Coping with Scarcity
A Comparison of Dearth Policies in Three Regions in Northwestern Europe in the Fifteenth and Sixteenth Centuries

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Abstract
This article compares dearth policies developing in three regions in northwestern Europe in the fifteenth and sixteenth centuries: East Anglia, coastal Picardy and Upper Normandy, and Holland. Based on a survey of existing research, it examines the reactions of authorities to food crises and the factors shaping these reactions. Two elements of dearth policy are investigated: restrictions on the grain trade on the one hand, and public grain stocks on the other. The article shows how social, political and economic characteristics of each region affected the way in which the authorities attempted to manage food crises, but also demonstrates that the exigencies of dearth were strong enough to partly overcome differences.

1 Introduction

In the transition between the Middle Ages and the early modern era, northwestern Europe experienced an increased occurrence of food crises and even outright famines, marked by excess mortality due to hunger or hunger-induced diseases. Academic analyses of the backgrounds of this development reflect the two sides of the debate on the causes of famine. They emphasize either demographic growth in combination with deteriorating climatic conditions, or problems with the system of food distribution related

1 For this definition of a famine: Cormac Ó Gráda, Famine: a short history (Princeton 2009) 4.
2 For a concise explanation: Amartya Sen, Development as freedom (Oxford 2001) 160-168.
3 R.W. Hoyle, ‘Famine as agricultural catastrophe: the crisis of 1622-4 in east Lancashire’, Economic History Review 63:4 (2013) 974-1002; cf. for Italy Guido Alfani, ‘Climate, population and famine
to commercialization, the rise of capitalism and social polarization. Either way, it does not come as a surprise that the era also witnessed increasing government involvement with food provisioning at times of scarcity. Urban authorities had long been involved in the regulation of urban markets and the protection of the interests of urban consumers; now, they intensified their efforts. In addition, in a process intertwined with the formation of national states, central governments tried to establish control over the food supply.

Dearth policies encompassed a wide array of arrangements. Most were regulatory measures: attempts to regulate trade and food markets through legislation and adjudication. Very common were restrictions on the movement of foodstuffs: both central and local authorities frequently tried to prevent grain from leaving their jurisdiction. Also common were various rules aimed at preventing producers and merchants from profiteering at the expense of common consumers, such as prohibitions on hoarding, collusion, or forestalling (buying before products arrive at the public market). A third group of regulatory measures regards pricing: attempts to regulate the prices of grain or, more often, bread. In addition to these regulatory measures there were organizational ones: active interventions with the production or distribution of food supplies by central or local governments. Examples are import subsidies, the establishment of public grain stocks, the subsidization of bread, and the distribution of emergency relief in food or cash to the entire population or, more often, to the poor as the most vulnerable group.

In the early twentieth century the regulation of the grain trade in some European countries has been the object of detailed, largely descriptive, research. Recent literature takes a more analytical perspective. One line of

in northern Italy: general tendencies and Malthusian crisis, c. 1450-1800, Annales de démographie historique 120 (2010) 23-53.
4 Louise Tilly, ‘Food entitlement, famine and conflict’, Journal of Interdisciplinary History 14:2 (1983) 333-349; R.W. Fogel, ‘Second thoughts on the European escape from hunger: famines, chronic malnutrition and mortality rates’, in: S.R. Osmani (ed.), Nutrition and poverty (1992) 243-286; for the middle of the seventeenth century Steve Hindle, ‘Dearth and the English Revolution: the harvest crisis of 1647-55’, Economic History Review 61:1 (2008) 64-98.
5 Remi van Schaik, ‘Prijss- en levensmiddelenpolitiek in de Noordelijke Nederlanden van de 14e tot de 17e eeuw: bronnen en problemen’, Tijdschrift voor Geschiedenis 91:1 (1978) 214-255.
6 Charles Tilly, Food supply and public order in modern Europe, in: Charles Tilly (ed.), The formation of national states in western Europe (Princeton 1975) 380-455, esp. 443-446.
7 An overview is given by Karl Gunnar Persson, Grain markets in Europe, 1500-1900: integration and regulation (Cambridge 1999) 72-84, who, however, uses a different classification. The distinction between regulatory and organisational measures is derived from Tilly, ‘Food supply’, 434.
8 N.S.B. Gras, The evolution of the English corn market from the XIIth to the XVIIIth century (Cambridge MA 1915); Abbott Payson Usher, The history of the grain trade in France, 1400-1710 (Cambridge MA 1913).
argument emphasizes the similarity of interventions throughout Europe, which are seen as common responses to identical problems of poor market performance. A second influential strand latches on to the concept of the ‘moral economy’ or notions of the ‘common good’, representing intervention primarily as the outcome of social and political conflict. Research along these lines, however, is usually not comparative in nature, focusing instead on developments in a single country.

This article wants to add to the debate by investigating both differences and similarities in the repertoire of dearth policies that developed in the fifteenth and sixteenth centuries and by examining the factors that shaped these policies: economic characteristics, but also social and political relations. The focus on the fifteenth and sixteenth centuries follows from the fact that in this crucial era government engagement with food provisioning increased strongly, laying the foundations for provisioning policies in later centuries. Responses to food crises in three regions are compared: East Anglia in England, coastal Picardy and Upper Normandy in France, and Holland in the northern Low Countries. These three regions are in the same climate zone and all have good access to sea. In other respects, however, there were significant differences. For a start, East Anglia and coastal Picardy and Upper Normandy were both grain-growing regions, while Holland had to import a substantial and increasing part of its bread grains. Secondly, the political development of the countries which the regions were part of also differed. In England a traditionally strong crown was checked by parliament from the late fourteenth century onward, while France saw a gradual – although uneven and as yet incomplete – rise of the power of the monarchy. In Holland, finally, the growth of central authority under

9 Persson, Grain markets, 73-74; Willem Jongman and Rudolf Dekker, ‘Public intervention in the food supply in pre-industrial Europe’, in: Paul Halstead and John O’Shea (eds.), Bad year economics: cultural responses to risk and uncertainty (Cambridge 1989) 114-122.
10 John Bohstedt, The politics of provisions: food riots, moral economy and market transition in England, c. 1530-1850 (Farnham 2010); Buchanan Sharp, Famine and scarcity in late medieval and early modern England. The regulation of grain marketing, 1256-1637 (Cambridge 2016); James Davis, Medieval market morality: life, law and ethics in the English marketplace, 1200-1520 (Cambridge 2012) 410-441; Stephen Hipkin, ‘The structure, development, and politics of the Kent grain trade, 1532-1647’, Economic History Review 61:3 (2008) 99-139; Arjen van Dixhoorn, ‘The grain issue of 1565-1566. Policy making, public opinion, and the common good in the Habsburg Netherlands’, in: Elodie Lecuppre-Desjardin and Anne-Laure Van Bruaene (eds.), De Bono Communi: the discourse and practice of the common good in the European city (3rd-16th c) (Turnhout 2013) 171-204.
11 The region comprising the present-day départements Somme and Seine-Maritime.
12 Details and sources are presented in the next section.
13 Perry Anderson, Lineages of the absolutist state (London 1979) 85-93, 113-125.
the Burgundian and Habsburg regimes was restrained, and ultimately reversed, by the growing influence of the provincial estates, which in turn relied on the collaboration of urban elites.\(^\text{14}\)

The comparison of dearth policies and the factors affecting them is based on existing studies for each of the three regions. Notably, these studies reflect differences in historiographical traditions. In some cases these diverging traditions correspond with actual differences in reactions to dearth, but it will be shown that this is not always the case. The investigation will focus on two elements of dearth policy: restrictions imposed on the grain trade (on foreign exports and on internal trade), and public grain stocks. These two elements have been selected because they represent, in more than one respect, opposing ends of the wide range of dearth policies. Grain trade restrictions belong to the category of regulatory measures mentioned earlier, while the establishment of a public grain stock was an organizational intervention that usually required substantial investments. Trade restrictions moreover frequently brought central and local authorities into conflict. Studying them can thus reveal the impact of the relationship between central and local power on dearth policies. An investigation of public stocks, which were always set up and managed by the urban authorities, brings another aspect into view: it shifts the focus to the urban level and to the organizational capacities of local agents. Together, an investigation of trade restrictions and urban stock policies thus captures the diversity and complementarity of dearth policies and allows for a nuanced analysis of similarities and differences between the three regions. It will be demonstrated that both types of interventions were affected by social, political and economic factors at the regional level, but also that differences were greater in theory than in practice.

The next section introduces the three regions. It briefly sketches the demographic and the economic development of each of them in the period under investigation, focusing on food production and market dependency; it also provides information on the occurrence of food crises. The third section discusses grain trade restrictions, and their enforcement. A central issue here is the ability of central governments to control trade through prohibitions and licenses. Public grain stocks are discussed in the fourth section. An important theme there is the rise of emergency grain purchases by towns during dearth and the extent to which these episodic purchases developed into a structural system. Conclusions follow.

\(^{14}\) Maarten Prak and Jan Luiten van Zanden, *Nederland en het poldermodel: sociaal-economische geschiedenis van Nederland, 1000-2000* (Amsterdam 2013) 86-88, 91-92, 118.
2 The three regions

In keeping with general patterns in northwestern Europe, demographic and economic developments in the fifteenth and sixteenth centuries in the three regions under examination display some similarities. In all three regions there were, sooner or later, signs of demographic recovery from the plague, of economic specialization and of an increase in interregional trade. There were, however, also significant differences.

As in much of England, in East Anglia demographic recovery after the plague epidemics of the fourteenth century was slow.\textsuperscript{15} Decline in the fifteenth century was eventually followed by growth in the sixteenth, especially in Suffolk. However, by 1600 East Anglian population had probably only just risen above the late fourteenth-century level.\textsuperscript{16} Yet at the same time processes of commercialization, specialization and urbanization had taken place, partly owing to the demand for agricultural and industrial products exerted by London, which by 1600 had grown to around 200,000 inhabitants. Especially in Suffolk, from the early fifteenth century onward vibrant textile industries producing for both domestic and foreign markets developed in many small towns and villages. The agricultural sector was likewise transformed. A class of commercially oriented farmers emerged, running sizable enterprises. Market-oriented dairying and livestock farming expanded. Arable farming focused on the production of wheat and barley for the market. During the period under examination East Anglia regularly produced grain surpluses that were sold in London or other English towns, or exported to the continent (mainly to the Low Countries).\textsuperscript{17} Smallholding did not disappear and smallholders continued to produce some of their own food, but many of them also worked for wages as craftsmen, laborers or servants. They thus increasingly depended on the market for food provisioning.

\textsuperscript{15} This section is based on: Mark Bailey, \textit{Medieval Suffolk: an economic and social history, 1200-1550} (Woodbridge 2007) Ch. 9 and 11; Jane Whittle, \textit{The development of agrarian capitalism: land and labour in Norfolk 1440-1580} (Oxford 2000) Ch. 5.

\textsuperscript{16} Stephen Broadberry, Bruce Campbell, Alexander Klein, Mark Overton and Bas van Leeuwen, \textit{British economic growth, 1270-1870} (Cambridge 2015) 25.

\textsuperscript{17} John A. Chartres, \textit{Internal trade in England, 1500-1700} (London 1977) 14-15.
The information available for coastal Picardy and Upper Normandy is not as detailed: population estimates for the region are lacking. However, we know that demographic recovery in northern France began earlier than

18 This section is based on: Hugues Neveux, ‘La restauration démographique et économique’, in: Georges Duby and Armand Wallon (eds.), *Histoire de la France rurale* 2 (Seuil 1975) 89-131; JeanJacquart, ‘Permanences techniques et économiques’ and ‘La dégradation du revenu paysan’, in: Duby and Wallon (eds.), *Histoire de la France rurale* 2, 213-275; Jacques Godard, ‘La fin d’une époque: guerre et crises’, in: Robert Fossier (ed.), *Histoire de la Picardie* (Toulouse 1974) 197-223.

Map 1. Iason Jongepier, GISorical Antwerp (UAntwerpen/Hercules Foundation).

Estimated population numbers c. 1600:

- *East Anglia*: 310,000 (Norwich 20,000; Lynn 8,000, Yarmouth 8,000);
- *Coastal Picardy and Upper Normandy*: no estimates available (Rouen 70,000; Amiens 25,000);
- *Holland*: 275,000 (Amsterdam 54,000; Leiden 44,000).

(Sources: East Anglia: Broadberry et al, *British economic growth*, 25; Holland: Bas van Bavel and Jan Luiten van Zanden, ‘The jump-start of the Holland economy during the late-medieval crisis, c. 1350-1500’, *Economic History Review* 57:3 (2004) 503-532, 505; all urban population figures: Eltjo Buringh, ‘Urbanisation hub’, available at http://www.cgeh.nl/urbanisation-hub-clio-infra-database-urban-settlement-sizes-1500-2000.)
in England: from the middle of the fifteenth century the population started to grow again. Coastal Picardy and Upper Normandy belong to the extensive grain-growing plateau of northern France. In the fifteenth century grain production, usually by smallholding peasants, increased in response to rising demand: from the local population, but also from rapidly growing Paris (around 300,000 inhabitants by 1600). Until around 1500 Picardy moreover exported substantial quantities of grain to the cities and towns of Flanders, Brabant and Holland. In contrast to East Anglia a pastoral sector did not come into being, but especially in the countryside a flourishing textile industry emerged. However, after 1560 the tide turned: population growth and urbanization largely came to a halt, agricultural production stagnated and living standards of the peasantry declined. This is not the place for an extensive discussion of the backgrounds – Malthusian crisis, the Wars of Religion, or counter-productive institutions – but it is significant that even though the region in good years was still able to generate agrarian surpluses, in bad ones grain imports were required to sustain the population of Rouen.¹⁹

Holland, in contrast to the other two regions, produced only very little grain.²⁰ When in the high Middle Ages the extensive peat lands that constituted much of Holland’s interior were first reclaimed, arable agriculture had been practiced successfully. However, from the late fourteenth or early fifteenth century onward, subsiding peat soils made the cultivation of bread grains increasing difficult. That the population nevertheless almost doubled between the early fifteenth and the late sixteenth century was made possible by a drastic transformation of the economy. Urbanization, already high at the beginning of the period under examination, increased to about 45 per cent at the end of it. Holland did not have a single large city towering over the other towns. Yet in the many small to medium-sized towns urban industries – mainly textiles, brewing, and shipbuilding – flourished. In the countryside arable farming was largely replaced by market-oriented dairy and cattle farming, practiced by small landowning farmers who also engaged in non-agrarian activities like peat-digging, transport, and brick-making. Exports of industrial products and foodstuffs such as cheese and salted fish, mainly to the southern Low Countries and the German Rhineland, increased rapidly. This was accompanied by a growing dependency on imported bread grains. At first grains came mainly from the Somme region, northern Germany, or the present-day eastern Netherlands.

¹⁹ Philip Benedict, *Rouen during the Wars of Religion* (Cambridge 1981) 21.
²⁰ This section is based on: Van Bavel and Van Zanden, ‘Jump-start’.
and the German Rhineland. From the late fifteenth century onward, Baltic rye became increasingly important. Estimates indicate that by the end of the sixteenth century at least 75 per cent of the bread grains consumed in Holland were imported.21

Demographic growth, urbanization and increased market dependency were accompanied by an increase in the incidence of food crises, although here too, pace and timing varied between the regions. Price analysis of the main bread grains – wheat for France and England, rye for Holland – provides a rough indication. Admittedly it is no more than that: since reliable and complete price series covering the entire period under examination are not available for towns in the three regions, we have to fall back on se-

21 Milja van Tielhof, ‘Grain provision in Holland, c. 1490-1570’, in: Peter Hoppenbrouwers and Jan Luiten van Zanden, Peasants into farmers? The transformation of rural economy and society in the Low Countries (Middle Ages-19th century) in the light of the Brenner debate (Turnhout 2001) 202-299, 204-205.

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**Table 1. Grain price peaks in London, Paris and Utrecht, 1400-1600 (increases of at least 100 per cent over the normal price level)**

| Year     | London (wheat) | Paris (wheat) | Utrecht (rye) |
|----------|----------------|---------------|---------------|
| 1437-39  | 150%           | 131%          | 142%          |
| 1456-57  | 103%           | 111%          |               |
| 1473-74  | 102%           |               |               |
| 1481-83  |                | 256%          |               |
| 1491-92  |                |               | 154%          |
| 1501-02  |                | 184%          |               |
| 1521-22  | 145%           |               | 126%          |
| 1545-46  | 143%           |               |               |
| 1554-57  | 283%           |               | 116%          |
| 1565-66  |                | 145%          |               |
| 1573-74  | 132%           | 116%          | 122%          |
| 1586-87  | 137%           | 173%          |               |
| 1590-91  | 224%           |               |               |
| 1596-97  | 157%           | 153%          |               |

* The ‘normal’ price level is defined as the average price of the second to ninth year before the crisis excluding the lowest and highest extremes.

Sources: London: Robert Allen, ‘Wage and price history’, available at https://www.nuffield.ox.ac.uk/People/sites/Allen/SitePages/Biography.aspx; Paris: Global Price and Income History Group, ‘Global prices and incomes database’, available at http://gpih.ucdavis.edu/ (date of consultation for both: 28 April 2017); Utrecht: N.W. Posthumus, Nederlandse Prijsgeschiedenis II (Leiden 1964), Table 21a.
ries from London (1400-1600), Paris (1431-1600) and Utrecht (1400-1600). Table 1 shows increases in grain prices of more than 100 per cent over the normal level. The table suggests that in the northern Low Countries and also in northwestern France several serious episodes of dearth took place in the fifteenth century, whereas eastern England, after the European-wide crisis of 1437-1439, seems to have been largely spared until the second half of the sixteenth century. 22

Authorities in all three regions felt compelled to react to the price spikes that brought distress to a population increasing dependent on the market for its food provisioning. The grain trade, naturally, was one of the issues on which these reactions focused.

3 Grain trade restrictions

In times of dearth, authorities on all levels – local, regional and national – were inclined to take measures to prevent grain from being moved out of their jurisdiction. This section traces the development of restrictions on the movement of grain for each of the three regions under examination, distinguishing between limitations on foreign exports (exports beyond national boundaries) and restraints on trade between regions within the country. It will be demonstrated that although there were important differences in the formal restraints imposed on the grain trade, especially between East Anglia and coastal Picardy and Upper Normandy on the one hand and Holland on the other, in practice variations were more modest.

In view of the early rise of central power in England, it is not surprising that the efforts of the English crown to control foreign exports of grain go back a long way. Even in the thirteenth century the king occasionally issued ordinances prohibiting grain exports for military or diplomatic reasons. Starting during the Great Famine of 1315-17, grain exports were repeatedly prohibited with direct reference to scarcity and high prices. Prohibitions were not absolute: exceptions were possible under royal license.23 The combination of prohibiting and licensing allowed for a substantial degree of control over foreign exports, but it is worth noting that the crown also benefited directly. The license fees formed an attractive source of revenues, as is shown by the case of a merchant who in 1540 paid the sum of £25 to

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22 Cf. Sharp, Famine and scarcity, 153-154.
23 Ibid., 45-47, 91-97.
be allowed to export 100 quarters of wheat.\textsuperscript{24} From the end of the fourteenth century, the growing power of parliament brought the interests of two groups other than the king to the fore: those of the urban consumers, who usually opposed exports for fear of dearth, and those of the producers in the grain-growing regions, in particular East Anglia, who desired the freedom to export their surpluses. In the fifteenth century this resulted in what can be seen as a compromise that served the interests of king, towns and producers alike: a series of statutes that allowed foreign exports if prices in the port of shipment did not exceed a specified rate. Above that rate a license was required.\textsuperscript{25}

The sixteenth century, especially the second half of it, was marked by growing worries over the food provisioning of the towns, and in particular of London, with its rapidly growing population and large numbers of poor. London’s food supply had been a continuing concern of the crown since at least the late fourteenth century.\textsuperscript{26} Now, according to N.S.B. Gras, the city became ‘the dictator of Tudor corn policy’.\textsuperscript{27} Making use of the existing framework of export regulation by the crown, the London authorities forcefully pressed for restrictions on foreign exports, and with considerable success: after 1565 there were more years with an export ban than years without such a proclamation.\textsuperscript{28} What is more – and what is sometimes overlooked in the literature – the London authorities also played an active part in enforcing these bans, sending out agents to other parts of the kingdom for this purpose. In 1565, for instance, the mayor’s officials were sent to Norfolk to seize any grains waiting for shipment in the port towns.\textsuperscript{29}

Nevertheless, East Anglian grain producers and grain merchants found ways to continue their export activities. Some of them were downright illegal: although exact figures are difficult to give, there is substantial evidence that in the second half of the sixteenth century very large amounts of grain – 20,000 quarters annually, or more – were exported without a license from the ports of East Anglia, even in dearth years, with the Low Countries as the main destination.\textsuperscript{30} Other methods stayed within the bounds of

\textsuperscript{24} Ibid., 175. A quarter equals about 282 liters. Based on an average London wheat price of 8.8 shilling per bushel between 1535 and 1545, the costs of the license would have added about 7 per cent to the purchasing price of the grain.
\textsuperscript{25} Gras, \textit{Evolution}, 134-137; R.B. Outhwaite, ‘Dearth and government intervention in English grain markets, 1590-1700’, \textit{Economic History Review} 34:3 (1981) 389-406.
\textsuperscript{26} Sharp, \textit{Famine and scarcity}, 102-107, 160, 222-225.
\textsuperscript{27} Gras, \textit{Evolution}, 223.
\textsuperscript{28} Outhwaite, ‘Dearth and government intervention’, 400; Bohstedt, \textit{Politics of provisions}, 77.
\textsuperscript{29} Gras, \textit{Evolution}, 223-225.
\textsuperscript{30} N.J. Williams, \textit{The maritime trade of the East Anglian ports, 1550-1590} (Oxford 1988) 27, 30, 72.
the law. Delegates of the port towns of Norfolk bargained for large export grants which were subsequently divided in smaller portions and sold as licenses to individuals. Yarmouth, for instance, managed to secure several of these grants to cover expenses for maintaining its harbour facilities. The fact that the crown had to rely on the port towns for naval services probably did much to help their case.31 Likewise, farmers in East Anglia repeatedly petitioned for greater liberty, claiming that restrictions were harmful because they would lower grain prices and discourage grain cultivation. These complaints fed into emerging mercantilist notions on the benefits of foreign exports.32 The temporary abandonment of fixed price ceilings between 1571 and 1593, when local authorities were to decide whether price levels justified exportation,33 can perhaps be seen as an attempt to meet the protests. Thus, although at the end of the sixteenth century export policies were dominated by the interests of the towns and especially of London, producers and merchants were not completely powerless. However, only when in the middle of the seventeenth century agricultural productivity had improved markedly their influence was strong enough to induce a shift to a consistent policy of stimulating grain exports.34

Returning to the sixteenth century, the literature emphasizes that even though foreign exports were strictly regulated, internal trade in England was, in comparison to the continent, relatively free.35 However, while tolls and duties levied on internal trade were indeed few, other kinds of restrictions were present, at least in the second half of the sixteenth century. For one, London’s increasing demand for grain and its gradually extending provisioning zone gave rise to protests. In 1565 the University of Cambridge tried, without success, to convince the central authorities that grain transports from the town to Lynn (and from there probably to London) should be restricted because they endangered the food supply of the colleges.36 In other places local authorities did not ask for permission but actually seized corn shipments leaving the area, or even simply passing through.37 Admittedly, such actions were not tolerated by the central authorities. However,
government policies themselves also included restraints on internal trade in times of dearth. From the middle of the century, for instance, corn badgers officially required a license from the local justice of the peace. While this prescription may not always have been enforced, the fact that it found its way into the 1586 book of dearth orders – together with some other measures restricting the movement of grain within the country – suggests that in times of distress it did have meaning; and at the end of the sixteenth century those times were frequent. 38 At that stage, then, the internal grain trade, just as the export trade, was in practice subjected to restraints.

France did not have the same tradition of central regulation of foreign grain exports as England. French historiography reflects this.

38 Alan Everitt, ‘The marketing of agricultural produce’, in: Joan Thirsk (ed.), The agrarian history of England and Wales IV, 1529-1640 (Cambridge 1967) 466-492, 580-581; Gras, Evolution, 238 (no. 17).
cies in the fifteenth and sixteenth centuries have received but little attention: most studies focus on the late seventeenth and eighteenth centuries, emphasizing attempts to overcome multiple market imperfections – such as fragmentation – by tight regulation. 39

Fragmentation was at least partly rooted in a tradition of local and regional autonomy that was still strong in the fifteenth and sixteenth centuries. From at least the late fifteenth century onward the crown occasionally imposed export bans, either for diplomatic reasons or because of dearth. 40 However, at this point in time royal edicts did not have legal force throughout the kingdom automatically: they only acquired the status of law when the local authorities endorsed them. Also, in many cases the initiative for export restrictions by the crown appears to have lain with regional and local bodies or functionaries. This was the case, for instance, in 1500 in Normandy, where the provincial estates urged the king to impose an export prohibition. Paris also had an active role, petitioning for export restrictions in much the same way as London: in 1501 the city’s aldermen requested that orders should be sent out to the royal functionaries in several towns in Picardy to prevent foreign grain exports via the Somme. 41

In the early sixteenth century, prohibitions in times of dearth alternated with permission to export in times of abundance, regulated through a system of licenses. As in England, export licenses formed an attractive source of revenues for the crown and as such they were probably the driving force behind at least some of the prohibitions. 42 In 1559 an ambitious attempt was made to introduce a more systematic approach allowing for greater central control. A bureau was installed that was to determine each year, for the whole of France, how much grain was available for export and to subsequently grant export licenses to merchants. A later version of this plan stated that no grain could be exported without explicit permission from the king himself, who was to base his decisions on reports from lower officials regarding the expectations of the crops. Combatting dearth was clearly an important goal, but fiscal considerations were also a factor of

39 Marcel Lachiver, Les années de misère: la famine au temps du Grand Roi, 1680-1720 (Paris 1991) 124-154; Judith A. Miller, Mastering the market. The state and the grain trade in northern France, 1730-1860 (Cambridge 1999), Part One; Jean Meuvret, ‘Le commerce des grains et des farines à Paris et les marchands parisiens à l’époque de Louis XIV’, Revue d’Histoire Moderne et Contemporaine 33 (1956) 169-203; Steven Laurence Kaplan, Provisioning Paris: merchants and millers in the grain and flour trade during the eighteenth century (Ithaca/London 1984).
40 René Gandilhon, Politique économique de Louis XI (Paris 1941) 157.
41 Usher, History, 81, 224-225, 264.
42 Ibid., 224, 227-230.
consequence: licenses were to be sold at auction and foreign exports were restricted to specified ports in order to facilitate control. 43

Directive as this may sound, in practice the regulation of imports and exports of grain was not a completely top-down affair. In Rouen the execution was left to the Chambre de la Police, a committee established in 1572 in which local, regional and royal functionaries collaborated. 44 It was this committee that gave permission for foreign exports, which meant that local and regional interests had a voice in the matter; and elites in coastal regions or port towns were not always in favour of restricting exports. Moreover, as in East Anglia, individual merchants clearly did not always adhere to the rules: in the 1560s and 1570s shipments of grain repeatedly left from ports in Normandy (and Brittany) for Spain and Portugal without any kind of license. 45

The steady but incomplete increase of central power is also visible in the attitude towards internal trade, where the crown propagated the abolition of local and regional restrictions on the movement of grain. The dearth of 1481/82 may have been a trigger event: the royal ordinance of January 1482 that prescribed free circulation of cereals in the entire kingdom was apparently the first of its kind.46 In later years this became, in theory at least, the norm. In reality, however, the freedom of internal trade was a carefully cultivated illusion. Local and regional authorities imposed restrictions on the grain trade all the time, usually without being called to order. 47

While a tradition of regional autonomy and the weakness of central enforcement institutions provided the towns of coastal Picardy and Upper Normandy with more options to restrain grain movements than the East Anglian towns had a their disposal, in another respect they found themselves in very similar circumstances. Like London, Paris grew rapidly in the sixteenth century, with similar results: the provisioning zone of the city expanded at the expense of other towns. Merchants from Rouen, for instance, could freely buy grain along the Oise river in 1462, but in 1529 they had to petition the Provost of Merchants of Paris for permission to do so.48 The example shows that the demarcation of a provisioning zone sometimes included the use of extraterritorial coercion by the capital city, but as we saw earlier, this was not a French peculiarity: it happened in England as well.

43 Ibid., 233–235.
44 Benedict, Rouen, 39–40.
45 Henri Lapeyre, Une famille de marchands: les Ruiz (Paris 1955) 539.
46 Gandilhon, Politique économique, 157.
47 Usher, History, 229, 235–236, 240–267 passim.
48 Ibid., 53–54.
In Holland, the medieval counts occasionally issued export prohibitions from at least the early fifteenth century onward, for instance in the dearth years 1407/1408 and 1416/17. This practice was continued when around 1430 Holland was incorporated in the Burgundian empire. At this point in time there is no trace of a licensing system or even of attempts to establish one. The Habsburg rulers who came to power in the late fifteenth century, however, repeatedly tried to introduce a system of licensing which closely resembled the English and French systems: in periods when foreign exports were officially prohibited, merchants might be exempted from the prohibition in return for a payment, the *congie*. The sums involved were, at averages of 1 to 3 per cent of the value of the grain, not that high. Nevertheless protests rose. The arguments of the Amsterdam authorities, recorded in a Habsburg ordinance from 1501, are worth repeating. Amsterdam had apparently claimed that since Holland could not feed itself ("not even for a tenth") and was dependent on imports, it was unwise to take measures that might scare merchants away: if they were not allowed to freely export grain, they would not import it in the first place. The fact that the urban elite was itself heavily involved in the grain trade is not mentioned, but it can safely be depended upon to have played an important role. Until the middle of the sixteenth century the Habsburg government made several renewed attempts to introduce a licensing system. Each time it met with fierce opposition from the estates of Holland, in which the towns had a prominent position, and each time the plans had to be withdrawn. That the Habsburg government was forced to give in to urban demands demonstrates the increasingly influential position of the urban elites. Amsterdam was at the forefront, but the claims were supported by other towns.

While at first sight the struggle of the towns with the Habsburg government over the *congie* may look like a fight for an unrestricted grain trade, reality was more complex. Two reservations should be made. For one, the fact that the matter of licensing had been moved out of the way did not

49 Van Schaik, ‘Prijs- en levensmiddelenpolitiek’, 232.
50 W.S. Unger, *De levensmiddelenvoorziening der Hollandsche steden in de Middeleeuwen* (Amsterdam 1916) 55-56.
51 Calculated from the tariffs reported by P.A. Meilink, ‘Rapporten en betoogen nopens het congie op granen, 1539-1542’, *Bijdragen en Mededelingen van het Historisch Genootschap* 44 (1923) 1-124, 4, 13, 16, and average wheat and rye prices in Utrecht in the corresponding decades.
52 Dirck Graswinckel (ed.), *Placcaetboeck op ’t stuk van de lijftocht* (Leiden 1651) 1-4.
53 Meilink, ‘Rapporten en betoogen’, 1-24; Milja van Tielhof, *De Hollandse graanhandel, 1470-1570. Koren op de Amsterdamse molens* (The Hague 1995) 135-137; James D. Tracy, ‘Habsburg grain policy and Amsterdam politics: the career of sheriff Willem Dirkszoon Baerdes, 1542-1566’, *The Sixteenth Century Journal* 14:3 (1983) 293-319.
mean that export prohibitions themselves disappeared. Rather, as in England, their frequency appears to have increased after the middle of the sixteenth century.\(^{54}\) However, these export bans were usually restricted to home-grown grains and did not apply to imported grains. This was not a minor issue since, as mentioned earlier, by this time at least three quarters of all bread grains consumed in Holland were imported. This made export prohibitions that excluded imported grains into virtually powerless instruments. Only in situations of extreme distress exports of all cereals, including imports, were prohibited. This happened, for instance, in 1556/1557 – with the consent of the towns.\(^{55}\) Even after the establishment of the Dutch Republic there were times when commercial interests gave way to the demands of dearth: in 1595/1596, for instance, a similar general export ban was in operation for half a year.\(^{56}\) Still, in Holland freedom of international trade found its way into policy to a greater degree than in France or England.

The second reservation regards the regulation of the movement of grains within the country, which has not nearly received as much scholarly attention as the international trade. In internal trade, notions of unrestricted commerce easily gave way under duress. As in France, in times of dearth all kinds of restrictions on the grain trade were imposed by towns. Urban particularism remained strong, even under Burgundian and Habsburg rule; in fact, there is no sign that the central authorities objected to urban trade restrictions on principle. That Brielle, situated in one of Holland’s very few grain-growing districts, in the second half of the sixteenth century repeatedly prohibited the movement of grain out of its jurisdiction is perhaps understandable.\(^{57}\) However, towns like Gouda and Haarlem, greatly dependent on grain imports, occasionally also issued prohibitions to convey grain out of the town.\(^{58}\) From a report by one of the members of the Council of Holland we know that even Amsterdam followed this course of action in 1556/1557. Whether the prohibition was effective is another matter: the Amsterdam authorities stated that some merchants had transferred their stocks to one of the villages in the surrounding countryside just before the ban came in force.\(^{59}\) Moreover, some months later it turned out that more

\(^{54}\) W.S. Unger, ‘De Hollandsche graanhandel en graanhandelspolitiek in de Middeleeuwen’, De Economist 65 (1916) 243-270, 337-387, 461-504, Appendix III.

\(^{55}\) Graswinckel, Placcaetboeck, 71-79; Tracy, ‘Habsburg grain policy’, 311-312.

\(^{56}\) Leo Noordegraaf, ‘Dearth, famine and social policy in the Dutch Republic at the end of the sixteenth century’, in: Peter Clark (ed.), The European crisis of the 1590s (London 1985) 67-83, 79.

\(^{57}\) Unger, Levensmiddeleenvoorziening, 189.

\(^{58}\) Ibid., 201, 204.

\(^{59}\) Graswinckel, Placcaetboeck, 46-53.
than half of the grain stocks stored in Amsterdam had been sold and transferred to elsewhere after all. In this respect Amsterdam merchants were no different from their colleagues in Rouen or Lynn, nor was the fact that rules were already tuned to their interests sufficient to make them forgo on the profits that could be made by evasion.

Reviewing the evidence regarding formal grain trade regulation, differences mainly appear between Holland on the one hand and the other two regions on the other. In Holland export restrictions were loosened in the course of the sixteenth century while in East Anglia and in coastal Picardy and Upper Normandy they were tightened; in Holland urban governments had elbow room to restrict the movement of grain out of their jurisdiction in times of dearth, an option that the towns in the other two regions, at least in theory, did not have. Looking for an explanation for these differences, three interrelated elements come to the fore. The first is the fact that Holland, in contrast to East Anglia and coastal Picardy and Upper Normandy, was not a grain-producing region but even in normal years imported most of its bread grains. Under these conditions, both commercial interests and provisioning needs dictated that foreign exports should be free. A second factor is the structure of the urban network: Holland did not have a large and rapidly growing capital on the scale of London or Paris with an expanding provisioning zone, which reduced conflicts of interests between towns on this issue. Finally, urban elites successfully joined forces in their efforts to withstand attempts of the central authorities to use the grain trade as a source of revenues, even before the establishment of the Dutch Republic.

However, when instead of at formal regulations we look at daily practice, differences between the regions are much smaller. In years of severe dearth even in Holland foreign grain exports were completely halted, while internal trade in coastal Picardy and Upper Normandy was far from unfettered and even in East Anglia it was restricted by Tudor dearth regulation. In all three regions local authorities were able, in some way or another, to influence decisions on trade restrictions, and individuals resorted to smuggling and evasion of prohibitions everywhere. In short, the predicaments of dearth, but also the interests of commerce, narrowed the theoretical gap considerably.

60 Astrid Friis, ‘An inquiry into the relations between economic and financial factors in the sixteenth and seventeenth centuries. The two crises in the Netherlands in 1557’, Scandinavian Economic History Review 12 (1953) 193-241, 205.
4 Public grain stocks

Creating grain reserves with the purpose of selling the grain, often in the form of bread, at subsidized prices during dearth was not something to be entered into lightly. For one, the expenditure involved was substantial, especially when purchases were made as an emergency reaction to dearth. If, on the other hand, supplies were bought when prices were low, they could lose much of their value if no dearth occurred. Moreover, storage was costly, and grain was a perishable product: it might spoil or be eaten by rodents. In practice, public granaries were almost always urban undertakings, probably because managing them on a larger scale was too daunting a task. This section charts the emergence and development of urban grain stocks for each of the three regions under scrutiny, looking for explanations for differences and similarities, especially in the incidental or structural character of reserves. It argues that these explanations are to be found not just in the frequency and severity of scarcity, but also in social structures and in the responsiveness and agency of urban governments and local institutions.

In England, the urban authorities in London occasionally made emergency grain purchases when prices were high from at least the late fourteenth century onward: this happened in 1391, for example, and again in 1429. For several large towns, Norwich and Bristol among them, similar purchases are documented for 1521 and 1522, again in response to dearth. During the food crisis of the late 1590s municipal activity in organizing grain stocks intensified and expanded: smaller towns now also procured substantial amounts of corn in order to sell it to the poor at sub-market prices, as grain, flour or bread. Some towns, in East Anglia and elsewhere, directly ordered grain abroad: in the Baltic region, in Amsterdam, or in France. The costs and the efforts involved in these large grain procurements were

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61 Persson, *Grain markets*, 81-82.
62 Cf. Steven Laurence Kaplan, ‘Lean years, fat years: the “community” granary system and the search for abundance in eighteenth-century Paris’, *French Historical Studies* 102 (1977) 197-230, 228.
63 Sharp, *Famine and scarcity*, 129-130; Derek Keene, ‘Crisis management in London’s food supply, 1250-1500’, in: Ben Dodds and Christian D. Liddy (eds.), *Commercial activity, markets and entrepreneurs in the Middle Ages* (Woodbridge 2011) 45-62, 60.
64 Sharp, *Famine and scarcity*, 156-157; Paul Slack, *Poverty and policy in Tudor and Stuart England* (London/New York) 117.
65 Bohstedt, *Politics of provisions*, 82-93; Peter Clark, ‘A crisis contained? The condition of English towns in the 1590s’, in: Peter Clark (ed.), *The European crisis of the 1590s* (London 1985) 44-66, 58-59.
considerable, but clearly the financial means, organizational capacity and political will required to make them could be mustered. As John Bohstedt has pointed out, it is probably no coincidence that the towns making these emergency purchases in the 1590s were almost all parliamentary boroughs and that most of them had broad franchises. Bohstedt also claims that municipal provisioning was episodic: grain purchases were made when the need was there, but did not bear a structural character.66

In the early seventeenth century central government made several attempts to persuade counties and towns to install permanent granaries: institutions that were to stock up regularly when prices were low. The plans met with opposition from local and regional authorities, who apparently felt this would be too much of a burden.67 There were, however, exceptions. The best known is London. The construction of the first public granary, at Leadenhall, began in 1440, directly after the serious dearth of the years 1437 to 1439. This was an impressive building which also housed a market, a chapel, a college of priests and a school. Because of its grand scale, doubts have been raised about the reasons why it was built: it is claimed that as a reaction to the crisis of the previous years it was out of proportion.68 Still, for initiator Simon Eyre, a wealthy draper and mayor of London in the year 1445/46, and for several other private contributors, the provision of storage was the avowed incentive.69

It is true that it is uncertain how long the building was actually used for the storage of municipal grain stocks; in the early sixteenth century this no longer appears to be the case.70 However, around that same time another granary was installed at the Bridgehouse, where from 1520 onward municipal grain was stored. Urban grain purchases, by then still irregular, became progressively more frequent over the next few decades until by the early 1540s they had acquired a structural character.71 This transition from incidental to structural grain purchases ran parallel to another development: an increasing involvement of the city’s guilds, who at first were requested to contribute financially to the grain purchases of the city, but from 1578 onward were ordered to establish their own stocks. Both the granary system and the contribution of the guilds to its provisioning disintegrated in the

66 Bohstedt, Politics of provisions, 83, 85.
67 Ibid., 85.
68 Keene, ‘Crisis management’, 61-62.
69 Mark Samuel, ‘The fifteenth-century garner at Leadenhall, London’, The Antiquaries Journal 69:1 (1989) 119-153, 145.
70 Ibid., 149; Gras, Evolution, 83.
71 Gras, Evolution, 80-82.
early seventeenth century, when the need to maintain a permanent stock was apparently no longer felt.72

Although guild involvement was a feature typical for London, permanent grain stocks were not. Gras mentions an attempt to establish a permanent stock in Bristol, which he believes did not materialize.73 However, at least one other English town did have such a stock: Norwich. In the middle of the sixteenth century the Norwich textile industry had fallen into decline; poverty was rife and the danger of disorder was real. The Norwich granary was founded in 1554, as a result of a testamentary provision made by William Castleton, dean of Norwich Cathedral, for the sale of grain at sub-market prices to the poor at times of dearth. The urban authorities of Norwich made up for any deficits.74 The Norwich granary functioned until the middle of the seventeenth century, when stocks were allowed to run out and, finally, the building itself was sold.75

As in Eastern England, in northwestern France the food crises of the fifteenth century probably stimulated local authorities to adopt an active attitude towards food provisioning. Emergency purchases of cereals were among the strategies they employed. In 1456, for instance, the aldermen of Amiens decided to buy a considerable quantity of wheat, in an attempt to ‘put an end to the dearth that had become manifest’. Their successors took recourse to this line of action repeatedly during the frequent episodes of dearth of the late fifteenth and sixteenth centuries: delegates were sent out, at first to the surrounding regions but at the end of the period occasionally also to the Baltic countries, to search for grain and purchase it for the town.76 The same happened in Rouen,77 and also in towns in other parts of northwestern France.78 The quantities purchased were substan-

72 Ibid., 83-89; E.M. Leonard, The early history of English poor relief (Cambridge 1900) 24-25.
73 Ibid., 80.
74 John F. Pound, ‘Government and society in Tudor and Stuart Norwich, 1525-1675’ (unpublished PhD-thesis, University of Leicester 1974) 253.
75 Slack, Poverty and policy, 146-147.
76 F. Desportes, P. Desportes and P. Salvadori (eds.), Mercuriales d’Amiens et de Picardie I, Amiens, XVle siècle (Amiens 1993) 12-15 (quote at 12); Marie-Louise Pelus, ‘Marchands et échevins d’Amiens dans la seconde moitié du XVle siècle: crise de substances, commerce et profits en 1586-1687’, Revue du Nord 64:252 (1982) 51-71, 57-66.
77 Benedict, Rouen, 21; Jacques Bottin, ‘Négoce et crises frumentaires: Rouen et ses marchands dans le commerce international des blés, milieu XVle-début XVIIe siècle’, Revue d’Histoire Moderne et Contemporaine 45 (1998) 559-588, 563 (note 9), 561 (note 16).
78 Nantes: Elizabeth Tingle, ‘Stability in the urban community in a time of war: police, protestantism and poor relief in Nantes during the French Wars of Religion, 1562-1589’, European Histo-
tial, and, at least in late fifteenth-century Amiens, the urban authorities showed foresight, building up stocks when prices were on the rise but not yet at their peak.79

In France the second half of the sixteenth century was a tumultuous period. Urban autonomy, and urban financial resources in particular, were eroded by the extension of royal authority.80 The Wars of Religion and especially the civil war that erupted in the 1580s wrought havoc in northwestern France. However, recent research for Nantes (Brittany) suggests that in this town urban government did not break down. In fact, in collaboration with functionaries of the crown the urban authorities increased their efforts to maintain order and provide relief from distress.81 This seems to contradict the earlier findings of Marie-Louise Pelus for Amiens. She concludes that during the serious dearth of 1586/1587 the aldermen of that town – in contrast to their fifteenth-century predecessors – acted slowly: they did not try to purchase grain until it was too late and not enough of it could be found. Pelus believes that the delay was on purpose: several of the aldermen were themselves involved in the grain trade and scarcity, after all, raised profits.82 However, at the time the situation in northwestern France was so much troubled by conflict that that alone may well explain any delay.83

In the literature, the grain purchases by the towns in northwestern France in the fifteenth and sixteenth centuries are described as emergency, make-shift actions. It is stated that although there were *greniers de ville* (urban granaries), these were used only during times of dearth; afterwards they were dismantled until the next crisis occurred. This is contrasted – negatively – to the permanent granaries that existed in some towns in Germany, Lorraine, Franche-Comté, and Switzerland.84 However, the situation appears to be no different from what was customary in the majority of towns in eastern England.

Admittedly, the Norwich granary, which did have a structural character from the middle of the sixteenth century onward, did not have a pendant in Amiens or Rouen. Nor, for that matter, did Paris have a facility resem-
bling the Bridgehouse granary in London. Perhaps, however, these English exceptions are in greater need of an explanation than what appears to have been the normal situation in both eastern England and northwestern France. Focusing on coastal Picardy and Upper Normandy: since war and the loss of financial autonomy of the towns conditions had made even emergency purchases problematic, it is not surprising that setting up a permanent stock was out of reach.

In Holland, as in eastern England and northwestern France, the food crises of the fifteenth century appear to have triggered an active involvement of the towns with grain provisioning. Among the actions were emergency grain purchases. The first references to towns buying grain date from 1437, when Gouda and Rotterdam both procured supplies in Amsterdam. Purchases of this type are also recorded for Gouda and Brielle during two serious episodes of dearth in the last two decades of the fifteenth century. In the sixteenth century they became increasingly common: several towns bought grain repeatedly in years when prices were high. Sometimes they were actually urged to do so by central government. Just as in East Anglia some towns placed their orders directly in the Baltic region. In 1597 the authorities in Alkmaar, for instance, decided to buy grain when the corn ships came in unless the price was above 100 guilders per last, in which case they would order directly from the Baltic instead. Apparently the price was indeed too high, for ultimately this was what happened.

In some towns, the second half of the sixteenth century saw a gradual shift towards a structural grain stock. This shift was not always sustained for long, nor was it always based on a conscious and well-considered decision. The case of Leiden is illustrative: it shows how the authorities of this town, which just as Norwich was confronted with a decline of its cloth industry, were drawn into stockpiling step by step, through their involvement

85 Kaplan, ‘Lean years, fat years’, 197-203.
86 Remi van Schaik, ‘Marktbeheersing: overheidsbemoei enis met de levensmiddelenvoorziening in de Nederlanden (14de-19de eeuw)’, in: Clé Lesger and Leo Noordegraaf (eds.), Ondernemers en bestuurders. Economie en politiek in de noordelijke Nederlanden in de late middeleeuwen en vroege moderne tijd (Amsterdam 1999) 465-489, 482-483.
87 Jessica Dijkman, Shaping medieval markets. The organization of commodity markets in Holland, c. 1200-c. 1450 (Leiden 2011) 298.
88 Unger, Levensmiddelenvoorziening, 77-78, 189.
89 Leo Noordegraaf, ‘Levensstandaard en levensmiddelenpolitiek in Alkmaar vanaf het eind van de 16de tot in het begin van de 19de eeuw’, in: E.H.P. Cordfunke (ed.), Van Spaans beleg tot Bataafs tijd: Alkmaars stedelijk leven in de 17de en 18de eeuw (Zutphen 1988) 55-100, 77. A last equals about 3000 liters.
with the local poor relief organizations. In 1545, a year of high prices, the Leiden relief institutions had purchased a substantial quantity of grain to be baked into bread for the poor. They were, however, unable to pay for the purchases within the prescribed time and asked the town government for help. The urban authorities ordered a collection in the churches, but also guaranteed to make up for any remaining deficits. Seven years later, in 1552, prices were at high levels again. This time the urban authorities took the initiative and asked the poor relief institutions to distribute bread against sub-market prices. When this resulted in a financial loss, the town took it upon itself to compensate the institutions. The next step was not far away: in 1556/1557, the urban authorities bought grain themselves. Additional purchases were made later in the year, some of them involving financial contributions from the poor relief organizations. Finally, during the crisis of 1565/1566 the town not only bought grain again, but also acquired a building, a hospital that was no longer used, to serve as granary for the town’s
grain stocks.\textsuperscript{90} However, the facility was used for this purpose only briefly, for in the early 1590s the building became the inspection hall for serges, the products of a new and successful branch of the Leiden textile industries.\textsuperscript{91}

The Leiden granary was not unique. In 1565/1566 the authorities of the small town of Schoonhoven (c. 2,800 inhabitants) sold part of the town's silverware in order to have a designated granary built to store the town's grain, 'for the common good', as the inscription on the façade reads.\textsuperscript{92} Still, it is not clear if this building really housed a permanent grain stock, and if so, for how long. Only for one town in Holland we are certain that such a permanent stock was established, although not until many years later: Amsterdam. Between the 1620s and the 1670s the Amsterdam authorities regularly purchased rye and stored it in the urban granaries. In times of dearth the grain was baked into bread distributed at subsidised prices toburghers of limited means – a larger group than the poor that normally received relief.\textsuperscript{93} That a permanent reserve was maintained at a time when Amsterdam's role in the international grain trade was at its peak and living standards were relatively high, suggests that in this case the explanation is at least in part supply-based: the city was, both financially and logistically, in position to do what was not possible elsewhere.

The general pattern is clear. As a reaction to dearth, towns in Holland and in coastal Picardy and Upper Normandy started making substantial emergency grain purchases from about the 1430s or 1440s. Towns in East Anglia, not seriously affected by dearth in the fifteenth century, were probably later, but followed the same course of action from at least the early sixteenth century onward. In the second half of that century towns in all three regions stepped up their efforts: purchases became more frequent. In most towns this was as far as it went. However, in a few cases in East Anglia (Norwich)...

\textsuperscript{90} Christina Ligtenberg, \textit{De armezorg te Leiden tot het einde van de XVie eeuw} (The Hague 1938) 296-298.

\textsuperscript{91} R.C.J. van Maanen, 'Stadsbeeld en ruimtelijke ordening', in: R.C.J. van Maanen (ed.), \textit{Leiden: de geschiedenis van een Hollandse stad 2, 1574-1795} (Leiden 2003) 16-41, 21.

\textsuperscript{92} G.J. Lugard, \textit{Schoonhoven's filigrain. Historie van de zilverstad in acht hoofdstukken} (Schoonhoven 1968) 21. Population: Piet Lourens and Jan Lucassen, \textit{Inwonertallen van Nederlandse steden ca. 1300-1800} (Amsterdam 1997).

\textsuperscript{93} J.G. van Dillen, \textit{Duurtemaatregelen te Amsterdam in de zeventiende eeuw} (Amsterdam 1915) 9, 17; Idem, 'Dreigende hongersnood in de Republiek in de laatste jaren der zeventiende eeuw', in: Idem, \textit{Mensen en achtergronden} (Groningen 1964) 193-226, 193, 206, 215. Between 1623 and 1688 the urban accounts consistently mention expenses for turning the grain; they also regularly mention expenses for grain purchases (Stadsarchief Amsterdam, Archief van de burgemeesters: stadsrekeningen, inv. nos. 5014-90 to 5014-127).
and in Holland (Leiden and Schoonhoven) developments towards the establishment of a permanent grain stock are visible in the 1550s or 1560s. It is probably not a coincidence that both Norwich and Leiden had substantial textile industries that at the time experienced problems (although Schoonhoven does not fit into this profile). Equally notable is the fact that in both Norwich and Leiden the urban authorities were set on the path towards a structural reserve by the actions of local agents: in Norwich by a substantial testamentary bequest of a cleric, in Leiden by the local poor relief organisations which could no longer cope. There is, at present, no indication that a similar development took place in Amiens – also a textile town – or in other towns of coastal Picardy and Upper Normandy. For as far as this requires an explanation, the most likely one is the combination of civil war and the erosion of urban autonomy and urban finances taking place in France around this same time.

The permanent grain stocks of Norwich and Leiden were relatively short-lived; in Leiden the system did not outlive the sixteenth century, in Norwich it disappeared in the early seventeenth. Around that same time, however, Amsterdam, established a permanent grain stock, which continued to function until around 1680. This suggests that permanent grain stocks were not primarily a reaction to problems with the overall availability of grain, but were triggered by other factors: on the demand side the need to protect the entitlements of specific groups, and on the supply side financial resources and organisational possibilities.

5 Conclusion

This examination of fifteenth- and sixteenth-century dearth policies has brought to light both differences and similarities between regions. With regard to trade restrictions, at first sight the differences stand out. In Holland restrictions on foreign exports were gradually loosened, while in the other two regions they were tightened; in Holland urban governments were largely at liberty to restrict the movement of grain out of their jurisdiction in times of dearth, in the other two regions they were not. Holland’s deviating position can be attributed to three interrelated factors: the fact that the region was highly dependent on grain imports, the absence of a city on the scale of London or Paris expanding its provisioning zone, and the balance of powers between central government and urban mercantile elites. In practice, however, differences were smaller than they looked: dearth and commercial interests gave rise to multiple exceptions and adjustments.
Policies regarding public grain stocks do not display the same degree of variation: towns in all three regions made emergency grain purchases. The differences in timing that did exist – East Anglia was later than the other two regions – indicate that urban grain purchases were a straightforward response to increasing problems with the urban food supply and were not much affected by variations in social and political relations. Another difference was the shift – although but short-lived – towards permanent grain stocks which can be discerned in a few towns in East Anglia and Holland, but not in coastal Picardy and Upper Normandy. Here urban autonomy and the agency of local institutions probably did contribute.

This investigation has been limited to northwestern Europe and to the fifteenth and sixteenth centuries. Inclusion of other regions and periods in the comparison would probably bring an even richer set of responses to dearth to light: we know, for instance, that a state-dominated system of permanent granaries existed in eighteenth-century Prussia. Based on the results of the current research it becomes possible to formulate hypotheses regarding the factors shaping responses to scarcity in those other situations as well. Some of these factors are obviously economic in nature, such as the level of market orientation, food production capacity and the dependency on imports. However, political and social factors turn out to have been at least as important: the existence of an urban hierarchy, the balance of power between central and local authorities, and the strength of agency and civil society at the local level.

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94 Dominik Collet, 'Storage and starvation: public granaries as agents of food security in early modern Europe', *Historical Social Research* 35:4 (2010) 234-252.