vol.70 (2), p. 610-626.
4) Stearns, Peter N. (2013), *The Industrial Revolution in World History.* 4th Edition. Westview Press. For another similar analysis see Carlota Perez identifies different eras which depended on some dominant core technologies. Perez, Carlota (2002), *Technological revolutions and financial capital: the dynamics of bubbles and golden ages.* Cheltenham: Edward Elgar; Schön, Lennart (2010), *Vår världs ekonomiska historia. Den industriella tiden.* Stockholm: SNS Förlag.
5) Baldwin (2022).
6) Chandler, Alfred D (1990), *Scale and scope. The dynamics of industrial capitalism.* Cambridge, Mass. Belknap Press.
7) Kervanto Nevanlinna (2007); Nisser, Isacson, Lundgren & Cinis (2012); De Geer, Hans (1982), *Job studies and industrial releations. Ideas about effiency and relations between parties of the labour market in Sweden 1920-1950.* Stockholm: Almqvist & Wiksell; Noble, David F. (1984), *Forces of Production. A social History of Industrial Automation.* New Yourk: Knopf.
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9) Andersson, Roger & Malmberg, Anders (eds) (1988), Regional struktur och industriella strategier i Norden. *Nordisk samhällsgeografisk Tidskrift,* Uppsala; See articles in Kervanto Nevanlinna (2007).
10) Peter H. Lindert (2004), *Growing public and social spending and economic growth since the eighteenth century,* vol 1 and 2. Cambridge Univesity Press.
11) Carlota Perez, Technological revolutions and techno-economic paradigms. *Cambridge Journal of Economics,* Vol. 34, No. 1 (January 2010), pp. 185-202
12) Schön, Lennart (2010), *Vår världs ekonomiska historia. Den industriella tiden,* p. 431. Stockholm: SNS Förlag.
13) Maddison, Angus, *The World Economy. A Millennial Perspective* (2001), published by OECD, pp. 183, 268-269; Maddison Project Database 2020 (University of Groningen); *Statista,* figures on the population of three Baltic countries. Aaron O'Neill (2022),Population of the Baltic States 1950-2020. Statista.com.
14) https://www.freedomhouse.org/sites/default/files/FIW%20All%20Scores,%20Countries,%201973-2012%20(FINAL).xls
15) See Drémaité, Cinis and Kalm in Kervanto Nevanlina (2007).
16) The name of the report after the chairperson of the Commission Gro Harlem Brundtland, a Norwegian social democratic politician who served three terms as the prime minister of Norway (1981, 1986–89, and 1990–96).
17) Isacson, Maths (2019), Humanization of Work in Scandinavia, 1960-1990. Strategies Against Problems of the Modern Industrial Work, in Kleinöder, Nina, Muller, Stefan & Uhl, Karsten, *Humaniserung Der Arbeit. Aufbruche und Konflikte in der rationalisierten Arbeitswelt des 20. Jahrunderts.* Bielefeld: (transcript) Histoire.
18) There is a large literture on this, see eg Baldwin Richard (2016) *The great Convergence: Information Technology and the New Globalization,* Cambridge, Mass: Belknap Press; Findlay Ronald & O'Rourke Kevin (2007), *Power and Plenty. Trade War, and the World Economy in the Second Millennium.* Princeton &Oxford: Princeton University Press., esp. chapter 10.
19) For the European economic troubles of the 1960s and the Bretton Woods, see chapter 8 in Eichengreen, Barry (2006), *The European Economy since 1945. Coordinated Capitalism and Beyond.* Princeton & Oxford: Princeton University press.
20) Lennart Schön (2010) p. 491 ff; Stern (2013).
21) Debates on the new economy at the turn of the millennium concerned the macro perspective, especially the computerization and its effects on productivity and new modes of productions see e.g. Gordon Robert (2001), Does the "New Economy" Measure up to the Great Inventions of the Past? *The Journal of Economic Perspectives* vol. 14 (4), pp. 49-74. Scholars also discussed its effects and implications on organizations, outsourcing and new modes of production, and a transition to a more entrepreneurial economy. See e.g. David Audretsch & A. Roy Thurik (2001), What's New about the New Economy? Sources of Growth in the Managed and Entrepreneurial Economies, *Industrial and Corporate Change*, vol 10 (1), pp 267-315.
22) Baldwin Richard & Javier Lopez-Gonzalez (2015), Supply-chain trade: A portrait of Global patterns and Several Testable Hypotheses. *World Economy,* 1682-1721.
23) There is extensive literature on this, see e.g. Baldwin Richard (2016), *The Great Convergence information technology and the new globalization.* Cambridge, Mass. Belknap Press; Fitzgerald Robert (2015), *The rise of the global company: multinationals and the making of the modern world.* Cambridge: Cambridge University Press; UNCTAD, Trade and Development Report 2018: Power, Platforms and the Free Trade Delusion (unctad. org).
24) Manuel Castells published three influential books 1996-2000 on the information age and its economy, society and culture which among many aspects highlights networks. Volume 1 has the subtitle *The Rise of the Network Society,* volume 2 *The Power of Identity* and Volume 3 *End of Millennium.* Oxford.
25) Richard E. Baldwin (2016), *The great convergence: information technology and the new globalization,* Cambridge, Mass. Belknap Press;
26) In 1994, for example, *Borås Wäfveri* bought Estonia's largest textile company, *Krenholm Holding Ltd,* (founded 1857) in Narva close to the Russian border. Production was gradually moved from the company's two Swedish factories to Narva, where almost 1,000 people were employed, and production in Sweden was wound down.
27) In 2006, among the 30 largest companies there were six Finnish-owned and six Swedish-owned. The largest foreign-owned company was *Hansapank* owned by Sweden's *Swedbank,* which in turn was ranked second in the list of largest companies. The largest was Eesti Energy. Kalvet Timo, Large Corporations in the Estonian Economy, in Pontus Braunerhjem et al. (2010), *Large firm dynamics on the Nordic-Baltic scene Implications for innovation and growth.* CESIS Working Paper. https://static.sys.kth.se/itm/wp/cesis/cesiswp244.pdf.(Table A, Appendix, p. 128).
28) Markku Kotilainen – Nuutti Nikula (2010) *Why do firms invest in the Baltic Sea Region?* ETLA Discussion Paper no 1229/2010; Kalvet Timo, Large Corporations in the Estonian Economy, in Pontus Braunerhjem et al. (2010), *Large firm dynamics on the Nordic-Baltic scene Implications for innovation and growth.* CESIS Working Paper. https://static.sys.kth.se/itm/wp/cesis/cesiswp244.pdf.
29) In 2010, the Swedish company *Borås Wäfveri* went bankrupt and 450 workers in Narva lost their jobs. In parallel, the company's remaining factory in Sweden closed. *Borås Tidning* 24 December 2006; Göteborgs-Posten 3 November 2010.
30) Þór Hilmarsson, Hilmar (2020), *The Economic Crisis and its Aftermath in the Nordic and Baltic Countries.* Routledge.
31) The largest company in 2019 in Estonia was the state-owned *Eesti Energy* and the largest foreign owned was Ericsson's Estonia subsidiary. In Lithuania and Latvia, on the other hand, large domestic retail companies currently top the list of the largest firms (measured by employment) and many of the biggest foreign-owned firms are from outside the Nordics. Oja, T. (2020), Estonian top-100 companies, an exclusive club. 18 November, *Postimees.* Available at: Estonian top 100 companies an exclusive club (postimees.ee)
32) See articles in Nisser, Isacson, Lundgren & Cinis (2012).
33) See footnote 14.
34) Startside | Nordiskt samarbete (norden.org).
35) The discussion if there is a deglobalization going on is extensive. Baldwin, Richard (2022), *The Peak Globalization Myth 1-4.* VoxEU Working paper; Uri Dadusch (2022), *Deglobalization and Protectionism.* Bruegel Working Paper 18/2022; Antràs Pol (2020), *Deglobalizaton Global Value Chains in the Post-Covid-19 Age.* NBER Working Paper 2020.
36) Sapir, Andre (2022) Is globalisation really doomed? Globalisation is under attack; to preserve its benefits, healthy domestic social contracts are essential. *Bruegel Blog Post* 03 November, 2022. Available at: https://www.bruegel.org/blog-post/globalisation-really-doomed
37) One example is the Tripartite Free Trade Agreement (TFTA) with 26 African countries. Another is the Regional Comprehensive Economic Partnership (RCEP) with ten countries in the Southeast Asian organization ASEAN plus China, Japan, South Korea, Australia, and New Zealand.
38) For example, the global consultancy firm McKinsey discussed this in the context of the clothing industry where robotization is forecast to have extensive effects on the demand for cheap labour during the coming decades. Andersson et al. (2018), *Is apparel manufacturing coming home? Nearshoring, automation, and sustainability – establishing a demand-focused apparel value chain.* McKinsey report October.
39) Dadush (2022); Baldwin (2022); Antràs (2020).
40) Harrison, Rodney (2015), Heritage and Globalization, in *The Palgrave Handbook of Contemporary Heritage Research.* Edited by E. Waterton and S. Watson. Palgrave-Macmillan, pp.297-311.
41) Altosaar, Aimar (2022), Decision made on nearly all Red monuments; Maarjamäe is a special case Postimees 20 November 2022. Available at: https://news.postimees.ee/7655780/decision-made-on-nearly-all-red-monuments-maarjamae-is-a-special-case.
42) Nettleingham, David (2019), Beyond the heartlands: deindustrialization, naturalization, and the meaning of an 'industrial' tradition. *The British Journal of Sociology* vol 70, iss.2, p. 610.
43) Storm, Anna (2014), *Post-Industrial Landscape Scars.* Palgrave Macmillan.
44) Nettleingham (2019).