

## **9. FINANCING COMMERCE, PRODUCTION, AND GOVERNMENT**

All economic activity requires investment. We have seen that this is true in commerce and production, and we will see that it is no less true in predation and government. The necessary investment must be financed either by those undertaking the activity or by others.

We will begin by examining the need for financing of the different economic activities and the sources of that financing. We will then look at the problems involved in the provision of financing, and at the different methods found in preindustrial Europe to address those problems. We will conclude with some general observations on the development of financing and on its impact on economic progress and on the evolution of government .

The Appendix to the chapter describes the prohibitions on usury that were widespread in preindustrial Europe and considers their effect on the development of financing.

### **THE NEED FOR FINANCING AND ITS SOURCES**

Economic activity requires investment both in working capital and in fixed capital. Working capital is the value of the outlay incurred from the inception of the activity until revenue is received to cover that outlay. Fixed capital is the value of the long-lived assets employed in the activity.

#### **The needs of the different activities**

In commerce, working capital consisted mainly of the resource invested in venturing—in the purchase of goods, in the cost of shipping them to the place of sale, and in their sale on credit.<sup>1</sup> Fixed capital took the form of buildings, ships and wagons, and market and transportation infrastructure.

In production, working capital took the form of outlays on material inputs and labor—the wages of hired workers and the subsistence of the producers themselves. Both agriculture and industry required fixed capital in the form of structures and equipment.

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<sup>1</sup>Additional working capital was needed for labor costs—the subsistence of the merchant and the remuneration of his employees.

And agriculture also required considerable fixed capital in the form of land and its improvement.

Government—predation and protection against predation—required capital no less than did commerce and production. Its principal ‘venture’ was war, and war required enormous amounts of working capital. This mostly took the form of labor costs—the wages and subsistence of soldiers and seamen. But war also required substantial fixed capital in the form of fortifications, weapons, and equipment.

### **The need for liquidity**

Economic activity required not only financing but also liquidity. That is, it was necessary to be able to mobilize the necessary amounts when needed.

Commerce required liquidity, because its needs for working capital were highly variable and unpredictable. Shipments might be delayed and purchasers might be late in paying, tying up a merchant’s working capital longer than he had anticipated. In the meantime, he had to be able to pay his own debts and to engage in new ventures.

Production was, in principle, more predictable in its need for resources. However, the economic environment in which it operated was highly uncertain. Consequently, producers needed to be able to draw on sources of liquidity in times of crisis in order to survive— for example, if a crop failed.

And for governments, liquidity was a matter of life or death. War might break out at any time, and if a government could not raise the forces it needed in time, it meant certain defeat. To raise those forces, it had to be able to mobilize the necessary resources immediately.

### **Sources of financing and liquidity**

To finance their working capital and their fixed capital, enterprises in each activity could rely either on their own resources—on internal financing—or on resources they were able to raise from others—on external financing. Similarly, they could rely on internal sources of liquidity in the form of liquid assets—cash or assets that could be turned into cash quickly. Or they could rely on external sources—being able to borrow as needed. For example, we saw in Chapter 8 that the commercial system of payment and remittance provided liquidity facilities where participants could borrow as needed to

settle on time. External financing was important, therefore, not only as a source of capital but also as a source of liquidity.

Commerce as a whole was able to meet its own needs for financing, and it was also able to provide financing to others. Merchants as a group commanded considerable wealth: commerce was risky, but it was also highly profitable. As we have seen, commerce was a major source of financing for production. And, as we will see, it was also a major source of financing for government.

However, because of their need for liquidity, merchants were generally willing to provide only short-term financing. Indeed, merchants minimized their own investment in fixed capital: even the largest commercial enterprises preferred to rent rather than own whatever warehouses, transportation equipment, and office space they needed.<sup>2</sup> So commerce was mainly a source of financing for working capital—its own and the working capital of producers and governments—and a source of liquidity.

Commerce was not, however, the sole source of financing. In a predominantly agrarian society, the principal form of wealth was land—not only agricultural land but also mineral deposits and forests (the main source of fuel and building materials). Most of the land was held by members of the predatory class—the nobility and the clergy—and they derived from it the bulk of their income.<sup>3</sup> 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, members of the predatory class favored long-term financing: liquidity was less of a concern to them, and they preferred to invest in assets that, like land, would provide them with a steady and relatively safe stream of income. Consequently, landholders tended to finance fixed capital—both that of production and that of

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<sup>2</sup>(Hunt 1994)

<sup>3</sup>The predatory class did not hold all of the land, however. We saw in Chapter 5 that merchants purchased significant amounts, particularly near cities. And in some parts of Europe, a good part was owned by farmers and peasants.

commerce.<sup>4</sup> And, as the financial system developed, they increasingly provided long-term financing to governments.

Governments, predatory and associational, also possessed considerable wealth. This took the form of anticipated streams of income from exaction—as tribute and taxes—from the territories they controlled.<sup>5</sup> In peacetime, governments’ current income was generally sufficient to their needs. However, in time of war, their needs greatly exceeded their current income and they sought whatever external financing they could find. Governments were not generally a source of financing for others.

Producers as a group were not wealthy, and they were not a net source of financing for others. They were, rather, a net recipient of financing.

### **THE DIFFICULTIES OF EXTERNAL FINANCING AND SOME SOLUTIONS**

External financing is problematic, because it involves promises and reliance.<sup>6</sup> The provider of financing makes resources available to the recipient immediately in exchange for a promise of resources in the future. The recipient might fail to keep his promise, either because he is unwilling or because he is unable. His willingness is a matter of incentives; his ability, a matter of circumstances.<sup>7</sup> Readiness to provide external financing depends, therefore, on suitable incentives being in place and on the availability of information on the circumstances of the potential recipient.

#### **External financing among people who knew one another**

These conditions are met as a matter of course when both parties are members of a group that possesses an internal order. They are also met when there is an ongoing commercial relationship between the parties.

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<sup>4</sup>For example, we saw in Chapter 3 that landowners generally financed, through leasing, much of the land used by family farms.

<sup>5</sup>Government wealth was not, of course, an addition to total wealth. It was, rather, a claim on the wealth of others.

<sup>6</sup>We discussed the general problem of promises and reliance in Chapter 6.

<sup>7</sup>In preindustrial Europe, there was in principle another obstacle to external financing—the Church’s prohibition of usury. In practice—in the face of human ingenuity—this proved to be little more than an inconvenience. For more on this, see the Appendix to this chapter.

In preindustrial Europe, there was, therefore, considerable external financing within communities, both in the country and in the cities. In the country, well-to-do locals made personal loans to their neighbors. The lenders included the gentry, parish clergy, monasteries, inn-keepers, farmers, and even rich peasants.<sup>8</sup> 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.<sup>9</sup>

However, the most important example of financing supported by a continuing commercial relationship was sales credit. As we have seen, sales credit extended by merchants financed the working capital both of other merchants and of producers. Merchants also supplied goods on sales credit to governments and to consumers. Merchants sold directly to wealthy customers on credit, and local shopkeepers, craftsmen, and innkeepers kept a running tab for their regular customers.<sup>10</sup>

### **External financing among strangers**

To broaden financing beyond the limits of community or commercial relationship requires the existence of 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 transactions of financing, just as it did in transactions of exchange.<sup>11</sup> Financial intermediaries, particularly merchant banks, made it possible for strangers to provide one another with financing indirectly—the ultimate lender lending to the intermediary, which in turn lent to the ultimate borrower.

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<sup>8</sup>See (Duby 1968) on medieval France, (Nicholas 1971) on thirteenth-century Flanders (Tawney 1925) and (McIntosh 1988) on sixteenth-century England.

<sup>9</sup>(Marshall 1999).

<sup>10</sup>In fifteenth-century Florence, one clothing business had on its books 824 debtors, mostly for small sums of less than 20 *lire* ((Herlihy 1967)).

<sup>11</sup>See Chapter 7.

Secured lending protected the lender from loss by securing the loan with a specific asset that would be sold to cover the debt, or would become his, if the borrower defaulted. Of course, all loans were secured by a general claim on the debtor's assets (and on those of any guarantors). But the claim on a specific asset 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, of his other assets, and of other claims on those assets.

Equity financing had two advantages. Because the amount repaid was linked to the success of the venture, default—with all its associated difficulties and costs—was not an issue. In addition, the possibility of loss was balanced by the possibility of extraordinary gain: equity offered an upside that was entirely lacking with debt.

These three mechanisms were suited to 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 promised a substantial upside.

We will see that the emergence of each of these mechanisms required considerable legal development. The legal system becomes involved when things go wrong—when a recipient of financing defaults. How the courts resolve this is crucial: it affects both the incentives of recipients to keep their promises and the readiness of the potential providers of financing to accept their promises. Flexibility is important too: the contracts used in financing, and how the courts interpret them, need to adapt as new challenges arise.<sup>12</sup>

## **FINANCIAL INTERMEDIARIES**

The most important financial intermediary in preindustrial Europe was the merchant bank. We saw in Chapter 8 that merchant banks acted as intermediaries in the market for remittance. To function as such, they had to develop a reputation for honoring their

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<sup>12</sup>We saw an example of this in Chapter 8 with the adaptation of bills of exchange to use as a means of payment.

obligations. In addition, their size and wealth made it likely they would be able to do so. It was this trustworthiness that enabled them to act as intermediaries in financing too—borrowing in their own name in order to re-lend to others.

Merchant banking first appeared in the late twelfth century in the trade between northern Italy and the Fairs of Champagne. The first merchant bankers were from Asti, Piacenza, Siena, and Lucca.<sup>13</sup> In the fourteenth and fifteenth centuries, the Florentines came to dominate the business, 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 only significant exception is the brief prominence of South German merchant banks in the first half of the sixteenth century.

### **The business of merchant banking**

Merchant banking developed out of commerce through a process of division of labor and specialization.<sup>14</sup> All merchants were involved in finance by the nature of their business—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.

Although finance became the focus of their business, merchant bankers remained merchants. For example, the ‘supercompanies’ of the fourteenth century traded extensively in wool and grain, and were not above trading in horses.<sup>15</sup> Merchant bankers continued to engage in commerce, because it was complementary to their business in finance. With a presence in many markets and with good information, a merchant bank was well placed to identify new trading opportunities. It could exploit these easily, simply by diverting resources from financing the ventures of others to financing its own.<sup>16</sup> In addition, as we will see, the ability to make large loans to rulers was often the key to opening up lucrative trading opportunities.

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<sup>13</sup>(de Roover 1963)

<sup>14</sup>This is similar to the process that led to the emergence of shipping brokers and commission agents, as we saw in Chapter 7.

<sup>15</sup>(Prestwich 1979)

<sup>16</sup>(de Roover 1949) p166

### *How merchant banks raised funds*

The basic source of funds for merchant banks was, as we have seen, remittance. The delay between the taking of funds by the bank in one place and their payment in another generated a more or less perpetual ‘float’ that provided funds for lending.

Merchant banks also raised funds by accepting time deposits.<sup>17</sup> Depositors came mainly from the ranks of the wealthy—nobles and clerics as well as merchants.<sup>18</sup> Widows, orphans, and dowries were well represented too. Merchant banks sometimes accepted small deposits from craftsmen, servants, and farm laborers.

Some merchant banks obtained a significant part of their deposits through their foreign branches. For example, the great merchant banks of fourteenth-century Florence gathered most of their deposits at home, but they also took in large sums at their branches in Naples and Rome.<sup>19</sup> In the fifteenth century, Rome was a major source of funds too for the Medici.<sup>20</sup>

Yet another way merchant banks were able to raise funds was by selling their paper in the money market. We saw in Chapter 8 how both the market for inter-fair deposits and the market for bills of exchange evolved from liquidity facilities into general sources of funding that could be used in this way. We also saw how the practice of ‘dry exchange’ increased the usefulness of the market for bills of exchange as a source of funding.

Merchant banks sold their paper mainly to merchants. However, the best credits—the *ditti di Borsa*—were also able to sell their paper to small investors.<sup>21</sup> Indeed in Genoa,

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<sup>17</sup>Ordinary merchants, too, accepted deposits ((Lane 1944), (Marshall 1999) Ch. 7). What distinguished merchant banks was the scale on which they did so—the largest taking in as much as ten times their own capital (Braudel 1982).

<sup>18</sup>There were brokers who brought together merchant banks and potential major depositors: see (Hildebrandt 1990) on practices in South Germany.

<sup>19</sup>(Hunt 1994)

<sup>20</sup>(de Roover 1963).

<sup>21</sup>Of course, this required them to issue it in sufficiently small denominations.



Venice, and other Italian cities, the money market became a favorite investment not only for the wealthy, but for ordinary savers as well.<sup>22</sup>

During the sixteenth century, the importance of time deposits declined, and the money market—at Antwerp, Lyons, and Bisanzone—became for merchant banks their primary source of funding.

#### *Commercial lending*

A good part of merchant bank lending went to financing the working capital of other merchants. This was particularly helpful when sales credit was problematic. For example, an Italian merchant visiting Bruges to purchase cloth might have had difficulty obtaining sales credit there from Flemish merchants for whom he was a stranger. So, instead, he would borrow from the local branch of a merchant bank and pay the Flemish merchants in cash (or, more likely, in bank).

The visiting merchant would borrow by writing the bank a bill of exchange payable in his home city. The merchant bank was in a much better position than a Flemish merchant to accept his IOU. Because of the bank's extensive connections, it would likely be familiar with his credit. Moreover, if he was a regular customer, the value of the continuing relationship would give him a strong incentive to repay. And if he did not repay, the merchant bank would find it much easier to take legal action against him in his home city.

Merchant banks could make a profit from this sort of lending because they could generally borrow at a lower rate than those to whom they were lending. One reason for this was that the banks had better credit. Another was that their debt was more liquid: it could be traded more easily, not least because there was an organized market for it. Merchant bank debt was also issued in smaller denominations and so appealed to a broader class of investor.

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<sup>22</sup>As early as the late fifteenth century, ordinary Venetians found the money market an attractive alternative to the other popular investment of the time—the local *colleganza* (see below)—as it involved substantially lower transactions costs. (Mueller 1997) Ch. 8

### *Financing of maritime commerce and the development of marine insurance*

Merchant bankers played an interesting role in the development of marine insurance. They were not involved initially in the financing of maritime trade. For many years, this was done directly, using one of two financial instruments—the *commenda* and the sea loan.<sup>23</sup> With both instruments, the casualty risk—the risk non-payment due to loss of ship or cargo—was borne by the providers of the financing.

As the money market developed, it offered a potentially less expensive source of financing for maritime trade—but only if a way could be found to separate the financing from the casualty risk. It seems plausible, therefore, that merchant banks, eager for the additional business, came up with the solution—marine insurance—or at least played a role in its development.

With marine insurance, the casualty risk was borne by the sellers of insurance. The risk in each case was not specific to the particular merchant purchasing the insurance: it depended, rather, on the route chosen, on the time of year, and on the political situation. Sellers of insurance did not, therefore, need to assess the credit of the purchaser. This increased greatly the pool of potential insurers, enabling the casualty risk to be spread widely and diversified, lowering the cost of bearing it.

The credit risk, now stripped of casualty risk through the purchase of marine insurance, was borne by a merchant bank that advanced funds against a bill of exchange. Since a 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.

Marine insurance made it possible to separate the bearing of the casualty risk from the provision of the financing (which, of course, included bearing the credit risk). This

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<sup>23</sup>The *commenda* as an instrument of financing is discussed later in the chapter: we encountered it first in Chapter 6 in a different context. With a sea loan, the lender advanced goods or money to a traveling merchant, with repayment contingent on the safe arrival of the goods in question.

separation significantly lowered the cost of both components and so the total cost of financing maritime trade.<sup>24</sup>

Marine insurance first developed in the Mediterranean in the fourteenth century. Since the merchant banks that provided the financing frequently also brokered the insurance, it is not surprising that the Florentines, who dominated the money market at the time, also came to dominate the market for marine insurance. By the end of the fourteenth century, they were brokering insurance for two thirds of the maritime commerce of Venice.

### **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. This lending is of particular interest because of the important role it played in the evolution of government—as we will see in Chapter 10.

As we will also see, rulers generally found it difficult to borrow. Their debt was personal: if a ruler died, for example, his successor was under no formal obligation to honor his debts.<sup>25</sup> Moreover, if a ruler defaulted, there was no recourse against him in his own courts. To compensate for these risks, rulers had to pay very high rates—if they could borrow at all.

Merchant banks were able to lower the cost of sovereign borrowing by acting as intermediaries—borrowing in their own names and relending to rulers. Doing this, however, exposed them to the same risks. So, to mediate sovereign lending profitably, merchant banks had to have some advantage in controlling these risks.

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<sup>24</sup>The 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 long-term loan, while the interest-rate risk is borne by investors in the bond market.

<sup>25</sup>(Fryde and Fryde 1971)

### *Controlling the risks*

One way to limit the risk was to make the term of the loan short. This kept the borrower on a tight leash: to be able to roll over his debt, a ruler had to satisfy lenders of his ability and willingness to repay.<sup>26</sup>

Another protection was to demand guarantees from private individuals or bodies against whom it was possible to obtain a judgment if the sovereign defaulted. For example, Henry VIII of England, to be able to borrow in Antwerp, had to obtain guarantees from the London branches of the Bonvisi and Vivaldi merchant banks; these in turn were indemnified by English merchants.<sup>27</sup>

Yet another way of securing loans was to place in the hands of the lender a specific source of revenue from which the loan could be repaid. 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 the collection of the tariff.<sup>28</sup> Similarly, Duke Sigmond of Tyrol was able to borrow from the Fuggers from 1487 against his expected royalties from the Schwaz silver mines: the Fuggers collected the royalties until the debt was repaid.<sup>29</sup>

Forward sales performed a similar function in securing loans. Loans from the Welsers and other German bankers to the King of Portugal in the early sixteenth century took the form of forward purchases of spices imported from the Indies by the royal monopoly.

The Genoese who lent to the Spanish Hapsburgs managed the risk in yet another way.<sup>30</sup> Their lending was in the form of bills payable in Antwerp in gold. Agents of the crown in Antwerp used this gold to pay the Spanish armies in the Low Countries. The same agents repaid the Genoese with bills payable in Spain in silver expected from the Americas.

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<sup>26</sup>The short term was also dictated by the merchant banks' need to maintain liquidity.

<sup>27</sup>(Outhwaite 1966)

<sup>28</sup>(Goldthwaite 1973)

<sup>29</sup>(Strieder 1931)

<sup>30</sup>The merchant banks involved, known as the *asientistas*, were actually a consortium, mainly of Genoese, but with some Florentines, Flemish, German, and Spanish bankers.

When Spain defaulted on its bills in 1575, the Spanish government was unable to find an 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.<sup>31</sup>

The ability of merchant bank to lend successfully to sovereigns 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.

*The profits from sovereign lending*

Such commercial opportunities could be highly profitable, and they were indeed often the principal reward for sovereign lending.<sup>32</sup> In fact, earlier in the period, the loans themselves were often interest-free.

As we saw in Chapter 6, the great Italian merchant banks of the thirteenth and fourteenth century gained monopolies of the export of grain from Naples and Sicily and of the export of wool from England through their lending to the respective sovereigns.<sup>33</sup>

Similarly, the Fuggers gained control of the mines of central Europe in the late fifteenth century through their lending to the Hapsburgs.<sup>34</sup> The Genoese, who succeeded the Fuggers as lenders to the Hapsburgs, gained control in the same way of the trade in American silver.<sup>35</sup>

However, profitable as sovereign lending often was, it rarely ended well. In 1343 Edward III of England defaulted when it became clear that the Florentine merchant banks were in difficulty and therefore 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

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<sup>31</sup>(Conklin 1998)

<sup>32</sup>“there are no known examples of large-scale continuous financing of monarchs unaccompanied by important commercial privileges.” (Hunt 1994) p 64

<sup>33</sup>(Hunt 1994) (Prestwich 1979) (Goldthwaite 1973)

<sup>34</sup>(Strieder 1931)

<sup>35</sup>(Conklin 1998)

sovereign lending altogether. By then, the trade in American silver had anyhow become less profitable, so that the risks were no longer worthwhile.

### **SECURED LENDING**

While short-term lending between 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 in case the borrower defaulted

There are two ways to take advantage of secured lending. The first is in financing the acquisition of an asset, with the asset so acquired serving 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, but subject to the lien of the lender.

The second way of using secured lending is to provide the owner of an otherwise illiquid 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 who owned his own home might mortgage it to finance a new business.

Modern secured debt, like the residential mortgage, is legally demanding: it requires a functioning formal order to enforce the contract and a registry of title to ensure that the lien is effective and that the same asset is not pledged to secure multiple loans. Preindustrial Europe initially lacked such refinements, so the earliest forms of secured lending—the lease and the pawn—were legally simpler and more robust.

### **Leasing**

The lease serves the first of the two possible functions of secured lending—financing the acquisition of an asset. However, rather than lending the borrower the money to purchase the asset, the lender himself purchases it—or already owns it—and lends the asset itself to the borrower. The lease is legally more robust than a secured loan proper because the asset remains the property of the lender. It is therefore easier for him to regain possession if the borrower defaults.

We saw in Chapter 3 that leasing was the way landowners financed the most important item of fixed capital of agricultural producers—the land they worked. We saw

too that leasing made land an attractive asset for merchants and townsmen: because of the possibility of leasing it, land became just another asset—one that provided a fairly safe and trouble-free stream of returns.

The possibility of leasing similarly converted other forms of productive fixed capital into attractive assets for non-producers. For example, in thirteenth-century Italy it became popular among townsmen, village tradesmen, and prosperous peasants to invest in farm animals—a herd or flock or even individual animals—and to lease them out to agricultural producers.<sup>36</sup>

Leasing was common too in industries linked to the land. From early in the period, landowners built flour mills, wine presses, and olive presses on their land and leased them out to individuals who operated them as independent enterprises. Later, landowners built and leased out fulling mills and paper mills in much the same way.<sup>37</sup> Similarly, the owners of mineral-bearing land invested in refining and processing facilities and leased them out, often to metal traders.<sup>38</sup> For example, many of the new blast furnaces constructed in Elizabethan England were built by landowners and leased out in this way.<sup>39</sup>

Landowners found such investments attractive, because the assets remained under their control and increased the income from their land. Moreover, with the limited availability of financial assets, there were few alternative vehicles for their savings.

Merchants also leased out fixed capital to urban and rural manufacturers. 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.<sup>40</sup>

Leasing was important too in financing urban and commercial infrastructure. Urban landowners invested in rental housing and in commercial buildings and leased them out. For example, when the counts of Champagne founded the cycle of fairs in 1191, they

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<sup>36</sup>(Jones 1968) p 221

<sup>37</sup>(Nef 1964) Ch. 3

<sup>38</sup>(Nef 1987)

<sup>39</sup>(Palliser 1983) Ch. 8

<sup>40</sup>(Holt 1997)

persuaded the Church authorities to finance the construction of the necessary inns, storehouses, and marketplaces and lease them out.<sup>41</sup>

### **The pawn**

A different form of secured lending, the pawn, serves the second of the two possible functions of secured lending—providing owners of otherwise illiquid assets with liquidity. In a pawn, in order to borrow against an asset, the owner places the asset in the hands of the lender, where it remains until the loan is repaid. Because the lender is already in possession of the asset, the pawn provides him with robust legal protection: in case of a dispute, it is the borrower who must sue to get it back.

The pawn also reduces the transactions costs of the loan by eliminating the need for the lender to evaluate the borrower's credit. All he need do is assess the value of the asset that will secure the loan. The pawn is therefore a low-cost way of lending to strangers.

Pawn lending provides owners of otherwise illiquid real assets with liquidity. If the need arises for cash, rather than having to sell the asset in a hurry, perhaps at a considerable loss, the owner can borrow against it. In preindustrial Europe, 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.<sup>42</sup> Repayment was due after a set number of years, and if the borrower defaulted, the land became the property of the lender.<sup>43</sup>

In preindustrial Europe, 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.<sup>44</sup> These were typically outsiders, and they largely financed their lending out of their own resources or from

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<sup>41</sup>(Bautier 1970) (Verlinden 1971)

<sup>42</sup>If the land had been leased, this made pawning it easier, since it required less work on the part of the lender to collect the income.

<sup>43</sup>(Usher 1943) Ch. 5.

<sup>44</sup>Moneylenders, however, also lent on other forms of security, such as a sworn bond or guarantee. They sometimes even lent on credit alone. (Botticini 2000)



resources raised informally from family and home community.<sup>45</sup> This made them a good source of external resources in times of local stringency. The interest rates they charged were generally high: 40% was not unusual. Moneylenders were useful, even necessary, but because they openly engaged in usury, they were resented and despised.

While today only the poor borrow by pawning assets, in the preindustrial economy, all levels of society did so. Peasants and artisans borrowed small amounts from local pawnbrokers, mostly for consumption in times of hardship. But nobles and princes borrowed too, mostly to finance wars. For example, In the eleventh and twelfth centuries, many nobles pawned their land to finance their participation in the Crusades.<sup>46</sup> The lenders in this case were abbots and bishops rather than professional moneylenders. They were happy to make the loans in such a worthy cause, not to mention the excellent return and the good chance of acquiring land cheap.

### **The *rente* or annuity**

Many of the Crusaders defaulted, and the resulting distress and resentment caused the pope, in 1150, to declare the land pawn usurious. It was soon replaced, however, by a new way of borrowing against land—the sale of rents or *rente*.<sup>47</sup> This instrument originated in Northern France, where it evolved from the feudal custom of creating a rent-charge on land. The rent-charge was 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. The rent-charge was first used by vassals to pay their lords an annuity in exchange for the grant of a fief. A noble might also give an annuity to an heir as a legacy, or to a retainer as a pension.

#### *The use of the annuity to provide landowners with liquidity*

The rent-charge could be used as an alternative to the land-pawn as a way of providing landowners with liquidity. For example, in exchange for an immediate payment of cash, a noble could assign to the payer future rents due him from his tenants.

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<sup>45</sup>(Botticini 2000). In Italy moneylenders were mainly Jews; in the rest of Europe, they were mainly Italians—‘Lombards’.

<sup>46</sup>(Van Houtte 1977)

<sup>47</sup>(Usher 1943)Ch. 5, (Van Houtte 1977), (Tracy 1985).

Or he could constitute an annuity on his land and sell this in exchange for an immediate payment of cash.

Such a sale of rents or of an annuity, because it was seen as a sale rather than as a loan, was not considered usurious. Construing the transaction in this way also provided the lender-purchaser with superior legal protection. A default on an annuity was seen as a failure to deliver goods that had been sold and paid for, making it easier to seize the property on which the annuity was drawn.

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 used sale of an annuity to raise cash for all sorts of reasons—for military expenses, to make a donation to the Church, to pay a dowry, or to pay taxes.<sup>48</sup>

#### *Other applications, including financing*

It was also easy to adapt the annuity to other purposes. For example, it could be used to sell land on installments. The purchaser, instead of paying the full value in cash, would pay the seller an annuity. This was called a rent-sale or *bail à rente*.<sup>49</sup> 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.<sup>50</sup>

The most important adaptation of the annuity, however, was to the financing of investment. By the late thirteenth century, farmers in northern France and Flanders were commonly selling annuities secured by land they owned to finance investment in fixed capital such as improvements and structures: the investment generated the additional income out of which the annuity would be paid.<sup>51</sup> Initially, the lender-purchasers of such annuities were themselves mainly rural. Most local long-term lending took this form. However, urban investors soon began to take an interest.

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<sup>48</sup>(Duby 1968)

<sup>49</sup>An early version of 'hire purchase' or 'rent to own'.

<sup>50</sup>(Nicholas 1971).

<sup>51</sup>(Thoen 1993), (Nicholas 1971) (Duby 1968)

### *The spread of the sale of annuities*

The sale of annuities, both for liquidity and for financing, continued to expand in the fourteenth and early fifteenth centuries. The practice spread north to Brabant and to the Netherlands.<sup>52</sup> And it really took off in the general economic expansion of the Long Sixteenth Century, spreading even farther afield, to Germany and to Spain.<sup>53</sup>

Indeed, the sale of annuities was an essential element of that expansion, providing the financing for a massive investment in fixed capital. 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 great landowners financed the huge investment required in vineyards and olive groves through the sale of annuities to urban investors.<sup>54</sup>

In another example, the rising price of agricultural land in the Netherlands provided the impetus for a number of major reclamation projects. The sums involved were huge: one such project alone exceeded in cost the combined capitalization of the Dutch East India and West India companies. But developers had no trouble raising what they needed from urban investors, largely through the sale of annuities.<sup>55</sup>

Urbanization was largely financed in 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.<sup>56</sup>

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<sup>52</sup>(van Bavel 2008).

<sup>53</sup>Papal rulings, in 1425 and 1455, that the *rente* was not usurious contributed to its increasing popularity. (Van der Wee 1977)

<sup>54</sup>According 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

<sup>55</sup>(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.

<sup>56</sup>(Van der Wee 1977)

The market for annuities, both in town and country, was well organized, with the notaries and scriveners who drew up the contracts acting as brokers.<sup>57</sup> The establishment of land registers in many cities and villages protected lenders by preventing double-pledging.<sup>58</sup> 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.<sup>59</sup>

*The issuing of annuities by cities*

The market for annuities soon became a source of lending for governments. In this case, however, the governments 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 other cities in the Low Countries and in the Rhineland.<sup>60</sup> Cities sold annuities mainly to finance war-related expenditure—the building of fortifications or the payment of levies imposed on them by their territorial ruler.

To be able to raise funds through the sale of ‘rents’, cities needed a regular stream of rent-like payments they could sell. Tax revenues—normally from customs or excise taxes—proved to be ideal. Purchasers of the annuities were usually given a prior claim on a specific source of revenue. For example, Amsterdam required the collectors of the excise taxes on beer, wine, and grain to pay all outstanding annuities first, before they passed on the remaining revenue to the city.<sup>61</sup>

In the fifteenth century, cities in the Low Countries set up municipal banks to manage their debt. These institutions marketed new issues both within the city and elsewhere, and they were responsible for making annual payments to beneficiaries.<sup>62</sup> In the sixteenth

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<sup>57</sup>(Tawney 1925) p98. (Hoffman, Postel-Vinay et al. 1992)

<sup>58</sup>See (Zuijderduijn 2005) on Holland, where land registers were mandated by the territorial government in the early sixteenth century to facilitate the taxation of annuities.

<sup>59</sup>(Parker 1977) (Van der Wee 1993), (de Vries and van der Woude 1997) Ch. 6

<sup>60</sup>(Fryde and Fryde 1971)

<sup>61</sup>(Tracy 1985)

<sup>62</sup>(Van der Wee 1990)

century, the public bank of Basel played a similar role for many Swiss and even foreign cities—acting as a sort of general underwriter. It charged issuers a commission of 2%.<sup>63</sup>

Annuities, both private and municipal, were very popular investments. They promised a steady income, much like land. And they also offered an element of insurance, making them an ideal way to provide for one's survivors or for one's retirement. They were purchased mainly by the wealthy—by members of the nobility and clergy and by retired merchants. However, during periods of prosperity, the middle and even lower classes might be drawn into the market.<sup>64</sup>

Municipal annuities were particularly popular, because they were also so safe: defaults were extremely rare. 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 available, of course, only to creditors who were not themselves citizens of the defaulting city. As a result, investors generally avoided the debt of their own cities.

Another reason for the popularity of municipal annuities was their liquidity. Some issues were large enough to support an organized secondary market. In Antwerp, for example, cashiers (pseudo-banks) made a market in municipal securities.<sup>65</sup>

#### *The issue of annuities by rulers*

Territorial rulers found it harder than cities to tap the market for annuities.<sup>66</sup> Of course, like other nobles, they 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 this 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: it included both a major excise tax, the *alcabala*, and the royalty of 20% on precious metals mined in the Americas.

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<sup>63</sup>(Körner 1995)

<sup>64</sup>(Van der Wee 1977)

<sup>65</sup>(Van der Wee 1993) 10 The cashiers also made a primary market, distributing new issues.

<sup>66</sup>The following is largely based on (Tracy 1985)

However, as we will see in subsequent chapters, rulers were more constrained than cities in their ability to impose new taxes: doing so generally required parliamentary consent, which was far from automatic. New taxes or ‘extraordinary income’ were therefore less promising as a basis for issuing annuities. Moreover, as already noted, if rulers defaulted, they could not be sued in their own courts, which made lending to them particularly risky.

Consequently, if they wished to gain access to the annuities market, rulers had to use cities and parliaments as intermediaries—much as they used merchant banks as intermediaries to the money market. One way they did so was by having a city issue annuities in its own name and pass on the proceeds to the ruler; the ruler, in return, would cede a particular tax to the city to cover payment of the annuities. This was common practice for the Burgundian rulers of the Low Countries, and it was continued by their Hapsburg successors. Antwerp, in particular, became a large issuer of annuities to the benefit of Charles V.

Alternatively, rulers could have their parliaments issue annuities for them. Parliaments enjoyed some of the same advantages in borrowing as did cities: 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 of the County of Holland (its parliament) which issued annuities backed by the taxes.

## **EQUITY FINANCING**

The third form of financing to develop in preindustrial Europe was equity financing. We saw in Chapter 6 and 7 that merchants often found it advantageous to pool resources in various forms of joint enterprise, with the participants dividing the profits between them. Several legal frameworks emerged for doing this—the *commenda*, the share partnership, the *compania*, and the joint stock company.

Each of these frameworks was later adapted to become a vehicle of external equity financing. What this required was to accept as participants those whose only contribution was financial: that is, they provided financing but were not otherwise involved in the

enterprise. These purely financial participants, like the active participants, were rewarded with a share of the profits.

### **The benefits of equity financing and its problems**

The advantage of equity financing over debt is its flexibility. Rewarding the provider of financing according to the success of the enterprise eliminates the problems and costs of default that plague debt financing in all its forms.

This same flexibility, however, introduces another problem—the problem of governance. Since the reward is not specified explicitly, what assurance is there that it will be equitable? Profits depend on the efforts and decisions of the active participants: will these act in the interests of the purely financial participants? Profit is a matter of calculation: will the active participants calculate it 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 requires a partitioning of assets—dividing them into distinct pools that separately secure the debts of the different parties.<sup>67</sup>

In preindustrial Europe, both of these problems—governance and asset partitioning—stood in the way of equity financing by strangers. Consequently, most equity financing came initially from the family and friends of active participants in the enterprise: such connections gave the purely financial participants some assurance their interests would be respected.

However, for strangers to be willing to provide equity financing, solutions had to be found to the two problems of governance and of asset partitioning. Different solutions emerged in different times and places as adaptations of the different forms of joint enterprise.

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<sup>67</sup>(Hansmann and Kraakman 2001)

### The *commenda*

We saw in Chapter 6 that the *commenda* was developed initially as a contract between merchants and their travelling representatives. By the mid-thirteenth century, however, it began to be used as a pure instrument of equity financing.<sup>68</sup>

In its new use, the traveling partner was now a merchant, and the partner who remained behind was a financial investor. A traveling merchant could mobilize a significant sum of money in this way by writing *commenda* contracts with multiple investors. And financial investors could diversify by placing funds with multiple merchants.

The relatively short term of the *commenda* mitigated the problem of governance. The term was normally for a single venture, with the voyage rarely taking more than a year and often only a few months. However, the financing could be rolled over to finance subsequent ventures, and it frequently was. This gave the traveling merchant a strong incentive to treat his investors equitably. As a result, investors rarely insisted on a formal accounting of profits from the merchant, but agreed rather to accept his word “without an oath or witness”.<sup>69</sup>

In its early days, when the traveling partner had been a representative of a merchant who stayed behind, the *commenda* had exposed the merchant who stayed behind to liability for the traveling partner’s actions. As the *commenda* developed into a pure instrument of financing, however, courts came to regard the traveling merchant as acting on his own account. As a result, investors were no longer held responsible for any debts the traveling merchant might incur, and they therefore stood to lose no more than their investment in the venture—*de facto* limited liability.<sup>70</sup> Similarly, the claim of an investor’s creditors on the venture was limited to the investor’s share of the profits.<sup>71</sup> These changes made the *commenda* more attractive as a means of financing, and *commenda* contracts became a popular financial asset.

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<sup>68</sup>(Postan 1973) Ch. 3.

<sup>69</sup>(Lopez 1976)p 76; (Williamson 2001) and (González de Lara 2000) discuss additional mechanisms that addressed the governance problem in Venetian trade.

<sup>70</sup>(Mitchell 1904).

<sup>71</sup>(Berlow 1979)



The financial use of the *commenda* achieved its greatest development in Venice—where this form of contract was known as a *colleganza*. Thousands of investors from all walks of life—from retired merchants to monks, parish priests, and housewives—financed much of Venice’s trade through investment in *colleganza* contracts. The amount of each individual contract varied, but it could be as little as 10 ducats.

Initially the traveling merchant was expected to put up a third of the capital himself (in exchange for half the profit), so that he would have some ‘skin in the game’. However, as investors’ confidence in the arrangement 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 its use had spread to financing all kinds of non-commercial enterprise. The recipients of such financing—through so-called ‘local *colleganza*’ contracts—included shopkeepers, industrial producers, and even deposit banks.

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

### **The share partnership**

We saw in Chapter 6 that the share partnership provided a structure for joint ownership by multiple investors of large, indivisible items of fixed capital.<sup>72</sup> It was first employed in the Mediterranean in the ownership and operation of ships.

#### *Adaptation to include financial investors*

The shareholders in such an enterprise were initially the merchants who sailed with the ship. However, it was easy and natural to extend the framework to include as shareholders purely financial investors who remained at home but bore part of the risk in exchange for part 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.<sup>73</sup>

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<sup>72</sup>(Lane 1944)

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 initially 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.<sup>74</sup> Relatives would sometimes pool their resources to purchase a single share; alternatively, shares would be subdivided to accommodate small investors. Investors diversified by purchasing shares in a number of different ships.<sup>75</sup>

#### *Governance and asset partitioning*

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 do so.<sup>76</sup> 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 depend 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 partnership could be constituted for another voyage, often with the same investors.<sup>77</sup>

Because the share partnership was a structure of joint ownership rather than one of joint trading, asset partitioning was relatively straightforward. The creditors of a shareholder had a claim on his part of the property, but not on the parts of the other shareholders. The liability of shareholders was not an issue, because share partnerships rarely took on debt: additional financing could always be obtained by issuing more

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<sup>73</sup>(Scammell 1972); (Unger 1980) Ch. 4

<sup>74</sup>(Lane 1973) Ch. 5

<sup>75</sup>(Parker 1977); (Byrne 1930) Ch. IV

<sup>76</sup>To strengthen incentives, part or all of his compensation would be in the form of shares.

<sup>77</sup>(Parker 1977)

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 in it—again *de facto* limited liability.<sup>78</sup>

#### *The use of the share partnership in financing city governments*

City governments relied for their financing on whatever financial markets were available: in the Low Countries, it was the market for annuities; in northern Italy, it was the market for shares.<sup>79</sup>

Genoa pioneered their use in the twelfth century.<sup>80</sup> Whenever it needed to finance a major expenditure, such as a war or the creation of a colony, 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—making them, in reality, a form of debt rather than equity—and they were callable by the city. Each syndicate was given control of the collection of a specific tax, out of which the promised interest was to be paid.<sup>81</sup>

Venice relied initially on a different form of financing—direct interest-free loans from its leading citizens.<sup>82</sup> At first, these loans were voluntary; however, as the city's needs increased, they became compulsory.<sup>83</sup> Other cities imitated the practice: Florence and Siena introduced forced loans in the fourteenth century. These forced loans were generally repaid from specific taxes dedicated to the purpose.

As borrowing continued to rise, however, revenues eventually proved insufficient to repay the debt, and it became effectively perpetual. This necessitated adjustment in its terms: without the possibility of repayment, there was no difference between a loan and a

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<sup>78</sup>(Lane 1944) Ch. 3

<sup>79</sup>The success of annuities in the north did eventually elicit imitation in Italy. Venice and the papal states began to issue life and heritable annuities in the sixteenth century.

<sup>80</sup>(Tracy 1985), (Van der Wee 1977)

<sup>81</sup>The *compera* is an early example of a financial structure known today as a securitization.

<sup>82</sup>(Lane 1966), (Mueller 1997)

<sup>83</sup>Citizens were required to subscribe a fixed percentage of their assessed wealth; a public assessor was appointed to determine the base for the tax.

tax unless the loan paid interest.<sup>84</sup> Moreover, if there was to be no repayment, lenders needed to be able to sell their claims to others.

Venice was the first to make these adjustments. 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.<sup>85</sup> In 1407 even Genoa recognized the advantages of consolidation and ease of transfer and consolidated 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.

Shares in the *Monti* could be transferred by sale, bequest, or gift, and assigned in payment of debts or used as security for loans and other contracts.<sup>86</sup> The shares existed only in book-entry form, which made such transactions especially easy, and ease of transfer facilitated the development of an active secondary market.<sup>87</sup>

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.

#### *The use of the share partnership in mining*

In the Mediterranean, the use of the share partnership to finance shipping died out during the thirteenth century as other forms of financing developed. However, its use spread to other parts of Europe and to other applications. The first new application was mining.

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<sup>84</sup>Usury was not an issue because the loans were not voluntary.

<sup>85</sup>(Cipolla 1982); (Veseth 1990)

<sup>86</sup>As later with the shares of the Dutch Joint East India Company (see below), the availability of such serviceable collateral lowered the cost of all sorts of transactions.

<sup>87</sup>On Venice see (Lane 1966), (Mueller 1997), (Mueller 1977) and (Tracy 1985). On Florence, see (Kirshner 1997).

As miners had to dig deeper, the investment necessary in digging a mine came to exceed the means of a single miner. Consequently, groups of miners banded together to form simple partnerships. Such a partnership owned and operated a mine, and after paying the royalties, the residual earnings were divided among the partners.<sup>88</sup> However, as mines continued to grow bigger, deeper and more expensive, even this arrangement proved inadequate. Miners needed to bring in financial investors, and the share partnership provided them with a suitable framework.<sup>89</sup>

The share partnership was first used in this way to finance silver mines in northern Italy, and from there its use spread to Central Europe during the silver and copper boom of the late fifteenth century. Mines there were financed with as many as 640 shares, often further subdivided. A novel feature of the German share partnership was the practice of calling on existing shareholders for supplementary funds, beyond their initial subscription, as the need arose.

Mining shares became a popular investment. Investors included the usual suspects—merchants, members of the nobility and clergy—as well as municipal governments and trusts.

#### *The use of the share partnership in the Netherlands*

The use of the share partnership in shipping spread to the Hansa, and from there, in the fifteenth century, to the Netherlands.<sup>90</sup> There, hundreds of share partnerships, or *rederijen*, were established to finance the construction, purchase, and chartering of vessels and their provisioning for fishing or trading voyages. The ten-fold expansion of the Dutch fleet during the sixteenth century was largely financed in this way.<sup>91</sup>

The *rederij* was of indefinite duration, but after each voyage or two, profits were distributed, and shareholders decided whether to extend the partnership for another

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<sup>88</sup>(Spufford 1988)

<sup>89</sup>(Nef 1987)

<sup>90</sup>(Glamann 1972) (Parker 1977) (de Vries 1976) (de Vries and van der Woude 1997) (Barbour 1950)

<sup>91</sup>(Sella 1977); (Unger 1998 [1979]) #2031}

voyage or to liquidate it.<sup>92</sup> The shareholders appointed one of their number to manage the enterprise and held frequent meetings to decide policy.<sup>93</sup>

The use of the *rederij* spread to the financing of other types of enterprise, including industrial windmills, refineries, breweries, tile works, and the large-scale digging of peat for fuel.<sup>94</sup> Indeed, the sale of shares financed much of the industrial expansion of the Netherlands in the sixteenth and seventeenth centuries. The *rederij* was also used to finance commerce. Dozens of *rederijen* were formed in the 1590s to finance transoceanic trading ventures to Africa, the Americas, and the Indies.<sup>95</sup>

Investment in shares became extremely 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.<sup>96</sup> The ready tradability of shares made diversification easy and allowed investors to adjust their portfolios as market conditions changed. As a result, investors were willing to participate in bearing the risks of individual investments in exchange for a relatively modest return. As the market for shares developed, merchants preferred to manage their risk by selling shares rather than by purchasing insurance.<sup>97</sup>

As we saw in Chapter 7, the *rederijen* that traded to the Indies were consolidated in 1602 to form the Joint East India Company: the initial flotation of shares raised 6.4 million guilders. For the first time, shares were sold directly to purely financial investors, rather than indirectly through subdivision. Some 1,100 investors took up 70% of the initial subscription.

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<sup>92</sup>(Christiensen 1941) There might be two or three round-trips to the Baltic each season. (Gelderblom and Jonker 2004)

<sup>93</sup>The manager received as a reward a percentage of the total return. (Gelderblom 2003)

<sup>94</sup>(de Vries and van der Woude 1997); (de Vries 1974)

<sup>95</sup>(Gelderblom 2003)

<sup>96</sup> When shares were subdivided, the original shareholder represented those to whom the parts of the share had been sold. (van Dillen 1970) (quoted in (Çizakça 1996))

<sup>97</sup>(Barbour 1929). In addition, the existence of charter houses made it easy for merchants to split cargoes across multiple vessels (see Chapter 7 for more on charter houses). So, with these alternatives available, insurance was relatively slow to catch on in the Netherlands. (Christiensen 1941).

Since the shares of the Joint East India Company were created only in book-entry form, their transfer was relatively quick and inexpensive, making it much easier to trade them. As a result, there developed an active secondary market, which facilitated speculation.<sup>98</sup> And trading by speculators ensured that the market price of the shares always reflected the latest information on the fortunes and prospects of the company.

Indeed, the shares of the Joint East India Company were such a popular investment that there was no objection when the government revised the Company's charter in 1612 to make it—and its shares—perpetual. Each voyage was, however, considered a separate venture, accounted for separately, and the profits were distributed to the shareholders on its completion.

### **The English 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.

The use of the joint stock company structure was soon extended to the financing of ventures in mining and metallurgy, perhaps in imitation of the continental share partnership that it resembled.<sup>99</sup> Later, it was used too in financing ventures in privateering and colonization. It was also used to finance land 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.<sup>100</sup>

In our discussion of the joint stock company in Chapter 7, we saw that governance was a serious problem. Asset partitioning too was a problem. Initially, shareholders were

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<sup>98</sup>Their liquidity also made shares highly desirable as collateral for loans.

<sup>99</sup>The 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 partnership structure. (Rees 1968)

<sup>100</sup>(Wilson 1925 [1572]); (Clay 1984). The modern mortgage developed in England only in the late seventeenth century.

fully liable for the debts of the company.<sup>101</sup> Moreover, in principle, they could be called upon at any time for additional capital, beyond their initial subscription.<sup>102</sup> In practice, however, a company could do little to enforce such a call, and many shareholders simply ignored them. The result was a sort of *de facto* limited liability. This protected shareholders, but it made it more difficult for joint stock companies to borrow.<sup>103</sup>

The uncertainty about shareholder liability, together with ineffective governance, made outsiders reluctant to purchase shares. Over time, therefore, ownership typically became concentrated among a relatively small group of insiders.<sup>104</sup>

It was not until the late seventeenth century that these problems were finally addressed. However, once they were, an active secondary market developed, which made the shares of joint stock companies highly liquid. As a result, they became an extremely popular investment, enabling joint stock companies like the Bank of England and the East India Company to play an important role as intermediaries for government borrowing.<sup>105</sup>

### **The *compania* and the limited partnership**

The *compania* partnership was unsuitable as a vehicle for bringing in purely financial investors. All partners in a *compania* had unlimited joint and several liability: that is, an obligation entered into by any one of them was binding on all.<sup>106</sup> While ventures might be regarded as legal entities distinct from their participants, when it came to the *compania*, there was no such separation.<sup>107</sup>

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<sup>101</sup>The joint stock company, like the regulated company and the guild, was legally a corporation ((Watts and Zimmerman 1983)). As such, it was a 'legal person', distinct from its shareholders, and able to own property in its own name ((Hansmann and Kraakman 2001)).

<sup>102</sup>For example, the initial subscription for a share in the Russia Company in 1553 was £25. By 1572, however, a series of calls had raised the par value of a fully paid-up share to £450. (Willan 1956)

<sup>103</sup>(Shammas 1975)

<sup>104</sup>(Willan 1956)

<sup>105</sup>(Scott 1912)

<sup>106</sup>The ability of one partner to represent and to 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)

<sup>107</sup>(Harris 2000) Ch. 1



So long as the *compagnia* was just a formalization of the family as a business entity, this was not a problem: there was no distinction between the family and the partnership either legally or in terms of accounting. When the company framework was extended to include multiple families, the partners were seen as constituting a single ‘legal family’ for the purpose of liability.<sup>108</sup> This certainly had its dangers, as we saw in Chapter 6.

However, unlimited liability had its advantages too, since it strengthened the partnership’s credit and made it easier for it to borrow. This was especially valuable for those partnerships that came to specialize in merchant banking. To illustrate the point, when the courts of Siena failed in 1310 to enforce unlimited liability, the effect on Sienese merchant banks was catastrophic. The Sienese rapidly lost their leading position in the international money market to the Florentines, who retained their firm commitment to unlimited liability.<sup>109</sup>

Because of unlimited liability, adequate governance was especially important. This was facilitated by the fixed term of the partnership.<sup>110</sup> Periodic liquidation simplified the calculation of profits, because once everything was converted into cash, it was quite obvious how well the enterprise had done. Periodic termination and renewal also kept management on a short leash.<sup>111</sup> If partners were unhappy, they could withdraw simply by declining to join the reconstituted company. But even so, governance was relatively weak.

The combination of unlimited liability and weak governance made participation in a *compagnia* an unattractive proposition for purely financial investors. The *compagnia* did not serve, therefore, as a vehicle for external equity financing. However, in the fifteenth century it was modified to create a much more suitable vehicle—the limited partnership or *accomandita*. This was first recognized by Florentine courts in 1408.

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<sup>108</sup>To 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

<sup>109</sup>(Greif 1996)

<sup>110</sup>Usually two or three years, but sometimes longer.

<sup>111</sup>(Greif 1989)

The *accomandita* made a distinction between active and ‘sleeping’ partners. The status of active partners was much like the status of partners in an ordinary *compagnia*. However, sleeping partners—who played no role in the day-to-day running of the business—were recognized as being purely financial investors, and their liability was limited to the amount of capital they subscribed.<sup>112</sup> Sleeping partners were generally wealthy non-merchants—often members of the nobility and clergy.<sup>113</sup>

In addition to facilitating external financing by purely financial investors, the *accomandita* provided a convenient way for large commercial enterprises to finance smaller industrial enterprises that supplied them with goods. Because of its advantages, the *accomandita* gradually came to replace the traditional *compagnia* in Italy and France.

## CONCLUSION

What was the overall pattern in the development of financing? What were the consequences of its development?

### The development of financing

Financing may be understood as a particular type of exchange. The provider of financing advances a sum today in exchange for a larger sum at some time in the future. It is a particularly problematic type of exchange because of the inherent problem of reliance: the provider of financing gives up actual funds today in return for a promise.

The extent of the market for financing depends on the trading costs of this exchange—primarily the information and transactions costs and the risk.<sup>114</sup> These depend in turn on the availability of mediation and on the existence of suitable forms of promise—suitable financial instruments.

We have seen that the mediation of short-term finance developed out of commerce through a division of labor. Such mediation took two forms. One was indirect financing

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<sup>112</sup>Moreover, unlike with the traditional form of company, there was no obstacle to investing in more than one limited partnership.

<sup>113</sup>Sleeping partners did not have to be named on the document of association, and the resulting anonymity made it easier for the nobility and clergy to invest in business without losing status. It also made it easier for foreigners to invest, when such investment was restricted or prohibited by law.

<sup>114</sup>‘Transportation costs’, in the form of the cost of remittance, also play a role.

through financial intermediaries—deposit banks and, especially, merchant banks. The other was direct financing facilitated by organized markets—such as the markets for exchange and for inter-fair loans. As we saw in Chapter 8, both intermediaries and markets had their origins in the system of payment and remittance by IOU.

Secured long-term lending did not develop out of commerce, but commerce still played an important role in its mediation. Notaries, who drew up the contracts, acted as brokers in local markets, bringing borrowers and lenders together. And as secured lending expanded to include urban investors and government borrowers, deposit banks and merchant banks acted as dealers—purchasing and reselling the paper. For larger issues, organized markets developed where they could be traded.

Equity financing did develop initially in commerce, but it expanded to encompass the financing of production and government. Here, too, financial intermediaries acted as dealers and organized markets developed to trade the larger issues.

In all these cases, mediation reduced information and transactions costs and reduced risk for the providers of financing by facilitating diversification. Mediation also improved liquidity—making it possible for the providers of financing to convert financial instruments back into cash with relative ease.

The second factor in lowering the trading costs of financing was technological progress in the form of financial instruments. This required considerable legal innovation in the creation and adaptation of contracts. The major innovations included: the transferability and negotiability of bills of exchange; modifications of the annuity contract and the creation of registers of property; and adaptations of forms of joint enterprise to accommodate purely financial investors—especially the recognition of limited liability.

The necessary legal innovation came from the courts of the commercial cities that hosted organized markets: the courts of kings and princes played little if any role. Most of the activity took place in the cities of the urbanized central regions of northern Italy and the Low Countries. Commercial cities in these regions were either independent or semi-independent, and this provided them with the legal autonomy they needed for legal innovation. This innovation was stimulated by competition among the cities to mediate trade and finance.

The development of financing, therefore, looks much like the development of commerce. Indeed, since financing is no more than a particular form of exchange, the resemblance is more than coincidental.

### **Expansion of the market for financing and its consequences**

The fall in the trading costs of financing made it easier both to obtain external financing and to provide it. This led to the expansion of the market for financing.

As we have seen, it was mainly merchants, landowners, and cities that benefited directly from easier financing. They were the ones with access to the new, developing financial intermediaries and financial markets. But they in turn used the funds they were able to raise to provide improved financing to producers and rulers.

The fall in trading costs made it easier for just about everyone to participate in providing financing and in earning a return for doing so. The return was relatively sure when lending to merchant banks and in secured lending; it was less sure, but with an attractive upside, in the case of equity financing. We have seen that not only the wealthy participated, but also the middle classes.

### *The secular decline in interest rates*

The supply of financing must have grown more than the demand for it, because over the centuries interest rates steadily declined. In the short-term market, interest 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 (later in that century, heavy government borrowing drove rates back up to 7%).<sup>115</sup> 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. Of course, short-term rates and long-term rates are not strictly comparable, because they refer to different instruments with different degrees of risk.<sup>116</sup> Cities sometimes took advantage of the

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<sup>115</sup>(Homer and Sylla 2005)

<sup>116</sup>Unlike today, there was no ‘benchmark’ risk-free rate.

difference between long and short rates borrowing long—by selling annuities—and then relending the proceeds at higher short-term rates.<sup>117</sup>

*The saving in resources and stimulus to the trade in bullion (again)*

The increase in the scale of external financing meant a corresponding increase in the importance of investment in financial assets as a form of saving. To a considerable extent, this came at the expense of investment in hoards of coin and bullion.

Early in the period, with little in the way of financial assets available, a large part of saving had gone into hoards.<sup>118</sup> Even wealthy merchants in financially advanced northern Italy kept a large fraction of their assets in coin or bullion. Indeed, gold and silver, in whatever form, were seen primarily as liquid assets. Currency was liquid, of course, but even plate and jewelry could readily be melted down and minted into coin, or, less destructively, pawned. The amount of bullion held as a reserve asset was probably much greater than the amount of bullion circulating as coin.

Just as IOUs became a substitute for coin and bullion as means of payment and remittance, so did IOUs—financial assets—became a substitute for coin and bullion as reserve assets. Since the IOUs represented, at least sometimes, investment in productive capital rather than in unproductive bullion, this shift raised overall productivity.<sup>119</sup>

Moreover the shift to IOUs as reserve assets, just like the shift to IOUs as means of payment and remittance, reduced the overall demand for bullion in Europe. As we saw in Chapter 8, this lowered the relative price of bullion there and encouraged its export, stimulating the expansion of inter-zone trade.

### **The impact on commerce**

Falling interest rates and the greater availability of external financing were part of the self-perpetuating transformation of commerce that increased its productivity, lowered

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<sup>117</sup>(Ehrenberg 1928) p 45

<sup>118</sup>(Cipolla 1994) pp33-37

<sup>119</sup>This was not strictly the case when the financial assets represented lending to governments. However, we will see in the following chapters that this form of government finance was much less destructive than the alternatives. So, in this way, even government debt represented an increase in productivity.

trading costs, and thereby contributed to expansion of the market. The effect was partly direct, since financing costs were a significant element of total trading costs. But it was also partly indirect, through several channels.

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 centralization stabilized prices, and the consequent reduction in market risk led to expansion in the market for commodities.

As this example illustrates, superior access to financing was a source of competitive advantage in commerce. This was true not only for organized markets but also for commercial enterprises. For example, in the late thirteenth century, it was superior access to financing that 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 English king in exchange for loans.

Another way in which the development of financing contributed to increased productivity in commerce was by making 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 smaller commercial enterprises to enter commerce and to expand their operations.

The greater availability of external financing also reduced liquidity risk. A system of commerce based entirely on sales credit was inherently unstable. Any interruption in trade prevented some merchants from paying on time; their delay made it difficult for others to pay on time, and so on, in a sort of domino process. However, once merchants could borrow in the money market, they were able to meet their obligations even when others were late in meeting theirs. The money market also made it possible for merchants to build up internal sources of liquidity by investing in liquid bills of exchange. When necessary, they could readily turn these into cash or assign them directly in payment.<sup>120</sup>

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<sup>120</sup>(Postan 1973)

A quite different way in which financial development contributed to the development of commerce was through its leadership in technological progress. Just as commerce pioneered social technology for government and production, so did finance pioneer social technology for commerce in general. In particular, among commercial enterprises, merchant banks were unusually large and their business exceptionally complex. They led the way, therefore, in developing new forms of enterprise and new techniques of management.

It was merchant banks, for example, that first extended the company partnership beyond the family firm. And when it became necessary to accommodate purely financial investors, it was merchant banks that pioneered the 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.<sup>121</sup> And it was merchant banks that created the market for bills of exchange that became the model for the bourse market.

### **The impact on production**

The development of financing had an enormous effect on production. It affected production indirectly through its impact on commerce, trading costs, and the expansion of the market. The resulting market expansion induced a productivity-enhancing reorganization of production and stimulated technological progress. In addition, the greater availability of external financing and lower interest rates contributed to reorganization and technological progress directly.

Reorganization generally increased the need for working capital, and both reorganization and technological progress increased the need for fixed capital. Much of the necessary working capital was financed by merchants, and much of the fixed capital, by landowners. Financial development improved 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 to raise external financing and then pass it on to producers.

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<sup>121</sup>(de Roover 1944)

In addition, some producers were able to obtain external financing themselves directly. Agricultural producers who owned land could tap the market for annuities. And some industrial producers were able to tap the market for equity financing and leasing.

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 involved considerable risk. None of them would have been possible had entrepreneurs not been able to find investors willing to share the risk and to provide 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.<sup>122</sup> The availability of external financing allowed relatively rapid adjustment to changing conditions.

### **The impact on government**

We will see in the following chapters that the evolution of government was shaped by its need for financing—and in particular by its need for liquidity: “Limitless money is the sinews of war”.<sup>123</sup>

However, no mechanism of external financing developed specifically to serve governments. As we have seen, both the mediated 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 came into existence to serve others. Once mechanisms of external financing came into being, governments were quick to exploit them.

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<sup>122</sup>(de Vries and van der Woude 1997) Ch. 6

<sup>123</sup>Cicero: *nervi belli, pecunia infinita*.



The associational governments of cities were able to tap financial markets directly — specifically the market for annuities and the market for equity financing. Indeed, their participation helped shape the development of these markets.

In contrast, the predatory governments of territorial rulers had very limited direct access. 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 and parliaments.

Rulers therefore, like producers, depended for external financing on the intermediation of others. We will see in the following chapters that this dependence played an important role in shaping the evolution of government in preindustrial Europe.

#### **APPENDIX: THE PROHIBITION OF USURY<sup>124</sup>**

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. To demand monetary compensation as well was to exploit a brother in his time of need—the sin of usury.

The practical question, of course, was whether or not a particular type of transaction actually constituted usury. In each instance, this was a matter of intense theological debate and vigorous lobbying by the interested parties.

The first question about a particular type of transaction was whether or not it constituted a loan: if it did 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 indeed constituted a loan, the second question was whether the monetary compensation constituted usury or, alternatively, ‘interest’. In this context ‘interest’ meant compensation for actual or possible loss: unlike usury, interest was permissible. 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

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<sup>124</sup>The following is largely based on (Homer and Sylla 2005), (de Roover 1963) Ch. II, and (Tawney 1925).

permissible because the rate of return depended on an uncertain exchange rate. Equity financing was permissible, because the return depended on uncertain profits.

Enforcement of the prohibition of usury varied widely, and overt lending 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.

The re-interpretation of usury to mean ‘excessive’ interest gradually gained ground in the fifteenth century, even within the Church. During the Reformation, traditional usury restrictions were widely replaced by laws setting a ceiling on the permitted rate. Henry VIII of England, for example, legalized the charging of interest in 1545, setting a maximum rate of 10%.

As we have seen, the prohibition of usury did not prove to be a major obstacle to the development and expansion of financing. Indeed, the attention given the issue is itself evidence of the prevalence of lending.<sup>125</sup> However, as we saw in the case of the transition from the land pawn to the *rente*, the prohibition did play a significant role in molding the *form* of financing.

A change in form could add to the cost. For example, the use of dry exchange to circumvent the prohibition on usury (see Chapter 8) introduced an extraneous risk into what was, in fact, a local loan. The risk made lending by this means less attractive. As a result, the volume of lending was lower and the rate higher than they would otherwise have been.

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<sup>125</sup>(Tawney 1925).

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