Introduction

Few short pieces of historical writing have had such an effect on the interpretation of the late-medieval English economy as ‘Revisions in economic history ix: the fifteenth century’ by M.M. Postan, first published in The Economic History Review in 1939. He saw nothing but ‘stagnation tinged with gloom’. A collapse in the size of the population, consequent upon waves of endemic plague, led to a decline in agricultural prosperity, to a severe contraction in the value of goods and in the size and prosperity of most towns. The majority of village markets ceased to function in the fifteenth century and town after town sought relief from taxation and other payments by complaining to the crown about depopulation and impoverishment. The growing value of labour, as wages rose and prices fell, and the redistribution of income in favour of the masses, did stimulate expansion in some areas, principally those serving the growing demand for basic consumer goods which had previously been unaffordable. Demand for woollen textiles was exceptionally buoyant both at home and abroad, particularly for cloth of medium quality, and production flourished in a number of rural areas as the countryside enjoyed the advantage over towns of a less regulated environment and a supply of labour that was both cheap and flexible. In the long run, falling agricultural prices made manufactured goods relatively more expensive, however, and after a period of expansion in the late fourteenth century manufacturing faltered and then declined. Nor could the domestic demand for woollen textiles offset the loss of overseas markets in the mid-fifteenth century. So, although the volume of trade and non-agricultural production in the late fourteenth and fifteenth centuries may not have fallen as much as population, in an overwhelmingly agrarian economy with a pronounced emphasis on arable farming, it was inevitable that no major sector would escape recession. ‘That the total national income of wealth was declining is shown by almost every statistical index available to the historian.’1

Since 1939, all historians of the late-medieval economy have had to deal with this overwhelmingly dark interpretation. Some, like A.R. Bridbury, have sought to prove Postan completely wrong, proposing that, thanks to the tireless energy of the peasantry, this was an age of economic growth in which the urban sector flourished.2 F.R.H. Du Boulay saw it as An Age of Ambition, when the enterprising could prosper by seizing the opportunities offered by the prevailing and unusual economic circumstances in order to make their own way in the world.3 There has been much debate as to the emergence of a ‘capitalist’ society in the fifteenth century and most recently C.C. Dyer has argued in much more measured and realistic terms than Du Boulay that this was An Age of Transition?. The question mark at the end of the title is

Acknowledgements

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2 Bridbury 1967.
3 Du Boulay 1970.
telling. Dyer’s argument is that society faced the very real challenges of falling prices and rising wages and found ways of coping, even with, let it be said, the acute shortages of silver coins with which day-to-day purchases were made by the common people. Whether or not he convinces is a matter for the readers’ own opinion. Hatcher and Bailey, in their work on *Modelling the Middle Ages*, point out that none of the leading models devotes much time to the later middle ages which has ‘proved providential for the modellers, since England in the later fourteenth and fifteenth centuries is an even more testing environment for models of long-term economic and social change than the preceding era.’ Hatcher himself has written of a ‘great slump’ in the fifteenth century, beginning in the 1440s and lasting until the 1470s, with the underlying implication, for this reader at least, that the slump characterises the whole century.

**Bullion famines and bullion flows**

As these debates were taking place, another important argument was being brought back into the discussions. The eminent Canadian economic historian John Munro began to explore the importance of minting and money in the relationship between England and the Low Countries in the fourteenth and fifteenth centuries and in 1972 published his enduringly important work *Wool, Cloth and Gold. The Struggle for Bullion in Anglo-Burgundian Trade, 1340–1478.* He has followed this with many articles pursuing the important theme of the consequences of fluctuations in the money supply for the linked economies of England and the Burgundian Netherlands in the fifteenth century. At much the same time, John Day was working on the general problems for the late-medieval European economy caused by growing shortages of gold and particularly of silver, due to a combination of a collapse in silver mining output in Bohemia and Serbia and the flow of money to the near and far East to pay for luxury imports, a subject to be discussed further below. In his seminal article, published in 1978 and called ‘The great bullion famine of the fifteenth century’, he argues that late-medieval Europe was crippled by a severe shortage of bullion and therefore of coined money and that this, as much as population decline and continual warfare (another of Munro’s themes), plunged the economy into a depression that lasted for much of the fifteenth century. Day’s thesis has been challenged, notably by Nathan Sussman, but never replaced. Peter Spufford accepted Day’s arguments in his magisterial *Money and its Use in Medieval Europe*, first published in 1988, and added another of his own, a further bullion famine in mid-century and a lack of coin so severe that Italian galleys returned home from with their cargoes unsold, mints closed down all over Europe, with the exception of England, and, quite pitifully, there were no buyers for bundles of leeks on local markets because of the lack of small change.

Most recently, Ian Blanchard has added another dimension to the debate. Day and Spufford had rightly concentrated on the lack of silver for minting the small coins used all across Europe in everyday transactions, for paying wages, rents and taxes, buying food and re-paying debts, all vital parts of economic exchange. Gold coinages, introduced throughout southern and western Europe between c.1250 and c.1350, and specifically in England between 1343 and 1351, were thought to have suffered less than silver because there were reasonable supplies of the more valuable of the precious metals. Blanchard has shown that this was not the case. Transylvanian mines, then under Hungarian control, had supplied much of the gold for the new coinages in the first half of the fourteenth century, but production from them fell rapidly after 1387 and faded away to nothing by the second half of the fifteenth century. Most of Europe’s gold came

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5 Hatcher and Bailey 2001, 175. Their point is that no society has had to face sustained depopulation and severe price deflation at one and the same time.
6 Hatcher 1996.
7 Munro 1972.
8 Day 1979.
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from what is now western Sudan, travelling northwards either via Alexandria in Egypt or by camel routes across the Sahara to Timbuktu where it was exchanged for salt. It then crossed the Mediterranean either via West African ports or through Tunis and Tripoli in North Africa to Genoa or Venice. Blanchard has now shown that both routes suffered major interruptions in the late fourteenth and early fifteenth centuries, due to the disruption of the camel routes. An acute crisis in the Egyptian monetary system led to shortages of gold on the Alexandrian specie market. As a result, the price of gold rose sharply on the European market in the 1420s and 1430s generally and in northern Europe particularly. It fell only when the production of gold by the new mercury amalgam process increased output in the Rhineland and at roughly the time when new silver came on to the market from the south German mines.11

Lack of precious metals from which to strike coins was made worse by two other international factors and by the local circumstances in north-western Europe from c.1350 to c.1470. The drain of specie to the east to pay for the luxury goods that Europe craved and the workings of what are known as bi-metallic flows both affected the money supply across the continent. In 1971 Ashtor published what has become a classic work on the balance of trade and payments between east and west, *Les métaux précieux et la balance des paiements du Proche-Orient à la basse époque*. In it he argued that the value of imports from the Levant exceeded the value of exports by 400,000 Venetian ducats a year in the fourteenth and fifteenth centuries, a deficit that had to be settled in coin and in specie, bars of gold and silver. To give some rough idea of contemporary English values, the Venetian ducat traded at about 43 sterlings or pennies on the London exchange market in the 1430s, making the annual European deficit something like £71,666 sterling which over a decade meant a loss nearly equal to the circulating medium in England.12

Bi-metallic flows exacerbated the problem. If one precious metal, say gold, is valued more in one geographic area than the other metal, silver, whilst silver is more highly valued in another geographic area, then gold will flow to the first region and silver to the other. The most important account of these flows, by Watson, argues that they existed between Europe and the Islamic world from at least AD 1000 onwards and continued on into the late middle ages, although at reduced rates. By then it was silver that the Islamic world wanted whilst Europe needed gold, first to strike the new gold coinages between c.1250 and c.1350 and then to maintain them in circulation. Taken together, the collapse in silver mining output, the interruptions in the supply of gold, a perpetual trade imbalance with the east and bi-metallic flows, combined to create what were at times severe shortages of bullion in late medieval Europe.13

Bullion wars

For England there were problems much nearer home. From the thirteenth century onwards English wool had kept the looms busy in the Flemish cloth towns. Then, as the Flemish industry declined and cloth production rose in England, English cloth was sold at the four great fairs held at Antwerp and Bergen-op-Zoom, for export to central, northern and southern Europe. The manufacturing and trading economies of England and the Low Countries were inextricably linked and the links grew both stronger and more difficult as the Valois dukes of Burgundy sought to bring the various towns, counties and duchies in Flanders, Brabant, Holland and Zeeland under their control, from about 1384 onwards. The dukes of Burgundy used seigniorage, the tax levied on minting by the prince, as a major source of revenue. Frequent recoinages helped finance the wars and political stratagems of dukes Philip the Bold, John the Fearless and, until the 1430s, Philip the Good. Other rulers in north-western Europe sought to profit from their regalian right over minting in the same way, leading to a scramble for bullion from which to strike both gold and silver coins. The only ruler in north-western Europe who did not and could not manipulate the coinage to his own ends in this way was the

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king of England, but eventually there had to be major English recoinages to adjust the intrinsic value of the coins in terms of gold and silver to the rapidly changing prices on the international bullion markets. The result, between 1348 and 1478 was a century of bullion wars between England and Burgundy which affected not only economic and monetary relations between the kingdom and the duchy but also political ties, since, in the fifteenth century and until 1435, Burgundy was England’s ally in the Hundred Years War.14

Competition for scarce supplies of precious metals was only to be expected. Matters, it has been argued, were made worse by the constant drain of bullion from the Low Countries to Italy to settle the imbalance of trade between the two regions. With the decline of the Flemish cloth industry from the late fourteenth century onwards, the Italian galleys and carracks that had brought both luxury goods and raw materials and dyestuffs from the Mediterranean to Bruges and its outports, Sluys, Damme and Arnemuiden, found little or nothing to buy for export back through the Straits of Morocco (Gibraltar). They could make up some of the deficit by buying English wool for the cloth workshops in Florence, Milan and other Italian cities, but that still left a deficit which could only be settled by the transfer of bullion from north to south, making shortages of precious metals in the Low Countries even worse. In this instance de Roover, whose theory this is, was certainly wrong. He failed to take into account the very substantial quantities of English cloth bought for export by Italian merchants based in London, who ran a deficit on their operations in England that was made good by the transfer of funds from Bruges and Venice.15 The trade deficit may have caused problems for the Low Countries but not for England until the 1450s and 1460s, with recovery of English cloth exports coming only after the recoinage of 1464–65 brought the gold:silver ratio into line with their value on international markets.16

There was an imbalance in trade requiring settlements in specie, however, between northwestern Europe and the Baltic. English merchants may have failed to break the Hanseatic monopoly but after 1441 the Dutch certainly did. By 1500 they had taken over much of the region’s export trade in low-value naval stores, grain, furs and other primary products, supplying in return manufactured goods from western Europe. But the Baltic lands were still underdeveloped and could not absorb more than certain quantities of relatively expensive cloth, the principal export from the Low Countries. Trade deficits could only be settled by the transfer of silver, in coin or in bars, since credit and credit instruments were little used in the Hanseatic regions, where silver and not gold coinages prevailed. Although this was to become a critical problem in the sixteenth and seventeenth centuries – and much debated by modern historians – it placed yet more strain on the limited supplies of bullion in north-western Europe and thus on the ability of mints to strike the desperately needed coins.17

The tale of woe is not quite over, alas. There are some grounds for thinking that the drain of coin from England, about which there were so many complaints in parliament and in contemporary polemical literature, was a reality rather than a political myth. The English noble often traded at above face value in the Low Countries, about which there were so many complaints in parliament and in contemporary polemical literature, was a reality rather than a political myth. The English noble often traded at above face value in the Low Countries, about which there were so many complaints in parliament and in contemporary polemical literature, was a reality rather than a political myth. The English noble often traded at above face value in the Low Countries18 and Munro argues that in 1443 the official rate of exchange for the noble was 8s. 4d. flemish or approximately 7s. 1½d. sterling, well above its face value.19 The question that must be asked, but which at present cannot be answered is this: did the noble become the equivalent of the Maria Theresa thaler in the eighteenth, nineteenth and twentieth centuries and the U.S. dollar in the twentieth and twenty-first centuries, the currency in which international trade settlements were made? If this

14 Munro 1970, 225–44; Munro 1972, 93–126.
16 Munro 1972, 171–2, argues that the boom in exports resulted from the Anglo-Burgundian commercial treaty of 1467 but the re-adjustment of the coinage to bring into line with international gold and silver values undoubtedly stimulated exports.
18 Calculated from ABIB, libro mastro no. 8, Filippo Borromei e compagni di Brugia, 1438, hereafter referred to as ABIB BBr.
19 Munro 1972, 135 n.20a.
was the case in the northern seas, then it might well have created a real drain of gold coins from England, but at the moment this remains a matter for speculation and debate, as does the general problem of whether good English money did actually drain abroad, in spite of the many allegations made in the fourteenth and fifteenth centuries.\textsuperscript{20}

The coinage 1351–1526

It is against this background that the story of the English coinage in the late middle ages has to be set, a story that is both short and extraordinary. Between 1351 and 1526 there were only two major recoinages involving both gold and silver coins and a recoinage of the gold but not the silver coinage. The first recoinage was ordered in 1411 and begun in 1412, but when it was completed is not known. The second began in 1464–65 and was a protracted process since new gold coins with different face values from those in circulation since 1351 were issued, with varying degrees of success. No changes were made in the face values of the silver coins but they were now lighter in weight and thus in silver content. The gold nobles struck in the recoinage of 1411–12 seem to have been the subject of extensive clipping because a general recoinage of all clipped nobles was ordered in the May parliament of 1421 and carried out between 1421 and c.1425, after many complaints about the poor condition of the gold coinage. Two and a half recoinages in 175 years has to be compared to four major recoinages and two partial recoinages in the 193 years between 1158 and 1351 and more than fifty substantive issues, that is, of new coins that passed into general circulation, in the 185 years between 973 and 1158. Put more crudely, there was one recoinage or partial recoinage every 70 years between 1351 and 1526 compared to one every 38.6 years between 1158 and 1351 and one every 3.7 years between 973 and 1158.\textsuperscript{21}

It is not the purpose here to explain why, when their continental counterparts were regularly devaluing and revaluing their coinages, successive kings of England failed to do so.\textsuperscript{22} In both 1411 and 1464 Henry IV and Edward IV were almost forced to order new coinages because the old ones had become so worn and their intrinsic value so out of line with international bullion prices that weight adjustments had to be made and new gold:silver ratios established. What matters for our purposes is the volume of the coinage in circulation and how much was in gold and how much in silver.

<table>
<thead>
<tr>
<th>Date</th>
<th>Silver (£)</th>
<th>Gold (£)</th>
<th>Total (£)</th>
<th>Population (millions)</th>
<th>Coinage per head (d.)</th>
<th>Silver coinage per head (d.)</th>
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<tbody>
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<td>1290</td>
<td>1,000,000</td>
<td>Negligible</td>
<td>1,000,000</td>
<td>5</td>
<td>48</td>
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<td>1351</td>
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<td>800,000</td>
<td>3</td>
<td>64</td>
<td>56</td>
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<td>800,000</td>
<td>950,000</td>
<td>2.75</td>
<td>83</td>
<td>13</td>
</tr>
<tr>
<td>1470 (A)</td>
<td>350,000</td>
<td>400,000</td>
<td>750,000</td>
<td>2.5</td>
<td>72</td>
<td>33.6</td>
</tr>
<tr>
<td>1470 (M)</td>
<td>302,250</td>
<td>689,560</td>
<td>991,810</td>
<td>2.5</td>
<td>95</td>
<td>29</td>
</tr>
</tbody>
</table>

Sources: Allen 2001, with revisions to 2007; Mayhew 1974, 67–8. All mathematical errors are mine.

Taking 1351 as our starting point, Table 1 shows that there were coins worth about £800,000 in face value in circulation, of which 87.5 per cent were silver groats, half groats, pennies, halfpennies and farthings and 12.5 per cent were gold nobles, half-nobles and quarter nobles.\textsuperscript{23} There are no records from which the volume of coinage in circulation after the recoinage of

\textsuperscript{20} See below, 149–50.
\textsuperscript{21} Allen 2001, 597–608; Allen 2006, 487–501; these calculations have been made on the basis that a complete recoinage has a value of 1 and a partial recoinage a value of 0.5.
\textsuperscript{22} These issues are discussed in Bolton, forthcoming.
\textsuperscript{23} Face values were: groat, 4d.; half groat, 2d.; penny, 1d.; halfpenny, ½ d.; farthing, ¼ d.; noble, 6s. 8d.; half noble, 3s. 4d.; quarter noble 1s. 8d.
1412 can be estimated. Allen suggests that the demonetization of the old stock was not complete, since pre-1412 issues of gold and silver have been found in post-1412 hoards, even as late as 1464, on the eve of the next recoinage. He estimates that in 1421–22, after the re-minting of the worn gold nobles, the circulating medium stood at somewhere between £950,000 and £1,000,000, not much different from what it had been in 1351. The recoinage of 1464–65 was more complete, according to Mayhew, but he and Allen disagree about the size of the subsequent circulating medium. Allen believes it had shrunk to between £750,000 and £950,000 whilst Mayhew calculates that it was about £1,000,000. As Table 1 shows, given the sharp decline in population, there was now much per coin per head than in earlier centuries. In 1290, when the coinage was all silver, the figure had stood at 48d. per head. By 1351 it had risen to 64d. per head, to 83d. per head in 1422. Then, according to Allen’s lower estimate, it fell slightly, to 72d. per head after 1464–65, but rose to 95d. if Mayhew’s estimate is used. There are too many variables here to make these figures any more than a rough guide, but they seem to show that there was far more coinage per head available for use in the late fourteenth and fifteenth centuries than there had been at any time before then, even allowing for hoarding, cash balances kept by noblemen, churchmen and merchants, sharp inequalities in the distribution of wealth and the drain of coin abroad, and all at a time of bullion famines.

These figures for coinage per head include all coins, however, both gold and silver, and are therefore misleading. Gold was supposedly the coinage used by princes for war and merchants for trade and above all for international trade. The common people, by far the greater part of the rural and urban population, used silver coins for their day-to-day and year-to-year transactions. The small denominations, groats, half groats, pennies, halfpennies and farthings, made it possible to buy and sell goods in small quantities and for wages to be paid to the increasing body of daily-paid craftsmen and labourers. Lack of small change became a constant cause of complaint everywhere in Europe, let alone England, and the last column in Table 1 shows why. From a high point of 56 silver pence per head in 1351, there was a sharp fall to 13 pence per head by 1422, with the first signs of recovery coming by 1470, whichever set of figures is used. Mayhew attributes this recovery to the realistic mint prices set by Edward IV’s government, but it may also have been the result of new supplies of silver from the Rhineland and South Germany reaching the market. From at least the beginning of the fifteenth century and probably from the 1380s and 1390s until the late 1460s there was an acute shortage of silver coins in late-medieval England. In 1422 silver levels per head of population had fallen to those of the late twelfth century and only reached those of the mid-thirteenth century by the 1470s, in an economy which had become thoroughly used to coins as the main way of making payments and storing wealth.

Contemporaries were only too aware of the problem and as early as 1379 the Lords and Commons in Parliament asked the king, which meant in practice John of Gaunt, since Richard II was not yet of age, to summon the officers of the Tower mint before him to explain why they were no longer striking any coins of gold or silver, ‘to the great damage of the king and his commonwealth.’ The answers these men gave were almost identical. They said that shortages of coin were the result of the money of England, especially the gold noble, being so strong and that across the sea (i.e., money in the Low Countries) so weak that nobles drained from both Calais and England. Any bullion brought to England was promptly sold to those who immediately exported it in the same direction, thus compounding the loss. Moreover, the money of Scotland was so feeble (quite true) that English silver was much in demand across the border and was replaced by quite evil Scottish groats and pennies. Within England, clipping was so bad that £100 at face value would scarce buy £80-worth of goods at market, which is in itself

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24 Allen 2001, 606–08; Mayhew 1974, 62–8. Estimates of population totals are notoriously changeable but if the pre-plague population stood at five millions, then it was probably 2.5 millions by the mid-fifteenth century and had shown little signs of recovery before 1489: Hatcher 1977, 13–20, 68–9; Allen, 2001, 608, n.92. Allen has recently suggested in a private communication to the author that silver coinage per head was between 38d. and 89d. in 1351; between 18d. and 79d. in 1377; between 5d. and 16d. in 1422; and between 28d. and 48d. in 1470.

25 Munro 1972, 15–16.

evidence of clear understanding of the difference between the face and intrinsic value of coins. If all this continued unchecked, then the greater part of the gold and silver money of England would be lost and what remained would be so clipped that it would be worthless.

How were these ills to be remedied? Ample supplies of bullion for the minting of more coin and for the general well-being of the realm could only be ensured by making certain that the balance of trade was in England’s favour. The country was spending far too much on unnecessary imports. If every merchant importing goods spent as much if not more on English goods for export, and here and elsewhere the target was always alien merchants and especially Italians, then bullion would flow into the land. Exports of bullion, whether in coin or ingots, should be banned and the existing regulations rigorously applied and exchanges to the Court of Rome, should be strictly controlled, as should payments made abroad by pilgrims and clergy. The money of Scotland and Flanders should not be current in England, more halfpennies and farthings should be minted and the noble should be lighter, so that more of them could be struck from the Tower pound of gold and pass into general circulation.27

What followed in the rest of the fourteenth and in the fifteenth century was a series of variations on these themes, with a crescendo in 1429 in the Bullion Ordinance of the Staple, which demanded payment in full in gold or silver for all wool bought at Calais. This enraged the duke of Burgundy since it deprived his mints of the gold and silver they so desperately needed and was a major cause for his change of alliance from England to France in 1435.28 Whether the bullion won by the English in this way was worth the price of that alliance or the subsequent slump in exports from which the wool trade never recovered are almost unanswerable questions. Another high point of protest came in the Parliament of 1439–40 when, after much clamouring by the Commons, aliens living in England for more than six months became liable to a poll tax and alien merchants either resident in or visiting England were made to ‘go host’, that is, be under the supervision of an English merchant to ensure that they spent as much on English goods for export as they earned from the sale of their imports. The statute was supposed to last for seven years, but it was not renewed. Careful examination of such returns as have survived suggest that it was in fact unnecessary: the value of exports and particularly of Italian exports was always far greater than the money earned from the sale of imports. The trade balance was actually in England’s favour for much of this period.29

The crux of the problem, the shortage of silver coins, remained, however, and not all the petitions by the commons in parliament were special pleading. That of 1445 asking for the striking of more halfpennies and farthings sums up contemporary feelings:

To the most worshipful and discreet commons assembled here in this present parliament, may it please your wise and high discretions to consider the great harm which the poor commons of this noble realm of England suffer at this time for lack of half pennies and silver farthings, in so much that men travelling over countries [counties], for part of their expenses must of necessity divide our sovereign lord’s coin, that is to wit, a penny in two pieces, or else relinquish the entire penny for payment of a half penny: and also the poor common retailers of victuals and other small necessaries, for lack of such coin of half pennies and farthings, often are unable to sell their said victuals and items, and many of our sovereign lord’s poor liege people who would buy such victuals and other small necessities cannot buy them for lack of half pennies and farthings on the part of either the buyer or the seller.

The petitioners went on to ask that limitations be placed on the number of small coins used when large cash payments were being made and that there should be a weight reduction in the smaller coins so that more halfpennies and farthings could be struck from the pound of silver.30 They were certainly needed, and in the early fifteenth century Venetian soldini or ‘galley half-pennies’ were in wide circulation in London, in spite of frequent complaints about their worth-
Other foreign coins were also circulated, particularly the imitation gold nobles struck in the Low Countries in what Munro has described as ‘The War of the Gold Nobles, 1388–1402’. They were so near in weight and fineness to the English coins that they were widely used in England, in spite of frequent prohibitions, forming perhaps between 10 and 20 per cent of the circulating medium at the time. Like the pollards and crockards of the thirteenth century, these coins were much criticized in parliament but were much used publicly.

Credit in fifteenth-century England

Shortages of coin due to bullion famines should be factored in to any models of the fifteenth-century economy, to a much greater extent than they have been so far. Continuing low prices are as much a consequence of monetary deflation as they are of falling aggregate demand, for example, yet the role of money is virtually ignored by those who support the population and resources model which Postan first developed over seventy year ago.33 There have recently been some suggestions that shortages of silver might have been offset by the wider use of gold among the population generally. Gold is all too often used as a blanket term for the noble or later the ryal and angel, coins with high face values of 6s. 8d. and 10s. and with a bullion content that made them worth even more. These were far too valuable for every day use, such as the payment of wages or small purchases in the market place. Not all gold coins had these high face values, however. Half and quarter nobles worth 3s. 4d. and 1s. 8d. were also struck until the recoinage of 1464–65, the latter being known as the gold farthing.

The difficulty lies in knowing how many were minted and how widely they circulated. Allen has meticulously examined the evidence from the indentures made with the Master of the Mint for the proportions of denominations to be struck; from the trials of the pyx; from estimated die output; and coin hoards, and is still not able to draw any firm conclusions. There does seem to have been more emphasis in the fifteenth century on striking silver pennies and halfpennies rather than groats, perhaps in response to the parliamentary petitions, but the problem of how many of the smaller gold coins were actually struck remains unresolved. The indenture of 1351 specified a ratio of 4:6:2 ounces, that is 16.7 per cent of nobles, given their heavier weight, 50 per cent of half nobles and 33.3 per cent of quarter nobles from the pound of gold. These ratios theoretically remained in force until 1409 but they do not seem to have been followed by the mint masters, who found no profit in striking small coins, gold or silver. In 1422 the ratio was changed to 8:3:1 ounces, that is, 44.4 per cent of nobles, 33.3 per cent of half nobles and only 22.2 per cent of quarter nobles. Yet the evidence from the trials of the pyx in 1414 and then between 1422 and 1432 at London, Calais and York suggests that theory and practice did not necessarily agree. That for 1414 at London is exceptionally important as it is the only one of the records that explicitly states the quantities of each denomination actually minted. Quarter nobles were being struck at the rate of two ounces to the pound, but the remaining ten ounces was divided between nobles and half nobles in a ratio of about 2:1 by weight instead of the 2:3 ratio of the indentures. Thereafter there is no written evidence of the proportions but at the trials of the pyx for which records have survived quarter nobles represent between 42 and 57 per cent of all the gold coins presented. The smaller gold coins do appear in the hoards, although never in large quantities, with the quarter nobles being more prominent.

Allen’s article raises almost as many questions as it provides answers. Was it simply that more quarter nobles were presented for the various trials of the pyx rather than half or full coinage? Would it not have been cheaper for the mint masters to strike halfs and quarters and then add those to the nobles? Where did the quarter nobles go? Was it to the hoards? Or were they actually struck and then melted down?


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nobles? If not, then why are the quarter nobles not better represented in the hoards than they are, or could that be a function of selection by whoever deposited the hoard? Nothing can be certain, but half and especially quarter nobles do seem to have been more widely in circulation and use than is generally supposed. It would not have taken that long to run up a credit account with a local merchant that could be settled with coin worth 1s. 8d. and yearly rents could have been paid with a mix of gold and silver coins. On the other hand, it is only fair to say that Dyer found little evidence of the use of gold in his examination of single coin finds in the later Middle Ages and indeed little evidence of the use of any coin by the peasantry in the mid-fifteenth century. He was not surprised by this because, in his view, all coins from the farthing and halfpenny upwards then had a purchasing power too great for them to be lost casually. Yet, in spite of all these caveats, the main thrust of the arguments put forward by the monetarist or bullionist historians that there were shortages of coins and notably of small silver coins still seems to hold good.

The most obvious and practical solution to the problem was an increased use of credit. One of the essential underpinnings of late-medieval society was the availability of credit for buying, selling and investment at all levels in society and whilst at times credit may have been squeezed by the bullion famines, it did not disappear completely. Intricate networks of debit and credit still functioned throughout the economy and were used by London and provincial merchants in all branches of their trade, import-export, wholesale and retail, by agrarian landlords and their tenants; and by the peasantry, at least in central and southern England below the Humber. At both Writtle (Essex) and Willingham (Cambridgeshire) there was no one class of ‘lenders’ and another of ‘borrowers’. Credit flowed up, down and across what were mainly horizontal lines of obligation, between social peers, and it followed cycles of borrowing and lending according to the agricultural seasons. Creditors were also debtors, often to the same person to whom they had made loans. There were fewer cases of debt at Willingham than at Writtle, a small market town, but most of them between 1377 and 1458 were for sums of money rather than debts in grain or other goods. Around the middle of the fifteenth century there was a cessation of manorial debt litigation at Willingham, probably due to the increasing ineffectiveness of the manor court in dealing with these matters, rather than as a consequence of the second bullion famine, a phenomenon ‘reasonably familiar from other studies’. The expansion of debt at Colchester in the late fourteenth century was due to economic expansion and thus greater availability of credit, rather than a reduction in the money supply, according to Britnell, whilst commercial growth in Exeter during the prosperous decades after the Black Death made it easier to extend credit at all level in the wholesale and retail trades, so that 65 per cent of all pleas held before the mayor’s and the provosts’ courts concerned debt.

Could the increased use of credit have offset the effects of monetary contraction in the fifteenth century? Hatcher argued so in 1977 and Bolton followed him in 1980 by rashly asserting that ‘credit freed trade from the limitations of the money supply’. This rashness was severely punished in 1990 by Nightingale who asserted and continues to assert that the availability of credit was closely linked to the money supply. She bases her argument on evidence drawn from the debts of over 800 London grocers, spicers and apothecaries, members of the Grocers’ Company of the City of London between 1350 and 1440. They included some of the richest merchants in the capital who imported and exported on a large scale and who incurred debts of up to £2,500, as well as small retailers and shopkeepers. The surviving records chiefly refer to the transactions of the more prosperous merchants with higher levels of credit, ranging from an average £31 per head between 1400 and 1409 to £99 in the 1420s, which can be compared to the average of all credit transactions in Colchester in the same period of between

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36 Clark 1981, 255–6, 268–71; Briggs 2006, 555; Briggs 2008a, 11–24; Briggs 2008b, 421–2; Briggs 2009 for further discussion of all these issues.
£36 and £61. ‘These men’, Nightingale argues, ‘were among the more important merchant capitalists, and, since their internal trading accounts extended from Yorkshire to Cornwall, their pattern of credit and debit had an influence on the whole mercantile economy of the kingdom.’ Nightingale then uses this evidence to demonstrate that the expansion and contraction of credit or, perhaps better, its availability, was directly linked to fluctuations in the supply of new bullion brought to the mint by overseas trade. When that supply was reduced, the extent to which credit could finance industrial or commercial expansion was dependent partly on the reserves of cash merchants could call upon, partly on the extent to which they were willing to invest in trade to the exclusion of other interests such as property, and partly to the degree to which they could substitute the exchange of goods for settlements in cash. Since the Grocers dealt in dyestuffs and other raw materials essential for the expanding English cloth industry, any contraction in the credit they could offer the manufacturers in all but ten years in the 1380s had serious consequences for that industry’s development and for the national economy. Shortage of coin concentrated capital and enterprise in far fewer hands and the money supply thus provides a vital key to the structural change in the European economy which took place in the fifteenth century.

Nightingale’s article has, rightly, provoked an on-going debate about the consequences of bullion shortages for the late-medieval coinage and thus for the economy. Impressive though her argument is, the evidence on which it is based is not as solid as it might seem. It rests on an analysis of the certificates of debt that have survived in the National Archives as a result of what are known as statute staple recognizances or, more simply, statutes staple. The provision for the statutory registration of debt began with the Statutes of Acton Burnell (1283) and Merchants (1285). They were the first stages in a system for the speedier collection of what were supposedly mercantile debts. To make both registration and collection easier, the Statute of the Staple of 1353 extended the registration of such debts beyond London to the courts at Newcastle upon Tyne, York, Lincoln, Norwich, Westminster, Canterbury, Chichester Winchester, Exeter and Bristol. Debts were formally registered before the mayor and the clerk of the staple of the designated town and if debtors defaulted, they or their goods could be seized straightaway to enforce payment. Should the debtor or his chattels not be within the town’s jurisdiction, then creditors could deposit a certificate of the debt in the Chancery (effectively by this time at Westminster) which would authorize the issue of processes for the imprisonment of the debtor and the seizure of his goods and chattels anywhere within the realm.

Most of the actual recognizance rolls have not survived, which is why Nightingale has to rely on the certificates of debts deposited in the Chancery. They are, however, evidence of failure to recover a debt, making it necessary for the creditor to go to law. What proportion of debts registered they represent simply cannot be known, whatever statistical methods are applied to the evidence. This may not be an over-riding objection to the use of the certificates as evidence for fluctuating levels of indebtedness. Medieval historians have to use the sources that survive and accept their limitations. Secondly and more substantially, however, by the late fourteenth century the statute staple recognizance had become the preserve of non-merchants who used them to register loans and penal bonds rather than straightforward commercial debts. It was Postan who first argued this in his pioneering work on private financial instruments published in 1930, where he claimed that from the start one of the principal uses of the recognizances was not the recovery of actual debts but the creation of a penal sum to ensure the performance of a contract such as a marriage settlement, a property transfer or the terms of a will by the executors. Beardwood made much the same point in 1939, stressing that only 15 of the 243 cases on the Coventry statute staple roll for 1392–1416 involved debt, but Nightingale dismisses this claim. Postan, she argues, should have gone beyond the two recognizance rolls

for the City of London to the records of the Westminster Court established by the Statute of the Staple of 1353 to which London merchants went to register their debts. None of the recognizance rolls for that court have survived, however, and the certificates of debt in the Chancery, which do not give the full details of the case, are of little help in establishing whether it was commercial or not. Two more recent studies have strongly suggested that Postan was right. Kowaleski, in her analysis of the cases coming before the Exeter court in the late fourteenth century, argues that they were mainly non-mercantile in nature whilst McNall has concluded that from the very beginning of statutory debt registration in 1283 to the end of Edward I’s reign in 1307 the cases were never predominantly mercantile. Parties from all walks of life, religious and secular, used the recognizances as a way of guaranteeing or underpinning other types of transactions, from property transfers to marriage settlements.44

Doubts continue about the use of these certificates of debt as a measure of the amount of commercial credit extended at any point. Kowaleski raises two other important issues, that the sums demanded by them often included the proceeds of a penal bond to twice the face value of the original transaction which would be levied if the debtor defaulted on his obligation and that taking a case to Westminster was expensive when compared with the costs of settling the action in a local court. This would not necessarily invalidate Nightingale’s figures for debt but they would need to be adjusted downwards. Kowaleski’s second point raises the more serious objection. Taking a case to Westminster was expensive and was probably an extreme step aimed at forcing the debtor to go to agreed arbitration by a third party or parties and an out-of-court settlement. Only the wealthy would make use of this process and then after some thought. The majority of merchants and traders almost certainly took their cases to their local courts where, as at Exeter, debts of between 1d. and £80 might be settled by a licence of concord costing no more than 2–3d. and in a space of a few weeks rather than months or years. The staple towns were, in any case, spread thinly around the country and many areas were not covered by them. Small wonder, then, that the greatest users of statutes staple were the Londoners.45

There were other more practical drawbacks to the use of these enrolled recognizances. In spite of all their good intentions, they did not offer a speedy way for the recovery of debts nor were the written instruments themselves either assignable or negotiable. Since an understanding of assignability and negotiability is essential to this discussion of a society trying to cope with the monetary problems of the later middle ages, definitions of both terms are required. Assignment means passing over a debt owed to you in payment of a debt you owe to a third party. Put simply, A owes £10 to B and has acknowledged this in a written instrument. Debts could still be contracted orally and much of the business of manorial courts that heard cases up to the value of 40s. involved agreements of this nature.46 Written agreements gave better security to the lender, however, and they also gave greater scope for assignment. In the hypothetical example just given, B might find himself short of cash but indebted to C for the amount owed to him by A. He would then make-over or assign the written instrument of debt to C who would then expect to collect the money from A on the due date. Negotiability takes the process one stage further. Most credit transactions were for short periods, usually for less than a year and sometimes for only a few months. When credit was extended for a longer period, then the creditor might well find himself in need of cash, to pay taxes, to fund another venture or simply to pay his own debts. One solution might be to sell the debt on to a third party for less than its face value. The amount raised would depend on various factors, notably the length of time before the debt became due and the known trustworthiness, or lack of it, of the debtor. In both cases, it would be essential for the person assigned or buying the debt to know that, if necessary, he could enforce the contract at law, that he would have the protection of the courts.

This is an important issue on which there is no general agreement but an acceptance that the practical need to pay debts to others or to raise cash for immediate purposes made assignment, at least, a common practice. For the moment, however, the immediate point is whether statute staple recognizances were either assignable or negotiable and the answer is surely ‘No’. Postan’s original argument remains true, that the easiest way of assigning a debt is to transfer the original instrument. An entry on a roll could not be transferred except by a new and similar entry. This might not matter where large sums and long terms of repayment were involved but for ordinary transactions a more informal and transferable instrument was needed. Statutes staple were used for what might be called investments and securities where legal protection was vital. For everyday use and increasingly in the fifteenth century the short, written bond, less secure than the staple recognizance but assignable, provided the answer to most contractual needs and not just those concerning debt.

It is not difficult to see why the bond emerged as the most practical financial written instrument of the later middle ages. It was short and completely to the point. In its first form the debtor simply acknowledged that he or she (A) was bound to the repay the creditor (B) an agreed sum either in full on a specified day or by instalments on other named days. There is no mention of interest because by canon or Church law the taking of interest was illegal. However, it is quite possible that the sum to be repaid was greater than the sum actually owed, making it very difficult to calculate interest rates. In any case, they would certainly have varied according to circumstances that would have included the length of the loan, the perceived ability of the debtor to make the payment when it fell due and the ‘tightness’ of the money market when the loan was made, that is, the strength of the demand for credit. In years of bad harvests, distress borrowing might push interest rates up to 25 per cent per annum, even on small loans of less than 20s. In and around Romford, Essex, about 18 miles from London, interest rates seem generally to have been around 10 per cent throughout the late medieval and early modern periods and that, interestingly, was the upper limit for what was considered non-usurious in the statutes of 1545 and 1571. International commercial rates seem to have been a little lower. Thomas Canning, a wealthy London grocer, borrowed the equivalent of £110 sterling in the Low Countries in September 1438 for which he repaid £115 14s. 9d. seven months later in London, a rate of 8.9 per cent. These are only random examples and calculating true interest rates in the fifteenth century would be difficult if not impossible. All that can be said is that interest was certainly charged in most cases and indeed was licit (allowed) by canon law if the lender suffered damages or incurred expenses as a result of making the loan, terms which were subject to broad interpretation.

As with statutes staples, bonds were used for many purposes from their very beginnings: to enforce the settlement of disputes, agreements over tithe payments, marriage contracts, the transfer of title to land and the performance of services or contracts, as well as acknowledgement of debt. It was therefore a logical development to attach penalty clauses to them, either in a separate document or with what is called a conditional defeasance, the penalty to be levied if the terms of the bond were not met, endorsed on the back of the document or included within the document itself. Eventually it became the standard practice for the penalty to be twice the value of the original bond, £20 for a £10 bond, for example. What turned a bond into a ‘specialty’ was a seal, that guarantor of the legal probity of a document in the middle ages. It gave the instrument authenticity in a court of law where discussions centred around whether the documents in the case were genuine rather than whether A actually owed the sum of money claimed by B.

Penal clauses first appeared in English contracts and conveyances in the early thirteenth century. Thereafter they quickly came to be used in a wide range of other deeds. At first they
were contained within the documents themselves but were later enrolled separately on the Plea, Exchequer and Chancery rolls. The enforcement of contracts became a political and social issue after the Black Death, as the ordinance and Statute of Labourers show. Palmer argues that creditors were now favoured over debtors in law, a reversal of the previous situation, and that this made the short bond, with its penal clause, more and more attractive for a whole range of uses and users. The immediate question, however, is whether use of the bond could help merchants and others work their way around the problems posed by increasing shortages of coin. There were always those who would lend: other members of the family, neighbours, business partners, clergymen, knights, ecclesiastical houses, syndicates of merchants and nobles, with exactly the same groups needing to borrow. Lines of vertical and horizontal obligation, of credit and debt, ran through society. Land could be mortgaged and for merchants and others borrowing could be secured by what are known as gifts of goods and chattels. They became common in London from about the 1430s and by them, the donor made a gift of all his personal property to a group of two or three friends or associates, often to secure a loan or an advance of credit. In case of default, they would be able to recover their assets quickly and easily. The drawback was that such gifts were usually enrolled, in the case of London either in the mayor’s court or in the Chancery, where they were entered on the Close Rolls. Nor was it a particularly safe way of borrowing. The creditors might claim more of the goods and chattels than was due and enrolment was a time consuming and, in the case of the Chancery, an expensive business.51

It was the bond, either in its simplest form or, more securely, sealed and with penal clause that showed the way forward, as Nightingale admits in her important study of the London Grocers’ Company. Although gifts of goods and chattels might be the easiest way for young men or those of doubtful financial standing to raise credit, the shortage of coin obliged merchants to seek more flexibility than was offered to them by the recognizances of debt they were accustomed to register at the borough and staple courts. What the new monetary circumstances demanded, she argues, was the means of transferring debts to third parties with full legal protection and therefore an alternative to payment in coin.52 This is certainly too narrow a focus since the majority of bonds were not concerned with credit but with the performance of other covenants or contracts. Nevertheless, this is an important admission by a leading monetarist historian that the assignable bond could at least mitigate the shortage of credit caused by lack of coin.

The key point, however, is assignability and whether the third or fourth party assignee was given the protection of the courts. In real life, bonds were assigned by one party to pay debts to another, as Postan long since showed.53 The critical question is whether the assignee was given protection at law and the answer has to be a qualified ‘No’. The English common law courts did not recognise assignment, unless it was formally done by a clause in the document saying that payment could be made to a third party, an ‘attorney’. Such clauses often had to be accompanied by a separate letter appointing such an attorney. The notion that a bond might be paid to the bearer or to other parties not mentioned in the original document received no support at common law.54 Courts where the law merchant was practised, such as the mayor’s court at London, other city and borough courts and fair courts, do seem to have protected assignment, however,55 as did the Chancery which emerged in the fourteenth century as a court of reason and conscience that dealt with cases brought as a result of a petition to the

51 Palmer 1993, 59–135 passim; Biancalana 2005, 212–42; Jones 1954, xxii–xxviii; Tucker 2007, 67–70, where she shows that it is impossible to determine how much private business was done in the Mayor’s Court after 1307 because of selectiveness in enrolment (150). It is another powerful argument against quantification of credit.
52 Nightingale 1995, 476.
53 Postan 1973, 40–54 where he also discusses other assignable instruments such as debentures of the Company of the Staple at Calais and bills of the mint at Calais.
54 Munro 1991, 63–71. The important AHRC-funded project ‘Londoners and the Law in the later Middle Ages’ has sampled cases in the Court of Common Pleas (TNA: PRO CP 40) in the fifteenth century. Many involved bonds but there is so far little evidence of assignment of debt; information from Dr M Davis and Dr H. Kleineke, Institute of Historical Research, School of Advanced Study, University of London.
Lord Chancellor, often stating that the petitioner had no remedy at the common law.  

Had the records of this court survived in a continuous and complete series, then the question of assignability might be solved once and for all. Alas, they have not but what is left of them suggests strongly that Chancery did offer protection to the assignee and to the debtor who claimed that he had repaid the principal sum owed or performed the services required but had failed to ensure that the bill or bond was then destroyed. That was essential. If the original document was not slashed through or completely destroyed then another claim might be made upon the debtor.  

'The development of negotiable bills made credit more flexible', Nightingale argues, 'but could not prevent it from contracting in line with the falling supply of money.' Again, this may or may not be true because the total volume of credit offered through bonds cannot be measured, since most of them were destroyed when the debt had been paid. It is also worth considering here what Kerridge wrote in his study of trade and banking in early modern England: 'Englishmen habitually made or set over their debts; creditors regularly assigned bills obligatory ... to settle counter debts, enabling payment without coin [my italics]. Men went on settling debts one against the other until they found someone able and willing to pay cash and so end the credit chain.' What Kerridge describes here is a form of paper money and he echoes Postan's words of nearly half a century earlier: 'A financial instrument which could change hands so many times, and apparently without formalities or additional documents, almost deserves the name of “currency.”'  

This should still give us pause for thought. Transferable instruments did more than make-up for shortage of coin. They also offered ways of payment without coin having to change hands and debts without or without specialty formed part of many a merchant's estate in the late middle ages. Their one limitation was that the transactions recorded were essentially personal, between party and party or parties, such as a syndicate or family members. There were apparently no banks or bankers to act as institutional guarantors for payment or to make the loans themselves. Everything depended on the personal assessment of debtor's credit-worthiness so that credit was linked to personal rather than institutional networks.  

Banks did actually exist in fifteenth-century England but they were run by Italians, the Alberti, Bardi, Borromei, Contarini, Medici, Salviati and others, whose international and financial connections allowed them to transfer money from one country to another by way of exchange. This made it possible to borrow money in one country in one currency and to repay in another in the local currency. So Robert Elmham, the attorney or agent in the Low Countries of John Derham, mercer, was the taker in a bill for £55 flemish on 22 November 1438. The money, in cash, was delivered to him by the Borromei company in Bruges and was to be repaid in London by Derham to the Borromei company in London at usance of one month, the settlement date being the following 22 December. The exchange rate was 88 groschen per English noble of 6s. 8d. which would mean that Derham had to pay the Borromei in London £50 sterling. Derham's account in the London ledger records the arrival of this bill on 27 December when he promised to pay them the agreed sum. In fact he had already started his payments on 10 December and by 31 December had paid over all but £22 sterling. This sum was carried forward to his account for 1439 and settled in cash on 7 January (£12) and 22 January (£10). Effectively he had had a loan of £55 flemish in the Low Countries from 22 November 1438, with the last instalment being repaid in London on 22 January 1439 over two months later.  


57 The surviving records of the medieval Court of Chancery are to be found in TNA, PRO, Class C 1. Haskett 1996, 281, explains that as the Chancery was not a court of record, there was no need for any of the evidence brought before it to be kept. Nor there any surviving books of decrees (decisions) made by the Chancellor.  


59 Kerridge 1988, 40–1; Postan 1973, 49.  

60 Thrupp 1962, 109. Collecting debts without specialty was often difficult.  

61 ABIB, BBr fol. 348.2; BLon fols 260.1, 292.4.
Exchange banking, as it is called, avoided both the Church’s laws against usury and the ever-growing body of legislation prohibiting the export of bullion, which Munro has studied in detail.\(^62\) There do not seem to have been any banks run by Englishmen, however, keeping current accounts for their clients and then making payments for them to other clients by book-transfers across accounts or by paying cash on legitimate demand. London appears to stand in sharp contrast to Bruges and Antwerp where money changers and hostellers (innkeepers) accepted deposits from clients, made payments for them to other clients and engaged in exchange transactions across Europe.\(^63\) Such banking services, operating on the fractional reserve principle, were not to be found in England until the London goldsmiths started taking money on deposit in the late seventeenth century, or so it is often argued.\(^64\)

This interpretation should be treated with caution. The Borromei bank in London did offer its London clients, all 180 or more of them, drawn chiefly from those engaged in the export trade but also from leading wholesalers and retailers, the ability to settle their debts across accounts by book transfers, as well as exchange loans and transfers between the capital and Bruges, Antwerp, Middleburg and even Venice. The English clients could settle their debts to the bank by making payments on its behalf to other clients, mainly Italians, to whom the Borromei owed money. More than this, the bank also helped finance their trade by allowing them credit, in most cases for less than a year but sometimes over two, three or four years. This could all be done in the 1430s at a time of growing coin shortages when the grocers of London, some of them major clients of the bank, were apparently suffering from the effects of a severe credit squeeze. The Borromei were not limited by shortages of coin in England when they granted the Londoners credit. They could draw on the Venetian money market to finance their activities in northern Europe, in the almost certain knowledge that they could sell their wool and cloth exports in Iberia and Italy for prices high enough to cover their costs and make a profit. What this meant in practice was that the credit they extended to the Londoners was not limited by contractions in the English money supply.\(^65\)

The Borromei were only one of four or five Italian banks with branches in London in the 1430s. They certainly seem to have given the capital’s merchants an edge over their provincial rivals when it came to access to credit, as Kermode has argued.\(^66\) This can be seen in the ledger of Filippo Borromei and company of London for 1436. The bank opened for business in the early March of that year with a capital of £1,431 13s. 4d. sterling, transferred from the Bruges branch. Between March and 31 December 1436 the turnover of all the accounts amounted to £28,630. Most of this was book money, since the turnover in the cash account for that period was only £2,189.\(^67\) It is true that the Borromei could draw on money markets across Europe from Venice to Cologne for funds, which gave them a distinct advantage over their English rivals who traded mainly to the Baltic, where credit and exchange were strictly controlled, or to the Low Countries and the Iberian peninsula, where they were not. But all English merchants taking wool to the Staple at Calais or cloth to the fairs in Brabant, whether they came from London or not, were fully capable of writing their own bills of exchange, of borrowing in the local currency from a English merchant with funds in Antwerp, Bergen-op-Zoom or Middleburg and then repaying the money on a specified date in sterling in England, and of making over debts at Antwerp.\(^68\) This is little more than the use of the bond for exchange transactions and we should perhaps be a little more wary of talking about ‘English backward-


\(^{64}\) Fractional reserve banking is where the bank holds a liquid asset such as cash in just sufficient quantities to cover likely withdrawals. It then lends out the rest of cash, at interest, to borrowers, thus creating credit. Credit creation in this way is held to add to the money supply in all but its narrowest definition, M(0). The London goldsmith accepted deposits and issued the depositors with notes which then circulated as a form of paper money: Melton 1986, 41–2.

\(^{65}\) Nightingale 1990, table 3, 567; the Borromei London ledger shows that Thomas Cannings, grocer, was granted £806 credit over three years by the bank and Thomas Hawkyn £448 over two years. These figures should be compared with those in Nightingale’s table. They may give pause for thought.


\(^{67}\) Calculated from ABIB BLon, March-December 1436 by Dr F. Guidi Bruscoli.

\(^{68}\) Power 1933 68–9; Sutton 2005, 302–11.
ness in the absence of any English mercantile accounts. There are no signs in the Borromei ledgers that such bills were assignable or negotiable but for once that is of no matter. London merchants were able to use the Italian banks for money transfers to and from the Low Countries to finance their trade, but they and others were also quite capable of managing without their services and writing their own bills of exchange, drawn either on a correspondent or on their own servants resident in Brabant and Flanders.

The value of English exports was only a fraction of the value of all English trade, however. Most production was for the internal market which was probably more highly integrated in the fifteenth century than it had been in the thirteenth. Manufactured goods that could not be produced in England or those for which demand outran supply, as well as dyestuffs, spices and Mediterranean fruits, expensive and inexpensive cloth from Italy, South Germany and the Low Countries, were imported and redistributed from London, Southampton and, until the late fifteenth century, Sandwich, along with a host of other ports whose trade across the Channel and the North Sea may be difficult to estimate but should never be overlooked. Towns also had to be fed and supplied with raw materials, even if total urban demand did fall in line with the halving of the population by the mid-fifteenth century. Lines of credit and debit ran across England, from the ports to the provincial markets and fairs, from town to countryside and back again. Some have now been studied in depth, such as those created by the grocers and mercers of London and the merchants of York, Beverley and Hull in the north east and Exeter in the south west. Others are currently being investigated but, as yet, there is no overall analysis of how internal credit worked, in the sense of how dependent it was on the use of coin.

Here it is useful to look forward in time and consider the model provided for us by Kerridge in his study of early modern inland trade. He argues that by the mid-seventeenth century hybrid bills and bonds had come into use, combining the promise to pay of the bill or bond obligatory with an order to pay. It was no more than a bill of exchange here used for inland rather than overseas trade. A factor or agent might give a receipt for payment in which he undertook to pay the money over to a third party, so that A delivered a certain sum in sterling to B who undertook to repay it on a certain date to D through C. This was a combined receipt, promissory note and inland bill of exchange and was much used by ‘country’ suppliers who built up credit balances with factors or merchants in London and used them to buy raw materials and other goods, paying for them by deductions from their accounts. These agents also lent out a fraction of the balances they held to other London businessmen at an annual rate of nine or ten per cent interest. As early as 1576 current accounts were also being provided by London scriveners who received payments on behalf of their clients, distributed moneys as authorised, paid interest on deposits and occasionally allowed overdrafts. These men were bankers in all but contemporary name which was still reserved for those who dealt in foreign exchange.

This was the banking system used in sixteenth- and seventeenth-century England by merchants, traders, manufacturers and suppliers as their principal means of payment. All held accounts in London and they paid one another by transfer from one account to another by what became known as the bill on London. Funds could be transferred from London to provincial towns using the same system, through the banking facilities offered by merchants in various commercial centres. Not all payments could be made through this credit system. Some balances were settled by the transfer of specie and not everyone participated in the network. Only a minority held bank accounts but debts could be discharged by making payment in coin to the creditor’s banker, to the use of the creditor. Another shortcoming of this and every other credit network based on bills of exchange was that because each increase in the amount

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in circulation by bill diminished the resources of the market, the negotiation of further bills was made more difficult. Cyclical shortages of bills were inevitable, given seasonal fluctuations in trade and payments. Nevertheless, English internal trade between 1560 and 1660 was mainly conducted by credit and the financial instruments chiefly employed were the old-established bills obligatory and the newly invented inland bills of exchange, the majority of both being informal until the legal developments of the second half of the seventeenth century.\(^73\)

The essential framework of the credit network described by Kerridge and Muldrew was already in place in the later middle ages. Their evidence is skewed to some extent, because is a view from the top, mainly demonstrating what happened at national and regional levels of trade and ignoring the most important local levels, where informality and oral contracts often prevailed.\(^74\) Yet it is at the top level that the debate on the use of written instruments of credit is conducted and there are some useful comparisons to be made between the late medieval and early modern periods. Most historians now accept Nightingale's argument that by the fifteenth century London had assumed the full role as the economic driving force in the English economy. The city, with its outports at Southampton and Sandwich, handled most of the country's overseas trade. Its merchants redistributed imports or sold them to provincial chapmen who then re-sold them to local communities. Wool exports were bought directly from the woolmen in the countryside whilst the main market for cloth for export was at Blackwell Hall in London, although direct contracts with provincial clothiers were also important. Britnell suggests that one of the most lasting consequences of the 'Great Slump' of the 1450s and 1460s was to starve out provincial towns from access to funding and to consolidate the Londoners' hold over credit networks. Keene's survey of debt cases brought before the Court of Common Pleas shows that as early as 1424 London's commercial links had extended far beyond the south east, into the Midlands and the North, however, and that the city was already the hub of the main internal credit network.\(^75\)

This is a tentative argument, but there is other evidence to support it. As in the sixteenth and seventeenth century, it was not necessary to be an account holder to participate in the system. The Borromei bank in London was only too happy to sell fustian and silk cloth to any Londoner who was prepared to pay cash and sometimes allowed them short-term credit of a few weeks. In much the same way, those who did not keep accounts with the bank could pay in cash to settle their debts with those who did. Clients could pay cash from their accounts to settle debts to third parties and one of the most surprising aspects of the current research into the activities of the Borromei banks in both Bruges and London has been the large number of 'outsiders' who had dealings with them.\(^76\) This may be atypical evidence, but making over debts to cancel other debts and local credit networks were to be found everywhere.\(^77\)

At Romford, some eighteen miles from London and so near enough to the capital to be influenced by its pull but sufficiently far away to have an economic life of its own, 'any two people might build up a number of outstanding debts to each other. As long as goodwill between the individuals remained firm the balances could go uncollected for years. When the parties chose to settle on an amicable basis, they normally named auditors who totalled all the current unpaid debts and detinues and determined the sum which had to be paid to clear the slate. If trust between the parties broke down, the complainant could bring suit in the Havering court, which had jurisdiction over all agreements made within the manor.\(^78\) Mutual cancellation of debts meant far less reliance on coin and these simple but effective methods were all part of the largely unrecorded credit networks that ran through town and countryside alike.\(^79\)

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\(^{73}\) Kerridge 1988, 45–50, 75.

\(^{74}\) Dyer 2005, 193–4; Dyer also argues that access to credit became ever more crucial for the emerging class of farmers managing their own estates and seeking to enlarge their holdings, ibid., 122, 189–90, 200.

\(^{75}\) Dyer 2005, 192–3; Nightingale 1996, 89–106; Keene 2000a, 57–81 and especially Fig. 4.1 at p. 60 and Fig. 4.4 at p. 70.

\(^{76}\) The Borromei Bank Research Project is based in the School of History at Queen Mary, University of London. The ledger of Filippo Borromei and company of Bruges for 1438 is now online at www.queenmaryhistoricalresearch.org. The corresponding ledger of the London branch for 1436–39 will also be made available online at this site.

\(^{77}\) See, for example, Dyer 2005, 193–4 and Dyer 1992, 149–53.

\(^{78}\) McIntosh 1988, 561.

\(^{79}\) Dyer 2005, 180–90.
Much did depend on the use of the written record and the written account, however. As far as accounting is concerned, the difficulties of the evidence, or rather the lack of it, make any judgment as to whether there were significant advances in this area nigh impossible. There is nothing to suggest that the double-entry system was widely adopted, or even adopted at all. The Southampton town accounts were briefly kept in this way, but the first surviving ledgers of English merchants from the late fifteenth and early sixteenth centuries show double entry being used in a very simple or, perhaps better, a very crude way. Too much can be made of this apparent lack of progress. Double entry suited the Italian merchants trading from the Mediterranean to northern Europe who needed to keep track of multiple business ventures and, in the case of banks, to report back their profits to the partners in the enterprise. It was not necessarily as useful to a small merchant in midland or northern England, or in London for that matter, whose trade was local and usually with a known circle of contacts. Here the charge/discharge method, best described as a list of credits and debits which could be resolved in ways already described, was more than adequate.

The ability to read and write and to number or to have access to someone with these skills became more essential at all levels of society as the use of the written instrument increased. There has been much discussion of the growth in the number of schools and thus of literacy in late medieval England. In London there was possibly a 50 per cent literacy rate although whether that means the ability to both read and write is uncertain. It was probably not as high in provincial towns or in the countryside generally. For the wealthy, a business education was available at Oxford in the late fourteenth and early fifteenth centuries. Young men, and as far as can be seen exclusively young men, would be taught the arts of estate management, how to keep a manorial court and draw up accounts. Wealthy peasants were keen to send their children to school and merchants were required to teach their apprentices to read and write and if they did not so could be sued for a return of the apprenticeship fees paid to them. During the fifteenth century English finally emerged as the national spoken and written language, although there were still wide regional variations in pronunciation, spelling and grammar. This made communication easier across all levels of society which in turn made internal trade much easier. If all this sounds too euphoric, then the work of Nicholas Orme provides the necessary antidote. His most recent work on medieval education warns against over-exaggerating the extent of education and therefore of literacy. There were some who made their lack of reading clear: in a Chancery case in 1448 over a penal bond for £10 Walter Parkes of Liskeard (Cornwall) said that he was a man ‘minime literatus’, scarcely literate, and that the obligation was read to him and had been expanded (explained) in English. It was only when that had been done that he sealed the bond.

This illustrates an important point about late-medieval English society. There was always someone, somewhere who could read and write and who, either professionally or from friendship or kinship, could draw up deeds, bills or accounts and read them back to the ‘scarcely literate’. The role of scriveners, notaries and notaries imperial in English commercial life has not yet been fully investigated. It should be. There were at least 30–40 scriveners working in London in each decade of the fifteenth century, in addition to the clerks employed in the royal administration who undertook a great deal of ‘private’ work for cash. A very preliminary survey suggests that there were scriveners in most towns of any size so that there would be easy access to a professional scribe for country dwellers. These men were not lawyers but they knew the correct formulae for bonds, wills and countless other documents. They could draw up a bill obligatory from either written or, more importantly, oral instructions and then read it back to the parties involved to confirm that was what they wanted. This may well have been

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80 See, for example, the ledger of Thomas Howell, 1517–28, in the archives of the Drapers' Company of London and the ledgers of Sir Thomas Kyto, Hengrave Hall MSS., Cambridge University Library.

81 The workings of the double entry book-keeping system are described in detail in the Introduction to The ledger of Filippo Borromei and co. of Bruges at www.queenmaryhistoricalresearch.org.

82 Orme, 2006, 253–4, 339–43; TNA: PRO, CP 40/740, rot. 119. For a similar instance of a man claiming to be ‘minime literatus’ see TNA: PRO, CP 40/781, rot. 329. I owe these references from CP 40 to the kindness of Dr Hannes Kleineke of the History of Parliament, along with the pleasure of long conversations about debt in late-medieval England.
what happened when peasants bought and sold customary land on the manor of Great Horwood in Buckinghamshire, as Tompkins has recently shown. 83 Whilst it is dangerous to use one example to prove a general point, it is equally dangerous to believe that there was no legal advice to be had in the countryside at large.

Competence was essential since the written document carried the weight of proof in the law courts. A mistake in drafting could prove fatal, especially after the Statute of Additions of 1413 which required the correct recording of the personal status of the parties involved in any action. If it could be shown that this was incorrect, then the action failed. But some scriveners and notaries may have had a more significant role in credit transactions than simply writing the bonds obligatory. Did they act, as they did in the seventeenth century, as money lenders and bankers? It is noticeable how often they appear in the gifts of goods and chattels recorded in the mayor’s court of the City of London and on the Chancery Close Rolls. Perhaps it was because they drew up the necessary deeds of gift but they may also have been involved in the transactions themselves. Lawyers, also a growing class in the late middle ages, may also have performed much the same functions as scriveners and this uncertainty makes the debate on the use of the written credit instrument as an alternative to coin all the more interesting.

Conclusions

Comparisons between the early-modern banking system described by Kerridge and what is known of the credit market in fifteenth-century England should not be overdrawn, however. Too much had changed between the two periods in both monetary and economic terms to allow that. Yet it is a worthwhile exercise because it has pointed us towards a series of inter-related conclusions: namely that the totality of the credit market can never be satisfactorily measured; that using statute staple certificates to link fluctuations in the availability of credit firmly to the money supply may be misleading; that linking the availability of credit simply to the English money supply may be equally misleading; and that a society in an age of transition or structural change used all its resources to try to find ways round the problems created by shortages of bullion and most notably of silver. At times there must have been great difficulties in buying and selling for the majority of the population, especially in the 1450s and 1460s, but this was not in the main a society held back by an inadequate money supply. Indeed, it is time to look again at the money supply and to ask the question, did it consist simply of the amount of coined money in circulation or should we accept that it was being augmented, in practice, by viable forms of ‘paper money’? Eighty years ago Postan thought we should and it is surely time to acknowledge that he was right. That being the case, then, like reports of Mark Twain’s death, the ‘crisis of credit’ in fifteenth-century England has been much exaggerated.

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