

2 The State and the Economic Acceleration of the Dutch Republic, 1585–1637

M. Prak and J.L. van Zanden

In 1629, Amsterdam's merchants boasted "that we, through our frugality and cunning, have managed, during the Twelve Years' Truce [1609–1621] to out-compete all our rivals, pulled other countries' commerce over here, and serviced all of Europe with our ships".¹ It was a remarkably accurate observation and, in a sense, still underrated their achievements, because merchants from Amsterdam and a dozen other towns in the Dutch Republic had not only conquered European trade routes, but were also the foremost European commercial power in Asia and were on the verge of striking a major blow against the Portuguese empire in the Atlantic. How did a nation that 50 years earlier was not even a country, manage to achieve unprecedented rates of economic growth and at the same time become the first to dominate the world economy during its incipient, early modern stage? The riddle of the Dutch Golden Age has fascinated many generations of historians in the Netherlands and elsewhere.² Among economic historians, two schools have emerged that we could label "endogenous" and "exogenous". They both have their merits, as will become apparent from the following pages. However, having these two views on the issue seems unsatisfactory, even if we could somehow combine them, as we also seek to do in this chapter. Accordingly, we hope to take the debate a step further by adding a third interpretation. This interpretation highlights the creation of a new, independent state as the crucial factor in the acceleration of growth in the early stages of the Dutch Golden Age. However, before we do so, we examine the explanations that are on offer.

The "endogenous" interpretation highlights how the Low Countries were already a hotspot of economic development in the Middle Ages, and puts the issue of economic growth at centre stage.³ Much of the region's dynamic at the time was concentrated in the southern parts (nowadays Belgium); first, the County of Flanders with Bruges and Ghent as its leading centres, and subsequently, Antwerp in the Duchy of Brabant. From the fifteenth century, however, the northern County of Holland was emerging as an economic force in its own right. Its towns expanded due to a growing commercial network, especially in Northern Europe. Holland also benefited from increasingly market-oriented agriculture. Together, these developments turned the

region into an early capitalist economy, ready to benefit from new business opportunities. This domestic transformation of Holland's medieval economy was, according to the proponents of this view, the foundation upon which the Dutch Golden Age was built.

The "exogenous" school argues that it was no coincidence that the Dutch Golden Age started in the same period during which Antwerp's Golden Age came to an end.⁴ This school is primarily interested in how the Dutch managed to dominate world trade, and less in the issue of economic growth. These historians do not deny any of the "endogenous" arguments, but they see this as an insufficient explanation for what happened after 1585, when Antwerp was conquered by Spanish troops and the rebels closed off the river Scheldt and access to Antwerp's harbour. In this view, the territories that were about to form the Dutch Republic were a regional economic power, closely tied to – and dependent on – the Antwerp market. Holland's business consisted of shipping fish to Baltic customers and bringing back grain. Impressive as Holland's share in this Baltic trade was, it had few multiplier effects within the economy, or little potential for further expansion. To grow, Holland would need to obtain access to so-called rich trades; that is, those with a high per unit value and therefore greater profitability. Many of these rich trades came from outside Europe, notably Asia, and the Americas. Antwerp merchants had not been sailing to these distant parts themselves, but they traded with Spanish and Portuguese merchants who did. The Dutch Revolt undermined the viability of carrying out business from Antwerp. After 1585, the exodus of merchants and entrepreneurs from Antwerp and the wider area of Brabant and Flanders, many of whom ended up in Holland, explains how the Dutch could move up from a regional to a global level within a very short period of time.

It could be argued that the two views can be combined, because they use different timeframes. The endogenous view looks at long-term developments and sees the acceleration around 1600 as a continuation of a process of growth that started two centuries earlier. The exogenous view foregrounds the short-term transformation of a regional into a global economic force. Another way to combine the two is to see the take-off after 1585 as a synthesis of the shipping experience in Holland with the commercial experience in far-flung markets of the Antwerp business community.⁵ Yet another way to solve the puzzle is by expanding the geography of the argument. Instead of using modern national borders, it could make more sense to think of the whole North Sea region as the unit of analysis, with a shifting centre of gravity moving from Bruges, to Antwerp, to Amsterdam, and then finally to London.⁶ However, this still leaves us with the issue of timing.

It is precisely on the issue of timing that this chapter hopes to make a contribution, and we add an institutional perspective to the debate. Institutionalism has grown large among economic historians under the influence of Douglass North, who was primarily concerned with property rights. These had already been secure in the Low Countries for centuries

before the Dutch Golden Age. What did change, as a result of the Dutch Revolt, was the emergence of a new state. In the Middle Ages, the territories that would form the Dutch Republic had been among the many miniature states of Europe. From the fourteenth century, they were incorporated into the much larger Burgundian state, and from 1477, into the Habsburg Empire. In the second half of the sixteenth century, the Dutch Revolt led to the establishment of the Dutch Republic; a process that was underway in 1579, when a treaty between the rebels (the Union of Utrecht) outlined the framework for their state. It was more or less complete in 1609, when many other countries saw the Twelve Years' Truce between Spain and the Dutch as an opportunity to formally recognize this newcomer. The fortunes of war denied Antwerp, and provided Holland and the Dutch Republic with an opportunity. We argue in this chapter that having their own state institutions, including an army and a navy, helped them to make the most of this opportunity.

Our approach has been inspired by a paradigmatic change that Wim Blockmans, Marjolein 't Hart, and Charles Tilly together helped to bring about around 1990 in the history of European state formation.⁷ Previous authors, inspired by the work of Max Weber, had assumed that the modernization of European states had been achieved through the centralization of power and the creation of bureaucracies.⁸ Blockmans, 't Hart, and Tilly, however, demonstrated that during the Late Middle Ages and the early modern era, urban communities had also been effective warmongers and tax collectors. The Dutch Republic as a federation of towns (and its core province of Holland in particular), had an especially large place in this alternative version of the rise of the modern state. Instead of a handicap, as the Dutch Republic's ramshackle institutional structures had been portrayed by previous generations of historians, they became an asset in this new interpretation.

One practical note about geography is also appropriate at this point. The Dutch Republic emerged as an independent country during precisely the period covered by this chapter. Before that, it was part of a proto-state within the Holy Roman Empire, known as the Low Countries. As a result of the Dutch Revolt, the Southern Low Countries (roughly modern-day Belgium) remained under Spanish Habsburg rule. Within the Dutch Republic, the most populous and prosperous region was the province of Holland. In the following pages, there is much to say about "Holland", and when we use the term Holland, we have this particular province in mind. The country as a whole, often called Holland in modern parlance, will be termed the "Dutch Republic".

Part I: Acceleration

In this first part of the chapter, we outline the changes in the Dutch economy for the half century between 1585 and around 1635, as these two dates bookend the acceleration of the Dutch economy. In 1585, the fall of

Antwerp disabled Holland's main competitor and opened up the possibility of creating a new trade hub within the territory of the Dutch Republic, a country that was still in its infancy at the time – if it was yet a country at all. By 1637, the Dutch had established colonies in South-East Asia, and in North, Central, and South America. With the conquest of the Portuguese fortress São Jorge da Mina, it now also established a foothold on the African continent. In 1637, the Dutch colonial empire had reached its largest size, although the very strong increase in per capita GDP had also started to level off from the 1620s. This does not imply that the Golden Age had already come to an end; it was to last for at least another half century, perhaps longer.⁹ In this first part we trace the quantitative dimensions of this acceleration, as well as changes in the composition of the economy – especially industry and global trade – and the changes in the labour force through migration. We do not, however, aim to provide a comprehensive survey of the Dutch economy in this period.¹⁰

2.1 Economic growth in numbers

Four dimensions of the Dutch economy are explored in this first half of the chapter, in order to gain a sense of the size and nature of the economic changes that took place in the Dutch Republic between 1585 and around 1635. The point we aim to make here, is that the transformation of the Dutch economy was concentrated into these five decades. In the second half, we investigate its causes, with an emphasis on institutional factors. The first of those dimensions is quantitative. In this, we immediately run into the problem of the scarcity of reliable data. Nevertheless, one aspect is reasonably well covered: the size of urban populations.¹¹ In the province of Holland, where the economy was most vibrant, a tax register from 1632 provides us with a very solid end point, and various similar sources help us gauge the size of the urban populations shortly before the outbreak of hostilities due to the Dutch Revolt. This is a preferable starting point, because it offers us the “normal” circumstances, unaffected by the subsequent warfare. In 1585, the numbers had probably decreased as a result of the war, and by implication, the rise reported in the final column of [Table 2.1](#) would probably have been significantly steeper had we used 1585 in the first column. This table covers the 18 most significant towns represented in the States of Holland, plus The Hague, which was technically a village because it had no urban privileges. Nevertheless, due to its size, it also has to be considered a town. The county of Holland was sub-divided into two Quarters, separated by the River IJ.

The table demonstrates how, on average, the towns of Holland managed to more than double their populations, despite revolution and warfare during this period. Amsterdam was one of the fastest-growing towns, but even without including Amsterdam, the total growth remained very high. Strong expansion took place in industrial towns such as Leiden and Haarlem, but also in commercial centres, including Rotterdam and obviously Amsterdam.

Table 2.1 Urban growth in Holland, 1550s–1632

<i>Towns</i>	<i>1550s–1560s</i>	<i>1632</i>	<i>Index</i>
<i>Northern Quarter</i>			
Alkmaar	8,000	13,200	165
Edam	3,500	3,500	100
Enkhuizen	7,700	19,100	248
Hoorn	8,000	13,500	169
Medemblik	1,100	4,500	410
Monnickendam	2,200	5,800	264
Purmerend	1,700	3,300	194
<i>Southern Quarter</i>			
Amsterdam	30,000	120,000	400
Brielle	2,500	5,700	228
Delft	15,000	21,000	140
Dordrecht	12,500	20,600	165
Gorinchem	5,700	9,300	163
Gouda	9,000	13,300	148
Haarlem	16,000	34,900	218
Leiden	12,500	44,000	352
Rotterdam	7,000	29,500	421
Schiedam	4,100	7,500	183
Schoonhoven	2,800	3,400	121
The Hague	6,000	16,600	277
<i>Total</i>	155,300	388,700	250
<i>Total excluding Amsterdam</i>	125,300	268,700	214

Source: Lourens and Lucassen, *Inwoneraantallen*, pp. 54–70, 100–122.

The Hague, location of both the provincial and national institutions of government, also displayed a very substantial enlargement.

Urbanization is a good indicator of economic growth, because towns are home to commercial and industrial activities, which are considered to be more likely to increase productivity. This is not entirely correct for Holland, because its agriculture was also performing strongly, and because Holland's countryside also offered substantial employment in shipping and industrial occupations. It is therefore helpful that Van Zanden and Van Leeuwen have calculated more general numbers for the economic performance of Holland. These numbers cover urban populations, but also various aspects of international shipping and trade volumes, domestic transport, various industries – including beer, bread, and books – as well as figures for cultivated land and its yields, and the catches by fishermen and whalers. They go back to the early sixteenth century and provide estimates even from the mid-fourteenth century, and take us right up to the beginning of the nineteenth century.¹²

Two results stand out from Van Zanden and Van Leeuwen's exercise. The first provides confirmation of our urbanization data: Holland's economy experienced an acceleration from around 1585 to the middle of the

Table 2.2 Urban growth outside Holland, mid-sixteenth to mid-seventeenth century

Towns	Mid-sixteenth century	Mid-seventeenth century	Index
Leeuwarden	6,600	16,500	250
Groningen	16,600	20,000	120
Nijmegen	10,000	8,200	82
Deventer	7,700	7,600	99
Utrecht	27,500	30,000	109
Middelburg	7,000	27,000	386
Total	75,400	109,300	145

Source: Lourens and Lucassen, *Inwoneraantallen*, pp. 14, 25, 30, 71–72, 87–88, 93.

seventeenth century. The second is that this acceleration was preceded, in the short term, by an impressive growth rate during the middle decades of the sixteenth century that was interrupted, of course, by the hostilities that broke out in 1568. This sixteenth-century growth spurt, moreover, was preceded by a much longer period of slower but still significant growth that had already started after the Black Death (1346–1352) in the middle of the fourteenth century. Holland's economy, in other words, had already been growing for a very long time, and its Golden Age built on that extended period of earlier growth. A breakdown of the composition of growth shows that all sectors – agriculture, industry, and trade – contributed, but that industry was the most important source of the boom between 1565 and 1620. Human capital was a more significant source of growth than either population or capital stock.¹³

We have no similar numbers for economic growth outside Holland, and the data on urbanization are also less consistent, but looking at the largest towns in each of the other six provinces does offer some clues (Table 2.2).

These numbers indicate a spatial sub-division within the Dutch Republic. The seaboard provinces of Friesland (Leeuwarden) and Zeeland (Middelburg) displayed numbers that fell within the range of Holland.¹⁴ The landward provinces of Overijssel (Deventer) and Gelderland (Nijmegen), lacking access to the lucrative overseas trade and also ravaged by persistent warfare well into the seventeenth century, were stagnating or worse.¹⁵ Groningen and Utrecht occupied a middle position. They were close enough to the sea (Groningen) or to Holland (Utrecht) to benefit from the opportunities provided by the economic boom in the Republic's economic heartland, but were not entirely part of it.¹⁶

2.2 Migration

Urban growth and the increase in human capital were both stimulated by a huge influx of migrants.¹⁷ It is highly likely that without migration, Holland's towns would have stagnated or even shrunk, due to high urban

mortality rates. The growth rates shown in [Table 2.1](#) required very substantial immigration.

In the decades around 1600, those migrants came mainly from Brabant and Flanders. In Leiden, among the 2,455 individuals marrying in the town between 1586 and 1595, just a quarter were local, whereas 54 per cent came from the Habsburg Netherlands and another 5 per cent from other European countries.¹⁸ From 1600, the best figures are available for Amsterdam, where marriage registration took note of the place of origin of both partners. According to these registers, almost half of all males and a third of all females marrying in the town during the first quarter of the seventeenth century came from abroad. Less than a quarter of the grooms originated from Amsterdam, and just over a third of their spouses. The rest were migrants from other locations within the Dutch Republic. Because of the bias inherent in marriage registers (some migrants were already married before settling in Amsterdam, others never married), we must assume that this was an underestimation of the proportion of migrants in the Amsterdam population at the time. It is very likely that during the first quarter of the seventeenth century, only 13 per cent of the Amsterdammers were in fact born locally, another 36.5 percent were domestic migrants, and half the population consisted of first-generation foreign immigrants. Amsterdam was a city of migrants.¹⁹

The Amsterdam registers also demonstrate how German towns and regions had overtaken the Habsburg Netherlands as the largest place of origin for migration to the Dutch Republic. Scandinavia was becoming another supplier of human capital for the greedy Dutch labour market that displayed patterns of chain migration. Migrants from coastal areas tended to find jobs related to shipping activities, whereas those originating from inland areas often ended up in artisanal workplaces.

2.3 New industries

One of the signals of economic change was the emergence of new industries. In 1577, two immigrants, claiming to bring earlier experience from Antwerp, asked the town council of Leiden for support in the establishment of a sugar refinery. Whether this business was actually launched, we do not know. In 1594, three sugar refiners were active in Rotterdam, and in 1591, the Amsterdam marriage registers mention a sugar refiner for the first time. In 1597, the Amsterdam authorities ordered local sugar refiners to keep at least 18 fire buckets on their premises. There are, however, already indications from the 1580s that sugar was being traded in Amsterdam. By 1622, sugar had become a significant industry. In that year, in a document singing the praises of Brazil, it was claimed that the number of refineries had increased from three or four in the late sixteenth century – this was probably too low, as there may have been 9 in 1590 – to 25. In addition to this, other towns in the Republic were home to a total of perhaps another five sugar refineries.²⁰

Other new industries to emerge in the Dutch Republic during the decades around 1600 included silk textiles, the production of various mixed fabrics, and textile printing. In the province of Holland, the first paper mill was established in 1586. At the same time, papermaking picked up in the rural Veluwe district in the middle of the country, where lots of clean water was available. There were 25 active mills in 1625, rising to 60 in 1660, while in the Zaan area north of Amsterdam, 12 paper mills were active in 1660. In the course of the seventeenth century, Dutch paper would come to dominate European markets.²¹

Established industries were also transformed during these decades, perhaps most spectacularly the production of woollen fabrics in Leiden. In 1562, the States of Holland called the industry a *hooft-neeringe* (main industry) of the county, in response to calls for help from Haarlem, Leiden, and Delft, where the wool businesses had been badly affected by the decision of the English government to triple the export duties on unprocessed wool.²² The Dutch Revolt subsequently made things a lot worse, and by 1580, the industry was on its knees. It was saved by immigration from the Southern Netherlands, where the textile regions in what is now Northern France had been hotbeds of Protestantism. Their return under Habsburg authority caused an outflow of refugees, many of whom settled in the decaying textile centres of Holland. Leiden benefitted most spectacularly, as the Leiden council had already observed in 1588: its newly established serge industry was the direct result of the decline of Hondschoote, Ypres, and other southern centres, and refugees had “rejuvenated” the town.²³ By 1622, Leiden had 45,000 inhabitants – three times as many as in the mid-sixteenth century – and was Europe’s second-largest textile centre, after Lyon.

Something similar was happening in the cultural industries. In 1570, 14 book publishers were active in eight different towns of the Northern Netherlands. Forty years later, 24 towns had at least one bookseller-publisher, many of them more than one, with Amsterdam, Leiden, and Rotterdam reaching double figures. The national total now stood at 115, with 34 located in Amsterdam, which had clearly emerged as the centre of Dutch publishing. Over those 40 years, the industry had grown eightfold in size. A similar growth took place in the painting industry. There had already been some high-quality visual artists, most notably the painter and engraver Lucas van Leyden (1494–1533), whose work was admired by Albrecht Dürer. However, in quantitative terms, painting was marginal before the Revolt. This changed dramatically in the decades around 1600. On a per-capita basis, the industry grew by a factor of 3.5 between 1570 and 1610, and then doubled again in the next 30 years. In absolute terms, the community of active painters increased from around 40 in 1580 to almost 350 in 1620. Many of the early publishers and painters were immigrants.²⁴

The influx of migrants was soon supplemented with local talent to produce a stunning efflorescence of Dutch cultural industries. It was not only that Rembrandt and Hals became household names, but also that the quality,

range, and versatility of huge numbers of painters during just a handful of decades was truly exceptional. Building on innovations developed in Antwerp during the sixteenth century, these painters further developed such popular topics as landscapes, street scenes, and domestic interiors. They also developed new types: most notably townscapes, depicting sites, buildings, and external views of towns, and culminating in Vermeer's famous *View of Delft* from around 1660.²⁵ The book trade was similarly innovative, developing new formats, fonts, and marketing techniques that together helped to make the Dutch Republic the "bookshop of the world".²⁶

2.4 Colonial trade

In 1602, two years after the English had launched their East India Company, the Dutch set up the *Verenigde Oost-Indische Compagnie* (VOC), or Dutch East India Company.²⁷ The VOC was the culmination, and in many respects also merger, of a series of private companies launched during the 1590s to explore and exploit direct trade routes between the Netherlands and Asia. The initial initiatives were halfway houses between exploration and commerce. This was especially true of the three attempts to sail to Asia over the top of the Russian landmass; that is, through the northern Arctic. All of them failed, the final one after the crew spent a dramatic ten months on the barren, snow-covered island of Nova Zembla. Simultaneous attempts to reach Asia via the southern Cape route were much more successful, partly due to knowledge acquired by a small number of Dutch seamen in Portuguese service. As soon as the viability of this route had been established, merchants in a handful of towns started to pool investments to try and become involved. This had the predictable consequence of driving up prices in Asia and depressing them in Europe. Moreover, it quickly emerged that the Portuguese and Spaniards, who had been the only European nations trading in Asian waters, were not willing to voluntarily share the spoils with the Dutch. Asia became a new front in the war between the Dutch and their Iberian opponents. With this in mind, the Grand Pensionary and political leader of the province of Holland, Johan van Oldenbarnevelt, proposed combining the efforts of all local companies in return for a monopoly on Dutch trade with Asia. The result was a company with semi-independent units in all six harbour towns where the earlier companies had existed. With the exception of Middelburg in Zeeland, they were all located in Holland.

The VOC raised capital in a more or less traditional fashion. Investors handed over their money for a ten-year period, but in fact were participating in a series of individual trips. It soon emerged, however, establishing a permanent presence in Asia, and fighting off the European competitors there, would require a very substantial investment in fixed capital, such as a fleet that could remain in Asia and fortresses to offer protection. To enable the company to make such investments, its board refused to pay out to investors after the ships returned from Asia. Instead, the proceeds of these early trips

were re-invested, and the original investments by implication converted into permanent shares. This created a great deal of acrimony and even lawsuits, but after years of fruitless waiting, some investors started to sell their shares and a secondary market emerged, with proper price quotes. The stock market had arrived.²⁸ The VOC, in the meantime, was increasing its business in Asia, if necessary through the use of force. Jan Pieterszoon Coen, its director-general in Asia from 1614, and from 1617, governor-general of all Dutch activities in Asia, insisted that the VOC could only establish a permanent foothold in the Asian trade by military means.²⁹

The suddenness of the Dutch arrival on the scene that the Portuguese had dominated is very clear from the numbers that Jan de Vries collected on shipping movements along Africa's southern tip: the Cape of Good Hope. During most of the sixteenth century, the Portuguese had this route entirely to themselves, with 50–80 vessels making the trip every decade. Only during the 1580s did a handful of English ships start to make an appearance. The Dutch, however, penetrated the Portuguese monopoly in a massive fashion from the start. During the 1590s, they were already bringing back twice as many ships from Asia, albeit with a combined size that did not quite match that of the Portuguese fleet. By the 1620s, the Dutch had doubled the capacity of the Portuguese. From the 1630s, Portuguese trade in Asia more or less collapsed, while the Dutch kept on expanding until well into the second half of the eighteenth century. For the whole of the seventeenth century, Dutch trade along the Cape accounted for two-thirds of the European tonnage being brought back from Asia.³⁰

Things developed differently in the Americas, for several reasons.³¹ The Spanish and the Portuguese were much more embedded there than they were in Asia. Ruled by the same Habsburg dynasty from 1580, these two European powers expected even greater benefits from the New World than from their Asian commerce. To some extent, the Asian trade depended on the exploitation of the silver mines in the Americas, because Asian merchants were unwilling to accept European products in return for their spices. Instead, they demanded to be paid in cash, in the form of precious metals; a significant amount of which came from the American mines. In addition to their greater interest in the Americas, Spain, and Portugal were also better placed to traverse the Atlantic, with the Canary Islands – ruled by the Spaniards – as stepping stones. During the sixteenth century, both countries had already established settlements for the exploitation of mines and plantations.

The Dutch presence in North America began more or less by mistake. In the service of the VOC, Henry Hudson had been exploring a north-westerly passage over the top of Canada to Asia. That failed, but as an unforeseen outcome of his mission, a small settlement was established in the area that we now know as New York. From this grew New Netherland, with New Amsterdam – located on the tip of Manhattan – at its core. It was incorporated into the West-Indische Compagnie (WIC), when it was established

in 1621, but its trade in beaver hides never became particularly profitable.³² Meanwhile, private companies had been active in more southern parts of the Atlantic from at least the later part of the 1580s, and while the VOC's early launch had curtailed such private enterprises, the much later creation of the WIC meant that private interests were already firmly established.

The WIC was only launched in 1621 because the Spanish government had insisted, in the negotiations over the Twelve Years' Truce, which started in 1609, that the Dutch refrain from business in the New World. In the face of Habsburg opposition, the WIC saw piracy and conquest as the best ways of creating a foothold in the Americas.³³ Most of these efforts were directed at Brazil and the West-African coast, both of which were attacked in 1623–1624 as part of an explicit plan called “grand design”. This plan correctly understood the American plantation economy and African slave trade as complementary elements in the Portuguese colonial empire that the Dutch were determined to take over. Both operations failed to achieve their objectives, and the WIC hoped to recover some of its costs through piracy, a policy that was handsomely rewarded when in 1628, a WIC squadron managed to capture part of the Spanish silver fleet in Cuban waters. In 1629, another attack on Brazil was more successful than earlier attempts, but it took years of fighting to make the Dutch territory more or less secure. Even then, the majority of the European population there, consisting of Portuguese settlers, remained opposed to the Dutch rule that would last until 1654. In 1637, the WIC finally succeeded in capturing the main Portuguese fortress on the West-African coast – São Jorge da Mina, but known among the Dutch as Elmina – that became the main station for two centuries of Dutch slave trade.³⁴

Part II: Explanations

In this second part of the chapter, we seek to establish what may have caused the Dutch economy to develop from a regional to a global hub, and to transform itself in the process. We examine economic as well as institutional developments. Included in the latter are the military innovations that we claim were a crucial connection between the two.

2.5 A solid foundation

2.5.1 Agriculture

For a long time, the western parts of what was to become the Dutch Republic consisted of marshlands, protected against the sea by a strip of sand dunes. Under the pressure of increasing populations, the marshlands were drained from the eleventh century, in circumstances that saw Europeans everywhere moving into areas that had earlier been too challenging for human occupation. Initially, the newly drained lands had been planted with grain,

providing the ingredients for a staple diet of bread, pancakes, and porridge. Unfortunately, the drainage created new problems. The peat soil started to subside when the water was taken out. At the same time, the soil also began to erode due to exposure to light and wind. Some authors claim that rising sea levels were an additional problem, but their impact is disputed. Whatever the precise cause, farmers were increasingly confronted with soil that by the fourteenth century was no longer suitable for grain crops. This not only threatened their personal livelihoods, but potentially the survival of the whole area. Due to the cost of transportation, carrying bulk goods such as grain across great distances was only feasible in extraordinary circumstances and temporarily, for example, during a famine. The inhabitants of Holland and adjacent territories now had to contemplate the possibility of having to do this structurally.³⁵

How they overcame this hurdle is discussed in the next section, but this challenge also forced farmers to transform their business model. Traditionally, farmers produced for their own consumption first and foremost, and only sent a relatively small proportion of their crops to market. The deterioration of the soil forced farmers in the County of Holland to become almost completely commercial. Growing grass was still feasible on their polder lands, which were therefore suitable for cattle raising. Cattle could be farmed for meat, but also produced milk that could be turned into butter and hard cheeses, the latter in particular with a long life. Farmers in Holland and Friesland became exporters of agricultural products. Their commercial orientation in turn made them more alert to competition and open to innovative practices. Data from the sixteenth century demonstrate that by then, they had joined the ranks of the most productive agrarian entrepreneurs in Europe.³⁶

The switch from grain growing to cattle raising required fewer hands on the farm, causing a substantial migration to the many small towns dotting the landscape of Holland. Their increased size in turn created a growing customer base for regional farmers, thereby constituting a further impetus for agrarian productivity. Land rents in Holland and Friesland quadrupled between 1500 and the third quarter of the sixteenth century. By the middle of the seventeenth century, land rents were more than ten times higher than they had been in 1500.³⁷ These increases suggest an astonishing increase in farming productivity in the commercialized coastal regions.

2.5.2 Bulk trade

The Hollanders were going to starve, unless they could manage to compensate for the loss of the local farming sector's capacity to produce sufficient grain with imports from elsewhere. In addition to smaller quantities imported from neighbouring areas such as Zeeland and Germany, the bulk of the grain came from France and the Baltic. This latter description is shorthand for Poland and the current Baltic states (i.e. Estonia, Latvia, and

Lithuania); the Scandinavian territories bordering on the Baltic Sea were insignificant for this trade.

Even during its early stages, the Baltic was seen by the towns in Holland – and Amsterdam in particular – as a strategically important region. Due to its political fragmentation, moreover, it was an area where the Hollanders could make a military impact. Commercial towns in the eastern parts of the Low Countries, such as Kampen, Zwolle, Deventer, and Zutphen, were members of the Hanseatic League. Their competitors in Holland had, probably deliberately, refused to join the League. During the early fifteenth century, tensions were building between the Hansa towns and the County of Holland. In 1438, towns and villages in Holland decided to build a substantial fleet of 79 ships that could act as a significant naval force, despite their relatively small individual sizes. This was the first time that Holland emerged as a naval power in its own right. The decision was taken during a period of attacks by both sides on each other's commercial shipping, and shortly after the States of Holland and Zeeland had published a document that amounted to a declaration of war. The following month, a substantial fleet from Holland overwhelmed a Hanseatic fleet outside the port of Brest, in Brittany. Amsterdam emerged as the most aggressive among the towns of Holland. It took the best of four years and a great deal of diplomatic effort to bring hostilities to an end.³⁸

During the third quarter of the fifteenth century, France and the Baltic exported approximately the same amounts to Holland and the adjacent areas. The Baltic trade was, however, expanding rapidly, whereas the French grain trade with Holland stagnated or even declined. This was probably due to domestic demand in France, resulting in price rises that made French wheat less attractive compared with the rye that the Baltic region was able to supply. Between 1465 and 1562, the exports from Gdansk (Danzig), the most important export town by far, increased from 2,300 to 40,635 *lasts*, most of it destined for Holland – Amsterdam in particular. The fleet from Holland sailing to the Baltic increased from around 230 ships in 1470, to at least double that size during the 1560s.³⁹ Sailing from Holland, many of these ships carried little or no cargo. Fish and salt were sent, but many ships had to be stabilized with bricks.⁴⁰ Nonetheless, the Baltic trade emerged as the linchpin of Holland's commercial network: its "mother trade".⁴¹

In 1511, Lübeck was able for one last time to inflict substantial damage on a Dutch fleet on its way home. The city, and its Hansa allies, remained a threat until 1535. Meanwhile, Denmark and Sweden were emerging as the two main naval powers in the region. Denmark in fact controlled both sides of the Sound, and its position was vital for the shipping through this narrow strait connecting the Baltic with the North Sea and the Atlantic. The Sound Toll revenue was an important asset for Denmark's state finances, and the Danish government was usually determined to keep the Sound open for trade. They were encouraged in this by the threat of armed intervention by the Dutch navy. This allowed Dutch ships to sail to the Baltic unarmed under normal circumstances.⁴²

2.5.3 Ship building

In the fifteenth century, a shipbuilding industry emerged in the coastal towns of Holland and Zeeland. Shipwrights initially operated small family firms, servicing the fishing industry and grain trade. They copied the designs and building practices from Southern Europe. During the sixteenth century, the industry grew in size and in response to increasing demand, started to develop incremental improvements in both the designs and production. Demand was also growing, because ships were no longer necessarily funded by an individual owner, but with the help of combined investments or shares, the so-called *partenrederij*, while at the same time new insurance schemes reduced the risks involved in overseas trade. By the start of the Dutch Revolt, Holland's ports were operating over 1,800 sea-going vessels; Amsterdam alone no fewer than 500. This combined fleet measured around 230,000 metric tons, up from 60,000 at the end of the fifteenth century. Around 1500, Holland was operating a fleet similar in size to that of the combined Hansa towns, but now it had outgrown them, and by the mid-sixteenth century, no other region in North West Europe could match Holland's maritime capacity.⁴³

The shipbuilding industry in Holland was producing more output, but at the same time innovating. In the 1590s, this culminated in a novel design, which became known as the *fluyt* (flute). A history of the town of Hoorn claimed in 1604 that the first *fluyt* had been built locally in 1595. There is no independent verification of this, but neither is there a rival claim, so it is quite possible. Despite its obscure origin, the *fluyt* soon became the standard design for merchant vessels in the Dutch maritime provinces.⁴⁴ The *fluyt*'s design was derived from earlier types of fishing boats, but it was a bulk carrier with a wide hull and small deck. The design was possibly in response to the specific way in which the Sound Toll was levied, using the size of the deck as an indication of the cargo. However, it was soon recognized that the *fluyt* also had other advantages. Perhaps the most important was that it could be sailed with a much smaller crew relative to its cargo than competing designs, gifting the owners a significant operating cost advantage.

From the start of the Revolt, Holland and Zeeland tried to coordinate their protection efforts at sea, and made man-of-war vessels available for convoy services, protecting both the merchant and the fishing fleets.⁴⁵ After the establishment of the VOC, large *fluyts* were also built for the Asian trade, and these carried guns. The significance of these features was underlined by the representative of the Hansa in Lisbon, who complained in 1623: "During the Truce, but especially due to their new ship design, which can be sailed from Holland with a small crew and without guns, Lübeck's merchants have been unable to trade much with Spain".⁴⁶ Holland's advantage in shipping capacity, already significant beforehand, had increased during the Revolt and had also been extended to Southern Europe as well as Asia.

2.6 Technological innovation and human capital

One of the striking aspects of these early stages of the Dutch Golden Age was the range of innovations: technical as well as institutional. A first indicator of the technological innovativeness of the era is the number of patents granted by the States General. From a handful, it rose very quickly to around ten per annum during the 1620s and 1630s, before stagnating at a much lower level of three to four annually during the rest of the seventeenth century. Some of the decline was nevertheless compensated for by an increase of patents granted by the States of Holland.⁴⁷ These numbers were small, and probably more indicative of the levels of innovation than a reliable indicator of the real rate of innovation. For many innovations, it made little sense to try and file a patent. New topics in painting, for example, were impossible to patent. Moreover, many innovations were incremental and also collective; that is to say, they emerged gradually within a certain industry, without one particular inventor being able to stake individual ownership of the new idea. Tellingly, we do not know who built the first *fluyt*.

We do know, nonetheless, of some significant technological breakthroughs that occurred during this period. Almost as important as the *fluyt* was the invention of the wind-powered sawmill, patented in 1593 and 1597 by Cornelis Cornelisz van Uitgeest. In this era of predominantly using wood for engineering, the mechanical preparation of standardized wooden items was a great bonus. In the past, wood had been worked with axes or saws, both operated by hand. The sawmill operated with the help of the wind energy that was generously available at no cost in the coastal provinces of the Dutch Republic. The sawmill was actually just one example of the application of wind energy to industrial production processes. The rural Zaanstreek to the north of Amsterdam in 1630 was home to no less than 191 industrial windmills; in all of Holland there were, moreover, 86 sawmills and 73 oil mills. In 1595, a group of entrepreneurs patented a fulling mill with the States of Holland. After their patent expired in 1612, the innovation rapidly spread to other textile centres. The ribbon frame was patented in 1604, allowing the mechanization of the ribbon-making industry. Improved equipment was also introduced in soap boiling (1618) and leather printing (1628), to give just some examples.⁴⁸

Many of these innovations can be related to the increase in human capital in the Dutch Republic. Urbanization and Protestantism are two of the strongest predictors of rates of literacy in this period. Urbanization, because education tended to be clustered in towns; Protestantism, because it encouraged the faithful to read and study the Bible. The Low Countries were already a literate society in the late Middle Ages, and that further increased during this period. In Amsterdam, male literacy rates increased from 55 per cent in 1585 to 64 per cent in 1650, and among women from 32 to 40 per cent.⁴⁹ In all of the Low Countries, numeracy was probably twice as high as in the rest of Europe.⁵⁰ New courses for mariners sprang up around

1600, and former seafarers made their knowledge available – for a fee, of course. School masters in smaller places offered mathematics courses especially for those going to sea.⁵¹

Before the Dutch Revolt, the Northern Netherlands did not have a single university. Louvain had the only university in the Low Countries from 1425. In 1575, Leiden was rewarded for its bravery during a Spanish siege with the first Dutch university, primarily set up as a training college for Protestant ministers. Four others were set up in quick succession, so that by the middle of the seventeenth century, five out of the seven provinces had their own university. So-called illustrious schools (undergraduate colleges) were created in another six towns, making higher education available in a total of 11 different places.⁵² The impact in absolute numbers remained small; however, in several professions, such as the Reformed ministry, medicine, the law, and public office, there was a notable increase in university-educated personnel.⁵³ The increased levels of formal education in the professions were almost certainly matched in other occupations, as demonstrated by the rise in literacy among both men and women, and by the increased numbers of opportunities to acquire an education.⁵⁴

2.7 Institutional innovation

The Dutch Republic was the product of a revolution, even if the revolutionaries were reluctant to admit this. They continued many institutions, sometimes changing their role but maintaining the name, thereby suggesting that nothing had changed. The Dutch Republic was also a radical institutional innovation, because it was the first effective federal republic in early modern Europe. Republics were a minority state form in a Europe still dominated by princes, but the Italian city states and the Swiss had already beaten this path, and had been successful at raising their military profile despite their republican constitution.⁵⁵ Federal states were also quite common by the sixteenth century. Spain was a composite monarchy, combining the crowns of Aragon and Castile; with Aragon, in turn, a composite of three separate states. The Swiss had their confederation, and the much larger Holy Roman Empire had a similar structure. These states, however, were plagued by serious problems in coordinating the efforts of their units. On the other hand, the Dutch Republic emerged as a federal state that was capable of acting coherently, despite its federal constitution. This was the result of a careful – and often precarious – balancing act, in which all seven provinces had a substantive say in the operations of the state, but at the same time accepted the leadership of the province of Holland. Another factor was the division of labour between the central institutions on the one hand, responsible for foreign affairs, and the regional and local institutions on the other hand, in charge of all domestic issues. A third factor was the way in which the Dutch state managed to involve all levels of government – local, regional, and central – in decisions that required coordination. So how did this work?

Parts of the Low Countries had been gradually united since the mid-fourteenth century under a single ruler: initially the Dukes of Burgundy, and from 1477, the Habsburg dynasty. In what would become the Dutch Republic, only Holland and Zeeland had been incorporated into this composite state well before 1500. Between 1498 and 1543, the other territories were added, under military pressure or by outright conquest. Each of these territories had a States Assembly, in which the nobility and representatives of the towns met with a representative of their sovereign, a governor called *stadhouder* (stadtholder). From the middle of the fifteenth century, representatives of the territories met in the States General of all the Low Countries. During its early stages, the Dutch Revolt was especially popular in the most populous and prosperous provinces: Holland and Zeeland in the North, and Brabant and Flanders in the South. As a result of military operations, the Southern territories came under Spanish rule again, while the Northern provinces formed the Dutch Republic, now with its own States General. This institution was in charge of foreign policy, and oversaw both the army and the navy. The actual direct command of the army and navy was usually in the hands of members of the Orange dynasty, whose founding father William of Orange had been stadtholder under Charles V and Philip II, before emerging as the leader of the rebellious provinces.⁵⁶

The States General comprised delegations from all of the seven provinces. Each could cast one vote, irrespective of their size. All the provinces contributed a fixed percentage of the annual budget of the States General, and this was almost exclusively spent on warfare. The province of Holland alone contributed almost 60 per cent – more than all the others combined. Moreover, the States General met in the same block of buildings in The Hague that housed the meeting room of the provincial States of Holland. Proximity and financial contribution gave Holland an overwhelming say in the States General, but it only controlled one vote. Holland could block any policies it opposed, but it could not necessarily force the other provinces to adopt its preferences. Especially when Holland was divided, the other provinces had the opportunity to impose their own policies.⁵⁷

Because the Dutch Republic had no individual as their sovereign, the states' assemblies now ruled supreme within each of the provinces. With the exception of Holland and Friesland, towns controlled half the votes in these assemblies. In Friesland, the town only had a quarter of the votes; however, in Holland, there were 18 against the nobility's one. In other words, the most powerful province in the Republic was completely dominated by urban interests. The people who ruled these towns belonged to an elite of families who were interrelated by marriage. In the early decades of the seventeenth century, these families maintained strong links with the world of business. Many members of the town councils were active businesspeople; in Holland, economic interests determined what policies these towns would support. During the peace negotiations with Spain (1621–1648), commercial towns tended to favour an end to hostilities, whereas industrial towns were

anxious about the influx of foreign products if borders were to reopen, and insisted on further reassurances or simply a continuation of the war. This illustrates how foreign policy was often economic policy, but also how local politicians could shape national policies.⁵⁸

The business of these institutions was funded through taxation and increasingly also borrowing, another area where innovations were introduced. In a number of steps, starting in 1576, a fixed rate of contributions to the national budget was worked out between the provinces.⁵⁹ It took 40 years to hammer out the final details, not least because the territorial composition of the country kept on changing due to the fortunes of war. However, from very early on it was already clear that the province of Holland would shoulder more than half of the budget and almost all of the national debt, simply because it held the bulk of the population, was the economically most prosperous, and as a result, the most credit-worthy of the seven united provinces that made up the Dutch Republic.⁶⁰ To be able to shoulder the responsibility for the country as a whole, Holland nevertheless had to revise its own tax system substantially. A cornerstone became the excise on grain and the accompanying regulation of bread prices. Socially and politically, the price of bread was an extremely sensitive issue, because of the huge role of bread in everyone's diet. During the 1590s, Dutch towns introduced a new pricing system that managed, through detailed monitoring and weekly adaptations, to strike a balance between the interests of the producers, the consumers, and the tax authorities. It did so by making a distinction between the varying price of the raw materials (grain), and the fixed costs of millers and bakers. In the past, the compensation for fixed costs had increased together with the price of grain. Starving populations, in other words, made bakers rich. This was no longer the case in the Dutch Republic, thereby creating an opportunity to insert substantial taxation into the system.⁶¹

The restructuring of state institutions and provincial taxation were supplemented with local institutional innovations, some of them directly related to the economic domain. In 1609, the Amsterdam council created a Bank of Exchange (*Wisselbank*), its express purpose being "to prevent speculation with the guilder and exchange rates and to assist the merchants".⁶² It was modelled on the *Banco di Rialto* in Venice, and designed to overcome the problems emanating from the profusion of currencies and the potential undermining of business confidence under these circumstances. Middelburg (1616), Delft (1621), and Rotterdam (1635) would follow this example, even though their *wisselbanken* would never become as significant as those of Amsterdam. The Amsterdam Bank of Exchange was only accepting deposits – and account holders had to pay for the privilege. Credit was provided by the *Bank van Lening*, which was established in 1614 in Amsterdam, and subsequently opened in almost every town of the Dutch Republic (there were 84 such banks at the end of the eighteenth century).⁶³ During the first half of the seventeenth century, the Amsterdam authorities also improved

the procedures surrounding insolvencies; developments that in 1641 culminated in establishing a special office, located inside the Town Hall, to handle insolvency cases, known as *Desolate Boedelkamer*.⁶⁴

2.8 Military power

A quite separate set of institutional innovations took place in connection with the army. Sixteenth-century armies were composed of units that in many ways acted similarly to an independent business. Officers recruited their own men, and armies recruited units all over Europe. During the Dutch Revolt, the rebel provinces had to follow these practices; however, not having the proper authority and under constant pressure from Spain (the superpower of the time), they were seriously short of cash. It therefore made sense to see if they could make their investments in soldiers go further. Sixteenth-century armies were also notoriously unreliable, because they were suffering from very substantial arrears in their payments. The rebels, who were fighting on their own soil and had to establish legitimacy as a reliable alternative for the king, could not afford to have their soldiers robbing and raping Dutch citizens. For all these reasons, they initiated a process of disciplining soldiers and standardizing procedures; changes that allowed them to be effective with smaller numbers. The innovations pioneered by the Dutch military leadership were much admired abroad.⁶⁵

In May 1586, the Dutch army numbered approximately 30,000 men. By 1635, this had increased to 80,000, although it was assumed that the effective strength was closer to 60,000.⁶⁶ These men were not employed by the government, but by their officers, infusing a strong commercial element into the military organization. Likewise, the money to pay their wages was supplied by so-called “military solicitors”, who were reimbursed afterwards by the provinces. The supply of the army’s food and weapons was also mostly in private hands, albeit with an important role for the States General. Whereas the weapons industry had been insignificant before the Dutch Revolt, it became a substantial business during the first half of the seventeenth century with, for example, several dozen producers in Utrecht producing handguns.⁶⁷

The navy was similarly expanded, although its specific organization makes it difficult to put a number on the growth. Similar to other naval powers, the Dutch navy itself consisted of perhaps a dozen dedicated men-of-war.⁶⁸ Until the middle of the seventeenth century, European navies were expanded during wartime with ships from commercial fleets, temporarily converted for war service. Having a huge merchant navy almost automatically made the Dutch seaboard provinces a powerful force on the high seas, and in the shallow waters of the river estuaries characteristic of the Dutch coast. An important task for the navy was to patrol the waters providing access to Antwerp and the Flemish coast, which the rebels sought to stop, or at least make very unattractive. Another task was to protect the merchant

fleet, both from the navies of other powers and perhaps more urgently from the privateers operating in European waters, especially from Dunkirk. The Dutch themselves were using the same privateering tactics, but mostly outside European waters.⁶⁹

In her recent work, Marjolein 't Hart has underlined how for the Dutch Republic, waging war was not only an issue of casualties and expenses, but at the same time also a source of profit and economic opportunity.⁷⁰ Our argument, however, also harks back to her earlier emphasis on the capacity of the Dutch Republic to sustain a huge military infrastructure despite a constitution that had long been seen as a handicap because of its fragmentation of power.⁷¹ 't Hart was correct, of course, to point out that this political structure was indeed a source of strength, rather than a weakness. However, what was perhaps taken for granted, was the bare fact that the Dutch Revolt gifted the towns of Holland with a state of their own; a state that gave them a strong presence on the world stage.

2.9 Global expansion and warfare

The Dutch Golden Age followed on the heels of a century of European voyages across the globe. There had been long-standing contacts in the Eastern Mediterranean, and incidental contacts elsewhere. However, from the 1490s, European men – primarily Portuguese and Spanish – whom we can describe as adventurers, soldiers, or merchants, but who were usually a combination of all three, set up a permanent network spanning the Atlantic, Indian, and somewhat later also Pacific oceans. The first global age had started.⁷² The Low Countries initially benefited, because the spices that the Portuguese brought to Europe were mainly traded through the Antwerp market. From 1585, the Dutch were obviously excluded from this trade, and started a frantic search for direct access to Asian and American markets. As we have seen, this led to the establishment of the Dutch East India Company (VOC) in 1602, and with some delay due to geopolitical circumstances, the Dutch West India Company (WIC) in 1621. Together with – and more often against – the English, the Dutch would challenge the Iberian powers in Asian, African, and American waters.

Both the VOC and WIC were set up from the start as more than straightforward trading companies. Their secondary objective was to take the war against the Habsburg Empire into non-European theatres. Also the other way around: if the Dutch were to carry out profitable business outside Europe, they would literally have to fight for it. This opinion was articulated in no uncertain terms by Jan Pieterszoon Coen, who was in charge of the VOC's Asian operations almost continuously from 1617 to 1629.⁷³ Coen's policies were ruthless, most infamously when in 1621 the Dutch cleared the Banda islands of most of their inhabitants, who were either murdered, expelled, or enslaved and deported. This took place after years of fruitless attempts by the VOC to control the local trade in nutmeg; a

spice only grown in these few islands. Contemporaries were shocked. One anonymous Dutch commentator concluded in an extensive report on the events that it had been “unworthy of Christians”.⁷⁴ Greater indignation followed two years later, when the Dutch killed ten English employees of the East India Company together with a similar number of Asians, in what became known as the Amboina massacre. Rather than a show of strength, this event can also be seen as sign of the vulnerability that small pockets of Europeans experienced in Asia. Nevertheless, their response was to apply more violence.⁷⁵

We have already reviewed the VOC’s and WIC’s commercial practices, but these were always predicated on the capacity of both companies, and sometimes the Dutch state itself as well, to deliver military support to their business operations. The first fleet funded by the VOC, which left the Republic in 1603, was instructed to sail to the Portuguese stronghold in Goa, and treat the Portuguese “as they do to us”; that is, “to destroy, damage, set fire to, or sink” their ships. The fleet was then expected to sail on to the Indonesian archipelago, to make friends there with Portugal’s enemies and overwhelm the Portuguese strongholds. All of this would ultimately serve the purpose of establishing access to the spice trade, but it was very clear that trade took a backseat to war as a means to achieve this end. Instructions in 1607 were very similar. The trade with Asia required large vessels, partly because of the length of the trip and the implications for feeding the crew, but also because of the military dimension of their missions. Cannons, shot, and powder were thus essential parts of their equipment. Until around 1620, the VOC bought these vessels from shipbuilders, but during the 1620s, all six local branches (or Chambers) opened their own shipyards, where new vessels were built and those returning from the East were overhauled. In addition to the large ships made to travel between the Republic and Asia, the VOC operated a fleet of smaller vessels – that had been primarily built for warfare – in Asia itself.⁷⁶

In many respects, the same also applied in Europe. We have already seen how the towns in Holland managed to secure a position in the Baltic that allowed the grain trade to operate without interruption, through diplomacy and if necessary also with the use of force. The same took place in the North Sea and Northern Atlantic during the Dutch Revolt. Under the Habsburgs, attempts had been made to set up a centralized naval force in Veere, Zeeland. This effort was cut short by the Revolt.⁷⁷ Favouring the principles of regional and local self-rule, and lacking a strong central power, the rebels were bound to end up with a naval fleet that was set up around regional admiralties. Five would ultimately emerge: one in Zeeland (Veere, obviously), three in Holland (Amsterdam, Rotterdam, and one alternating between Hoorn and Enkhuizen), and a last one in Friesland (Dokkum). These admiralties were funded, at least in theory, by the import and export duties levied in the harbours of their catchment area. In practice, the States General had to make up the shortfall.⁷⁸

2.10 Conclusion

In the ten years between 1585 and 1595, the Dutch economy received three distinct boosts.⁷⁹ First, in 1585, the Spanish army conquered Antwerp. In retaliation, the rebels closed the Scheldt, in effect robbing the most important commercial centre in the North Sea region of its competitive edge. After some delays, a great deal of Antwerp's commerce moved north, to Holland and Zeeland, allowing Amsterdam to take over as the region's trade hub. Second, from 1589, the fledgling Dutch army began to make a real impact on the battlefield, securing the heartland of the Revolt in Holland and Zeeland, but also conquering territories in the east and the south that had been in Spanish hands. The 1590s were a turning point in the war, allowing the Dutch Republic to establish itself as a proper state. Third, starting in 1593, combinations of Northern and Southern merchants started to pool resources for trips to Asia, where none of them had previously carried out business. These new activities were expanding to global proportions the range of trade converging on the Holland and Zeeland markets. Whereas Antwerp had depended on imports from the Mediterranean and Asia by Italian, Portuguese, and Spanish merchants, the Dutch now established their own global trade network thanks to their merchant fleet and shipbuilding capacity.⁸⁰

These three changes set in motion a cascade of innovations and other developments. Such innovations took place in the economic domain, but simultaneously also in the army and in other institutions. All three were necessary elements in creating what came to be known as the Dutch Golden Age. Although the concept was articulated and further developed in the nineteenth century, contemporaries in the seventeenth century were already aware of the fact that something unique was taking place in the Dutch Republic. When the former English ambassador in The Hague wrote a book about his experiences, published in 1673 as *Observations Upon the United Provinces of the Netherlands*, he needed very few words to sum up what he had seen. The Dutch, he claimed on the very first page of his book, were “the envy of some, the fear of others, and the wonder of all their neighbours”.⁸¹

Temple did not underestimate the importance of the economy. He thought that “no country can be found either in this present age, or upon record of any story, where so vast a trade has been managed, as in the narrow compass of the four maritime provinces of this commonwealth”.⁸² He then went on to list some of the striking features of the Dutch economy: a larger fleet than all the rest of Europe combined, no raw materials or products of their own apart from butter, cheese, and pottery, but a very innovative and productive industry nonetheless. The Dutch, he thought, had been forced to find solutions precisely because they had very few things to work with. Their trade and industry, in other words, were forced on them. In a very modern-looking twist to his argument, Temple went on to state that “trade cannot live without mutual trust among private men, so it cannot grow or

thrive to any great degree without a confidence, both of public and private safety, and consequently a trust in the government”.⁸³ Temple came to the same conclusions as Douglass North, but 300 years earlier.

Economic and institutional developments were connected on an analytical level, but also in very practical ways during the decades covered in this chapter. The VOC and WIC combined trade and warfare. The army and navy were supplied by, but also recruited through, the private sector. Public offices were occupied by people who were also active as merchants and entrepreneurs. These close connections within the “brokerage” or “familial” state were a potential source of corruption and forms of rent-seeking, but in the decades around 1600, they also helped to sustain a feverish degree of innovation and renewal.⁸⁴ We can only speculate as to the extent to which the war against Spain contributed to this general atmosphere. It is easy to imagine, but difficult to prove, that the struggle for survival made society more open to change and helped overcome objections against its various expressions.

Notes

1. Quoted from C. Lesger, “De wereld als horizon: De economie tussen 1578 en 1650”, in W. Frijhoff and M. Prak (eds), *Geschiedenis van Amsterdam*, vol. 2–1: *Centrum van de Wereld, 1578–1650* (Amsterdam, 2004), p. 103.
2. The term “Golden Age” has been criticized in recent years, because it seems to ignore the many terrible things that happened during this era, especially slavery. We continue to use the term to mark the extraordinary developments that took place in the Dutch Republic during the seventeenth century, some of which are the topic of this chapter, while at the same time acknowledging that violence, slavery, and poverty were a structural aspect of this “Golden” Age. For a more extensive treatment, see M. Prak, *The Dutch Republic in the Seventeenth Century*, 2nd edition (Cambridge, 2022).
3. The most prominent expression of this view can be found in J. de Vries and A. van der Woude, *The First Modern Economy: Success, Failure, and Perseverance of the Dutch Economy, 1500–1815* (Cambridge, 1997). However, see also J.L. van Zanden and B. van Leeuwen, “Persistent but not consistent: The growth of national income in Holland”, *Explorations in Economic History*, 49, no. 2 (2012), pp. 119–130.
4. Eminent representatives of this view are J.I. Israel, *Dutch Primacy in World Trade 1585–1740* (Oxford, 1989), and C. Lesger, *The Rise of the Amsterdam Market and Information Exchange: Merchants, Commercial Expansion, and Change in the Spatial Economy of the Low Countries* (Burlington, 2006).
5. O. Gelderblom, *Zuid-Nederlandse kooplieden en de opkomst van de Amsterdamse stapelmarkt (1578–1630)* (Hilversum, 2000); O. Gelderblom, “From Antwerp to Amsterdam: The contribution of merchants from the Southern Netherlands to the commercial expansion of Amsterdam (c. 1540–1609)”, *Review (Fernand Braudel Center)*, 26, no. 3 (2003), pp. 247–282.
6. A. de Pleijt and J.L. van Zanden, “Preindustrial economic growth, ca. 1270–1820”, in C. Diebolt et al. (eds.), *Handbook of Cliometrics* (Cham, 2019), pp. 423–438, 433. This idea is also implied in O. Gelderblom, *Cities of Commerce: The Institutional Foundations of International Trade in the Low Countries, 1250–1650* (Princeton, 2013).

7. Key works are W.P. Blockmans, "Princes conquérants et bourgeois calculateurs: Le poids des réseaux urbains dans la formation des états", in N. Bulst and J.-Ph. Genet (eds), *La ville, la bourgeoisie et la genèse de l'état moderne (XIIe-XVIIIe siècles)* (Paris, 1988), pp. 167–181; M. 't Hart, "In Quest for Funds: Warfare and State-Formation in the Netherlands, 1620–1650" (PhD dissertation, Universiteit Leiden, 1989); Ch. Tilly (ed.), *Cities and States in Europe, 1000–1800*, special issue of *Theory & Society*, 17 (1989), pp. 563–755; Ch. Tilly, *Coercion, Capital, and European States, AD 990–1990* (Oxford, 1990). 't Hart's dissertation was published in 1993 as *The Making of a Bourgeois State: War, Politics and Finance during the Dutch Revolt*. She contributed a paper to the special issue, and this also appeared in the book edition that was published in 1994 as W.P. Blockmans and Ch. Tilly (eds), *Cities and the Rise of States in Europe, A.D. 1000 to 1800*.
8. A modern and sophisticated version of this argument can be found in W. Reinhard, *Geschichte der Staatsgewalt: Eine vergleichende Verfassungsgeschichte Europas von den Anfängen bis zur Gegenwart* (Munich, 1999).
9. Van Zanden and Van Leeuwen, "Persistent but not consistent", p. 123
10. Such a survey is available in De Vries and Van der Woude, *First Modern Economy*.
11. P. Lourens and J. Lucassen, *Inwoneraantallen van Nederlandse steden, ca. 1300–1800* (Amsterdam, 1997). Supplement this with J. de Vries, *European Urbanization, 1500–1800* (London, 1984).
12. Van Zanden and Van Leeuwen, "Persistent but not consistent", p. 121 and data appendix.
13. *Ibid.*, p. 123 (Figure 2), p. 126 (Tables 4 and 5).
14. For Zeeland, see V. Enthoven, "Zeeland en de opkomst van de Republiek: Handel en strijd in de Scheldedelta, c. 1550–1621" (PhD thesis, Leiden University, 1997).
15. For Deventer, see P. Holthuis, *Frontierstad bij het scheiden van de markt: Deventer militair, demografisch, economisch 1578–1648* (Houten, 1993).
16. For Utrecht, see J. de Vries, "Searching for a Role: The economy of Utrecht in the Golden Age of the Dutch Republic", in J.A. Spicer and L. Federle Orr (eds), *Masters of Light: Dutch Painters in Utrecht during the Golden Age* (Baltimore/San Francisco, 1997), pp. 49–59.
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