

What do we see when we look at the increasing contacts between the shores of the North Sea in the Early Modern period as a case of globalisation?

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When was globalisation?

In debates on globalisation different time frames are employed. In the general debate globalisation is seen as a very recent phenomenon, connected with, for instance “investing in stock markets around the world, migrating for thousands of miles in search of a better life, doing business by internet and e-mail, ordering clothing to be produced in India from designs made up in Australia, but for sale in Australia, Europe and the United States”.¹ Historians are aware that the generation living in the present is not the first undergoing globalisation and that very similar phenomena were present in the past. There is a consensus that globalisation was already present in much of the nineteenth century, with the forceful opening up of third world markets by western powers, increasing migration, decreasing trade barriers and improved transport technologies.² By 1913 a high level of globalisation had been reached. This was followed by a wave of de-globalisation lasting from 1914 until 1945, when two world wars and a global economic depression led trade barriers being re-established, import restrictions and immigration stops. The present wave of globalisation started somewhere in the second half of the twentieth century.

There is less consensus whether there were any earlier periods of globalisation. Some authors claim that the discovery of the Americas and direct trade routes from Europe to Asia led to a first wave of globalisation starting from ca. 1500, with the second wave in the nineteenth century and the third one at the end of twentieth century.³ But as trade routes have linked parts of the globe, and in conjunction much of the globe for centuries before 1500, it is possible to find global, or at least very long distance trade, and thus arguably globalisation much earlier.⁴

In 2002-2004 a debate on when to date the beginning of globalisation took place in the *European Review of Economic History*. Following Heckscher-Ohlin trade theory, Kevin O'Rourke and Jeffrey Williamson argued that the crucial test for globalisation is commodity price convergence.⁵ They hold that before 1800 trade between Asia and Europe was mainly in goods that did not compete with local products: primarily spices, and further silk, sugar and gold from the East, and silver, linens and woollens going in the other direction. As these did not compete with local products, they could by definition not lead to price convergence. O'Rourke and Williamson give a number of sets of commodity good prices, where they compare the

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price in the region of production with that in the region of consumption, e.g. the prices of cloves on the Maluku islands and in Amsterdam. In other cases the available data are on freight rates. On the whole, they conclude that there is no permanent price convergence before 1800, and neither do they find a general decline in freight rates.

Dennis Flynn and Arturo Giráldez responded with an article in which they argued that the econometric analyses proposed by O'Rourke and Williamson do not capture real globalisation taking place since 1571. In that year the Afro-Eurasian landmass became directly connected to the Americas via Manila. Flynn and Giráldez think it "inappropriate to label connections limited to sub-regions of the Old World as 'global'".⁶ Only when the Americas and Asia became directly connected, long distance trade could be considered to have become global. This led to the exchange of germs, diseases, animals and plants, which changed life fundamentally, and occasionally brought death. Flynn and Giráldez question the way O'Rourke and Williamson treat silver and gold as money, and not also as a traded good. This is relevant, as global silver prices converged by 1640, and again around 1750. They also disagree with the assessment that virtually all long distance trade was in luxury items, pointing to sugar, tea, porcelain, cheap silk and cotton, which all became fairly ordinary consumption goods in North-western Europe before the end of the eighteenth century.

It is clear that to a large extent the two arguments are about something else, and that the outcome depends on how one defines globalisation. O'Rourke and Williamson only want to speak of globalisation if there is price convergence, find that for the nineteenth century, but not before, and conclude that there is no globalisation before 1800. Flynn and Giráldez find relevant exchanges which had a huge impact on life in the producing and consuming countries. They define globalisation as this kind of exchange, if it takes place over large enough distances, and pick 1571 as the moment when their criterion for distance is met. Jan de Vries has dubbed these respective approaches "hard globalisation" and "soft globalisation".⁷ Focussing on the European-Asian trade, he concludes that before 1800, improvements in shipping were not enough to lower freight rates on this route substantially. This trade flow increased steadily over an amazingly long period, but neither the amount of Asian goods imported in Europe, nor the amount of silver used to pay for it in China, was large enough to have a huge impact.⁸ De Vries comes to the conclusion that the period before 1800 is one of soft globalisation.

What we want to do here, is to adopt the criteria of hard globalisation as proposed by O'Rourke and Williamson, and employ them to the Early Modern period, but to a region where we know that integration took place. The region we choose are the shores of the North Sea.⁹ We will discuss the convergence of prices on the markets of commodities, wages and capital, thus covering the main prices that are supposed to converge in cases of hard globalisation.¹⁰ We end with a brief look at some global commodities.

Goods prices

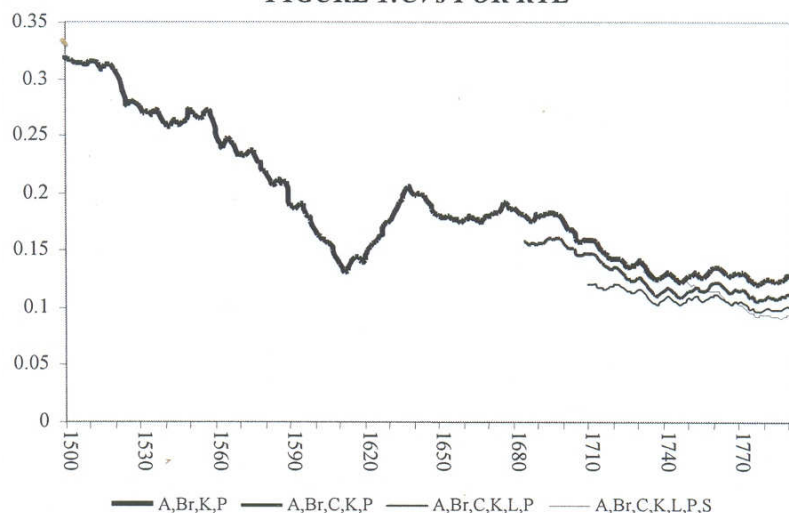
Before the nineteenth-century transport revolution of trains and better roads, transport, especially over land, was expensive. Low-volume high-value goods like spices or expensive textiles could bear such transport costs better than high-volume low-value goods. If the distance was long enough, even sea transport was expensive, and could only be borne by high-value goods. By definition markets for expensive goods are limited, and this in itself makes price convergence less likely. Within Early Modern North-western Europe a wide range of goods was traded. A large part of the traded

goods were of a high-volume low-value nature, but large quantities were still traded between regions. The Baltic exported goods such as grain, timber, iron, hemp, flax, tar and pitch. Norway produced preserved fish (mainly cod) and also exported large amounts of timber. Denmark was known for the large number of oxen it exported, but Danish grain also found its way abroad. Across the North Sea, England and Scotland exported significant amounts of grain and coal. The Dutch flooded international markets with salted herring.¹¹

The trade in grains formed a sizeable part of these trade flows. All regions in northern Europe participated in this trade as importers, exporters or re-exporters. Because different types of grain and grain products such as malt were involved, a region could theoretically fulfil all these roles at the same time. The Baltic grain trade is probably the best known example of the early modern trade in grains, but during the eighteenth century England became an important exporter as well. The grain trade with the Baltic had already reached a substantial size during the sixteenth century and from the mid-sixteenth century onwards 50,000 lasts or more were usually exported westwards each year.¹² During the early eighteenth century exports slumped, but from around 1750 they increased once more to exceed 75,000 lasts per annum at the end of the century. English exports only became significant in the eighteenth century. During the period 1700-1765 they increased from around 15,000 to 60,000 lasts per year. In addition to these large trades, many smaller trades took place at regional, national and international levels. With an annual volume of just 7,000 lasts, grain shipments to ports in southern Norway during the 1670s fit into the small trade category. The amount steadily increased from the 1730s onwards, however, and reached the 25,000 last mark around 1800.¹³

Given these thick flows of trade, it is logical that the Early Modern North Sea basin constituted a highly integrated market for grain. This is indeed visible when we look at the integration of markets.

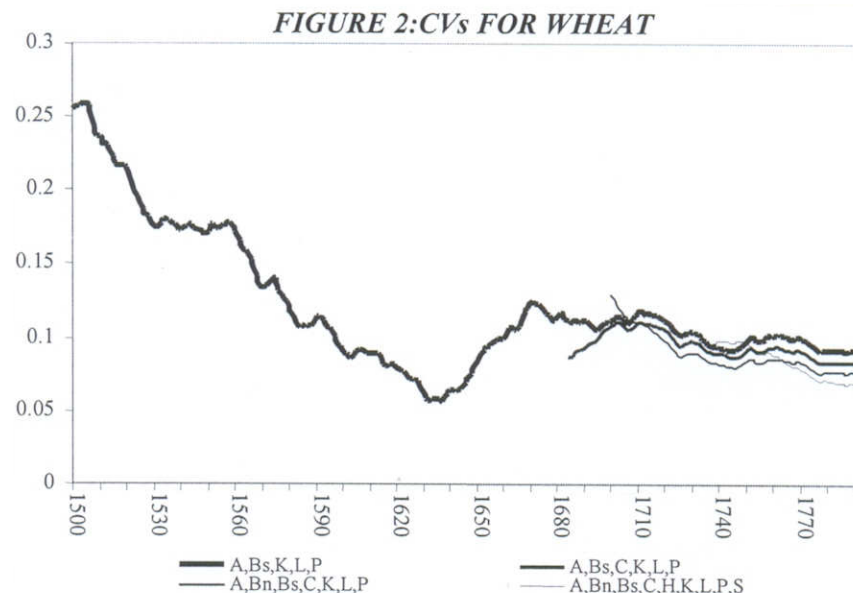
FIGURE 1: CVs FOR RYE



Source: Jacks, 'Market Integration'

A = Amsterdam, Br = Bremen, K = Köln, P = Poland (Danzig), C = Copenhagen, L = London, S = Stockholm

Figure 1 is derived from Jacks' research into the rye trade.¹⁴ Rye was a staple grain for ordinary bread. It gives the coefficient of variation between prices for rye on different markets. A decline in the value of these coefficients of value signifies that the distribution of prices became more concentrated around the mean price, and thus increasing market integration. There are two strongly contrasted periods: before and after the 1610-1620 decade. In the long sixteenth century market integration increased rapidly. For most of the seventeenth and eighteenth centuries there are fluctuations, but there is no clear trend. Between the 1610s and 1640 market integration decreased again to the level attained by 1590.¹⁵ Then a slow increase set in, with the position already reached in the 1610s only attained again by the 1730s.

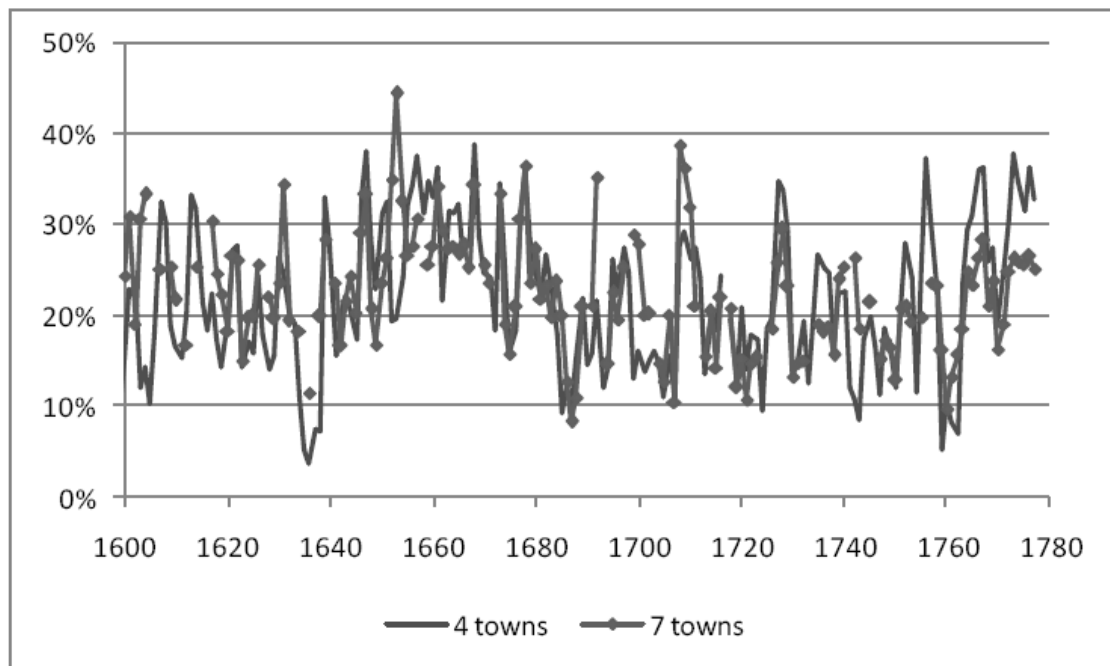


Source: Jacks, 'Market Integration'

A = Amsterdam, Bs = Brussels, K = Köln, L = London, P = Poland (Danzig), C = Copenhagen, Bn = Bremen, S = Stockholm

Figure 2 gives similar data for wheat, a somewhat more luxurious grain. As the goods differ somewhat and the set of towns for which data on wheat are available is slightly different, it is no surprise that the outcome differs somewhat with that in figure 1, but the overall trend is the same. Again the same division in two periods is visible. There is an important increase in market integration in the fifteenth century, which for wheat continues until 1630. For most of the seventeenth and eighteenth century there is no overall trend, but the same movement as for rye. Market integration decreases between the 1630s and the 1670s, followed by a slow increase until about 1740, after which integration stagnates at about the same level as had been reached around 1600. In other words, we find strong market integration in the sixteenth and early seventeenth century, followed by a mid-seventeenth century setback and stagnation or much slower market integration after that.

Figure 3. CVs for wheat prices for two sets of towns, 1600-1780



Source: Van Bochove, *Economic Consequences*, 41.

4 Towns = Cologne, Bruges, London and Cambridge; 7 Towns = these four plus Amsterdam, Arnhem and Edinburgh

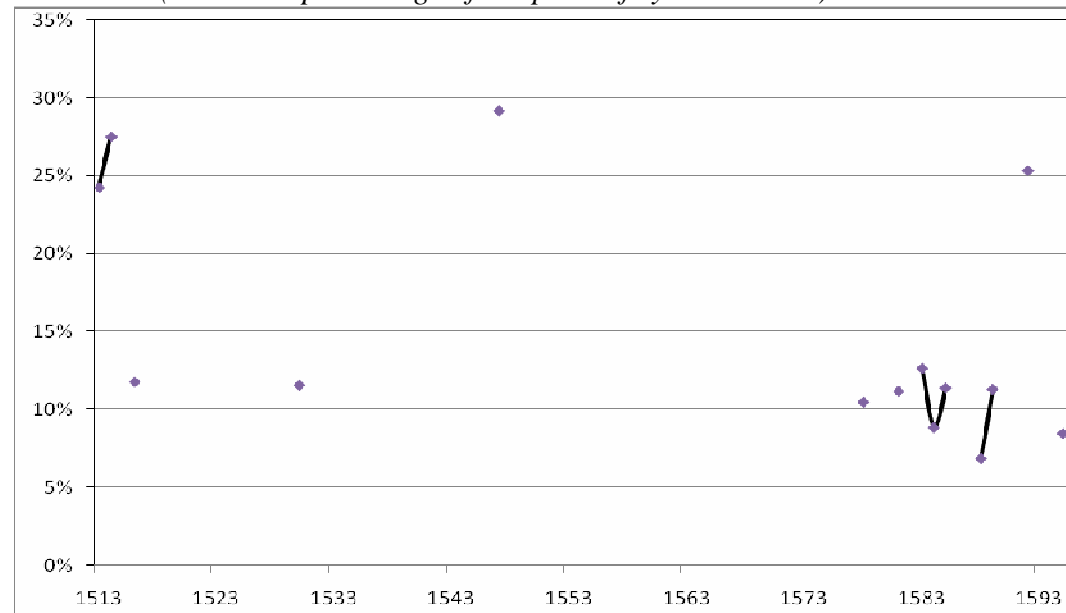
Figure 3 shows CVs for wheat prices for two sets of towns, but only for the seventeenth and eighteenth centuries. The two CV series develop more or less identically through time. Here too, the mid-seventeenth century is a period of somewhat increased dispersion, but between 1660 and 1690 there was again some convergence. Here too, eighteenth century CV values were roughly similar to what they had been in the early seventeenth century, which confirms the conclusions drawn above for this period.

How are these developments to be explained? Trade between markets takes place because there is a price differential between the two markets. In the case of grain, this price differential can be caused by differences in the costs involved in growing grain (land rent, wages, taxes), or by incidents like local harvest failures. The price gap that exists between the two locations can consist of transport costs, transaction costs and an arbitrage risk premium for traders, which will be higher if these are working in poorly informed and uncertain environments, or any profit captured by merchants exploiting exclusive information.¹⁶

Let us turn to transport costs first. In her study of the Dutch grain trade with the Baltic, Van Tielhof has collected important evidence on freight rates on this crucial route covering the period from the early sixteenth century to the mid-eighteenth century. Structurally, transport costs only seem to have declined during the sixteenth century. A round trip from Gdansk to Holland would take 1½ to 2 months in 1530, for example, but a similar trip in the 1580s only required a good month. Towards the end of the sixteenth century, the introduction of the *fluitschip* added to the efficiency of Dutch transport.¹⁷ Although nominal freight rates increased, real freight rates, expressed as share in the price of the goods transported, decreased

considerably. Van Tielhof collected a limited number of observations of freight rates which illustrate this decrease. These are shown in figure 4a. For the seventeenth and eighteenth centuries, from about 1630 by the latest, however, no further decrease can be documented. Real transport costs may actually have increased somewhat, as is shown in figure 4b.¹⁸

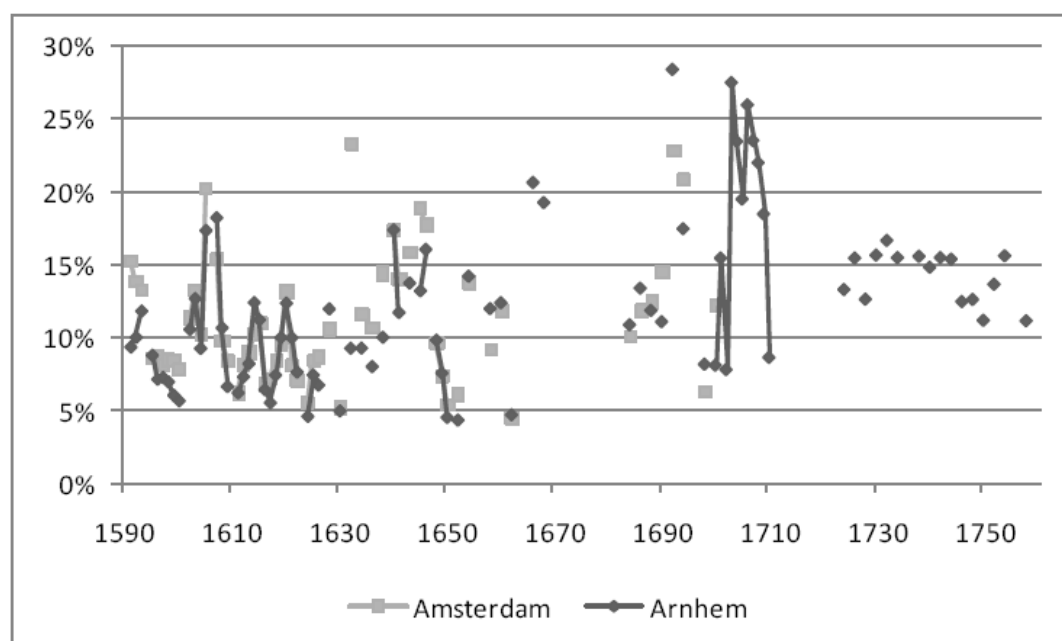
Figure 4a. *Real transport costs of shipping rye from Reval/Gdansk to Amsterdam, 1513-1595 (rates as a percentage of the price of rye in Utrecht).*



Source: based on Van Tielhof, *The 'mother of all trades'*, 198.

Note: As only rye prices for Utrecht were available, these have been used.

Figure 4b. *Real transport costs of shipping rye from Gdansk to Amsterdam, 1590-1760 (rates as a percentage of the price of rye in Amsterdam and Arnhem).*

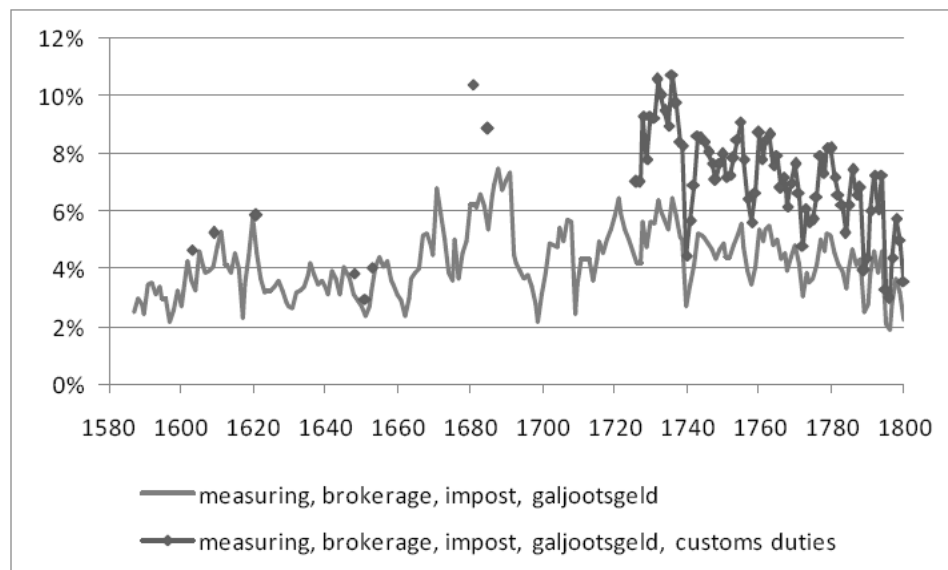


Source: based on Van Tielhof, *The 'mother of all trades'*, 198, 203, 340-346 and Van Bochove, *Economic Consequences*, Appendix I. Note: Since rye prices in Amsterdam and Arnhem moved in

tandem, both series have been used because Amsterdam rye prices were not available for the eighteenth century. For some years when rye prices for Amsterdam were unavailable, interpolations were made

Jeannin suggested already in 1960 that the fluitschip was fully developed and had reached the zenith of its efficiency by the 1630s. Van Zanden and Tielhof concluded in a recent paper that average real freight rates fell strongly in the second half of the sixteenth century, but started to rise again in the 1620s.¹⁹ The outcome that transport costs were falling in the sixteenth century, but no longer after the early seventeenth century, tallies well with the development of the data for market integration.

Figure 5. *Real transaction costs of wheat in Amsterdam, 1580-1800 (rates as a percentage of the price of wheat).*



Source: Van Bochove, *Economic consequences*, 45, there based on Van Tielhof, *The 'mother of all trades'*, 101-102, 155, 282.

Transaction costs relate to a wide range of costs associated with shipping goods between ports that are not included in the transport costs. We can think of such things as taxation, brokerage and measuring costs, but also of the costs of moving capital, information costs and the costs involved in limiting risks.²⁰ Figure 5 shows that although there were some periods during which real transaction costs increased they also decreased again, and from the late 1730s onwards a period of structural decrease set in. At the end of the eighteenth century, real transaction costs had once again reached levels common around 1600. But as there was no structural decrease over the seventeenth and eighteenth centuries, this again fits with the outcome that there was no further market integration in the seventeenth and eighteenth centuries.

For moving capital, Flemish and Dutch merchants in the sixteenth century increasingly adopted letters of exchange.²¹ Futures contracts on grain were used from the early sixteenth century. In 1602 the Dutch East India Company was founded. This developed into the first modern company financed with shares. The shares became easily transferable, and were used to guarantee loans and other commercial ventures²². The Amsterdam *Wisselbank*, founded in 1609, enabled merchants to discount domestic and foreign bills of exchange. All in all Amsterdam created a set of financial markets that make possible the growth of exchange and commerce. As to information, in Amsterdam, a large number of merchants from all over Europe

congregated. Information was concentrated in Amsterdam, thanks to the abundant international contacts of the merchant community.²³ In 1611 an Exchange was opened, where merchants could find a sheltered trading place. The city authorities furthered the concentration of merchants and information with regulation. Printed price lists informed merchants of current prices. Techniques for risk spreading had also developed in the sixteenth century. Ship-ownership was divided into numerous shares to limit risk, more numerous than elsewhere. At the Exchange, sworn brokers acted as intermediaries between merchants, but could also help in underwriting insurance policies. The Amsterdam city authorities laid down detailed regulations for the insurance business in 1598.²⁴ All these institutional innovations were in place before 1620, which helps to explain the convergence in grain prices in the sixteenth and early seventeenth century.

Besides transport and transaction costs, there was also an additional amount that made up part of the price differential, which included profits. If profits originally had ever been excessively high – e.g. because of monopolistic practices – prices could converge when trade became more open and excessive profits disappeared. However, the great number of merchants active in the grain trade meant that there must have been competition between them. Van Tielhof estimated the rate of return in the grain trade during the first decades of the seventeenth century at about 10%. This may just have been the minimum rate of return at which merchants were willing to invest their money in such commercial undertakings.²⁵ Convergence as the result of sharply decreasing profit margins would thus have been an unlikely scenario. However, grain markets remained integrated and grain prices continued to move in a synchronised way, not just in the North Sea area, but in a much larger part of Europe that was influenced by the grain trade centring on Amsterdam.²⁶

Wages

From the late sixteenth century onwards the growth of the Dutch economy also started to have an impact on foreign labour markets.²⁷ Since the size of the native population did not increase with a similar rate, during the final decades of the sixteenth and throughout almost the entire seventeenth century a strong demand for additional labour existed. The demand was met by the supply of foreign labour. Attracted by the availability of work and the high wages that were paid in the Netherlands, every year thousands of immigrant workers from the western parts of Germany, the Southern Netherlands, Norway, Denmark and Sweden travelled to the coastal regions of the Dutch Republic in search of work. For a number of sectors an international labour market thus emerged. Especially the maritime labour market in the North Sea region became increasingly international, dominated by migration to the Netherlands. But also the textile industry, the building industry and domestic service, from the turn of the seventeenth century became increasingly international. The lure of the Dutch Republic on (potential) migrants from the surrounding countries is illustrated by the fact that between 60% and 90% of the emigrants from the North Sea shores that stayed within the North Sea region chose the Netherlands as their destination. This concentration of foreign labour on the Netherlands meant that during the first half of the seventeenth century an estimated 6% to 8% of the total population of the Netherlands was of foreign birth. Given the fact that most of these migrants found work in Holland and that less than half the Dutch population lived in the province of Holland, this meant that foreign born labourers made an even more important contribution to Holland's workforce. Around 1650, in Holland about 29 percent of its

urban population was born abroad, while in Amsterdam the foreign share was a whopping 38 percent.

Figure 6. Estimated size of migration stock born in North Sea Area



— = migration stock born in one North Sea country, residing in another
 ---- = of which residing in the Dutch Republic

Source: Van Lottum, *Across the North Sea*, Appendix I, pp. 196-202.

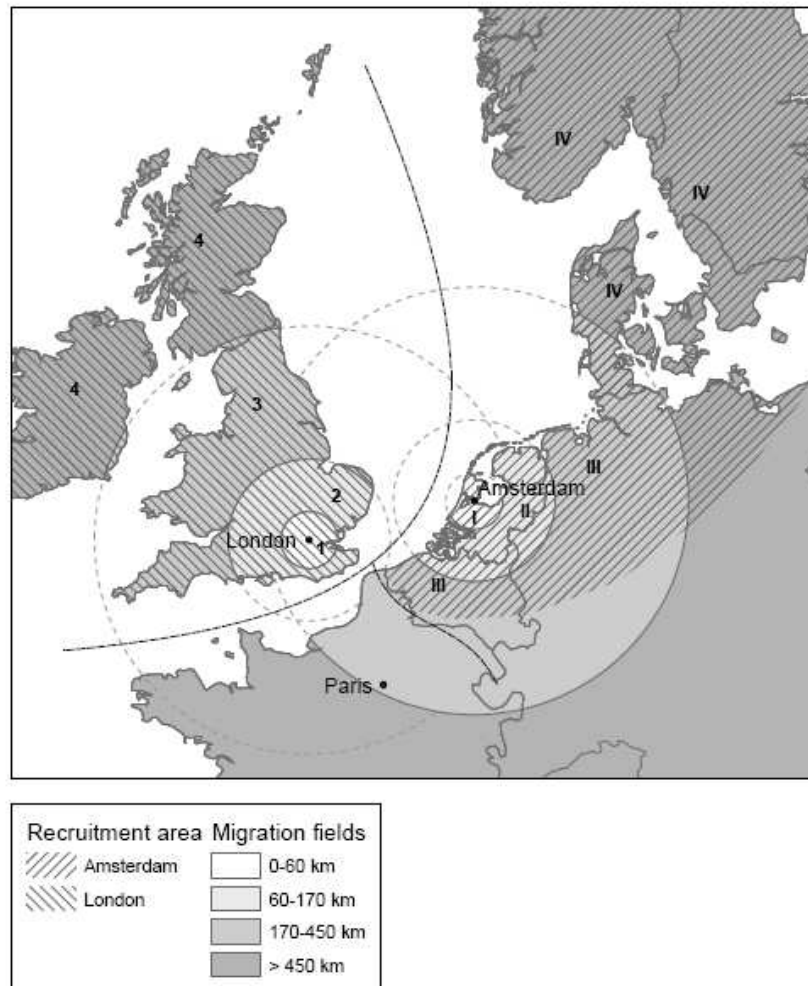
Large numbers of workers from a number of North Sea Shores flocked to the Netherlands. Measured as a percentage of the population in the sending region, especially the migration from Southern Norway to Holland was impressive, the emigrant stock rate (the emigrant stock per 1,000 home population), was about 27, meaning that for every 1,000 people at home 27 lived abroad – almost all in the Netherlands. Given the fact that most of the out migration was concentrated in the south of Norway and for instance the relatively densely populated region around its capital Christiania (present day Oslo) witnessed relatively few out migration, on a local level this number must have been much higher.

Did this high level of labour migration result in the convergence of Norwegian wages with those in Amsterdam? The scarce available data do not point to convergence.²⁸ This can be explained from the fact that the Norwegian population as a whole was under-employed during the seventeenth and eighteenth centuries. Levels of proletarianization in the most important sending regions were relatively low, and most of the migrants were farmer's sons and daughters. Wage convergence as a result of large out-migration, therefore did not apply.²⁹ Given the fact that most of the migrants left from a non-monetized background, the effect on real wages cannot be measured. This does of course not mean that the situation of those who stayed did not improve. They gained through remittances and lower demographic pressure.

Interestingly, convergence of wage levels *is* visible between England and Holland, and between Scotland and Holland. Of all the areas bordering the North Sea and sending migrants to the Dutch labour market, these are the only cases of wages converging with those in the western Netherlands.³⁰ In these cases, however, the

explanation cannot be that the British and Dutch labour markets worked as communicating vessels and that similar wage levels were reached through emigrating from the first to the latter. In actual fact, the Dutch and English labour markets remained rather separated during the entire early modern period. The core areas around London and Amsterdam, where the highest, and indeed rather similar wages could be earned, recruited from similarly structured, but discrete regions.

Figure 7, Amsterdam and London labour recruiting areas

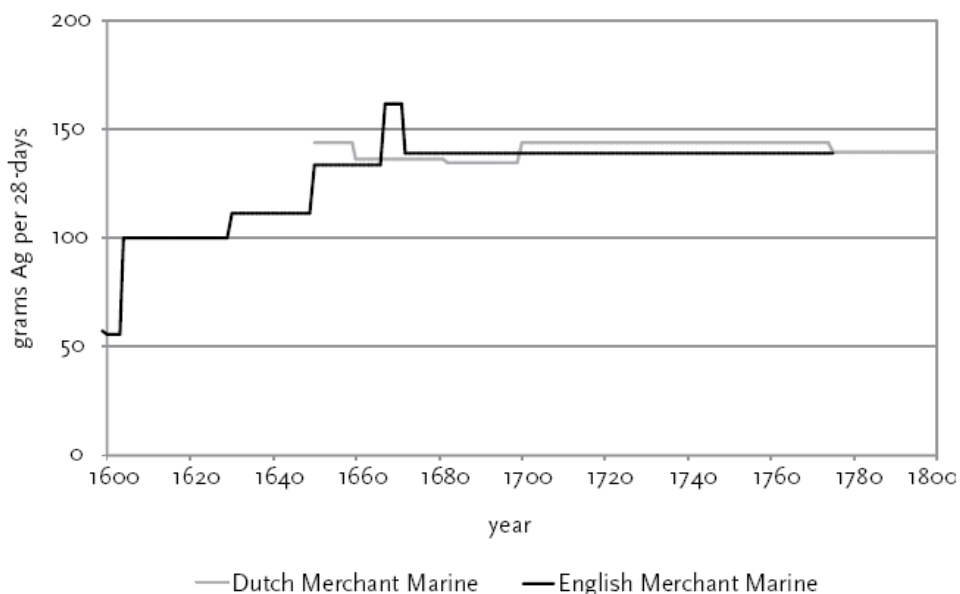


Source: Van Lottum, *Across the North Sea*, p. 109

Figure 7 shows schematically how the two hinterlands of the two main core areas were structured. The dotted line represents the watershed between the two migration fields, a third migration system, with Paris as its core is situated below. When comparing the structure of the two migration systems of the North Sea region, it is striking that when the two migration fields are divided in four regions (as has been done in Figure 7), the two systems are very much alike. Although Amsterdam tended to attract a somewhat larger share of migrants from region III and London from region 4, the migration systems were very much similar, and remained so over time. Even in the eighteenth century, when England took over Holland's dominant economic position in the region, the watershed between the two systems remained intact. England's hinterland did not grow at the expense of that of Holland. That both systems remained separate over time, was made possible by the fact that wage levels

were so similar. Real wage levels differed slightly in favour of the Dutch Republic in the seventeenth century, but were almost on par for the century that followed. Where real wages are important for migrants that plan to stay in another country because they actually spend their earnings there (and are in many cases accompanied by more mouths to be fed in the form of a family), nominal wages are more important for so-called non-sedentary migrants. Historically, sailors were the most important group of non-sedentary migrants. Within this category migrants spend only a small part of their money abroad, and instead bring most of it home, and there only the nominal wage (expressed below in grams of silver) is relevant. As Figure 8 below illustrates, from 1650 also the nominal wages in the two countries are on a similar level. In sum, for migrants from the two hinterlands there was hardly any incentive to migrate over longer distances (and enter a new migration system) since the expected earnings would be almost similar – the extra transportation cost would only diminish the revenue.

Figure 8. Silver wages for the Dutch and English merchant marine and Navy, 1550-1800 (in grams of silver per 28-day month)

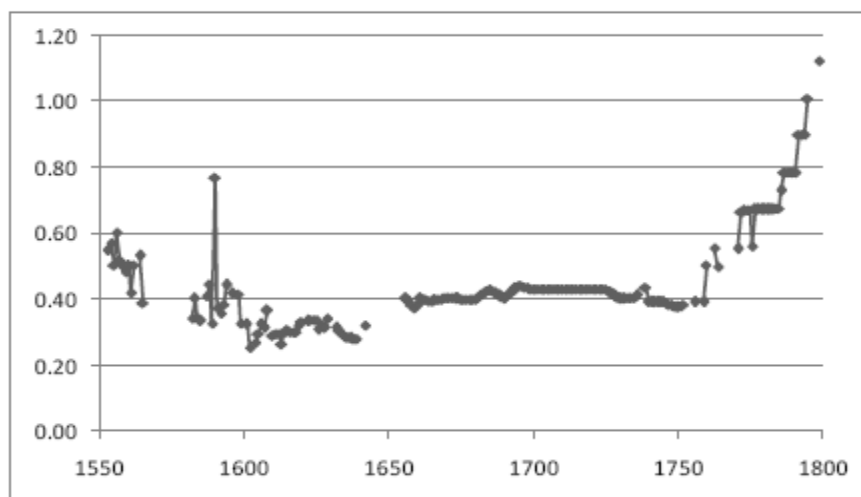


Source: Dutch wages: Boon, *Bouwers van de zee*, 145; Davids, 'Maritime labour', 8, Table 12. English wages: Davis, *The rise of the English shipping*, 135-137.

It would have been fairly easy for British or Dutch sailors to enlist on either fleet: the countries bordered and sailors are by definition a mobile occupational group. We can therefore look at the sailors wages of both countries, and perhaps even at the wages in both cores at large, as a ceiling. It is plausible that the fact that Dutch wages were generally very sticky can also be attributed to the existence of this ceiling. There was no incentive for employers to pay above the Dutch-English equilibrium, whereas lowering wages below the ceiling would endanger a shift of the foreign labour force to the other migration system. Even if the convergence of British wages to this level cannot be seen as a proof of labour market integration, we can still assume that the separate British and Dutch labour markets shared a roof.

The other case of wage convergence was that between wages paid in Edinburgh and the western Netherlands. Where the wage level in London had been comparable with that in the western Netherlands for much of the sixteenth, seventeenth and eighteenth centuries, Edinburgh wages only converged with the wages in Holland towards the end of the eighteenth century. Among the many foreigners that went to the Netherlands during the early modern period there were also numerous Scots.³¹ Some Scottish sailors, for example, were found on the Dutch fleet. Scottish merchants were present in the towns of Veere and Rotterdam and Scottish students attended Leiden University. However, compared to other destinations, the Dutch labour market did not exert a significant pull on Scottish workers. Scottish migration was directed primarily towards Ireland, England and across the Atlantic. Numerous Scots were also to be found in Sweden and Poland. Scotland did not therefore belong to the principal recruitment area of the Dutch labour market. Assuming a causal relationship between migration to the Netherlands and the increase in Scottish wages (as shown below in Figure 9) is therefore implausible.³²

Figure 9. Silver wages in Edinburgh in relation to silver wages in the western Netherlands, 1550-1800.



Source: Van Bochove, *Economic consequences*, 69-70

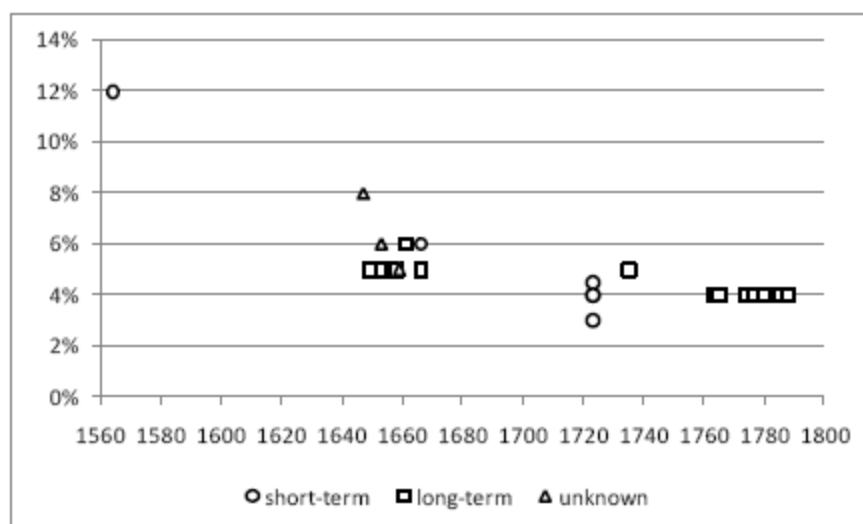
The sharp increase of Scottish silver wages – represented in Figure 9 by Edinburgh wages, but present elsewhere in the country as well – relative to those in the western Netherlands, was caused by endogenous economic development within Scotland itself. The combined populations of the major towns of Glasgow, Edinburgh, Dundee and Aberdeen increased approximately threefold and urbanisation rates increased from c.7% in 1700 to c.11% in 1750 and c.21% in 1800. Production growth in non-agricultural sectors was impressive. Linen production increased from 4 million yards around 1730 to 25 million yards by the end of the century. Similarly, the output of the coal industry increased from a mere 225,000 tons at the turn of the eighteenth century to two million tons by 1800. The volume of the tobacco trade also rose markedly. Around 1724 Glasgow merchants imported 4.2 million pounds, but this had increased to 46 million pounds by the early 1770s. This rapid economic expansion obviously required huge amounts of labour. It comes as no surprise, therefore, that competition for labour increased and that silver wages rose as a result.³³

Capital costs

As a consequence of the Dutch Golden Age, capital became very abundant in Amsterdam. It also came available for foreign lenders. Dutch investments in London grew to over 200 million guilders in the 1760s. The interest charged on these loans converged with the interest rate that Dutch borrowers paid. In England a well-developed stock market was present, there was a funded state debt and a relatively effective control of state finances by Parliament. In realising investments, creditors and debtors searched for these efficient institutional frameworks to facilitate the international exchange of capital. Investors assigned much importance to the size and character of the collateral a debtor could offer. Because the Dano-Norwegian monarchs could dispose of exactly such a collateral – namely their income from the Sound tolls – they were highly successful in raising Dutch credits. When income from the Sound tolls started to increase from around 1730, the Danish monarchs were all the better able to negotiate loans in the Dutch Republic. In this international setting, creditors and debtors operated as economic theory would expect them to.

As a result, the height of interest rates on the loans that were extended to the monarchs decreased sharply from about 1560 onwards. A decrease of interest rates and transaction costs in the Dutch Republic can only explain part of this process. Additionally, the risk of lending to the Dano-Norwegian monarchs – measured by the additional premium charged on their loans when compared to the loans to the States of Holland – decreased from 3.0% in 1700 to 1.5% during the period 1763-1788. More advanced financial techniques – namely assigning future income from tolls for interest payments and redemption – increased the Danish monarchs' credibility. His growing income from the Sound toll allowed for the rapid increase of borrowing.

Figure 10. *Nominal interest rates charged to the Danish Kings, 1560-1800*



Source: Van Bochove, *Economic Consequences*, 106

In other words: a convergence of interest rates in the North Sea basin took place. This was not limited to the well-known cases of the developed British and Dutch capital markets, but included the much less developed market of the Danish-Norwegian kingdom.

How about global commodities?

We have been focusing on a relatively strongly integrated international economy in a small corner of Europe, but this economy was strongly related to global markets. Most historians see the creation of more direct long distance seaborne trade from the fifteenth century as an important change, but O'Rourke and Williamson disagree. "Long-distance trade in the pre-eighteenth century period was largely limited to what might be called non-competing goods: Europe imported spices, silk, sugar and gold, which were hardly found there at all (...) By definition, these non-competing goods were very expensive luxuries in importing markets, (and) their presence or absence in Europe had an impact only on the living standards of the very rich".³⁴

As an assessment of the importance of long distance imports for developed European economies this statement is misleading. Europe may have had little locally produced pepper, silk, sugar or gold, but the products were known and consumed. They were not just consumed by the filthy rich, but spices and sugar were also bought by charity institutions that cared for the poor. Ordinary citizen consumed pepper and other spices, sugar, coffee, tea, tobacco, porcelain, silk and cotton textiles by the early decades of the eighteenth century.³⁵ Tea and coffee were available at every street corner in Dutch towns by the second quarter of the eighteenth century.³⁶ The colonial products were also re-exported to other nearby markets. Tobacco smoking for instance, which can be followed through the traces pipes leave both in documents and in archeological digs, had spread to Scandinavia in the first decade of the seventeenth century. It generated not only trade, but also employment in processing tobacco and making pipes, first in England and the Dutch Republic, later also elsewhere.³⁷

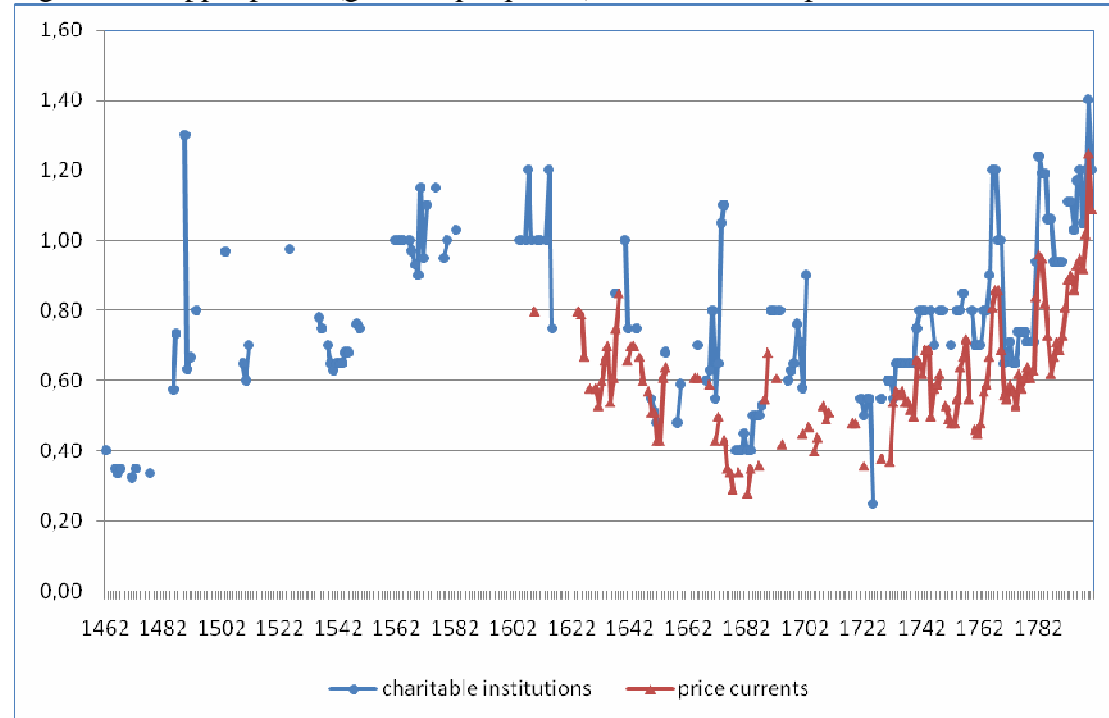
But even if colonial products became mass consumption goods by the eighteenth century, there still remains the question whether this led to convergence between European process and those in the producing areas in Asia and the Americas. Williamson and O'Rourke look the difference between the prices for which the European companies bought these commodities and sold them in their home market. They conclude that there is no overall downward trend in this markup, and therefore no price convergence. The lack of price convergence is explained by the fact that the cost of shipping did not decline and – most importantly - by the fact that the companies had a monopoly on selling these goods. That there was no competition, was generally not true: the companies competed among each other and with Asian merchants, and – with the notable exception of the Dutch company's monopoly in cloves from the Maluku islands – monopolies were hard to establish.³⁸

Given the absence of important transport innovations in long distance shipping, we cannot expect a general downward trend in the markup of the East India companies.³⁹ However, that might be the wrong period to look. As products like sugar and pepper were known on European markets, the establishment of direct seaborne trade with traditional or new regions of production was a transport innovation in itself. We might therefore expect the price convergence to take place when this innovation was introduced, for instance around the years of the establishment of the Dutch VOC.

This seems indeed to have been the case. In Figure 11 we have plotted the prices paid for pepper by Leiden and Utrecht charitable institutions and the prices quoted in Amsterdam price currents.⁴⁰ The prices for the charitable institutions (mainly the Utrecht St. Bartholomeigasthuis) cover a much longer period than the price currents, which are only available from the third decade of the seventeenth century. The price currents are based on a larger number of observations, and are therefore somewhat less volatile. Both series run in tandem for the years that both are

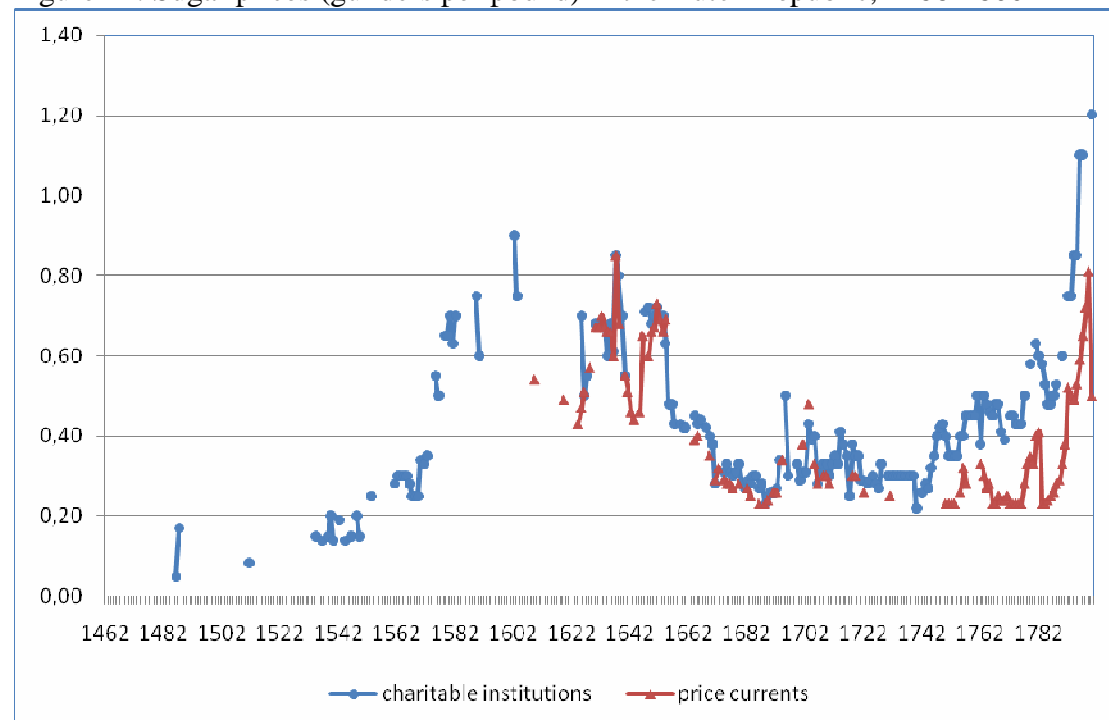
available. In the fifteenth century pepper prices had risen, which reflects both the general rising price level, globally rising demand for pepper and the disruption of trade routes by the Portuguese.⁴¹ After the formation of the VOC, prices started to fall, a trend which was reversed by the 1680s.

Figure 11. Pepper prices (guilders per pound) in the Dutch Republic, 1462-1800



Source: Posthumus, *Prijsgeschiedenis*

Figure 12. Sugar prices (guilders per pound) in the Dutch Republic, 1486-1800



Source: Posthumus, *Prijsgeschiedenis*

Figure 12 shows similar data for sugar prices.⁴² Unfortunately, data are scarce for the first two decades of the seventeenth century, when the Dutch established direct links with sugar exporting regions. In 1621, the WIC was founded, and in the 1630s sugar prices were influenced by fighting in Brazil and the destruction of sugar plantations over there. The long term pattern is similar. The fifteenth century saw rising sugar prices. When the Dutch established direct links with the sugar producing areas, this trend was reversed, and prices dropped until the 1680s. At that point the trend was reversed, and prices rose again, first slowly, but towards the end of the eighteenth century more quickly.

Conclusion

We have looked at the North Sea coasts in the Early Modern Period, a period of soft globalisation, with the criteria of hard globalisation. For commodity prices, we looked at grain, a core consumption good which was traded in bulk. Market integration was visible in the sixteenth and early decades of the seventeenth century. It fed on a decrease in shipping duration, and therefore in shipping costs. It also was furthered by greater mobility of capital, improved information exchange, and better risk management. All of these were related to institutional changes within the Dutch Republic, which were in place by the 1620s. As after that date no further improvements in transport technologies took place and transaction costs were not brought down further, there was no further convergence. There was stiff competition, which meant that profits were limited, and could not be brought down further. But while no further convergence took place during the seventeenth and eighteenth centuries, the area remained highly integrated.

The same could be said of the labour market. From all coastal areas of the North Sea workers migrated to Holland. This did, however, not lead to a general convergence of wages. Relatively to its population size, Norway was the largest sender of workers. But in Norway the labour market was so little developed, and the offer of labour was so large, that this flow did not lead to an increase of Norwegian wages.⁴³ British wages, first English and by the end of the eighteenth century also Scottish wages, reached the level of Dutch wages. But this was not due to a (non-existent) large flow of British workers to the Dutch labour market, but to internal developments in England and Scotland. But, once again, even if no further convergence took place, the labour markets around the North Sea remained integrated.

Convergence did take place on the capital market, where the offer of capital was very high after the progressive development phase of the Dutch Golden age was over. This also meant that a huge amount of capital became available. In this field new techniques were introduced or disseminated. This meant that the interest rate charged to British and Danish/Norwegian borrowers approached that for which Dutch entrepreneurs could borrow money.

The North Sea basin thus converged in different ways and phases in the Early Modern period. Between sometime in the early sixteenth century and ca. 1620 the prices of arguably the most important traded good, staple grains, converged. As this convergence was driven by improvements in transport, information exchange, financial tools and risk management, it is plausible that the prices of other goods produced and traded within or near the North Sea basin behaved in a similar way. When no further improvements in these fields took place, grain prices did not converge further, but the market remained integrated and price movements were

synchronous. Commodities from outside the North Sea area, as far as we can judge from prices paid for pepper and sugar in the Dutch Republic, also knew a period of price convergence when direct trade was established with the production areas of Asian pepper and Caribbean sugar. When further innovations in trade or transport were lacking, price convergence stopped. Wages in the two core areas shared a common ceiling, and the market for sailors became an integrated international one. Where the labour markets in sending areas were not fully monetized, wage integration could not be expected. Convergence of wages can – as in the case of the Edinburgh wages – be better explained by endogenous economic growth than by equalisation of wages between high and low wage areas. Convergence in interest rates took place as less developed regions adopted financial techniques that the suppliers of capital deemed convenient and trustworthy. But even if there was no further convergence, the North Sea basin remained in intense contact, directly and through Holland. Even when it did not integrate further, it remained very integrated.

We can also translate this in terms relevant for the globalization debate: there was no further globalization, but the area remained globalized. Global developments in the nineteenth century were not qualitatively different from what was happening in the North Sea basin in the Early Modern period. When technical improvements led to a decrease of transport, communication and transaction costs, markets increased and prices converged. This process was dependent on the continued flow of new improvements or new markets adopting proven practices. If these flows ceased, as happened for the grain trade around 1620 and for many goods by 1914, further convergence ceased. At the latter date, as at the first, globalization did not proceed further, indeed lost some terrain, but did not necessarily lose all gains from the previous century. Port traffic, for instance, stagnated, but did not decrease.⁴⁴ We will gladly grant that in the nineteenth century the pace of innovation was higher and that convergence was more across the board than in the seventeenth century. But even so the time scale was not vastly different: the duration of the earlier periods of price convergence were of the same order of magnitude as that in the long nineteenth century, and it is too early to know whether the present period of globalization will be sustained any longer.

We cannot predict the future directly from historical precedent, but our engagement with the past can sharpen our sensitivity for what is also logically deductible. Convergence of factor cost prices is based on the decrease of the costs involved in linking markets. This decrease cannot go on endlessly. Only theoretically can the costs of exchanging goods, services and information approach zero. The process of globalization that we are witnessing in the early twenty first century must end. If past experience is repeated it will give way to some de-globalisation, to find an equilibrium in which the world will be globalised, but globalisation will proceed no further.

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²⁷ For the developments described in this paragraph, see Jelle van Lottum, *Across the North Sea. The impact of the Dutch Republic on international labour migration, c. 1550-1850* Amsterdam 2007.

²⁸ At least not as far as we can measure. As agrarian southern Norway was not urbanized, wage data are scarce, and there are no series available. We used the wages paid by the Baaseland ironworks, published for 1709 and 1726-1796 by Ingeborg Fløystad, 'Arbeidsmandens lod. Det nødtørstige brød' *Arbeiderlevestandard ved Baaseland /Næs Jernverk 1725–1807* Bergen 1979. See the data in Van Bochove, *Economic consequences*, pp. 66-72. In 1726-1796 silver wages in Baaseland were at a level of 50-60 % of wages in the western Netherlands, and showed no sign of converging. They moved in tandem with Stockholm wages, which had been at this level since the sixteenth century. We should point to an important limitation of the data: they are only available for a period well after the peak of Norwegian-Dutch migration.

²⁹ This is – incidentally – also what theory would predict. Full employment is one of the conditions specified for wage convergence to take place.

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³⁵ Anne E.M. McCants, 'Exotic Goods, Popular Consumption, and the Standard of Living: Thinking about Globalization in the Early Modern World', *Journal of World History* 18 (2007) 4, 433-462. The quoted sentences by O'Rourke and Williamson remain literally true, as they limit their observation to the period before the eighteenth century. This, however is strange, given that their argument is that there is no globalization before the 1820s.

³⁶ Danielle van den Heuvel, *Women and Entrepreneurship. Female traders in the Northern Netherlands, c. 1580-1815*, Amsterdam 2007, 191-197.

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³⁹ One of the few exemptions is tobacco, which O'Rourke and Williamson call "the best case for a North-Atlantic pre-nineteenth century transport revolution" (p. 29). Freight charges on tobacco shipments from the Chesapeake to London fell by a large amount in the years 1618-1775 (1.6 % annually). O'Rourke and Williamson then mention that Menard, whose figures they are quoting, is unimpressed by this fall "since it had nothing to do with transport revolutions: almost all of the gains were due to the introduction of standard containers and the more efficient use of cargo space." O'Rourke and Williamson fail to mention that Menard's argument is immaterial: if higher productivity in transport was achieved, it does not matter in which way this happened.

⁴⁰ The main charitable institution was the Utrecht St. Bartholomeigasthuis. Years for which prices for special qualities pepper (e.g. white pepper) were quoted, were disregarded. Missing years were added from the records of the H. Kruisgasthuis and Weeshuis by Posthumus, and from the H. Geest Hospitaal en Kinderhuis in Leiden by us. From the price currents the prices of small, unspecified or brown pepper were collected. N.W. Posthumus, *Nederlandsche Prijsgeschiedenis* 2 vols, Leiden 1943-1964.

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