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## Chapter 1 : Economic history of the Netherlands (â€™) - Wikipedia

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An agricultural productivity sufficient to sustain a far-reaching division of labor A political structure that guaranteed property rights , enforcement of contracts, and freedom of movement A level of technology and organization capable of sustained economic development and of supporting a material culture that could sustain market-oriented consumer behavior The Dutch economy established a leadership role in Europe that was widely admired, and copied in part in England. This is illustrated by the fact that in the midth century the agricultural sector, employing less than 40 percent of the labor force, could already almost be a net food exporter which it became by , and the fact that nominal wages between and were the highest in Europe. In the open economy of the Republic such a wage gap could only be sustained by enduring productivity differences. Eventually, these financial structures proved unable to withstand the crises of the Revolutionary and Napoleonic era , but the determining criterion here is that they were at least present during the period in question. A defining characteristic of a modern economy is diversification and an advanced division of labor. By the midth century under 40 percent of the labor force was employed in agriculture, whereas 30 percent was engaged in a highly diversified industrial sector, the balance of the labor force being engaged in commerce and other service industries. The numerous cities formed a complex web of interdependencies, with the lesser ports performing specialized functions to the major ones; the industrial towns specializing in specific types of production; the countryside becoming highly differentiated by agricultural specialization, with the villages evolving into service centers or later sometimes centers of outsourced industrial production. However, at closer inspection this was actually a modern process of restructuring in the face of adverse circumstances, as may be seen in current modern economies, like the United States and European countries, that also undergo major structural upheavals. The 18th-century deindustrialization was in large part a consequence of a too-high real wage level, combined with protectionist policies of foreign governments, closing access to major markets. The agricultural depression was a general European phenomenon. The crisis in foreign trade was answered, and partly parried, with commercial innovations. That economic system formed the matrix in which the later economic development took place. The territory that would become the Southern Netherlands held a central position in this trade network at the time, while the provinces formed a periphery. The ports in the northern provinces had only a regional importance, though Amsterdam had already built up a preponderant position in the Baltic trade, after making inroads on the monopoly of the Hanseatic League in the late 15th century. Unlike other parts of Europe these lands had not been ravaged severely by the plague pandemic of the 14th century, though like elsewhere that catastrophe contributed to scarcity of labor in the 15th century. This resulted in a major permanent loss of arable land. This resulted again in extensive permanent loss of arable land. This caused a degree of urbanization even larger than that in Flanders, but also a labor supply for non-agricultural purposes that was more elastic than elsewhere in Europe. Besides, there were alternative employment opportunities that did not exist elsewhere. Technological developments in fisheries new methods of cleaning and preserving herring developed in the maritime provinces around this time caused a major change in the economics of fisheries. Finally, the development of dikes and drainage techniques windmills , sluices laid the base for new forms of agriculture dairy farming in the maritime provinces. These developments did not result directly in a major change in the economic structure of the Habsburg Netherlands. However, they provided a springboard for the developments that would follow the political upheaval that would become known as the Dutch Revolt [13] in the second part of the 16th century. First of all, it led to an economic rupture with the Habsburg Empire , seen as a loose economic entity. By the time the Revolt erupted the disadvantages of being part of this empire heavy taxation to finance the military adventures of the Habsburg rulers began to outweigh the advantages of belonging to its trade network. The word has connotations of a duty-free port, but in an economic sense, a stapelmarkt was a place where commodities were

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temporarily physically stocked for future reexport. This was viable because of a legal monopoly for stockpiling a single commodity wool, granted by a political ruler like the staple ports designated by the kings of England in medieval times, but also more generally because of technical and economic reasons that still give certain advantages to a spoke-hub distribution paradigm. An important ancillary function of such a physical stock of commodities is that it makes it easier for merchants to even out supply fluctuations, and hence to control price gyrations in thin and volatile markets. Finally, where a physical market forms, market information can more easily be gathered. This was actually the most important economic function of a stapelmarkt in the primitive circumstances of the late 16th century. But its demise started a scramble of other ports that wanted to take over its essential economic function, and Amsterdam and to a lesser extent other major Dutch ports like Rotterdam and Enkhuizen succeeded in doing so, though it was not a foregone conclusion that this prize would not go to London, Bremen or Hamburg. However, the political circumstances of the Revolt probably helped the displaced Calvinist merchants of Antwerp settle near their northern coreligionists, and bring their money with them. More important, however, must have been the advantages of Amsterdam, which already gave it a strong position in the Baltic trades: During the numerous years of Dutch economic growth the average GDP per capita increased by 0. The seed money for this expansion was brought in by displaced Antwerp merchants and by other European merchants for instance the New Christians who were displaced from the Iberian lands by religious persecution that were quickly attracted by the new opportunities in Amsterdam. These merchants often invested in high-risk ventures like pioneering expeditions to the East Indies to engage in the spice trade. There were similar ventures in different fields, however, like the trade in Russia and the Levant. The profits of these ventures were ploughed back into financing new trade, which led to an exponential growth thereof. Merchant capitalism[ edit ] Dutch " merchant capitalism " was based on trading, shipping and finance rather than manufacturing or agriculture and marked the transition of the Dutch economy to a new stage. The accumulation of capital in the enormous amounts generated in this period caused demand for productive investment opportunities beside the immediate reinvestment in the own business. It also necessitated innovative institutional arrangements to bring demand and supply of investment funds together. There were also innovations in marine insurance and legal structuring of firms like the joint stock company. These innovations helped manage risk. This minimized risk and maximized opportunity for windfall gains. Related instruments were the provision of trade credit to suppliers in order to secure favored access to raw materials Dutch merchants routinely bought up grain harvests in the Baltic area and grape harvests in France, important in the wine trade, before they were harvested and the financing of commodity trade with bills of exchange, which helped bind customers to the merchant. The system was not just geared to reexport of commodities, but it also serviced a large domestic market, either as a final consumer, or as an intermediate user of raw materials and intermediate products for processing to finished products. The Republic was small, to be sure, but its urban population around was larger than that of the British Isles and Scandinavia combined. Technological innovations[ edit ] The explosive growth in capital accumulation directly led to an equally explosive growth in investment in fixed capital for industries related to trade. Technological innovations like the wind-driven sawmill invented by Cornelis Corneliszoon, which significantly increased productivity in ship building, offered opportunities for profitable investment, as did the textile industries mechanized fulling, new draperies and other industries that made use of mechanization on the basis of wind power. This mechanization was based on yet another invention of Corneliszoon, for which he received a patent in Shipbuilding[ edit ] Dutch fluyt, The Dutch built up by far the largest merchant fleet in the world. In the North Sea and Baltic there was little risk of piracy and trips shuttled between markets. In dangerous zones where the risk of piracy or shipwreck was high they traveled in convoys with a light guard. A major technological advance was the design of the Dutch merchant ship known as the fluyt. Unlike rivals, it was not built for possible conversion in wartime to a warship, so it was cheaper to build and carried twice the cargo, and could be handled by a smaller crew. Construction by specialized shipyards using new tools made it half the cost of rival ships. The factors combined to sharply lower the cost of transportation for Dutch merchants,

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giving them a major competitive advantage. Other industries that saw significant growth were papermaking, sugar refining, printing, the linen industry with spin-offs in vegetable oils, like flax and rape oil, and industries that used the cheap peat fuel, like brewing and ceramics brickworks, pottery and clay-pipe making. Textiles[ edit ] The explosive growth of the textiles industries in several specialized Dutch cities, like Enschede woollen cloth, Haarlem linen, and Amsterdam silk was mainly caused by the influx of skilled workers and capital from the Southern Netherlands in the final decades of the 16th century, when Calvinist entrepreneurs and workers were forced to leave the Spanish-dominated areas. It was therefore not due to a specific technological development, but more to the fact that a whole industry migrated, lock, stock, and barrel, to the Northern Netherlands, thus reinvigorating the northern textile industry, that had been moribund before the Revolt. In the half-century between and this labor supply increased 3 percent per annum, a truly phenomenal growth. Despite this, nominal wages were repeatedly increased, outstripping price increases. In consequence, real wages for unskilled laborers were 62 percent higher in 1650 than in 1600. This was a veritable "factory ship" that enabled Dutch herring fishermen to follow the herring to the shoals of the Dogger Bank and other places far from the Dutch shores, and stay away for months at a time. Actually, linked to the fishery itself was an important onshore processing industry that prepared the salted herring for export across Europe. It also attracted its own supporting industries, like salt refining and the salt trade; fishing net manufacture; and specialized shipbuilding. The fisheries were not particularly profitable in themselves they were already a mature industry by 1600, but organizational innovations vertical integration of production, processing, and trade enabled an efficient business model, in which the traders used the revenues of fishing to buy up grain in Baltic ports during the winter months when otherwise the fishing boats would have been idle, which they transported to Western Europe when the ice floes thawed in Spring. The revenues of this incidental trade were invested in unrefined salt or new boats. The industry was also supported by the Dutch government by market regulation under the tutelage of an industry body, the Commissioners of the Great Fishery, and naval protection of the fishing fleet against privateers and the Royal Navy because the English looked askance at Dutch fishing in waters they claimed. The combination of these factors secured a de facto monopoly for Dutch soused herring in the two centuries between and 1800. Its bulb cost between 3, and 4, guilders florins depending on size. A skilled craftsman at the time earned about guilders a year. During this period the flourishing of Dutch painters became emblematic of the Golden Age in Dutch culture. At the time, this was just an industry like many others, with offshoots like chemical pigment making. By 1660, the tulip bulb became the fourth leading export product of the Netherlands after gin, herring and cheese. The price of tulips skyrocketed because of speculation in tulip futures among people who never saw the bulbs. Many men made and lost fortunes overnight, to the consternation of Calvinists who abhorred this artificial frenzy that denied the virtues of moderation, discretion and genuine work. That recommencement offered the possibility of extending trade to the Western Hemisphere indeed, the Dutch West India Company was founded in 1602, but elsewhere the Dutch were increasingly pushing up against European rivals in a struggle for market share. The competitive advantages of the more efficient Dutch shippers invited protectionist countermeasures, like the English Navigation Acts in the mid-17th century, the French tariff system, instituted under Jean-Baptiste Colbert, and similar protectionist measures instituted by Sweden at the same time. These protectionist measures caused a number of trade wars and military conflicts, like the Anglo-Dutch Wars of the 17th century, the Dutch-Swedish War, and the Franco-Dutch War though the latter had a more general politico-military character, like the later conflicts between the Republic and France; these wars had an important economic component too, though. Horse-drawn barge The result of worsening trade prospects between 1600 and 1700 was declining profitability, leading to reorientation of investment flows during this period. There was now much more investment in infrastructure, like the trekvaarten, an extensive system of canals that formed the basis of a sophisticated public transportation system, based on trekschuiten or horse-drawn boats later emulated during the industrial revolution in the British canal system and the Erie Canal in the U.S. This was also a period of major land reclamation projects, the droogmakerijen of inland lakes like Beemster and Schermer that were

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drained by windmills and converted to polders. In this way appreciable areas of fertile arable land were gained, reversing the trend of the 15th and 16th centuries. Finally, there was a tremendous boom in real estate investment, ranging from the extensions of cities like Amsterdam where the famous canal belts were built to harbor improvements and fortifications. The total urban population was nearly doubled in the century after, necessitating a commensurate boom in urban construction, which by assumed the proportions of a speculative "bubble". The gains in output had increased tremendously over the course of a century: The overall productivity of labor was reflected in the wage level, which was the highest in Europe at the time. They arrive at a size of the economy around that was approximately 45 percent of that of Britain with two-and-a-half times the Dutch population. The first was the rather abrupt closure of major European markets, especially France, for political reasons, as indicated in the previous section. This put an end to the heretofore secular increase in trade volumes for the Dutch economy. The effect of this stall probably would not have been as serious, but at approximately the same time the secular trend of the price level had reversed from inflation to deflation. The whole of the 16th century, and the first half of the 17th century, had seen a rising price level. This now suddenly came to an end, to be replaced by deflationary tendencies that would last into the 18th century. Because of the tendency of nominal wages to be sticky downward, the already high level of real wages in the maritime provinces continued to rise, even though the business cycle went downward. This of course reinforced the trade depression in the short run, but in the longer run it caused a structural realignment of the Dutch economy. The reaction of Dutch industry and agriculture was a defensive realignment in three directions. First, there was a shift in the product mix to higher value products for instance more luxury textile products, livestock fattening instead of dairy farming. This was of necessity a self-limiting solution, as it made exporting even more difficult, so this response led to a further contraction of the sectors in question.

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Ayton and Price have remarked on the importance of the "Infantry Revolution" taking place in the early 14th century, [5] and David Eltis has pointed out that the real change to gunpowder weapons and the elaboration of a military doctrine according to that change took place in the early 16th century, not, as Roberts defended, in the late 16th century. Thus Jeremy Black thinks that the key time period was that of "the", which saw an exponential growth in the size of European armies, [7] while Clifford J. Rogers has developed the idea of successive military revolutions at different periods, first an "infantry revolution" in the 14th century, secondly an "artillery revolution" in the 15th century, thirdly a "fortifications revolution" in the 16th, fourth a "fire weapons" revolution between and , and finally a fifth revolution, the increase in size of European armies, between and . The Catholic formations to the left are deployed two companies deep, while the Swedish to the right are deployed just one company deep. Alte Veste. Swedish assault columns deployed two companies deep. Shallow formations are ideally suited for defensive deployments, but they are clumsy in offensive missions: Gustavus Adolphus understood well that far from being slow and ponderous, the assault columns like those used by Tilly were in fact faster and more flexible, and the Swedish King made use of them when required, like in the battle of Alte Veste see picture 3. Armies did start to use thinner formations, but in a slow evolution, and subjected to tactical considerations. The debate of line vs column was carried through the 18th Century up to Napoleonic times, with a temporary reverse to deep columns in the later campaigns of the Napoleonic Wars. In conjunction with less reliance on pistol fire it had the net effect of favouring shock action over firepower, contrary to the tendency defended by Roberts. In this view, the difficulty of taking such fortifications resulted in a profound change in military strategy. Ultimately, Parker argues, "military geography", in other words the existence or absence of the *trace italienne* in a given area, shaped military strategy in the early modern period, and led to the creation of larger armies, necessary to besiege the new fortresses and to garrison them. In this way, Parker placed the birth of the Military Revolution in the early 16th century. He also gives it a new significance, not only was a factor in the growth of the State, it was also the main factor, together with the "Naval Revolution" to the rise of the West over other Civilizations. Jeremy Black pointed that it was the development of the State that allowed the growth in size of the armies, not the other way around, and found Parker guilty of "Technological Determinism". The infantry revolution and the decline of cavalry[ edit ] Some Medieval specialists elaborated on the idea of an infantry revolution happening early in the 14th century, when in some relevant battles, like Courtrai , Bannockburn or Halmyros , heavy cavalry was routed by infantry; [17] however, it can be pointed out that in all those battles infantry was entrenched or positioned in rough terrain unsuited for cavalry, like in other battles of the 14th and 15th century in which cavalry was defeated. In fact infantry had been victorious in earlier times in similar situations, for instance at the battle of Legnano in , but in open ground infantry still had the worst, as shown for instance at the battle of Patay and the battle of Formigny in which the vaunted English longbowmen were easily run down; however, the experience of battles like Courtrai and Bannockburn meant that the myth of the invincible knight disappeared, which was in itself important for transforming medieval warfare. More substance has the case for the "return of Heavy Infantry" as Carey has named it. While requiring drill and discipline, individual training requirements were much lower than those for archers or knights, and the switch from heavily armoured knight to footsoldier made possible the expansion in the size of armies from the late 15th century onwards as infantry could be trained more quickly and could be hired in great numbers. But that change was slow. The full development, in the 15th century, of plate armour for both man and horse, combined with the use of the arret lance rest which could support a heavier lance, ensured that the heavy cavalryman remained a formidable warrior. Without cavalry, a 15th-century army was unlikely to achieve a decisive victory on the

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field of battle; battle might be decided by archers or pikemen, but a retreat could only be cut off effectively or followed-up by cavalry. But the supremacy of tactical offence in siege warfare was not to last for very long. As Philippe Contamine has noted, by a dialectical process which may be found in all periods, progress in the art of siege was answered by progress in the art of fortification, and vice versa. The full impact the 15th-century "artillery revolution" was blunted fairly quickly by the development of the bastion and the trace italienne. But the military supremacy which the possession of a powerful siege train conferred contributed in no small degree to that strengthening of royal authority which we find in some European states in the later 15th century. There are several sources for the study of the size of armies in different periods.

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*Setting out with the detailed examination of the records of a single London company, I was gradually led to include within the scope of my inquiry, first, the other industrial companies of London, then the, similar organizations in other English centres of industry, and finally the parallel.*

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