# The non-use of money in the Middle Ages 

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# 12 <br> The Non-Use of Money in the Middle Ages* 

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## Introduction

The three key functions of money, according to modern economic theory, are as a medium of exchange, a unit of account and a store of value. There is no intrinsic reason why these functions have to be performed by coins. As Peter Spufford has cautioned, 'it is all too easy of the study of money in the Middle Ages to be focussed on the actual coins themselves. Coins were, of course, only a part of the money supply. In the earlier Middle Ages they were supplemented by a variety of other transferable objects ... from the twelfth and thirteenth centuries, coins were already supplemented in some parts of Europe by holdings in the public debt and by deposits with merchant societies or money-changers. These were transferable, by entry in the books of the merchant societies and mon-ey-changers or those of the officials of the monte, by bills of exchange, and, from the fourteenth century, by cheque'. ${ }^{1}$ Today, the 'broad' money supply (M4) in the UK is estimated at $£ 2.10$ trillion, of which $£ 1.47$ trillion is classified as retail holdings. Of these retail holdings, only $£ 60.2$ billion $(4.19 \%)$ is in the form of notes and coin, with the remainder held in bank deposits. Moreover, the face value of the British coinage in March 2014 was only $£ 4.01$ billion ( $6.66 \%$ of the total value of notes and coins). Thus as little as $0.19 \%$ of the modern money supply takes the form of coin. ${ }^{2}$ Of course, the situation was radically different in medieval England but it is interesting to speculate on the potential for other mechanisms (most notably credit in its various forms) to supplement the coinage within the money supply.

The use and extent of credit rather than coin within the medieval economy is therefore a key question. It has particular relevance for the debate about the consequences of the bullion famine of the later Middle Ages, namely did the shortage of specie lead to a contraction of credit, or could the use of credit expand to compensate for the shortage of physical coins? Jim Bolton, John Hatcher and Mark Bailey have suggested that the use of credit could increase the velocity of transactions within the economy and maintain economic activity even when the supply of coined money was falling. ${ }^{3}$ On the other hand, as Spufford has recognised, 'the acceptance both of payment by a bill of exchange on an international level, and of payment by a transfer in the books of a bank, depend in the last resort on the trust and expectation that coined money will be forthcoming if asked for. If there is no such expectation, there can be no credit'. ${ }^{4}$ Pamela Nightingale has demonstrated a decline in both the number and aggregate value of Statute Merchant and Statute Staple debt recognizances during the late fourteenth and the fifteenth centuries, coinciding with the decline in mint output. She concludes that 'the volume of credit relied on creditors' perceptions of the degree of liquidity in the whole economy, and this depended fundamentally on the availability of silver coin'. ${ }^{5}$ Therefore, 'credit in medieval England expanded and contracted with the supply of new bullion brought to the

[^0]mints by overseas trade ${ }^{9} .{ }^{6}$ Unfortunately, given the lack of hard quantitative evidence for the use of credit within the medieval English economy, it is not possible to advance a definitive answer to this question. Instead, this chapter will introduce and discuss the evidence for the various ways in which credit or credit instruments were used in the medieval economy.

## The use of credit in international trade

The majority of scholarly attention has focused on the use of credit in international trade and on one type of credit instrument in particular, the bill of exchange - in effect the medieval FX market. In fact, the bill of exchange has proved so useful that it is still frequently used today. Figure 12.1 is based on a diagrammatic representative of a bill of exchange taken from a modern finance textbook, onto which has been super-imposed the participants in an early bill of exchange between Bruges and Venice in 1360. ${ }^{7}$ The taker or seller, in this case Giacomo Gabrieli, received gros tournois at Bruges in October from Piero de Don of Lucca, the deliverer (buyer or remitter). Giacomo gave a bill of exchange made to his correspondent in Venice, Chacharia, to Piero, who then sent the bill to his own representative, Bortolomio, for presentation to Chacharia. The bill ordered Chacharia, the payer, to pay a sum in ducats, equivalent to the original delivery of gros tournois at the current exchange rate, to Piero's correspondent, Bortolomio, the payee. In other words, Giacomo drew on Chacharia in Venice for funds in Bruges, and Piero remitted his credit in Bruges to Venice. Usuance between Bruges and Venice was set at two months, so the bill of exchange thus combined an FX operation with the extension of credit. Interest could be disguised by adjusting the exchange rate contained within the bill and it has been argued that this allowed merchants to evade the church's usury prohibitions. ${ }^{8}$

The use of bills of exchange or letters obligatory reduced the transaction costs inherent in the transportation of large quantities of specie and circumvented the restrictions on the movement of precious metals imposed by medieval governments. ${ }^{9}$ In Spufford's words, 'every sensible merchant


Fig. 12.1. Parties to a bill of exchange, 1360

[^1]normally avoided moving gold or silver about from place to place, unless he could not help it, and tried to use bills of exchange wherever possible'. Moreover, they could have a further use as 'from time to time [merchants] would naturally have to settle up, but if possible they would do so by buying a bill from a third party, drawn on a fourth party, who wanted money transmitted in the opposite direction. ${ }^{10}$ This process of matching could be carried out by a clearing system, as at the continental fairs, or by the money-changers of Bruges. The workings of these clearance mechanisms has been studied by Lars Börner and co-authors in a number of recent papers. ${ }^{11}$ This is the heart of the idea that a sufficiently extensive market in credit instruments could all but replace cash as a medium of exchange. The use of bills of exchange is mostly associated with Italian merchants and extensive clearing with the Italian and Flemish money-changers or the great continental fairs. The remainder of this section will examine the use of similar instruments by English merchants and magnates.
The bill of exchange was certainly known in England. In 1283 Edward I forbade anyone 'to make exchange of the King's money in parts beyond [the] sea by receiving there money or silver on condition that they by themselves, their friends or fellows, shall pay in England the sum of such money or the price of such silver'. ${ }^{12}$ From the later fourteenth century, the English kings sought to control FX transactions by operating a licencing system and several rolls of licences to issue letters of exchange survive, although this did not cover mercantile transactions. ${ }^{13}$ The Borromei of Venice had branches in Bruges and London and their ledgers have been studied by Jim Bolton and Francesco Guidi Bruscoli. In 1438 the ledgers of the Borromei of Bruges show that they were party to 239 bills of exchange with London, worth a total of 16,634 Flemish pounds. ${ }^{14}$ These sources largely relate to the activities of foreign (above all Italian) merchants in England. There is, however, no doubt that English merchants also engaged in exchange transactions with their foreign trading partners. A long-running lawsuit between Thomas Gisors and his former factor John Colshull, heard before the London mayoral court in the 1380s, itemised the exchange transactions that Colshull had entered into on Gisors' behalf. Between September 1369 and July 1373 (at the latest) Colshull carried out transactions worth just under $£ 6,000$ with forty-four counterparties. ${ }^{15}$ A basic version of the bill of exchange was at issue in the famous case of Burton vs Davy before the London mayoral court in 1436, all the parties to which were English merchants. The historical interest of this case is that the letter of payment had been transferred to a third party, who sued the initial debtor in the name of the creditor. It is thus evidence for the existence of a domestic secondary market in such credit instruments and has even been seen as proof that medieval credit instruments were negotiable. ${ }^{16}$

Bills of exchange were not the only credit instrument used in international trade. For example, Humphrey de Bohun and his companions had incurred a debt of 2,600 écus while crusading in Prussia in $1362 / 3$. To settle this debt, they entered into two bonds obligatory with Prussian merchants, the first with Henry Schönhals and Mattias Wyse of Thorn for 1,600 écus, and the second for 1,000 écus with Gerhard von Allen. Both bonds were sealed in early January 1363 for repayment in Bruges at Easter. We also know that the first bond was repaid not by Bohun himself but by a London woolmonger, Thomas Albon, in Flemish groats. Albon took the Bohun bonds from the Prussians back to England, where he was presumably repaid by Bohun (since the bonds were cancelled and ended up in the Bohun family archive). The explicit credit flows are shown in Figure 12.2. ${ }^{17}$

[^2]

Fig. 12.2. Humphrey de Bohun's bonds, 1363
First, it is likely that Bohun had not borrowed money directly from the Prussian merchants, but that the debt acknowledged represents the 'bill' from his hosts, the Teutonic order. ${ }^{18}$ The merchants merely acted as a vehicle to transfer Bohun's repayment back to Prussia. Here the credit relationship between Bohun and the Order intersects with the Northern European trading networks. The Prussian merchants were repaid in Flanders by Albon, who was presumably 'in credit' in Bruges after selling his wool. As we have seen, Albon took the bond and presented it to Bohun for repayment back in England, thus repatriating his profits from the sale of wool. The Prussian merchants used the money (whether in the form of cash or book credits at a moneychanger) that they had received from Albon to buy Flemish cloth for export back to Prussia (or to settle their accounts for cloth previously purchased) where the cloth was sold and part of the proceeds used to repay Bohun's debt to the Order. Although no actual coins were transported, the net effect is the transfer of $£ 56112$ s sterling $/ 2,600$ écus from England to Prussia.

The bonds issued by Bohun were formal legal instruments under seal and enforceable in the English common law courts. Probably more important in a mercantile context, however, were more informal bills obligatory: promissory notes and letters of payment. ${ }^{19}$ Numerous petitions before the Chancery record the use of such bills in a variety of transactions. One mid-fifteenth century case is illustrated on Figure 12.3. Here, Peter Laweranson, a merchant of Berghen op Zoom in Brabant made out a bill to the Englishman John Felde for wool bought from Felde. This bill was originally delivered to Lowes Lyneham, Felde's attorney, who passed it onto Lawrence Parke, who delivered it to John Petite, who is alleged to have used the bill to purchase merchandise from Jacob Fleming. ${ }^{20}$ Fleming presumably collected from the original debtor or sold the bill on. In addition to acting as a substitute for cash in a string of transactions, this example also involved an FX element. The later fifteenth-century Cely papers also provide ample evidence of the use of such letters of payment by English merchants. ${ }^{21}$

[^3]

Fig. 12.3. Example of the transfer of a credit instrument in international trade

The use of bonds obligatory and letters of payment rather than bills of exchange has been seen as evidence of the lack of development of English and German merchants compared to the Italiansbut this is perhaps misleading. On the one hand, English merchants were more than capable of using bills of exchange, where advantageous. On the other, as Stuart Jenks has argued, the use of bonds obligatory reflected the commercial structure of Northern European trade. ${ }^{22}$ Merchants operated individually or in flexible partnerships rather than in formal companies. Moreover, there was no need to maintain an expensive infrastructure of foreign branches or networks of correspondents abroad, at least so long as there was a sufficient market in letters obligatory. For instance, von Allen, Schönhals and Wysse were presumably happy to accept bonds obligatory from Bohun and company because they knew that, at Bruges in the spring, they would find plenty of English merchants 'in credit' with Flemish merchants after selling their wool and anxious to remit their earnings back to England by buying Bohun's bonds from them. The system that ultimately emerged in the early modern period but clearly had its origins in the later Middle Ages was a hybrid of the two-in which bills of exchange were being traded and discounted in the same way as letters obligatory. ${ }^{23}$

## Domestic use of credit instruments

The use of credit instruments within the domestic economy has received less attention, in spite of the fact that it must have been vastly greater than FX trading. We shall argue that what was true for foreign exchange also applied to domestic transactions - and, in fact, at the level of governmental and mercantile credit, it is difficult to draw a firm distinction between the two. The key credit instruments that we will examine are: recognizances (civic, chancery, Statutes merchant and Staple); bonds obligatory; informal bills (including bills of exchange); and tallies. ${ }^{24}$ Nightingale has tentatively estimated the extent of credit in England as perhaps equal to half of the value of the English coinage and maybe one-tenth of GDP. ${ }^{25}$ There are other indications of the importance of mercantile credit. It has been calculated that three-quarters of the London merchant Gilbert Maghfeld's sales in the last decade of the fourteenth century were on credit and as many as eleven out of every twelve sales by the Celys in the later fifteenth century. A schedule of the debts owing to Gregory de Rokesle in 1299 recorded 109 credit instruments (49 letters obligatory, 39 tallies, 11 Exchequer recognizances

[^4]and nine statutory recognizances)..$^{26}$ As a result, much of the capital of leading merchants was tied up in credit relationships. In 1424, the executors of William Lynn of London valued his movables at over $£ 4,842$, comprising $£ 965$ in ready money and $£ 850$ in merchandise, plate and utensils, compared to around $£ 3,027$ in debts owing to him by various debtors in England and overseas. Lynn also owed some $£ 1,637$ to his own creditors. George Cely, reviewing the state of his business in winter 1482, found $£ 50$ in cash, $£ 200$ in goods, $£ 663$ in debts maturing in May, and $£ 234$ in more recent debt. ${ }^{27}$ John Oldland analysed the London subsidy assessments of 1535 and found that London creditors 'had more than three times as much money tied up in debts as they had in household effects, trade inventory, plate, jewels, and ready money'. ${ }^{28}$

This chapter will not address the question of aristocratic or rural credit, and will only consider government debt insofar as it was traded. Rather, it concentrates on the potential for credit instruments to be used as an alternative medium of exchange to cash, instead of the book transfers developed by Italian merchant societies and Flemish moneychangers. ${ }^{29}$ The structure of this chapter will begin with the most basic cases of the use of credit as a substitute for cash and work up to more complicated, not to say convoluted, applications.

It has been argued that a prerequisite for the development of any kind of market in credit instruments is for debts to be at least assignable and preferably fully negotiable in the modern sense. ${ }^{30}$ This ran into some fundamental legal problems. Under English common law, debt was considered a personal action and according to the doctrine of choses in action, personal actions could not be transferred to a third party. ${ }^{31}$ The only legally-watertight method of transferring a debt to a third party was novation; where the original creditor cancelled the original debt and the debtor then entered into a new debt with the third party. It was possible for the creditor to assign the debtor to make repayment to a third party as their attorney although, in the event of default, that third party could then not sue the debtor in their own name. The original creditor could, however, appoint that same third party as their attorney to represent them in court. This raises the possibility that transfers of credit instruments may simply be hidden behind the formulae of the courts. That is to say, where a creditor is proceeding against a debtor by attorney (who are frequently not named in the record of the plea), it may be that the attorney is the 'holder' of the instrument and is acting as the de facto plaintiff although, for legal reasons, he has to sue in the name of the original creditor. Other courts, most notably the various urban courts (above all the city courts of London) and the equitable jurisdiction of Chancery seem to have had a more relaxed attitude to the transfer of credit instruments.

The royal records and the rolls of the London courts are full of enrolments of the appointment of attorneys to receive debts or to represent the original creditor in court. While some of these may represent the straightforward appointment of a collection agent or legal representative, others are more likely to have resulted from the transfer of credit instruments. In the often-quoted case of Burton vs. Davy, it seems that suit was brought by John Walden, the bearer of the bill, although acting in Burton's name. In fact, Burton seems to have played no active role in the case. While the more detailed record of the mayor's court states that Walden was 'held and reputed and admitted in the place of the said supplicant [Burton] in this case according to the law and custom [of the city of London]', in the mayor's response to a writ of certiorari sent by the king's court, Walden is simply described as Burton's attorney. ${ }^{32}$ As a result, the case that has been taken as demonstrating the negotiability of medieval credit instruments is always referred to as John Burton [the original creditor] vs. Elias Davy not John Walden [the bearer of the bill] vs. Davy. This mechanism is made explicit in some appointments of attorney. In 1426 William Woodward delivered to Martin Allen, before the London mayor's court, an obligation for $£ 10$ owed to him by Sir Henry Hussey of Harting in Sussex, in satisfaction of debts owed by Woodward to Allen. Moreover, Woodward granted that 'he would be prepared either personally or by attorney to prosecute and avow all kinds of suits in whatsoever

[^5]courts, moved or to be moved, whenever it should be necessary and he should be reasonably required thereto by the said Martin'. This provision may have been made explicit because Hussey was not a merchant and it may therefore have been necessary to pursue him through the common law courts. ${ }^{33}$ A London case of 1396 suggests that there could be a chain of such appointments; William Prudhomme of Burton-on-Trent issued a letter of attorney to John Snypston, citizen of London, and John Bullok, empowering them to receive from the society of the Ancient Albertines of Florence the sum of $312 \frac{1}{2}$ nobles 2 s 8 d , due on a bond from the society to Thomas Wyght and John Dalston, for which Prudhomme himself had a letter of attorney from Wyght and Dalston. ${ }^{34}$

Despite these questions about the precise legal niceties of such transfers, in practice, the assignment of debts to a third party was commonplace in the Middle Ages. In the judgement of A.H. Thomas, editor of the London plea and memoranda rolls: 'If [the law merchant as interpreted by the city courts of London] did not make the transferable instrument fully negotiable, it made it as negotiable as was necessary for ordinary business purposes' ${ }^{\prime}$. ${ }^{35}$

The most basic case of the negotiation of debts and credit instruments is where two counterparties, who could be merchants, or the Exchequer and a royal official, account for all their mutual transactions by simple offsetting and netting of their respective debits or credits. This reduces the relationship between the two to a single balance, rather than having to settle each of the transactions between them separately. This is the essence of the single entry or 'charge-discharge' system of accounting that was used in England throughout the Middle Ages. However, such bi-lateral offsetting and netting on its own could not support the complicated trade and credit market that existed in the Middle Ages. The need was for multi-lateral offsetting and netting.

The next step up from offsetting and netting between two parties was for one party to make repayments by assigning third-party debts to their creditor. Then as now government bonds may have been frequently used in this way, as will be described in more detail below. This practice was also common in private transactions. In 1365, for example, William de Wheatley bought goods worth $£ 29$ from Alice widow of Henry Sket, cordwainer, for which he paid just under £20 in cash and made a tally for the remaining $£ 98$ s 11d. Later, by order of Alice and her new husband John Winslow, Wheatley paid the latter sum to John Canon, a creditor of the late Henry, and the tally was cancelled. ${ }^{36}$ It is most explicit in a case of 1377 where Torellus Gascoigne, a merchant of Lucca, granted all his goods and chattels to John Walsh, goldsmith of London, in part settlement of a debt of $£ 30$. Shortly afterwards, Torellus appointed Walsh as his attorney to recover a debt of $£ 7018$ s due on a bond from Thomas Wilshere, skinner, and to retain any money recovered in satisfaction of his debt. ${ }^{37}$ The fact that the value of Wilshere's bond exceeds that of Torellus' debt to Walsh may imply discounting (to be discussed later). In 1458 a German merchant William Ketweigh bought goods worth $£ 43$ 1s 9d from Richard Payn, a London draper, paying with seven obligations owed to him by London skinners that amounted to the same sum. ${ }^{38}$

This system was necessary because there was no English equivalent of the Giro of Venice or the moneychangers of Bruges, although book transfers may have been one of the services offered to the kings by their bankers and certainly Hugh Despencer the younger and other English magnates had accounts with Italian bankers. ${ }^{39}$ In the seventeenth century the London goldsmiths emerged as pro-to-bankers, but it does not seem that they played this role in the Middle Ages. One possible exception is in 1428, when William Waryn, goldsmith, advanced a loan of 11 marks, repayable on demand, to Gerald van Dale, a Dutchman. On default, Waryn recovered the principal, with 4 s damages ( $12.1 \%$ APR), from silver plate, spoons and cups that van Dale had deposited with him. ${ }^{40}$ The wording of this entry suggests that these goods were not specifically pledged as security for the loan. Instead, the plate may have been deposited with Waryn by van Dale, possibly for safe keeping or with the intention of withdrawing money against it. However, if the Italian giro banks, Flemish moneychangers, or settlement days at the end of the continental fairs acted as centralised clearing houses, then the English practice of using assignable credit instruments resulted in a decentralised or distributed

[^6]system of multi-lateral offsetting and netting. In effect, rather than settling merchant balances by book transfer within the ledger of a bank or money-changer (or across the books of two clearing houses), the same effect could be achieved by a series of transfers of credit instruments, as long as there was a sufficiently large and liquid market for such instruments that counterparties could be efficiently matched.

It is probably easiest to explain how this could work 'in action'. This first example is taken from a fifteenth-century Chancery petition. According to this one Robert Levereggge owed John Plummer, spicer of London, $£ 24$ due at a certain term. ${ }^{41}$ On that day, however, Leveregge failed to pay and Plummer sued a plea of debt before the London courts. Meanwhile, Robert had sold goods worth $£ 60$ to Bartholomew de Stratton on credit, again payable at a certain term. Leveregge therefore asked Stratton to satisfy Plummer for the $£ 24$ that he owed the latter. Now Plummer himself owed Stratton $£ 12$, and they agreed to set this off against the $£ 24$ owed by Leveregge, and that Stratton would pay Plummer the remaining £12. Plummer delivered Leveregge's obligation to Stratton, who restored it to Leveregge in lieu of the first payment on his debt of $£ 60$. To take a second example from another mid-fifteenth century chancery petition, William Haydock of London had bought merchandise worth $£ 40$ from William Elliot of London, for which, at Elliot's request, Haydock bound himself to John Middleton and William Saunders to the use of Elliot. ${ }^{42}$ Subsequently the obligation was delivered for payment [presumably by Middleton and Saunders] to Walter Walker, who approached Haydock and received $£ 10$ on the bond. Walker then made a deed of gift of all his goods and chattels to Philip Malpas, to whom Haydock paid the remaining $£ 30$. These transactions are shown on Figure 12.4.

So far, we have considered the use of credit instruments as part of a system of accounting or in a form of 'barter' within a network of trading transactions. In a technical sense, the above transactions can be seen as effective sales/purchases of credit instruments. Offering a credit instrument in settlement of a debt or as payment for goods, is functionally equivalent to selling that instrument. Likewise, accepting a credit instrument in lieu of cash settlement of a debt or transaction is the same as buying that instrument. Unfortunately, the court cases tend not to give details of the intermediate transactions involved.

We will now look at some cases that shed more light on the question of when and how a credit instrument could be pledged or sold for cash. When receiving a loan or buying goods on credit, the debtor often issued the creditor with formal bonds or more informal bills/promissory notes for future repayment. These were sometimes combined with a penal bond-usually for double the value of the principal sum involved. ${ }^{43}$ For our current purposes, however, we are more interested in the use of a bond of a third party C as collateral for a transaction between debtor A and creditor B. For example, two London mercers were bound to William Duket of Clare in $£ 30$ and 'for the more ready payment


Fig. 12.4. Example of the transfer of a credit instrument in domestic trade

[^7]of which sum' the petitioners delivered to Duket, in the presence of local witnesses, 'divers obligations exceeding the sum of $£ 30$ in which various men of Clare were bound to them' ${ }^{44}$ It was agreed that, in the event of a default, either Duket should collect on these obligations and refund any surplus above the said $£ 30$, or he should return the obligations to his debtors and receive security for repayment from them. Government bonds were frequently pledged as security for a loan, as we shall see. The distinction between the use of a bond or bill as security for a loan, and the sale of that bill for cash or goods upfront, is sometimes unclear. Ultimately it depended on whether the borrower sincerely intended to repay the loan and recover the bond and, equally, whether the lender expected the borrower to do so. In some cases, we may suspect that repayment was never intended or expected, and thus the loan was effectively a sale.

There are even more explicit cases of the trading of debts and credit instruments. In Trinity term 1282, the Ricciardi of Lucca, then royal bankers, recognised that they owed 140 marks to William de Lavania, an Italian clerk beneficed in England, for the grant of all Lavania's rights in and actions to debts owed by Enrico de Ganio, a Lombard resident at Stoke, and Mr Giacomo de Piacenza, rector of the church of Bery. Lavania then formally assigned the Ricciardi as his attorneys to proceed against Enrico and Giacomo and recover the said debts as their right and in their name. ${ }^{45}$ Two years later, in Easter term 1284, the Ricciardi entered into recognizances for $£ 300$ and $£ 400$ to two Florentine merchants in return for the right to collect on debts owed to the merchants. ${ }^{46}$ The most circumstantial information comes from a case of 1320 , in which the executors of the Cahorsin merchant William Servat accused a chaplain of having broken into Servat's chests and stealing and then selling various credit instruments, including two bonds involving third parties: one for 200 marks from Sir Henry de Beaumont to the earl of Hereford, which Hereford had pledged to Servat for $£ 110$, and, most interestingly, another obligation for $£ 96$ from the archbishop of Canterbury to Reginald Brandon, which Richard de Honewik had pledged to Servat for $£ 40 .{ }^{47}$ In the latter example, the obligation had passed through at least four transfers: the original from the archbishop to Brandon, the second from Brandon to Honewik (conceivably the obligation could have passed through further hands before reaching Honewik), the third from Honewik to Servat, and a fourth when the defendant sold the obligation to an unnamed party. We may note in passing the discounts at which Servat received these credit instruments; only $17.5 \%$ for the Beaumont deed compared to $58.3 \%$ for that of the archbishop. Presumably the former was considered more creditworthy.

## Government debt

The best documented examples of transactions in credit instruments relate to government debt. The best known are the monti (consolidated public debts) of the Italian city states. In a recent survey, Luciano Pezzolo has stated that 'government credits were traded in a secondary market as financial assets'. ${ }^{48}$ The ownership of such shares was very widespread - according to the Florentine catasto of 1427 , over one-fifth of all households held shares in the public debt, and around one in seven Genoese may have held shares in the San Giorgio. Moreover, unlike in England, shares in the public debt were not separate instruments that could be privately transferred, but rather entries in a state register, and transfers had to be registered with the state agency that managed the public debt. This makes it possible to track the trading of shares in the Monte on the secondary market. Venice was probably the first city-state to officially permit trading in the civic debt around 1262 and, by 1434 , it has been estimated that the turnover of Venetian credits equalled around 100,000 ducats at market value (c.£16,667 sterling) or 300,000 ducats at par, equivalent to around $3 \%$ of the total stock of public debt. ${ }^{49}$

William Cade may have been dealing in English royal debt in the twelfth century and there are occasional indications of transactions involving English government debt from the thirteenth century. ${ }^{50}$ Some of the earliest surviving issue rolls from the 1250 s note that some royal annuitants

[^8]had borrowed money, including from the prominent Florentine merchant Diotaiuto Guglielmi, on the security of their fees, which were paid to their creditors. ${ }^{51}$ This practice becomes more visible during the fourteenth century, partly because of the better survival of records, but also as a result of the massive increase in royal indebtedness as a result of the wars of Edward I and Edward III. This mostly took the form of wardrobe bills issued to royal creditors (usually for their wages or goods provided). It is often stated that Edward I bequeathed to his son some $£ 200,000$ of such unpaid wardrobe bills, although we would revise this figure downwards to 'only' about $£ 150,000$. Even twenty years later, at the end of Edward II's reign, around $£ 60,000$ of this sum still remained outstanding. ${ }^{52}$ Edward III's expensive campaigns in France and Scotland similarly resulted in the accumulation of government debts. The over-issue of wardrobe bills and the role of influence at court in securing repayment of these bills effectively created a market in royal debt as financial speculators moved in to buy up royal obligations at a steep discount from their holders.

Royal debts may have been particularly useful within the system of decentralised and distributed clearance described above, since so many merchants and landowners were involved in royal finance, either as creditors or as debtors. For example, in 1302, Coppuccio Cotenna of the Frescobaldi of Florence, then the king's bankers, settled a royal debt of £926 11s 6d owed to Pascal Valentine Ladelit of Aragon. Their account states that this sum was paid to Pascal 'both by his own hand as well as to Raymond Johannis, Pedro Pedro and Andreas Pedro, Vidal de Barreire and Reginald of Thunderley in the name of the said Pascal'. ${ }^{53}$ In this case, the king's debt to Pascal seems to have been used to settle Pascal's own obligations to a number of prominent English, Gascon and Spanish merchants, with the remainder being paid to Pascal directly. It is not clear whether Pascal himself had arranged to borrow money on the security of the king's debt to him, or whether his creditors had intervened to secure a lien on Pascal's assets. A further convenience is that the Frescobaldi would have had connections with these men, either directly or indirectly, which raises the possibility that the 'payments' to these men could have been carried out via book transfer or a further round of offsetting and netting.

We have seen royal debts being assigned to third parties to settle obligations. They could also be used as collateral. For example, in 1301, John de St Pierre of Bayonne stated that he had pledged three bonds under the seal of the earl of Lincoln (the king's viceroy in Gascony during the AngloFrench war of $1294-8$ ) worth $£ 300$ sterling to Raymond de Sordes, also of Bayonne, as collateral for the repayment of 701 livres 5 s petit Tournois (then roughly equivalent to $£ 90$ sterling). ${ }^{54}$ Explicit evidence of the secondary market in royal debt can be found in 1304. The knight Arnald de Meuryu had borrowed money from Master Robert de Coruedale (of London) and Vitalis Brane, a merchant of Guyenne, using as security 'letters that he had from the king for the wages due to him by the king and for a provision made for him by the king ... for the costs and expenses incurred by him in various ways in the king's army and elsewhere' ${ }^{55}$ Should Arnald not repay the money at the specified term, then Robert and Vitalis might 'sell or otherwise alienate the letters for their profit'. Now Edward I intervened and prohibited the creditors from making any profit from the sale of the said letters should Arnald fail to make repayment. Rather, when the king's officials redeemed the letters, the creditors were to receive only the principal that they had advanced to Arnald, who would retain any surplus. Further, the king instructed his local officials 'that, should they find any similar letters pledged under like condition in their bailiwick, they shall cause like inhibition to be made concerning them'. It is important to note that Edward did not prohibit the practice of pledging royal bonds itself, which would have had catastrophic effects for impecunious holders of royal debt, but sought to prevent the buyers from receiving usurious profits. As with many royal initiatives, however, it is questionable whether this order had any practical impact.

[^9]If we have early indications of an active secondary market in royal debt under Edward I, it grew and became institutionalised under Edward III. In particular, the practice was explicitly sanctioned by the king, at least for a select group who received royal licences to buy up and redeem royal debts, first the 'Dordrecht bonds' that Edward III had issued in 1337 to the merchants whose wool exports the king had seized, and later any royal debts. For example, the Londoner John Pyel purchased six Dordrecht bonds with a total face value of $£ 1,026$ and presented them to the king to discharge a debt. ${ }^{56}$ The key advantage was that the licencees could purchase such bonds at a discount and redeem them at their face value. The difference between the market price and face value provided the purchaser with their profit. Contemporaries complained that the merchants were buying up these debts at the rate of 1 s or 2 s in the pound, and a subsequent Exchequer investigation accepted that royal obligations were routinely bought at between 2 s and 2 s 6 d in the pound. ${ }^{57}$ These are equivalent to discount rates of $85 \%-95 \%$ of face value. The London merchants and members of the wool syndicate Adam Fraunceys and Thomas Brandon seemingly paid only $£ 227$ for royal obligations with a face value of $c . £ 10,600$, a discount rate of $97.9 \% .{ }^{58}$ This allowed the king to kill two birds with one stone by rewarding his financiers without the appearance of usury by allowing them to buy up royal debt at a discount from lesser royal creditors and redeem it at face value; while also clearing some of the accumulated royal debt. Edmund Fryde has calculated that around $£ 84,000$ of royal debt was redeemed between 1343 and $1355 .{ }^{59}$ In fact, this system proved too attractive. Incredibly, given Edward's profligate spending, the demand for sufficiently distressed royal debt exceeded the supply. ${ }^{60}$ This gave rise to a thriving industry in passing off forged royal bonds and wardrobe bills and it is legal investigations into such cases that provide us with the best evidence for the working of this system.
For example, one of the king's largest creditors, the vintner Henry Picard of London, received licence to redeem royal debts to the face value of $£ 16,000$. Picard would thus have been looking to buy up wardrobe bills from smaller, more financially vulnerable royal creditors. We know about one particular transaction, because the wardrobe bill involved proved fraudulent. ${ }^{61}$ The process is shown on Figure 12.5. One of the royal debts that Picard presented for redemption was a bill under the seal of William de Norwell, former keeper of the wardrobe, for $£ 200$ made out to Walter Mace, merchant of Louvain, for goods purchased from Mace. There was no record of this bill in Norwell's wardrobe book, however, so it was reputed false. Picard said that he had bought the bill from Niccolo Bullietti, a Florentine merchant resident in London, for a certain sum of money paid in advance. In turn, Bullietti recognised that he had sold the bill to Picard but claimed that he had bought it from John Beniowe, a merchant of Calais, through the intermediation of a broker, William de Castello (now deceased). Beniowe then appeared before the court and recognised that he had sold the said bill to Bullietti in a deal brokered by Castello, but claimed that he had himself received the bill from a certain John de Norwell, who came to Beniowe's house in Tower Street, London, with a foreigner, Walter Mace (the putative recipient of the forged bill). Norwell pledged the bill until a certain date as security for the purchase of two cloths worth $£ 1613 \mathrm{~s} 4 \mathrm{~d}$ and 100 s in cash from Beniowe. When Norwell did not meet the specified repayment term, Beniowe sold the bill to Bullietti. This fraudulent bill was first pledged to Beniowe at a discount of $89 \%$. It is not stated how much Bullietti or Picard paid for the bill, but Picard could expect to redeem it at par value, and there must have been scope for Bullietti both to make a profit and to pay brokerage fees to Castello.
In particular, Bullietti seems to have been known as a 'go-to guy' for anyone looking to unload Edwardian government debt. He appears in another contemporaneous case, which likewise came to light because it also involved the passing off of fraudulent wardrobe bills. ${ }^{62}$ Walter of Yarmouth was a minor royal official and tax-farmer, who received the issues of all the fees from the sealing of judicial writs in the central courts. In return, he was to answer for an annual farm of 250 m and to acquit the king each year of debts to the value of $£ 200$. In effect he had licence to buy up royal debts at a discount and deduct them from his farm at par. This did not seem to be enough for Yarmouth, who resorted to passing forged bills through the agency of the same Niccolo Bullietti whom we

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Fig. 12.5. Transfers of a fraudulent royal wardrobe bill
encountered above. Between November 1345 and January 1346 Yarmouth delivered ten or more forged royal bills with a total face value of $£ 5,918$ to Bullietti, in return for cash advances of only $£ 143$ - a discount rate of $97.4 \%$. Equally striking, however, is the fact that these dealings took place over only $21 / 2$ months, apparently without attracting much comment or attention, which suggests that there was a high volume of transactions in such government bonds. Certainly, the market could support the activities of middle-men like Bullietti and Castello. This all suggests that there was a relatively extensive secondary market in sovereign debt during the 1340s and 1350s.

The increase in 'deficit financing' by the Crown over the fourteenth and fifteenth centuries thus created a new market for such financial middle-men with influence at court or within the royal administration. While this system worked to the advantage of the king and of the greater merchants who advanced him loans, it was naturally resented by the other holders of royal debt who were forced to sell bills or tallies at a discount in order to collect any money at all. This can be seen in the following petition presented by the Commons before the parliament of January 1348 concerning the Dordrecht bonds issued more than a decade previously. The Commons complained that: 'the poor merchants are still in arrears for what belongs to them, because the rich merchants of England have sued our lord the king so that they and no others might buy the said debts of the poor merchants; and they take the king's allowance, and pay the said poor merchants little except at their own will. Thus the rich hold the whip hand, and the poor are ruined and destroyed, so that they scarcely have anything with which to live. ${ }^{96}$

Similar complaints were directed against the king's favourites before the 'Good parliament' of 1376. Between 1372 and 1374, a group of London merchants, including Richard Lyons and John Pyel, received some $£ 13,112$ from the king, ostensibly for redeeming a like value of the debt that Edward III had owed to his former bankers, the Bardi of Florence, since 1345. George Holmes has convincingly argued that this represents disguised interest; the Londoners were paid the face value but had probably acquired the Bardi debt at a discount. ${ }^{64}$ The reformed Bardi were represented by Gualteri di Bardi, master of the mint and a figure of some significance both at court and in London. It is likely that Gaulteri was an active participant in this scheme. The arrangement was 'win-win' for both parties (if not for the English taxpayer). The Londoners received compensation for their loans to the Crown while Gualteri and the Bardi received some money for what could definitely be classed as desperate debts.

Another opportunity for profit was for influential courtiers to use their influence within the royal administration to secure repayment for less well-connected royal creditors, for a fee. In 1376 the Londoner Richard Lyons was accused of exacting brokerage fees from royal creditors to intervene on their behalf and secure repayment. In particular, it was alleged that Lyons had received 80 marks from the prior of the hospital of St John of Jerusalem in England in return for expediting the repayment of the king's debts to the Order. ${ }^{65}$ Thomas of Hatfield, bishop of Durham, similarly claimed that he had loaned 4,000 marks to Edward III and received tallies for that sum, on which he had been

[^11]unable to collect. Thomas alleged that the king's mistress Alice Perrers had promised to cash in these tallies for him but had then used two of these tallies worth 1,000 marks to repay part of the debts that she owed to the king. ${ }^{66}$

As well as written credit instruments, a similar role was played by the tally-stick. Indeed, in Hilary Jenkinson's opinion, the tally served as a 'bearer cheque'. ${ }^{67}$ Originally, the Exchequer issued tallies to royal officials paying cash into the treasury, which they could then produce at their annual audit to claim allowance against their account. Over time, however, the king began to rely on anticipatory tallies, by which a royal creditor would receive a tally drawing on a royal official. The creditor would take this tally to the official and collect the specified sum directly from him, handing over the tally, which the official could then produce in the usual way at his account. ${ }^{68} \mathrm{~A}$ secondary market for tallies probably emerged in the same way as that for wardrobe bills, if not earlier. A royal creditor based in London but assigned a tally on the customs of Hull would either have to wait for a sufficient value of customs revenue to come in and then travel to Hull to collect their due payment (which, in the event, may not have been available) or else find someone else who would, for an appropriate discount, buy the tally. A system of discounting tallies developed 'by arbitrating between varying spatial and time preferences'. ${ }^{69}$ The discount on the tallies presumably varied according to economic circumstances. As Steel points out the purchasers of such tallies were probably justified in discounting them because 'they were taking the real risk of locking up their fluid resources for a long time'. ${ }^{70}$

In 1343 a marginal note added to the receipt roll suggests that the pledging of tallies was standard practice. In this case, the royal financier Paul de Montefiore had been issued with a number of tallies to raise money to redeem the king's great crown, then pledged to royal creditors overseas. Montefiore, however, had instead pledged the tallies at a hefty discount (pro minis summis) to London merchants. ${ }^{71}$ There is also an interesting trend for assignments to be divided between multiple tallies. For example, on 24 October 1338 the Bardi were assigned $£ 300$ receivable from the collectors of the lay subsidy in Berkshire but this was divided into three tallies, one for $£ 150$, the second for $£ 100$ and the third for $£ 50$. In the following week, similar assignments on the lay subsidy in Hertfordshire and Bedfordshire were likewise subdivided into smaller tallies of various sizes. ${ }^{72}$ This may have been intended to facilitate the sale or pledging of such tallies. While the Bardi and Peruzzi may have found it difficult to find single purchasers of high-value tallies for several hundreds or even thousands of pounds, it may have been easier to place a larger number of smaller tallies. This would also explain why the assignments were divided into tallies of different sizes, from $£ 50$ up to $£ 250$, to appeal to different investment appetites.

An indication of how these tallies may have been used in practice is found in 1365, when Thomas Andrew of London recognised several debts to other merchants, and promised to make payment 'as soon as he received the sum of $£ 5410$ s 5d due on a tally given him by Sir John de Cobham ... related to an assignment for that sum made by the king in favour of Sir John upon the customs-collectors of the town of Boston'. ${ }^{73}$ A more complicated example of the use of tallies in trade can be found in 1387. ${ }^{74}$ An Italian merchant, Francesco Vincheguerre of Lucca had purchased tallies on the customs at Kingston-upon-Hull worth over $£ 400$ from Lord Neville. It is not stated how much Vinchguerre paid for the tallies, but it is probable that he acquired them at a discount. Vinchguerre then employed a broker, another Italian, Bernard Antonii of Florence, to take the tallies to Hull and buy wool with them. Ultimately, Vincheguerre, by Antonii's agency, bought 30 sarplers of wool from Walter Frost. The wool was worth more than the value of the tallies, whereupon Vinchguerre paid Frost the balance in settlement. An added interest is that Frost was not only an important merchant but also

[^12]the collector of the customs at Hull, and thus the royal official on whom the tally was made. Frost could thus present the tallies at the Exchequer to discharge himself of a like sum against his account.

The role of Frost in the above transaction is interesting since a Commons petition of 1402 implies that customs officials (on whom the majority of tallies were levied) had been extorting fees for cashing tallies or else buying up tallies at a discount and then accounting for them at face value, thus pocketing the difference. The petition requested that 'every customs officer henceforth, on rendering his account in the exchequer, should be sworn by his oath to answer loyally to you, our lord the king, without fraud or deceit, for all manner of profits and goods received by him, or to be received, for the payment of any assignment, whether by tally or otherwise, for the purchase of any tally, or in any other manner'. ${ }^{75}$

Unfortunately, the nature of the surviving royal documents means that we have few details about the discounts prevalent on these tallies. The main sources are the receipt rolls, which record the issue of tallies, and the accounts rendered by collectors of revenues, which record the value (and sometimes the number) of the tallies presented by the accountant in discharge of their obligations to the king. Unfortunately, but entirely understandably given the nature and purpose of these accounting devices, they only record the face value of the tally and not the prices at which they may have been traded on the secondary market. We have, however, found a number of instances in which royal creditors remitted part of the king's debts to them in return for a lump sum payment.

For instance, Henry III had accumulated debts of 1,900 marks to various merchants of Ypres for goods supplied to the wardrobe since the 1240 s. Edward I finally settled with the merchants in 1276, and promised them $£ 1,000$ in return for the release of the residue, a discount of $21 \%{ }^{76}$ There are also a number of cases where Henry III or Edward bought out the money-fiefs that Henry III had liberally granted out to his relatives and supporters, along with the arrears owing thereon, for a single lump sum. To take just one example, in December 1242 the Gascon lord Oliver de Chalais senior was granted a money fief of $£ 100$ per annum by Henry III. After Oliver senior’s death in 1248, his son, Oliver junior, received the fee plus a promise of a further 500 marks for paying homage to Henry. The last recorded payment to Oliver, however, was in 1253 and in May 1269 Oliver junior released the fee, along with fifteen years of arrears ( 2,250 marks) and the 500 marks, in return for a one-off payment of 500 marks. ${ }^{77}$ This is equivalent to (assuming that the fee was effectively perpetual and the cost of capital was $10 \%$ ) a discount rate of $88.2 \% .{ }^{78} \mathrm{~A}$ number of further examples can be found in the issue rolls and wardrobe books during the fourteenth century. In particular, there was a cluster of debt repurchases in the 1320 s , some examples of which are shown here in Table 12.1. Here the discount rates varied between $30 \%$ and $60 \%$. We may note the involvement of a chancery clerk, William of Leicester, in the first entry, who was possibly acting as a broker. ${ }^{79}$

If we interpret the size of the discount applied to credit instruments as reflecting partly the time value of money but also the credit risk of the debtor concerned, then the king seems to have been capitalising on his poor credit rating in order to liquidate outstanding liabilities at a discount.

## Conclusion

Our research demonstrates that credit instruments were used as a substitute for cash in medieval England and that there was an active secondary market, particularly for government debt. While England lacked an established clearing system such as that provided by the money-changers of Bruges or deposit banks in Italy, Frederick Lane and Reinhold Mueller have suggested that 'English merchants reacted to this handicap ... by assigning and discounting such credit instruments as letters obligatory and bills of exchange long before endorsement became widespread, ${ }^{80}$ The trading of credit instruments described above can be seen as the precursor of the 'inland bills' described by Eric Kerridge. ${ }^{81}$

[^13]Table 12.1. Examples of the discounting of royal debt from 1320

| Date | Creditor | Par value | Agreed repayment | Discount rate |
| :--- | :--- | :--- | :--- | :--- |
| $8 / 11 / 1320$ | John of Greenstead, <br> rector of the church <br> of Gledelawe, by the <br> hand of William of <br> Leicester chancery <br> clerk | $£ 4$ 7s (for one <br> wardrobe bill <br> $1315-16$ ) | 50 s | $42.5 \%$ |
| $18 / 11 / 1320$ | Sir Roger de Horsley | $£ 159$ 4s 9d (for <br> two wardrobe <br> bills 1318-20) | $£ 60$ | $62.8 \%$ |
| $19 / 11 / 1320$ | Andrew de Harclay | $£ 1,36212 \mathrm{~s}$ (for <br> four wardrobe <br> bills 1318-20) | $£ 500$ | $63.3 \%$ |
| $24 / 11 / 1320$ | Sir John de Penreth <br> constable of <br> Harbottle castle | $£ 1464 \mathrm{~s}$ (for one <br> wardrobe bill <br> issued 1319-20) | $£ 100$ | $31.6 \%$ |

It is more difficult to assess the extent to which credit instruments were used in medieval England. The above examples of the transfers of credit instruments were culled from a relatively small selection of mostly printed material. There are dozens of cases in the published records of the London courts alone and this could be increased to hundreds, if not thousands, if the unpublished royal records/chancery petitions were thoroughly searched. Unfortunately, these provide mostly anecdotal evidence. Moreover, there is a fundamental ambiguity inherent in the legal material. On the one hand, there could be relatively few surviving court cases disputing the transfer of credit instruments because the practice was uncommon. On the other hand, it could be that the transfer and negotiation of credit instruments was so extensive and routinely accepted that it seldom gave rise to dispute. We would probably argue for the latter, partly based on a subjective sense of the nature of the extant legal cases. First, even in the cases discussed above, the assignment or transfer of a credit instrument itself was rarely the point at issue but is just mentioned incidentally as part of a wider dispute. Second, if the use of credit instruments as a form of commercial paper was considered legally dubious and risky, then we might expect to find those engaged in such business demanding security. Instead, the future litigants seem positively blasé about their acceptance of third-party bills and bonds, which suggests that the use of credit instruments as both as substitute for cash and as a commodity was sufficiently established and widespread to enjoy confidence. ${ }^{82}$

As bonds obligatory and more informal letters of payment became more widely accepted as a cash-substitute within trading networks, probably during the later fourteenth and especially the fifteenth centuries, they may have formed a sort of proto-commercial paper. This may provide an alternative explanation for the reduction in the numbers of recognizances of debts enrolled in such formal institutions as the Statutes Merchant and Staple noted by Nightingale, which may not indicate a decline in the amount of credit in circulation but rather a change in the form by which that credit circulated.$^{83}$ If so, this has wider implications for our understanding of the relationship between the supply of coined money and the extension of credit in later medieval England. At the moment, however, it is difficult to identify a suitable method to test this hypothesis.
In conclusion, it is clear that, as Spufford has argued, the thirteenth century Italian 'commercial revolution' increased the money supply 'by the creation of negotiable paper, such as shares in the monte' while 'the evolution of transfer banking and the creation of bank money was a more significant change than the creation of a multi-denominational currency'. ${ }^{84}$ We would tentatively argue that the development of 'commercial paper' in the form of the assignment and discounting of bills, bonds and tallies may have had a similar impact in later medieval England.

[^14]
[^0]:    * This paper is an output from the ESRC funded project 'Credit Finance in the Middle Ages: Loans to the English Crown, c. 1272-1340' (RES-062-23-0733).
    ${ }^{1}$ P. Spufford, Money and Its Use in Medieval Europe (Cambridge, 1988), pp. 1-2. See also, idem, How Rarely Did Medieval Merchants Use Coin? (Utrecht, 2008).
    ${ }^{2}$ Figures for M4 in March 2014 compiled by the Bank of England and taken from table A2.2.1 'Components of M4' (http:// www.bankofengland.co.uk/statistics/Pages/bankstats/2014/mar.aspx [accessed 27 January 2017]) and estimate of coins in circulation on 31 March 2014 by the Royal Mint (http://www.royalmint.com/discover/uk-coins/circulation-coin-mintagefigures [accessed 27 January 2017]).
    ${ }^{3}$ J.L. Bolton, Money in the Medieval English Economy 973-1489 (Manchester, 2012), pp. 268-93; J. Hatcher and M. Bailey, Modelling the Middle Ages: The History and Theory of England's Economic Development (Oxford, 2001), pp. 186-92.
    ${ }^{4}$ Spufford, Money and its Use, p. 375.
    ${ }^{5}$ P. Nightingale, 'Credit, gold and mortality: Distinguishing deflationary pressures on the late medieval English economy', EcHR 63 (2010), pp. 1081-1104, at p. 1100.

[^1]:    ${ }^{6}$ P. Nightingale, 'Monetary contraction and mercantile credit in later medieval England', EcHR 2nd series, 43 (1990), pp. 560-75, at p. 574.
    ${ }^{7}$ R.C. Mueller, The Venetian Money Market: Banks, Panics, and the Public Debt, 1200-1500 (Baltimore, 1997), pp. 636-7.
    ${ }^{8}$ A.R. Bell, C. Brooks and T.K. Moore, 'Cambium non est mutuum: Exchange and interest rates in medieval Europe', EcHR, forthcoming.
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[^2]:    ${ }^{10}$ Spufford, Money and its Use, pp. 274, 394.
    ${ }^{11}$ L. Börner and J. Hatfield, 'The economics of debt clearing mechanisms', Freie Universität Berlin Working Paper (2010); L. Börner and D. Quint, 'Medieval matching markets', Freie Universität Berlin Working Paper (2010); L. Börner and A. Ritschl, 'Communal responsibility and the coexistence of money and credit under anonymous matching', Centre for Economic Policy Research Discussion Paper No. DP8184 (2011).
    ${ }^{12}$ Munro, 'Bullionism and the bill of exchange in England', pp. 198-9.
    ${ }^{13}$ These rolls have been printed in CCR 1392-1396, pp. 518-48; CCR 1409-1413, pp. 439-51; CCR 1422-1429, pp. 477-87; CCR 1429-1435, pp. 369-87.
    ${ }^{14}$ J. Bolton and F. Guidi Bruscoli, 'The Borromei Bank Research Project', in L. Armstrong, I. Ebl, and M.M. Ebl (eds), Money, Markets and Trade in Late Medieval Europe: Essays in Honour of John H.A. Munro (Leiden, 2007), pp. 460-88, at pp. 471-2, 477-9.
    ${ }^{15}$ CPMR 1381-1412, pp. 31-5.
    ${ }^{16}$ T. Moore, "According to the law of merchants and the custom of the city of London": Burton v Davy (1436) and the negotiability of credit instruments in medieval England', in M. Allen and M. Davies (eds.), Medieval Merchants and Money: Essays in Honour of James L. Bolton (London, 2016), pp. 305-22. See below for further discussion of this case.
    ${ }^{17}$ TNA: PRO, DL 25/1638; /1639; /1989. For more details, see A. Bell and T. Moore, 'The organisation and financing of English expeditions to the Baltic during the later Middle Ages', in C. Lambert, G. Baker and D. Simpkin (eds), Military Communities in Late Medieval England: Essays in Honour of Andrew Ayton (Woodbridge, forthcoming).

[^3]:    ${ }^{18}$ This and the following draws on W. Paravicini, Die Preussenreisen des europaeischen Adels, 2 vols (Sigmaringen, 1985-95); J.M. Murray, Bruges, Cradle of Capitalism, 1280-1390 (Cambridge, 2005); S. Jenks, 'Small is beautiful: Why small Hanseatic firms survived in the late middle ages', in J. Wubs-Mrozewicz and S. Jenks (eds), The Hanse in Medieval and Early Modern Europe (Leiden, 2012), pp. 191-214, at pp. 195-9.
    ${ }^{19}$ M.M. Postan, 'Private financial instruments in medieval England', Vierteljahrschrift für Social- und Wirtschaftesgesichte 23 (1930), pp. 26-75, at pp. 35-7.
    ${ }^{20}$ TNA: PRO, C 1/16/369.
    ${ }^{21}$ A. Hanham, The Celys and Their World: An English Merchant Family of the Fifteenth Century (Cambridge, 1985).

[^4]:    ${ }^{22}$ Jenks, 'Small is beautiful', pp. 191-3, 203-5.
    ${ }^{23}$ H. van der Wee, The Growth of the Antwerp Market and the European Economy, Fourteenth to Sixteenth Centuries, 3 vols (The Hague, 1963), vol. 2, pp. 333-52.
    ${ }^{24}$ These different credit instruments are discussed in Postan, 'Private financial instruments in medieval England'.
    ${ }^{25}$ P. Nightingale, 'Money and credit in the economy of late medieval England', in D. Wood (ed.), Medieval Money Matters (Oxford, 2004), pp. 51-7, at pp. 64-6.

[^5]:    ${ }^{26}$ C. McNall, 'The business of statutory debt registries, 1283-1307', in P.R. Schofield and N.J. Mayhew (eds), Credit and Debt in Medieval England, c.1180-c. 1350 (Oxford, 2000), pp. 68-88, at pp. 71-2.
    ${ }^{27}$ M.M. Postan, ‘Credit in medieval trade', EcHR 1 (1928), pp. 234-61, at pp. 255-6.
    ${ }^{28}$ J. Oldland, 'The allocation of merchant capital in early Tudor London', EcHR 63 (2010), pp. 1058-80, at p. 1070.
    ${ }^{29}$ J. L. Bolton, 'How it really worked: Italian banking in northern Europe in the fifteenth century as seen through the ledgers of the Borromei bank', this volume, ch. 8, p. 86, notes that London was the only major European market without such a network of money exchangers.
    ${ }^{30}$ J. Rogers, The Early History of the Law of Bills and Notes: A Study of the Origins of Anglo-American Commercial Law (Cambridge, 1995) pp. 2-3.
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    ${ }^{32}$ Moore, 'According to the law of merchants', pp. 311-12.

[^6]:    ${ }^{33}$ CPMR 1413-1437, pp. 200-1.
    ${ }^{34}$ CPMR 1381-1412, p. 240.
    ${ }^{35}$ CPMR 1381-1412, p. xxxvi.
    ${ }^{36}$ CPMR 1364-1381, pp. 46-7.
    ${ }^{37}$ CPMR 1364-1381, p. 234.
    ${ }^{38}$ W. Childs, "To oure losse and hindraunce": English credit to alien merchants in the mid- fifteenth century', in J. Kermode (ed.), Enterprise and Individuals in Fifteenth-Century England (Stroud, 1991), pp. 68-98, at pp. 69, 85.
    ${ }^{39}$ E. Fryde, 'The deposits of Hugh Despenser the younger with Italian bankers', EcHR 2nd series, 3(1951), pp. 344-62.
    ${ }^{40}$ CPMR 1413-1437, p. 222.

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    ${ }^{43}$ J. Biancalana, 'The development of the penal bond with conditional defeasance', Journal of Legal History 16 (2005), pp. 103-17.

[^8]:    ${ }^{44}$ TNA: PRO, C 1/11/356.
    ${ }^{45}$ TNA: PRO, E 159/55, m. 16.
    ${ }^{46}$ TNA: PRO, E 159/57, m. 16.
    ${ }^{47}$ CPMR 1381-1412, pp. xxxv-xxxvi.
    ${ }^{48}$ L. Pezzolo, 'Bonds and government debt in Italian city states, 1250-1650', in W.N. Goetzmann and K. Geert Rouwenhorst (eds), The Origins of Value: The Financial Innovations That Created Modern Capital Markets (Oxford, 2005), pp. 145-63, at p. 146.
    ${ }^{49}$ Ibid., p. 156.
    ${ }^{50}$ H. Jenkinson, 'William Cade, a financier of the twelfth century', EHR 28 (1913), pp. 209-27.

[^9]:    ${ }^{51}$ TNA: PRO, E 403/11, m. 3 (Geoffrey Burlemunt); /12, m.1d (William de Montrevel and Elias de Rupella); /14, m. 1 (William de Pesmes); /15A, mm. 1 (Peter de Chauvent), 3 (Stephen de Bues, William de Chabbanais); /3114, m. 1 (Hugh de Grandimonte, William de Chabbanais).
    ${ }^{52}$ M. Prestwich, War, Politics and Finance under Edward I (London, 1972), p. 221. The figure of $£ 200,000$ includes the large sums allowed to the Frescobaldi of Florence, bankers to Edward I and Edward II in their account of 1309. However, the Frescobaldi also received over $£ 50,000$ from the customs prior to 1307 , and this should be deducted from Edward’s debt at his death.
    ${ }^{53}$ A.R. Bell, C. Brooks and T.K. Moore (eds), Accounts of the English Crown with Italian Merchant Societies, 1272-1345, List and Index Society 314 (Kew, 2009), pp. 78-9 (item no. 20.86).
    ${ }_{54}^{54}$ A.H. Thomas, Calendar of Early Mayor's Court Rolls, 1298-1307 (London, 1924), pp. 128-9.
    ${ }^{55}$ CCR 1302-1307, p. 187. In 1299 Corvedale appears as a creditor to another Gascon knight, in 1303 he was one of the witnesses to the appointment of an attorney by Genoese merchants, and in 1304 Corvedale was reprimanded for abusing Robert de Sutton, probably before the court of the mayor and aldermen (R.R. Sharpe (ed.), Calendar of Letter-books of the City of London: C, 1291-1309 (London, 1901), pp. 49, 192, 130-1).

[^10]:    ${ }^{56}$ S. O'Connor, 'Finance, diplomacy and politics: Royal service by two London merchants in the reign of Edward III', Historical Research 67 (1994), pp. 18-39, at p. 22.
    ${ }^{57}$ E.B. Fryde, 'The English farmers of the customs, 1343-51', TRHS 9 (1959), pp. 1-17, at p. 8.
    ${ }^{58}$ O'Connor, 'Finance, diplomacy and politics', p. 23.
    ${ }_{60}^{59}$ Fryde, 'The English farmers of the customs', p. 8, n. 3.
    ${ }^{60}$ Ibid., p. 14.
    ${ }^{61}$ A. Steel, 'The negotiation of wardrobe debentures in the fourteenth century', EHR 44 (1929), pp. 439-43.
    ${ }^{62}$ G. Sayles, 'A dealer in wardrobe bills', EcHR 3 (1931), pp. 268-73.

[^11]:    ${ }^{63}$ C.V. Given-Wilson, et al. (eds), The Parliament Rolls of Medieval England, 1275-1504, 16 vols (Woodbridge, 2005), IV, p. 423.
    ${ }^{64}$ G. Holmes, The Good Parliament (Oxford, 1975), pp. 71-8, 87-90.
    ${ }^{65}$ Given-Wilson, et al., Parliament Rolls of Medieval England, V, pp. 300-2.

[^12]:    ${ }^{66}$ C. Fraser, Northern Petitions Illustrative of Life in Berwick, Cumbria and Durham in the Fourteenth Century, Surtees Society 194 (Gateshead, 1981), pp. 220-2. Note that Hatfield does not mention Perrer's role in a different petition concerning the same loans (TNA: PRO, SC 8/107/5317).
    ${ }^{67}$ H. Jenkinson, 'Exchequer tallies', Archaeologia 62 (1911), pp. 367-80. For further details on the use of tallies, see T. Moore, "Score it on my taille": The (use and abuse) of tallies by the medieval Exchequer', Reading Medieval Studies 39 (2013), pp. 1-18.
    ${ }^{68}$ T. Tout, Chapters in the Administrative History of Mediaeval England: The Wardrobe, the Chamber and the Small Seals, 6 vols (Manchester, 1920-33), vol. 2, pp. 99-103; A. Steel, The Receipt of the Exchequer, 1377-1485 (Cambridge, 1954).
    ${ }^{69}$ G. Davies, History of Money from Ancient Times to the Present Day (Cardiff, 1994), p. 150.
    ${ }^{70}$ Steel, Receipt of the Exchequer, pp. xxix-xxxvi.
    ${ }^{71}$ TNA: PRO, E 401/370, mm. 10-11.
    ${ }^{72}$ TNA: PRO, E 401/368, mm. 5, 6.
    ${ }^{73}$ CPMR 1364-1381, pp. 89-90.
    ${ }^{74}$ CPMR 1381-1412, pp. 130-1.

[^13]:    ${ }^{75}$ Given-Wilson, et al., Parliament Rolls of Medieval England, VIII, p. 206.
    ${ }^{76}$ A.R. Bell, C. Brooks and T.K. Moore, 'The credit relationship between Henry III and merchants of Douai and Ypres, 1247-70', EcHR 67 (2014), pp. 123-45, at p. 142.
    ${ }^{77}$ CPR 1266-1272, p. 337; CLR 1267-1272, p. 79; CLR 1251-1260, p. 144.
    ${ }^{78}$ For a discussion of valuing medieval annuities, see A. Bell. and C. Sutcliffe, 'Valuing medieval annuities: Were corrodies underpriced?', Explorations in Economic History 47 (2010), pp. 142-57.
    ${ }^{79}$ TNA: PRO, E 403/193, m.3. For the involvement of royal clerks, see R. Bowers, 'From rolls to riches: King's clerks and moneylending in thirteenth-century England', Speculum 58 (1983), pp. 60-71.
    ${ }^{80}$ F. Lane and R. Mueller, Money and Banking in Medieval and Renaissance Venice (Baltimore and London, 1985), p. 68.
    ${ }^{81}$ E. Kerridge, Trade and Banking in Early Modern England (Manchester, 1988).

[^14]:    ${ }^{82}$ In a suit of 1302 , the plaintiff produced a witness who said that the defendant had acknowledged liability for a bond issued by his son, while the parties were 'were sitting in [the defendant]'s hall on a bench facing the road and drinking' (Thomas, Calendar of Early Mayor's Court Rolls, p. 138).
    ${ }^{83}$ Nightingale, 'Gold, credit and mortality'.
    ${ }^{84}$ Spufford, Money and its Use, pp. 258, 262.

