

THE ECONOMIC EXPANSION OF HOLLAND AND ZEELAND IN THE FOURTEENTH-SIXTEENTH CENTURIES

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From the eleventh century to the present day various regions in the Low Countries have occupied core positions in the Western economic system. After the earliest progressive activities located in the Meuse valley, the eleventh century saw the development of urban commercial networks in Artois and Flanders, followed by Brabant, the IJssel and Zuiderzee region and Holland. The Meuse valley made a vigorous come-back in the early industrial era, and Flemish and Dutch ports and their hinterlands underwent a revival during the last century.

The ongoing shifting of the locus of economic leadership is one of the fascinating themes about which Herman Van der Wee has formulated inspiring theories. He refers, for example, to the opposite development in maritime regions during the depression of the fourteenth and fifteenth centuries, as compared to the landlocked areas. Technological innovations in navigation and shipbuilding lowered transport costs, stimulated a new specific demand for services and supply industries which in their turn fastened the transfer of labour force from the traditional to the modern, expansive sector¹. Van der Wee elaborated this model and explained the successful restructuring of urban activities in Flanders, Brabant, Holland and Zeeland through product innovation, institutional conditions and demand in particular². Recently, Stephen Epstein has shown the importance of the process of regional differentiation during the fourteenth century, in which labour intensive

¹ H. VAN DER WEE and Th. PEETERS, Een dynamisch model voor de seculaire ontwikkeling van de wereldhandel en de welvaart (12e-18e eeuw), in *Tijdschrift voor Geschiedenis*, 82 (1969), pp. 233-249, esp. 239-240.

² H. VAN DER WEE, Antwoord op een industriële uitdaging, in *Tijdschrift voor Geschiedenis*, 100 (1987), pp. 169-184, esp. 175-179; IDEM, Industrial Dynamics and the Process of Urbanization and De-Urbanization in the Low Countries from the Late Middle Ages to the Eighteenth Century. A Synthesis, in H. VAN DER WEE (ed.), *The Rise and Decline of Urban Industries in Italy and in the Low Countries (Late Middle Ages-Early Modern Times)*, Leuven, 1988, pp. 307-381 and esp. 333-347.

agrarian occupations absorbed the labour surplus, especially where the institutional framework was relatively open and the political situation peaceful³.

In the following pages, I will concentrate on the economic expansion of Holland and Zeeland before the Revolt. Van der Wee has already stressed the importance of the commercial relations between Antwerp and the Northern Netherlands, a theme which I hope to work out below⁴. Together with the commercial blockades the Revolt created for the southern provinces in particular, it brought about a mass immigration pushing the two northern ones into the core position of the world system. It would have been impossible to take up this role immediately without having developed a structural basis during the preceding centuries. Elaborating a hypothesis formulated by H.P.H. Jansen, I shall argue that this was achieved from the great depression of the fourteenth century onwards as a process of regional differentiation and relocation. In his view, the fifteenth and sixteenth centuries intensified these changes, but did not modify their essence⁵. This implies that competition as well as linkages to external markets will form key arguments⁶. Firstly, however, I shall draw attention to the specific ecological and demographical situation with its effects on demand and on the labour market. My central question then will be: what made it possible for Holland and Zeeland, entering relatively late in the urban network, to expand during the general depression phase?

³ S.R. EPSTEIN, *Cities, Regions and the Late Medieval Crisis: Sicily and Tuscany Compared*, in *Past and Present*, 130 (1991), pp. 3-50, esp. 8-11.

⁴ H. VAN DER WEE, *De handelsbetrekkingen tussen Antwerpen en de Noordelijke Nederlanden tijdens de 14e, 15e en 16e eeuw*, in *Bijdragen voor de Geschiedenis der Nederlanden*, XX, 4 (1965-1966), pp. 267-285.

⁵ H.P.H. JANSEN, *Hollands voorsprong*, Leiden, 1976, pp. 15-16.

⁶ For an excellent general survey, see R. VAN UYTVEN, *Oudheid en Middeleeuwen*, in J.H. VAN STUIJVENBERG (ed.), *De economische geschiedenis van Nederland*, Groningen, 1977, pp. 20-48. Fundamental remains the study, dating originally from 1954, by M. MALOWIST, *L'expansion économique des Hollandais dans le Bassin de la Baltique aux XIV^e et XV^e siècles*, in his *Croissance et régression en Europe, XIV^e-XVII^e siècles*, Paris, 1972, pp. 91-138.

The Population Structure

Before the Black Death, the total population of Holland may have counted about some 260,000 persons, of which 60,000 or 23 p.c. lived in cities with a maximum of 8,000 each⁷. Our next relatively reliable estimation is based on the "Informacie" of 1514 and results in a total of about 254,000, of which 44 p.c. now lived in cities. The density must have been 66 per sq. km, somewhat less than in Flanders (77) but much higher than in Brabant (40) and other regions. The above total figure corrects earlier publications in which the number of hearths was multiplied by 4.5, 5, 5.6 and even 5.9 for the cities⁸, while in the meantime it has been proved that the average family size in Leiden during the siege in 1574 was 3.9⁹. I have therefore recalculated the population figures for the main cities by multiplying the number of inhabited non-clerical hearths by 4 and adding numbers in relation to the clerics, religious and charitable institutions mentioned in the "Informacie" of 1514. I have compared these with figures available for ca. 1570.

⁷ D.E.H. DE BOER, 'Op weg naar volwassenheid'. De ontwikkeling van produktie en consumptie in de Hollandse en Zeeuwse steden in de dertiende eeuw, in E.H.P. CORDFUNKE a.o. (eds.), *De Hollandse stad in de dertiende eeuw*, Zutphen, 1988, pp. 31-32.

⁸ W.P. BLOCKMANS, G. PIETERS, W. PREVENIER, R.W.M. VAN SCHAÏK, Tussen crisis en welvaart: sociale veranderingen 1300-1500, in *Algemene Geschiedenis der Nederlanden*, Haarlem, 1980, IV, pp. 44-51; S. GROENVELD and J. VERMAERE, Zeeland en Holland in 1569. Een rapport voor de hertog van Alva, in *Nederlandse historische bronnen*, The Hague, 1980, II, pp. 135-137; A.M. VAN DER WOUDE, *Het Noorderkwartier. Een regionaal historisch onderzoek in de demografische en economische geschiedenis van westelijk Nederland van de late middeleeuwen tot het begin van de 19e eeuw* (AAG Bijdragen), Wageningen, 1972, I, pp. 144-149.

⁹ D.E.H. DE BOER and R.C.J. VAN MAANEN, *De volkstelling van 1574: Leiden ten tijde van het beleg*, Leiden, 1986, pp. 19-20.

Table I: Population of the main cities in Holland (1514 and ca. 1570)

City	1514	ca. 1570
Leiden	12,800	12,456
Amsterdam	12,200	30,000
Delft	10,300	14,000
Haarlem	9,600	14,000
Gouda	7,200	11,000
Dordrecht	6,200	11,000
Rotterdam	4,700	?
The Hague	4,500	?

SOURCES: for 1514: R. FRUIN (ed.), *Informacie up den staet, faculteyt ende gelegentheyt van de steden ende dorpen van Hollant...*, Leiden, 1866, pp. 12, 180, 243, 336, 340, 383, 467, 518; for ca.1570: D.E.H. DE BOER and R.C.J. VAN MAANEN, *Volkstelling*, p. 17; S. GROENVELD and J. VERMAERE, *Zeeland en Holland*, p. 136; P.M.M. KLEP, Long-Term Developments in the Urban Sector of the Netherlands (1350-1870), in *Réseaux urbains en Belgique (Ancien Régime)*, Colloque Spa 1991, table 2, in print.

In 1514 the Dutch urban system was still characterized by the relatively small size of the cities and their flat rank-size distribution. It was only during the sixteenth century that Amsterdam surpassed by far all the other centres. But even then, five Brabantine and Flemish cities were of comparable dimensions, which represented only one-third of the population of Antwerp. The high density and high level of urbanization combined with a modest size of the total and urban population are to be interpreted in the light of the increasing difficulty of agrarian production on the Dutch peat soils. Progressive drainage had provoked the steady sinking of the land and its unsuitability for the culture of bread grains. The count's demesne accounts around 1400 display a nett decrease of the income from arable, while that from pasture remained relatively stable¹⁰. The culture of summer grains and stock-breeding became the

¹⁰ D.E.H. DE BOER, *Graaf en grafiek. Sociale en economische ontwikkelingen in het middeleeuwse 'Noordholland' tussen ± 1345 en ± 1415*, Leiden, 1978, pp. 335-336.

main rural activities which meant, however, the creation of an important labour surplus. Migration to the cities explains their growth in Holland during the fifteenth century while they stagnated in other regions¹¹. Other people emigrated to the southern Netherlands to find jobs in, for example, the building crafts in Bruges¹².

Still, the majority stayed in their villages trying to combine their small farms with other types of, mostly artisanal activities. Fishing and navigation as complementary activities in the coastal villages had a long history. Stock-breeding also implied some processing to produce butter and cheese. The fiscal inquiries held in 1494 and 1514 provide qualitative information about the occupation of the inhabitants. Although the two documents are not exactly conform, I have checked the consistency of the information – taking into account some possible change in the time span between them – and found it to be deceptive quite often. I have combined the occurrences of the main occupations in each village or group of villages as counted in the documents (Table II).

Table II: Occupations in hundred villages in Central Holland (ca.1500)

stock-breeding	in 88 villages
arable farming	61
peat digging	28
fishing and fowling	22
sea fishing	21
transport	14
spinning	13
groundwork	12

SOURCES: R. FRUIN (ed.), *Enquete ende informatie*, Leiden, 1876, and R. FRUIN, *Informacie*.

Arable farming is recorded as a purely marginal activity in 23 villages. There, it was possible only on narrow strips of sand and clay banks, especially in Kennemerland and Waterland, north of Amsterdam. This

¹¹ J.L. VAN ZANDEN, *Arbeid tijdens het handelskapitalisme. Opkomst en neergang van de Hollandse economie 1350-1850*, Bergen, 1991, p. 36.

¹² J.P. SOSSON, *Les travaux publics de la ville de Bruges, XIV^e-XV^e siècles. Les matériaux, les hommes*, Brussels, 1977, pp. 328-337.

means that agriculture represented a substantive occupation in only 38 villages. The crops named were oats (15 cases), rye (6), hemp (6) and barley (5). Non-agrarian occupations were mentioned in 83 villages. These were regionally differentiated: peat digging occurred mainly in the central regions Rijnland, Delfland and Schieland, while the other activities were typical for the northern regions. De Vries and Van Zanden have shown that the average productivity and size of farms were insufficient to sustain a family, which made additional wage earning necessary. This explains the easy supply of labour force for shipping, for urban industries and for a wide range of artisanal activities in the villages, of which shipbuilding may well have been the most important one. Van Zanden introduced in this respect the concept of proto-industrial production, which made high demographic reproduction possible, notwithstanding the degradation of the agriculture¹³.

As a logical consequence of this labour surplus, real wages in Holland were low as compared to those in the Southern Netherlands.

¹³ J. DE VRIES, *The Dutch Rural Economy in the Golden Age, 1500-1700*, New Haven, London, 1974, pp. 67-73; C.M. LESGER, *Hoorn als stedelijk knooppunt: stedensystemen tijdens de late middeleeuwen en vroegmoderne tijd*, Hilversum, 1990; A.M. VAN DER WOUDE, *Noorderkwartier*, pp. 339-361; J.L. VAN ZANDEN, *Arbeid*, pp. 41-46.

Table III: Real wages of master masons in Bruges, Haarlem and Leiden, 1460's and 1480's (in litres rye and wheat)

	Haarlem	Bruges		Leiden	
	rye	rye	wheat	wheat	
1465	32	85	53	1459	24
1466	28	57	42	1461	23
1467	28	67	39	1467	26
1468	25	65	37	1470	29
1480	14	34	22		18
1481	10.7	20	13		9.4
1482	5	16	15		8
1483	5.5	52	31		10.5

SOURCES: L. NOORDEGRAAF, *Hollands welvaren? Levensstandaard in Holland 1450-1650*, Bergen, 1985, p. 201; J. P. SOSSON, *Travaux publics*, Annexe 43; IDEM, Corporation et paupérisme aux XIV^e et XV^e siècles, in *Tijdschrift voor Geschiedenis*, 92 (1972), p. 572; L. NOORDEGRAAF and J.T. SCHOENMAKERS, *Daglonen in Holland 1450-1600*, Amsterdam, 1984, pp. 94-96; Leiden, Gemeentearchief, Catherijnengasthuis, 302, 334.

A master mason or carpenter in Bruges could buy 2.4 as much rye as his colleague in Haarlem in prosperous years, and even 3.3 as much in years of shortage. In Bruges, the best year allowed 5.3 times the purchasing power, expressed in rye, of that in the worst year; in Haarlem, this tension was 6.4. The crisis thus struck harder in the low wage region than in the core. The wheat prices, the only available for Leiden, show a weaker contrast, as could be expected. But even then, the Bruges mason could buy 1.68 as much wheat as his colleague in Leiden during good years, and 1.76 as much during the crisis of the early 1480's¹⁴. Even this milder contrast leaves no doubt about the substantial lower level of artisans' real

¹⁴ The Leiden data have been calculated on the basis of the 4.5 "stuiver" wages, while they fluctuated from 3 to 5 in the same years: reality may thus have been much less favourable to many artisans. I calculated weighed averages of the prices, which produced other results than the simple averages published

income in Holland than in Flanders. Admittedly, Bruges was in that period the most prosperous city in the Low Countries, but the differences with other cities in the Southern Netherlands were nothing compared to the discrepancy between Flanders and Holland¹⁵.

We can conclude from this paragraph on population structure that Holland's specific characteristics reflected a particularly high pressure on arable. Its shortage pushed the labour surplus into complementary artisanal activities on the countryside, into shipping and into the cities. As a result the real income was low, expressing the abundance of labour as well as the permanent shortage of bread grains. This combination of factors made innovations possible and even necessary.

The Primacy of Demand

Holland's ecological and demographical situation during the second half of the fourteenth century was radically opposite to the general European pattern. The poor peat soils allowed the culture of oats and barley only; together with the widely available clean water and peat used as fuel, these grains were the main raw materials for the beer production which had grown in Leiden, Delft, Haarlem and Alkmaar since 1326¹⁶. Furthermore,

by N.W. POSTHUMUS (ed.), *Nederlandsche prijsgeschiedenis*, Leiden, 1964, II, pp. 447-448. Since L. NOORDEGRAAF, *Hollands welvaren?*, p. 199 uses this series in combination with Haarlem wages, and combines on p. 201 the Haarlem wages with Utrecht rye prices, I consider his series as less reliable than the Leiden one I present here. Since Noordegraaf calculated the yearly income on the basis of 245 working days (p. 60), while the other series are based on 270 days, the comparison of the Haarlem data was drawn with figures 10 p.c. higher than those in table III.

¹⁵ In 1500, a mason's aid's summer daily wage was, in "stuivers": Bruges 3, Ghent 3, Aalst 2.5, Geraardsbergen 2.5, Antwerp 2.33; in 1547, only the Antwerp wages had risen to 4, the other remained nominally stable. On the other hand, during the 1500-1524 period, the average wheat price was not particularly high in Bruges: Bruges 21 grams silver, Douai 19, Lille 20, Diksmuide 23, Veurne 21, Bergues Saint Winnoc 22 : J.-P. SOSSON, *Corporation*, pp. 568-569; E. SCHOLLIERS, *Le pouvoir d'achat dans les Pays-Bas au XVI^e siècle*, in *Album Charles Verlinden*, Ghent, 1975, p. 317; M. BOONE, W. PREVENIER, J.-P. SOSSON, *Réseaux et hiérarchies urbains en Flandre*, in *Réseaux urbains en Belgique (Ancien Régime)*, Colloque Spa 1991, annexes 7 and 8, in print.

¹⁶ R. VAN UYTVEN, *Haarlemmer hop, Goudse kuit en Leuvense Peterman*, in *Arca Lovaniensis*, Louvain, 4 (1975), pp. 334-351, esp. 335 and 345; IDEM, *Oudheid en Middeleeuwen*, pp. 38-40.

arable land was massively converted into pasture, which allowed the commercialization of dairy produce. Bread grains became increasingly scarce: corn tithes fell dramatically in the largest demesnes and the prices thus remained high. From 1360 to 1399, the average wheat price decreased only by 11 p.c., the rye price remained stable. The contrast with Flanders, where during the same period, prices fell by 26 p.c. for wheat and 27 p.c. for rye, is striking¹⁷. Although recurrent epidemics without doubt caused severe damages, the population pressure on the land rose as a result of the extensivisation of the agrarian production; wages thus remained low in the long run, those of craftsmen in particular¹⁸.

This resulted in the increased dependency on unstable wage earnings and the decrease of real income, especially since employment was uncertain. The need to import bread grains was stimulated by the sharply contrasting price evolution in Holland and in Europe generally. On the other hand, the Dutch rural economy offered the possibility for export of beer, cheese, butter and other finished goods. In the neighbouring regions, the rise of per capita income (in real terms) after the Black Death had created a new demand for such products. The anticyclical tendency in Holland thus favoured its commercial expansion.

In 1358, during a blockade of Flanders by the German Hanse, count Louis of Male, since recently lord of Antwerp, granted to this city the staple for "all kinds of fat products" the burghers and merchants of Amsterdam and Holland as a whole would bring. The enumeration indicates not only dairy produce and skins, but also specialized crops like coleseed, mustardseed, rapeseed, hemp and honey¹⁹. This clearly shows the diversification, specialization and commercialization of Dutch

¹⁷ Calculated from A. VERHULST, *Les prix des grains, du beurre et du fromage*, in C. VERLINDEN, J. CRAEYBECKX and E. SCHOLLIERS (eds.), *Documents pour l'histoire des prix et des salaires en Flandre et en Brabant*, Bruges, 1965, II A, pp. 33-34, 44-45.

¹⁸ D.E.H. DE BOER, *Graaf en grafiek*, pp. 34-36, 197-208, 228-232; W.P. BLOCKMANS, *The Social and Economic Effects of Plague in the Low Countries 1349-1500*, in *Revue belge de Philologie et d'Histoire*, LVIII (1980), pp. 833-863, esp. 848, 851-855; J.-P. SOSSON, *Travaux publics*, pp. 294-295.

¹⁹ "van alrehande vetter ware, boter, caes, smout, smare, hude, eyeren, raepsaet, koolsaet, mostaertsæet, caempsaet, honich ende zeem": J.F. WILLEMS (ed.), *Jan van Boendale, Brabantsche Yeesten. Codex Diplomaticus*, Brussels, 1843, II, pp. 561-562, n. LXXIV; the identification of *caempsaet* as *canabis sativa* or hemp is given by L.J. VANDEWIELE, *De "Liber Magistri Avicenne" en de "Herbarijs"*, Brussels, 1965, I, p. 144.

agrarian production as early as the middle of the fourteenth century. Indeed, in the Antwerp toll registers of 1366-1370, Dutch and Zeeland skippers appear frequently, declaring various products like butter, herring, barley and peas. They bought bread grain, timber, iron, wool and fruit²⁰.

During the fifteenth century, a regular grain trade, partly by Dutch merchants, developed from Saint-Omer to Zeeland and Holland. In the inquiry of 1494, the respondents of Gouda mentioned that in the time of Duke Charles the Bold thirty "boeyers", seaworthy ships used to sail down "to France, on the Somme and Seine rivers, for grain"²¹. The same demand for bread grains must have been the driving force behind the Dutch pushing forward into the Baltic. In this respect, they followed a path already explored and developed by the cities on the IJssel and along the coast of the Zuiderzee most of which were closely connected with the German Hanse. Prussian and Westphalian merchants held toll privileges in Dordrecht since 1340, while the latter saw their protection by the count in Holland and Zeeland generally extended in 1363²². Their participation, siding with the Hanse in the war against the King of Denmark in 1367-1370, can be interpreted in this way. At any rate, it resulted in the Dutch occupation of some strongholds on the Scania coast, close to the place where the important fairs were held. It is obvious that they took advantage of this position, given the record of regular importations from Holland and Zeeland in Hanseatic cities in 1377 and 1385²³. In 1384, the

²⁰ R. DOEHAERD (ed.), *Comptes du tonlieu d'Anvers, 1365-1404*, Brussels, 1947, pp. 101, 102, 104, 115, 117, 120, 125-127, 159-160, 193, 207: registrations of Jan de Zeelandere, Clays de Hollandere and, most frequently, Woutre den Hollandere; the most explicit occurrences are: "Item Jan Backebroed van corne dat hi te Hollant wart vorde" (145); "Item Thomaes van Florencien 14 last haringhe bi Pieter Baniorde van Zevenberghen" (174); "Item Wouter van Hombeken, Clays den Hollandere, 8 last haringhe" (179), etc.

²¹ A. DERVILLE, Le grenier des Pays-Bas médiévaux, in *Revue du Nord*, LXIX (1987), pp. 267-280, esp. 276; R. FRUIN, *Enquete*, p. 178; Z.W. SNELLER, Le commerce de blé des Hollandais dans la région de la Somme, in *Bulletin trimestriel de la Société des Antiquaires de Picardie* (1947); Z.W. SNELLER and W.S. UNGER (eds.), *Bronnen tot de Geschiedenis van den handel met Frankrijk*, The Hague, 1930, n. 37, 53, 57, 58, 93, 94, 96, etc.

²² R. VAN UYTVEN, *Oudheid en Middeleeuwen*, pp. 24-25; M. MALOWIST, *L'expansion économique*, pp. 92 and 97.

²³ K. KOPPMANN (ed.), *Hanserecesse. Abt. I (1256-1430)*, Leipzig, 1872, II, n. 138, pp. 149-150, n. 306, pp. 360-365, n. 311, pp. 368-369.

Hanse already felt the necessity to order protectionist measures against Dutch herring-fishing near the Scania coast. Nonetheless, fishermen from Zeeland still sold herring from Scania in Great Yarmouth in 1393²⁴. Cloth from Leiden had been sold at the Scania fairs and in Bergen in the late fourteenth century. In 1392 the Hanse tried to bar the penetration of Hollanders into Livonia and Russia. Riga and the Prussian cities, on the other hand, saw these contacts as a means to escape from the domination by the Wendic cities. Cloth from Leiden and England was transported on Dutch ships to Russia and Danzig in 1401 and 1402²⁵. The accounts of the "Schäffer" of the Teutonic Order at Koenigsberg and at Marienburg, preserved for the years 1400 to 1404, reveal several transactions of Dutch cloth, produced at Leiden, Amsterdam and Dordrecht, the former being the most expensive. Its quality was relatively good for a much lower price than the Flemish cloth imported by the Wendic cities²⁶. The earliest explicit record of Dutch grain trade in the Baltic I have found so far dates from 1413, when export against the interdiction took place in Reval (Tallinn). However, as early as 1386 the city of Kampen protested against the prohibition issued by the Grand Master of the Teutonic Order to export grain, tar and timber, since it was said to be intended only against the English. At that time, ships from several ports in Holland and Zeeland moored regularly in Danzig. In 1416, complaints about the Dutch buying grain outside the "regular harbours" were brought forward in the "Hansetag". The direct trade between Dutch merchants and grain producers in Livonia irritated the Wendic cities which tried to impose their intermediary role²⁷. The growing competition of Holland probably explains why the Dutch, in contrast to the IJssel towns, remained outside the Hanse. In the long run, this allowed them to fight bitter economic wars against the Wendic cities, which they ultimately, in 1474, beat.

²⁴ H.J. SMIT, *Bronnen tot de Geschiedenis van den handel met Engeland, Schotland en Ierland*, The Hague, 1928, n. 618, 718.

²⁵ K. KOPPMANN, *Hanserecesse*, V, pp. 101, 302; K. KUNZE (ed.), *Hansisches Urkundenbuch*, Halle, Leipzig, 1899, V, n. 480, p. 249.

²⁶ M. MALOWIST, *L'expansion économique*, pp. 93-96.

²⁷ K. KUNZE, *Hansisches Urkundenbuch*, VI, p. 8; K. KOPPMANN, *Hanserecesse*, Leipzig, 1889, VI, n. 319, pp. 292-293; W.S. UNGER, *De Hollandsche graanhandel en de graanhandelspolitiek in de Middeleeuwen*, in *De Economist* (1916), pp. 243-269, 337-386, 461-507; J. AHVENAINEN, *Der Getreidehandel Livlands im Mittelalter*, Helsinki, 1946, pp. 80-82; Ph. DOLLINGER, *La Hanse*, Paris, 1964, pp. 250-251.

Obviously, transportation costs weighted heavily on such long distance trade; they could amount to 40 p.c. of the price in Danzig for a journey to Bruges in 1405, and the distance to Livonia was still considerably longer²⁸. The Dutch tried to buy bread grain wherever they could, but preferably as nearby as possible. Near Leuven, for example, they bought 234 hectolitres in 1413-1414 and 997 hectolitres in 1415-1416. They exported regularly from Artois, Picardie and Normandy, as has already been mentioned above, and occasionally from England, especially during years of crisis in the relations with the Hanse, as in 1440, 1441, 1456 and 1457²⁹. On the other hand they tried to reduce their costs by selling their own products such as cloth and herring.

The trade in Scania herring was soon outdated by the exploration of new fishing-grounds in the North Sea. As early as 1388-1392, Dutchmen sold North Sea herring in the Baltic up to Nowgorod, and in the Rhineland up to Cologne. In 1394, the city of Kleve, for example, wanted the casks to be marked so that one would be able to distinguish Scania herring from North Sea herring. The Hanse tried to push back the Dutch trade by emphasizing the superior quality of their own product but apparently failed to convince even its own members and thus lost its monopoly³⁰.

During the years of heavy competition between Holland and the Hanse in 1414-1418, the Dutch made some concessions. For instance, they would not buy Scottish wool during the Hanseatic embargo of that country. The Hanse bought massively the first quality cloths from Leiden and Amsterdam, but was very keen on these being correctly marked³¹. Still, nearly one-third of the Dutch ships passing the Sound early in the sixteenth century entered the Baltic with ballast only.

Another device to reduce transport costs was the construction of ever larger ships. Also in this respect the Wendic cities tried in vain to stop Dutch competition through interdictions. In 1428 Dutch ships and crew

²⁸ M.J. TITS-DIEUAIDE, *La formation des prix céréalières en Brabant et en Flandre au XV^e siècle*, Brussels, 1975, p. 160.

²⁹ M.J. TITS-DIEUAIDE, *La Formation*, pp. 153-155, 326-330.

³⁰ K. KUNZE, *Hansisches Urkundenbuch*, V, n. 185, p. 96; H. VAN DER WEE, *Handelsbetrekkingen*, pp. 270-272 with further references.

³¹ K. KOPPMANN, *Hanserecesse*, VI, n. 142, pp. 118-120, n. 337, pp. 316-317, n. 397, p. 375; M. MALOWIST, *L'expansion économique*, pp. 102-106; N.W. POSTHUMUS, *Bronnen tot de Geschiedenis van de Leidsche textielnijverheid*, The Hague, 1910, I, p. 80.

were forbidden to bring their goods to Prussia, nor were they allowed to carry Prussian goods. In 1434 and 1435, the Hanse forbade their members to build ships for Dutchmen, Flemings or Lombards, nor were they supposed to sell ships to these peoples. Conflicts further concerned the Dutch lack of respect for the winter rest and, again, the direct contact between them and the producers in Latvia. In practice, the interests of the trading partners in the eastern Baltic were contrary to the measures dictated by the Wendic cities. The Master of the Teutonic Order, the city of Danzig, the dukes of Pommerania and of Prussia all tended to let their own interest prevail and they helped the Dutch to break through all restrictions if only they paid a duty of one shilling on imports and two pennies on exports³².

Gradual improvements in shipbuilding since the early fifteenth century had made the herring buss larger and fit to trail a larger net. After the herring season, the buss could be used as a carrier for merchandise. The caravel was developed for the longer journeys down to Iberia³³. Shipbuilding became one of the major proto-industrial activities in cities (like Edam) and in innumerable villages along the coast³⁴. Agrarian specialization had made it possible that some of the raw materials, such as canvas and ropes, could be produced in Holland. Most, however, had to be imported: wood from the Rhineland, Scandinavia and the eastern Baltic; pitch and tar from the latter. Iron and steel came down the Rhine. Obviously, these imports were only possible thanks to regularly providing large cargo-space for bulky products. Again, it was the urging *demand* for bread grains which triggered a whole series of side-effects creating new demand for other goods such as the raw materials for shipbuilding. The compelling needs stimulated the production of the means for their acquisition: ships and the exchange values. This brings us to sum up the Dutch offer.

³² K. KOPPMANN, *Hanserecesse*, Leipzig, 1896, VIII, n. 507, pp. 325-327 (1428); G. VON DER ROPP (ed.), *Hanserecesse. Abt. II (1431-1476)*, Leipzig, 1876, I, n. 226, 321, 437; H.G. VON RUNDSTEDT (ed.), *Hansisches Urkundenbuch*, Weimar, 1939, VII, n. 205, p. 102.

³³ R.W. UNGER, *Dutch Shipbuilding Before 1800. Ships and Guilds*, Assen, Amsterdam, 1978, pp. 26-34.

³⁴ R.W. UNGER, Regulations of Dutch Shipcarpenters in the Fifteenth and Sixteenth Centuries, in *Tijdschrift voor Geschiedenis*, 87 (1974), pp. 503-506.

The Competitiveness of the Offer

The fact that the Dutch economy entered relatively late in the European system provided specific opportunities for imitation of the existing trades and products. This was what the Dutch first did by imitating beer production with hop since the 1320's. The Gouda privilege dating from 1393 speaks about hopbeer plainly as being "beer brewed in the Hamburg way"³⁵. The North-German innovation was commercialized by the Dutch who realized a large supremacy in the vast Flemish and Brabantine markets by the late fourteenth century. The beer production in Delft doubled from 50,000 barrels in 1343-1349 tot 100,000 in 1400-1409. The 1370 account of the toll at Geervliet shows that foreign skippers transported not less than 14,000 barrels of Gouda beer, mostly to Brabant. The Antwerp toll accounts for the years 1366-1370 reveal beer transports by skippers from Mechlin, Vilvoorde and Lier, with loads of 3,300 to 4,700 barrels³⁶. Already in 1392, the competitiveness between Hamburg and Dutch beer at Bruges was obvious to the authorities. A delegation of the city of Ghent complained with the Hanse merchants in Bruges that so much beer from Holland was imported in their city "*in alsulken tunnen alse men dat osters beer mede pleghe int land tho bringhende unde worde vor osters beer vorkoff*". The Antwerp magistrate was even more explicit, even lyrical when in 1399 it requested the duke of Burgundy to levy the arrest by his sheriff – executed as a reprisal – of the goods of a burgher of Haarlem. Not only, they said, was it to be feared that people and goods from Antwerp would be arrested in Holland; even worse were "*...daer [in Holland] verboden ons gheen bier noch gheenrehande goed toe te laten comene, dat ons van hertien leed ware (...) want al haer [Antwerp] welvare, beyde van byere, van wekemarcten, van coerne ende van allen goede haer leeght aen Hollant ende aen Zeelant*"³⁷. The brewers from Gouda even managed to create a new type of strong beer, the "*koyte*", which started a new product life cycle after the decay of the Haarlemmer

³⁵ J.F. NIERMEYER, *Bronnen voor de economische geschiedenis van het Beneden-Maasgebied. Dl. I 1104-1399*, The Hague, 1968, n. 668.

³⁶ D.E.H. DE BOER, *Graaf en grafiek*, pp. 273-284; J.F. NIERMEYER, *Bronnen voor de economische*, pp. 701-704, and for the tariff item 25 on p. 707; R. DOEHAERD, *Comptes du tonlieu*, as in note 20.

³⁷ K. KOPPMANN, *Hanserecesse*, IV, pp. 103-105, n. 134; K. KUNZE, *Hansisches Urkundenbuch*, V, n. 1; J.F. NIERMEYER, *Bronnen voor de economische*, n. 716.

hopbeer since the middle of the fifteenth century³⁸.

Dutch dairy products not only acquired a strong position on the Antwerp market from the middle of the fourteenth century onwards, but they were also exported to the Rhineland and the Baltic³⁹. They made a real break-through on the Fairs of Brabant in the last decades of the fifteenth century, after the Flemish revolt had broken the supremacy of the butter and cheese from Flanders⁴⁰. The pattern of imitating and innovating can be observed once more for the other export products like cloth, following Flemish and Brabantine examples, and herring. As we have already seen, the Dutch presence in Scania since 1370 brought them into contact with the renowned herringfishing. When the competition became too fierce in Scania the Dutch, Flemings and Zeelanders adapted the technique of curing, salting and packing in wooden casks to the fishery on the North Sea. The longer travel required the boatsmen to perform the curing on the ship, so this had to be big enough to carry more men, the casks, gradually also a larger net and more goods. The new product became a second asset in the competition with the Hanse: while the Scania herring became scarce, the "kaakharing" was cheaper thanks to the economies of scale, the double use of the ships and the double subsistence basis – fishing and farming – of the boatsmen.

The increasing production of cask herring brought about a new demand: it required huge quantities of salt – 200 *last* per journey of a buss⁴¹ – which the worked-out centres of peat-salt in Flanders, Zeeland and Northern Brabant could no longer produce. Since the second quarter of the fifteenth century, salt from the Bay of Bourgneuf could be shipped at only two-thirds or half the price of the domestic product⁴². Dutchmen and Zeelanders made a triple profit from the new situation: a. they became the main carriers of Bay-salt that they shipped up to the Baltic, which provided them with the badly needed exchange value for their grain; b. since Bay-salt was raw and unsuitable for the preservation of

³⁸ H. VAN DER WEE, *The Growth of the Antwerp Market and the European Economy (Fourteenth-Sixteenth Centuries)*, Leuven, The Hague, 1963, I, pp. 228-229; R. VAN UYTVEN, *Haarlemmer hop*, pp. 335-339; H. VAN DER WEE, *Handelsbetrekkingen*, pp. 268-270.

³⁹ R. VAN UYTVEN, *Oudheid en Middeleeuwen*, pp. 33-34.

⁴⁰ H. VAN DER WEE, *The Growth*, I, pp. 218-224; II, pp. 102, 122.

⁴¹ R. VAN UYTVEN, *Oudheid en Middeleeuwen*, p. 36.

⁴² H. VAN DER WEE, *Handelsbetrekkingen*, pp. 273-279; H. VAN DER WEE, *The Growth*, I, pp. 287-293.

herring, they applied to it the own traditional refining techniques, which considerably raised the value of the product they re-exported; c. they used the refined Bay-salt for the preservation of the herring they exported. In 1570, 150 salt pans in Zeeland and 50 along the Meuse near Dordrecht were counted. In the same year, an Antwerp merchant calculated the net return of the Dutch salt trade as 377 p.c.⁴³ Around 1550, one *last* rye costed in Reval as much as two last salt in normal years, and four last when rye was expensive. This explains the endeavour of the Dutch to ship large quantities of salt to the Baltic. But already in the beginning of the fifteenth century, transport costs amounted to 85 p.c. of the purchasing price of salt on the journey from Lisbon (Setubal) to Bruges, 66 p.c. from Bruges to Danzig and 246 p.c. from Lisbon to Danzig⁴⁴. Zeeland, and Walcheren in the first place, thus became the transboarding and wintering place for the long distance trade; the salt could easily be refined there as well⁴⁵.

Having build a huge fleet for their grain transports from the Baltic – estimated at 180,000 tons around 1500 and 400,000 around 1580 –, the Dutch were beyond competition as bulk carriers on the route to the east, even when it had to start in Lisbon. On their way from the south, they halted in the Loire, Poitou and Bordelais regions to load precious wines which could equally be sold either in the Low Countries or in the Baltic. Their original demand for salt was turned in an offer of herring, cargo-space, refined salt and French wines. The growing importance of the Atlantic route favoured Zeeland as much as Holland. The east coast of Walcheren near Arnemuiden offered a well-protected harbour which developed as a busy haven. The recently published acts of notaries in La Rochelle and Bordeaux concerning trade with the Low Countries give in the first place a testimony of the orientation of French merchants. Holland is nearly absent in these acts: one shipmaster from Monnikendam was mentioned in Bordeaux with his ship in 1504, another one from Amsterdam with his ship "*Bontecao*" in 1513, and a Leiden merchant as witness in 1510. Arnemuiden is by far the most common destination, followed by Sluis, which occurs in 33 acts as the prescribed destination, and in 46 acts as a possible destination. Other Flemish harbours such as

⁴³ W. BRULEZ, De zoutinvoer in de Nederlanden in de 16e eeuw, in *Tijdschrift voor Geschiedenis*, 68 (1955), pp. 183-192.

⁴⁴ J.C. HOCQUET, *Le sel et le pouvoir, de l'an mil à la Révolution française*, Paris, 1985, pp. 260-263.

⁴⁵ W. BRULEZ and J. CRAEYBECKX, Les escales au carrefour des Pays-Bas, in *Recueils de la Société Jean Bodin*, 32, Brussels, 1974, pp. 442-450.

Duinkerke, and also Calais are often recorded in the same way, too. Antwerp occurs 38 times as the explicit destination, Arnemuiden obviously in most cases acting as its outport. From these acts, covering the period from 1470 to 1520, Zeeland appears to have been closely connected to both Flanders and Antwerp. Holland did not need this intermediary on its way south, nor did the Aquitains do business further north than Arnemuiden. In 392 out of the 855 Bordeaux acts (45.8 p.c.) the shipment consisted of only wine, while 104 acts mention wine together with other products. The second item was pastel, mentioned in 365 acts (42.7 p.c.). Other items occur much less frequently, such as timber (19 mentions), resin (16), the medicinal plant tourmentine (11) and vinegar (8). Herring is mentioned in 20 acts on the way south. Among the 80 acts from La Rochelle concerning the same period, 51 dealt with wine and 12 with salt⁴⁶.

However important the port traffic may have been in Zeeland, its cities remained small: estimations in the 1560's and 1570's show figures under 6,000 for Middelburg, 4,000 to 4,400 for Flushing, 2,000 to 3,500 for Veere and 1,500 to 2,300 for Arnemuiden⁴⁷. Zeeland had a subsidiary role in the process of regional differentiation that I have described: it was the first export region of bread grains to the hungry neighbours, establishing a link between the three successively dominant regions. For each of these, Zeeland was an outport and provider of specific services such as salt refining and shipping.

Concluding on the extraordinary expansion of Holland, we can observe the positive impulses of its anticyclical momentum: it profited from the neighbouring regions as markets and imitated their main trades. The hanseatic blockades against Flanders created opportunities for Holland. Albert of Bavaria, count of Holland, was eager to grant privileges to the Hanse in 1358, 1363 and 1389 in order to establish the staple at Dordrecht⁴⁸. The count's total receipts from the farming out of his tolls reached the double in 1389-1394 from what they produced in 1400, after the return of the Hanse to Bruges⁴⁹. The competitive advantage for the

⁴⁶ M.A. DROST (ed.), *Documents pour servir à l'histoire du commerce des Pays-Bas avec la France jusqu'à 1585. I. La Rochelle. II. Bordeaux*, The Hague, 1984-1989.

⁴⁷ S. GROENVELD and J. VERMAERE, *Zeeland en Holland*, p. 136.

⁴⁸ W. PREVENIER and J.G. SMIT (eds.), *Bronnen voor de Geschiedenis van de Dagvaarten van de Staten en Steden van Holland voor 1540, Deel I: 1276-1433*, The Hague, 1987, I, n. 226, 302, 480.

⁴⁹ J.A.M.Y. BOS-ROPS, *Graven op zoek naar geld. De inkomsten van de graven van*

Dutch resided essentially in lower production costs, mainly as a result of lower wages and economies of scale. Real wages remained low as a consequence of the increasingly unfavourable ecological conditions. This favoured urbanization and made labour intensive rural activities both necessary and profitable. The institutional framework was open, favouring innovation and competition. Until well into the sixteenth century, guilds of shipcarpenters existed only in Dordrecht, Amsterdam and Veere, and their lenient regulations favoured a flexible response to the irregular demand⁵⁰. The incorporation under Burgundian rule prevented the German Hanse to play Holland off against Flanders as had happened before⁵¹. The institutional context may thus be called favourable.

Schematically, we can distinguish three reactions to Holland's ecological scarcity:

- *intensification of production*: dairy products, specialized crops, fishing and shipping, shipbuilding, peat digging and burning of peat salt;
- *demand*: bread grain, wool, colouring plants, timber, iron, pitch, tar and salt;
- *offer*: beer, cloth, herring, cargo, refined salt and wine.

The take off of the Dutch economic expansion, indeed, has to be situated in the second half of the fourteenth century, as a creative response to the urgent demand for bread grain. Holland took a considerable advantage from the precocity of neighbouring regions. Although most aspects of the expansion were already signaled in the existing literature, its precise chronology, the primacy of demand, the successful combination of a whole range of factors and the interwovenness of the successive regional expansions have been clarified now. In the long run, the Dutch managed to commercialize their demand through a successful combination of linkages⁵².

Holland en Zeeland 1389-1433, Hilversum, 1993, pp. 82-86.

⁵⁰ R.W. UNGER, *Regulations*, pp. 514-519.

⁵¹ W.P. BLOCKMANS, Konfliktregelung der Hanse in Flandern (1393-1451), in H. MENKE (ed.), *Die Niederlande und der europäische Nordosten*, Neumünster, 1992, pp. 209-219.

⁵² I wish to thank my assistant Marie-Charlotte le Bailly who helped me in the collection of data.