PAYMENTS AND THE DEVELOPMENT OF FINANCE IN PRE-INDUSTRIAL EUROPE

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ABSTRACT: The principal driving force in the development of the financial system of pre-industrial Europe was not lending *per se*, but payments. Trade among strangers required the development of methods of payment that did not require mutual acquaintance and trust. The two principal financial innovations of pre-industrial Europe—the deposit bank and the bill of exchange—evolved to address this need. Lending initially developed as an adjunct to the payments system and then expanded to fill other functions.

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The principal driving force in the development of the financial system of pre-industrial Europe was not lending *per se*, but payments. Trade among strangers required the development of methods of payment that did not require mutual acquaintance and trust. The two principal financial innovations of pre-industrial Europe—the deposit bank and the bill of exchange—evolved to address this need. Lending initially developed as an adjunct to the payments system and then expanded to fill other functions.

Trade within a small community

In the medieval economy, most trade took place within communities of people who knew one another well—either local communities or communities of merchants who traded with one another on a regular basis. Within such communities trade was largely conducted on the basis of credit.

Credit normally took the form of sales credit—either deferred payment for goods sold or advance payment for future delivery of goods purchased. Merchants supplied raw materials to manufacturers on credit, and they financed agricultural producers by paying them in advance for future crops. Shopkeepers, craftsmen, and innkeepers kept a current account for their regular customers. In one rural community in England,

> When an item was purchased, it was rare for both delivery of the goods and payment to be given at the same time. Instead, one or the other was postponed, with a date for completion specified in an oral or written contract. Likewise payment of wages for labor was often postponed. These obligations for delivery of goods or cash were frequently allowed to accumulate, forming an elaborate though informal system of stored or owed credit involving most people within the community.[1]

The situation was the same on the Continent: "there was not a single element of the population of the late medieval Bavarian countryside which did not take and extend credit."[2] Similarly, in France, "[Trade] amounted to sales of goods and services, paid for

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[1]McIntosh (1988) p560-1, writing about the rural manor of Havering near London in the fourteenth and fifteenth centuries.

[2]Toch (1986).

by loans and periodic settling of accounts. The practice was ubiquitous… The local economy, in short, ran on credit."[3]

Any such system of trading based on credit requires periodic settlement. An extender of credit may wish to liquidate a debt in order to support his own purchases. However, if he too can buy on credit this may not be a pressing problem. There is a more important reason for the settlement of debts. An extender of credit will not allow the amount of credit to grow indefinitely, because of the increasing exposure to default on the part of the debtor. Consequently, all forms of continuing credit require periodic settlement by debtors as a 'test of solvency'.

Settlement in cash is an obvious option. However, in the period in question it was a particularly problematic and expensive one.[4] There existed a bewildering profusion of coin, much of it of poor quality. The basic coin in most of Europe was the silver *denier* or penny. However, mints were the control of individual principalities and cities and so the weight and fineness of coins varied widely. Even in a single jurisdiction, the coins in circulation would vary a great deal. Because of the crude technology of minting, coins varied considerably in weight even when new, and they were easy to clip and to counterfeit. As a result of debasement, successive issues tended to be of progressively lower weight and fineness. Moreover, the quality of a given issue deteriorated over time due to wear, to clipping, and to culling and melting of the heaviest coins. And money was not only of poor quality, there was not enough of it. Throughout the period there was a chronic shortage of circulating medium.

Beyond the problems of quality and scarcity, the coinage was not well suited to the needs of commerce. Early on, silver was so scarce that even the smallest individual coin was too valuable to be of much use for small payments. The penny was too large for ordinary purchases—in twelfth-century England, for example, the daily wage of a domestic servant was a penny—and there were no smaller coins that could be used as change. The situation improved over time as silver became more abundant and as the silver content of coins decreased. However, this only exacerbated a second problem: silver coins were of too low a value to be suitable for large payments. Using them for this

[3]Hoffman (1996) p70

[4]See Spufford (1988).

purpose required the counting out and examination of perhaps millions of separate coins, a process that could take weeks. Merchants therefore relied instead on bar silver and later on gold coin. These solutions, however, had problems of their own, and payment in specie or in bullion remained difficult and expensive.[5]

Indeed, one reason why trade relied so heavily on credit was the difficulty and cost of using cash. Reliance on credit greatly reduced the need to use currency as a means of payment. In much of the economy, currency was not so much a means of payment as a standard of value and a means of final settlement. The credit on which trade was largely based was denominated in currency units, and when debts had eventually to be settled, currency provided a means of final settlement.[6]

Of course, if all debts are ultimately to be settled in cash, then the use of credit does not actually reduce the need for cash payment: it merely postpones it. It is however possible to reduce greatly the need for final settlement in cash through *netting*—by setting off one debt against another. After netting, only a residual remains to be settled in cash, and the more successful the netting the smaller the residual.

When the extension of credit is mutual, as was often the case in local trade, there is considerable opportunity for *bilateral* netting. A baker who sold bread on credit to a shoemaker would eventually need a new pair of shoes. The extended periods for which debts were often carried made it easier to set off debts bilaterally. In larger communities, however, and those involving more complicated patterns of trade, there were fewer opportunities for bilateral netting. Consequently, some form of *multilateral* netting was required.

When trading is centralized in an organized market like a stock exchange, multilateral netting can be achieved through the agency of a central clearinghouse. When trade is decentralized, multilateral netting can still be accomplished through the device of

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[5]The reasons for the problems of money in this period were twofold— fluctuations in the abundance of bullion and the failings of mint policy that determined how bullion was converted into coin. See Kohn (1999b) for more details.

[6]See Kohn (1999a), Van der Wee (1993) Ch. 10; Van der Wee (1977); Spufford (1988) Ch. 14. Sales credit at the retail level helped not only with the shortage of currency but also with the problem of the large minimum denomination of coins: a debt could accumulate until its value was large enough to equal the value of an available coin.

assigning third-party debt. For example, a merchant who owes 100 florins to a supplier and is in turn owed 80 florins by a customer can assign the customer's debt to the supplier in partial payment. Repeated assignment of debts in this way creates opportunities for bilateral netting (for example, if the merchant's supplier happens to owe the merchant's customer) or extinguishes debts by returning them in payment to the original debtor.

The assignment of third-party debt was routine both among merchants and in rural communities. Merchants in the south of Europe generally assigned debts via the books of the parties involved.[7] Merchants in the north of Europe did not usually keep books. They recorded debts using promissory notes called 'letters obligatory', and they assigned debt by transferring these. Quite complex chains of assignment were common, even in the countryside. For example, in the fourteenth and fifteenth centuries, Bavarian monasteries purchased wine from the South Tyrol by using extended chains of assignment of debt that linked local officials, wholesalers, shippers, customs officials, and financiers.[8] Little cash needed to change hands.

We have seen that a system of trade based on credit requires periodic settlement as a test of solvency. The principal problem of such a system is liquidity risk—the risk that a given participant may fail to settle on time. This is a problem of liquidity rather than of solvency so long as the participant in question is ultimately able to settle. Any such failure to settle on time poses a danger to the system as a whole. Each participant, to be able to settle his own debts, relies on timely settlement by others. Consequently, one failure can lead to another in a cascade that eventually brings trading to a halt.

In a small community, liquidity risk can largely be eliminated through flexibility in the terms of settlement:

> For example, if Thomas had to pay John in cash for a purchase but did not have the money at hand, Thomas would probably not need to take out a loan, for he could postpone payment to John until he had been able to collect the cash already owed to

[7]The assignment of book credit as a means of settlement had already been recognized under Roman law, which had accepted an entry in the book of a creditor as sufficient evidence of the discharge of a debt. The law recognized transfers on the books of ordinary merchants as well as on those of the *argentarii* (silversmiths), the Roman equivalent of bankers.

him by William from an earlier obligation. There is no indication that either creditor in this arrangement charged for his forbearance in collecting the sum due.[9]

Such flexibility is possible in a small community, because information about a member's credit and liquidity is common knowledge. It is easy therefore to distinguish illiquidity from insolvency, and creditors are ready when necessary to allow debtors extra time to settle.

Trade among strangers

The system of trade based on credit, together with its settlement mechanism and its way of dealing with liquidity risk, worked well in small communities. Within such a community—whether a village community or a community of merchants—each member knew the other's credit, and continuing and repeated transactions gave each member the incentive to honor his debts. So long as good will continued to obtain, debts could be carried for years: no-one was going to flee to escape their obligations. If trust broke down, recourse could be had to a community court. Multilateral netting through the assignment of third-party debt was possible, because credit was common knowledge. A creditor would be willing (or not!) to accept the debt of a third party in settlement because the latter's credit would be known to him at little cost. Similarly, good credit information made it possible to deal with credit risk through flexibility.

The expansion of trade, however, involved an increasing amount of trade among strangers. In such trade, the system of informal sales credit of a small community, with its associated methods of dealing with settlement and liquidity risk, was inappropriate. Its prerequisites of good mutual information and mutual trust did not obtain. The credit of strangers was unknown, the social constraints on their behavior much weaker, the incentive of a continuing relationship often absent. In case of default, recourse to a court was more difficult.

A natural alternative in these circumstances was immediate payment in cash. This was, indeed, the solution for much trade between town and country and for most retail trade in town markets. It was not a viable solution, however, for wholesale commerce. The difficulty and the cost of large cash payments, already noted, is one reason. The

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[8] Toch (1986)

[9] McIntosh (1988) pp560-1.

other, perhaps even more important, is that credit is an essential lubricant of trade. Trade involved enormous investments in working capital—in goods in transit and in goods awaiting sale. In the absence of credit, each individual trader would have had to possess sufficient capital to finance all of his working capital himself. Such a requirement would have reduced the number of traders and so the extent of commercial activity by orders of magnitude.

To flourish, therefore, wholesale commerce had to be conducted on the basis of credit. As we have seen, a trading system based on credit requires the transfer of third-party debt and it requires a way to deal with liquidity risk. While this was not a problem within a merchant community, it was a problem in trade among merchants from different communities. How could a merchant accept third-party debt in payment when the credit of the third party in question was unknown to him? How could he exhibit flexibility towards his debtors when he was unable to distinguish between illiquidity and insolvency?

It was these problems of wholesale commerce among strangers that stimulated the development of the two principal financial innovations of the period—the deposit bank and the market for bills of exchange. These two, often in combination, provided a highly effective solution. This solution was available, however, only in the main commercial centers (so-called 'banking places'): only there did the scale and the volume of commerce among strangers justify the necessary investment in specialized institutions. Neither deposit banks nor bills of exchange were to be found in most towns and certainly not in rural areas.

Deposit banks

The enormous variety of coin of differing type, fineness, and weight created a market niche for a moneychanger—a professional who would exchange one type of coin for another and check the quality of the coin tendered. Instead of going through the tedious procedure of examination repeatedly for every payment, it was more efficient for the moneychanger to count and to examine coins only once and to place them in storage. Payment could then be made by transferring not the coins themselves, but the ownership of the coins. Moneychanger-bankers created a sort of book-entry money, by ‘immobilizing’ the actual coin and allowing the transfer of title to it on their books.[10] Rather than physically handing over coin, a payer could transfer a credit on the books of his bank to the benefit of a payee. This was known as ‘payment in bank’.[11]

While one can think of deposit banking as a way of improving the efficiency of payment in coin, it is perhaps more illuminating is to see it as a way of extending settlement by the assignment of third-party debt to transactions among strangers. The assignment of a debt is acceptable only if the third party in question is known to the creditor and considered a good credit. In major commercial centers where trade with strangers predominated, deposit banks played the role of third parties with a public reputation, known and trusted by all.

Trust in the credit of deposit banks was enhanced by public regulation and public guarantees. Because failures could bring commerce to a standstill, deposit banks were everywhere regulated. The more vital the role of the deposit banks in a city, the greater the degree of government involvement there. Municipal authorities generally licensed banks, requiring an oath and sureties from potential bankers. They also restricted bank assets and activities.[12] In 1309, after a number of bank failures in Bruges had led to

[10]The analogy with the recent practice of immobilizing stocks is obvious. Today, stock certificates are locked away in the vaults of a depository that records on its books the ownership of the stocks it holds. The delivery of a stock can now be effected simply by changing a ‘book entry’–in reality, a computer record–rather than by physical delivery of the stock certificate. Immobilization of stocks has greatly increased the efficiency, and reduced the cost, of settling stock trades.

[11]Historians have generally seen the banking function as evolving out of safekeeping. Moneychangers handled coin and bullion in large quantities and consequently had facilities for secure storage. It was natural for them to hold coin and other valuable for their customers. However, they were not alone in providing this service: goldsmiths and silversmiths, innkeepers, various religious establishments, and certain government offices all did so too. But, unlike the others, moneychangers evolved from pure custodians into deposit bankers by allowing their customers to transfer in payment *title* to coin they had deposited with them instead of the coin itself. The reason why it was moneychangers rather than others who did this may be that moneychangers were already involved, through the examination of coins, in the payment process.

[12]See Kohn (1999c) for more details.

serious friction with the merchants of the Hansa, the city supplemented private sureties with a form of deposit insurance.[13]

Assigning the debt of a deposit bank—a bank deposit—in settlement had further advantages. Because the debt of the *same* third party was assigned in many payments, there was greater opportunity for netting.[14] The result was that bank deposits could be used to mediate a large volume of transactions with very little need for final settlement in cash. Moreover, because bank deposits were so useful as a means of settlement, depositors were happy to hold on to them rather than converting them immediately into cash. This willingness to hold on to bank deposits made it possible for deposit banks to become lenders.

The ability of banks to lend enabled them to offer a solution to the problem of liquidity risk. If a depositor temporarily lacked sufficient funds in his account to settle a debt, the banker would allow him to 'overdraw' his account. That is, the banker would make him a loan that allowed him to settle.[15] The banker was in a position to provide this credit, because he knew his customers and because his customers had an incentive to repay in order to preserve the banking relationship. Such overdraft lending was a natural adjunct to the banks' function of clearing and settling payments.

By the fourteenth century, in all the centers of international trade and finance, whether they were fairs or commercial cities, payment in bank predominated. In any commercial center, every merchant would have deposits at one, or usually, more of the deposit banks. This was true both for native merchants and for foreign residents. For example, the most important customers of the Bruges deposit banks were the Italian merchants living in the city. Itinerant foreign merchants visiting a city to trade would open temporary accounts at one or more banks to facilitate their trading there.
Where trade was purely among locals who knew each other well and had easy recourse in the event of default, there was no need for payment in bank: merchants could easily settle

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[13]See de Roover (1948) Ch 15.

[14]Assignment of debt by transfer on the books of the parties was 'by no means exclusively applicable to bankers… The distinctive service of the banker lay in the centralization of these operations and in the consequent increase in the scope of the system of book transfers." (Usher (1934) p10)

[15]Note that this lending was at the discretion of the banker. Because transactions were conducted orally, overdraft was impossible without the banker's consent. (Usher (1934) p18)

transactions on their own books, assigning third-party debts as necessary. However, strangers could not do this: they needed a trusted third party, in the form of deposit banks, to settle their transactions.

The primary economic importance of deposit banks lay in their role as payments institutions: "…banking on the European continent, prior to 1800, was not based upon discount, but upon foreign and local exchange. Even credit, considered today the main function of the banks, was incidental to exchange."[16] However, deposit banks were, by their nature, also financial intermediaries: they borrowed in their own name and re-lent to others. Financial intermediation grew naturally out of their payments function, which, as we have seen, involved the extension of overdraft credit.

Deposit banks soon expanded their lending beyond the provision of short-term overdraft to their depositors. Overdraft loans made to accommodate the payments scheduling of merchants were generally for modest amounts and of short duration. However, overdraft lending could expand beyond this to become a form of commercial loan. In such cases, loans were often large and of long and uncertain duration, and for some banks they could make up a substantial part of their outstanding assets. In addition, much bank lending took the form of equity participation in commercial ventures: often, the bank was a silent or investing partner in a venture partnership.[17] Banks also lent to princes, nobles, municipalities, craftsmen, petty traders, and even peasants. Unfortunately, this more general lending often resulted in losses and the in the failure of banks.

In response to the frequent failures of private banks, many commercial centers—Venice being the prime example—established public banks to provide greater stability. These public banks were generally restricted to a payments function and were prohibited from lending. In the Burgundian Low Countries, the authorities decided that the best solution was simply to ban banks altogether. Beginning in 1489, they issued repeated orders prohibiting the taking of deposits and payment in bank, leading to the complete disappearance of deposit banking in the Low Countries by the end of the fifteenth

[16]de Roover (1954) p 236

[17]Banks had little choice but to invest in equity: debt instruments were unavailable, largely because of the ban on usury.

century.[18] The absence of deposit banks—especially in the major commercial center of Antwerp—forced merchants to find alternative ways to settle their debts through assignment. We shall return to this presently.

Fair banks and inter-fair deposits

The purest example of deposit banking as assignment of debt was to be found in the banks of the great medieval fairs. The great fairs were the centers of long-distance trade, periodically bringing together merchants from many lands for several weeks of intensive and highly structured trading. The model for all later fairs were the thirteenth-century fairs of Champagne.

At Champagne, trading was divided into two main periods. The first period was devoted to the sale of cloth: the sellers were predominantly from Flanders, the buyers from Italy. The second period was devoted mainly to the sale of oriental spices and drugs: here the roles were reversed, with the Italians the sellers and the Flemings the buyers.[19] The fair banks provided the payments system that made this trading structure possible. In the first period, the Italians 'paid' for their purchases of cloth by transferring to the Flemish sellers credits on the books of the fair banks; payment was final in that the banks guaranteed settlement. In the second period, Flemish merchants used the credits they had accumulated in the first period to pay for their own purchases of spices and drugs.

The credits used in payment were not really 'deposits'. Although evidence is scarce, it seems the Italians did not deposit coin with the bankers before trading began.[20] Rather, the bankers created the credits on their books by allowing Italian merchants to overdraw their accounts during the first period of trading; these overdrafts were then largely

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[18]de Roover (1974)

[19]This is a considerable simplification of the actual procedure.

[20]On the whole, the Italians did not bring specie or bullion with them to Champagne: the value of their sales generally exceeded the value of their purchases, so it would have made little sense for them to do so. It was the Flemish, Hanseatic, and English merchants who brought silver to Champagne, because their purchases there exceeded their sales. Spufford (1988) p 140). Of course, *individual* Italian merchants often purchased more in Champagne than they sold, but they could transfer the necessary funds there by bills of exchange rather than in cash (see Kohn (1999d)).

extinguished by payments the Italians received during the second period of trading.[21] Consistent with this interpretation, 'deposits' at the fair banks were not payable on demand, but only during the settlement period that followed the two periods of trading.

In the settlement period, merchants with debit balances had to cover them. They could settle in cash, but it was common to carry the unpaid balance over to the following fair. This might be done by the banker agreeing to extend the overdraft loan or more usually by the merchant in question borrowing from another merchant who had ended trading with a credit balance with the bankers. Similarly, merchants with credit balances could, if they wished, receive payment in cash, but many preferred instead to lend them. To facilitate the borrowing and lending of bank credits, there soon developed an active market in inter-fair loans or 'inter-fair deposits' (*dépôts de foire en foire*). Inter-fair loans were a convenience for both borrowers and lenders, since it enabled them to balance their purchases and sales over time without having to ship bullion back and forth between their home cities and the fairs.

While the market for interfair deposits at the fairs of Champagne started out as an adjunct to the settlement process, before long most *deposito* loans were unrelated to settlement. During the thirteenth century, the borrowing and lending that surrounded settlement evolved into a general money market—a market for short term loans. Not only the traders themselves, but others seeking short-term credit or having funds they wished to lend short-term, came to the fairs to borrow and lend. The convenient settlement arrangements and the ease of reinvesting funds or refinancing loans, made the fairs an ideal place for the settlement of debts wherever they were contracted—from London to Genoa.[22] In particular, the fairs became a center for the market in bills of exchange.

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[21]This is de Roover's interpretation. "In order to facilitate settlements, [the bankers] were even generous in allowing overdrafts for the duration of the fair. The risk was small, since there existed an effective organization to deal with fugitive debtors who returned to their home towns without first settling their debts."(de Roover (1954) p204). The bankers at Champagne were themselves from northwest Italy, predominantly from Asti and Piacenza (see Abulafia (1997)).

[22]An additional attraction was that the fairs enjoyed a sort of extra-territorial exemption—the 'freedom of the fairs'—from many normal laws and restrictions including the prohibition on usury. This allowed the *deposito* to be an undisguised loan at interest.

Later fairs, including Lyons and the Brabant fairs at Antwerp, imitated Champagne in their use of the interfair deposit. The loan instrument used at Champagne, Lyons, and Antwerp was the letter obligatory. The maturity of a *deposito* was typically to the next fair—say three months—but some times ‘for two fairs’. It was easy to roll the loan over (usually at the new market rate).

The bill of exchange

If the first pillar of the system of payment among strangers was the deposit bank, the second was the bill of exchange. The bill of exchange originated in the trade between northern Italy and the Fairs of Champagne and evolved from the earlier *cambium* contract.[23] The latter was a formal promissory note, drawn up by a notary. In it, one merchant acknowledged receipt from another of payment in local currency and promised to repay him at a specified future time and distant place in the currency of that place. The *cambium* contract was both an instrument of remittance—funds received in one place would be repaid in another—and an instrument of credit—there was an interval of time between receipt and repayment. Both parties to the transaction, or their agents, were required to appear at the place of payment to complete the transaction.

By the late thirteenth century, the fairs of Champagne were in decline, and itinerant merchants was losing ground in long-distance trade to large trading companies with permanent branches in the main commercial centers. Rather than traveling themselves, such ‘sedentary merchants’ managed their affairs from their home offices, sending goods and instructions to their agents abroad. Organized in this way, it was easy for them to offer remittance services. They could accept payment at one office in local coin and send instructions to another office to repay in the coin current there. The instrument they used for this transaction was the *lettera di cambio* or bill of exchange. By the end of the fourteenth century, the bill of exchange had replaced the *cambium* contract as the principal instrument of remittance.

Remittance by bill of exchange involved a the delay between the receipt of funds in one place and their repayment in another of from two weeks to three months, depending on the distance. This ‘float’ provided trading companies with funds they could lend to others.

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[23]Blomquist (1990)

They generally did so by delivering funds to a borrower in one place for later repayment elsewhere. That is they lent by 'purchasing' the bills of exchange of others just as they provided remittance services, and later raised funds, by 'selling' their own bills of exchange. These trading companies became, therefore, bill-of-exchange intermediaries or 'merchant banks'.[24]

Bills of exchange were used to remit funds for financial as well as for commercial reasons. Merchant bankers used bills of exchange to transfer their own funds to where they could earn the highest return. They would also borrow funds (sell bills) where rates were low and lend them (purchase bills) where rates were high.[25] Such arbitrage helped to create an integrated international money market. Bills of exchange soon came to be used, too, as an instrument of local credit, entirely divorced from remittance—a practice known as 'dry exchange' (*cambium siccum*).[26] The purely financial uses of bills of exchange generated an enormous volume of transactions. Indeed, as early as the fourteenth century, most bills of exchange were related to finance rather than to trade, and the volume of bills soon exceeded by a large margin the volume of trade.

Merchant banks, like deposit banks, played a vital role in facilitating payments among strangers and they did so in much the same way. Deposit banks facilitated payments among strangers locally; merchant banks facilitated payments by strangers over long distances. Both deposit banks and merchant banks facilitated payments by substituting their own, superior credit. Remittance by *cambium* contract was viable only within a community of merchants: the merchant delivering the funds needed to know and trust the merchant taking them. Merchant banks, because remittance was for them an important business, had an interest in establishing a reputation for honesty and reliability. Moreover, the business was dominated by a few relatively large companies, each with an international presence and substantial capital. Because of their capital and their

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[24]Merchant banks also raised funds by accepting time deposits. See Kohn (1999e)

[25]de Roover (1948) Ch 4.

[26]For an explanation of dry exchange, see Kohn (1999d). For a more detailed discussion see de Roover (1974) Ch 4 and Mueller (1997) Ch 8

reputation, merchants not of their own community and non-merchants were willing to entrust them with their funds.[27]

Merchant banks also played an important role in extending the system of sales credit to trade among strangers. Ordinary sales credit was ‘informal’: it involved only the parties themselves, without the intervention of intermediaries or organized markets. As we have seen, it worked well within a community, where the parties knew one another and where they had strong incentives to honor their debts. Sales credit among strangers was more problematic, since information was relatively poor and the incentive to honor debts was weaker.

Merchant banks solved this problem by making it possible to separate trade transactions from the extension of credit. Rather than the supplier of the goods providing credit, it was the merchant bank that did so. Rather than obtaining goods on credit from a supplier, a merchant could now purchase the goods outright with money he borrowed from a merchant bank. Because credit was no longer an integral part of the transaction, it became easier to trade with strangers.

Merchant bankers therefore acted as credit intermediaries: they borrowed in their own names and re-lent to others. They had the capital and the credit to enable them to borrow easily in their own names. They also had the information and the specialized skills that allowed them, more effectively than an ordinary merchant, to lend to others. Moreover, the scale and the geographic scope of their operations provided them with an informational advantage in assessing credit and the ability to collect debts in numerous places. Specialized lending made credit less expensive and more readily available.

The separation of credit transactions from trade transactions also had the effect of opening the money market to non-merchants. It enabled the money market to draw in new sources of funds. In Genoa, Venice, and other Italian cities, for example, the money market became a favorite short-term investment for institutions, trustees, and small

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[27]The trust was not always justified. In 1218, in the early days of remittance by bill of exchange, the papal agent in London delivered a large sum of money to some Bolognese merchants for remittance to Rome. The merchants in question promptly absconded with the funds. Papal agents learned to be more discriminating in their trust, and later experience was more favorable. By the 1330s, the Bardi and Peruzzi, two major merchant banks, were transferring some 25,000 florins a year from London to the papal court in Avignon. (Hunt (1994))

investors.[28] And the money market also drew in new borrowers. In particular, like any potential new source of finance, it attracted governments.

Merchant banking and the development of a money market were a substitute for the system of informal sales credit, but they were also a complement. The system of informal sales credit was inherently vulnerable to liquidity risk. A slump in trade could make it difficult for some merchants to pay on time; their delay in payment would make it impossible for others to pay; and so on. Now able to borrow in the money market, merchants could meet their obligations even when sales were slow. Moreover, they could also lend in the money market when they had an excess of funds. Their holding of money market instruments provided them with liquid assets that they could assign in payment or turn into cash as needed. In these ways, the money market strengthened the system of private sales credit, so that a slump in trade no longer had inevitably to lead to a general collapse of credit.[29]

The market for bills of exchange, like any market, required arrangements for settlement. In those locations where transactions took place largely among strangers, settlement was usually in bank. This was the case in the great centers of international trade and exchange, such as Champagne, Genoa, Venice, Bruges, and Medina del Campo, as well as in many ordinary exchange markets, such as Sienna, Palma, and Alexandria. The growth of the money market was, in fact, an important stimulus to deposit banking.[30]

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[28]As early as the late fifteenth century, ordinary Venetians found the money market an attractive alternative to the other popular investment–the local colleganza–as it involved substantially lower transactions costs. (Mueller (1997) Ch 8)

[29]"The ordinary short-time loan had for its object to satisfy immediate want of cash. Sudden liabilities which could not be met from the regular resources of the business, payments impending before the corresponding receipts fell due, promptitude of creditors and procrastination of debtors–in short, all the maladjustments of the regular system of sale credits–would create a demand for short loans. In a sense these maladjustment could be described as emergencies, but in so far as selling and buying was generally based on credit, they were both frequent and inevitable, and the 'emergencies' were therefore part of the normal commercial routine." Postan (1973) p 11.

[30]"…there seems to be ground for believing that the increase in banking activity during the fourteenth and fifteenth centuries is largely due to the new business in foreign exchange." Usher (1934) p7

Settlement in bank maximized netting and minimized the need for payment in cash. The system was incredibly efficient. For example, between 1456 and 1459, one bank in Genoa received from abroad 160,000 lire in bills of exchange: 92.5% of this amount was settled in bank; only the residual had to be settled in cash.[31] Deposit banks were indispensable to the functioning of the money market. In Venice, "the Florentines [merchant bankers] explained to their correspondents that when the local banks were closed, because of snow or a local feast day, they could not conclude foreign exchange operations."[32] Bank overdraft provided market participants with short-term liquidity. Longer-term liquidity could be obtained either by rolling over bills of exchange or, equivalently, through an inter-fair loan (*deposito* or *lettre de foire*).

In some exchange markets, there was little or no business with the general merchant public. These were 'inside' markets—markets in which merchant bankers traded only with one another. Their purpose was principally to clear and to settle bills originating elsewhere. The fair of Lyons served this function and the Bisanzone fairs were largely created for this purpose. Because the participants in such inside markets were few and of known reputation, there was no need to use a bank for settlement: participants could assign their own debt.

The procedure at the Lyons fairs, for example, was as follows. At the beginning of each fair, the merchant bankers congregated at the lodge of the Florentines.[33] Each banker had prepared in advance a 'market book' listing the outstanding bills on which he was to receive payment and those on which he was to make payment. During the meeting, bankers compared books. If the payer accepted a bill, he would initial the relevant entry on the book of the payee; if not, the payee would mark the entry 'SP' for '*sous protest*'. A few days later, the bankers met again to trade in new bills, each new bill being registered in the market books of the parties concerned.

At the end of the fair, there would be a settlement period. Armed with their market books, merchants gathered together to net payments bilaterally. The residual would be covered either by assignment of third-party debt, which might be netted later in the

[31]Spufford (1986)

[32]Mueller (1997) p 570

[33]Boyer-Xambeu, Deleplace et al. (1994) Ch 4

process, or by drawing new bills payable either at the next Lyons fair or at other banking places. Liquidity risk was addressed by participants providing each other with 'overdraft' on their market books (i.e., by delaying payment) or by rolling the debt over into new bills of exchange. In the end, hardly anything remained to be settled in cash: "De Rubys thus reports that a million *livres tournois* were paid in the course of one morning without a single *sol* being disbursed."[34]

The procedure at the Bisanzone fairs was very similar. About a third of the bills due were settled by netting on the books of the bankers, and almost all the rest by drawing new bills. At the end of the sixteenth century, at each Bisanzone fair, a small group of bankers would settle in this way bills of an average value of ten to twelve million *écus de marc.*[35]

Settlement problems in Antwerp and the emergence of the negotiable bill of exchange

The exchange market at Antwerp in the sixteenth century was an important special case. Antwerp was a market of strangers. Indeed, Antwerp was unprecedented in the free access it allowed merchants from all countries and in the freedom with which it allowed them to trade. In such a market, we would have expected settlement to rely on the transfer of bank deposits. However, as we have seen, deposit banks were banned in the Burgundian Netherlands in the 1480s. As a result, traders at Antwerp had little choice but to rely on the same method of settlement that was used in Lyons and Bisanzone—the assignment of private third-party debt.

The merchants trading in Antwerp were mainly from England, Germany, Spain, and the Low Countries. Unlike the Italians they did not usually keep regular books. Rather, the usual way for them to record a debt was with a letter obligatory. Consequently, it was the letter obligatory that they assigned in the settlement of debts. Initially, they assigned only paper that had reached maturity, but increasingly they assigned paper before it matured.

Settlement by the assignment of private third-party debt worked well in the inside markets of Lyons and Bisanzone, among small numbers of well-acquainted merchant

[34]Boyer-Xambeu, Deleplace et al. (1994) p93

[35]Ball (1977)

bankers. But in Antwerp, among thousands of strangers, it initially did not work well at all: "In the budding new trading centers [in the North]… prosecutions were legion; the merchants' circle was not as closed or intimate as in the traditional centers of the South; unknown, unreliable newcomers kept on turning up."[36]

To address these difficulties, a series of decisions by merchant and civil courts transformed the letter obligatory into a more reliable means of settlement. The first problem was that the letter obligatory was assignable but not transferable. In case of default by the issuer, only the original creditor had the right to sue: a merchant who had received the paper in settlement had no direct recourse. This problem was solved in 1507 when the Antwerp civil courts first recognized transferability of letters obligatory.[37]

The solution of one problem, however, created another. The court regarded assignment as completely discharging the debt of the assigner to the assignee. If the original issuer did not pay up, the assignee could sue the issuer, but he had no recourse against the assigner. Clearly, under these conditions, no-one was willing to accept in settlement the paper of someone of unknown or inferior credit. This limited the circulation of letters obligatory, especially as the Antwerp market continued to grow and to attract ever larger numbers of newcomers.

This problem was solved by applying to letters obligatory the principle of negotiability. When a debt is negotiable, the debt of the assigner is discharged *only* when the assignee receives final payment (or satisfactory equivalent). That is, if the issuer defaults, the assignee has recourse not only against him, but also against the assigner (or if there has been a chain of assignment, against each assigner in turn). With negotiability, each subsequent assignment strengthens the credit of the instrument. The negotiability of letters obligatory to bearer was established by edict of Charles V for Antwerp in 1536 and for the whole of the Low Countries in 1541.[38]

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[36]Van der Wee (1977) p325.

[37]Munro (1990) suggests that the origins may have been in the English Law Merchant, citing the case of Burton v. Davy in the London Mayor's court in 1436 as establishing the legal standing of the bearer (assignee). Given the importance of English trade with the Low Countries, this certainly seems plausible.

[38]This extended to the assignment of letters obligatory what was already the rule in Antwerp for the assignment of book credit ('assignment out of bank'). It is interesting that in Florence the liability of the

To keep track of the chain of assignment it became customary for each assigner to sign the back of the instrument—to endorse it. Endorsement legally bound him to indemnify the assignee if the issuer and the previous endorsers failed to pay up. The first examples of endorsement date from the 1570s and by the turn of the century the practice was widespread.[39]

To begin with, only letters obligatory circulated in Antwerp. However, with the increasing presence of South Germans and Italians, whose preferred instrument was the bill of exchange, it became necessary to bring bills of exchange into the settlement system. Consequently, by the 1530s, it had become the practice to assign bills of exchange in the same manner as letters obligatory.[40] Moreover, during the sixteenth century, northern merchants gradually switched over from using letters obligatory to using bills of exchange for remittance and credit, and by 1600 it had become the predominant instrument.[41]

Paper commonly changed hands ten or twenty times before maturity, and a hundred times was not unusual. In many cases, circulating paper found its way back to the original issuer, so extinguishing the debt and eliminating the need for settlement.[42] Paper still outstanding at maturity had in principle to be settled in cash. Letters obligatory and bills on Antwerp were usually written to mature on one of the four 'quarter days' that had originally marked the Brabant fairs. On these quarter days, there was a netting procedure—the *scontro* or *rescontre*—that minimized the need for cash settlement.

The usefulness of letters obligatory and of bills of exchange as means of settlement was further enhanced by the practice of discounting. Although assignment of commercial paper was acceptable as a means of settlement, when money was tight, creditors would

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assignor for book credit had been dropped as unnecessary, as it was in an 'inside market' where the participants knew one another well.

[39]Usher (1914) believes the practice originated in Italy, probably in Naples, where it was customary to transfer by endorsement *fedi di credito* (bank certificates of deposit).

[40] Van der Wee (1993) Ch. 10

[41]Van der Wee (1977)

[42]"…one gets the impression that a given commercial debt was transferred so often that finally somebody was found who happened to be a debtor of the original debtor, which enabled a full or partial clearing of debts." Van der Wee (1963)

offer a premium for settlement in cash. Those who had cash available could exploit this situation by offering to buy commercial paper for cash at a discount. Those who did so were typically *kassiers*, the unofficial 'cash-managers' who had sprung up after the suppression of official deposit banks. Discounting was authorized officially in 1540, so long as the interest rate did not exceed 12%.[43] By the 1550s the practice had become commonplace. By proving liquidity in this way, discounting improved the quality of the market and increased the acceptability of commercial paper in settlement.

Driven by the lack of deposit banks, and despite its unpromising beginnings, Antwerp eventually created a highly efficient system of settlement by assignment of debt. Over time, instruments and practices evolved that were suited to a market of anonymous trade among strangers. As they evolved into negotiable instruments, letters obligatory and bills of exchange became a kind of convertible money, similar in many ways to the deposits of deposit banks. Merchants in Antwerp used negotiable instruments as a means of payment. Rather than transferring the debt of a deposit bank (a deposit) on the books of the bank, they transferred the debt of non-banks in the form of negotiable instruments.[44] Both were forms of third-party debt that were acceptable in settling obligations among strangers.

Conclusion

Both the deposit bank and the negotiable bill of exchange developed as non-cash means of payment suitable for settling debts among strangers. Each required a credit mechanism to address the problem of liquidity risk. Settlement in bank relied on bank overdraft and on the inter-fair deposit. Settlement with negotiable bills of exchange relied on the rolling over of bills and on discounting. Each of these credit mechanisms evolved into a more general source of credit.

The expansion of lending by early deposit banks was very problematic, given the small size of the banks concerned and the unavailability of suitable forms of lending. Widespread bank failures led to the replacement of private deposit banks in many places

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[43]Van der Wee (1963)

[44]However, because negotiable instruments were made out for a specific amount, they were less flexible than bank deposits: if the amount of the instrument did not match exactly the amount to be paid, the balance had to be paid in cash.

with public banks. These were designed to serve purely a payments function, and their lending was highly restricted.

The negotiable bill of exchange was a relatively safe and highly liquid asset. The discounting of bills therefore provided a form of lending well suited to small banks—precisely what had been lacking in the earlier period. The discounting of bills provided the basis for the re-invention of private banking in England, where it played an important role in financing the expansion of trade and the Industrial Revolution.

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