Chapter 3: boom and bust: patterns of borrowing in later medieval England

Introduction

The virtually complete record of the certificates of defaulting debtors sent to Chancery, and the resulting extents of debt, allows an unusually full assessment to be made of changes in the English economy over the 179 years in which the Statute Staple debt registration system was in use, particularly with respect to periods of economic growth and recession. This chapter assesses the patterns of certificate generation resulting from defaulted debt transactions from fourteen English Staple and Merchant courts between 1353 and 1532. These Staple defaults act here as a barometer, or guide, to the volume of credit being extended within the English economy. The analysis of these patterns is predicated upon the self-evident maxim that changes in the availability of credit - of which the Staple credit was an integral part - within the economy is a viable measure of the robustness of that economy. The chapter sub divides the period into four sections divided into (roughly) fifty-year term in order to more closely examine the processes of, and context for, shifts in the availability of credit. It then goes on to consider ways in which theoretical approaches might help to establish wider frames of reference for these chronological movements in terms of a cyclical approach to economic change and the "shocks" that are often considered the mainspring for change.

The word "recession" in modern parlance means a period of temporary economic decline during which trade and industrial activity are reduced, generally identified by a fall in Gross Domestic Product (GDP) in two or more successive quarters. Recessions in modern Western economies are marked by high unemployment, stagnant wages and a fall in retail sales and are considered an integral component of capitalist economies. The word "recession" does not accurately describe the commercial conditions experienced in England in the fifteenth century discussed below. John Hatcher described it as a "slump" (a period of economic collapse, high unemployment and a loss of trade) in his seminal article on the midfifteenth century and in strict, modern, economic terms the commercial conditions experienced at that time would have to be described as a "depression."¹ A depression is the lowest point in an economic cycle. Depressions are characterized by a reduction in purchasing power, mass unemployment, shrinking demand, falling prices, declining wages and a general lack of business confidence. A depression causes a drop in all economic activity. Major depressions continue for several years and often have a worldwide impact. One example is the Great Depression between 1929 and 1939. However, in the absence of large datasets of reliable economic indicators, such as GDP, wages or unemployment figures, in a period wherein commercial changes took much longer to take effect, it is difficult to define any medieval economic conditions with rigid, unequivocal, conviction. Therefore, in this study, declining economic activity and business confidence over time is simply described as "recession," following the etymology of this word from the Latin recedere, meaning to recede, slip away or ebb.

One crucial observation that is central to the following analysis - which, at first glance, appears counter-intuitive - is that the amount of credit available in the economy contracts during periods of economic recession.² In a recession traders tend to be less willing to extend credit to customers because they believe customers will

¹ John Hatcher, "The great slump of the mid-fifteenth century," in *Progress and problems in medieval England*, ed. R. Britnell and J. Hatcher (Cambridge: Cambridge University Press, 1996), 237-72.

² Pamela Nightingale, "Monetary contraction and mercantile credit in later medieval England," *Economic History Review*, 43 (1990), 560-75. This effect has been clearly demonstrated in the sixteenth century see, C. Muldrew, *The Economy of Obligation: The Culture of Credit and Social Relations in Early Modern England* (Basingstoke, 1998), 95-101, 184-5, 225-7, 236-7.

find it harder to repay what they owe in difficult trading conditions. This is known as a lack of "business confidence" (an indicator of the amount of optimism or pessimism that managers feel about the prospects of their businesses or organisations). Medieval, indeed all, merchants realised that if one of their customers was unable to pay back what they owed, then they themselves might default on their repayments to other merchants from whom they themselves had borrowed. This potential bankruptcyinducing domino effect explains why businesses in general, and medieval merchants in particular, restrict lending during periods of economic unease. Thus chronological trends in medieval borrowing allow very close observations to be made periods of recession - when the amount of borrowing contracts (sometimes referred to as a "credit crunch") - and confident periods of commercial growth - when the amount of borrowing increases.

Figure 3.1: Transaction dates of Statute Staple certificates and Extents of Debt, 1353-1532 (N=15,038; Source: C 241; C 152/65; C 131)



Figure 3.1 plots the annual frequency distribution of credit agreements both in certificates from the sampled Statute Staple courts presented to Chancery (solid black line) and surviving extents of debt (discussed in chapter 1) processed by Chancery

(the dotted black line) between 1353 and 1532. The date used in these data is the day, cited in the certificate, when the parties went to the court to enrol the original credit agreement using a recognisance (the details are reiterated in the certificate), rather than the date - often several years later - at which the certificate was sent to Chancery. This is important because it informs us exactly - to the day - when these merchants felt confident enough to lend money with some hope of getting it back. The resulting certificates - which began process by which defaulting debtors were sued - indicate that this confidence might have been misplaced, but the annual expansion and contraction in certificates in this period illustrates levels of business confidence in the post-plague period. This original transaction date is recoverable from 9,841 certificates and 5,242 extents of debt. This large amount of data allows a reliable picture to be drawn of the market conditions when the debtor and creditor made their original agreement and clearly indicates periods of relative expansion and contraction. In order to identify the long-term trends, the certificates data has been smoothed by the addition of a (black dashed) polynomial trend line. The data is characterised by a very large volume of borrowing over the whole period, reflecting a wide and general availability of credit, resulting in large numbers of certificates issued against defaulters. Fewer of the extents have survived but, perhaps unsurprising, the two lines show striking similarities as the certificates and the extents were ultimately part of the same process.

The trends revealed by the Staple data in figure 3.1 suggest a cyclical pattern to the availability of credit and the financing of trade - "long-wave" business cycles are discussed below - in England between the later fourteenth and the early sixteenth centuries. These data suggest a peak in the later fourteenth century followed by a significant diminution in the early fifteenth century, a limited recovery in the later half of the fifteenth century and a significant and rapid growth in the use of credit in the 1510s and 20s. These tends support, in many cases, historians' understanding of phases in the later medieval economy but add significant empirical support to these observations and added nuance to their chronology.

The later fourteenth century: boom

The Black Death signalled the commencement of a long-term decline in absolute numbers of certificates sent to Chancery that lasted until the early years of the sixteenth century. The early fourteenth century, when the system was still in its infancy, had been a period of enormous credit provision. Between 1303 and 1314 the Chancery handled 6,841 individual cases from around the kingdom. In none of these years did the Chancery clerks deal with less than two hundred individual cases annually. In 1306 they processed 828 certificates – the highest number of debt cases in the entire medieval period. The early 1340s had likewise been characterised by a very high volume of certificate traffic being sent to the Chancery courts. These rarely fell below three hundred a year, with particularly heavy traffic of over 400 a year between 1342 and 1344, representing another medieval borrowing zenith. The early fourteenth century has been characterised as one of commercial expansion and confidence, and, as these figures suggest, was a period in which the English trade was being actively and vigorously financed using the Staple's forerunner, the Statute Merchant.

However, the post-plague world was a significantly different place to that which had preceded it and thus the trends in borrowing need to be considered in this novel business environment. Despite being part of the downward slope of the later fourteenth century, borrowing remained remarkably robust. For example, 136 credit agreements (which ultimately defaulted and were sent to Chancery) were enrolled in Staple courts around the kingdom in 1360 alone. Nightingale estimates that defaulted debts sent to Chancery might represent about 20 *per cent* of all credit transactions in the period.³ If the remaining (conjectural) 80 *per cent* of successful transactions are added, then the total amount of credit advanced at that time must have been in the region of 680 Staple credit agreements just in 1360. The mean amount of the defaulted debts in that year was £83 3s 5d. If this is multiplied by the (conjectural) total number of enrolled Staple recognisances (680), it suggests that over £56,000 was extended in credit just within the Staple system (and as discussed in chapter 1, there were many other sources of trade finance) only ten years after the first, and most devastating, outbreak of plague in England. Whilst this in no way compares to the spectacular flood of credit sixty years earlier, it does compare to the quieter years of the 1310s and the early 1330s (table 3.1).

Table 3.1: The number of certificates received by Chancery in 1315, 1331, 1343 and1360.

Year	Number of certificates received by Chancery
1315	196
1331	227
1343	509 (the second highest peak in the series)
1360	238

³ Pamela Nightingale, "Money and credit in the economy of late medieval England," in *Medieval money matters*, ed. D. Wood (Oxford: Oxford University Press, 2004), 63; Nightingale, "Monetary Contraction and Mercantile Credit," 566. This is discussed in more detail in chapter 1.

As can be seen from table 3.1, the number of certificates executed in Chancery in the sample years of 1315, 1331 and 1360 was broadly similar despite the period being bisected by the Black Death of 1348-50. This suggests that after the Black Death, during the busiest years of the later fourteenth century, whilst it never recovered to the towering zenith of 1343, the number of certificates passing through Chancery remained roughly to some of the quieter years of the early fourteenth century. This was despite the fact that number of potential lenders and borrowers using the Chancery court in post Black Death England had been cut in half by the plague.⁴ This means that there was considerably more credit available *per capita* in the later part of the century than there had been in all but the busiest years of the early fourteenth century and that merchants were ready and willing to lend it.

But the plague, once it had arrived, did not wither away quietly. It broke out both nationally and locally at regular intervals. The plague returned in 1361-2 and, although the outbreak was apparently not a deadly as that of 1348-50, chroniclers record the disease affecting children and young men particularly, possibly those born after the first pandemic who had no biological resistance.⁵ This particular episode is emphasised in the data by the prodigious and sheer drop in certificates between 1361 and 1365 (fig. 3.1). The economy rallied in the next few years, reaching a high point in 1375, but throughout the remainder of the fourteenth century sharp drops, generally followed by recoveries, pepper the data, commonly around the years in which the plague stuck. For example, after a strong showing in 1375, a notable drop is observed in the data between 1376-8 following the 1375 epidemic; the data similarly shows a

⁴ Bruce Campbell estimates the population in 1300 to be in the region of 4.25 million and the

population in 1377 to be between 2.2 to 3 million. However, population estimates vary wildly. See B.

M. S Campbell, English seigniorial agriculture, 1250-1450 (Cambridge, 2000), 403, 405.

⁵ Jim Bolton, "'The world turned upside down.' Plague as an agent of economic and social change," in W. M. Ormrod and P. G. Lindley (eds), *The Black Death in England* (Stamford, 1996), 26-32.

significant reduction in certificate traffic following the national outbreak of 1383. The continued outbreaks at the end of the century might thus be seen as a contributory factor in the reduction in the availability of credit (as seen in the dashed trend line) at the end of the century. This, of course, makes perfect sense. As the business community recovered from a devastating epidemic, during which they saw their customers die, they must have believed it an insecure time to lend money because there remained a strong chance that the debtor might expire before paying his money back. For example, in 1361 John Saukeville, of Debenham in Suffolk, borrowed £20 from Walter Park of Cornwall on a short, two-month, agreement.⁶ Unfortunately Saukeville died, probably during the 1361 epidemic, before he could pay the money back. Walter Park did not know this and sued him anyway. The sheriff reported that Saukeville had died and that therefore the writ against him could not be executed. Thus in the months and years following epidemics, business people exercised considerable caution by greatly reducing their level of lending. They waited until the market looked less risky, and the outbreak was behind them, so that they could begin to trade again with renewed confidence of getting their money back.

However it appears that trade finance remained, in the short term at least, both resilient and stable. Despite the long-term trend being downwards, the early 1380s and particularly the 1390s all exhibit years of significant lending, usually followed by sharp slumps. This impression can be discerned in the recognisances registered at Chancery and recorded on the Close Rolls, as opposed to the Staple, in the 1380s and 90s.⁷ These two decades have the highest number of commercial debt transactions

⁶ C 131/186/1.

⁷ These are discussed in chapter 1 and exclude non-commercial agreements involving the royal family, penal bonds enforcing good behavior, marriage or ransoms or transactions concerned with the sale of land.

recorded on the rolls (1380-89: 755; 1390-99: 485), again suggesting merchants and others remained keen to register high-value transactions in Chancery at that time. For for example, on April 30th 1382, Richard de Burton of London, a tailor, extended 100 marks-worth of sales credit to another tailor, John Gerveys, and a draper, called Thomas Bevyr, both from London, at Chancery.⁸ The confident mood of the period can be seen in the dealings of the Salisbury merchant, John Butterleigh, using the Staple between 1366 and his death in 1399. In the late 1360s he extended credit as part of a syndicate with other Salisbury merchants but during the 1370s and 80s he was successful enough to lend repeatedly on his own.9 Between 1370 and 1391 he lent £377 on twelve separate occasions at Salisbury's Staple Court.¹⁰ He provided credit for a number of merchants from Dorset, Somerset, Sussex, Shropshire, Wiltshire and Bristol. The certificates confirm that these were deferred payments "for diverse merchandise" bought from him. This represents, of course, only that proportion of his portfolio that was not repaid on time. John Butterleigh was in no way unusual at this time. In the period the careers of men like Walter Emery of Boston and Bartholomew de Appleyard of Norwich were strikingly similar.¹¹ What the lending portfolios of merchants like these clearly demonstrate is that they felt secure enough, in the business environment of the later fourteenth century, to maintain a high level of lending and remain active in financing trade.

Despite the downward trend in the aggregate availability of credit and repeated outbreaks of plague at the end of the century those doing business at the time

⁸ CCR, 1381-85, 123.

⁹ C 241/148/8; C 241/147/20.

¹⁰ C 241/176/50; C 241/176/47; C 241/171/73; C 241/175/83; C 241/175/136; C 241/171/61; C
241/176/49; C 241/184/128; C 241/175/142; C 241/175/144; C 241/176/95; C 241/188/118.
¹¹ C 241/170/80, C 241/173/126, C 241/171/32; C 241/176/82, C 241/176/76, C 241/176/81, C
241/176/89.

continued to extend credit to their customers. In 1391 for example, despite a major national outbreak of plague between 1389 and 1393, the evidence reveals that ninetynine transactions were enrolled (which ultimately defaulted) in England's Staple courts whilst King Death raged around the countryside. Furthermore, as in 1360, the amounts lent in each individual certificate remained large. The mean amount lent in 1391 was £87 1s 3d. The certificates from the provincial Staple courts from the 1390s reveal the continued vibrancy in the financing of trade. For example, the £600 lent by the Wiltshire merchant, Thomas Castleton to fellow merchant William Gys at Salisbury in 1392, or the £300 lent by the Coventry partnership of the draper, John de Preston and the smith, John de Barwe, at Coventry in 1397.¹² The total amount lent in the defaulted certificates in the 1390s was £64,224 12s 2d. Whilst this excludes the certificates from Yorkshire and some of the lesser-used provincial Staple courts such as Gloucester and Lostwithiel, it reiterates the impression of a considerable volume of borrowing stimulated by, and funding, a buoyant economy. There was, of course, credit available from numerous other sources, as discussed in chapter 1, which makes these figures all the more suggestive. This sizeable volume of lending suggests business confidence remained vigorous despite the many traumas associated with those years.

Figure 3.2: Mean decennial repayment terms, 1360-1529 (Source: C 241; C 152/65)

¹² C 241/192/81; C 241/187/48; Bolton, "World turned upside down," 30, 32.



Another characteristic of the certificates in this period is the change in the length of the repayment term negotiated in the original debt agreement. The decennial average term in these certificates changed over time (see fig. 3.2), reflecting confidence, or lack of it, in the commercial environment in which the deal was agreed and, as will be seen below, is thus comparable with other periods. Shorter repayment terms had the advantage of speeding up business. The shorter the repayment term, the quicker a new profitable deal could be transacted. One way of interpreting shorter repayment terms like these is that they might indicate a dynamic market for goods and a confident business environment. As can be seen from figure 3.2, the mean repayment terms are the shortest (averaging about four and a half months) between 1360 and 1409 at the same time as the volume of credit available in the English economy is at its post-plague apex. Repayment terms started to rise in the 1410s as demand started to wane.

This confident post-plague business environment in which lending was commonplace and credit easy to obtain within the domestic economy is supported in evidence from other sources. This is the period that Bridbury described as the "Indian summer" of increasing wages and per capita industrial output which he saw as relative industrial growth.¹³ John Hatcher similarly argued for the resilience of the economy in the thirty years following the first outbreak of the plague in terms of rising per capita output and income. It was a period of relative peace between England and France. The manorial revenues of landlords seem to have recovered fairly quickly, by the 1380s coming close to their pre-plague levels and industrial production, as seen in recovering levels of tin production and the prosperity of the wine trade, also seems to have fared fairly well after the Black Death.¹⁴ The later fourteenth century was also a period of high prices, with the 1360s being a notable high point. Mayhew argues that these high prices were partly the result of the increased number of coins per head of the shrunken, post-plague population.¹⁵ The price of wool per stone - one of the goods traded using Staple credit - rose in price from about 3s in the 1360s to $4\frac{1}{2}$ - 5s in the 1370s. A similar rise, from 7s to just under 8s was seen in the price of wheat per quarter – another article often purchased using Staple credit - in the same period.¹⁶ The buoyancy of the post-plague English economy in the face of dramatic demographic decline is explained by the increased wages, and thus consumption, of the plague survivors as demonstrated by the

¹³ A. R. Bridbury, *Economic growth* (London, 1962), 25-7, 35-6; *idem*, "The Black Death," *Economic History Review*, 26 (1973), 577-92, particularly, 584.

¹⁴ John Hatcher, *Plague, population and the English economy, 1348-1530* (London, 1977), 31-5; see also, C. Dyer, *Making a living in the later middle ages* (London, 2002), 293-7; Richard Britnell, *The commercialisation of English society* (Cambridge, 1994), 194-6; *idem, Britain and Ireland, 1050-1530: economy and society* (Oxford, 2004), 352, 496-8.

¹⁵ N. J. Mayhew, "Prices in England, 1170-1750," *Past and Present*, 219 (2013): 19, 31. For an overview of price movements, see, Stephen Broadberry, Bruce M. S. Campbell, Alexander Klein, Mark Overton and Bas van Leeuwen, *British economic growth, 1270-1870* (Cambridge: Cambridge University Press, 2015), 189-91.

¹⁶ D. L. Farmer, "Prices and wages, 1350-1500," in *The agrarian history of England and Wales, vol. 3, 1348-1500,* ed. E. Miller (Cambridge: Cambridge University Press, 1991).

vigorous enforcement of the labour legislation of the Statute and Ordinance of Labourers in 1349 and 1351. Despite these energetic, yet ultimately futile, attempts to fix wages, real wages are recognised to have risen in the later fourteenth century, resulting, it is assumed, in greater spending power for many people.¹⁷ Both nominal wage rates and "real" wages (wages expressed in terms of their purchasing power) had risen considerably. By 1377 "real" wages had risen by 45 per cent, undoubtedly raising the living standards of the survivors of the Black Death, and significantly reducing the proportion of the English population living below the bread line.¹⁸ As a result of rising wages, artisans and traders were in a position to raise their prices in the new commercial environment. An understandable uncertainly as to when the world would actually end seems to have lead to a perception of greater disposable income which needed to be spent on conspicuous consumption and riotous living before the death bell tolled. The outrageous expenditure of the lower orders was a common motif of chroniclers and moralists of the period like Henry Knighton. Much of the population are thus considered to have enjoyed a better and more ample diet, more and finer clothes, better housing, they accumulated more property from inheritances and more goods and services were available to them. Many urban artisans and others thus benefited from this increase in consumption. The later fourteenth century also saw investment in commercial enterprise. In London, new stone revetments were added to Thames-side wharves by their mercantile owners in order to facilitate London's growing later fourteenth-century trade.¹⁹ As Britnell argues, the plague

¹⁷ Farmer, "Prices and wages," 437; Dyer, *Standards of living*, 207, 210-33; Dyer, *Age of transition*, 126-72, 173-210; Mavis Mate, "work and leisure," Maryanne Kowaleski, "A consumer economy" and Bruce M. S. Campbell, "The land" in *A social history of England*, *1200-1500* ed. Rosemary Horrox and Mark W. Ormrod (Cambridge: Cambridge University Press, 2006), 216, 238-59, 276-92.

¹⁸ Broadberry et al. British economic growth, 60, 249, 258-9, 261, 313, 320-22.

¹⁹ Dyer, Age of transition, 171.

survivors made, bought and sold more goods more often, reflecting an increasing *per capita* commercialisation in the later fourteenth century which suggests a very fast economic recovery after the first shock of the Black Death.²⁰ This thriving commercial environment needed to be funded by credit which helps to explain the trends identified in figure 3.1.

One of the clearest indicators of commercial resilience in this period is the recognised expansion of cloth exports founded upon the rapid growth in the domestic textile industry in England in the later fourteenth century. Cloth production at that time in particular was a particular success with the industry resurgent in both the countryside and the towns. The growth of the English cloth industry in this period is well attested, and commonly quantified, in terms of increasing exports with almost a doubling of exported sacks of wool in the 1380s (178,637 broadcloths), which jumped to 211,121 during the 1390s.²¹ Much of the demand for cloth must have been domestic and thus remained unrecorded. ²² This surge in cloth exports is a manifestation of domestic economic dynamism as English cloth-makers were manufacturing a product that was in demand all over Europe and was fine enough to compete with Flemish cloth. Few English regions were isolated from the economic feedback of international trade. Many domestic producers were locked into long-distance trade as they were engaged in the very wool and cloth manufacture ultimately destined for export. Other English exports, such as hides and tin followed a

²⁰ Britnell, Commercialisation, 326-30.

²¹ Carus-Wilson and Coleman, *England's export trade*; E. Power and M. M. Postan (eds), *Studies in English trade in the fifteenth century* (London, 1966), 330-61; Marianne Kowaleski, "Port towns: England and Wales," in D. Palliser (ed.), *The Cambridge urban history of Britain, vol. I, 600-1540* (Cambridge, 2000), 467-94. For a discussion of the value of these sources see, Carus-Wilson and Coleman, *England's export trade*, 18-33, 201-7; Britnell, *Britain and Ireland*, 329, 332, 417.
²² Britnell, *Britain and Ireland*, 417-18.

similar trajectory with high points in the 1390s and 1400s. This was the result both of an expansion of English cattle farming and a subsequent increase in production of leather goods for the domestic market and an increase in domestic tin production at the same time.²³ These export figures - acting here merely as a guide to levels of domestic production - tend to confirm a picture of a post-plague boom and bear a striking chronological correlation with the growth in availability of credit seen in figure 3.1.

The early fifteenth century: bust

The post-plague boom in credit finally ran out of steam and nosedived soon after 1400 (fig. 3.1). This cannot easily be blamed on renewed plague epidemics as no national outbreaks were recorded by chroniclers in these years. The collapse in credit at this time was truly alarming (table 3.2).

Decade	Mean no. of defaults per year
1380-9	99
1390-9	85.5
1400-9	66.5
1410-19	37.3
1420-9	29.6
1430-9	26.6

Table 3.2: The decennial mean of defaulted credit transactions per year, 1380-1459

²³ Marianne Kowaleski, *Local markets and regional trade in medieval Exeter* (Cambridge: Cambridge University Press, 1995), 306-7; John Hatcher, *English tin production and trade before 1550* (Oxford: Oxford University Press, 1973), 90-6, 116-17, 126-7.

1440-9	23.4
1450-9	25.5

Whilst in the 1380s a mean of 99 chancery certificates had been enrolled every year, by the 1420s the average had fallen to 29.6. This makes the *a priori* assumption, discussed in chapter 1, that rates of default remained constant over time and that the proportion of recognisances ending up in Chancery likewise remained regular. As figure 3.1 clearly demonstrates, by the 1430s the volume of Staple credit available in England had reached a new, much lower, plateau wherein high-value credit became much harder to obtain. This continued through the 1440s until the mid-1450s (see table 3.2). This fall in the availability of credit must relate to a decline in confidence in the economy itself. Simply people were less confident about getting their money back through the Staple System. They thus changed their lending behaviour, lending less money and extending less credit in these years and, as a result, fewer certificates were processed in the central courts. This early fifteenth century collapse in credit is echoed in the more fragmentary evidence provided by debt cases presented in the Court of Common Pleas and recognisance registration in Chancery – both competitors to the Staple for the recovery of bad debts.²⁴ The Common Pleas data records only debts involving Londoners who, in many cases, were trading with non-Londoners and only commercial transactions - pleas involving debt recognisances, suits brought for faulty or late delivery of goods or cases involving loans of money (many of which involved the sale of goods) which reached the pleading stage - a relatively small

²⁴ Matthew Frank Stevens, "Londoners and the Court of Common Pleas in the fifteenth century," in *London and beyond: essays in honour of Derek Keene* ed. Matthew Davies and James A. Galloway (London: Institute of Historical Research, 2012), 226-7; the data is calendared at Jonathan Mackman and Matthew Stevens, "Court of common pleas: The National Archives, CP 40 - 1399-1500," last modified March, 2010, <u>http://www.british-history.ac.uk/source.aspx?pubid=1272</u>.

proportion - were counted here, totalling 3,844 cases between 1401 and 1500. Other debt cases, for example those concerned with rents, wages or pleas of account, have been excluded. The picture presented by these data reveal a lethargic turnover of cases in the Common Pleas between 1401 and 1445. Rarely did Londoners bring more than twenty late recognisance or late loan repayments pleas, or sale of goods cases, to the court in each year at that time. A very similar major and serious contraction in the number of recognisances registered at Chancery was seen at the same time. Between the 1390s and the 1410s the number of enrolments fell by over 300. This was particularly the case between 1393 (66 enrolments) and 1403 (16 enrolments) and then, after a rally in 1407, another fall between 1410 (39 enrolments) and 1415 (4 enrolments).²⁵ All of these indicators suggest a substantial slowdown in commercial activity in the early fifteenth century. This must have been a difficult time for traders that necessitated fewer credit agreements, and thus fewer recognisances enrolled at the Staple and Chancery and fewer debt cases brought in the Common Pleas. Similarly as fewer goods were sold, fewer cases involving faulty goods or delayed delivery were brought to the Court of Common Pleas.

One of the low points in the enrolment of Staple debts was reached in 1433 (see fig. 3.1). Recognisances registered at Chancery also continued to fall in the 1420s (147 enrolments) and 30s (125 enrolments).²⁶ The Staple certificates enrolled in the that year were in many respects similar to those that had been enrolled previously, except that there were fewer of them, totalling only fifteen in that year. The various officials in the Statute Staple courts around the kingdom must have had precious little to do in that year. This lack of credit availability reflects a more sluggish level of

²⁵ CCR 1389-92; CCR 1392-96; CCR 1396-99; CCR 1399-1402; CCR 1402-05; CCR 1405-09; CCR 1409-13; CCR 1413-22.

²⁶ CCR 1413-22; CCR 1422-29; CCR 1429-35; CCR 1435-41.

economic activity as fewer transactions required less credit. However, business did not cease. It carried on but at a more subdued level. For example, on the 24th June of 1433 Agnes Wylmot, a merchant (mercatrix) from Middlesex, was given credit of £21 by William Selwood, a merchant from Salisbury, for "for diverse merchandise"; a month later in Westminster, Thomas Rokes of Taunton lent John Wilford of Crux Easton (Crokes Eston), a merchant from Hampshire, 20 marks, again presumably as credit on goods sold and in May £39 credit was transacted between a London mercer and a Berkhamstead (Hertfordshire) chapman, their occupational titles once again suggesting credit being extended for commercial reasons.²⁷ Furthermore, in the 1430s merchants continued to sell goods to aristocrats on credit, and then sued them when they fail to repay the money on time. For example, in 1434, a Lincolnshire knight, Godfrey Hilton, bought £100-worth of merchandise from William Coumbes, a London fishmonger on credit but failed to repay the amount; in 1437 the knight, Robert de Ogle of Northumberland became indebted to John Brockley, citizen and draper of London for £400; in the same year another knight, John Gra of Ingleby (Lincolnshire), was extended credit by a London saddler called Robert Frampton.²⁸

However, whilst in those transactions represented above merchants were selling goods to members of the gentry, roughly half of the certificates of 1433 were transactions between landed aristocrats. For example, in January of that year, in a series of four linked transactions, John Radcliffe, of Chadderton (*Chaterton*), knight, and Thomas, lord of Etchingham, also a knight, lent £60 to the knight, John Knyvet, and three associates with very generous, staggered, repayment terms.²⁹ The final instalment of £15 was to be made five years, eight months later. John Radcliffe was a

²⁷ C 241/228/30; C 241/226/12.

²⁸ C 241/228/62; C 241/228/72; C 241/228/87.

²⁹ C 241/225/30.

very important man. He was a king's knight, a steward of Aquitaine, a constable of Bordeaux, captain and constable of Fronsac castle (Gironde, France) and the king's ambassador at Arras.³⁰ John Knyvet was also a knight who, two years later, sold the manor of Fen Drayton (*Fendrayton*) in Cambridgeshire, and its capital messuage there called *Knyvettes halle* and other neighbouring lands in Cambridgeshire, to four men.³¹ It seems more likely that Radcliffe, a wealthy royal official, was lending money to Knyvet and his associates. Knyvet's land sales two years later also suggest that he needed cash. Whether this was for some commercial venture or an attempt to stave off his own penury - he, of course, failed to repay the £60 Radcliffe lent to him - may never be known. But these inter-gentry certificates - which may not have been commercial transactions at all - make years like 1433 seem all the more troubled.

Furthermore, the 1430s and 40s also saw significant increases in the lengths of term for credit repayments from an average of roughly four and a half months in the late fourteenth century to over nine months in the 1430s (see fig. 3.2). This was a general policy of lengthening the re-payment terms followed by many lenders (46.5 *per cent* of the certificates from the 1430s were for terms of longer than five months). Typical of this was the 100 marks credit given by the London draper, Robert Bamburgh, in 1436.³² The term of this agreement was three years, ten and a half months, considerably longer than the five months more typical of the earlier decades. A similar example is the eleven and a half month term on credit of £31 10s transacted between two London drapers in 1439.³³ The longest credit term in that decade was the debt for £60 negotiated between a chapman, William Whitwey and his partner,

³⁰ CCR, 1435-1441, 417.

³¹ CCR, 1429-1435, 360

³² C 241/228/15.

³³ C 241/230/101.

William Umfrey, both of East Hendred (Esthenrede) in Berkshire, and Simon Kent, a mercer of Reading in 1438.³⁴ This was to be repaid in two instalments of £30 each, the final payment being made in June of 1451, thirteen years later. Kermode's work on Yorkshire's debts indicates a similar patter. Generally debts in Yorkshire tended to be short-term agreements with 80.5 per cent being for between three and six month's repayment terms. However, from 1400 onwards an increasing proportion of these borrowers negotiated longer repayment terms of nine months or more. For example, in the 1360s only 17.3 per cent of these debts were to be repaid in nine months or longer, but between 1400 and 1409 this had increased to 31.6 per cent and in the following decade this had increased again to 36.8 per cent.³⁵ What was it about the 1430s, 40s and 50s, that made many (although not all) merchants lend on longer terms? The reasons for this may be hidden from us by the passage of time and the personal circumstances and proclivities of the parties to these transactions. The impact of declining credit availability in a recession can explain the lengthening credit terms found in these years. If merchants and others, seeing their fellow merchants failing to repay what they owe, they might then negotiate longer repayment terms with those with whom they were conducting their business, in order to allow them more time to pay it back in periods of challenging commercial circumstance. In times of declining demand and consumption, those who had bought goods on credit might fear that goods would become harder to sell, or take longer to sell than previously, thus might negotiate deals that allowed them longer to pay back the credit they owed. We cannot know what medieval merchants thought, but faltering business confidence might explain the lengthening credit terms at this time. Furthermore, longer average terms certainly suggest that the economy was cooling down. The velocity of

³⁴ C 241/235/40; C 241/235/42.

³⁵ Kermode, *Medieval merchants*, 239-40.

transactions – the number of transactions undertaken in a given period of time – was slowing down, as individuals were allowed longer to pay each debt off. These certainly suggest recession in the early fifteenth century English economy.

Paying back a debt could involve a considerable amount of complicated manoeuvring or readjustment especially if problems arose and the debtor was unable to repay the debt on the required date, a common predicament during recessions. One way to get round this problem was what is known in modern business as "forbearance."³⁶ This is a form of debt readjustment where a creditor refrains from enforcing a debt immediately when it fell due through the Staple court and instead comes to an informal agreement with the debtor to pay any balance of the debt at a later date. There is some evidence of medieval forbearance, especially in the period of tight credit between the 1430s and the 1450s. As discussed in chapter 1, the mean period between the debt default and the initiation of the Staple process to recover bad debts through Chancery was three years and fourteen days. As can be seen in table 3.3, the proportion of certificates that took longer than this average period to recover increased at exactly the same time as credit became harder to obtain between 1430 and 1459.

Table 3.3: Decennial proportions of certificates over the mean recovery time (3 years,14 days), 1390-1489

Decade	Percentage of certificates above the mean	
	recovery period	
1390-99	24.0%	
1400-09	25.6%	
1410-19	27.7%	

³⁶ My thanks to Dr Tony Moore for his expertise and advice on forbearance.

1420-29	28.3%
1430-39	29.2%
1440-49	31.1%
1450-59	32.1%
1460-69	22.4%
1470-79	21.2%
1480-89	30.7%

What this suggests is that during the difficult recessionary decades more creditors decided not to sue defaulting debtors as quickly as they had before. More of them waited longer - over the mean recovery period - by perhaps informally adjusting debts or debt repayments before taking the final sanction of suing them in through the Staple. Whilst forbearance is difficult to demonstrate empirically without supportive documentary material, it seems a logical way of interpreting the evidence. Hypothetically, in March of 1460 when the merchant John Trounce of Plymouth (Devon) borrowed £32 from Thomas Beleter, mercer of London, at the Westminster Staple, and then realised he would not be able to repay it a month later, rather than going to court over it, the two men negotiated an adjustment, in this case an extra year to allow Trounce to pull together sufficient resources, or for his business fortunes to change, to repay what he owed.³⁷ This was sound business practice as pursuing Trounce through the courts would have incurred some cost (even if this would have been ultimately recovered through damages), but more importantly, because Beleter's restraint would have maintained a workable business relationship between the two men which would allow them to do business again; it would maintain Trounce's reputation and probably enhance Beleter's reputation as a worthy and reasonable person with whom to engage in business. Ultimately Trounce's prospects did not

³⁷ C 241/246/105.

improve and he failed to repay the debt (even after any hypothetical readjustment) and Betleter sued him exactly a year after the original repayment had fallen due. There is no concrete supportive evidence of this type of informal readjustment, but, as table 3.3 suggests, there is evidence of increasing recovery times in several of the decades of economic crisis in the early to mid-fifteenth century. This suggests that, as in modern economies, forbearance and increasing the repayment date in order to have any hope of recovery, became a necessary tool used by lenders during the years of recession. Merchants must have chosen carefully whether to use leniency and extend the repayment period or use the full force of the law and recover the money through the courts. Thus readjustment or forbearance might have been, in many situations, the best hope of recovery.

Credit remained difficult to obtain and the volume of certificates remained at this diminished level until the late 1450s when there was something of a faltering revival. The "crash" of 1454, wherein Chancery received only nine certificates of credit agreements transacted in that year, seems to have marked the end of the severe shortage of credit (fig 3.1 and table 3.1). None of the agreements transacted in that year came from provincial Staple courts, rather all were negotiated in Westminster. These agreements were no different to the agreements made in the rest of the sample - credit was extended to yeomen, chapmen and pastry-makers (*pasteler*) by brewers, mercers and drapers - in the usual way.³⁸ The mean term of agreements negotiated in 1454 stood at over eleven months. This can be compared to mean term of four and a half months in the later fourteenth century and nine months in the 1430s (see fig. 3.2). For example, in January of 1454 Walter Norwich, citizen and grocer of London lent

³⁸ C 241/238/7; C 241/239/14; C 241/240/5; C 241/253/4.

John Mone of Lewes (Sussex) £26.³⁹ The repayment term was a lengthy nine months, ten days. As in the slow years of the 1430s, 1454 saw a number of agreements offered over long repayment terms.

Evidence from textile exports - here again acting as a touchstone to domestic production - supports the notion of an early fifteenth-century recession. Wool exports declined significantly during the early 1420s - the steepest contraction in wool exports seen in the fifteenth century - to a new low point in the last years of the 1430s. This was followed in the 1440s and 50s by a limited recovery. Likewise the generally buoyant fifteenth-century cloth industry suffered a recession and a decline in exports from c. 1400 to c. 1420 and, after rallying in the 1440s and 50s, declined again in c. 1460.⁴⁰ The limited evidence available for domestic trade similarly offers support for a recession in the early fifteenth century. As will be seen in chapter 4, the economies of many provincial towns, whose artisans had taken advantage of growing cloth exports and the expanding domestic textile market, grew in the later fourteenth century but then started to decline in the 1420s. Yorkshire's economy started to fatally contract in the 1420s and 30s and reached a low point between 1438 and 1440; Salisbury's cloth industry was at its most productive in c. 1400 but had started to decline by 1421; Colchester's textile industry was at its peak in 1410-15 after which it also suffered decline, and then, echoing the credit trends, expanded again (albeit briefly) in the mid-1440s and Coventry's post-plague economic boom started to fail in the 1390s with recession taking a firm hold there by the 1420s.⁴¹

³⁹ C 241/239/7.

⁴⁰ Britnell, *Britain and Ireland*, 327, 329, 330, 332.

⁴¹ J. Kermode, "Money and credit in the fifteenth century: some lessons from Yorkshire" *Business History Review*, 65 (1991), 499; J. L. Bolton, *The Medieval English Economy*, *1150-1500* (London, 1980), 251; A. R. Bridbury, *Medieval English clothmaking: an economic survey* (London, 1982), 67, 69; R. H. Britnell, *Growth and decline in Colchester*, *1300-1525* (Cambridge, 1986), 181; Richard

Evidence of falling prices, both for staples such as wheat and for raw materials such as wool, from the 1380s and continuing into the mid-1430s further suggests the faltering demand usually associated with recession. The wool price rallied in the 1410s but then fell again throughout the 1420s.⁴² Wheat prices were raised by famine, such as that of 1438-40, but essentially remained low throughout the 1440s until the 1470s.⁴³ Wool prices dropped precipitously between the 1430s and the 1450s, to briefly recover in the late 1460s before declining again in the subsequent decade. Both wheat and wool prices rose in the 1480s. Whilst the evidence for medieval prices is not reliable enough to draw firm conclusions, the impression of falling prices - a precondition of most recessions - from the late fourteenth century adds weight to the hypothesis of economic decline in the early fifteenth century.⁴⁴

The same is true of interest rates. Interest rates tend to fall during recessions as the demand for credit declines as businesses invest and spend less.⁴⁵ Even though the evidence for medieval interest rates on commercial loans is sparse and difficult to interpret due to the usury laws, there is evidence that interest rates did fall after the

Goddard, "Commercial contraction and urban decline in fifteenth-century Coventry" (Dugdale society Occasional Papers, 46, 2006), 21; Richard Goddard, "The built environment and the later medieval economy: Coventry, 1200-1540" in Linda Monckton and Richard K. Morris (eds), *Coventry: medieval art, architecture and archaeology in the city and its vicinity* (British Archaeological Association Conference Transactions, 33, Leeds, 2011), 42.

⁴² Farmer. "Prices and wages," 437.

⁴³ For the famine see, Derek Keene, "Crisis management in London's food supply, 1250-1500" in Ben Dodds and Christian Liddy (eds), *Commercial activity, markets and entrepreneurs in the middle ages; Essays in honour of Richard Britnell* (Woodbridge, 2011), 45, 60-1.

⁴⁴ Mayhew, "Prices in England," 31. For the association of price falls and recession in history see, F. Capie, T. Mills and G. E. Wood, "Money, interest rates and the great depression: Britain, 1870-1913" in *New perspectives on the late Victorian Economy: essays in quantitative economic history, 1860-1914*, ed. James Foreman-Peck (Cambridge: Cambridge University press, 1991), 263.

⁴⁵ Capie *et al.* "Money, interest rates and the great depression," 262.

Black Death.⁴⁶ From 11 to over 20 *per cent* in the thirteenth and early fourteenth centuries, interest rates on private loans or commercial credit agreements in England dropped to about 7 per cent in the later fourteenth century; dropped again to 5.8 *per cent* in the first half of the fifteenth century and fell again to 4.5 *per cent* after 1450. Gregory Clark argues for a similar drop in interest rates within the agricultural economy to 5-6 per cent between 1350 and 1400.⁴⁷ The rate is then considered to have risen again in the early sixteenth century to over 5 *per cent*.⁴⁸ The data is not sensitive enough to allow a systematic comparison to the Staple evidence, but the broad trends again suggest a declining demand for credit in the economy in the Staple data (fig. 3.1). Declining interest rates are an identifiable component of most historical recessions.

This "credit crunch" of the early fifteenth century reaffirms our understanding of an economy in recession. The historiography of this recession, described by John Hatcher as "the great slump of the mid-fifteenth century" is well known and few historians dispute its severity.⁴⁹ However the credit evidence adds nuance to our understanding of this recession, particularly with reference to its date. Most historians date this recession, roughly, to between the 1440s and the 1470s, with the lowest

⁴⁶ Sidney Homer, *A history of interest rates* (New Brunswick, 1963), 100, 106-7, 116; S. R. Epstein, *Freedom and growth: the rise of states and markets in Europe, 1300-1750* (London, 2000), 60-1. Interest rates are discussed in more detail in Chapter 1.

⁴⁷ Gregory Clark, "The cost of capital and medieval agricultural technique," *Explorations in Economic History* 25 (1988): 265.

⁴⁸ A. R. Bell, C. Brooks and P. Dryburgh, *The English wool market, c.1230-1327* (Cambridge, 2007), 138-42; Epstein, *Freedom and growth*, 61.

⁴⁹ John Hatcher, "The great slump of the mid-fifteenth century" in R. Britnell and J. Hatcher (eds), *Progress and problems in medieval England* (Cambridge, 1996), 237-72.

point falling in the 1450s and 60s.50 Much of the evidence for this recession comes from historians' detailed examination of declining foreign trade in the period. War, trade embargoes and declining foreign markets all had a detrimental impact upon foreign trade. The value and quantity of exports of wool and tin waned and wine imports dwindled and general import levies reached their lowest point in the 1450s. Even cloth exports, which had been the rising star in the foreign trade firmament, declined spectacularly between 1449 and 1478. The wars with France, Spain and the Hanseatic League as well as shortages of bullion all played a role in the great slump of the fifteenth century, but Hatcher argues that it was sustained population decline, the product of both large-scale epidemics and regional outbreaks of disease, which led to the economy being undermined. As the rural population declined, agricultural prices remained either stationary or fell throughout the period and domestic expenditure fell.⁵¹ Whilst the credit market evidence does not refute this reading of the slump, it places the most acute decline in internal trade - as evidenced by the declining availability of credit – earlier in the fifteenth century than previously regarded.

The late fifteenth century: a faltering revival

As the trend line in fig. 3.1 suggests, between the late 1450s and the late 1480s borrowing became easier and the volume of credit available in the economy increased, albeit only by a narrow margin. The economy clearly remained very sluggish, but mercantile confidence seems to have been on the mend. After the low

⁵⁰ Hatcher, "The great slump," 237-72; M. M. Postan, "The fifteenth century," *Economic History Review*, 9 (1939), 160-167; Richard Britnell, "Postan's fifteenth century" in Richard Goddard, John Langdon and Miriam Müller (eds), *Survival and Discord in medieval Society: Essays in honour of Christopher Dyer* (Turnhout, 2010), 49-68

⁵¹ Broadberry *et al.*, *British economic growth*, 191.

point of 1454, the volume of borrowing increased dramatically over the next six years. Sixty-eight certificates were transacted in 1460. That is over seven times as many as from the mid-1450s and five and a half times as many as in the early 1430s and matches the levels achieved in the last years of the fourteenth century. There is also evidence of rising prices in the 1480s.⁵² The mean price for a quarter of wheat rose from 5s $9\frac{1}{2}$ d in the 1470s to 6s $8\frac{1}{2}$ d in the 1480s; the price of wool rose from 2s 3¹/₂d per stone in the 1470s to 3s 5¹/₂d in the following decade conceivably associated with rising demand.53 Growing confidence also resulted in a lowering of the terms being negotiated in that year to six and a half months, much closer to the five-month terms found at the turn of the fourteenth and fifteenth centuries. But this recovery was unstable and the volume of borrowing had plunged again by 1464. This instability is characterised by spectacular rises in the volume of borrowing followed by equally sharp falls. The period 1467-72 saw a significant rise in lending to be followed by a large drop by 1476 and similar sharp rises and falls can be seen between 1488 and 1495. This unsteady recovery continued until the end of the century. In the "revival" years after 1460, we see merchants selling goods on Staple credit to chapmen to sell on within the local hinterland, London drapers and goldsmiths selling goods to local haberdashers to sell in their shops; knights selling demesne produce to London merchants and merchants selling goods to members of the gentry.⁵⁴ However, there remains a significant caveat to the notion of a recovery in trade finance and confidence in the second half of the century. As will be discussed in chapters 4 and 5, this is because, by the 1450s, an increasing proportion of certificates were transacted at Westminster at the expense of the provincial Staple courts in other parts of the

⁵² Mayhew, "Prices in England," 5.

⁵³ Farmer, "Prices and Wages".

⁵⁴ See, for example, C 241/254/75; C 241/256/24; C 241/246/17; C 241/249/19.

kingdom. Thus whilst borrowing thrived in London, credit provision elsewhere particularly in the Central and Eastern regions (see map 1) – contracted in the later fifteenth century. The national figures presented in figure 3.1 therefore tend to mirror the experiences of the Westminster Staple, rather than represent a truly kingdom-wide assessment of levels of borrowing or business confidence.

Evidence of a recovery in the later part of the century is supported by the increasing volume of Londoners' debt cases pleaded at the Court of Common Pleas at the same time. From the mid-1440s to the late 1460s there is a significant increase in the volume of debt and commercial pleas at that court. The increase in the number of recognisance pleas suggests renewed confidence in lending money on credit in these decades and a recovering economy is reflected in the large increase in pleas devoted to the buying and selling of goods. For example, amongst the six pleas concerning the sale of goods heard in the Michaelmas term of 1464, one recorded that on the 2nd May 1461 in John Noke bought 11¹/₂ ounces of coral (an unusual luxury item) for 46s from Thomas Reede in London, which he did not pay for.⁵⁵ The increase in sale of goods pleas like this one, compared to earlier in the century, could only be the result of more goods being sold, even rare ones like Mediterranean coral, which in turn resulted in more pleas concerning those goods coming to the court and more credit being extended to buyers in order to pay for it. A revival in lending, however modest, suggests merchants felt more confident and more secure their businesses' commercial futures.

The early sixteenth century: recovery

⁵⁵ CP 40/813, rot. 448.

The credit evidence in figure 3.1 reveals the economy changing again in the later fifteenth and early sixteenth centuries. Following the partial recovery between c. 1460 and c. 1472, when the volume of borrowing increased, there is evidence of another slump between c. 1476 and c. 1488. However, the fleeting boom of the 1460s may have been a portent of better trading conditions. Sustained growth began in the 1490s, a decade that saw an impressive increase in the numbers of recognisances enrolled in England's Staple courts. The early 1490s saw nearly double the number of defaulted transactions (404 certificates) being sent to Chancery when compared to the difficult 1440s (234 certificates) (fig. 3.1). In 1491 the volume of borrowing approached that of the early years of the fifteenth century. By 1500, recovery had been transformed into expansion. In 1501, eighty-one defaulted certificates were processed by Chancery this number approaching the levels found a century earlier in the late 1390s. The evidence for a sustained recovery at the beginning of the sixteenth century is compromised slightly by the loss of the certificates of transactions contracted between c. 1504 and c. 1515. However as figure 3.1 demonstrates, from 1517 to 1528 the English economy witnessed prodigious increase in the number of debts ending up in Chancery as certificates. Chancery processed 128 certificates transacted in 1519 alone, a volume of borrowing that almost equalled the post-plague high point of the 1360s. The pattern, seen above, of high levels of borrowing followed by seven of so years of contraction was repeated in the mid-1520s but this was followed by even greater expansion in 1528. Whilst this does not reach the lofty proportions of the 1330s and 40s, the volume of borrowing at this time exceeds the post-plague boom of the 1360s and clearly bears witness to the opening phases of a sixteenth-century economic expansion. Importantly, as will be discussed in chapter 5, the vast majority of the debt transactions (98.2 per cent) were enacted at the Staple court in

Westminster, rather than at the provincial Staple courts. The surge in credit transactions of the early sixteenth century does not therefore represent a nationwide recovery, but rather one centred upon London. As discussed in chapter 6, London seems to have recovered earlier and been the engine of this recovery. The Staple evidence needs to be understood in terms of this shifting geographic focus.

The booming economy of the early sixteenth century is also indicated by the repayment terms of the surviving certificates (fig. 3.2). As with the booming years of the later fourteenth century, the average length of repayment started to fall, first to under six months in the first decade of the sixteenth century, then down to just over five months in the 1520s. This decreasing term indicates a renewed increased velocity of transactions in a commercial environment that seems to have been similar to that of the post-plague economy. The mean repayment terms remained higher than those of the later fourteenth century but the downward trend indicates that merchants were confident enough to negotiate shorter terms by the 1520s. Furthermore, for the first time, the mean debt amount transacted in the certificates started to rise. Between the late fourteenth century and late fifteenth century the debt values averaged at between $\pounds 62$ and $\pounds 83$. However, between 1500 and 1532, despite a significant increase in the number of debts transacted at the Staple, the mean value rose to £99. This was not a function of a few large aristocratic loans (outliers, such as the £6,000 agreement between a knight and an esquire at Newcastle in 1518, have been excluded) but rather that in these Staple agreements traders simply felt secure enough to lend more money in in each of the 1,857 deals.⁵⁶ This interpretation is supported again by the evidence of debt pleas presented at the Court of Common Pleas in 1480 and 1500. These two years again see significant increases in both the number of pleas concerning failed

⁵⁶ C 152/65/2/452.

recognisances and those involving the sale of goods which must be interpreted as further supportive evidence of this late fifteenth and early sixteenth century boom in the economy. The average number of recognisance cases that were pleaded in court increased from 30.8 per term in the 1460s to 49.5 per term in 1480. This is likely to be part of a trend of increasing debt litigation at the Common Pleas at the end of the century. All of these factors speak to a real early sixteenth-century recovery in the provision of trade finance in England.

The state of the early sixteenth-century economy can be judged by the wide variety of Staple users from every social rank and occupation. Merchants sold merchandise to aristocrats on credit: John Prest, a London grocer, sold merchandise on credit worth over £700 in three agreements (two were linked) to a Hampshire esquire called Arthur Uvedale of Wickham (*Wicam*) who described himself with the aristocratic superciliousness of the period as "the son and heir apparent of William Uvedale, knight, and of Lady Dorothy, his wife, the daughter and heir of Thomas Morley, knight, deceased."⁵⁷ Wine merchants sold to partnerships of mercers and tailors; drapers and tailor sold goods to merchants of the Calais Staple and upholsterers sold their wares to shoemakers.⁵⁸ The early sixteenth-century market, particularly in London, seems vibrant and alive with commercial opportunities like these - a very different impression to that given by the certificates of the 1430s and 40s. Furthermore, and again unlike during the early fifteenth-century recession, only a small proportion of the certificates were loans between knights.⁵⁹ Furthermore, a wider selection of individuals, or occupational types, is found in the sixteenth-century

⁵⁷ C 241/282/120; C 241/281/132; C 241/282/167.

⁵⁸ C 152/65/2/675; C 152/65/2/93

⁵⁹ For two examples, see, C 152/65/2/89; C 241/280/160. In the absence of complete data the actual proportion is difficult to estimate.

certificates. Merchants continued to dominate along with mercers, drapers and grocers. This designation refers, particularly for Londoners, as Thrupp argued, less to a strict description of their occupation but rather to the guild, fraternity or company to which they belonged, linking these individuals to the distribution of particular goods, such as textiles for mercers.⁶⁰ This is seen particularly in the very active lending of the London Merchant-Taylors in this period.⁶¹ But others, such as barber-surgeons, fullers, skinners, haberdashers, clothiers and clothmen, fishmongers, vintners, butchers, brewers, ironmongers, goldsmiths and wire-sellers and saddlers were lending and borrowing more readily than they had previously, when the Staple courts had been almost the sole preserve of those in the distributive trades.⁶² This widening of the occupational base for lending at this time to include minor crafts suggests a booming, confident market place which attracted a wider variety of investors willing to lend money or extend credit to fund business ventures. This is seen particularly in the presence of yeoman and husbandmen in the certificates of the early sixteenth century. Those who described themselves as "yeomen" are represented in the certificates, in small numbers, from the 1420s, but the real growth in yeomen certificates occurred in the late fifteenth and particularly the early sixteenth centuries. Yeomen were classed as "peasants" with extensive, often freehold, land and husbandmen were agriculturalists with sufficient land to support themselves. 63 Yeomen like John Marham of Barking (Berkyng) (Essex), Lawrence Sturtevaunt of Aslackby (Assakby) (Lincolnshire) or the husbandman, Ralph Spacy, from White

⁶⁰ S. Thrupp, *The merchant class of medieval London*, (Chicago, 1948), 3-4.

⁶¹ See for example, C 241/277/6; C 241/282/82; C 152/65/2/779; Matthew Davies and Anne Saunders, *The History of the Merchant Taylors'' Company* (Leeds, 2004).

⁶² C 152/65/2/756; C 152/65/2/99; C 152/65/2/706; C 152/65/2/92; C 152/65/2/761; C 241/279/85; C 241/280/50; C 152/65/2/622; C 241/282/105; C 241/278/78; C 241/277/38

⁶³ Dyer, *Standards of living*, 15.

Roding (Essex) lent reasonably small amounts - between £2 10s to £100 (the mode being £40), perhaps selling agricultural goods on credit, to a variety of individuals including other yeomen and husbandmen.⁶⁴ However, yeomen and husbandmen were much more active as borrowers or buyers of goods on credit (they were debtors at least ten times more often than they were creditors). As with the lenders, these individuals came largely from the counties of the South East: Essex, Kent, Sussex, Middlesex, Hertfordshire, Buckinghamshire and Bedfordshire. They borrowed slightly more than they lent: between £5 6s 8d and £400 (with a mode of £20) and often borrowed in partnership with others. As discussed in chapter 2, these individuals are likely to have been yeomen-merchants or husbandmen-merchants who both held agricultural land and sold goods in their local communities. Thus in 1525, the yeoman, William Payne of Southwark (Surrey), borrowed £20 in partnership with a gentleman called Fulk Lyngven of Witton (Shropshire) from a London goldsmith.⁶⁵ Business partnerships between yeomen and members of the gentry like this were relatively common in the certificate evidence although, as always, the details of their relationship remain hidden. Dyer suggests that relationships between yeomen and members of the gentry might have been a "cooperative alliance" which combined the power of the lord with the business skills of the yeoman - possibly his lessee - to enhance their revenues for their mutual reward.⁶⁶ Husbandmen joined partnerships less often. When they did, they tended to go into partnership with their social equals, often other local husbandmen but also occasionally innkeepers or millers.⁶⁷ Some yeomen went into partnership with tradesmen. In 1528, William Noble, an Essex

⁶⁴ C 152/65/2/654; C 152/65/2/36; C 241/277/82.

⁶⁵ C 241/277/84. For other yeomen/skinner partnerships see, C 241/277/38; C 241/278/18.

⁶⁶ Christopher Dyer, Everyday life in medieval England (London: Hambledon, 1994), 323-4.

⁶⁷ C 241/276/8; C 241/277/50; C 241/279/103.

yeoman and William Jevyns, a London skinner, were given £30 credit by Thomas Mason, a Calais wool merchant.⁶⁸ The direction of the transaction suggests that this transaction was not about wool but rather that Mason, a wool exporter, sold goods he had imported in his return cargoes to the Noble/Jevyns partnership. Noble had borrowed £40 on his own in 1527 but then was joined by Jevyns a year later to borrow a further £33 6s 8d.⁶⁹ It is likely that this was only a small part of their investment portfolio - the part they failed to repay - and suggests a greater availability of venture capital to a wider variety of business people.

A group of users of the Staple court who make a reappearance, particularly from the late 1490s into the 1520s, is the alien merchants. As discussed in chapter 2, they had been a regular, but relatively minor, part of the Staple credit network in the late fourteenth century (with fifty-six certificates). These included alien merchants resident in London, like Laurence Bonora, merchant of Venice and Fernando de Bernuy, merchant of Spain, as well as foreign merchants like Thomas Cavolocanti and John Gerald, merchants of Florence.⁷⁰ In general these merchants were extending credit on imported goods arriving on ships to England. Seventy-one *per cent* of these are dated between 1354 and 1422, after which there is a gap until the 1440s and 50s with very few alien recognisances being enrolled at Staple courts (thirteen certificates citing aliens between 1400-79), followed by something of a surge from the 1490s until 1532 (nineteen certificates citing aliens in only forty-two years) a pattern which closely follows the chronology of economic growth and decline described here. What this suggests is that once the economy had gained enough momentum from the 1490s, foreign merchants who had seemingly abandoned England for most of the fifteenth

⁶⁸ C 241/280/108.

⁶⁹ C 241/279/100; C 241/279/107; C 241/280/108.

⁷⁰ C 241/269/32; C 241/275/312; C 152/65/2/74.

century, considered it profitable enough for them to return and extend credit using the Staple system. This is perhaps all the more surprising when, after 1471, the customs duties on wool paid by aliens stood at £3 16s 8d, far higher than it had been for most of the fifteenth century.⁷¹ This further suggests that aliens believed the import market to be buoyant enough in the early sixteenth century for them to risk doing business in England and once again selling their goods on credit. The return of alien trade to England is reflected in the increasing volume of imports to London, particularly from the developing entrepôt of Antwerp in the late fifteenth century. Imports of merchandise really started to take off from the 1470s and increased again in the following decade. The greatest period of growth was between 1500 and 1520.⁷² The value (at wholesale prices) of general merchandise (all imported goods other wine and wax) imported into London by aliens leapt from £37,450 in the 1370s to £124,579 in the 1510; national wine imports increased from 5,468 tuns in the 1470s to 11,735 tuns in the 1510.73 Many of these imports were redistributed around the kingdom using Staple credit. This was echoed, and funded by, expanding wool and cloth exports from London in the same period. Exports have been used (above) to as a guide to domestic production. Cloth exports also dramatically increased from the 1500s. Nationally, the number of cloths exported increased from 41,340 in the 1470s to 96,543 in the 1510s clearly signalling a significant increase in domestic production.⁷⁴ In whatever way it is measured, this evidence speaks of significant commercial gains in this period and helps to explain the rising use of Staple credit in this period.

⁷¹ Carus-Wilson and Coleman, *England's export trade*, 194-6.

⁷² John Oldland, "The expansion of London's overseas trade from 1475-1520" in Caroline M. Barron and Anne F. Sutton (eds), *The medieval merchant* (Donnington, 2014), 59-67.

 ⁷³ Oldland, "The expansion of London's overseas trade," 77, 83; *The overseas trade of London Exchequer customs account, 1480-1* ed. H. S. Cobb (London Record Society, 1990), xxxv-xxxvii.
 ⁷⁴ Oldland, "The expansion of London's overseas trade," 87.

Furthermore, whilst prices remained at best stagnant, and at worst, falling during the fifteenth century, following the temporary inflation of the 1480s, all prices gently rose in the 1500s and 1510s to be followed by a vigorous price rises between the 1510s and 1530s. Prices continued to rise in every subsequent decade of the sixteenth century, resulting in a quadrupling of prices in the following century.⁷⁵

As with previous periods examined here, the economic recovery of the late fifteenth and early sixteenth centuries is well attested in the historiography. The crisis in the rural economy had generally passed by the 1480s - possibly related to rising temperatures, and thus more favourable growing conditions, between *c*. 1480 and *c*. 1550.⁷⁶ Landlords such as Durham Priory, the Bishop of Worcester, the Archbishop of Canterbury and Margaret Beaufort, Countess of Richmond and Derby all succeeded, often by improvements in estate management, efficiencies in rent collection and being responsive and adaptive to commercial challenges, in recovering from the mid-century agricultural recession and emerge during the 1470s and 80s in a much stronger economic position than had been the case during the agricultural crises of the early fifteenth century.⁷⁷ The demographic evidence suggests that life expectancy increased and the English population started to recover between 1485 and

⁷⁵ Mayhew, "Prices in England," 5, 31; Broadberry et al., British economic growth, 189, 191.

⁷⁶ Bruce M. S. Campbell, "Grain yields on English demesnes after the Black Death," in Mark Bailey and Stephen H. Rigby (eds), *England in the age of the Black Death: essays in honour of John Hatcher* (Turnhout, forthcoming)..

⁷⁷ A. T. Brown, "Surviving the mid-fifteenth-century recession: Durham Cathedral Priory, 1400-1520," Northern History 47 (2010): 209-31; C. Dyer, Lords and peasants in a changing society: The estates of the Bishopric of Worcester, 680-1540 (Cambridge: Cambridge University Press, 1980), 165-185; F. R.
H. Du Boulay, "A rentier economy in the later middle ages: the Archbishopric of Canterbury," Economic History Review 16, no. 3 (1964): 427-38; E. B. Fryde, Peasants and landlords in the later middle ages, c. 1380-c. 1525 (New York: St Martin's Press, 1996), 262.

1520.⁷⁸ Estimating medieval populations is always fraught with difficulties, but the balance of the evidence suggests that the English population started to increase from the 1470s and then more markedly during the 1480s. Life expectancy at birth seems to have been rising from the 1490s as witnessed in the increase in young adults entering the workforce in the 1510s. This recovery was regularly interrupted by bouts of epidemic disease in both the late fifteenth and the early sixteenth centuries, but the momentum of population increase had been firmly established. In 1450 the English population is thought to have been in the region of 1.9 million people; by 1522 this had risen to about 2.35 million people with the largest annual growth rates being seen in London.⁷⁹ Between 1525 and 1600 the total population of England's seventeen largest provincial towns increased from around 85,000 to about 130,000; London's growth was even more spectacular as the city saw its population more than triple between 1550 and 1640.80 The output of the London mint also increased during the early years of the sixteenth century and then again more spectacularly in the 1540s resulting in the circulation of money at least keeping pace with the increasing population if not actually increasing *per capita* holdings of coin (discussed below).⁸¹ An improving agricultural economy, a rising population and an increase in the supply of coins all occurred at exactly the same time as merchants and others increased the amount of credit they offered to their customers (fig. 3.1).

⁷⁸ B. Harvey, *Living and dying in England, 1100-1540: the monastic experience* (Oxford, 1993), 112-45; John Hatcher, A. J. Piper and D. Stone, "Monastic mortality: Durham Priory, 1395-1529," *Economic History Review, 59* (2006), 667-87; Ben Dodds, "Estimating arable output using Durham Priory tithe receipts, 1341-1450," *Economic History Review, 57* (2004), 245-85; R. H. Britnell, "The English economy and government, 1450-1550," in John L. Watts (ed.), *The end of the middle ages? England in the fifteenth and sixteenth centuries* (Stroud, 1998), 105-13.

⁷⁹ Broadberry et al. British economic growth, 15-17, 20-1, 27.

 ⁸⁰ A. L. Beier and R. Finlay (eds), *London*, *1500-1700: the making of the metropolis* (London: Longman, 1986); A. Dyer, *Decline and growth in English towns*, *1400-1640* (Cambridge, 1991), 47.
 ⁸¹ J. Craig, *The Mint: a history of the London Mint from AD*. *287 to 1948* (Cambridge, 1953), 413-14.

This interpretation of increasing credit use and economic recovery in the late fifteenth and early sixteenth centuries contrasts with some less optimistic evaluations of the period. Britnell has argued that, whilst the English population might have been growing, real economic growth was not apparent, particularly in the more sluggish domestic markets, until the mid-sixteenth century.⁸² Rising "real" wages probably only affected a minority of the population, heavy Tudor taxation made matters worse and discouraged investment, warfare disrupted trade taking profits away from home producers, price instability and inflation of the 1520s threatened domestic markets and many towns, most notably Coventry, suffered acute industrial decay at the same time. Britnell argues that the period 1471-1529 was one of economic instability rather than energetic commercial growth and points out that whilst some English regions, particularly London and South West England, experienced growth, other areas suffered at the same time. The Staple evidence, outlined above, certainly indicates commercial dynamism, particularly after c. 1500, much of this Staple business was undertaken at Westminster rather than at provincial courts. The geographical trends in borrowing, regional disparity and the importance of London in the later middle ages are discussed in chapters 4 and 5.

Theoretical approaches: long waves, shocks and asset bubbles

One of the striking features of the data presented above and in figure 3.1 is the apparent cyclical movement of the availability of Staple credit in England in the later middle ages, with peaks in the later fourteenth and late fifteenth and early sixteenth centuries and a trough in the early to mid-fifteenth century. Few historians dispute

⁸² R. H. Britnell, "The English economy and government, 1450-1550," in John L. Watts (ed.), *The end of the middle ages? England in the fifteenth and sixteenth centuries* (Stroud, 1998), 89-116; R. H. Britnell, *The closing of the middle ages: England, 1471-1529* (Oxford: Blackwell, 1997), 209-47.

that the English economy experienced a series of sub periods, each with its own distinctive economic characteristics.⁸³ As discussed at the start of the chapter, the etymology of the word "recession" - meaning to slip away or ebb - therefore might refer to the decline segment of a business cycle. To what extent can these movements within a pre-industrial economy be likened to observed "long-wave" cycles of modern, industrialised economies? In modern economies the peaks and troughs in the volume of borrowing in an economy are interpreted as business cycles. Business cycles are usually understood as undulating or wave-like movements in the economy that are characterised as periods of expansion and contraction in economic activity with effects on inflation, growth, and employment. Cycles of expansions and contractions are thought to occur at about the same time in many different economic activities. Of relevance to the medieval data are those cycles referred to as "long waves" or Kondratieff waves, after the economist who first observed them and endorsed in particular by Joseph Schumpeter in his quest to explain economic change over the *longue durée*.⁸⁴ These are business cycles that typically last between fifty-

⁸⁴ For an historical examination of business cycles in the period 1787-1842, see Joseph A. Schumpeter, *Business cycles: a theoretical, historical and statistical analysis of the capitalist process*, vol. 1 (New York, 1939), 170, 224-6, 252-448; Joseph A. Schumpeter, "The analysis of economic change" in Richard V. Clemence, (ed.), *Joseph A. Schumpeter: essays on entrepreneurs, innovations, business cycles and the evolution of capitalism* (New Brunswick and London, 2008), 144-5; Brian J. L. Berry, *Long-wave rhythms in economic development and political behavior* (Baltimore, 1991); Joshua S. Goldstein, *Long cycles: prosperity and war in the modern age* (New Haven, Conn, 1988); Solomos Solomou, *Phases of economic growth, 1850–1973: Kondratieff Waves and Kuznets Swings* (Cambridge, 1987); David Hackett Fischer, *The Great Wave: price revolutions and the rhythm of history* (Oxford, 1996); Andrey V. Korotayev and Sergey V. Tsirel, "A spectral analysis of world GDP dynamics: Kondratieff waves, Kuznets swings, Juglar and Kitchin cycles in global economic development, and the 2008–2009 economic crisis," Structure and Dynamics, 4 (2010), 1-55.

⁸³ R. H. Britnell, "English agricultural output and prices, 1350-1450: national trends and regional divergences" in Ben Dodds and Richard Britnell (eds), *Agriculture and rural society after the Black Death* (Hatfield: University of Hertfordshire Press, 2008), 20.

four and sixty years (as distinct from the shorter Juglar cycles, which modulate within the long waves and last between seven and eleven years) and explain world-changing events such as the development of steel production and railways in the nineteenthcentury or, more recently, the development of the petrochemical and automotive industries in the 1950s. Schumpeter argued that periods of economic growth are set in motion by entrepreneurial people taking advantage of new technology, or reusing old systems, in an innovative way generally during periods of stagnation. Healthy profits stimulate more entrepreneurial entrants into the market creating an economic boom. Investors take advantage of a gloriously profitable, and apparently unending, future. This commercial euphoria spreads from one market to another and more people seek to benefit from the economic boom, even those who would not usually become speculators. Eventually any competitive advantage dissolves away as the flood of new entrants move into the market causing profit margins dwindle, enthusiasm for the new innovation to wither, investment to decline transforming growth eventually into decline. The failure of one business, like a row of bricks as the clichéd metaphor goes, endangers the stability of the rest. One of the attractive features of a cyclical model like this, and one that separates from the impersonal, biological imperative espoused by Malthus, is its emphasis on human agency and the importance of entrepreneurial people willing to take a risk in order to pursue commercial rewards. The periodization of Schumpeterian cycles has relevance here because the trend line peaks and troughs in figure 3.1 do seem to echo this type of chronology. The dashed trend line peaks in c. 1370 and bottoms out in c. 1435 - a cycle of sixty-five years. The subsequent rises and falls are more difficult to discern because of the missing data in the early sixteenth century, but the rising trend seems to begin in c. 1490 - making a recession cycle of about fifty-five years. The trend line then continues upward from c. 1490 to beyond 1532 - representing the forty-two year upward part of a new growth cycle.

However, even if the trends in the medieval credit evidence resemble longwave business cycles in terms of their shape and chronology, is it appropriate to apply theoretical models, which attempt to explain phases of the industrialised economies of the West, to evidence from the medieval period? Few theorists have attempted to go back further than the nineteenth century and even the most ardent Kondratieff devotees consider delving into the murky past beyond 1870 to find "K-waves" (as they are known by aficionados) as a near impossibility.⁸⁵ There are a number of reasons for this. First, the very existence of long waves is disputed by some historians and only a handful of such waves have occurred in the modern era, their timings are disputed and the evidence has been obscured by the inconvenient irritant of major world wars. Second, long waves are identifiable historically usually in terms of changes in Gross Domestic Product (GDP). Unfortunately for pre-industrial economic research, levels of medieval GDP have been difficult to accurately determine. Third, most who followed Schumpeter agreed that one of the key exogenous factors that triggered periods of economic growth was technological innovation. For the medieval period it is generally considered that innovation and technological advancement was not a significant feature of the period. In comparison to the modern age, it is commonly understood that very few new things or processes were invented and life

⁸⁵ Korotayev and Tsirel, "A spectral analysis of world GDP dynamics," 24; an attempt to apply Kondratieff waves to the seventeenth-century economy was made by Daniel Šmihula in *The waves of the technological innovations of the modern age and the present crisis as the end of the wave of the informational technological revolution* (Bratislava, 2009), 32-47. For the application of Schumpeterian cycles to the medieval period, see, John Langdon, "The long thirteenth century: an era of Schumpeterian growth?" in *Crisis in the later middle ages: Beyond the Postan-Duby paradigm*, ed. John Drendel (Turnhout: Brepols, 2015), 53-71.

and commerce just plodded on unceasingly until the eighteenth century. This, of course, is something of an exaggeration but nonetheless, unlike the invention of steam power or electricity, the low level of innovation in medieval manufacturing is generally considered unlikely to have prompted a major change in the economy as described in Schumpeter's work.⁸⁶

That having been said, credit is generally considered to be a crucial factor in cyclical fluctuations of the economy. The importance of credit to the analysis of business cycles was confirmed by Schumpeter when he suggested that "any analysis of causes [of business cycles] must start with what induces the credit expansion."87 Indeed, recent analysis of the economic (and cyclical) growth in the long thirteenth century has suggested that there were many medieval "innovations" that were used by aspiring entrepreneurs in advantageous and profitable ways. These included infrastructural improvements, like new bridges, and technological improvements, such as the use of water power, the development of windmills, new ship designs and the replacement of oxen with horses for ploughing, and include "pragmatic literacy," such as the spread of accounting techniques and the development of other, new, written procedures.⁸⁸ One might consider the development of a formal system of mercantile debt registration and recovery in the statutes of Acton Burnel of 1283 and of Merchants 1285 (discussed in chapter 1) as exactly one of these infrastructural innovations that merchants took advantage of in order to pursue commercial rewards. The huge popularity of the Statute Merchant system in the early fourteenth century,

⁸⁶ For medieval innovation see, Richard Britnell, *Britain and Ireland, 1050-1530: Economy and society* (Oxford, 2004), 82-4.

⁸⁷ Schumpeter, *Business cycles*, vol. 1, 224; Schumpeter, "Analysis of economic change," 145.

⁸⁸ Langdon, "the long thirteenth century", 56; for market integration and disintegration cycles between 1350 and 1800, see, Victoria N. Bateman, "The evolution of markets in early modern Europe, 1350-1800: a study of wheat prices," *Economic History Review* 64, no. 2 (2011): 465.

with 828 certificates being sent to Chancery in 1306 alone - far higher numbers than were ever sent there after 1353 - points to a large number of entrants into the market seeking to take advantage of a gloriously profitable opportunity in exactly the way that Schumpeter suggested.

The relative weight given to innovation and new technology as an endogenous determinant of economic change is difficult to measure in the medieval period. Even if technical innovation in the medieval period played only a subordinate role in the drama of economic change at that time, then other shocks from outside of the system are thought to be capable of moving the economy from growth to recession (and back again) in these long-wave cycles. In modern business cycles the recession phase is often triggered by exogenous shocks to the system such as the instability caused by wars, or shocks to the prices of important raw materials, such as oil. In the 1970s the sharp rise in the price of oil played a role in inducing the subsequent recession. However, these types of shock are also difficult to ascribe to the medieval credit data. Wars, and the taxation associated with them, were a constant feature of the period. War is considered to have had an impact upon England's international trade. The restoration of peace between England and France in 1303, and then between France and Flanders, resulted in a significant commercial boom which pushed English wool exports to their highest medieval levels. It has been suggested that declining exports in the 1420s and 1460s were at least partly attributable to warfare and piracy and that the reopening of the war with France in 1449 contributed to the mid-fifteenth century recession.⁸⁹ Commercial disruption was caused, particularly for merchants who were arrested and whose goods were detained, by the recurrent conflicts with the Hanseatic

⁸⁹ R. H. Britnell, "The economic context" in A. J. Pollard (ed.), *The Wars of the Roses* (Basingstoke, 1995), 44-6.

League during the fifteenth century.⁹⁰ These had a detrimental effect upon transaction costs - ships had to be protected in convoys and freight charges rose.⁹¹ More particularly taxation for war, notably in raised customs duties, is thought to have been a significant factor in the decline of the wool export business after 1360 and into the fifteenth century.

However, Staple credit was used in large part to finance domestic, including the marketing of imports within England, rather than international trade, even if the latter influenced the performance of the former. Much of the evidence suggests that war had little or no effect upon confidence or domestic commercial activity. The Wars of the Roses between the 1450s and the 1480s are considered not to have caused much physical destruction or economic dislocation (as seen in the muted recovery in trade finance in the 1460s and 70s in fig. 3.1) but, rather less spectacularly, merely disrupted the collection of seigneurial revenues.⁹² Likewise, direct taxation, raised expressly for fund foreign conflicts, actually *decreased* in the fifteenth century. General economic malaise, the end of the war with France (after 1453) and a general mistrust of the government, made parliament less willing to make tax grants.⁹³ In fact the burden of taxation declined more sharply than the population in this period thus making it impossible to attribute the fifteenth-century recession to decreased spending due to high taxation. The heavy taxation in the following century also had a negligible impact upon trade finance. The increasing direct taxation under Henry VIII, in

⁹⁰ M. M. Postan, "The economic and political relations of England and the Hanse from 1400 to 1475" in E. Power and M. M. Postan (eds.), *Studies in English trade in the fifteenth century* (London, 1933), 91-153.

⁹¹ J. L. Bolton, The Medieval English Economy, 1150-1500 (London, 1980), 290.

⁹² Pollard, *The Wars of the Roses*, 90.

⁹³ W. M. Ormrod, "England in the middle ages" in R. Bonney (ed.), *The rise of the fiscal state in Europe, c.1200-1815* (Oxford, 1999), 30-1.

response to his wartime demands in 1512-13 and 1523, seems to have had little depressive effect upon the availability of credit (fig. 3.1).⁹⁴

If war and taxation had a limited effect on market confidence and credit availability, then the long-term impact of bubonic plague represents a far more potent exogenous shock with the power to dramatically alter the medieval economy. Indeed the recurrent and deadly outbreaks of plague between the mid-fourteenth century and the mid-sixteenth century, must surely, if one can, with a true economists' aplomb, immunise oneself from the suffering occasioned by such epidemics, be considered one of the greatest exogenous variables of all time. The work of Malthus and Ricardo was, of course, devoted to the cyclical consequences of population change, particularly rising population and its effects.⁹⁵ The demographic collapse resulting from the Black Death had the effect of gravely distorting the progress of the self-contained ecosystem described in the traditional Malthusian cycle. Medieval population levels, particularly in the fifteenth century, are notoriously difficult to estimate but important strides have been made in assessing the central role of plague in the inability of the population to recover. However, much work has been undertaken on the impact of the Black Death upon the later medieval economy.⁹⁶

⁹⁴ R. H. Britnell, *The closing of the middle ages? England, 1471-1529* (Oxford, 1997), 114-16.

⁹⁵ John Hatcher and Mark Bailey, *Modelling the middle ages: the history and theory of England's economic development* (Oxford, 2001), 24-7.

⁹⁶ J. Hatcher, "Mortality in the fifteenth century: some new evidence," *Economic History Review*, 39 (1986), 19-38; B. Harvey, *Living and dying in England*, *1100-1540: the monastic experience* (Oxford, 1993), 112-45; J. Hatcher, A. J. Piper and D. Stone, "Monastic mortality: Durham Priory, 1395-1529," *Economic History Review*, 59 (2006), 667-87; P. J. P. Goldberg, "Mortality and economic change in the diocese of York, 1390-1514," *Northern History*, 24 (1986); A. J. Pollard, *North-East England during the Wars of the Roses: lay society, war and politics*, *1450-1500* (Oxford, 1990), 46-8; M. Bailey, "Demographic Decline in Late Medieval England: Some Thoughts on Recent Research," *Economic History Review*, 49 (1996), 1-19; John Hatcher, "Understanding the population history of England, 1450-1750," *Past and Present*, 180 (2003), 83-130.

Evidence suggests that there was particularly heavy loss of life due to disease around and after 1450, with life expectancy (and probably fertility) declining at the same time. The monastic evidence suggests that life expectancy continued to be very low, particularly between 1460 and 1480. Life expectancy also fell due to recurring waves of epidemic disease. Monks at Christ Church Canterbury on average in the fifteenth century could expect no to live much beyond their mid to late twenties. Annual death rates amongst Canterbury monks averaged at over thirty-three per thousand per year during the fifteenth century.97 Harvey has demonstrated that the annual death rate amongst Westminster monks often exceeded forty per thousand in the period 1460-1509, and that the death rate amongst the general population might have been even higher.98 Hatcher has argued from the Christ Church evidence that fifteenth century mortality fell into two slightly contrasting patterns. Between 1395 and 1450 outbreaks of mortality reached crisis proportions (when the "crude death rate" or CDR - an estimate, based upon the sample data, of the number of deaths per thousand of the population in each year - rose above forty) at least ten times in that period; between 1450 and 1509 these devastating outbreaks were less common (at least six times in the later period) but more severe, with a CDR often exceeding sixty. In 1457 Canterbury suffered its worst plague epidemic with a CDR of 189.99 Despite the problems of ambiguous evidence, much of which comes from monastic, and thus unrepresentative, sources, it appears that, by any measure the fifteenth-century English population was in decline and the kingdom was becoming increasingly devoid of people.

⁹⁷ Hatcher, "Mortality in the fifteenth century," 33.

⁹⁸ Harvey, *Living and dying*, 124.

⁹⁹ Hatcher," Mortality in the fifteenth century," 26, 28.

John Hatcher has advocated the decisive role of mortality to the fundamental changes in the English economy.¹⁰⁰ Despite warnings that a simple correlation between levels of population and levels of economic activity are far too over simplistic, it is recognised that falling population levels were a powerful depressive force upon the economy. It can be inferred from the medieval evidence that abrupt and critical falls in population, on top of an already depleted fifteenth-century population, might have brought diseconomies and significant fluctuations in levels of economic activity and, thus by extension, to the amount of credit extended in England for that economic activity. For example in Yorkshire it has been argued that the mortality crises in the in the early fifteenth century dispersed mercantile capital, broke up businesses and partnerships and froze the debt and credit flows of individuals and undermined credit networks in the region.¹⁰¹

The impact of crisis mortality can, tentatively, be tested on a small-scale case study using Hatcher's Canterbury evidence in conjunction with the debt evidence from these cities' Staple courts. The Staple evidence for Canterbury is discussed in more detail in chapter 4 (fig. 4-d [Canterbury]), but when the periods of high monastic mortality - suggesting severe outbreaks in the city - are compared to the annual number of debts transacted either in the Canterbury Staple court or by Canterbury merchants elsewhere in England for the same period, then there are some interesting correlations. The number of debts transacted at Canterbury in each year was never large. Between 1395 and 1415 the number of default certificates from the city or its merchants rarely rose above five a year; from the 1420s to the 1480s it reduced to about one per year. However, Hatcher identified periods of crisis mortality

¹⁰⁰ John Hatcher, *Plague, population and the English economy* (London, 1977).

¹⁰¹ Jenifer Kermode, "Money and credit in the fifteenth century: some lessons from Yorkshire," *Business History Review*, 65 (1991), 499.

in c. 1396, c. 1408, c. 1412 and c. 1416 when the Canterbury debt evidence is most plentiful. Figure fig. 4-d (Canterbury) clearly reflects the trauma of these outbreaks as the number of certificates plunge in 1397, 1408, 1412 and drop precipitously between 1416 and 1417 suggesting that far fewer debt transactions were enrolled (and thus later defaulted upon) by the city's merchants or in the Canterbury Staple during periods of high mortality. Hatcher also identified particularly devastating outbreaks in 1457 and c. 1472. These seem to have seriously disrupted commercial life in the city as no Canterbury certificates reached Chancery that had been enrolled between 1458 and 1472. Furthermore, Andrew Butcher's work on rents in Canterbury demonstrates a significant fall in demand for property belonging to the cathedral priory (the same monks studied by Hatcher) between 1409 and 1432.¹⁰² According to Hatcher's evidence, Canterbury experienced six episodes where the CDR exceeded the crisis level of forty between at exactly the same time.¹⁰³ Butcher? describes the particularly dramatic fall in the demand for property, particularly in St. Andrews parish of the city, in 1457-8 during, what Hatcher described as, the most devastating outbreak of plague in the city that century. Butcher's careful work on freemen's admissions to Canterbury also sheds light on the relationship between plague and commerce. Butcher identifies a number of years where new entrants to the freedom of the city fall dramatically. These include 1397 (during an early period of crisis mortality) where then number of new freemen drops from eighty-seven in 1395 to fifty-six two years later.¹⁰⁴ This is followed by sharp drops in the number of entrants in 1423, 1435, 1469, 1486 and 1489. All these, perhaps unsurprisingly, are associated with Hatcher's

¹⁰² A. F. Butcher, "Rent and the urban economy: Oxford and Canterbury in the later Middle Ages,"

Southern History, 1 (1979), 41; A. F. Butcher, "Freemen admissions and urban occupations,"

unpublished paper, Urban History Conference, Canterbury (1983).

¹⁰³ Hatcher, "Mortality in the fifteenth century," 26.

¹⁰⁴ Butcher, "Freemen admissions," figure 1.

periods of crisis mortality in the city, suggesting that in periods like these, fewer traders were enrolled as freemen. Interestingly, there are no surviving records of freeman's admissions in the years 1456-57. This lacunae has been blamed upon the records not surviving, but in the light of Hatcher's evidence that these were the years of the most virulent plague outbreak that century, this gap might be explained both by no new traders enrolling as freemen in these years and that the high number of deaths at that time rendered the administrative machinery of the city temporarily redundant. It would, of course, be erroneous to suggest that plague was the sole factor that explains the contraction in trade finance in Canterbury in the fifteenth century, particularly as the city's credit trends follow those of the national data so closely, but the short-term chronological coincidences do suggest that mortality may well have played a role. The implication is that, as Canterbury merchants died, the number of credit transactions was reduced and, for the survivors, fear that the plague might kill prospective customers before they had time to pay back what they owed is likely to have reduced the amount of credit extended during periods of high mortality. Added to this, business capital in the form of property and goods became diffused amongst inheritors, business relationships and contracts were broken and, most importantly for the Staple evidence, long and delicate credit chains were severed by the deaths of large numbers of merchants. Comparisons of Staple enrolments to mortality in Westminster produce very similar results.¹⁰⁵ Debt registrations start to drop before the recorded period of high mortality before it devastates with its fullest, overwhelming force, at which time the enrolments are reduced once more. After the worst is over, the transactions continue to decrease during the following year as the markets readjust to the heavy death toll of merchants and customers. However, transactions soon return

¹⁰⁵ Harvey, Living and dying, 113-45.

to their former levels as new business relationships are forged whilst the plague was, temporarily, forgotten. What these periodic coincidences between periods of high mortality in an already depopulated kingdom and economic contraction suggest is that repeated epidemics are one exogenous variable amongst many that could have pushed the economy from a recovery cycle to recessionary one.

However, other theorists have suggested that it is one particular shock that plays the key role in cyclical economic change. In modern economies it is argued that increases in the money supply encourage expansions and that restriction of the money supply trigger contractions.¹⁰⁶ The reduction in the size of the money supply, due to the shortage of silver and, to a lesser extent, gold dug out of the ground and used to make coins, is often considered to be of central importance in understanding the depression of the mid-fifteenth century. The vagaries of Europe's geology mean that, for a medieval analysis at least, this must be considered an exogenous shock to the system. It has been argued that the bullion famine of the later middle ages is solely culpable for pushing prices down and causing recession.¹⁰⁷ Monetary historians argue that as the currency in circulation contracted, so did the amount of credit available for business.¹⁰⁸ A study of credit in London between 1350 and 1440 concludes that credit expanded and contracted in direct relationship with changes in the quantity of money

¹⁰⁷ Miskimin, H. A., "Monetary movements and market structure, forces for contraction in fourteenth and fifteenth-century England," *Journal of Economic History*, 24 (1964) 470-90; N. J. Mayhew, "Population, money supply and the velocity of circulation in England, 1300-1700," *Economic History Review*, 48 (1995), 238-57; J. Munro, *Bullion flows and monetary policies in England and the Low Countries, 1300-1500* (Aldershot, 1992); Pamela Nightingale, "Monetary Contraction and Mercantile Credit in Later Medieval England," *Economic History Review*, 43 (1990), 560-75; *idem*, "England and the European depression of the mid-fifteenth century," *Journal of European Economic History*, 26 (1997), 631-56; *idem*, Money and credit in the economy of late medieval England," in D. Wood (ed.), *Medieval money matters* (Oxford, 2004), 51-71.

¹⁰⁶ Knut Wicksell, Lectures on Political Economy (New York, 1901).

¹⁰⁸ Nightingale, "Monetary contraction," 560-75.

in circulation. The monetary contraction is thought to cover the period c. 1395 - c. 1415 and then again in the 1440s and reaching acute proportions in the 1450s, in other words exactly the period at which credit became progressively more difficult to obtain (fig. 3.1).¹⁰⁹ As all debts needed to be ultimately paid off in cash, a bullion famine is likely to have a depressive effect upon the amount of credit being extended as merchants feared that a lack of coin would make repayments increasingly difficult. Indeed the government certainly attempted to intervene in the market in the first half of the fifteenth century in order to maintain a healthy English money supply. The Calais mint was set up in 1363 so that merchants could bring money to the mint equivalent to the value of the goods they exported. Complaints that money was in short supply increased in the 1380s and in 1381 exports of coin out of the realm were prohibited. The government made many attempts to manipulate trade in order to encourage the inflow of bullion and prevent its outflow. In 1422 the export of English coin was once again banned; in 1429 merchants were commanded not to sell wool in Calais on credit but rather only for gold or silver of which one third was to then be exchanged for English coins at the Calais mint. These rules remained in force until 1422, after which they were partially relaxed but the assertion that wool should not be sold on credit but only for cash remained in force until 1478.¹¹⁰ It is difficult to assess the efficacy of this policy but it met with considerable mercantile resistance and is thought to have contributed to the decline of the English wool export trade. What this

¹⁰⁹ J. Day, "The great bullion famine of the fifteenth century," *Past and Present*, 79 (1978), 3; P. Spufford, *Money and its use in medieval Europe* (Cambridge, 1988), 339-62.

¹¹⁰ M. M. Postan, Credit in medieval trade," *Economic History Review*, 1 (1928), 7; T. H. Lloyd,

[&]quot;Overseas trade and the English money supply in the fourteenth century" in N. J. Mayhew (ed.),

Edwardian monetary affairs (1279-1344) (British Archaeological Reports, 36, Oxford, 1977), 109-10,

^{115;} John H. Munro, *Wool, cloth and gold: The struggle for bullion in Anglo-Burgundian trade, 1340-1478* (Toronto, 1972), 36-40, 45-6, 54-6, 60-1.

bullionist policy does suggest is that the government believed that money was in short supply for much of the period under investigation here. Importantly, from a historical perspective, at the height of most recessions, during what is described as the "panic stage" in the anatomy of a crash, money is often said to be unavailable. In the recession of 1825 there was a public panic due to the perceived lack of money in the English economy which triggered bankers' fear of their own businesses' collapse and a subsequent run on the other banks of London.¹¹¹ The bullionist actions of the English government in the later middle ages might usefully be understood as part of the public reaction to economic crisis.

Historians have attempted to measure the size of the medieval money supply using the recorded outputs from English mints. Martin Allen's estimates are given in table 3.4.

Table 3.4: a) Recorded English Mint outputs, 1355-1530; b) Estimates of English currency, 1290-1544 (Source: Martin Allen, Mints and money in medieval England (Cambridge: Cambridge University Press, 2012), 313, 344)

a)	Dates	Recorded mint output	Recorded mint output
		(Gold)	(Silver)
	1355-61	£439,584	£101,166
	1420-31	£771,757	£279,074
	1431-41	£71,497	£188,926-£188,936
	1450-64	£26,494	£84,711
	1475-80	£130,730	£24,176
	1509-16	£347,171	£34,912

¹¹¹ Kindleberger and Aliber, Manias, crashes and panics, 95.

1526-30	-	£244,032

b)	Years	Estimates of English currency
	1290	£1,000-1,300,000
	1310	£1,500-1,900,000
	1319	£1,800-2,300,000
	1331	£1,500-1,900,000
	1351	£600-950,000 (plus foreign gold)
	1377	£1,420-2,390,000
	1422	£1,220-1,350,000
	1470	£750-950,000
	1544	£1,000-1,500,000

These estimates of the size of English currency after the Black Death reveal the contraction in the size of the money supply from its high point in the early fourteenth century. This might usefully be compared to the trends in credit availability in the same period shown in table 3.1. Pamela Nightingale has argued that the huge increase in the number of certificates in this period is a consequence of this expansion in the size of the money supply in the early fourteenth century.¹¹² The contraction in the money supply immediately after the first plague epidemic was then reversed by 1377 and mint outputs remained relatively strong, contemporaneously with the postplague expansion in credit (fig. 3.1). Mint output decreased in the 1430s and 40s to a low point in the 1450s, but the estimates of the amount of currency in circulation in

¹¹² Pamela Nightingale, "The lay subsidies and the distribution of wealth in medieval England, 1275-1344," *Economic History Review*, 57 (2004), 16.

1422, whilst reduced, remained fairly strong during the severest contraction in credit in the early fifteenth century. By the late 1470s and into the early sixteenth century mint output had started to increase whilst currency levels remained low (table 3.4, a and b). This was the period that witnessed a recovery and then expansion in borrowing, but, like Staple enrolments, by 1544 currency levels had regained their early fourteenth-century levels. Thus it seems likely therefore that a reduction in the number of coins impacted upon levels of borrowing and commercial activity, even if the relationship between the two is not always clear.

The impact of bullion famine upon borrowing may have been mitigated by a number of factors. Even if no new coins were minted there was probably still enough old money in the economy to make it turn over, as newly minted coins make up only a fraction of the total stock of money.¹¹³ During the continuing demographic crises of the fifteenth century it is likely that the decline in number of coins *per capita* was far less than the decline in total stock. Thus in the fifteenth century, the population, greatly reduced by disease, still had enough coins (just) to go round. Furthermore, wages - which were rising in this period - were predominantly paid in cash which suggests there must have been some money available to pay workers.¹¹⁴ The impact of a shortage of silver upon borrowing is complicated by the use of gold in the currency after 1344 (table 3.4a). Whilst these might have been of limited use for everyday purchases in the marketplace, gold coins were ideal for high-value mercantile transactions (the noble was worth 6s 8d). The mean value of Staple debts between 1353 and 1532 was £107. Repayment of debts of this size using gold thus

¹¹³ Hatcher and Bailey, *Modelling the Middle Ages*, 191.

¹¹⁴ D. Farmer, "Prices and wages, 1350-1500," in J. Thirsk (ed.), *The Agrarian History of England and Wales, vol. 3, 1350-1500* (Cambridge, 1991), 431-525; C. Dyer, "Changes in diet in the late Middle Ages: the case of Harvest workers," *Everyday life in Medieval England* (London, 1994), 77-99.

necessitated fewer coins. Indeed, in the 1360s and 70s merchants who exported wool to Flanders were paid in foreign-minted gold coins, which, they complained, were overvalued.¹¹⁵ The Calais mint produced huge numbers of gold coins - over £59,000worth in the 1390s alone - presumably for the use of Staple merchants.¹¹⁶ Traders, like the early sixteenth-century Gloucestershire wool merchant, John Heritage, regularly used gold coins in the course of their business.¹¹⁷ In a similar vein, the gift of goods between merchants (discussed in chapter 1), usually a form of pledge against the repayment of a loan, might have been a method used to alleviate temporary shortages of currency. Rather than paying off the debt in cash, goods to the value of the loan were transferred to the creditor. This can be seen in 1455 when William Morton, almoner of Peterborough Abbey, paid off part of his 5 mark debt to his brother sacrist, William Borough, in cash (including one gold noble), and in figs and raisins (ficubus et racemis) and 2,000 red bricks (rubie tyle sive wallyng').¹¹⁸ Similarly, John Heritage regularly settled his debts in livestock, especially his sheep, when money was hard to find.¹¹⁹ However, as discussed in chapter 1, the main method used by merchants to bypass a large cash pay-out when a debt matured was the settlement of accounts by cancellation.¹²⁰ Two merchants would calculate the outstanding amounts they owed each other in credit in the course of their transactions together and then cancel out all but any outstanding amount which was then paid in

¹¹⁵ T. H. Lloyd, The English wool trade in the middle ages (Cambridge, 1977), 240; J. L. Bolton,

Money in the English economy: 973-1489 (Manchester: Manchester University Press, 2012), 165-9. ¹¹⁶ Lloyd, *English wool trade*, 240-1.

¹¹⁷ Dyer, A country merchant, 122-3.

¹¹⁸ The book of William Morton, Almoner of Peterborough Monastery, 1448-1467, ed. W. T. Mellows and P. I. King (Northamptonshire Record Society, 16, 1953), 81.

¹¹⁹ Dyer, A country merchant, 124.

¹²⁰ M. K. James, "A London merchant in the fourteenth century," *Economic History Review*, 8 (1965), 369.

cash. Cancellation of debts in this way could significantly reduce the amount of cash that changed hands. All of these demonstrate the adaptability and skill of merchants as they reacted to, and changed their behaviour, as commercial challenges presented themselves during the recession.

However, mono-causal explanations of recession are untenable. The move from recovery to recession in the early fifteenth century was the product of a number of exogenous shocks overwhelming the English economy all at roughly the same time. Britnell suggested that it would be appropriate to utilise a "mixed-bag" approach when explaining the causes for growth and decline in the later middle ages.¹²¹ At any particular time there are likely to be a multiplicity of varying influences on the economic behaviour of merchants, pushing them with different strengths in a variety of divergent directions. It was the complex interplay of various elements - high mortality, bullion famine, warfare and worsening climatic conditions (temperatures declined in the late 1350s, then warmed up again in the later fourteenth century; temperatures then dropped again, with very cold winters and summers in 1430s, falling to their lowest point in c. $(1450)^{122}$ - that tipped the balance and hailed the various instalments of the long-wave cycle. These could be interpreted as the product of a chaotic universe - a combination of often insignificantly small events or actions by individuals that have, individually, left little trace in the historical record - which led to global economic change.¹²³

¹²¹ Britnell, Britain and Ireland, 90.

¹²² B. M. P. Campbell, "Grain yields on English demesnes after the Black Death," in *Town and countryside in the age of the Black Death. Essays in honour of John Hatcher*, ed. M. Bailey and S. Rigby (Turnhout: Brepols, 2012), 121-74.

¹²³ For a beginners guide to some of these ideas see, J. Gleick, *Chaos: making a new science* (London,1987);

Roger Lewin, Complexity: life at the edge of chaos (Chicago, 1993).

Economic sociologists are beginning to suggest that it is shared social practices and relationships that exist outside of the commercial world that stimulate economic exchange and stress the importance of human expectations and psychological factors in mercantile behaviour.¹²⁴ Business people react to trends in the market and make assumptions that the values of certain variables in the future are extensions of the value of these variables in the recent past. This "adaptive expectation" means that generally investors believe that if prices have been increasing in the recent past, they will continue to do so. This (often irrational) expectation or confidence in future growth has a huge part to play in many of the financial crises in the twentieth and twenty-first centuries, such as the Great Depression of 1929.¹²⁵ The rush to speculate profitably, in modern markets, often in the stock exchange (as in 1929) or real estate (as in 2008), is stimulated by a "mob psychology" wherein it appears that virtually all of the participants in a market change their views at the same time and speculate as a "herd." 126 Even if investors and speculators do begin by acting "rationally," they eventually succumb to the compelling hysteria as prices rise.¹²⁷ In April 1720 Isaac Newton, master of the Mint and world-renown scientist, sold his South Sea Company shares at 100 per cent profit of £7,000. Later, infected by the mania gripping London that summer, he bought more South Sea shares just as

¹²⁵ For 1929, see particularly, John Kenneth Galbraith, *The Great Crash of 1929* (Harmondsworth, 1966). For adaptive expectation of the 'speculative orgy" of 1929, see *ibid.*, 41.

¹²⁴ Harrison C. White, *Markets from networks* (Princeton, 2002); Harrison C. White, Identity *and control: a structural theory of social action* (Princeton, 2008); Paul S. Alder, "Market, hierarchy and trust: the knowledge economy and the future of capitalism," *Organisational Science*, 12 (2002), 215-34, 218; Charles Tilly, *Trust and rule* (Cambridge, 2005), 39.

¹²⁶ For a useful discussion of irrationality in financial markets see, Harry G. Johnson, "Destabilizing speculation: a general equilibrium approach," *Journal of Political Economy*, 84 (1976), 101-8.

¹²⁷ S. Miskin, "Asymmetric information and financial crises: a historical perspective" in R. Glen Hubbard (ed.), *Financial markets and financial crises* (Chicago, 1991), 69-108; Thomas Lux, "Herd behavior, bubbles and crashes," *Economic Journal*, 105 (1995), 881-96.

the South Sea Bubble burst and their price began to drop precipitously. He lost $\pm 20,000$. He wrote of the South Sea mania of 1720, "I can calculate the motions of the

The same "herd" instincts can create what are known as "asset bubbles." Financial crises tend to be preceded by very fast credit growth. The colossal speculation in, of all things, tulips in the Dutch Republic in the late 1630s (known as the "tulip bubble") developed as vendors vastly increased the amount of credit available to buyers; in 1793, the massive spending on Britain's nascent canal network was facilitated by loans from many of the newly-established country banks.¹²⁹ In periods of economic growth (or the investment euphoria associated with them) the quantity of debt increases because lenders become less risk-averse and more willing (or perhaps less unwilling) to make loans that had previously seemed too risky. Economic historians have located numerous "credit booms gone bust" type shocks over the last 200 years that have had profound impacts upon economic activity.¹³⁰ From the rapid expansion of railway construction in the nineteenth century to unrealistic optimism and increasingly risky behaviour by banks associated with realestate booms in the early twenty-first century, all of these credit bubbles eventually burst resulting in credit drying up. Bubbles appear after a period of unrestrained speculation, low interest rates, rising money supply and rising prices which create unrealistic expectations amongst investors, conditions which, as discussed above, may

heavenly bodies, but not the madness of people."¹²⁸

¹²⁸ Cited in Kindleberger and Aliber, *Manias, crashes and panics*, 41.

¹²⁹ Charles P. Kindleberger and Robert Z. Aliber, *Manias, crashes and panics: a history if financial crises* (Basingstoke, 2005), 55.

¹³⁰ Karl Gunnar Pearson and Paul Sharp, *An economic history of Europe: knowledge, institutions and growth, 600 to the present* (Cambridge: Cambridge University Press, 2015), 160, 167-9; Carmen M. Reinhart and Kenneth Rogoff, *This time it's different: eight centuries of financial folly* (Princeton: Princeton University Press, 2011); Robert L. Hetzel, *The Great Recession: market failure or policy failure?* (Cambridge: Cambridge University Press, 2012), 11-22.

well all have been present in the post-Black Death boom of the later fourteenth century, even in the absence of central banks. High wages and standards of living, rising prices, high *per capita* money supply and falling interest rates combined with an understandable uncertainly as to when Death would visit, may well have led to a certain eagerness amongst merchants and others to take advantage of the apparent commercial opportunities that they witnessed all around them. As a result, as figure 3.1 suggests, lending increased dramatically. However, this level of lending was unsustainable and from c. 1400 the situation was reversed. A combination of the cumulative impact of exogenous shocks, declining prices and borrowers defaulting on their loans resulted in the credit system becoming paralysed. At the height of most panics, exactly as the English government did in the mid-fifteenth century, money is said to be unavailable.¹³¹ Rather than merchants acting "rationally," they panic and sell. It is possible therefore, although of course conjectural, that once the commercial tide turned, lending behaviour started to change in the early fifteenth century. Hysteria set in which sapped business confidence making people increasingly reticent about lending. The random and irrational behaviour of individuals effected and altered the behaviour of others.¹³² The unquantifiable combination of shifting exogenous variables and the unpredictable actions of individuals in the early sixteenth century gathered enough momentum to break out of the recessive cycle and move towards growth once more.

Long-wave cycles like these are thought to have the potential to introduce significant economic change. As discussed in chapter 5, the growth of London by c. 1500 resulted in an important and well recognised adjustment to the shape and dynamics of the English economy, one that laid the foundations for a systemic

¹³¹ Cited in Kindleberger and Aliber, *Manias, crashes and panics*, 95.

¹³² Kindleberger and Aliber, *Manias, crashes and panics*, 73.

economic shift from a "medieval" towards an "early modern" economy. The role of the "credit crunch" of the fifteenth century, and the random actions of people trying to make a living whist enduring difficult, and sometimes deadly, exogenous circumstances, need to be considered when examining economic change on this scale.