

**HOW AND WHY ECONOMIES DEVELOP AND GROW: LESSONS
FROM PREINDUSTRIAL EUROPE AND CHINA**

CHAPTER 9

FINANCING PRODUCTION, COMMERCE, AND PREDATION

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ABSTRACT: Production, commerce, and government all depended on external financing, and the need to obtain that financing shaped the organization of each. Preindustrial Europe developed three principal mechanisms to address the difficulties of external financing—mediated lending (principally by merchant banks), secured lending, and equity financing.

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All three economic activities—production, commerce, and predation—depended on external financing, and the need to obtain that financing shaped the evolution of each. External financing was, however, fraught with difficulties. We begin by examining why financing was necessary. We then look at the potential sources of external financing and at the difficulties involved in tapping them. We go on to examine in detail the three principal mechanisms used in preindustrial Europe to address those difficulties. We conclude with an assessment of the impact on economic activity of the greater availability and lower cost of external financing.

THE NEED FOR FINANCING AND ITS SOURCES

Each of the three economic activities required resources in the form both of working capital and of fixed capital. Working capital consists of resources committed for a relatively short period until the activity in question can generate a return. Fixed capital consists of resources committed for a longer period, usually in the form of durable assets employed in the activity.

In production, working capital took the form of material inputs, such as seed and fertilizer in agriculture and intermediate products in manufacturing. In both it included the cost of labor—the wages of hired workers and the subsistence of the producer. These resources had to be committed to production before any output became available for sale or consumption. In addition, both agriculture and industry required fixed capital in the form of structures and equipment; agriculture also required fixed capital in the form of livestock and, in particular, land and improvements to it.

The need for working capital in commerce was, as we have seen, substantial: merchants had to commit resources to the purchase of goods, to their shipment to the place of sale, and to their sale on credit. Commerce also required fixed capital in the form of structures (marketplaces, wharves and warehouses), transportation equipment (ships and wagons), and transportation infrastructure (roads, canals, and harbors).

Predation, and protection against predation, required the commitment of resources no less than did production and commerce. As we have seen, governments were the principal agents of predation and of protection against predation. The principal ‘venture’ of predation was war. War was expensive—mainly labor costs and subsistence—and often protracted, and it paid off, if at all, only with a considerable delay. It therefore

required considerable working capital. It also required fixed capital in the form of military equipment and fortifications.

Economic activity required not only resources, but also the ability to mobilize those resources quickly. That is, it required *liquidity*.

In commerce, the need for working capital was variable and unpredictable. Shipments might be delayed and purchasers late in paying, tying up resources longer than expected. In the meantime, merchants had to be able to pay their own debts. And they also had to be able to invest in new ventures whenever an opportunity arose: if they could not to do so, someone else certainly would.

Liquidity was essential too for predation and for protection against predation. War might break out at any time, and an inability to raise adequate forces quickly enough meant almost certain defeat. Moreover, wars were of unpredictable duration, and the outcome often decided by one side's running out of cash and so being unable to maintain an army in the field.

Production was more predictable in its need for resources, but the economic environment in which it operated was highly uncertain. Producers had to be able to mobilize resources in times of difficulty in order to survive.

Sources of financing could be internal or external—the resources of the enterprise itself or resources provided by others. The provision of liquidity too could be internal or external. It could be provided internally by holding liquid assets—cash or assets that could be turned into cash quickly; or it could be provided externally by being able to borrow as needed.¹ External financing was important, therefore, not only as a source of resources but also as a source of liquidity.

Merchants as a group commanded considerable wealth: commerce, although risky, was highly profitable. They were therefore able to meet their own needs for financing and also to provide financing to others. Because of their need for liquidity, however, they generally limited their financing to the short term. They financed each other's working capital through sales credit and bills of exchange. They financed the working capital of

¹For example, we saw in Chapter 8 that the payments system provided a variety of lending facilities to address the problem of liquidity risk in settlement.

producers through sales credit, advance purchase, and the domestic system.² And, as the financial system developed, they increasingly came to finance the working capital of governments as well. Because of their need for liquidity, merchants minimized their investment in fixed capital, even their own: even the largest companies preferred to rent rather than own whatever warehouses, transportation equipment, and office space they needed.³

In a predominantly agrarian society, a large part of total wealth was in the form of land—not only agricultural land but also forests (the main source of fuel and building material) and mineral deposits. The bulk of the land was in the hands of the predatory class. However, the Church was a major landowner too, and as we saw in Chapter 5 merchants also became landowners.⁴ Large landowners lived from the income they derived from their land. In periods of prosperity, when the demand for land-produced commodities was strong, their income exceeded their consumption and they became a source of financing for others. As a rule, they favored long-term financing: liquidity was less of a concern for them, and they preferred to invest in assets that, like land, would provide them with a steady and relatively safe stream of income. Landowners financed the fixed capital both of production and of commerce. And, as the financial system developed, they also provided long-term financing to governments.

In terms of wealth, governments—whether of princes, lords, or cities—were rather like landowners: they derived a stream of income from the territory they controlled. In peacetime, their income was generally sufficient to their needs.⁵ In times of war, however, their need for working capital far exceeded their current income. To be able to meet this need, governments ensured liquidity internally by accumulating ‘war chests’ of bullion. And when they could, they borrowed. In the early Middle Ages, they borrowed

²See Chapters 7 and 8 on the financing of other merchants and Chapters 3 and 5 on the financing of production.

³(Hunt 1994)

⁴In some parts of Europe, a significant part of the land was owned by farmers and peasants.

⁵The latter included not only military structures and equipment, but also commercial and transportation infrastructure that would increase their future income.

from the Church.⁶ Later, as the financial system developed, they borrowed from a broader public, in which merchants predominated.

Producers, as a group, were relatively poor. Those producing for subsistence had to rely mostly on internal financing. Those producing for the market were able to draw on external financing. On the whole, merchants provided them with working capital and landowners with fixed capital. Some commercial producers, however, were quite prosperous—commercial farmers, for example, and skilled artisans such as dyers and glassmakers.⁷ These were able not only to meet their own needs for financing but also to provide external financing to others. Producers generally had to rely on internal sources for liquidity. Since suitable financial assets were not initially available, they hoarded coin or invested in real assets such as stocks of grain and livestock—even when the return on such investments was negligible.⁸

THE DIFFICULTIES OF EXTERNAL FINANCING

External financing was difficult, because it involved promises. The provider of financing made resources available to the recipient in exchange for a promise of resources in the future. The recipient might not keep his promise, either because he was unwilling to do so or because he was unable.⁹ His willingness was a matter of incentives; his ability, a matter of circumstances. External financing required, therefore, both suitable incentives and knowledge of the circumstances of the recipient. These conditions were satisfied as a matter of course when both parties were members of a group that shared an internal order and also when there was a continuing commercial relationship between them.

There was, consequently, considerable external financing within communities, both in the country and in cities. In the country, well-to-do locals made personal loans to their

⁶The Church had accumulated vast stores of treasure over the years from gifts and endowments (Pirenne 1937).

⁷See (Clay 1984) on commercial farmers in sixteenth century England and (Lane 1973) Ch. 12 on skilled artisans in fourteenth-century Venice.

⁸(Britnell 1996) Ch. 8.

⁹We discussed the general problem of reliance on promises in Chapter 6.

neighbors. Such lenders included the gentry, parish clergy, monasteries, inn-keepers, farmers, and even rich peasants.¹⁰ In the cities, artisans lent to fellow guild members; and sometimes the guilds themselves were able to make small loans to their members. Local shopkeepers also made small cash loans to their regular customers.¹¹

The most important example of financing supported by a continuing commercial relationship was sales credit. Sales credit from merchants financed the working capital of other merchants and of producers. Merchants also supplied goods to governments and to consumers on sales credit. Merchants sold directly to wealthy customers on credit, and local shopkeepers, craftsmen, and innkeepers kept a current tab for their regular customers.¹²

To broaden financing beyond the limits of community or commercial relationship required some additional mechanism to address the problem of reliance. In preindustrial Europe, the three most important mechanisms were mediated lending, secured lending, and equity financing.

Mediation by intermediaries and organized markets mitigated the problem of reliance in financing, just as it did in commerce. Financial intermediaries, particularly merchant banks, made it possible to provide financing indirectly—lending to the intermediary, which in turn lent to the ultimate borrower.

Secured lending offered stronger security to the lender by securing a loan with a specific asset that would pass to the lender in case of default. Of course, all loans were secured by a general claim on the debtor's assets (and on those of any guarantors). But the secured loan reinforced the incentive to pay—especially if the asset in question was vital to the borrower's enterprise. It also relieved the lender of the need to gain detailed knowledge of the borrower's credit, assets, and other debts.

Equity financing had two advantages. Because the amount repaid was linked to the success of the venture, there was no possibility of default with all its associated

¹⁰See (Duby 1968) on medieval France, (Nicholas 1971) on thirteenth-century Flanders (Tawney 1925) and (McIntosh 1988) on sixteenth-century England.

¹¹(Marshall 1999).

¹²In fifteenth-century Florence, one clothing business had on its books 824 debtors, mostly for small sums of less than 20 *lire* ((Herlihy 1967)).

difficulties and costs.¹³ Moreover, the possibility of loss was balanced by the possibility of extraordinary gain: equity possessed an upside that was entirely lacking with debt.

The three different mechanisms suited different applications. Some forms of secured lending were costly to set up, which suited them better to long-term financing, where the setup cost could be amortized over a longer period. Credit-based, mediated lending was better suited to short-term financing, because credit could deteriorate over a longer period of time. Indeed, even within a community, long-term loans were generally secured. Equity financing was particularly suited to high-risk commercial ventures that could offer a substantial upside.

We will see that the emergence of each of these mechanisms required considerable legal development. The legal system becomes involved in financing when things go wrong—when a recipient of financing defaults. How the courts resolves this is crucial: it affects both the incentives of recipients to keep their promises and the readiness of potential providers to accept them. The contracts on which financing was based, and how the courts interpreted them, had to adapt as new challenges arose.¹⁴ It was the multiplicity of legal jurisdictions in preindustrial Europe, their relative independence, and the competition among them that provided the needed flexibility.

Before we examine the evolution of the three mechanisms in greater detail we need to recognize another, non-economic, obstacle to external financing in preindustrial Europe—the religious prohibition of usury.

The prohibition of usury¹⁵

The Church regarded a loan not as an economic transaction, but as an act of charity. The appropriate compensation for the lender, therefore, was the satisfaction of performing a good deed and recognition in the hereafter. For him to demand monetary compensation as well was to exploit a brother in his time of need—the sin of usury.

¹³See the discussion of share lease contracts (share-cropping) in Chapter 3.

¹⁴We saw an example of this in Chapter 8 with the adaptation of bills of exchange to use as a means of payment.

¹⁵The following is largely based on (Homer and Sylla 2005), (de Roover 1963) Ch II, and (Tawney 1925).

The practical question, of course, was whether or not a particular type of transaction actually constituted usury. In each case, this was a matter of intense theological debate and vigorous lobbying by the interested parties. The first issue was whether or not the particular transaction was a loan: if it was not, the question of usury did not arise. For example, sales credit and advance purchase were permissible because they did not involve the actual lending and repayment of money. An annuity was permissible because it could be seen not as a loan but as a purchase of a stream of income (in kind or in money).

If the transaction was indeed considered a loan, the second issue was whether the monetary compensation constituted usury or ‘interest’. In this context ‘interest’ meant compensation for actual or possible loss: unlike usury, interest was permitted. An involuntary loan imposed by a government, for example, implied a loss, so any compensation was ‘interest’. Lending by means of a bill of exchange was acceptable because the rate of return depended on an uncertain exchange rate. Equity financing was permitted, because the return depended on uncertain profits.

Enforcement of the prohibition of usury varied widely, and overt lending for compensation was not uncommon. Venice, for example, was quite permissive. The fairs of Champagne offered a general immunity from most laws and restrictions—including the prohibition of usury. Interest (in the modern sense) could be charged there openly, so long as it did not exceed the legal maximum. This re-interpretation of usury to mean ‘excessive’ interest gradually gained ground in the fifteenth century, even within the Church. With the Reformation, traditional usury restrictions were widely replaced by laws setting a ceiling on the permitted rate. Henry VIII of England, for example, legalized interest in 1545, setting a maximum rate of 10%.

In the face of human ingenuity, the prohibition of usury did not prove to be a major obstacle to the development and expansion of financing.¹⁶ However, it did play a significant role in molding the *form* of financing, and this certainly added to its cost.¹⁷

¹⁶The attention given to the problem of usury was itself evidence of the prevalence of lending (Tawney 1925).

MEDIATED FINANCING

Short-term financing in preindustrial Europe was generally mediated. The most important financial intermediary was the merchant bank. We saw in Chapter 8 that merchant banks acted as intermediaries in the market for remittance. They could be trusted in this role because they had an obvious interest in maintaining their reputations. Moreover, their size and wealth made it likely they would be able to honor their obligations. This same trustworthiness enabled them to act as financial intermediaries—borrowing in their own name in order to re-lend to others.

Merchant banking

Merchant banking first appeared late in the twelfth century in the trade of northern Italy with the Fairs of Champagne. The first merchant bankers were from Asti, Piacenza, Siena, and Lucca.¹⁸ Then, in the fourteenth and fifteenth centuries, the Florentines came to the fore, and in the sixteenth and seventeenth it was the turn of the Genoese. Other nationalities were represented too, but for most of the period the Italians dominated. The one exception is the brief prominence of South German merchant banks in the first half of the sixteenth century.

Merchant banking developed out of commerce through a process of specialization. All merchants were involved in finance—as givers of credit, as receivers of credit, or usually as both. Some large trading companies, by virtue of their size, were drawn into remittance. Remittance provided them with funds they could lend, and this in turn drew them further into finance.¹⁹

Although finance became their principle activity, merchant bankers remained merchants. For example, the ‘supercompanies’ of the fourteenth century traded extensively in wool and grain, and were not above dealing in horses.²⁰ Merchant bankers

¹⁷For example, the artificial risk introduced into dry exchange (see Chapter 8) made lending less attractive. As a result, the volume of lending was lower and the interest rate higher than it would otherwise have been.

¹⁸(de Roover 1963)

¹⁹This is similar to the process of specialization that led to the emergence of shipping brokers and commission agents out of ordinary commerce that we discussed in Chapter 7.

²⁰(Prestwich 1979)

continued to engage in commerce, because finance and commerce were complementary. With a presence in many markets and good information, a merchant bank was well placed to identify new trading opportunities. It could exploit them easily, simply by diverting resources from financing the ventures of others to financing its own.²¹ And, as we will see, the ability to make large loans to rulers was often the key to opening up lucrative trading opportunities.

Most borrowing by merchant banks involved bills of exchange. We saw in Chapter 8 that the bill of exchange was by its nature an instrument of credit as well as an instrument of remittance. Borrowing by merchant banks was initially a side-effect of remittance: when someone remitted funds he was at the same time making a loan to the bank until payment was due. Increasingly, however, merchant banks used the bill of exchange as a pure instrument of borrowing divorced from remittance through the device of dry exchange.

Merchant banks also borrowed by accepting time deposits.²² To avoid the charge of usury, the interest they paid was ‘voluntary’ rather than contractual. The rate, however, were set by custom and depended on market conditions: a bank that failed to pay ‘voluntarily’ the customary rate raised doubts about its soundness. Depositors came mainly from the ranks of the wealthy—nobles and clerics as well as merchants.²³ Widows, orphans, and dowries were also well represented. And merchant banks sometimes even accepted small deposits from craftsmen, servants, and farm laborers.

Some merchant banks obtained a significant part of their deposits from their foreign branches. For example, while the great merchant banks of fourteenth-century Florence gathered most of their deposits at home, they also took in large amounts at their branches in Naples and Rome.²⁴ Rome was a major source of funds too for the Medici in the fifteenth century.²⁵

²¹(de Roover 1949) p166

²²Ordinary merchants accepted deposits too ((Lane 1944), (Marshall 1999) Ch 7). What distinguished merchant banks was the scale of their deposits—as much as ten times capital for the largest (Braudel 1982).

²³There were brokers who brought together merchant banks and major depositors: see (Hildebrandt 1990) on practices in South Germany.

²⁴(Hunt 1994)

The importance of deposits as a source of funds declined in the sixteenth century. Merchant banks came increasingly to depend for their funding instead on selling paper in the money market—at Antwerp, Lyons, and Bisanzone. They sold their paper mainly to other merchants, but the best credits—the *ditte di Borsa*—were able to sell paper to small investors by issuing it in sufficiently small denominations. Indeed in Genoa, Venice, and other Italian cities, the money market became a favorite investment not only for institutions and trustees, but also for small investors.²⁶

Merchant banks were able to make a profit as financial intermediaries because they could generally borrow at a lower rate than those to whom they were lending. One reason was their better credit. Another was that their IOUs were more liquid, because they could be traded more easily (not least because there existed an organized market for them). The debt of merchant banks had the advantage too of being issued in smaller denominations than the loans they made and so appealed to a broader class of investor.

Merchant banks provided external financing for the working capital of other merchants. This was particularly useful when sales credit was problematic. For example, an Italian merchant visiting Bruges to purchase cloth might have had difficulty obtaining sales credit from Flemish merchants there who did not know him. So he would borrow instead from the local branch of a merchant bank and pay for the cloth in cash (or, more likely, in bank). To cover the loan he would write the bank a bill of exchange payable in his home city. The merchant bank was better able to accept his IOU than were the Flemish merchants. Because of the merchant bank's extensive connections, it would probably be familiar with the Italian's credit. Moreover, if he was a regular customer, the value of the continuing relationship would provide an incentive for him to repay. If, nonetheless, he defaulted the merchant bank would find it much easier to take legal action against him in his home city.

²⁵(de Roover 1963).

²⁶As early as the late fifteenth century, ordinary Venetians found the money market an attractive alternative to the other popular investment—the local *colleganza* (see below)—as it involved substantially lower transactions costs. (Mueller 1997) Ch 8

Marine insurance

Merchant banks did not at first finance maritime commerce. This was financed initially by means of the sea loan and the *commenda*, both of which combined financing with the sharing of risk. The market for bills of exchange promised less costly financing, but only if some separate way could be found to share the casualty risk. It seems plausible that it was merchant bankers, eager to obtain the additional business, who came up with the solution—marine insurance.

The combination of marine insurance and bills of exchange lowered the cost of financing by separating casualty risk from credit risk. Casualty risk depended on the route chosen, on the time of year, and on the political situation: it was not specific to the particular merchant purchasing the insurance. Since information on the credit of the insured was not necessary, the pool of potential underwriters was large, and the casualty risk could be spread widely: this lowered the cost of bearing it. The credit risk was borne by the merchant bank advancing funds against a bill of exchange. Since the merchant bank was a specialist in assessing credit risk and able to draw on a well-functioning international money market for funds, it could provide financing relatively cheaply.²⁷

Marine insurance developed in the Mediterranean in the fourteenth century. Since the merchant banker providing the financing often also arranged the insurance, it is not surprising that the Florentines, who dominated the money market at the time, also came to dominate the market for insurance. By the end of the fourteenth century, they were arranging insurance for two thirds of the maritime commerce of Venice.²⁸

Sovereign lending

While most merchant banks limited their activities to exchange, commercial lending, and insurance, some of the largest also lent extensively to territorial rulers. As we will see in Chapter 10, rulers generally found it difficult to borrow. Their debt was essentially

²⁷The same principle of separating risks so that they can be borne at minimum cost underlies the modern development of the swap market. The interest-rate swap, for example, enables a bank to bear the credit risk of a loan, while the interest-rate risk is borne by the bond market.

²⁸Although marine insurance spread to the northern zone, its use remained relatively uncommon there until the eighteenth century. For example, in the early seventeenth century, no more than 1% of Dutch shipping and 10% of merchandise was insured. (Barbour 1929)

personal: if a ruler died, his successor was under no formal obligation to honor it. Moreover, if a ruler defaulted, there was no recourse against him in his own courts. So, to compensate for the risk, rulers had to pay very high rates—if they could borrow at all.

Merchant banks were able to lend to rulers profitably, because they developed a variety of ways to control the risk. One way was to make the term of the loans short. This kept the borrower on a short leash: to be able to roll over his debt, a ruler had to satisfy lenders of his ability and willingness to repay.²⁹ Another way was to require guarantees from private individuals or bodies against whom it was possible to obtain a judgment if the sovereign defaulted. For example, to be able to borrow in Antwerp, Henry VIII had to obtain guarantees from the London branches of the Bonvisi and Vivaldi merchant banks; these were indemnified in turn by English merchants.³⁰

Yet another way of securing loans was to place a specific source of revenue, from which the loan could be repaid, into the hands of the lender. For example, when Edward I of England established an export tariff on wool in 1275, he was able to borrow against it from the Ricciardi by turning over to them collection of the tariff.³¹ Similarly, Duke Sigmond of Tyrol borrowed from the Fuggers, from 1487, against his expected royalties from the Schwaz silver mines: the Fuggers collected the royalties until the debt was repaid.³² Forward sales performed a similar function in securing loans. Loans to the King of Portugal in the early sixteenth century from the Welsers and other German bankers took the form of forward purchases of spices imported from the Indies by the royal monopoly.

Arrangements such as these could be highly profitable and were often the principal attraction of sovereign lending.³³ Indeed, earlier in the period, the loans themselves were often interest-free. The great Italian merchant banks of the thirteenth and fourteenth century gained monopolies of the export of grain from Naples and Sicily and of wool

²⁹The short term was also dictated by the merchant banks' need to maintain liquidity.

³⁰(Outhwaite 1966)

³¹(Goldthwaite 1973)

³²(Strieder 1931)

³³“there are no known examples of large-scale continuous financing of monarchs unaccompanied by important commercial privileges.” (Hunt 1994) p 64

from England through their lending to the respective rulers.³⁴ Similarly, the Fuggers gained control of the mines of central Europe in the late fifteenth century through their lending to the Hapsburgs.³⁵ The Genoese, who succeeded the Fuggers as lenders to the Hapsburg rulers of Spain, gained control in the same way of the trade in American silver.³⁶

The Genoese had an additional hold over the Hapsburgs.³⁷ Their lending was in the form of bills payable in Antwerp in gold. Agents of the crown in Antwerp used the gold to pay the Spanish armies in the Low Countries and repaid the loans with bills payable in Spain in silver expected from the Americas. When Spain defaulted in 1575, the Spanish government could find no alternative way of getting money to its armies. The troops, still unpaid in November 1576, mutinied and sacked the city of Antwerp. The Spanish government quickly resumed negotiations with its creditors.³⁸

The success of sovereign lending by merchant banks depended, therefore, on the services they could supply (or deny) to rulers, on their continuing ability to mobilize large loans for them from the money market, and on their own ability to take advantage of the commercial opportunities that sovereign lending opened up to them.

Sovereign lending, profitable as it often was, rarely ended well. In 1343 Edward III defaulted when it was clear that the Florentine merchant banks were in difficulty and unlikely to provide him with further loans. The South German merchant banks never recovered from the default of Phillip II of Spain in 1557. And in 1627 after one Spanish default too many, the Genoese decided to withdraw from sovereign lending. By then, the trade in American silver had anyhow become less profitable, so that the risks involved were no longer worthwhile.

³⁴(Hunt 1994) (Prestwich 1979) (Goldthwaite 1973)

³⁵(Strieder 1931)

³⁶(Conklin 1998)

³⁷The merchant banks involved, known as the *asientistas*, were actually a consortium, mainly of Genoese, but with some Florentines, Flemish, German, and Spanish bankers.

³⁸(Conklin 1998)

SECURED LENDING

While short-term lending by strangers was generally mediated, mostly by merchant banks, long-term lending was generally secured. Rather than relying on the trustworthiness of an intermediary, the lender relied instead on a claim to a specific asset of the borrower.

Secured lending can be used in either of two ways. In the first, it can be used to finance the acquisition of an asset that will itself serve as security for the loan. For example, with a modern residential mortgage, the borrower receives money from the lender to purchase a house; the house becomes the property of the borrower, subject to a lien of the lender. Secured lending can also be used in a different way—to provide the owner of an existing asset with liquidity. That is, the owner can borrow against the asset to raise money for some other, possibly unrelated, purpose. For example, an entrepreneur might mortgage his home to finance a new business.

Modern secured debt, of which the residential mortgage is an example, can be used in either way. It is, however, legally demanding: it requires a functioning formal order to enforce the contract and a registry of title to ensure that the same asset is not pledged to secure multiple loans. Since preindustrial Europe initially lacked these institutional prerequisites, the earliest forms of secured lending to develop—the lease and the pawn—were less legally demanding but also less versatile.

The lease

With a lease, lender does not lend the borrower money to purchase an asset. Rather the lender himself purchases it (or already owns it), and lends the asset itself to the borrower. The lease is therefore an instrument of financing: as with modern secured debt, the borrower gains possession of the asset, so he can make use of it. It is not, however, an instrument of liquidity: the lease provides the owner with a stream of payments over time, not with an immediate sum of cash. On the other hand, the lease does provide the lender with good legal protection: because the asset remains his property, it is easier for him to regain possession if the borrower defaults.

We saw in Chapter 3 that the lease was the instrument with which landowners financed the agricultural producer's most important item of fixed capital—land. We saw too that the possibility of leasing made land an attractive investment for merchants and

townsmen: from their point of view, the land was simply an asset that provided them with a fairly safe stream of income. The possibility of leasing also made other forms of productive fixed capital into attractive assets for non-producers. For example, in thirteenth-century Italy livestock became a popular investment for townsmen, village tradesmen and prosperous peasants, who leased the animals to agricultural producers.³⁹

Lease financing was common too in industries linked to the land. From the earliest times, landowners constructed flour mills, wine presses and olive presses on their land and leased them to producers who operated them as independent enterprises. Later, landowners constructed and leased fulling mills and paper mills in much the same way.⁴⁰ The owners of mineral-bearing land invested in refining and forging facilities and leased these out, often to metal traders.⁴¹ For example, many of the new blast furnaces constructed in Elizabethan England were built by landowners and leased in this way.⁴² Landowners found such investments attractive, because they increased the rents and royalties they could earn from their land. Moreover, with good financial assets unavailable, they had few alternative outlets for their savings.

Leasing was important too in cities and in commerce. Urban landowners invested in rental housing and commercial infrastructure and leased them out. For example, when the counts of Champagne instituted the cycle of fairs in 1191, they persuaded the ecclesiastical authorities to finance the construction of the necessary accommodation.⁴³ Merchants also leased fixed capital to urban and rural producers. In the domestic production of textiles, for example, spinners and weavers too poor to afford their own spinning wheels and looms, leased them from their employers.⁴⁴

³⁹(Jones 1968) p 221

⁴⁰(Nef 1964) Ch. 3

⁴¹(Nef 1987)

⁴²(Palliser 1983) Ch. 8

⁴³(Bautier 1970) (Verlinden 1971)

⁴⁴(Holt 1997)

The pawn

The second early form of secured lending was the pawn. A pawn provides the owner of a real assets with liquidity. To borrow against it, he places the asset in the hands of the lender, where it remains until the loan is repaid. This provides the lender with good legal protection, since the asset is already in his possession: in case of a dispute, it is the borrower who has to sue for its return. The pawn also reduces the transactions costs of the loan by eliminating the need to assess the borrower's credit. The pawn made it possible for outsiders to lend to members of a local community, even though they were not a part of the community's informal order.

The pawn was a common instrument of lending for deposit banks, merchant banks, and goldsmiths and jewelers. However, it was most closely associated with specialized moneylenders or pawnbrokers.⁴⁵ While today only the poor resort to a pawnbroker, in the pre-industrial economy, pawnbrokers served all levels of society. They lent to nobles and princes, mostly to finance consumption, and many of these loans were substantial. They also made smaller loans to peasants and to urban craftsmen for working capital.

Pawnbrokers financed their lending largely from their own resources. As outsiders, they had strong ties with family and community elsewhere, so they were a good source of external resources in times of local crisis.⁴⁶ The interest rates they charged were generally high: 40% was not unusual. While pawnbrokers were useful, even necessary, they were resented and despised: openly engaged in usury, they were social outcasts.

Pawn lending provided owners of real assets with liquidity. If the need arose for cash, rather than having to sell an asset hurriedly, perhaps at a considerable loss, the owner could borrow against it. This made investment in real assets such as plate, jewelry, clothing and furnishings more attractive.

The most important real asset, of course, was land, and land too could be pawned. The lender took possession of the land and, until the loan was repaid, enjoyed the income from it—whether in cash or in kind. Repayment was due after a set number of years, and

⁴⁵Pawnbrokers did, however, also lend on other forms of security, such as a sworn bond or guarantee. They sometimes even lent on credit alone. (Botticini 2000)

⁴⁶(Botticini 2000)

if the borrower defaulted, the land became the property of the lender.⁴⁷ The owner pawning the land, might at the same time be leasing it. Indeed, leasing made it easier to pawn, since the lender did not have to manage the land himself, but merely collect the income from it.

The land pawn was widely used in the eleventh and twelfth centuries, especially in financing the Crusades. Abbeys and bishops were happy to make the loans in such a worthy cause, not to mention the excellent return and the good chance of acquiring property at a favorable price.⁴⁸ Perhaps because it so often ended in default, the land pawn became increasingly unpopular, and courts became progressively more sympathetic to borrowers. In 1150, the pope, responding to popular sentiment, declared it usurious, making it easier for the borrower to obtain relief in court.⁴⁹ By the end of the twelfth century, the land pawn had largely fallen out of use.

The *rente* or annuity

The instrument that replaced the land-pawn was the sale of rents or *rente*. This instrument originated in Northern France in the twelfth century.⁵⁰ It evolved from the feudal custom of creating a rent-charge or *cens* on land—a formal obligation to pay a stated annuity, in produce or in money, out of the income of a specified property. The annuity might be for a lifetime or perpetual and heritable. Originally, a lord might have received a *cens* from a vassal in return for a fief. Or a landowner might have granted a *cens* to an heir as a legacy or to a retainer as a pension.

The rent-charge was readily adapted to the provision of liquidity. A lord could assign rents due him from his vassals to a third party in exchange for a capital sum, or he could constitute an annuity on his land and sell this in exchange for such a sum. Such a sale of rents or annuity, because it was understood as a sale rather than a loan, was not considered usurious. Understanding the transaction as a sale also gave the lender

⁴⁷(Usher 1943) Ch. 5.

⁴⁸ Since loans averaged about 60% of the value of the property pledged, this was an attractive way of acquired real estate. (Van Houtte 1977)

⁴⁹(Noonan 1957).

⁵⁰(Usher 1943)Ch. 5, (Van Houtte 1977), (Tracy 1985).

(purchaser) superior legal protection, making it easier to seize the property on which the annuity was drawn in case of default (failure to deliver).

As an instrument of liquidity, the annuity was more flexible than the land pawn, because it enabled a landowner to mobilize a part of the land's value as needed, rather than the whole of it. Landowners raised cash for all sorts of reasons—for military expenses, for a donation to the church, for payment of a dowry, or to pay taxes.⁵¹ It was also easy to adapt the instrument to other purposes. For example, it could be used to sell land on installments: instead of paying the full value in cash, the purchaser would pay the seller an annuity. This was called a rent-sale or *bail à rente*. Or the annuity could be used as the instrument for a forward sale, in which case the payments took the form of specified amounts of grain or other produce.⁵²

The most important adaptation of the annuity, however, was to financing. By the late thirteenth century, farmers in northern France and Flanders were commonly selling annuities secured by their land to finance investment in fixed capital—the investment generating the additional income out of which the annuity was to be paid.⁵³ A farmer did not have to own his land outright to take advantage of this form of financing. Many farmers held land under heritable tenure subject to a fixed money rent.⁵⁴ Since such land was alienable and could be used to secure a debt, it was also possible to constitute a rent on it. The providers of financing were mainly rural: indeed, most long-term local lending took this form. However, urban investors were already beginning to play a role.

The sale of annuities, both for liquidity and for financing, continued to grow in the fourteenth and early fifteenth centuries. The practice spread north to Brabant and the Netherlands.⁵⁵ It really took off, however, and spread to Germany and Spain, in the general economic expansion of the long sixteenth century.⁵⁶

⁵¹(Duby 1968)

⁵²(Nicholas 1971).

⁵³(Thoen 1993), (Nicholas 1971) (Duby 1968)

⁵⁴In many cases, the rent, fixed in money terms, had long ago been eroded by rising prices.

⁵⁵(van Bavel 2008).

⁵⁶Papal rulings in 1425 and 1455 that the *rente* was not usurious contributed to its increasing popularity. (Van der Wee 1977)

Indeed, the sale of annuities was an essential element of that expansion, providing the financing for the massive investment in fixed capital that it required. For example, competition from cheap Baltic grain and the opening of new markets in the Americas caused a shift in Spanish agriculture from grain to wine and oil. The huge investment in vineyards and olive groves that this required was financed largely through the sale of annuities to urban investors by the great landowners.⁵⁷ In another example, the rising price of agricultural land in the Netherlands provided the impetus for a number of major reclamation schemes. The sums involved were enormous—greater, indeed, than the combined capitalization of the Dutch East India and West India companies. But developers had no trouble raising them from urban investors, largely through the sale of annuities.⁵⁸ Urbanization was financed in much the same way. In Antwerp, for example, a typical developer—often a craftsman or small businessman with little capital of his own—would purchase a tract of land with a *bail à rente*; he would then finance construction by selling annuities constituted on the anticipated house-rents.⁵⁹

The market for annuities, both in town and country, was well organized, with the notaries and scribes who drew up the contracts acting as brokers.⁶⁰ The establishment of land registers in many cities and villages protected lenders by preventing double-pledging.⁶¹ While the market was mostly local, the strong demand for funds for agricultural investment in the sixteenth century drew large sums from the cities into the country.⁶²

⁵⁷According to a contemporary, there were over a hundred million ducats of these outstanding in 1618. ((Braudel 1972) p 425). Peasants too sold *rentes* (*censos* in Spanish) to finance investment and to provide liquidity in times of emergency. (Vassberg 1984) Ch. 7

⁵⁸(de Vries 1976) Ch. 2. The developed land was leased to farmers, and the rents used to pay the annuities—leaving a healthy profit for the developers, of course.

⁵⁹(Van der Wee 1977)

⁶⁰(Tawney 1925) p98. (Hoffman, Postel-Vinay et al. 1992)

⁶¹See (Zuijderduijn 2005) on Holland, where land registers were mandated by the territorial government in the early sixteenth century to facilitate the taxation of annuities.

⁶²(Parker 1977) (Van der Wee 1993), (de Vries and van der Woude 1997) Ch 6

Government use of annuities

The long-term market for annuities, like the short-term market mediated by merchant banks, soon became a source of borrowing for governments. In this case, however, the borrowers were not territorial rulers but the governments of cities. The cities of Douai and Calais were the first in 1260, and they were soon followed by many others in the Low Countries and the Rhineland.⁶³ The main reason they sold annuities was the financing of war—to build fortifications or to pay levies imposed on them by the territorial ruler.

To be able to raise funds in this way, of course, cities needed to have a regular stream of payments they could sell. This generally took the form of a stream of tax revenues—normally from customs or excise taxes. Typically, purchasers of annuities were given a prior claim on a specific source of revenue. For example, in Amsterdam, collectors of the excise taxes on beer, wine, and grain were required to pay all outstanding annuities first, ahead of any other claim on the revenue.⁶⁴

In the fifteenth century, cities in the Low Countries set up municipal banks to manage their debt. These banks marketed new issues both within the city and elsewhere, issued new securities, and made the annual payments due to beneficiaries.⁶⁵ In the sixteenth century, the public bank of Basel played a similar role for many Swiss and foreign municipal annuities—a sort of general underwriter—charging issuers a commission of 2%.⁶⁶

Annuities, both private and municipal, were popular investments. The principal purchasers were the wealthy—members of the predatory class, clerics, and retiring merchants. For them, annuities offered a steady income, much like land. Life annuities also offered an element of insurance, making them an ideal way to provide for survivors

⁶³(Fryde and Fryde 1971)

⁶⁴(Tracy 1985)

⁶⁵(Van der Wee 1990)

⁶⁶(Körner 1995)

or for one's retirement. While the wealthy were the main investors, the middle and even the lower classes might be drawn into the market during periods of prosperity.⁶⁷

Municipal annuities were especially popular because they were safe: cities rarely defaulted. City governments were generally controlled by merchants, who well understood the reputational cost of default. Moreover, if a city did default, its citizens were jointly liable for its debts and could be seized for ransom. This recourse was, of course, available only to creditors who were not themselves citizens of the defaulting city. Consequently, investors avoided the debt of their own cities. Another advantage of municipal annuities was their liquidity, since some issues were large enough to support an organized secondary market. In Antwerp, for example, cashiers (pseudo-banks) made a market in municipal securities.⁶⁸

Territorial rulers found it harder than cities to tap the market for annuities.⁶⁹ Of course, like other landowners, rulers could sell annuities backed by their personal or 'ordinary income'—land rents, traditional taxes, and mining royalties. The counts and dukes of the Low Countries began to do so in the fourteenth century and the kings of France and Castile, in the fifteenth. The kings of Castile were particularly big issuers, since their ordinary income was so large—including, as it did, a major excise tax, the *alcabala*, and a royalty of 20% on precious metals mined in the Americas. As we will see in the following chapters, rulers were more constrained than cities in their ability to impose new taxes: these generally required parliamentary consent, which was far from being automatic. Taxes or 'extraordinary income' were consequently a less promising basis for the issuing of annuities. Moreover, as we have seen, if rulers defaulted, they could not be sued in their own courts, which made lending to them particularly risky.

To gain access to the annuities market, therefore, rulers used cities and parliaments as intermediaries (much as they used merchant banks as intermediaries to the money market). One way was to have a city issue annuities in its own name and pass on the proceeds to the ruler; the ruler would in return cede a tax to the city to pay the annuities.

⁶⁷(Van der Wee 1977)

⁶⁸(Van der Wee 1993) 10 The cashiers also made a primary market, distributing new issues.

⁶⁹The following is largely based on (Tracy 1985)

This was common practice for the Burgundian rulers of the Low Countries, and was continued by their Hapsburg successors. Antwerp, in particular, became a large issuer of annuities for the benefit of Charles V.

Similarly, rulers could have their parliaments issue annuities for them. Parliaments enjoyed some of the same advantages as cities in borrowing: they were permanent bodies rather than mortal individuals and they possessed the authority to impose new taxes. They were therefore more credible borrowers than rulers and found it easier to issue long-term debt. From the fifteenth century, a number of German princes made over their revenues and their debts to their parliaments to be managed by them. The Hapsburgs, too, used this method, ceding taxes to the States (parliament) of the County of Holland which issued annuities backed by the taxes. Beginning in 1542, there was a further refinement—the ‘novel expedients’: the provincial States began to sell annuities based on taxes they themselves determined and collected rather than on existing taxes ceded to them by the ruler.⁷⁰

EQUITY FINANCING

We saw in Chapters 6 and 7 that it was often advantageous for merchants to pool resources in various forms of joint enterprise, with participants dividing the profits between them. There were several legal frameworks for doing this—the *commenda*, the share venture, the company, and the joint stock company. It was relatively easy to extend these frameworks to accommodate external financing by including participants whose only contribution was financial: that is, they provided financing but were not actively involved in the enterprise itself. These purely financial participants were rewarded, like the active participants, with a share of the profits.

The advantage of equity financing is its flexibility. Rewarding the provider of financing according to the success of the enterprise eliminates the problems and costs of default that afflict debt financing. This same flexibility, however, is itself the source of a problem—the problem of governance. Since the reward is not specified explicitly, what assurance is there that it will be fair? Profits depend on the efforts and decisions of those

⁷⁰(Tracy 1985) The financial and fiscal apparatus the Dutch developed in the process proved invaluable to them later in the century in financing their war of independence.

controlling the enterprise: will they act in the interests of the providers of financing?
Profit is a matter of calculation: will it be determined honestly?

There is also another problem with equity—a legal problem. Since a provider of equity financing is, at least formally, a participant in the enterprise, how are his affairs to be separated from those of the enterprise? To what extent is he responsible for debts incurred by the enterprise? To what extent is the enterprise responsible for his debts? In practice, this is a matter of partitioning assets—of dividing them into distinct pools, each securing different debts.⁷¹

In preindustrial Europe, both of these problems—governance and asset partitioning—stood in the way of equity financing by strangers. Most equity financing, therefore, came from family and friends of those actively involved in the enterprise in question: such connections gave providers of financing some assurance that their interests would be taken into account. For the market for equity financing to expand beyond this, ways had to be found to address the two problems.

The commenda

The relatively short term of the *commenda* mitigated the problem of governance. The arrangement was normally for a single venture, with the voyage rarely taking more than a year and often only a few months. The contract could be, and frequently was, rolled over to finance subsequent ventures. This provided the traveling merchant with a strong incentive to treat his investors fairly. Because of this, investors rarely insisted on a formal accounting from the merchant, but rather agreed to accept his word “without an oath or witness”.⁷²

In its earlier days, when the traveling partner was essentially the representative of the merchant who provided the capital, the *commenda* exposed the merchant to liability for the traveling partner’s actions. However, as the *commenda* developed into a pure instrument of financing, courts came to regard the traveling merchant as trading on his own account. Consequently, investors were no longer held responsible for any debts the

⁷¹(Hansmann, Kraakman et al. 2004)

⁷²(Lopez 1976)p 76; (Williamson 2001) and (González de Lara 2000) discuss additional mechanisms that addressed the governance problem in Venetian trade.

traveling merchant might incur and therefore stood to lose no more than their investment in the venture (*de facto* limited liability).⁷³ Similarly, the claim of an investor's creditors on the venture was limited to that investor's share of the profits.⁷⁴ These changes made the *commenda* a more attractive financial instrument.

The use of the *commenda* as a financial instrument reached its greatest development in Venice (it was known there as the *colleganza*). Thousands of investors from all walks of life—from retired merchants to monks, housewives, and parish priests—financed much of Venice's trade through their investment in *colleganza* contracts. The amount of each contract was generally small—from 10 ducats to 500 ducats. Initially the traveling merchant provided one third of the capital (in exchange for half of the profit). However, as investor confidence grew, this requirement fell into abeyance, allowing merchants to operate with sums greatly in excess of their own capital. So popular was the *colleganza* that by the early fourteenth century it was being used to finance all kinds of non-venture enterprises. Borrowers on these so-called 'local *colleganza*' contracts included shopkeepers, industrial producers, and deposit banks.

As use of the instrument became more routine, and as it was used for progressively less risky enterprises, it became more debt-like: in many cases, the return was fixed in advance, independent of the outcome of the venture in question. The 'profit' was generally indexed to some market rate prevailing at the time of maturity (often the 'voluntary' rate on deposits paid by leading merchants or bankers). Maturity too became standardized—mostly for one year.⁷⁵

Over the fourteenth century, the *colleganza* market declined as the traveling merchant gave way to the resident representative and as trade was increasingly financed in the market for bills of exchange. Investors, for their part, found more attractive investments in the money market and, as we will see, in the market for government debt.

⁷³(Mitchell 1904).

⁷⁴(Berlow 1979)

⁷⁵ (Lane 1966); (Mueller 1977)

The company

So long as the company was just a formalization of the family as a business entity, the problem of asset partitioning did not arise. There was no distinction between family and company either in terms of accounting or legally. All partners had unlimited joint and several liability. An obligation entered into by any one of them was binding on all.⁷⁶ While ventures might be regarded as legal entities distinct from their participants, there was no such distinction when it came to the company.⁷⁷

When the company framework was extended to include multiple families, all the partners were seen as constituting a single ‘legal family’ for the purpose of liability.⁷⁸ This certainly had its dangers: as we saw in Chapter 6, the actions of a single partner or representative could potentially ruin all. However, unlimited liability had its advantages too, since it strengthened the company’s credit and made it easier to borrow. This was especially valuable for those companies that specialized as merchant banks. To illustrate this, when the courts of Siena failed in 1310 to enforce unlimited liability, the effect on Sienese merchant banks was disastrous: they soon lost their leading position in the international money market to the Florentines who retained their commitment to unlimited liability.⁷⁹

Adequate governance was especially important in light of the unlimited liability that partners bore for the debts of the company. The problem was mitigated somewhat by the fixed term of the partnership.⁸⁰ Periodic liquidation reduced the burden of accounting and simplified the calculation of profits: once everything was converted into cash, it was clear how well the enterprise had fared. Periodic termination and renewal also kept

⁷⁶The ability of one partner to represent and commit all was a concept unknown in Roman or Germanic law (under Roman law all of the partners had to agree before a commitment was binding on them), and it evolved only gradually in the medieval Law Merchant. (Mitchell 1904)

⁷⁷(Harris 2000) Ch. 1

⁷⁸To prevent a family’s assets from being double-pledged, law and custom prohibited any family from participating in more than one company at a time—making diversification impossible (Origo 1986) p 101

⁷⁹(Greif 1996)

⁸⁰Usually two or three years, but sometimes longer.

management on a short leash.⁸¹ If partners were unhappy, they could withdraw by declining to join the reconstituted company. Nonetheless, governance was relatively weak. This, together with unlimited liability, made the company unattractive as a framework for equity financing by purely financial investors.

These deficiencies were eventually addressed in a modified form of the company structure—the limited partnership or *accomandita* (first recognized by Florentine courts in 1408). The *accomandita* distinguished between active and ‘sleeping’ partners. The status of active partners was much as it was in an ordinary company. However, sleeping partners—who played no role in the day-to-day running of the business—were recognized as purely financial investors, and their liability was limited to the amount of capital they subscribed.⁸²

Sleeping partners were generally wealthy non-merchants—often members of the predatory class and of the clergy. Since sleeping partners did not have to be named specifically on the document of association, anonymity made it easier for them to invest in business without losing status (this was a major reason for the later popularity of the *accomandita* in France). Anonymity also made it easier for foreigners to invest, when investment by foreigners was restricted or prohibited by law. The *accomandita* proved a useful way as well for large trading companies to invest safely in smaller companies that supplied them with manufactures. Because of these advantages, the *accomandita* framework gradually came to replace that of the traditional company.

The share venture

The share venture provided a structure for joint ownership by multiple investors of large, indivisible items of fixed capital.⁸³ As we saw in Chapter 6, it was first applied to the ownership and operation of ships in the Mediterranean. The shareholders were initially the merchants who sailed with the ship, but it was easy and natural to extend the

⁸¹(Greif 1989)

⁸²Moreover, unlike with the traditional form of company, there was no obstacle to investing in more than one limited partnership.

⁸³(Lane 1944)

framework to include as shareholders purely financial investors who remained at home but bore part of the risk for a share of the profit.

Shares were a popular investment because of the high expected rates of return: on some trading routes, the cost of a ship could be recovered in a single successful voyage.⁸⁴ Shares were also quite liquid, since a shareholder could dispose of his share, in whole or in part, without requiring the consent of the other shareholders. It was therefore easy to sell shares, to pledge them as security for loans, or to transfer them directly in settlement of a debt.

The investors were mainly other merchants, but shares soon became popular with all classes. Each investor took only a small stake in a particular venture, so that there might be as many as a hundred financial shareholders in addition to the dozen or so traveling merchants.⁸⁵ Relatives would sometimes pool their resources to purchase a share; alternatively, shares would be subdivided to accommodate small investors. Investors diversified by purchasing shares in a number of different ships.⁸⁶

Governance was not a problem so long as all the shareholders sailed with the ship. One might be elected to take command, or they might hire a ship's master to take the job.⁸⁷ However, all important decisions were made by calling a meeting of shareholders—a sort of floating board meeting. With the addition of financial investors, governance had to rely on exit rather than voice. The duration of the venture was generally limited to a single voyage, with the partnership liquidated on the return of the ship (which simplified the calculation of profits). If the participants were satisfied, a new venture could be constituted for another voyage, often with the same investors.⁸⁸

Because the share venture was a structure of joint ownership rather than of joint trading, asset partitioning was relatively straightforward. The creditors of a shareholder had a claim to his part of the property, but not to the parts of the other shareholders. The liability of shareholders was rarely an issue, because share ventures rarely took on debt.

⁸⁴(Scammell 1972); (Unger 1980) Ch. 4

⁸⁵(Lane 1973) Ch. 5

⁸⁶(Parker 1977); (Byrne 1930) Ch. IV

⁸⁷To strengthen incentives, part or all of his compensation would be in the form of shares.

⁸⁸(Parker 1977)

Additional financing could always be obtained by issuing more shares. For example, shipbuilders and suppliers often accepted shares in lieu of cash. If the venture did borrow, the property it held was security, and the investors stood to lose no more than their share of it—*de facto* limited liability.⁸⁹

In the thirteenth century, the use of the share venture to finance shipping died out in the Mediterranean as other methods of financing developed there. However, its use spread to other applications and to other parts of Europe.

In northern Italy, the share venture was used to finance mills and silver mines. The application to mining spread to Central Europe. Initially, groups of miners used the share venture as a way of pooling their resources. But as mines grew deeper and more expensive, they brought in financial investors.⁹⁰ During the late fifteenth century silver and copper boom, mines were financed with as many as 640 shares, often further subdivided. Mining shares became a popular investment: the investors included the usual suspects—merchants, members of the predatory class and clergy—as well as municipal governments and trusts. A novel feature of the German share venture was the practice of calling on existing shareholders for supplementary funds beyond their initial subscription, as the need arose.

The use of the share venture in shipping spread to the Hansa, and from there, in the fifteenth century, to the Netherlands.⁹¹ Hundreds of share ventures, or *rederijen*, were established in the Netherlands to finance the construction, purchase, and chartering of vessels and their provisioning for fishing or trading voyages. *Rederijen* played a vital role in financing the ten-fold expansion of the Dutch fleet during the sixteenth century.⁹² As in Italy, the use of the share venture spread to other types of enterprise, including industrial windmills, refineries, breweries, tile works, and the large-scale digging of peat

⁸⁹(Lane 1944) Ch. 3

⁹⁰(Nef 1987)

⁹¹(Glamann 1972) (Parker 1977) (de Vries 1976) (de Vries and van der Woude 1997) (Barbour 1950)

⁹²(Sella 1977); (Unger 1998 [1979]) #2031}

for fuel.⁹³ Indeed, the sale of shares financed much of the industrial expansion of the Netherlands in the sixteenth and seventeenth centuries.

Investment in shares became popular, not only among merchants, but also among farmers and artisans. A *rederij* had as many as 64 shares, which could be sold, bequeathed, and subdivided. Diversification allowed investors to bear the risks of specialized investments, and the easy tradability of shares allowed them to adjust their portfolios as market conditions changed. The *rederij* was of indefinite duration, but profits were distributed after each voyage or two, allowing shareholders to decide whether to continue with another voyage or to liquidate.⁹⁴ The shareholders appointed one of their number to manage the enterprise and held frequent meetings to decide policy.⁹⁵ When shares were subdivided, the original shareholder represented those to whom he had sold the parts.⁹⁶

Dozens of *rederijen* were formed in the 1590s to finance trading ventures to Africa, the Americas, and the Indies.⁹⁷ As we saw in Chapter 7, those that traded in the Indies were consolidated in 1602 to form the *Verenigde Oostindische Compagnie* (Joint East India Company). The initial flotation raised 6.4 million guilders. For the first time, shares were sold directly to passive investors, rather than indirectly through subdivision. Some 1,100 financial investors took up 70% of the initial subscription in this way.

Although shares of *rederijen* had always been transferable in principle, the process had previously been cumbersome, and trading had largely been limited therefore to insiders. However, shares of the East India Company were created only in book-entry form, making their transfer, and so trading, much easier. As a result, there developed an active secondary market in East India Company shares, facilitating speculative trading and ensuring that the price of the shares constantly reflected the latest information. The liquidity of the shares also made them highly desirable as collateral for loans. Indeed,

⁹³(de Vries and van der Woude 1997); (de Vries 1974)

⁹⁴(Christiansen 1941) There might be two or three round-trips to the Baltic each season. (Gelderblom and Jonker 2004)

⁹⁵The manager received as a reward a percentage of the total return. (Gelderblom 2003)

⁹⁶(van Dillen 1970) (quoted in (Çizakça 1996))

⁹⁷(Gelderblom 2003)

such was the demand for the shares of the East India Company, that there was no objection when the government revised its charter in 1612 to make the company permanent. Each voyage was considered a separate venture, accounted for separately, and profits were distributed to the shareholders on its completion.

Government use of the share venture

City governments exploited whatever financial markets were available. In the Low Countries, it was the market for annuities. In northern Italy, it was the market for shares.⁹⁸ Genoa showed the way in the twelfth century.⁹⁹ Whenever it needed to finance a major expenditure, such as a war or a colonization, it formed a syndicate of investors (*compera*) to provide the financing. Each member of the syndicate contributed 100 lire in exchange for one share. Shares paid a fixed rate of interest and were callable. Each *compera* was given control of a particular tax out of which to pay the promised interest.¹⁰⁰

Venice relied initially on a different form of financing—direct interest-free loans from its leading citizens.¹⁰¹ At first, these loans were voluntary but, as the city's needs increased, they became compulsory.¹⁰² Other cities imitated the practice: Florence and Siena introduced forced loans in the fourteenth century. Forced loans were generally repaid from specific taxes dedicated to the purpose. However, as borrowing continued to grow, revenues proved insufficient, and the debt effectively became perpetual. This necessitated an adjustment in terms. Without repayment, there was no difference between a loan and a tax unless the loan paid interest.¹⁰³ Moreover, if lenders could not count on repayment as a source of liquidity, they needed to be able to sell their claims to others.

⁹⁸The success of annuities in the north did eventually prompt imitation in Italy. Venice and the papal states began to issue life and heritable annuities in the sixteenth century.

⁹⁹(Tracy 1985), (Van der Wee 1977)

¹⁰⁰The *compera* is an early example of a financial structure known today as a securitization.

¹⁰¹(Lane 1966), (Mueller 1997)

¹⁰²Citizens were required to subscribe a fixed percentage of their assessed wealth; a public assessor was appointed to determine the base for the tax.

¹⁰³Usury was not an issue because the loans were not voluntary.

Venice was the first to make the necessary changes. In 1262 it consolidated its outstanding debt in a single fund or *Monte*. Claims on existing loans were swapped for shares in the *Monte*, and subsequent forced loans were issued in the form of new shares. Shares in the *Monte* paid 5% interest, and were fully transferable. In 1343 Florence too consolidated its outstanding debt in a *Monte* on similar terms, and other cities followed.¹⁰⁴ In 1407 even Genoa recognized the advantages of consolidation and ease of transfer and consolidate all its outstanding *compere* in the *Casa di San Giorgio*. The *Monti* of the different cities, like the earlier *compere*, were all ‘funded’: that is, each was endowed with a dedicated source of taxes to meet its obligations.

The *Monti* were a great success with investors. In Genoa, some 11,000 names appear on the share register, including many citizens of modest means and many foreigners. Shares could be transferred by sale, bequest, or gift, and assigned in payment of debts or used as security for loans and other transactions. Shares existed only in book-entry form, which made such transactions especially easy.¹⁰⁵ Ease of transfer facilitated the development of an active secondary market.¹⁰⁶

The joint stock company

As we saw in Chapter 7, the purpose of the joint stock company was from the outset primarily financial. It was created to raise external financing for particularly risky commercial ventures and thereby spread the risk. Its use was soon extended to financing investment in fixed capital in mining and metallurgy, perhaps in imitation of the continental share venture which it resembled.¹⁰⁷ Later, the structure was also used to finance ventures of privateering and colonization. It was used too to finance land

¹⁰⁴(Cipolla 1982); (Veseth 1990)

¹⁰⁵ As later with the shares of the VOC, the availability of such serviceable collateral lowered the cost of all sorts of transactions.

¹⁰⁶On Venice see (Lane 1966), (Mueller 1997), (Mueller 1977) and (Tracy 1985). On Florence, see (Kirshner 1997).

¹⁰⁷The companies in question, the Mines Royal and the Mineral and Battery Works, numbered among their shareholders German mining experts, who would have been well acquainted with the share venture. (Rees 1968)

improvements, such as the draining of the Cambridgeshire fens, perhaps because England lacked a market for secured debt like the market for annuities on the continent.¹⁰⁸

We saw in Chapter 7 that governance was a serious problem for the joint stock company: asset partitioning was no less so. The joint stock company, like the regulated company and the guild on which the latter was modeled, was a corporation.¹⁰⁹ As such, it was a ‘legal person’, distinct from its shareholders, and able to own property in its own name.¹¹⁰ Consequently, its assets were protected from the creditors of its shareholders.

Shareholders, however, were permanently liable for the debts of the company. The purchase of a share required an initial subscription, but shareholders could be called on at any time for additional capital. Indeed, there was no way of knowing what the total investment would ultimately be.¹¹¹ However, shares were rarely fully paid up: many shareholders chose to ignore the calls. There was little a company could do about this except withhold dividends: but these were often not being paid in any case.¹¹² The result was a sort of *de facto* limited liability, which made it difficult and costly for joint stock companies to borrow.¹¹³

The uncertainty about shareholder liability, together with ineffective governance, made outsiders reluctant to purchase shares. Over time, ownership became increasingly concentrated among a relatively small group of insiders.¹¹⁴ It was not until the late seventeenth century that these problems were satisfactorily addressed and an active secondary market emerged. Once it did, the shares of joint stock companies soon became

¹⁰⁸(Wilson 1925 [1572]); (Clay 1984). The modern mortgage developed in England only in the late seventeenth century.

¹⁰⁹(Watts and Zimmerman 1983)

¹¹⁰(Hansmann, Kraakman et al. 2004)

¹¹¹The initial subscription for a share in the Russia Company in 1553 was £25, but by 1572 a series of calls had raised the par value of a fully paid-up share to £450. (Willan 1956)

¹¹²The Russia Company seems not to have paid a single dividend in the first two or three decades of its existence. (Willan 1956)

¹¹³(Shammas 1975)

¹¹⁴(Willan 1956)

so liquid that companies like the Bank of England and the East India Company were able to play an important role as intermediaries for government borrowing.¹¹⁵

THE IMPACT OF FINANCIAL DEVELOPMENT

The development of the financial system lowered the transactions costs and risks of external financing. This led to an expansion of the market for financing, drawing in more lenders and borrowers. The readiness to lend must have grown more than the desire to borrow, because, over the centuries, external financing became more readily available and interest rates steadily declined. This had a significant impact on economic activity.

The decline in interest rates

Interest rates in the short-term market 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).¹¹⁶ Lending margins for mediated financing were quite modest: for example, the Florentine merchant bank of Peruzzi paid 8% on deposits and charged 10% on loans. In the long-term 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.¹¹⁷ Cities sometimes took advantage of this differential by selling annuities and relending the proceeds at higher short-term rates.¹¹⁸

The impact on commerce

Falling interest rates and the greater availability of external financing contributed to the ongoing expansion of trade. They did so directly, since financing costs were a significant part of total trading costs. But they also did so indirectly. For example, the availability and flexibility of credit in Antwerp and, later, in Amsterdam facilitated the centralization of commodity trading in those cities. As we saw in Chapter 7, this

¹¹⁵(Scott 1912)

¹¹⁶(Homer and Sylla 2005)

¹¹⁷Short-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 ‘benchmark’ risk-free rate.

¹¹⁸(Ehrenberg 1928) p 45

centralization stabilized prices, and the consequent reduction in market risk expanded the market for commodities.

As this example illustrates, superior access to financing was a competitive advantage. This was true not only for market centers but also for individual merchants. For example, it was superior access to financing that, in the late thirteenth century, enabled Italian merchants to capture the trade in English wool from the Flemings who had previously dominated it. Better access to financing enabled them to offer producers more attractive terms—forward purchase for as many as twelve years in advance. And better access to financing enabled them to purchase trading privileges from the king by providing him with loans.

By removing an important barrier to entry, improved access to external financing made commerce more competitive. The substitution of lending by merchant banks for private sales credit broke the link between trading and financing. This made it easier for those of modest means to enter commerce and to expand their operations.

Merchant bank lending was a substitute for private sales credit, but it was also a complement. A system of commerce based exclusively on sales credit was inherently unstable because of its vulnerability to liquidity risk. Any interruption in trade would prevent some merchants from paying on time; their delay would make it difficult for others to pay, and so on, in a sort of domino effect. However, once merchants were able to borrow in the money market, they could meet their obligations even when others were late in paying them. The money market also allowed merchants to build up internal sources of liquidity by investing in liquid bills of exchange. When needed, these could readily be turned into cash or assigned directly in payment.¹¹⁹

An additional way in which merchant banking contributed to the development of commerce was its pioneering of new forms of business organization and new techniques of management. Among commercial enterprises, merchant banks were unusually large and their business exceptionally complex. It was, consequently, merchant banks that first broadened the company partnership beyond the family firm. And when the deficiencies of this form of organization became apparent, it was merchant banks that pioneered the

¹¹⁹(Postan 1973)

limited partnership or *accomandita*. Merchant banks led the way, too, in developing methods of accounting, which they needed to monitor distant representatives and to keep track of complex transactions.¹²⁰ New forms of business organization and new techniques of management slowly spread from merchant banks to ordinary commercial enterprises, increasing their productivity.

The impact on production

We have seen that much of the working capital of producers was financed by merchants and that much of their fixed capital was financed by landowners. Financial development increased the availability of external financing to merchants and landowners and therefore, through them, to producers. In a sense, merchants and landowners acted as financial intermediaries—substituting their own superior credit in raising funds and then relending those funds to producers. Some producers, however, were able to obtain external financing directly themselves: agricultural producers who owned land could tap the market for annuities; and some industrial producers were able to tap the market for equity financing.

The availability of external financing was essential in enabling entrepreneurs to respond to new opportunities. We saw some examples in Chapter 5—colonization in the Mediterranean and the Americas, the transfer of new agricultural and industrial technologies (for instance, by the Elizabethan projectors), the establishment of new industries (for example, the herring industry in the Netherlands). All of these required substantial investment and many involved considerable risk. None would have been possible had entrepreneurs not been able to find external financing on a sufficient scale.

The availability of external financing was essential too in allowing producers to adapt to changing market conditions. For example, when cheap imported grain made local production in the Netherlands unprofitable, agricultural producers shifted into dairy farming. This called for a major investment in animals and structures, which would have been difficult without external financing.¹²¹ The availability of external financing allowed relatively rapid adjustment to changing conditions.

¹²⁰(de Roover 1944)

¹²¹(de Vries and van der Woude 1997) Ch 6

The impact on government

For governments, financial markets were above all a source of liquidity: “limitless money is the sinews of war”.¹²² Governments were opportunistic in exploiting whatever financial markets came into existence. However, none came into existence specifically to serve their needs. As we have seen, the short-term market and the market for equity developed to serve merchants, and the market for annuities developed to serve landowners. So governments were able to exploit financial markets only after they had come into existence to serve others.

Cities could tap financial markets directly—specifically the market for annuities and the market for equity financing. Indeed, their participation helped to shape the development of these markets. In contrast, territorial rulers had very limited direct access to financial markets. They gained access to the short-term market only through the mediation of merchant banks and to the long-term market through the mediation of cities. Rulers, like producers, depended for their financing on the financial intermediation of others. This dependence would play a central role in shaping the evolution of government.

CONCLUSION

In this section and the last we have seen how commerce promoted production and how it contributed to the self-perpetuating process of economic development and growth. Increasing productivity in production depended on the expansion of the market, which depended in turn on mediated exchange—on commerce. Expansion of the market and the consequent increasing volume of trade induced changes in commerce itself that lowered trading costs and further stimulated expansion of the market. A part of the development of commerce was the emergence of a financial system to facilitate payments and financing. Without an adequate payments system, expansion of the market have been impossible; readily available financing was similarly indispensable for the resulting productivity-increasing changes in production and in commerce.

All of the changes required entrepreneurship: expansion of the market created opportunities, but someone had to seize those opportunities. Indeed, someone had to seize

¹²²Cicero: *nervi belli, pecunia infinita*.

opportunities to expand the market. The entrepreneurs were above all merchants. Cities too were at the center of economic progress. They were catalysts and generators of increasing productivity in production and, of course, in commerce and finance.

In the next section, we turn to the second part of our story—how predation inhibited production and how preindustrial Europe succeeded in getting government right.

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