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Project background

This paper presents some of the preliminary findings of an ESRC-funded research project, 'Credit Finance in the Middle Ages: Loans to the English Crown c. 1272-1340'.¹ This project is latest in a series of collaborations between medieval historians and economists/financial academics based at the ICMA (International Capital Markets Association) centre, now part of Henley Business School, at the University of Reading. The wider aim is to apply modern economic and financial analysis to medieval sources and previous studies include: using modern tools for valuing annuities and pensions to assess the economic rationality of monastic corrodies; advertising and branding in the medieval pilgrimage industry; and the use of forward contracts in wool and the efficiency of the medieval wool market.²

The current project looks at the financial relationship between the English crown and the Italian merchant societies during the period 1272-1340. In addition to furthering our historical understanding of this period, the ultimate aim is to use the data extracted from the records to construct a reputational model of sovereign borrowing. This will investigate how the 'credit rating' of the English crown affected both the availability of credit and the interest rates charged for that credit, a question of considerable contemporary relevance. The project will examine the successive relationships between three English kings (Edwards I, II and III) and three Italian merchant societies (the Ricciardi of Lucca, the Frescobaldi of Florence, and the Bardi and Peruzzi, also of Florence). This paper focuses on the first of these relationships, that between Edward I and the Ricciardi (1272-1294).

The Ricciardi and Edward I

Before 1272, the English kings had occasional dealings with Italian merchants, mainly in purchasing luxury goods for the household and arranging for balance transfers to Rome.³ During Edward I's reign, the financial relationship between king and merchant became much more central. Edward's initial dealings with the Italian merchants, and one society in particular, the Ricciardi of Lucca, arose from the debts he incurred during his involvement in the crusade of 1270-2 and his leisurely journey back to England, through Italy and France, in 1273-4.⁴ After his return to England in late 1274, Edward had to find a way of repaying these loans. He went further than this, however, and turned the Ricciardi into an integral part of the royal administration.

From 1275, the Ricciardi collected the newly-created customs duty on exports of wool, hides and wool-fells, worth around £10,000 per annum. In addition, they were involved in the collection of the occasional subsidies on lay and clerical income, as well as the profits of the recoinage of 1279.⁵ In return, the Ricciardi loaned significant sums in cash to the king but, perhaps more importantly, they also made payments to third parties on the king's behalf, as and when ordered

by royal writs.⁶ The usual description of this arrangement is that the Riccardi's loans were secured between against the granting of the customs revenue.⁷ This alone would have been an innovative financial technique, with undetermined loans backed by long-term grants of customs duties. However, from our preliminary analysis of the source materials, we would offer an alternative framework for the relationship between crown and Italian banker, which we would describe this as being more comparable with a modern current account, complete with extensive overdraft facilities.

Over the whole period 1272-1294, the Ricciardi advanced or paid on the king's behalf almost £400,000, a yearly average of £20,000.⁸ Most of the payments made to or for the king would have been met from the merchants' own resources (including the income from the customs and other royal revenue in the Ricciardi's hands) but the Ricciardi also acted as brokers raising loans for the king from a cartel of their fellow merchant societies - £20,000 for the recoinage in 1279, a similar sum for the second Welsh war in 1282-3 and a further £18,900 in 1290.⁹

The relationship between the king and the Ricciardi was monitored by periodic accounts that, in effect, give the balance of the royal account. The table below shows the balance of Edward's account with the Ricciardi. In addition to the nominal balance as stated in the account, the table also includes an adjusted value where we have evidence that the Ricciardi charged interest. Finally, the table shows the sums deposited with the Ricciardi from the sexennial tenth imposed on the English church by the papacy in 1274. The significance of the latter point will be considered later.

Edward's bank statement

Year ¹⁰	Nominal balance	Adjustment for interest	Papal deposits ¹¹	Overall
1276	-£13,333	?	£5,000	-£8,333
1279	-£23,000	-£11,320	£10,000	-£1,320
1289	-£108,000	?		
1290	-£54,180	?	£10,000	-£44,180
1294	-£18,925	-£15,592	£66,667	£51,075

This relationship had obvious benefits for Edward. It was more convenient for him to use the balance transfer facilities and access to cash provided by the Ricciardi, rather than building up and maintaining a large cash treasury, as his predecessors had been forced to do.¹² Moreover, the king could anticipate his revenues in order to smooth the seasonal fluctuations in royal income. Finally, he had access to credit for expenditure on large-scale projects, such as the repeated wars in Wales or Edward's diplomatic efforts in Gascony.

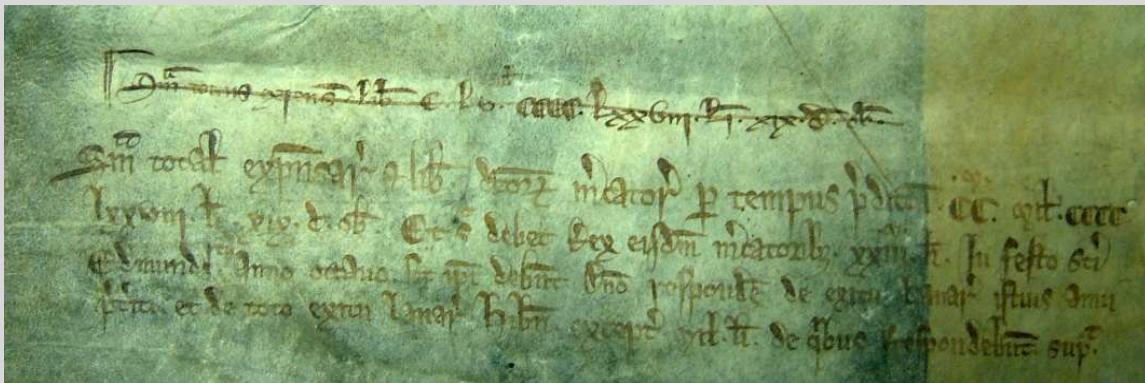
The Ricciardi also derived considerable advantages from their connection to the English king. They enjoyed more intangible but still valuable privileges, such as the ability to use the king's Exchequer courts to pursue their debtors and, perhaps more importantly, enhanced access to the English wool market. During the period that they acted as bankers to the crown, the Ricciardi were parties to nearly half of all the forward contracts in wool with English producers.¹³ The

following discussion, however, will concentrate on the direct financial profits enjoyed by the Ricciardi. These are difficult to assess, in large part because such benefits were often disguised in the accounts in order to avoid the appearance of usury.¹⁴

For instance, after the accounts of 1276 and 1279 shown on the table above, Edward was left owing a suspiciously round sum to the Ricciardi, namely £13,333 13s 4d (or exactly 20,000m) in 1276 and £23,000 in 1279.¹⁵ In both cases, the most likely explanation is that the Ricciardi and the king had agreed on a reasonable figure to cover the Ricciardi's costs and leave them with a mutually-acceptable degree of profit. In order to maintain the integrity of the Exchequer accounts, however, it was necessary for the payments made by the Ricciardi to exceed their receipts by exactly the figures agreed.

Creative accounting

The account of 1279 is of particular interest in this respect, because it is here that we can catch the Exchequer clerks red-handed in the act of 'cooking the books'. The 1279 account follows the standard format, first listing all the Ricciardi charges and then all the Ricciardi discharges. The total received by the Ricciardi was £178,478 19½d, while their expenditure and allowances as listed in the account come to £189,797 19s 6d. Thus we can calculate an 'actual' Ricciardi surplus, according to the figures given in the account, of £11,319 17s 10½ d. These entries, however, are crossed through and instead the clerk has supplied an alternative total below. Now, in order to reach the 'correct' figure of £23,000 and to balance the account, the responsible clerk had to either reduce the Ricciardi receipts or inflate their expenses. He chose the latter option and, fortunately for us, muddled up his sums. When calculating the total advanced by the Ricciardi to the king, he deducted the agreed £23,000 from the total Ricciardi receipts, instead of adding it, thus giving a total of £155,478 19 ½d for expenditure by the Ricciardi. This error left the Ricciardi apparently owing £23,000 to the king. The clerk, realising his mistake, then cancelled the 'wrong' total and supplied the 'right' figure of £201,478 19½d below. This is only the most egregious example of 'creative accounting' that we have found in the royal records, and the practice must have been widespread.



While it is thus clear that the Ricciardi were collecting some return from their relationship to Edward, it is more difficult to estimate a figure for the level of interest charged. Part of this problem results from the disguising of payments in the medieval records, as well as from gaps in the surviving source material. Moreover, rather than advancing discrete loans and receiving regular repayments, the Ricciardi were constantly paying out and receiving in monies on the king's behalf throughout the period that they acted as royal bankers. This complicates any attempt to calculate interest.

One of the aims of this project is to compile a comprehensive dataset of the king's financial transactions with the Italian merchant societies from the surviving documentary sources – i.e. from the individual writs of *liberate* ordering payments to be made and from the issue rolls, which often provide more details about who made such payments and when. This will allow us to reconstruct the king's 'bank statements' on as close to a daily basis as possible, and thus to reach a more accurate estimate of the balance of the king's account at any one time. We should then be able to come to a more realistic understanding of the level of interest charged. Alternatively, it may be more helpful to view the sums paid by the king not in terms of a percentage interest rate but rather as 'bank fees' – so that, for instance, between 1276 and 1279, Edward paid about £12,000 (or £3,000 *per annum*) for access to the Ricciardi's financial services.

There are, however, a number of particular transactions for which we can calculate effective interest rates. We have developed a formula to calculate an annually-compounded interest rate, taking into account the time value of money.¹⁶

The general formula for a loan of L made now with a final repayment of F in T years (T need not be a whole number) and N interest payments of P_1, P_2, P_N at times T_1, T_2, \dots, T_N is shown in equation (1) below.

$$L = \left(\sum_{i=1}^N \frac{P_i}{(1+r)^{T_i}} \right) + \frac{F}{(1+r)^T} \quad (1)$$

The minimum data required in order to calculate an accurate interest rate are therefore:

- 1) the amount of the initial loan (L)
- 2) the amount(s) of the final repayment (F) and of any intermediate repayments (P)
- 3) the date of the initial loan
- 4) the date(s) of the final repayment and of any intermediate repayments. The different values of T are calculated by deducting 3) from 4)

Where we are able to extract the requisite data, the interest charged on government loans in the 1270s and 1280s seems to be in the order of 10-15%.¹⁷ This is not far above the risk-free rate of return as calculated by Gregory Clark based on the income from rent charges on land and suggests that government borrowing was not seen as particularly risky at this time.¹⁸ It also

stands in stark contrast to the rates that Edward had to pay to secure credit in the troubled years after the crisis of 1294.

Unfortunately, there are no surviving accounts from the 1280s. Instead, it seems that the expenditure undertaken by the Ricciardi during these years was allowed against their receipts from the wool custom in their accounts for that custom.¹⁹ The detailed study of the liberate rolls currently being undertaken should shed more light on the balance of the relationship between the king and the Ricciardi during this decade.

We know more about the role of the Ricciardi in funding the extended stay of the royal household in the south of France between 1286 and 1289.²⁰ The surviving wardrobe books and accounts show that the Ricciardi were both transporting specie to the king (some from England and some from Nîmes and Montpellier) and that payments for goods and services were being made *per manus mercatores de Lucca*.²¹ In addition, the Ricciardi supplied money to the council in England to fund the suppression of the Welsh revolt in 1287. By the time of his return to England in August 1289, Edward acknowledged debts to the Ricciardi of nearly £108,000 sterling.²² This figure is misleading, since it does not take account of the sums that the Ricciardi had received from the customs and the treasury in England. No record of the accounting held on 1 June 1290 has survived, but from the deficit carried over into the next accounting in 1294, we can see that the king's net debt to the Ricciardi was £54,180 13d.²³ We should also bear in the mind the possibility that this figure may have included an element of interest or fees.

Even so, this was still a huge sum and it may have taxed the Ricciardi's resources to their utmost. It was naturally followed by a period of retrenchment in which the Ricciardi receipts exceeded their advances – in effect the king was paying down his overdraft. This is apparent from the account held on 7 August 1294, which revealed that the king had reduced his deficit to £18,924 16s 7 ¾d.²⁴ This means that, over these four years, Edward paid out £35,255 4s 5 ¼d more than he received from the Ricciardi, at a rate of just under £9,000 *per annum*. This would seem to demonstrate the strength of the system; Edward could increase his overdraft during times of financial pressure and reduce it during less stressful periods.

In fact, the Ricciardi finances were, on paper at least, in an even stronger position than this would suggest. As we have seen, the Ricciardi were one of several Italian merchant societies to act as papal bankers and were responsible for holding a portion (seemingly around £10,000) of the sexennial tenth collected in England.²⁵ The tenth had been granted in 1274 but it was only in 1290 that Edward finally agreed terms with the pope to lead a new crusade and, in return, was granted access to the proceeds of the tax in England. The first instalment of 100,000m was probably delivered to the Ricciardi on Edward's behalf in June 1291. A second instalment was scheduled for 1292 but it does not seem that this was ever paid.²⁶

What did this mean in practice? In the absence of surviving internal account books from these merchant societies, it is impossible to track particular money and credit flows, but we can advance a reasonable hypothesis, based on the subsequent course of events. Some of the papal taxation was already in the Ricciardi's hands in their role as papal bankers, but the majority was deposited with other merchant societies. Crucially, it is unlikely that this money held by the other merchant societies was physically paid over to the Ricciardi, not least because these societies

would not have held such large sums in cash.²⁷ It would have been more logical for the merchant societies simply to transfer their liabilities from the pope to the Ricciardi. On paper, therefore, the Ricciardi would have been credited with the extra 100,000 marks (less the share they already held). Some of this may have been offset against Ricciardi debts with these societies but the bulk would probably have been converted into debts owed to the Ricciardi (possibly now earning interest).

After 1291, therefore, Edward probably had a surplus on his account with the Ricciardi. This was doubly advantageous for the Lucchese: they would presumably have expected to receive their usual interest or fees on Edward's 'overdraft', and at the same time they held what was in effect a large interest-free loan from the king, on which they would have received either interest from the other merchants who actually held that money or the income from investing that money in trade/private loans. From Edward's perspective, however, the Ricciardi were holding 100,000m of his money (a sum significantly greater than his remaining debt to them) and he would have expected that they would be able to produce this money, or at least a substantial portion of it, when required. This reversal in the relative position of king and merchant was to prove the Ricciardi's undoing in 1294.

The 'Credit Crunch' of 1294

Under the medieval 'banking' system, at any one time most of the capital of these merchant societies would have been committed in various ventures, both loans to governments and private borrowers, as well as investment in goods for trade. This was normally profitable, since this money was earning the merchants a good return, but it meant that they only retained a small buffer of liquid capital in hand. Most trade and transactions could be carried out through credit, offsetting or balance transfers between merchants. When actual cash was needed beyond their own reserves, merchants could raise this from their fellow merchants, either as a loan or as a swap against a credit that the first merchants had with the second (or, indeed, another group of merchants).

In this way we can draw a parallel between the position of the merchant societies in the 1290s and the current 'credit crunch'. Although the underlying cause of our current economic strife lay in excessive leveraging and asset-price inflation, the trigger was the 'sub-prime crisis' in the US, as a result of which banks were unwilling to lend to each other, thus removing liquidity from the market and exposing the shaky foundations of global finance. In the early 1290s, there was a similar crisis of liquidity, as the papal tenth was gradually called in by the pope and the French king exacted large sums from the Italian merchants in France.²⁸ This left the merchant societies under-capitalised and the Ricciardi in a particularly vulnerable position, especially if Edward should seek to withdraw the papal tax at short notice.

Unfortunately, this was precisely the situation that arose in 1294, when war broke out between England and France.²⁹ The Ricciardi found themselves needing to find a very large sum of money very quickly to meet Edward's demands for money to fund his armies. Although the Ricciardi should have been well-capitalised at that time, it seems that the greater part of their resources was tied up: in trade (especially in wool); in loans to private borrowers; and possibly in 'corporate' loans (i.e. the shares of the papal tenth held by other merchant societies).

In normal circumstances, the Ricciardi would have looked to raise short-term loans from their fellow merchant societies, in order to buy time while they set about realising sufficient of their own assets, including calling in any monies from the papal taxation still in the hands of other merchant societies. However, the wider lack of liquidity seems to have afflicted all the merchant societies. Like the Ricciardi, they would have invested their shares of the papal taxation in loans or trade and would not have had such large sums in cash immediately to hand. As a result, they were either unable or unwilling to advance the necessary sums to the Ricciardi.

These difficulties were compounded by the Anglo-French war, which effectively cut communications between Italy and England. Unable to update the account books of their various branches across Europe, the Ricciardi and their fellow merchants could not manage their money effectively. Overall, the Ricciardi would have argued that their difficulties resulted from a short-term mismatch and that, overall, their assets matched their liabilities. Unfortunately, the Ricciardi found themselves in the untenable position whereby they were unable to collect on debts owed to them while, at the same time, their own creditors sought to withdraw sums deposited with the Ricciardi.

The following quotes from the Ricciardi's internal letters, dating from after the crisis of 1294, could have been taken from the headlines of today's newspapers:

'everyone to whom we owed money ran to us and wanted to be paid, and because of this we were held very tight everywhere';

'it seems that money has disappeared';

'we used to have credit and could borrow 100,000 and 200,000 *livres tournois* (£25,000-50,000 sterling) and even more, we are now reduced to such a point that if we wanted 100 *livres tournois* (£25 sterling) we could not find them';

'we do not find anyone willing to give us credit of even £10 of Lucca'.³⁰

All this meant that the Ricciardi were unable to provide the English king with the financial support that he desperately needed. In response, Edward removed the Ricciardi from their position as collectors of the customs on wool and, in an attempt to recover some of his losses, ordered the seizure of the assets (mainly wool but also debts owed to the merchants by private individuals) held by the Ricciardi and other merchant societies.³¹ This dealt a mortal blow to the Ricciardi's finances and marked the end of the long-standing relationship between the Ricciardi and the English crown.

For their part, the Ricciardi struggled on until 1301. In order to rebuild their fortunes, they sought to implement a series of 'credit swaps' and netting between their creditors and debtors. First, they petitioned for a new accounting with Edward in the belief that his 'overdraft', combined with money owed to them by the king's brother Edmund (about 25,000m, although the merchants tried to claim 40,000m including damages) and the proceeds of the wool and debts seized by the king, would offset the greater part of the papal taxation that they owed him. The Ricciardi's other main creditor was the pope, and the merchants sought to persuade him to take over the

debts owed to them in France and in Italy, on which the pope had a better chance of collecting than the Ricciardi.³² To draw another parallel with more recent events, this is analogous to the

concern of modern banks to reduce their liabilities and perhaps also to the intervention of governments to exchange Treasury-backed bonds for the more illiquid assets held by the banks. Unfortunately for the Ricciardi, they were unable to convince either Edward or the pope to support them, and the society eventually disappeared.

From the perspective of the English government, at least in the short-term, Edward had dealt with the Ricciardi decisively and, in effect, he had succeeded in recovering much of the papal taxation promised to him. If we carry out the accounting desired by the Ricciardi, we find that Edward realised *circa* £7,500 from the seized Ricciardi wool and a further £5,000 from Ricciardi debtors in England and Ireland, as well as a political dividend from pardoning £1,000 of debts owed to the Ricciardi by influential magnates and royal officials. Adding to this Edward's £18,925 overdraft and the 25,000m advanced to Edmund of Lancaster, the king had recouped almost £50,000 of the first instalment of the papal tax.³³

However, the fall of the Ricciardi had significant costs in the medium-term, since Edward still needed to raise huge sums of money to pay for his armies, now fighting in Gascony, Scotland and Wales, as well as the subsidies that he had promised to his allies in the Low Countries and Germany. Michael Prestwich has estimated that the total cost of these wars was around £750,000.³⁴ As a result, Edward was forced to turn to moneylenders who both lacked the resources of the Ricciardi and charged much higher rates of interest.

For example, Edward borrowed 4,000 *livres tournois* from a group of Italian merchants from Asti, secured against the royal jewels. This debt was eventually repaid and the jewels redeemed by the Frescobaldi of Florence, albeit at a cost to the king of 5,140 *livres tournois*.³⁵ This is equivalent to an annualised interest rate of 46.1%. In an even more extreme example, the king was forced to pay £35 in interest for a one-month loan of £265 from Albisso Fifanti, another Lombard merchant. This works out to an annualised interest rate of 152%.³⁶ Furthermore, and perhaps of more significance than the high rates of interest demanded, is the limited size of the credit available to Edward after 1294.

As a result, Edward was forced to levy heavy and repeated taxation on England, in the form of lay and clerical subsidies (as much as £280,000 during the crisis years 1294-7) and purveyance of wool and goods.³⁷ These demands were one of the main causes of the constitutional crisis of 1297. Moreover, much of Edward's expenditure on provisions and wages was paid for by wardrobe bills, effectively government I.O.U.s, and as much as £200,000-worth of these may have been outstanding in 1307.³⁸ Eventually, many of these bills were either never paid up or, instead, the holders had to sell them at a steep discount to courtiers or royal officials who could use their connections to secure repayment.³⁹ Edward's treatment of the Ricciardi thus had serious medium-term repercussions for his government and the wider English economy.

¹ For more details, see the project website at: <http://www.icmacentre.ac.uk/medievalcredit>

² A. R. Bell and C. Sutcliffe, 'Valuing medieval annuities: were corrodies underpriced?', *ICMA centre discussion papers in finance* (2007) (this can be accessed at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1030857); A. R. Bell, C. Brooks and P. Dryburgh, *The English wool market, c.1230-1327* (Cambridge, 2007).

³ For a brief overview of the activities of the Italians in England before the reign of Edward I, see R. J. Whitwell, 'Italian bankers and the English crown', *Transactions of the Royal Historical Society*, New Series, xvii (1903), pp.187-197 and 224-9.

⁴ For these debts, see the wardrobe account covering the period November 1272 to October 1274 (TNA E 372/121, r.22 m.1).

⁵ R. W. Kaeuper, *Bankers to the crown: the Riccardi of Lucca and Edward I* (Princeton, 1973), pp.104-118.

⁶ *Ibid*, pp.86-104.

⁷ M. Prestwich, *Edward I* (London, 1988), pp.99-100.

⁸ See the table in Kaeuper, *Bankers to the crown*, p.130.

⁹ *Ibid*, pp.102-3, 204.

¹⁰ For the account of 1276, see TNA C 66/95, m.32 (this has been abstracted in *CPR 1272-1281*, pp.131-2, but this requires some minor emendations); for that of 1279, see TNA E 101/126/1; for the statement of 1289, see *CPR 1282-1291*, p.318; and the balance in 1290 is given in the account of 1294 in TNA E 372/154, r.43 m.1d.

¹¹ The sexennial tenth imposed in 1274 raised some £130,000 in England. Probably more than half of this was deposited with Italian merchant societies by the papal collectors pending an agreement between the king and the pope concerning the proposed crusade (W. E. Lunt, *Financial relations of the papacy with England to 1327* (Cambridge, Mass., 1939), pp.332-3). For the Ricciardi's share, see Kaeuper, *Bankers to the crown*, 47-8.

¹² For example, see J. E. A. Jolliffe, 'The Chamber and the castle treasures under King John'. *Studies in medieval history presented to Frederick Maurice Powicke*, eds. R. W. Hunt, W. A. Pantin and R. W. Southern (Oxford, 1948), pp.117-42.

¹³ A. R. Bell, C. Brooks, and P. Dryburgh (eds.), *Advance contracts for the sale of wool c. 1200 - c. 1327*, List and Index Society, 315 (2006), pp.?

¹⁴ There is an extensive historical literature about usury. For a brief introduction, see D. Wood, *Medieval economic thought* (Cambridge, 2002), pp.181-205.

¹⁵ For the audit of 1276 see *CPR 1272-1281*, pp.131-2; and for that of 1279 see TNA E 101/126/1.

¹⁶ This formula is discussed in more detail in A. R. Bell, C. Brooks and T. K. Moore, 'Interest in medieval accounts', *ICMA centre discussion papers in finance* (2008) and this can be downloaded from:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1318333

¹⁷ In 1273 at Rome a Florentine merchant, Bonasius Bonante, had advanced the king £918 15s. This debt was finally cleared in May 1276, by which time Bonasius had received £1220. Using the above formula and taking into account the differing dates on which repayments were made, of between 12.9% and 15.2% (*ibid*, pp.19-24). A loan taken from the society of the Scali of Florence at the same time was repaid with interest equivalent to between 8.3% and 11% (TNA E 372/121, r.21 m.1; E 403/34, m.1; /1238, m.1; C 62/51; m.12). In 1279 the king acknowledged receiving £2,200 from four Florentine merchant societies via the Ricciardi, to be repaid in two equal instalments, but the order for repayment of the second instalment in 1280 was for £1,250, implying that the king repaid in total £2,500. This works out at an interest rate of 14.4% *per annum*, assuming that the first half of the loan was repaid on time (*Calendar of Patent Rolls 1272-81*, pp.311, 401).

¹⁸ Clark suggested that the cost of capital, based on the price of perpetual rents, was 10% (G. Clark, 'The cost of capital and medieval economic technique', *Explorations in Economic History*, xxv (1988), pp.269-

76)). Brunt and Cannon, have calculated that the rate of interest, based on grain prices, was around 12% (L. Brunt and E. Cannon, 'A grain of truth in medieval interest rates? Re-examining the McCloskey-Nash hypothesis', Working paper, University of Bristol, p.14. Accessed on 5 December 2008 online at: <http://www.efm.bris.ac.uk/ecesc/Articles/mn.pdf>). The Italian merchants may have charged interest rates of 18-22% when entering into forward contracts for wool (Bell, Brooks and Dryburgh, *English wool market*, pp.138-143).

¹⁹ These accounts have been edited in S. Jenks (ed.), *The enrolled customs accounts: part I*, List and Index Society, 303 (2004), pp.1-13. This edition focuses on the receipts from the wool custom charged to the Ricciardi and omits the expenditure and allowances by the Ricciardi allowed against those receipts. These have to be consulted in the original documents (TNA 372/124, r.30 m.1d; /125, r.1 m.2d; /133, r.32 m.2d; /134, r.3 m.2-1d).

²⁰ The best account of Edward's activities in the south of France is now M. Morris, *A great and terrible king: Edward I and the forging of Britain* (London, 2008), pp.203-221.

²¹ The operations of the Ricciardi can be followed through the surviving wardrobe books from these years in B. F. Byerly and C. R. Byerly (eds.), *Records of the Wardrobe and Household 1285-1286* (London, 1977) and *idem, Records of the Wardrobe and Household 1286-1289* (London, 1986).

²² Edward's receipts from the Ricciardi (before deducting the monies received by them) rose inexorably from £62,153 on 1 July 1288 (E 36/274, m.218) to £100,254 5s 9d on 27 June 1289 (*Roles Gascons*, II, p.336), £106,704 5s 9d on 31 July (*ibid*, p.384) and £107,785 on 31 August 1289 (*CPR 1282-1291*, p.318).

²³ TNA E 372/154, r.43, m.1d.

²⁴ *Ibid*, m.1d.

²⁵ Kaeuper, *Bankers to the crown*, pp.47-8.

²⁶ The question of the precise fate of the papal tenth would repay further research. The best accounts can be found in Lunt, *Financial relations*, pp.340-2; and Kaeuper, *Bankers to the crown*, pp.218-20.

²⁷ The Frescobaldi were still holding 5,000m of the tenth in July 1293 (*CPR 1292-1301*, p.33), and the Bonsignori of Sienna £7,000 (Lunt, *Financial relations*, pp.341-2). Furthermore, the Bettori of Lucca also owed the Ricciardi £2,600 in 1294, and this may represent deposited papal taxes (TNA E 101/126/7, m.26d).

²⁸ Kaeuper, *Bankers to the crown*, pp.210-12; J. R. Strayer, *The reign of Philip the Fair* (Princeton, 1980), pp.149-50.

²⁹ For the war of 1294-8, see Prestwich, *Edward I*, pp.376-400.

³⁰ The quoted extracts are translated in Kaeuper, *Bankers to the Crown*, pp.228-9. The originals are in the National Archives, TNA E 101/601/5 and have recently been edited in *Lettere dei Ricciardi di Lucca ai loro compagni in Inghilterra, 1295-1303*, A. Castellani and I. del Punta (eds.) (Rome, 2005).

³¹ The seized wool is listed in the Exchequer schedule, which is printed in Bell, Brooks, and Dryburgh, *Advance contracts*, pp.176-219.

³² Kaeuper, *Bankers to the crown*, pp.227-48

³³ Kaeuper, *Bankers to the crown*, 223-5.

³⁴ Prestwich, *Edward I*, p.400.

³⁵ *Documents illustrating the crisis of 1297-98 in England*, ed. M. Prestwich, (London, 1980), pp.194-7.

³⁶ This transaction is recorded in the wardrobe book (BL. Add. MS 7965, f.29) and the enrolled wardrobe account (E 372/144 r.25 m.1).

³⁷ Prestwich, *Edward I*, pp.408-9.

³⁸ M. Prestwich, *War, politics and finance under Edward I* (London, 1972), p.221.

³⁹ For a later example of the market in wardrobe bills, see G. O. Sayles, 'A dealer in wardrobe bills', *Economic History Review*, 3 (1931), pp.268-273.