FINANCE BEFORE THE INDUSTRIAL REVOLUTION: AN INTRODUCTION*

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ABSTRACT: This paper examine the sources and uses of finance in the preindustrial economy. It explore the motives of individual savers and the choice of assets available to them. It then discusses the effects of the prohibition of usury on the availability of finance and on its form. It concludes with a description of the extensive system of 'informal' finance' out of which specialized financial institutions and markets evolved.

JEL Categories: E21, G00, N23

*This paper is a draft chapter of *Finance, Business, and Government Before the Industrial Revolution*.

There are two classes of question one might ask about financial systems. The first and broader class relates to their role in the economy: What is their contribution to economic development and growth? What is their impact on the way business is organized? On the organization and behavior of government? The second and narrower class of question relates to financial systems themselves: What is their economic function? How do they evolve? What are the causes and consequences of financial innovation?

History is perhaps the most promising source of answers to both classes of question. This paper is a draft chapter in a planned work that draws on the economic and financial history of the period to 1600. The section of the work to which this chapter belongs focuses on the narrower class of question about the financial system itself during this period. Other sections will take up the broader class of question. Draft chapters of this section are available as the following working papers[1]:

1. Finance before the Industrial Revolution: An introduction
2. Medieval and early modern coinage and its problems
3. Early deposit banking
4. Bills of exchange and the money market to 1600
5. Merchant banking in the medieval and early modern economy
6. The capital market before 1600
7. Risk instruments in the medieval and early modern economy

The financial system is part of the institutional structure that facilitates economic transactions. Specifically, the financial system facilitates lending, payments, and trade in risk. While lending often steals the limelight, the role of the financial system in facilitating payments and trade in risk is no less essential. Before 1600, because of the poor quality and inadequate quantity of coin, the payments function was particularly important (Paper 2 discusses the problems of the coinage in this period). As commerce expanded, the pressing need for adequate means of payment prompted a great deal of financial innovation–in particular, the emergence of the deposit bank and the bill of exchange. The deposit bank (Paper 3) provided a means of payment–the transfer of deposits–that minimized the need to use actual cash. The bill of exchange (Paper 4) provided a means of remittance–of transferring funds from one place to another–without having to ship specie or bullion. The bill of exchange was also an instrument of credit,

[1]Copies may be downloaded from: http://www.dartmouth.edu/~mkohn

the basis on which merchant banks built an efficient international system of commercial credit (Paper 5). While the bill of exchange satisfied the need for short-term finance, the growing need for long-term finance was met by a developing capital market (Paper 6). Trade in risk was still in its infancy, but the period saw the development of marine insurance and the beginnings of futures and options (Paper 7).

The present paper provides some general background for the more detailed discussion of the financial system in the remaining papers. We examine the sources of finance and the uses to which it was put. Throughout the period commerce generated far larger profits than it could usefully reinvest, and it was, therefore, a net source of finance to other sectors. The biggest borrower was government. We explore the motives of individual savers and the choice of assets they faced: the scarcity of financial assets left land and hoards as the best available alternatives. The prohibition of usury made overt lending difficult, and we discuss its effect on the availability of finance and on its form. The pre-industrial economy operated largely on credit: we describe the extensive system of 'informal' finance' out of which specialized financial institutions and markets were to evolve.

THE SOURCES AND USES OF FINANCE

Finance can come out of saving or out of wealth: savers can lend some of the income they do not consume, and owners of wealth can sell non-financial assets and lend the proceeds. There was no lack of saving or of wealth in the pre-industrial economy. The average level of saving–from 2% to 15% of national income–was not very different from what it is today. However, those with low incomes–the vast majority–saved very little, while the relative few with high incomes saved a great deal–perhaps a half or more of their incomes.[2] As an indication of wealth, we have the Florentine *catasto* of1427.[3] This was a survey that assessed citizens' wealth for tax purposes. It found the total wealth of Florence's 260,000 citizens to be some 15 million florins, some two thirds of which belonged to the inhabitants of the city itself with an average of over 1,000 florins per household (roughly $60,000 in today's money). The distribution of wealth, too, was highly unequal: the average wealth of households in the countryside was only 60 florins ($360). Even within the city, the distribution was highly unequal: the wealthiest 100

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[2]Cipolla (1994)

[3]Herlihy (1977). Assessed wealth was to be used as the basis for taxation. Therefore certain items were excluded: the most important were homes and their furnishings.

households owned over a quarter of total wealth–more than the least wealthy 87% of urban households (and more than all the rural households combined).

While in Florence wealth was concentrated in the hands of the urban elite, in most of Europe it was concentrated in the hands of the great landowners. In an economy that was largely agricultural, land was, of course, the major productive asset. However, the landed aristocracy controlled not only agricultural land, but also forests–the major source of fuel and building material–and valuable mineral rights. Landowner wealth was immense, but it was highly illiquid. In periods of rapid economic expansion, when demand for commodities was strong, landowners became a source of finance for others. However, more usually, their consumption exceeded their income. Early on, they borrowed to finance their participation in wars and crusades; later, they borrowed to finance the 'conspicuous consumption' required of them at court or to build fine country houses. Landowners financed the gap between consumption and income by borrowing against their wealth.

In the early Middle Ages, the only possessor of substantial liquid wealth, and so the only potential lender, was the Church.[4] Over the years, abbeys and monasteries had accumulated considerable hoards of coin and treasure through gifts and endowments. They made use of these abundant resources to lend to neighboring lords in time of famine or to finance their participation in wars or crusades. However, from the thirteenth century, the relative importance of the Church as a lender declined. The Reformation greatly reduced the wealth of the Church in many parts of Europe, and it ceased to be a significant economic factor.

From the thirteenth century, it was the merchants above all who became the principal source of funds for lending. They may have been less wealthy than landowners, but their wealth was far more liquid.[5] The source of this wealth was not only the enormous profits of long-distance trade but also the less spectacular but more certain profits of regional trade, manufacturing, and transportation. Of course, business was not only a source of funds: it was also a use of funds, and a good part of business profits was reinvested in business. Business in this period meant commerce rather than manufacturing, so business capital took the form, almost exclusively, of goods in transit or awaiting sale. Because transportation was slow and supply irregular, the volume of such working capital was relatively large. Merchants financed their investment in working capital primarily with sales credit and with their own funds, and, increasingly, by borrowing from merchant

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[4]Pirenne (1937)

[5]Grassby (1970)

bankers. The rapid expansion of commerce, however, generated far more wealth than could usefully be reinvested in commerce alone. Thus, it was not individual saving that financed business investment, but, on the contrary, business saving that financed individual and government consumption.[6]

Merchant lending must be understood in the context of the merchant's overpowering interest in liquidity. The key to success in commerce was the ability to exploit opportunities as they arose and to shift resources out of areas of declining profitability. Merchants minimized their investment in fixed capital: even the largest companies preferred to lease rather than to own whatever office space, warehouses, and transportation equipment they required.[7] Moreover, because commerce involved the constant giving and receiving of credit, much of a merchant's effort was devoted to ensuring that he could fulfill his own obligations and that others would fulfill theirs. Thus, whether lending to other merchants or to princes, merchants were reluctant to lend long-term. Short-term lending provided them with the flexibility they needed, allowing them to return their capital to commercial use if the circumstances warranted, and protecting them from the danger of having to default on their own debts. Because merchant wealth was liquid, it was easily redeployed. When commerce was blocked by war or recession, the lending of commercial funds for other uses increased dramatically as merchants sought alternative employment for their capital. For example, the wealthy cloth merchants of Arras became important lenders to princes only when the French acquisition of Artois in the thirteenth century cut off the supply of wool from England and left them with idle funds.[8] Similarly, the great merchant bankers of South Germany expanded their lending to governments in the 1520s when a commercial crisis deprived them of the usual commercial outlets for their capital.

Initially, merchants lent only their own capital. For example, the merchants of Arras had accumulated great fortunes in the cloth trade with Champagne and Genoa, and when they began to lend in the thirteenth century, it was their own capital that they lent.[9] However, by the fourteenth century, some merchants were becoming merchant bankers, and they were beginning to lend the money of others. The great financiers of the period, the Bardi and the Peruzzi of Florence, lent not only their own capital, but also huge sums that others had deposited with them. As financial intermediaries, the great merchant

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[6]"Commercial enterprise was more a source than a used of capital." Supple (1977) p423

[7]Hunt (1994)

[8]Van Houtte (1977)

banks mobilized funds from other merchants, from nobles and clerics, and even from small investors. Although the potential lending of each small investor was modest, there were many of them, and together they could provide significant sums. However, the ability to mobilize this source of lending depended on the development of financial institutions. In Southern Europe, where finance developed early, small investors–innkeepers, artisans, manufacturers–were already a significant source of funds in the thirteenth and fourteenth centuries.[10] By the sixteenth century, finance had developed in the Low Countries and even in England to the point where small investors of all classes and occupations were contributing to the finance of commerce, industry, and government.

If merchants were the principal lenders, the principal borrowers were governments. Government borrowing was driven by the ever-increasing cost of war. Under feudalism, princes had had little need for cash, because their vassals provided military support in exchange for fiefs of land. However, with the growing monetization of the economy, feudal service was increasingly commuted to monetary payments, and rulers found that they preferred to hire skilled professionals to fight for them. The commercialization of war led to longer and more extensive conflicts and to better and more expensive military technology.[11] To mobilize the enormous sums they needed to wage war, princes had little choice but to borrow and to hope that victory would provide them with the means to repay. The financial needs of princes were echoed by the financial needs of municipal governments. Cities that were independent states faced the same need to finance the escalating cost of war: at the time of the *catasto* in 1427, Florence's government deficit was 18% of national income and the interest on outstanding debt alone amounted to 12%.[12] Cities that were not independent often had to borrow to pay war-related levies imposed on them by their territorial rulers. The towns of the Low Countries borrowed extensively in the fifteenth century to pay for the wars of the Burgundians and in the sixteenth century to pay for those of the Hapsburgs. In addition, cities often borrowed to purchase food for famine relief and sometimes to invest in infrastructure.

Investment in fixed capital, too, was a growing use of funds. While in commerce fixed capital was negligible, in the economy as a whole it was significant–perhaps 50% to

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[9]de Roover (1948) Ch 2.

[10]Ashtor (1983)

[11]McNeill (1982)

70% of total capital.[13] Agriculture was by far the largest sector and it required substantial investment in improving land (clearing, drainage, and enclosure) and in structures, tools, and livestock. Transportation, too, required significant investment both in means of transportation-ships, carts, carriages, and draft animals-and in infrastructure–roads, bridges, river improvements, and harbors. Urbanization demanded a huge investment in housing. Technological progress in mining from the late fifteenth century entailed substantial investment in fixed capital. Manufacturing was probably the least important sector in terms of fixed capital, as it was small and labor-intensive. Much of the investment in fixed capital was financed directly by landowners investing their own funds: because of the general lack of financial assets, they found direct investment in income-producing fixed capital an attractive outlet. However, the developing capital market was an increasingly important source of funding.[14]

SAVING AND THE CHOICE OF ASSETS

From the picture in the large, let us go to the picture in the small–the point of view of the individual saver. What were his motives for saving? What was his choice of assets? As it is today, saving then was largely driven by considerations of the life-cycle. Today this means primarily provision for retirement, but also ‘startup financing’ for one’s children–the cost of an education or the downpayment on a home. In the medieval and early modern periods, the considerations were similar, but with significant variations. Provision for retirement was less a matter of saving than of redeploying existing wealth. Typically, the bulk of a merchant’s wealth accumulated in his own business. As he grew older, he would need to disengage his capital from commerce and reinvest it in something safer and easier to manage. He might leave some capital passively invested in partnerships with younger merchants, but he would not risk a substantial part of his capital without active involvement to protect his interests. A merchant would also need to provide financing for his children–for his sons, initial capital to enable them to enter commerce; for his daughters, dowries (an important source of capital for sons-in-law).

Apart from life-cycle considerations, saving is also driven by a need to provide against life’s hazards. For a medieval merchant, his greatest concern in this respect was to provide for his family in the event of his death. In addition to the considerable dangers of travel, disease was as great a threat to the wealthiest merchant as it was to the poorest peasant. In the event of his death, a merchant’s wife could rarely be expected to take over

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[12]Veseth (1990)

[13]Cipolla (1994)

[14]This is discussed in detail in Kohn (1999b).

his business. Normally, his capital would have to be withdrawn from commerce and reinvested in more appropriate assets. Consequently, throughout the period, the funds of widows and orphans were an important source of finance.[15] Such funds were often administered by a trust established by the municipality or guild. For example, for centuries, the City of London was the guardian of orphans of its freemen. The most famous trust institution of the period was the Venetian *Procuratia di San Marco* (the administration of the chapel of San Marco).[16] This began by managing gifts to the chapel, became a depository for the cash of the city government, and then for the valuables and cash of private individuals; many foreigners used it as a sort of 'Swiss bank account'.[17] In the mid-thirteenth century, the *Procuratia* expanded its activities into the areas of trusteeship and investment. It accepted escrow accounts, acted as guardian of the property of orphans, and managed the endowments of pious and charitable institutions. As a result, the *Procuratia* controlled a considerable pool of funds, and it became an important source of finance for commerce and industry, especially in the fourteenth century. Its long-term holdings of public debt helped to stabilize an otherwise volatile market.

In the Middle Ages, those seeking safe and easy-to-manage investments–whether merchants providing for their retirement, trustees of widows and orphans, or nobles with income they wished to save-were faced with a general paucity of financial assets. With financial assets either unavailable or unattractive, most people had little choice but to place their savings in real assets–above all, real estate and hoards of coin and bullion. The Florentine *catasto* of 1427 gives us some idea of the composition of assets in one of the great financial centers of the period. Of the total 15 million florins of assessed wealth, 8 million were in real estate, 4.5 million in movable and business investments, and 2.5 million in municipal debt. The *catasto* excluded a citizen's primary residence and furnishings since these were exempt from tax, so the proportion of real estate and movables was certainly even higher than the numbers suggest. Most of the municipal debt, the principal financial asset, was in the hands of a relatively few households: some 2% of families in the city held 60% of it, while 78% of families held none at all. Some 3% of families held half the business investments. So even in Florence, the wealth of most people was mainly in the form of real assets.

The *catasto* seems to have made no attempt to assess individual holdings of cash–presumably because they were too easy to conceal. However, there is little doubt

[15] Postan (1973)

[16] Mueller (1977)

[17] The Grain Office (*Camera Frumenti* or *Camera del Frumento*) played much the same role.

that a large part of saving went into hoards.[18] The archeological evidence for this is strong: over the years, thousands of buried and concealed hoards, large and small, have come to light. Among the largest: a mason repairing a wall in rural France in 1954 discovered a copper vase containing 13,000 coins from the fourteenth century (some 13 kilograms of silver); in 1935, in Kosice, Slovakia a hoard was found containing some 3,000 gold coins from the sixteenth and seventeenth centuries (over 10 kilograms of gold). Even wealthy merchants in financially-advanced Northern Italy kept a large part of their assets in specie: when Pasino degli Eustachi, a rich merchant of Pavia, died in 1445, with an estate worth 120,000 ducats, 78% of this was in cash (about 330 kilograms of gold), while another 15% was in real estate. In places where the financial system was less developed, there was an even greater preference for gold and silver. For example, in Tudor England, the wealthy invested their surplus funds in valuable clothing and tapestries, in jewelry, and above all, in gold and silver plate. Even Thomas Gresham, the great Elizabethan financier, invested the bulk of his wealth in gold chain.[19]

The goldsmiths of the sixteenth and seventeenth centuries, who catered to this demand for hoarding, therefore had more in common with today's Merrill Lynch than with today's Fifth Avenue jeweler. Gold and silver were viewed primarily as liquid assets. Specie was liquid, of course, but plate and jewelry could be melted down and minted into coin, or, less destructively, pawned. Plate and jewelry had the additional advantage of displaying their owner's wealth. On the other hand, hoards were easy to conceal from plundering bandits and soldiers and, not least, from rapacious tax-collectors. Hoarding generally increased in periods of insecurity such as the fourteenth century: archeological finds from such periods are particularly abundant. When bullion was scarce, the consequent deflation made bullion even more desirable as an asset, and, of course, the resulting increase in hoarding contributed to the scarcity.

While gold, silver, and jewels were the favorite liquid assets, the most attractive long-term asset was real estate. From the twelfth century, all over Europe, wealthy merchants began to acquire rural land–not only arable, but also forests, meadows, and wasteland. The main attraction of land was that it provided a steady, relatively safe,

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[18]Cipolla (1994) pp33-37

[19]Powell (1966 [1915]) "The capable and energetic man used his money in trade, or … sent it abroad at interest. But the more conservative and nervous people hoarded it, either as specie or as plate and jewellery."

stream of income in the form of rents.[20] Its low risk relative to commerce made it appealing as a form of diversification. Its relative ease of management made it an ideal asset for a merchant approaching retirement, for widows and orphans, for a dowry, or for an endowment or bequest to a charitable or religious institution. The potential for speculative profits was an added attraction: there was considerable speculation in urban land and in rural land when its price was depressed by war.[21] In the Low Countries, in the fourteenth century, peat bogs (a source of fuel) became a popular investment and there was something of a speculative boom as peat prices rose in response to the increasing scarcity of wood.[22] Land, in sufficiently large quantities, also conferred on its owner important non-economic benefits–status and even noble rank. By buying land, a merchant could become a 'gentleman', so providing social status as well as economic security for his family and descendants. However, the habit of enterprise dies hard: merchant landowners were rarely idle rentiers or absentee landlords. More usually, they became closely involved in the management of their estates, looking for ways to increase the income from them. The merchants of Metz, for example, played an important role in raising agricultural productivity in the surrounding area: "By enclosing fields for pasture or vineyards and by restructuring arable into efficient large farms, they helped to spread an urban commercial orientation in the countryside."[23] Finally, land was far from illiquid. A market for loans secured by land developed early, and much of its economic function lay in allowing merchants to move their capital out of land by borrowing against it.[24]

USURY

Lending in this period faced an important obstacle–the prohibition against usury.[25] For lending to occur, it must be mutually beneficial. Obviously, the borrower gains the use of funds he otherwise would not have. Today, it seems equally obvious that the

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[20]It was also possible to purchase rents directly, without purchasing the land from which they were derived Kohn (1999b).

[21]Van der Wee (1977)

[22]Nicholas (1971)

[23]Hoffmann (1977) p293. Hoffmann quotes Schneider (1950) p394-426. For other discussions of urban purchases of, and improvements to, rural land, see Nicholas (1971) on thirteenth and fourteenth century Flanders, Herlihy (1967) on fifteenth century Pistoia, and McIntosh (1988) on England from the fourteenth through sixteenth centuries.

[24]Postan (1973)

benefit to the lender should take the form of a money payment from the borrower for the use of the funds. However, in the Middle Ages this was far from obvious. A loan was seen not as an economic transaction, but as an act of charity. Consequently, the appropriate compensation for the lender was the satisfaction of performing a good deed and recognition in the hereafter. Requiring monetary compensation in addition was considered to be exploitation of a brother in his time of need–the sin of usury.

While the prohibition against usury was clear in principle, its application in practice was anything but clear. Precisely what did and what did not constitute usury was, for centuries, a matter of intense theological debate and vigorous lobbying by interested parties. The debate generally focused on two issues. The first was whether or not a given type of transaction actually constituted a loan. If it did not, then the issue of usury did not arise. The second issue, was whether monetary compensation for the loan constituted usury, which was forbidden, or interest, which was not. In Latin, *usura* means 'use', so that usury meant payment for the use of money. *Intereo*, substantive *interisse*, means 'to be lost', so that interest meant compensation for loss. The distinction between usury and interest rested on whether the lender incurred an actual or potential loss in making the loan. If the loan was voluntary, if there was no risk of default, and if the monetary compensation was certain, then it was clearly a case of usury. However, if there was some risk involved or if the loan was involuntary (as was the case with much government borrowing) then the monetary compensation could be considered interest. By the end of the thirteenth century, some canonists had extended the concept of loss to include opportunity cost–the profit sacrificed by the lender in making the loan (*lucrum cessans*)–arguing that this too justified interest.[26]

There were loopholes enough in these definitions to enable ingenious borrowers and lenders to construct any number of instruments of credit that avoided the charge of usury. Sales credit and repayment in kind were permissible because they did not constitute the lending and repayment of money (although, in the twelfth century, Pope Alexander III ruled that credit sales at a price above the cash price were indeed usurious). A loan could also be structured as a 'repurchase agreement'–a sale of goods with a subsequent repurchase at a predetermined higher price–sometimes involving a third party to make it harder to trace.[27] An annuity was permissible because it was construed as a forward

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[25]The following is largely based in Homer and Sylla (1996), de Roover (1963) Ch II, and Tawney (1925).

[26]For example Henry of Susa, 1271 (see Spufford (1988))

purchase of a stream of income (in kind or in money) rather than as a loan. A loan might be free of compensation, but subject to a penalty for late repayment, with both parties understanding that the loan would not be paid on time: the penalty was justified because extension of the loan beyond its due date was ‘involuntary’ lending. In other cases, the borrower might reward the lender with a ‘voluntary’ gift at his discretion, in appreciation for the uncompensated loan, or he might reward him with implicit interest in the form of other business or valuable privileges (a common device for princes and popes). An element of risk could be introduced into the transaction artificially through the ‘permutation of currencies’: the loan would be made in one currency and repaid in another, making the rate of return uncertain, as it depended on the exchange rate at the time of repayment.[28] Or risk could be introduced by using an equity contract rather than a contract of debt: instead of paying a fixed, predetermined amount in compensation for the loan, the borrower paid a part of the uncertain profits derived from its use.

In many cases, however, disguise was unnecessary. Enforcement of the prohibition of usury varied widely. Venice, for example, was quite permissive. For many years, lenders there charged interest openly even on well-secured loans. When pressure from the Church increased in the late twelfth century, the Venetian authorities developed the interpretation of usury as an exploitative rate of interest (that is, an above-market rate).[29] In Valencia, lending at interest had been going on without opposition since the mid-twelfth century and it was officially legalized in 1217.[30] The great thirteenth-century fairs of Champagne granted participating merchants immunity from a variety of laws and restrictions–not least, from the prohibition of usury. Interest there could be charged openly, so long as it did not exceed the legal maximum. The interpretation of usury as an ‘excessive’ rate of interest gained ground in the fifteenth century, even within the Church. With the Reformation, usury restrictions came under attack and were generally replaced by laws that set a ceiling on the permitted rate. Henry VIII of England legalized interest in 1545, setting a maximum rate of 10%.

Of course official enforcement was not the only issue. In an age of strong religion, the fear of committing sin and of the possible consequences in the afterlife weighed heavily. Political and Church leaders and even merchants and financiers were willing to go to

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[27] Postan (1973)

[28] The best-know example is the bill of exchange (see Kohn (1999a)). However, moneychangers also relied on the permutation of currencies in making local loans (Spufford (1986))

[29] Lane (1966)

considerable lengths to avoid transgression. Merchant bankers on their deathbeds made generous bequests to churches and monasteries to expiate their sins and beseeched their heirs to make restitution to the victims of their usury. Besides the moral consequences, usury also had legal implications: a delinquent debtor brought before a court was quite capable of crying usury to escape repayment. Usury also became an issue of populist politics. The extension of credit played an important role in the growing domination of mercantile commerce over the traditional economy of small masters and farmers. These, deeply in debt to merchant middlemen, used accusations of usury as a weapon against 'the encroachments of a sinister money power'.[31]

In all, the prohibition of usury did have a significant effect on the development of the financial system. While it never prevented lending, it did play a significant role in molding its form.[32] By favoring equity finance over debt, it stimulated the development of new forms of business organization on the one hand, while hampering the development of financial intermediaries on the other.[33] One distinguished historian has suggested that, by discouraging consumption loans, the prohibition of usury actually promoted lending for investment and so stimulated economic growth.[34] On the other hand, the need to circumvent the prohibition of usury certainly added to the cost of lending. For example, the exchange-rate risk implicit in the use of the bill of exchange–the predominant instrument of commercial lending–was certainly detrimental to both borrowers and lenders. In general, while concern about usury was a factor in the development of particular financial instruments and practices, it was rarely the dominant factor.[35] For example, there was much more to the rise of the bill of exchange than considerations of usury alone.[36]

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[30]Riu (1979)

[31]Tawney (1925) The sentiments and the rhetoric of Tudor England are more than a little reminiscent of nineteenth-century American populism.

[32]The attention given by the problem of usury was itself evidence of the prevalence of lending. Tawney (1925)

[33]Veseth (1990)

[34]Lane (1966)

[35]"The attitude of the Church, therefore, modified and conditioned economic development, without at any time obstructing or dominating commercial activity." (Usher (1943) p137). "Consequently, the Church has not hampered the march of capitalism, but it has changed the course of its evolution." (de Roover (1954) p237)

INFORMAL FINANCE

The more developed an economy, the greater the degree of specialization. This is as true of finance as it is of any other economic function. In today's advanced economies, most lending is mediated by highly-specialized financial intermediaries and markets–banks and mutual funds, bond markets and stock exchanges. In the language of economic development, such specialized institutions constitute the 'formal' financial system. When lending takes place directly between individuals on a personal basis, with no participation by the formal financial system, the lending is described as being private or 'informal'. Even in today's advanced economies, informal or private finance is significant. In the pre-industrial economy, it was predominant. The formal financial system emerged only gradually from a matrix of informal finance.

The most prevalent form of informal finance was sales credit–deferred payment for goods sold or advance payment for future delivery. In the world of commerce, sales credit was ubiquitous: buying and selling for cash was the exception, extension of payment the rule. Generally, it was the wealthier merchants who financed the working capital of the less wealthy by providing them with goods against future payment. Moreover, commerce financed other sectors of the economy in much the same way: merchants financed manufacturers by supplying them with raw materials on credit, and they financed agricultural producers by paying them in advance for future crops. Merchants financed governments, too, by supplying them with goods on sales credit. Credit was no less important at the retail level. The local shopkeeper, craftsman, or innkeeper kept a current account for his regular customers. In fifteenth-century Florence, one clothing business had on its books 824 debtors, mostly for small sums of less than 20 *lire*.[37]

Credit was just as widespread in the countryside as it was in the towns. For example, in the rural manor of Havering near London in the fourteenth and fifteenth centuries:

> 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

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[36]See Kohn (1999a).

[37]Herlihy (1967). The information is from the *catasto* of 1427.

> though informal system of stored or owed credit involving most people within the community.[38]

The situation was no different in Germany in the same period: “there was not a single element of the population of the late medieval Bavarian countryside which did not take and extend credit.”[39] Nor was it different in rural France: “[Trade] amounted to sales of goods and services, paid for by loans and periodic settling of accounts. The practice was ubiquitous… The local economy, in short, ran on credit.”[40]

When it came to the lending of cash, much of this, too, was personal and outside the formal financial system. In the business world, equity capital-whether in partnerships or in share companies-generally came from relatives and friends. In the countryside, cash loans generally came from wealthy locals rather than from specialized institutions. Because it developed initially to serve the needs of commerce and government, the formal financial system did not extend into the countryside. Therefore, those in rural communities with cash to spare had no way to earn a yield except by lending it directly. Well-to-do squires, clerics, yeomen, and inn-keepers commonly lent money, on a personal basis, to their neighbors.[41]

Informal lending, both in the form of sales credit and of cash loans, was feasible only among people who knew each other well–relatives, friends, and members of small communities. So long as good will continued to obtain, debts could be carried for years: no-one was going to flee to escape their obligations. When the parties chose to settle up, they could bring in a trusted third party to tally their obligations to one another and determine the balance to be paid. If trust broke down, recourse could be had to the local court.[42] In the towns, where community ties were weaker, the extension of credit was more problematic. The trustworthiness 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 was more difficult. It was therefore more common in the towns to demand payment in cash, and the need for cash loans was consequently greater.

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[38]McIntosh (1988) p560-1.

[39]Toch (1986).

[40]Hoffman (1996) p70

[41]See Tawney (1925) and McIntosh (1988) on sixteenth-century England and Nicholas (1971) on thirteenth-century Flanders.

However, the informal lending of cash faced the same obstacles as the extension of credit. There was need, therefore, for a financial institution that could make cash loans to individuals without relying too heavily on their personal credit. That institution was the professional moneylender or pawnbroker.

PAWNBROKERS[43]

The pawn was a popular form of loan for two reasons. First, pawn lending lowered the transactions costs of a loan: the use of collateral reduced the need for credit information, and placing the collateral in the hands of the lender transferred the burden of legal recourse to the borrower.[44] The pawn loan was therefore a common form of lending, not only for moneylenders, but also for deposit banks, merchant banks, and goldsmiths and jewelers. The second reason for the popularity of the pawn loan was the widespread investment in real assets–in plate, jewelry, fine clothing and furnishings. Because it provided liquidity, pawn lending was an important complement to investment in real assets. The hasty sale of a real asset could involve considerable loss, so being able to borrow against it temporarily made it much more attractive as an asset.

Consequently, while today only the poor resort to a pawnbroker, in the pre-industrial economy, pawnbrokers served all levels of society: even the king of England was not above pawning his crown jewels with a Bruges pawnbroker to raise much-needed cash. While towns often cited the ‘needs of the poor’ as a reason for permitting pawnbroking, borrowers often included the wealthy as well as the poor. The *catasto* of 1427 reveals that in the Tuscan towns a sixth to a third of households borrowed from pawnbrokers, and the average wealth of borrowers was above the average wealth of non-borrowers. Such borrowing constituted some 10% of total indebtedness, and the average loan was about the size of the average annual urban wage of 14 florins.[45] The importance of pawnbroking fluctuated with the state of the economy. In times of prosperity, it declined; in times of economic hardship, it revived. It also fluctuated with the availability of other forms of credit: when these dried up, because of a financial crisis, the need for pawnbrokers increased. For example, in the Low Countries in the first half of the

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[42]McIntosh (1988) p560-1; “In a society that vigorously applied the principle of personal liability, this mutual crediting of assets and debts gave economic relationships on the local level a measure of security which was often lacking in the realm of high finance.” (Toch (1986))

[43]Much of the following is based on de Roover (1948) Chs 6-9, Parker (1977), and Botticini (1999).

[44]Pawnbrokers lent not only on pawns, but also on other forms of security, such as written bond or guarantees. They sometimes even lent on credit alone. Botticini (1999)

sixteenth century, the strong economy and the growth of retail trade, with its associated shop credit, reduced the need for pawnbroking. But, in the second half of the century, beset with wars, inflation, and depressed trade, pawnbroking revived.[46] In Venince, a banking crisis in the 1350s caused the city to consider allowing pawnbrokers into the city.[47]

In northern Europe, pawnbrokers were usually Italians, known there as Lombards or Cahorsins.[48] The first Italian pawnbrokers appeared in Flanders late in the thirteenth century, at about the same time that the large Italian trading companies began to establish branches in Bruges. In Italy itself, as well as in Germany and eastern Europe, pawnbrokers were usually Jews.[49] In England, the numerous pawnbrokers at the end of the sixteenth century were English. While pawnbrokers were useful, even necessary, they were resented and despised: openly engaged in usury, they were social outcasts. In Bruges, the other Italian merchants had little to do with their compatriots who were pawnbrokers.

In most places, pawnbrokers were regulated, requiring a license from the public authorities. The term of the license was typically from five to twenty years and might, or might not, be renewed. Often a pawnbroker obtained a local monopoly, and other lenders were allowed to operate only with his permission. For the license, and the monopoly, the pawnbroker paid a substantial annual fee (as much as 4,000 ducats in Venice in 1382), and he might also be required to make concessionary loans to the town. The town often regulated his activities, in particular setting a maximum on the rate he could charge. License fees were an important source of revenue for some towns, and the authorities were not above raising the permitted maximum in exchange for an increase in the fee.[50]

In fifteenth-century Italy, militant Franciscans, motivated by their desire to expel the Jews, lobbied for nonprofit municipal pawn banks that would free the poor from the

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[45]Botticini (1999)

[46]Van der Wee (1977)

[47]Mueller (1997) p142. It did not, however, do so at this time. Venice normally allowed pawnbrokers no nearer than the neighboring city of Mestre.

[48]Cahorsins, despite the name, were generally Italian. Cahors was the French city where Genoese merchants and merchant bankers first established themselves. (Bewes (1923))

[49]Botticini (1999). Jews from Rome settled in northern Italy in the twelfth and thirteenth centuries, and their lending there peaked in the fourteenth and fifteenth centuries.

[50]On Italy, see Botticini (1999); on fifteenth-century Spain, see Van der Wee (1977)

clutches of the usurers.[51] The first such *monte di pietà* was founded in Perugia in 1467, and by 1509 there were 89 such institutions all over Italy. The idea spread northwards, especially to the Netherlands, where many towns set up municipal pawn banks (*banken van leninge*) in the sixteenth and seventeenth centuries. However, public pawn banks did not generally succeed in displacing the private pawnbrokers. The latter, although more expensive, provided better service: they offered larger loans for longer periods of time and were less bureaucratic in their procedures.[52]

Private pawnbrokers largely financed their lending out of their own funds, but they often also accepted time deposits. As outsiders, they often had strong ties with family and community elsewhere, so they were a good source of external finance in times of local crisis.[53] Private pawnbrokers lent mainly to nobles and princes, mostly to finance consumption, and many of these loans were quite large. They also made smaller loans to peasants and to urban craftsmen for working capital. Their interest rates were generally high: 40% was not unusual. The *monti di pietà* relied initially on charitable contributions, but when these proved inadequate, they began to accept time deposits. They became, in essence, savings banks. To begin with, they made only small loans to the poor: in Padua, the maximum amount was three ducats and the maximum duration of a loan six months. Their loans, however, were free of interest. However, as the funds at their disposal increased, the *monti di pietà* soon began to lend, at interest, to business borrowers, nobles, and princes. For example, in 1583, the *monte di pietà* of Florence lent 300,000 ducats to Phillip II at a very profitable rate.[54]

CONCLUSION

The following picture emerges of pre-industrial finance. In general, there was no shortage of potential lenders. On the contrary, the problem was rather the shortage of opportunities for lending–the shortage of financial assets–which forced most savers to invest directly in real assets such as land and bullion. The greatest source of funds was commerce itself: it generated more profits than it could usefully reinvest, and it was a net lender, especially to governments. There was an extensive system of informal finance, mainly in the form of sales credit. Indeed, the economy depneded more on credit than on cash. Informal credit, while it worked well in small communities, was unsuited to trade among strangers. The problem was most acute for merchants engaged in long-distance

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[51]Lane and Mueller (1985)

[52]Van der Wee (1977, Parker (1977)

[53]Botticini (1999)

trade, and it was mainly to serve them that early financial institutions and markets evolved (the pawnbroker being the main exception). It was the merchants themselves who took the initiative in developing the necessary institutions and markets. They established deposit banks and developed bills of exchange to provided efficient means of payment. Merchant bankers provided other merchants with credit.

As the financial system developed, it presented savers with a beter choice of financial assets. In this respect, merchants had an advantage: since the financial system developed initially to serve them, they had the best access to it. However, non-merchants living in or near large towns and cities, especially the great commercial centers, also had easy access, and they became an important source of funds for the financial system. In some places, even away from the commercial centers, there also developed well–organized markets in long-term loans secured by land or in long-term municipal debt. In Italy and in the Low Countries the market for municipal debt developed to the point that it was able to support a class of rentiers.

The developing financial system, by making lending easier and by increasing the supply of funds, helped to lower interest rates. In the short-term money market, rates fell from 20% in the twelfth century to 10% in the thirteenth and then more gradually to a low of 4% early in the sixteenth century (heavy government borrowing drove rates back up to 7% later in the century).[55] Lending margins were quite modest: for example, the Florentine merchant bank of Peruzzi paid 8% on deposits and charged 10% on loans. In the long-term capital market, rates on annuities fell steadily too–from 8% in the late twelfth century to 4% in the sixteenth. As these numbers indicate, long-term rates were generally lower than short-term rates throughout the period.[56] This stimulated some maturity transformation, with some cities issuing annuities at 5% to re-lend short-term at 8%.[57] While the overall trend of interest rates was downwards, money-market rates in particular were quite volatile: in Antwerp during the sixteenth century they fluctuated between 4% and 13%; in the single year of 1546 the range was 7-13%.

The remaining papers of this group trace out the details of how the financial system evolved. We begin with payments, in Papers 3 and 4, because that is where the important

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[54]Parker (1977)

[55]Homer and Sylla (1996)

[56]Short-term and long-term rates are not strictly comparable, however, since they refer to different instruments with different degrees of credit risk. Unlike today, there was no array of risk-free ‘benchmark’ rates at all maturities.

[57]Ehrenberg (1928) p 45

initial innovations occurred. But first, we need to understand the monetary environment that stimulated those innovations–the subject of Paper 2.

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