

BUSINESS MANAGEMENT IN PRE-INDUSTRIAL EUROPE*

Meir Kohn

Department of Economics
Dartmouth College
Hanover, NH 03755
email: mkohn@dartmouth.edu

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ABSTRACT: This paper examines the management issues faced by a businessman in pre-industrial Europe and how he addressed those issues. Management focused on four main areas—managing agents (personnel); financial management; risk management; and information management (communications and accounting).

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Business in pre-industrial Europe was primarily commercial. The typical businessman was a merchant—a trader who bought goods in the hope of reselling them at a profit. Consequently, to understand the concerns of business management, we need to understand what was involved in undertaking a commercial enterprise.

Success in commerce depended above all on finding potentially profitable trading opportunities. Profitability depended, of course, on price differentials—being able to buy low and sell high. But it also depended on the cost and the risk of executing the trade. Costs could easily devour margins and the many hazards of commercial enterprise could turn a profit into a loss.

Much of the cost and the risk derived from two basic requirements of trading. First, since most trading involved buying in one place and selling in another, a merchant had either to travel with his goods himself, or he had to rely on an agent to represent him. Second, trading meant taking a position: a merchant had to own the goods he traded between the time he bought them and the time he sold them. To be able to do this, he had to command sufficient resources—either his own (his capital) or the resources of others (financing). Finance was therefore a central and inseparable part of doing business—in the form both of extending and receiving sales credit and of borrowing and lending money.

These two basic requirements of trading entailed both cost and risk largely because they involved reliance on others. A merchant relied on his agent to act for him. A provider of financing relied on the recipient to fulfill his obligation to pay. In both cases, reliance meant vulnerability. A lack of attention to the dangers of agency and of financing could, and often did, spell disaster.

There were, of course, other risks too: travel and transportation were hazardous, and markets were volatile. So the careful management of risk was a general concern.

Information was crucial to everything a merchant did. To manage his agents he had to communicate with them and to monitor what they were doing. To manage his finances he had to know to whom it was safe to extend credit or to lend money, and he had to keep track of his debts to others and of theirs to him. To manage risk he had to know what the risks were. And trading itself, perhaps more than anything else, depended on information—information on goods, on markets, and on costs.

In managing a commercial enterprise, therefore, a merchant focused on four things—managing his agents, managing his finances, managing risk, and managing information. There were, of course, other important matters. Some, however, such as the actual buying and selling of goods and the arranging of transportation, could be delegated to subordinates.¹ Yet others—such as the securing of trading rights and privileges—were mostly in the domain of the merchant association rather than in that of the individual merchant and were therefore out of the merchant’s immediate control.²

The relative importance of these four principal areas of management differed from merchant to merchant, because merchants differed greatly in the nature of their business. First, different merchants operated at different levels of the hierarchy of trade.³ At the lowest level—local and regional trade—tradesmen and small merchants sold at retail in the towns and arbitrated between neighboring markets.⁴ They also bought up local goods for resale to wholesale merchants who traded between regions, and they purchased foreign goods from these wholesale merchants for local distribution.⁵ At the next level up, there were the more substantial merchants who traded between regional markets within each of the two great zones of European trade—the southern zone centered on the Mediterranean and the northern zone centered on the Atlantic coast of northwest Europe. At the highest level of the hierarchy, there were the great merchants who traded between the two zones of Europe and between them and the rest of the world.⁶

Merchants differed too in the focus of their activities. For all merchants, their basic occupation was trading. Consequently all were involved to some degree in gathering information, in financing, and in arranging transportation. However, those merchants with a particular advantage in one of these subsidiary activities often offered their

¹Price (1989). On transportation, see Kohn (2001d).

²On merchant associations, see Kohn (2003c).

³Hunt and Murray (1999) Ch 3

⁴Luzzatto (1953); Marshall (1999) Ch 2

⁵Reynolds (1952)

⁶Not even the greatest merchant, however, was above selling at retail: “No merchant existed who did not have, directly or indirectly, an interest in some kind of retail trade.” Luzzatto (1953) p 41. See also Lane (1944) and James (1971).

services to others, and some came to specialize in providing the service. Some became shipping agents, others became merchant bankers, and yet others became brokers. Merchants were also obliged to defend themselves against predation, and not a few made the transition from trading to soldiering—or to piracy—and back again. And although merchants generally preferred not to become involved in production, some found it necessary or opportune to do so. Many a merchant who purchased land primarily as an investment was drawn into agriculture. Some became involved in mining, often through the provision of financing. And some became involved in manufacturing—like the Italian merchants who purchased cloth in northern Europe and had it finished for the Mediterranean market.⁷

THE MERCHANT BUSINESS

Before we consider in detail the four major areas of management it is useful to have an idea of what a merchant firm was like and of the web of relationships that sustained it. As we shall see, these relationships played a vital role in all four areas of management.

The merchant house

The typical merchant firm was a ‘merchant house’—a family firm, usually small, centered on an a single household. At the core of the household there was typically a nuclear or extended family. There was no real separation between the affairs of the household as a social unit and unit of consumption and its affairs as a business unit. Accounts recorded, alongside business transactions, household consumption expenditure, dowries, and transactions in real estate. This mixing of personal and business affairs was ubiquitous—as true for the greatest international merchant, and indeed for the king himself, as it was for the smallest shopkeeper.⁸

Just as the affairs of household and business were intermingled, so were the premises in which both took place. For smaller firms, household and business shared the same building—typically with living quarters upstairs and business quarters downstairs. For

⁷See Kohn (2001b), Kohn (2001c), and Kohn (2001d) on merchant involvement in agriculture, industry, and transportation respectively. On merchant banking see Kohn (1999d) and on brokers see Kohn (2003d).

⁸See, for example, Sapori (1953) and Hunt and Murray (1999) Ch 2.

larger enterprises, business and living quarters adjoined in the same complex of buildings.

Transaction with customers generally took place in the front of the shop or *fondaco*, in full view of passers by (such ‘transparency’ was sometimes required by law). In the rear of the shop, the proprietor would entertain fellow merchants to discuss matters of common interest—the state of trade, politics, and governance of the merchant association. The clerk’s desk, where accounts were kept and correspondence written, would also be in the back. Close at hand would be the account books, an abacus, and merchant manuals for reference. In the basement or in outbuildings, there would be space to store merchandise.⁹

Much of the work was done by the proprietor himself—or the proprietors if it was a partnership. Staff was usually modest—typically, no more than half a dozen. It might include factors (salaried traders), notaries, clerk-accountants, messengers, servants to pack the goods and care for the animals, and guards. Employment was ‘at will’, and merchants hired and laid off employees as needed. The staff, some of them relatives or apprentices, generally lived on the premises and were part of the household. Slaves were not uncommon, especially in Mediterranean Europe.¹⁰

For the household, commerce was only one way of making a living. It would move from one activity to another as seemed opportune:

To understand that a man of any importance thought above all else of his family affairs—before politics, fighting, or business—is a help to understanding how business itself operated.... the economic historian cannot appreciate how ‘houses’ were formed or held together, or spread activities in one direction or another, or anything really vital about the whole economic system if he persists in regarding any of them as primarily *business* concerns. To the ‘house’, its business was one among the many activities by which the family *estatus* could be supported and advanced.

⁹Reynolds (1952), Saponi (1953)

¹⁰See, for example, Reynolds (1952), Everitt (1967), Origo (1986), de Roover (1948)

Business served, it was not served by, the house. When business ceased to serve the family *estatus* well enough, the family shifted out of business.¹¹

The life of the typical merchant house—a household engaged in commerce—was therefore short. A successful merchant, towards the end of his career, usually took his capital out of commerce and reinvested it in land to provide a secure income for his dependents and heirs.¹² It was therefore relatively unusual for a merchant house to carry over from one generation to another.¹³

If a merchant only rarely passed on his business intact to his sons, he could not really sell it as an ongoing enterprise either.¹⁴ To a large extent, the business *was* the merchant. Its main assets, apart from its relatively liquid working capital, were the skills and knowledge of the merchant himself and his connections and credit. Such intangible assets could not be sold or transferred to another.

¹¹Reynolds (1945) p15

¹²“Medieval merchants of all centuries were prone to retire from active trade as soon as they had made their fortunes. Having retired, the more substantial business men in England often abandoned their towns and their urban associations altogether and established themselves in the country as gentlemen. On the continent, they would more frequently choose to stay in town as *rentiers*.” Postan (1987). See also Kohn (1999a).

¹³There were, of course, exceptions. For example, the merchants of Asti who traveled between Genoa and the fairs of Champagne: “Astensi who went into the trade spent long active lives in it and the business was passed on in the same families for generations, long after the twelfth century.” Reynolds (1929). Also, in contrast to the great, long-distance merchants: “the petty merchants or shopkeepers formed a layer of society in which son followed father through many generations.” Lane (1944). The relatively lower risk of petty commerce may be the reason for the difference. The merchant houses of seventeenth century Amsterdam also tended to carry over from generation to generation (Barbour (1950) Ch VII), and one of the most notable aspects of Dutch commerce was its relative success in reducing risk (see Musgrave (1981)),

¹⁴“There were no family businesses in the sense that successive generations controlled and managed the same business. Businesses were never sold as a unitary asset. Few were ever transferred intact.... Only a minority of sons followed their fathers into the same business and few took over lock, stock, and barrel....” p410-11 Grassby (2001).

Connections

Connections were indispensable.¹⁵ Connections helped the aspiring merchant enter business. He typically started out in the family firm or in the firm of someone with whom his family had a connection. Access to profitable markets was often controlled by merchant associations: a merchant's entrée depended on his connections.¹⁶ Connections were especially important in relationships involving trust—relationships of agency and relationships of financing. How did a merchant find reliable agents in distant markets? Through connections. How did a merchant obtain credit and financing? Through connections. To whom could he most safely extend credit? To those with whom he had connections.¹⁷

The career of Andrea Barbarigo, a Venetian merchant of the fifteenth century, illustrates the importance of connections. Barbarigo started his career as a merchant in 1418 with only 200 ducats to his name. However, he came from a noble family, well connected with the political and commercial elite of the Republic. He began in Crete as an agent for his relatives, who sent him goods to sell and orders to fill for them. When he moved up to trading on his own account, Barbarigo obtained financing from Francesco Balbi, a prominent banker with whom his family were close. When Andrea himself needed to find agents in London and Bruges, he chose the Cappello brothers, close friends of his family. As he became established, Barbarigo depended less on his connections, and others came to rely on their connections with him. For example, he took on as agents the young da Mosto brothers who were distant relatives. Andrea Barbarigo died in 1449, leaving a fortune of some 15,000 ducats.¹⁸

¹⁵“In fact, business was based on connection... Those with connections had a decisive advantage... Access to markets, principals, agents, and suppliers depended on referral, patronage, and clientage.” Grassby (2001) p302.

¹⁶For example, in England, for a young man to gain membership of a trading company or city company he had to be nominated—usually by a member of his family or by someone with whom the family had connections. Mathias (2000)

¹⁷In the individualistic world of the modern West, the use of connections is considered improper, even corrupt. However, in the pre-industrial economy, connections served an important and legitimate economic function. Orrù, Biggart et al. (1997) argues that the same is true in Asia today.

¹⁸Lane (1944)

As this example shows, the principal sources of connections were family and friends. Family was particularly important.¹⁹ Relatives in distant markets were a source of information and could serve as reliable agents. Merchants turned first to their families when seeking financing. When setting up ventures or companies, they preferred kin as partners. Family cliques dominated merchant associations and city governments and were a source of patronage.

One reason for this preference for family was the family's effectiveness as an enforcer of obligations among its members. Of course, its effectiveness as an enforcer was reinforced by the value of family connections and the threat of losing them.²⁰

Friends were important too. According to the *Zibaldone da Canal*, a fourteenth century compilation of wisdom for merchants: "A man without friends is worth nothing."²¹ Like family, friends could be sources of information, potential agents or partners, or sources of financing.

Merchant associations in their various forms were where merchants mainly found their friends. Like the family, the merchant association was an enforcer of obligations among its members. However, friendship meant more than this: it implied a mutual trust and reciprocity that had been built up through a history of prior dealings.²² Friendship was transitive: the friend of a friend was someone who might perhaps be trusted.²³ Of

¹⁹"Much the most important rule for the would-be successful, risk-averse man of business was to choose his parents, even his grand-parents, wisely; and to make sure that his father has chosen his bride wisely." (p7) "In general, access to a prosperous business or professional career depended greatly upon one's family wealth and connections..." (p10) Mathias (2000)

²⁰"Complex business transactions between principals and agents could be initiated and sustained by ties of kinship, which also served to cement contractual obligations. Kin were preferred to strangers because they were considered more trustworthy." Grassby (2001) p309. See Kohn (2003a) for more on the family as enforcer.

²¹Dahl (1998) p 274

²²See Fehr and Gächter (2000) on the importance of reciprocity in human relationships.

²³Mathias (2000)

course, friends were often became family through the simple device of marriage.²⁴ Andrea Barbarigo, for example, married a sister of the Cappellos.²⁵

Credit

A merchant could not, of course, limit his dealings to those with whom he had connections: he often had to enter into relationships of agency or financing with those beyond this small circle. His willingness to trust such people depended on their reputation or credit, just as their willingness to trust him depended on his. Credit was a public assessment of a person's trustworthiness. The quality of a merchant's credit largely determined his ability to do business.²⁶

As markets expanded and developed, the importance of a merchant's credit only grew. Traders increasingly had to deal with those they did not know personally, and they therefore had little choice but to rely on what they had heard about them—on their credit.²⁷ However, the importance of credit grew too for another reason. As markets expanded, merchants faced an ever wider choice of people with whom to trade. With

²⁴“What began as a referral or friendship was often cemented by a blood tie.” Grassby (2001) p305. “Families might have the sons and nephews that were given to them, but they had the sons-in-law that they had earned.” Favier (1998) p 107

²⁵Lane (1944)

²⁶“Credit in the sense of belief, confidence, faith, trust, the estimate in which a character is held, reputation, was the elusive but fundamental key to success in early modern commerce.” Zehadieh (1998)p 53

²⁷“But with more and more transactions being made with very large numbers of people over longer distances, personal knowledge of a person's past reliability became much less likely. In this way the trust involved in the extension of credit and the making of contracts of all sorts was both acquired and maintained through relations with friends, neighbours and others with whom people dealt on a continual basis, but this trust was then communicated beyond such relations as reputation or ‘credit’... Credit in this sense became a sort of knowledge which could be communicated through chains of friends and business associates, and became the basis for deciding who could then be added to structural chains of obligation.” Muldrew (1998) p152

“In a way honour and a good name were medieval substitutes for publicity, sales promotion, and solvency reports. Your reputation was the only basis on which other people, whether customers or suppliers, could judge you beforehand.” Dahl (1998) Ch 8

many alternatives available, there was no reason to deal with someone whose credit was less than impeccable.²⁸

An individual's credit was inextricably bound up with that of his house and his family and to a lesser extent with that of his association. The household, and to some extent the family beyond the household, were held responsible by others for the actions and debts of their members. Merchant associations too were held responsible for their members' actions and debts, especially early on in the period.²⁹ Consequently, households and associations had a strong interest in ensuring that their members fulfilled their obligations. So the credit of an individual depended not only on others' expectations of him but also on their assessment of his family and of his association. Conversely, of course, the credit and reputation of families and associations depended on the actions and behavior of their members.

The scope of behavior that affected a person's credit went well beyond his reliability in paying his debts and honoring his obligations.³⁰ There was a strong association in peoples' minds between credit and general personal morality. A modest lifestyle and religious piety were both regarded as important indicators of trustworthiness. Firms were consequently careful to instruct their employees abroad to behave themselves—not to keep mistresses, drink to excess, or otherwise misbehave in public. Demonstrations of piety, whatever their spiritual value, also served as signals of trustworthiness.³¹ For example, Italian companies routinely credited from 1% to 2% of their profits to the account of *Messer Domenedio* to be distributed to charitable causes.³² Merchant manuals, such as John Browne's *The marchants avizo* of 1589, stressed the need for

²⁸Hardin (1997)

²⁹See Kohn (2003a) on the role of families and associations as enforcers and guarantors.

³⁰“...a reputation for honoring debts did assume enormous importance in early modern society.” Hoffman (1996) p 72

³¹“The result of this was the development of a sort of competitive piety in which householders sought to construct and preserve their reputation for religious virtue, belief and honesty in order to bolster the credit of their households so that they could be trusted.” Muldrew (1998) p148-9.

³²Sapori (1970); Hunt (1994) Ch. 3

prayer and personal morality, emphasizing the significant material benefits.³³ Almost every aspect of one's personal life and business behavior had its reputational costs and benefits. For example, voluntary public office boosted one's credit as it demonstrated the trust of one's community.³⁴ On the other hand, being overly sharp in one's business practices damaged one's reputation. And willingness to incur a loss for the sake of fair dealing paid off handsomely in reputational benefits.³⁵

A merchant's credit did not, however, depend only on perceptions of his honesty and integrity. It depended too on perceptions of his *ability* to fulfill his commitments. In this respect, wealth was a considerable help.³⁶ A wealthy house was better able to meet its obligations and also had more to lose if it failed to do so and its credit was impaired. The impact on credit of others' perception of one's wealth naturally encouraged behavior that signaled wealth. Conspicuous consumption, therefore, had an economic as well as a social function. Investment in palaces, estates, and works of art, as well as generous donations to religious institutions, not only raised one's social standing, they also improved one's credit.³⁷ The way a merchant conducted his business affected others' perceptions of his competence and reliability: diligence, hard work, prudence, and moderation were all highly valued.³⁸ An excessive reliance on borrowed funds naturally raised eyebrows: it suggested a lack of moderation or a lack of wealth or both. And, of course, the ultimate test of competence was survival: "The sobriquet of the 'old firm' or the 'old bank' sent its own signal."³⁹

Merchants took an intense interest in the credit of others. It was an important subject of correspondence, and in their face-to-face conversations, too, the credit of others was

³³Willan (1959) p 18-19

³⁴Mathias (2000) p 29

³⁵Zehadie (1998)

³⁶Zehadie (1998); Dahl (1998)

³⁷Dahl (1998) p 273

³⁸Dahl (1998) Of course, these qualities were not just signals, they did affect a merchant's chances of success and so his ability to honor his obligations.

³⁹Mathias (2000) p 14

much discussed. As exchanges became increasingly important, a merchant's credit came to depend on 'the opinion of the Bourse'—on the gossip of traders.⁴⁰

Merchants sometimes had to actively provide information on their credit. A 'stranger'—someone about whom nothing was known locally—labored under enormous commercial disadvantages: no one would extend him credit and he could find trading partners only with difficulty.⁴¹ A local presence of his own association was of course a great help in this respect. Among his own, his credit was established, and they could vouch for him to others. Failing this, however, he had to carry letters of credit or of introduction from those who knew him and who themselves had local credit.⁴²

Credit was fragile. Contemporaries often drew the analogy between a merchant's credit and a lady's honor: both, once lost, were gone forever. The identification of credit with personal morality reinforced this finality: a loss of credit was seen by others as evidence of a flawed character—not something easily remedied.⁴³

There was an element of self-fulfilling prophecy in the loss of credit. When a merchant was rumored to be in trouble, others would be reluctant to extend him credit. They would also be less diligent in paying their debts to him, since the value of the continued relationship was now discounted. As a result, the unfortunate object of the rumor would find it hard to meet his own commitments and might be forced to default, so confirming the truth of the rumor.⁴⁴

The fragility of credit and its vulnerability to rumor made it tempting and relatively easy to damage the reputation and so the business of a competitor.⁴⁵ Malicious gossip and defamatory rumors were consequently taken very seriously. Legal action was possible,

⁴⁰"The *Lex Mercatoria* noted that each man's credit was determined by talk at the merchant's London meeting place—the Royal Exchange." Zehadie (1998) p 64

⁴¹Mathias (2000) p 15

⁴²Hanham (1985) Ch 8

⁴³Mathias (2000) p 29

⁴⁴Greif (1989); Hardin (1997)

⁴⁵Everitt (1967) p 567

but slow and not very effective.⁴⁶ A better defense was a general belief that one was ready and able to defend one's reputation with a sword.

Social capital

We can think of the sum of a merchant's connections and his credit as constituting his 'social capital'.⁴⁷ Like ordinary capital it was durable, but required maintenance; like ordinary capital, when combined with other resources, it generated income. As the example of Andrea Barbarigo illustrates, social capital could be a substitute for ordinary capital in achieving a command over goods and in underpinning relationships of agency. It could also play the same role as ordinary capital in providing protection against risk: rather than covering losses out of his financial capital, a merchant could mobilize assistance from others on the basis of his social capital.⁴⁸

Merchants consciously and assiduously invested in their social capital. The social niceties—an exchange of gifts, an expression of friendship, inquiries after the health of someone's family—had an economic importance in firming up relationships of friendship and trust.⁴⁹ Indeed there was little distinction between the social and the economic. Courtship and marriage, patronage and parenthood, socializing and entertaining—all of these built social capital. They strengthened connections, enhanced credit, and provided information on the credit of others.⁵⁰

⁴⁶Zehadieh (1998)

⁴⁷Adler and Kwon (1999) provides one definition of social capital: "Social capital is the sum of resources accruing to an individual or group by virtue of their location in the network of their more or less durable social relations."

⁴⁸"In a very real sense a merchant's reputation was his capital." Zehadieh (1998) p 63

"In fact, a good name was, according to most [contemporary] sources, of greater value to a person than a large fortune." Dahl (1998) p272

"Credit is stock... He that keeps his credit unshaken, has a double stock; I mean, it is an addition to real stock, and often superior to it." Defoe (1869 [1725-7]) #1432] p552

⁴⁹Greif (1997); Zehadieh (1998)

⁵⁰"...making a distinction between economically rational transactions and other social transactions, such as courtship, sex, patronage or parenthood, does not make sense.... Reputation was vital to contemporaries because it was with credit that they did most of their 'business'." Muldrew (1998) p 149

And merchants had plenty of time for social interaction: the pace of trading was slow, with relatively few transactions per day.⁵¹ Each transaction opened with greetings and the exchange and discussion of news. It then continued with extensive bargaining over price and means and date of payment: there were no set prices and bargaining and haggling were ubiquitous.⁵² And the transaction typically ended and was sealed with refreshments—often liquid.

MANAGING AGENTS

At the beginning of the period, the issue of managing agents did not really arise because merchants generally traveled themselves with their goods. However, over time merchants increasingly found it preferable to remain at home and to send agents in their place. Later, as trade settled into more or less fixed patterns and markets developed, merchants increasingly relied on agents who resided more or less permanently in distant markets. As merchants relied more and more on agents, managing their relationship with their agents became a major preoccupation.⁵³

The problems of relying on agents

A merchant relied on his agents to perform all the normal tasks of trading.⁵⁴ Agents bought and sold for their principals. Because of the great heterogeneity of goods, buying required a keen judgment of quality.⁵⁵ In some cases agents had to arrange for particular goods to be manufactured.⁵⁶ Agents were responsible for transportation—for having the goods packed, for finding a ship or land carrier, for paying customs, for purchasing

⁵¹Muldrew (1998) p 93

⁵²Muldrew (1998) p 43 et seq. Even in a tavern, customers would haggle with the host before ordering a meal.

⁵³While this was the general pattern of evolution, neither traveling merchants nor traveling agents had entirely disappeared by the end of the period. See Kohn (2003b) for a detailed discussion of the evolution of different forms of agency.

⁵⁴Kermode (1998); Westerfield (1915); Supple (1977); Edler (1938)

⁵⁵Mazzaoui (1981) Ch 2; Lane (1944) Ch. 3

⁵⁶For example, in the sixteenth century an English factor in Danzig purchased yarn and had it made into cables and hawsers for shipment back to England. Willan (1959) p 17

insurance.⁵⁷ Agents were responsible for financial transactions: these included borrowing to finance the purchase of goods, the extension of credit to purchasers and the collection of their debts, and remittance of funds back to their principals. Agents provided their principals with information—political news as well as information on prices and market conditions.⁵⁸ Agents cultivated the local authorities to obtain and to retain trading privileges.

A merchant relied on his agent to act for him, but he had little direct control over his actions. Circumstances changed rapidly, requiring immediate decisions, and slow communications made it impossible for the agent to seek approval for every decision. One frustrated agent wrote to his principal in 1395: “If I must wait for your written instructions, good business opportunities may be lost. While the dog pisses, the hare disappears.”⁵⁹ There was little choice, therefore, but to give agents broad discretion.⁶⁰

Even after the fact, it was difficult for the merchant to know what the agent had done and to judge whether it had been appropriate. This lack of control opened the door to two types of problem. The agent might use his freedom to act in his own interest in ways that were detrimental to the interests of his principal.⁶¹ Or he might simply be incompetent, harming the interests of both.

The most blatant abuse of trust by agents was outright embezzlement or fraud. For example, in the fourteenth century, the Alberti of Florence had to have one dishonest branch manager thrown into jail, and they had to dismiss two factors in their Avignon branch when the latter were unable to repay money they had misappropriated and lost in gambling.⁶² An agent, rather than stealing from his principal himself, might help others to do so. For example, in exchange for gifts or favors, he might extend credit in the name of

⁵⁷Zehadieh (1998); Krueger (1993), Traveling agents accompanied the goods and were responsible for their safety en route.

⁵⁸Christiensen (1941); Willan (1959)

⁵⁹Dahl (1998) p15

⁶⁰Origo (1986)

⁶¹Greif (1989)

⁶²de Roover (1958)

his principal to friends or to a local grandee with little expectation that the debt would be repaid.⁶³

A perennial source of problems was the agent's trading on his own account—which might or might not be permitted him.⁶⁴ In such trading, the agent might favor himself over his principal. For example, he might take for himself the more promising trading opportunities and leave for his principal the less promising. He might also neglect his principal's business while attending to his own. If the agent became insolvent as a result of his own trading, his insolvency might lead to the seizure of his principal's goods along with his own (especially likely if the agent was using his principal's funds to trade for himself). Conflicts of interest might also arise when, as often happened, an agent was acting for more than one principal. He might favor the business of one over the other; or he might charge costs to one that properly were the responsibility of the other.⁶⁵

Cheating aside, merchants frequently suffered from the mistakes or incompetence of their agents. An agent might buy or sell at a needlessly unfavorable price. He might purchase goods of inferior quality. He might pack them badly, leading to their damage or destruction en route, or send them with an unreliable carrier resulting in their loss (for which he had neglected to take out insurance). And, of course, the agent might die. If he did, the merchant's goods might be lost or seized by the local authorities under the right of *aubain*.⁶⁶ During the Black Death, to minimize their vulnerability to the death of their agents, merchants sent groups of agents in the hope that at least one would survive.⁶⁷

Whatever the precise nature of the problems, losses caused by distant agents were a major cause of failure of merchant firms. Writing in the fifteenth century, Leon Battista

⁶³Hunt (1994) Ch 3

⁶⁴Willan (1959) Ch 1; Supple (1977) p 409; "Bolton's constant fear that his agents would trade to their own advantage with his goods and money percolates throughout the record." Kermode (1998) p 210

⁶⁵Lane (1944) Ch. 3

⁶⁶Favier (1998) This was a law that allowed the local lord to confiscate the goods of a foreigner who died in his domain. It was originally intended to apply to runaway peasants, but was later applied with great profit to foreign merchants and their agents.

⁶⁷Williamson (2001)

Alberti, attributed five out of six bankruptcies to this cause.⁶⁸ The potential harm that agents could do was a constant source of concern: “Mutual distrust would better describe this business arrangement”.⁶⁹

Structuring the agency relationship

Naturally, merchants tried to structure their relationships with their agents in such a way as to elicit good and faithful service.

An agent could be depended upon most reliably to serve his principal if it was in his own best interest to do so—if he was rewarded for success and punished for cheating or for failure. Of course, the potential gains from cheating mattered too: it helped to keep these low. Fewer problems were to be expected from agents handling a multitude of small transactions than from those handling a few large ones.

Perhaps the most obvious way for merchants to motivate their agents was through their compensation. This generally took one of three basic forms. Some agents were employees of the merchants they served and received a salary. Others were partners and received a share of the profits. Yet others were commission agents and received fees proportional to the value of the transactions they undertook. These three compensation schemes had different pluses and minuses. A share of the profits provided the agent with the strongest incentive and a salary with the weakest; a commission was somewhere in between. On the other hand, a share of the profits was the most uncertain form of compensation from the point of view of the agent; salary was the safest; and commission again intermediate.

No less important than the form of an agent’s compensation was its level. Setting it too low was to invite trouble. Compensation too low to attract an honest and diligent agent might be quite sufficient to attract a dishonest or lazy one: an agent intending to supplement his income with prohibited private trading or with fraud or embezzlement might find the position quite attractive.⁷⁰ On the other hand, a level of compensation above the necessary minimum created good will and motivated agents to reciprocate by

⁶⁸de Roover (1958) p74-5

⁶⁹Kermode (1998) p 210

⁷⁰Willan (1959) Ch 1

doing their best.⁷¹ An addition, and perhaps more important, above-minimum compensation gave the agent something to lose in the event of termination.

More generally, the promise of significant future benefits and the possibility of their loss were potent incentives for good behavior.

With salaried agents, merchants ‘backloaded’ their compensation. Salaries rose with seniority, and some merchants accumulated agents’ salaries in an account, sometimes for years, before they were paid out. Good service might also lead to promotion—from unpaid apprentice to factor, from factor to branch manager; sometimes even from branch manager to partner.⁷² For agents whose compensation was a share of the profits, the main incentive was a continuation of the relationship. Merchants generally kept contracts short so that misbehavior could be punished immediately by nonrenewal.⁷³ For example, in twelfth century Genoa, most profit-sharing contracts for traveling agents were for a single voyage of a few weeks or at most months. But the contracts were typically renewed over and over again, sometimes for as long as ten years.⁷⁴ For commission agents, too, the main incentive was future business. If the agent did his work well, he could expect more business from the merchant in the future—perhaps an exclusive agency. Moreover, a satisfied principal would refer other merchants to the agent. Merchants in different places often served each other as commission agents, and the reciprocal nature of the arrangement reinforced the incentives of each.⁷⁵

Structuring the relationship to provide good incentives was worth little unless the merchant actually monitored the agent’s behavior. “In truth, one may assert that nothing improves a factor more than a stern employer and that nothing corrupts an agent more than lack of proper direction.” So wrote Leon Battista Alberti in the fifteenth century.⁷⁶ The neglect of this principle had much to do with the failure of Alberti’s contemporaries,

⁷¹See Fehr and Gächter (2000) on reciprocity and ‘gift exchange’.

⁷²See Greif (1996), Hunt (1994) Ch. 3, Origo (1986), and Luzzatto (1953) on the incentives for *fattori* (employed agents).

⁷³Greif (1989) discusses the incentive effects of short, renewable contracts.

⁷⁴Krueger (1993) Krueger (1962)

⁷⁵Lane (1944); Greif (1989)

⁷⁶de Roover (1958) p74-5

the Medici, and its observance had much to do with the success of the Fuggers a little later. The Fuggers made it a practice to regularly send traveling auditors and inspectors to all their branches to check the books and to take inventory.⁷⁷ Of course, monitoring requires sound bookkeeping: a common complaint against agents was that they failed to provide timely accounts. As we shall see, the need to monitor agents was an important stimulus to the development of new methods of accounting.⁷⁸

The role of commercial structure

In addressing the problems of agency, merchants were not without assistance. Their efforts were supported by a substantial and complex commercial structure. Families, merchant associations, organized markets, the Church, and the state—all contributed to reinforcing the agency relationship. They did so principally by raising the cost to the agent of misbehavior. Added to the loss of the relationship with the principal, the agent faced exclusion from the family, the association, the market, or the Church. This meant a much greater loss of future business as well as the loss of the other benefits that these institutions provided. The state raised the cost through direct punishment. Merchant associations and markets also helped merchants monitor their agents.⁷⁹

Each of these various third parties imposed its discipline through a system of internal order—informal for the family, more formal for the others. Merchants did sometimes take agents to court. The most frequent cause of action was the failure of the agent to return to his principal the proceeds of the sale of goods sent to him.⁸⁰

⁷⁷de Roover (1963) p 85

⁷⁸Yamey and Lane have debated the importance of double-entry bookkeeping in the monitoring of agents (see Yamey (1975) and Lane (1977)). However, there is little doubt that the extensive use of agents, especially resident agents, placed considerable new demands on methods of accounting.

⁷⁹See Kohn (2003a) for a general discussion of the role of commercial structure in guaranteeing and enforcing relationships of reliance. The specific contributions of merchant associations and organized markets are addressed in Kohn (2003c) and Kohn (2003d). The role of the Church and the state will be addressed in a future paper.

⁸⁰In England, such suits were called ‘actions of account’ Rogers (1995). See also, on similar actions in Venice, Lane (1944) Ch. 3.

Formal systems of order also supported the formalization of the agency relationship through the use of contracts of various types. Different types of contract supported the different types of agency relationship—employment, partnership, and commission.

These different types of contract differed in the degree of liability of the principal for the agent's actions. In the case of employment and partnership, merchants were fully liable for the actions of their agents. This essentially unlimited liability, together with the absence of effective control, was a major concern and a frequent cause of failure. The greatest attraction of the commission relationship was the protection it afforded from this danger, and this was one of the main reasons it became the predominant form of agency.⁸¹

Merchants used contracts—either general contracts of employment or partnership or separate proxy contracts (powers of attorney) to limit the permitted actions of their agents. Typical restrictions might forbid the agent from trading on his own account, from extending credit to his friends or to nonmerchants, or from engaging in transactions beyond a certain value without specific authorization.⁸² These restrictions did not affect the merchant's liability for the agent's actions: courts did not recognize any distinction between authorized and unauthorized transactions. However, an agent who exceeded his instructions did so on his own responsibility and would be held liable for any losses by his principal.⁸³

FINANCIAL MANAGEMENT

If agency was one basic requirement of trading, taking a position was the other. A merchant's capacity to take a position—his command over goods—was an important determinant of his success, and a command over goods required resources. A merchant's own resources were rarely sufficient, and most had to rely on some form of financing by others. Merchants bought on credit and sold on credit and they borrowed and lent money.

The sound management of his finances was therefore critical to a merchant's success and even to his survival. If the problems of agency were one major source of failure,

⁸¹See Kohn (2003b) on the different types of contract and their use.

⁸²Dahl (1998) p 98; de Roover (1948)

⁸³Dahl (1998); Willan (1959) Ch 1

financial problems were the other. The default of a debtor could leave a merchant unable to meet his own debts, with disastrous consequences for his credit and so for his ability to continue in business.

Finance was not, however, only a source of danger: financial strength offered considerable advantages. The ability to extend credit to others increased the demand for a merchant's goods, and the ability to pay promptly helped him to secure supply. Merchants with especially good access to financing were able to obtain commercial privileges by offering loans to governments. It was in this way, for example, that the Italian 'supercompanies' of the fourteenth century obtained control over the export of grain from Sicily and the export of wool from England.⁸⁴

Sales credit

The most widespread form of financing was sales credit: merchants commonly purchased goods against a promise of later payment, and they commonly sold them in the same manner. Almost all sales involved some degree of deferred payment.⁸⁵ As Nicholas Barbon wrote in 1690 in his *Discourse of Trade* "... in all trading cities there's more wares sold upon credit than for present money."⁸⁶ Sales credit was important for the great merchants engaged in long-distance trade, and it was equally important for small merchants and retailers. For example, in sixteenth century Antwerp, commission agents normally quoted local prices to their clients in Italy *a tempo due fieri*—payable in two fair's time (six months).⁸⁷ And retailers and tradesmen in fourteenth century Prato had much of their assets tied up in sales credit to their customers, while at the same time relying heavily on sales credit from their suppliers.⁸⁸

Merchants extended sales credit not only to each other and to customers, but also to suppliers. For manufacturers especially, the purchase of inputs on sales credit was an

⁸⁴Hunt (1994).

⁸⁵Postan (1973); Grassby (1995)

⁸⁶Quoted in Zehadieh (1998)

⁸⁷Van der Wee (1977)

⁸⁸Marshall (1999) p 81 "People bought on credit and they sold on credit.... Sales on credit were not an occasional practice in fourteenth century Prato; they predominated." p 72

important method of financing working capital.⁸⁹ But merchants sometimes also received sales credit from suppliers. For example, the Celys, English wool merchants in the fifteenth century, typically purchased wool from growers on six months' credit.⁹⁰

Sometimes, sales credit involved deferred delivery rather than deferred payment: that is, a merchant might pay for goods in advance, partially or wholly. For example, in the late thirteenth century, Italian merchants paid in advance for the wool they purchased from English monasteries—often buying up their output one to three years ahead and sometimes as many as twelve.⁹¹ Advance purchase—another way for merchants to finance producers—was most common in agriculture, but it was not unknown in industry.⁹²

The terms of credit for a particular transaction were a matter of negotiation, and they depended on market conditions. For example, while the Italians were paying for English wool in advance in the late thirteenth century, the market had cooled by the fifteenth century and growers were then selling on six-month's credit.⁹³ Similarly, English merchants at the Fairs of Brabant in the fifteenth century demanded cash payment when demand for their cloth was strong but were willing to sell on credit when business was slack.⁹⁴

⁸⁹Sella (1977) See also Kohn (2001b) on the role of merchants in financing agriculture and Kohn (2001c) on their role in financing industry.

⁹⁰Tawney (1925)

⁹¹In the early 1290s Italians were buying wool from 49 of the 74 Cistercian houses in the country. Kermode (1998) The monasteries financed both investment and extraordinary consumption out of these advance sales (Prestwich (1979)). So attractive was this source of financing that the monasteries often sold forward much more wool than their own flocks could possibly supply and made up the difference by buying wool from others in the local market. (Postan (1973)p 25).

⁹²In addition to wool, grain was sometimes purchased in advance—see, e.g., Everitt (1967) (advance purchase by maltsters and brewers needing to assure steady supply) and de Vries and van der Woude (1997) (purchases by an Antwerp grain merchant). On the advance purchase of ore from miners, see Kohn (2001c) and of cloth from producers, see Van der Wee (1963) p 338.

⁹³Tawney (1925); Kermode (1998)

⁹⁴Edler (1938)

The terms of credit were also a function of the relative financial strengths of the two parties. For example, it was the financial strength of the great Italian companies that enabled them to pay in advance for the English wool that they purchased. A merchant in a strong financial position might extend more sales credit than he received, providing net financing to others. A merchant in a weak financial position might receive more sales credit than he extended, relying on others to finance him.

A merchant in a strong financial position—able to pay others sooner or to allow them to pay him later—possessed an important competitive advantage. He could, for one, obtain better prices in trading:

In order to obtain a favourable price a man like van der Molen, commission agent of Italian firms [in sixteenth century Antwerp], was in a strong position in relation to the poor draper or tapestry weaver, since he could, when giving an order, show gold or silver coins or even talk of an advance. On the other hand when he sold Italian products, payment facilities of six to twelve months certainly stimulated business.⁹⁵

But even more important, financial strength gave a merchant an edge over his competitors. It was because of their strong financial position, for example, that the Italians were able to take the export trade in English wool out of the hands of Flemish and native merchants in the thirteenth century. Their competitors, not surprisingly, considered this advantage totally unfair.⁹⁶

The ubiquity, and interconnectedness, of sales credit are well illustrated by the export trade in English cloth in the sixteenth century: “At every point in this complex industry, from the breeding of sheep to the sale of cloth, credit intervened to bridge the gaps between the successive stages.”⁹⁷ Growers sold their wool to clothiers on credit. The clothiers made the wool up into unfinished cloth, which they sold—once again on credit—to exporters. The exporters (the Merchant Adventurers) took the cloth to Antwerp for sale—yet again on credit. The typical terms in Antwerp were one third down, one

⁹⁵Van der Wee (1963) p 338

⁹⁶Postan (1973); Fryde (1974)

⁹⁷Tawney (1925)

third payable at the next Brabant Fair, and the final third at the fair after that. However, as we have seen, if demand was strong the English merchants might expect a half down or even full payment in cash.⁹⁸ When the Merchant Adventurers received payment, they transferred the money to England and used it to pay their debts to the clothiers. The latter were then able to settle their own debts to the growers.

Borrowing and lending money

While sales credit was the most important form of financing, merchants were also involved in the borrowing and lending of money. There were several reasons for this.

One reason merchants needed to borrow was that sales credit was often not available from strangers: strangers usually demanded payment in cash. Merchants great and small had to address this problem. For example, in the thirteenth century, some caravan merchants visiting Genoa from northern Europe were unable to make all their purchases on credit and therefore needed to borrow money to pay for some in cash.⁹⁹ Similarly, the tradesmen of fourteenth century Prato, while able to purchase from local suppliers on credit, had to pay cash when they purchased from suppliers in other cities.¹⁰⁰

A second reason merchants sometimes needed to borrow cash was the interdependent system of sales credit itself. As we have seen, merchants relied on payment by others to pay their own debts. However, a debtor might fail to pay on time, or he might fail to pay at all. In such cases, a merchant had little choice but to borrow so as to be able to settle his own debts.

The reasons for lending were the obverse of those for borrowing. Sometimes, trading in a distant city and selling their goods for cash, merchants found themselves with more money than they needed to cover their purchases. And merchants sometimes received payment before they needed to make payment to others, leaving them with cash on hand. In these circumstances, it was only natural that they should lend the money they did not currently need. For example, caravan merchants in Genoa who had an excess of cash lent

⁹⁸Ramsey (1994)

⁹⁹Reynolds (1929)

¹⁰⁰Marshall (1999)

to those who were in need of it. And the same tradesmen of Prato who needed to borrow to pay distant suppliers, often lent money to their own customers.¹⁰¹

Lending money was a natural enough extension of a merchant's business. The demands of lending, in terms of assessing credit and bearing risk, were not very different from those of extending sales credit: a debt created by an advance of money was much like one created by an advance of goods. Consequently, most merchants, large and small, did some lending. Some came to specialize in it by becoming merchant bankers.¹⁰² What distinguished merchant bankers from other merchants was that they engaged in financial intermediation deliberately: they borrowed money in their own names with the intention of relending it to others. But many other merchants, even the small tradesmen of Prato, were financial intermediaries *de facto*—borrowing at the same time that they were lending.

As we have seen, merchants borrowed from other merchants, but they also borrowed from financial intermediaries and from nonmerchants. Merchants trading in major centers such as Venice, Genoa, or Bruges, and in some other cities, could borrow from deposit banks on overdraft.¹⁰³ And in many more cities they could borrow from merchant bankers against bills of exchange.¹⁰⁴ For example, Andrea Barbarigo, in fifteenth century Venice, borrowed on overdraft from the banker Francesco Balbi, who also helped him raise funds by discounting bills of exchange in the international money market.¹⁰⁵ Similarly, the tradesmen of fourteenth century Prato, borrowed from deposit bankers and merchant bankers to pay suppliers who required cash payment.¹⁰⁶ The Antwerp merchant, Hans

¹⁰¹“The evidence from Prato substantiates the importance and prevalence of small loans in the local economy but suggests that shopkeepers, not pawnbrokers, were the principal moneylenders.” Marshall (1999)p 89

¹⁰²See Kohn (1999d) on merchant banking.

¹⁰³See Kohn (1999b) on deposit banking.

¹⁰⁴Rather than lending money directly, a merchant banker might provide a merchant with a letter of credit promising to pay a supplier from whom the merchant intended to purchase goods. Berman (1983)

¹⁰⁵Lane (1944)

¹⁰⁶Marshall (1999) p105

Thijs, trading in Poland and Amsterdam in the late sixteenth century, relied heavily on bills of exchange and letters obligatory to finance his trading.¹⁰⁷

Borrowing from nonmerchants took a variety of forms. Perhaps the most common was the acceptance of deposits. Since the interest on such deposits was often ‘voluntary’ (to avoid a charge of usury) or linked to some market index, such deposits were called in Italian *depositi a discrezione*.¹⁰⁸ Deposits were a major source of funds for merchant banks, but they were also a source of funds for many ordinary merchants, both large and small. Andrea Barbarigo, a substantial international trader, accepted deposits as did the small tradesmen of Prato.¹⁰⁹ There were also a variety of other ways in which merchants obtained financing from nonmerchants. Other debt instruments included the sea loan, common in the Mediterranean before the fourteenth century, and the bond, in use in England throughout the period.¹¹⁰ There were also various forms of equity financing—*commenda*, share venture, joint stock company, *compagnia*, and limited partnership. We shall have more to say about equity financing below, when we discuss capital.

Structuring financial relationships

We have seen that merchants structured agency relationships to mitigate the problems of agency. In a similar fashion, they structured financing relationships to mitigate the problems of financing. The potential problem here was pretty simple—failure to pay as promised. Of course, addressing this problem was as much in the interest of the recipient of financing as it was in that of the provider. If a potential provider of financing could not be credibly assured of repayment and a fair return, no financing would be forthcoming.

As with agency, termination of the relationship, with the attendant loss of continuing benefits, was a potent incentive for good behavior. Typically, a merchant would run up a debt with another merchant on sales credit, pay it off, and then run it up again. Failure to pay, or to pay on time, would cut off the credit and kill the business relationship.

¹⁰⁷Gelderblom (2003)

¹⁰⁸Goldthwaite (1985) The practice was common in sixteenth century England too: Wilson (1925 [1572]) #1081].

¹⁰⁹Lane (1944) on Barbarigo. Marshall (1999) Ch 7 on Prato. Tradesmen sometimes acted as ‘bankers’ for their customers, not only accepting deposits but also making payments to third parties.

¹¹⁰On the sea loan see Kohn (2003b). We shall discuss the bond presently.

Likewise with borrowing from financial intermediaries. With equity financing, as with agency, contracts were kept short: if the provider of financing was dissatisfied, he would not roll over the contract.

In addition, debt financing—whether sales credit or loans—generally involved some form of security.¹¹¹ The principal way of securing debt was with assets that would become the creditor's if the debtor defaulted. In some cases, the debtor would offer a specific asset as collateral—land or moveables. This might be held by the creditor as a pledge or pawn until the debt was paid or it might remain in the possession of the debtor, to be seized by the creditor in case of default.¹¹² In other cases, it was the assets of the debtor in general that secured the loan. Sometimes a third party would offer a guarantee for the debt, backed by his own assets.

In debt transactions between merchants and nonmerchants, security was generally specific.¹¹³ When there were goods involved, the transactions could be secured with the goods in question. This was one reason for the popularity of forms of venture financing such as the sea loan.¹¹⁴ And it was one reason for the advance purchase of goods by merchants: it was essentially a form of lending that afforded greater security. There were many other ways of securing credit with goods.¹¹⁵ For example, when Andrea Barbarigo borrowed from the banker Balbi, Barbarigo shipped a large part of his goods in Balbi's name to make it easy for Balbi to seize the goods if he, Barbarigo, defaulted.¹¹⁶

In dealing with other merchants, except when very large sums were involved or when the debtor had yet to establish his credit, merchants rarely relied on specific security.¹¹⁷ They relied instead on general security—on the credit of their counterparties or of their

¹¹¹We shall have more to say about the problems of equity financing below, when we discuss capital.

¹¹²On pawns see, for example Marshall (1999) Ch 6. On debt secured by land see Kohn (1999e), Ashton (1960),

¹¹³See Mann (1999) for an excellent discussion of secured lending in general.

¹¹⁴See Kohn (2003b).

¹¹⁵See Berman (1983) on the chattel mortgage, for example.

¹¹⁶Lane (1944)

¹¹⁷A debtor with insufficient credit might ask a more established merchant to act as guarantor Kermode (1998) p231

counterparties' guarantors. They also relied on the commercial structure that supported that credit.

The role of commercial structure

The importance of commercial structure for financing was, if anything, greater than it was for agency. The agency relationship was complicated, and it was not easy to demonstrate to a third party whether or not performance was satisfactory. Consequently, only the most egregious violations, such as embezzlement, lent themselves to external enforcement. With financing however—at least with debt financing—the issue was pretty simple: had the debtor paid as promised? If not, a third party could be helpful either by enforcing payment or by raising the cost of default. Once again the threat of exclusion from the family, the association, the market, or the Church provided a powerful incentive to keep one's promise. Families and associations also acted as guarantors.¹¹⁸ In case of default, third parties could also assist the creditor in seizing the assets that secured the debt.

Third-party enforcement, except in the case of the family, relied on a system of internal order—on laws and courts. The systems of internal order supported the formalization of relationships of financing through the use of various debt and equity contracts.¹¹⁹ They also provided greater security by allowing the parties to record the debt publicly so as to facilitate legal proceedings in case of default.¹²⁰ For example, in England, the favorite instrument of debt was the bond, a document that could be sworn before a court. In the event of default, judgment could be executed by the court without further ado—with the amount typically doubled as a penalty.¹²¹

¹¹⁸Kohn (2003a) on enforcers and guarantors.

¹¹⁹See Kohn (2003b) and Kohn (1999e).

¹²⁰ See Kohn (2003d).

¹²¹Postan (1973 [1930]) #1756]; Muldrew (1998); Kerridge (1988). The debtor could not deny the existence of the debt and the only defense was that the debt had in fact been paid (difficult since the bond was usually destroyed on payment) or that the bond was a forgery.

The importance of liquidity

Confronted with a failure to pay, what was a merchant to do? He faced a fundamental dilemma. Was the failure to pay a result of the debtor's illiquidity—a temporary lack of funds? Or was it the result of his insolvency, which meant no chance of ever being paid. This was one of those situations in which a merchant's credit was so important.

If the debtor's credit was good, the creditor might show a great deal of flexibility. The debt would be renegotiated, and it would be rolled over to a later date, perhaps at a higher rate of interest.¹²² The creditor understood only too well that circumstances beyond the debtor's control could easily leave him temporarily embarrassed for funds. Showing consideration for the difficulties of others in such circumstances made it more likely that others would reciprocate if the tables were turned.¹²³ Moreover, if there was a general crisis, little was to be gained by pressing one's claims, since not much would be recovered anyhow.

If a merchant was unable to meet his obligations, and his creditors were not accommodating, he risked default, bankruptcy and the destruction of his credit. Moreover, even when creditors were accommodating, there was a limit: they still required periodic settlement of debts.¹²⁴ Letting debts run on indefinitely and grow without bound gave the debtor little incentive to pay up and left the creditor increasingly exposed to loss. Lines of credit were therefore limited and periodic settlement was required as a test of solvency.

Consequently, managing his liquidity was a primary concern for every merchant.

Liquidity was vital not only to avoid default, but also to facilitate trading. It was liquidity that allowed a merchant the freedom to time his sales according to the state of the market. If he lacked the funds to meet his debts, he might have to sell goods prematurely at a loss to raise the necessary cash. Conversely, a lack of liquidity might

¹²²Muldrew (1998); Marshall (1999) Ch 5: Among the tradesmen of Prato, payments were rarely made according to the terms agreed and debts often ran on for years.

¹²³Mathias (2000)

¹²⁴Everitt (1967); Hoffman (1996); Greif (1989)

prevent him from purchasing goods when a favorable opportunity presented itself.¹²⁵ A merchant with ready cash or ready access to credit could act more quickly than one who needed to arrange financing.¹²⁶

The uncertainties of the pre-industrial economy made the management of liquidity extremely difficult and yet made it all the more important.¹²⁷ Transportation and communications were unreliable, and substantial delays in the arrival of goods or money common. Markets were volatile. Periodic liquidity crunches and business crises were common, and they caused general delays in payment and widespread default. Moreover, the system of interconnected sales credit on which business relied so heavily only compounded the problem. Delayed payment by one merchant could force others to be late in a sort of chain reaction. Similarly, default by one could cause a cascade of failures of others.¹²⁸

In addressing the problem of liquidity, merchants employed two general approaches—asset management and liability management. Asset management relies on an ability to convert assets into means of settlement as needed. Liability management relies on the ability to borrow as needed in order to settle.

In employing asset management, merchants rarely employed it in its modern form of acquiring assets to hold as a reserve of liquidity. This was not because the right sort of liquid short-term assets were unavailable. They were, in the form of a variety of money-market instruments—especially inter-fair loans and bills of exchange. Merchants,

¹²⁵“Almost any commodity was likely to be suddenly without a market; any source of supply might unexpectedly close and some new source of supply become available. In order to profit in this situation merchants had to be ready to shift their funds frequently and rapidly from one branch of trade to another... A merchant... who tied up in a shop or in stock or in accounts receivable so much of his funds that he could not turn to another kind of trade, or who bought so much on credit that he really had no funds he could call his own—such a merchant lost the power to make controlling decisions.” Lane (1944)p134

¹²⁶See Jones and Ostroy (1984) for a general treatment of the importance of liquidity.

¹²⁷Mathias (2000)

¹²⁸Tawney (1925)

however, only rarely took advantage of them, because few had idle funds available to invest.¹²⁹

However, if merchants did not usually acquire liquid assets specifically to hold as a reserve, they could at least avoid holding illiquid assets that immobilized their resources. Commercial enterprises generally avoided investing in fixed capital such as buildings and equipment.¹³⁰ For example, the giant Peruzzi company of Florence, which conducted a huge trade in grain in the early fourteenth century, owned not a single ship or wagon of its own, preferring to hire them as necessary along with the required personnel. It did not even own the warehouse and shops it used in Florence.¹³¹ Merchants also tried to keep their inventories of goods as small as possible and to turn them over as quickly as they could.¹³²

Since the bulk of every merchant's assets was his receivables—the result of the sales credit he extended to others—asset management inevitably relied on receivables as a source of liquidity. Merchants did sometimes actually sell receivables. Andrea Barbarigo of Venice, in the fifteenth century, sometimes discounted receivables with his banker, Balbi.¹³³ And the tradesmen of Prato sometimes discounted unpaid accounts with money lenders, who took over the task of collection.¹³⁴ But for the most part, merchants used receivables as a source of liquidity not by selling them, but by assigning them: “Merchants with a long-standing business association rarely settled their accounts with cash... it was easier to keep the situation fluid and to pay off one supplier of goods with the unpaid balance owed... from another.”¹³⁵

¹²⁹Kohn (1999c)

¹³⁰Merchants as private investors rather than as managers of businesses did invest extensively in real estate. We shall see presently that such assets did play a role in their management of liquidity.

¹³¹ “...overall, the guiding principle of the Peruzzi Company was to run its operations with as little investment as possible in real estate and business-related fixed assets.” Hunt (1994) p 69

¹³²“A few goods, and a quick sale, is the beauty of a tradesman's warehouse.” Defoe (1869 [1725-7]) #1432] p 552

¹³³Lane (1944)

¹³⁴Marshall (1999) Ch 5

¹³⁵Kermode (1998) p 231. On England see also Postan (1973 [1930]) #1756] and Kerridge (1988).

The assignment of debt as a means of settlement was ubiquitous.¹³⁶ In southern Europe, where debts were recorded mainly in account books, merchants would get together to compare books and net and assign obligations bilaterally and multilaterally. The most spectacular example occurred at the settlement fairs of Lyons and Piacenza where merchant bankers settled huge sums in this fashion with very little use of cash.¹³⁷ In northern Europe, which relied more on letters obligatory, it was mainly these that were assigned to settle debts.¹³⁸ Again it was merchant bankers who developed this to the greatest degree, this time at Antwerp.¹³⁹

Merchants also maintained liquidity through liability management—that is, they borrowed in order to settle. Indeed, it was principally the demand for this sort of borrowing that drove the development of the pre-industrial financial system.¹⁴⁰ Deposit banks provided their customers with overdraft facilities.¹⁴¹ And an elaborate money market developed to supply merchants with short-term loans. Merchants could borrow in the inter-fair market, or borrow from a merchant bank against a bill of exchange, or later borrow by discounting bills of exchange.¹⁴²

Liability management was another area in which good credit was essential. Only a merchant with excellent credit could be confident of being able to borrow whenever he

¹³⁶Kohn (1999a)

¹³⁷See Kohn (1999c) for a description. The transfer of deposits at deposit banks in payment can be seen as an extension of this idea: see Kohn (1999b).

¹³⁸This was mainly bilateral, but multilateral arrangements did exist: “Most commonly, wherever possible reciprocal debts contracted between as many interested parties as possible over a number of months, or even years, would be ‘reckoned’ and cancelled against each other, and then only the remaining balance paid in money.” “In many cases the debts or loans of third parties were also transferred orally and discounted during reckonings to increase the liquidity of credit.” Muldrew (1998) p101 and p109, on sixteenth century England.

¹³⁹Kohn (1999c)

¹⁴⁰Postan (1973); Kohn (2001e)

¹⁴¹See Kohn (1999b).

¹⁴²See Kohn (1999c).

needed to.¹⁴³ In this respect, intrinsically illiquid assets such as land were useful in that they could provide security for loans.¹⁴⁴ Merchants, as private investors, did invest extensively in real property, and the ability to borrow against it was important to them in mitigating its illiquidity.¹⁴⁵

Even excellent credit and good security, however, might not be enough to obtain a loan in a time of general crisis. This was one of the circumstances in which connections were particularly important. In such times, a merchant had to rely on his family and friends as ‘lenders of last resort’.¹⁴⁶ Of course, the need to be able to reciprocate—to *be* a lender of last resort to family and friends—was just one more reason why a merchant had to ensure his liquidity.

Bad debts

If a debtor failed to pay and the creditor decided that it was a case of insolvency rather than illiquidity, then the creditor would try to recover what he could. He did not, however, turn immediately to the courts. Courts were costly and unpredictable—even more so than today. Moreover, a lawsuit was damaging to the reputation of both parties. A lawsuit would make public the debtor’s default, casting doubt on his credit and honesty and on those of his household and family. The creditor too would lose by acquiring a reputation for litigiousness—not particularly helpful in his dealings with others.¹⁴⁷ Of course, the undesirability of litigation left it as a threat to be used by the parties in their negotiations.¹⁴⁸

Merchants generally preferred to settle matters by negotiation and arbitration whenever they could. If possible, they would turn to mutual friends or to kinsmen of the

¹⁴³“Good credit, access to credit and access to cash to meet the unexpected, unanticipatable emergency were keys to survival in this commercial world beset with risk and uncertainty.” Mathias (2000)p 23

¹⁴⁴A bond was another intrinsically illiquid asset in that it was difficult to transfer. However, a merchant holding a bond of a wealthy debtor might be able on that basis to obtain credit or a loan from someone else. Muldrew (1998) Ch 4

¹⁴⁵Kohn (1999e)

¹⁴⁶Mathias (2000)

¹⁴⁷Muldrew (1998) p274; Zehadieh (1998)

¹⁴⁸Galanter (1981) talks of informal dispute resolution taking place ‘in the shadow of the law’.

debtor in the hope that these would intervene: such parties would have an interest in doing so both for the sake of peace and out of concern for damage to their own reputations or even for liability for the debt.¹⁴⁹ The preference for arbitration over litigation was general. Many contracts of all types contained language requiring the parties to seek arbitration in case of a dispute. Often, the contract would specify who was to act as arbitrator—a trusted friend, a respected colleague, or an official of the merchant association or community.¹⁵⁰

Negotiation and arbitration were available mainly within associations. If the defaulting party was a member of a different association, resort to violence might be necessary to recover the debt. Courts, of course, provided a form of official violence. But merchants sometimes preferred private violence, seizing the goods of the debtor or of his compatriots to satisfy a debt. They might do so under sanction of official letters of marque or without any such formality.¹⁵¹

If all else failed, there were the courts. While merchant courts were preferable to civil courts, merchants used both.¹⁵² When the debtor came from another jurisdiction, local courts were preferable to foreign courts, since they were more likely to be sympathetic to one of their own. However, merchants sometimes had no choice but to plead their case in a foreign court. The potential cost in time, money, and uncertainty of pursuing a debtor in foreign courts was a serious obstacle to the extension of credit to foreigners.¹⁵³ Most

¹⁴⁹Muldrew (1998) Ch 8

¹⁵⁰On arbitration in partnerships: Lane (1934) p 116; Dahl (1998) p98. In chartering contracts and insurance: Christiensen (1941) p108. The preference for arbitration continues to this day: see Volckart and Mangels (1999) on arbitration in disputes arising in international trade.

¹⁵¹James (1971); Kermode (1998) p216. See Kohn (2003c) on community responsibility for debt of members.

¹⁵²Merchant associations sometimes prohibited their members from using civil courts and required them to use the court provided by the association. Mitchell (1904). See also Kohn (2003c).

¹⁵³“The possibility of spending time and money to enforce a contract in a distant court was an important consideration for any merchant entering a partnership, securing credit or dealing with anyone outside his own region.” Kermode (1998) p211

merchants had some experience of litigation and some knowledge of the law.¹⁵⁴ Larger firms employed legal professionals (notaries) to appear for them in court.¹⁵⁵

Insolvent debtors, of course, did their best to escape paying their debts: with their credit lost, they had little reason to do so. The best strategy was to skip town. For example, when the Frescobaldi, engaged in merchant banking in Gascony, faced insolvency in 1311, the head of the firm fled to Bruges. From there he sent instructions to his agents in Bordeaux to avoid all payments and to assemble all money and treasure with the purpose of removing it from the province. For good measure, he instructed them to purchase on credit and ship to him 1,000 tuns of wine. Unfortunately for him, his letter was intercepted, and the authorities arrested his agents and seized his property in Bordeaux.¹⁵⁶ If a merchant was unable to flee, the next best option was sanctuary—seeking refuge in a church or monastery. From there the debtor could negotiate with his creditors in safety.¹⁵⁷

Orderly procedures for resolving bankruptcy developed slowly. Initially they were available only for failed banks and certain other classes of bankrupt. But by the fifteenth century Florence had set up a special court to oversee the distribution of assets in cases of bankruptcy.¹⁵⁸ Imprisonment of the bankrupt was a common device—both to prevent flight and to encourage his kin to pay his debts.¹⁵⁹ Public humiliation of the bankrupt, by pillory for example, was not unusual. In liquidation of the bankrupt's assets, priority was often given to particular classes of creditors—to foreigners, for example, or to orphans.¹⁶⁰ For example, when another Florentine merchant bank, the Scali, failed in 1326, its

¹⁵⁴“Whether battling for compensation in a foreign court or manoeuvring to gain a hold on a defaulting debtor or embezzling partner, merchants were astute manipulators of legal process.” Kermode (1998) p211

¹⁵⁵Origo (1986); Saponi (1953)

¹⁵⁶Fryde (1996)

¹⁵⁷Steele (1990). Fugitives would also often ask their friends to negotiate with their creditors a temporary safe conduct, so that they could return and reach a settlement—generally involving partial or deferred payment (Lopez (1955) Ch. 18).

¹⁵⁸Kuehn (1981)

¹⁵⁹“According to strict law, a merchant who failed to pay his creditors was to be put in prison while his property was sold to extinguish the debt.” (Lopez (1955) p290).

¹⁶⁰Steele (1990)

London branch had some £459 in assets as against some £2,000 in liabilities. The royal chancery, in charge of the liquidation, paid two German creditors about 50% of what was owed to them, while English creditors received only about 20%.¹⁶¹

MANAGING RISK

Commerce involved a great deal of risk. As we have seen, perhaps the greatest source of risk was reliance on others. Incompetence and dishonesty on the part of those acting for a merchant, especially in distant markets, were a constant danger. And failure to pay by those to whom he extended credit was a perpetual worry. But there were other risks too. The transportation of goods from place to place exposed the merchant to the hazards of both sea and man—shipwreck, damage, delay, piracy, and theft.¹⁶² Trading exposed him to market risk: volatile markets and slow communications meant that goods often arrived at their destination at just the wrong time.

Of course, the degree of risk differed at the different levels of the hierarchy of trade: the merchant engaged in inter-zone trade faced far greater risks than did the tradesman selling at retail in the local market. However, even the latter had to be concerned about the potential for loss. A large enough loss could result in bankruptcy, loss of credit, and the end of his business.

Indeed, compared with today, management tended to emphasize protecting against the downside more than exploiting the upside.¹⁶³ While the pre-industrial businessman was certainly interested in the growth of his business, he was much more concerned about avoiding disaster. To a large extent, success was a matter of luck—due to factors outside a merchant's control. But he could do much to avert failure, and he therefore focused on that.¹⁶⁴ Two of the qualities most valued in a businessman of the period—

¹⁶¹Fryde (1996)

¹⁶²Kohn (2001d)

¹⁶³Dahl (1998) Ch 9. “[The] approach to economic life, profits and the dangers of commerce was dominated by the general uncertainty of life and the economy rather than by some expectation based on a long-term pattern of growth.” (Musgrave (1981) p10)

¹⁶⁴“Indeed, the maintenance of assets seems to have been of greater concern to our writers than their accumulation.” (Dahl (1998) p281)

much more so than today—were prudence and moderation.¹⁶⁵ Optimism, of course, was a help too: commerce was not for the faint hearted.

The management of risk, therefore, was crucial to a merchant's survival. Merchants tried, first of all, to avoid risk when they could. The risks they could not avoid they tried to control. And they tried to structure their affairs so that they could survive the inevitable setbacks.

Avoiding risk

The first requirement in avoiding risk was information. Was a given route safe? What were the chances of war breaking out, with a greatly increased risk of piracy and brigandage? Was the shipmaster reliable? What was the state of the market? Were other merchants about to flood the market and create a glut? Could an agent be trusted? Was the credit of a potential counter-party good? Obtaining answers to questions such as these was vital in order to avoid unnecessary or excessive risks.

Some types of risk avoidance did not require any specific information. For example, lending or extending credit to nobles and princes was highly hazardous and many merchants simply shunned it altogether. A merchant could avoid a great deal of agency risk by using commission agents to represent him in distant markets rather than employees or partners. A merchant could avoid market risk by engaging in activities other than trading—for example, providing commercial services to others as a broker, commission agent, or shipping agent.

Controlling risk

The key to controlling risk was diversification. Merchants diversified in every way they could. They broke up their cargoes among ships: if one was lost, perhaps the others would arrive safely. A Dutch merchant shipping pepper from Lisbon to Danzig in the sixteenth century distributed his 22 sacks across five different ships in the fleet.¹⁶⁶ Merchants traded a broad variety of goods: if the market for one turned out to be bad, perhaps it would be better for the others. When Pietro Soranzo, a Venetian merchant, died in the fourteenth century, his executors found the following goods in inventory or

¹⁶⁵Dahl (1998) Ch 8

¹⁶⁶Christiansen (1941)

still at sea: "...pepper, valued at 3,000 ducats, nutmegs, cloves, tin, lead, and iron, valued at much the same amount, gold from Russia worth 1,478 ducats, raw silk worth 3,810 ducats, and Russian skins worth 1,900 ducats, together with a quantity of Syrian and Cypriot sugar, wax, honey, and pearls...."¹⁶⁷

Merchants shipped to many different destinations. Pierre Assézat, a woad merchant in sixteenth-century Toulouse, traded simultaneously with London, Antwerp, Rouen, Bilbao, S. Sebastian, and Pamplona.¹⁶⁸ Merchants engaged in a variety of ventures—not all of them necessarily commercial. A merchant house might "...buy a lot of merchandise, buy a lot of foreign exchange, buy a share in a city debt, buy the license to collect a tax in some foreign land, buy a flour mill, buy town frontage, or buy some profitable acreage."¹⁶⁹ And when the scale of an investment was large, merchants combined with others to share the risk. The Pisani brothers in sixteenth century Venice entered into joint ventures with other family partnerships to manage a galley fleet or to invest in a farm of the wine tax.¹⁷⁰

Diversification, however, had its limits. Diversifying across destinations, for example, meant finding reliable agents in each place, with all the attendant problems. Diversifying across goods required a thorough knowledge of each: the enormous heterogeneity and variation in product quality made trading hazardous for the uninitiated. Indeed, the importance of understanding product quality was a strong argument for specialization. Similarly, the advantage of knowing a particular market was a strong argument for specialization by destination.¹⁷¹ Andrea Barbarigo of Venice, for example, knew a great deal about dyeing and cutting European cloth for the Levantine market but very little about judging and cleaning spices.¹⁷² Diversification conflicted, too, with making the most of the available information: exploiting a particular trading opportunity to the fullest

¹⁶⁷Luzzatto (1941) p117

¹⁶⁸Ball (1977) p166

¹⁶⁹Reynolds (1952)p360

¹⁷⁰Lane (1944). See Kohn (2003b) on joint ventures.

¹⁷¹Zehadieh (1998)

¹⁷²Lane (1944)

might require taking a large position.¹⁷³ There were, in short, tradeoffs. When it came to non-commercial ventures, however, diversification was less problematic, and this helps to explain why they were so attractive.

Apart from diversification, merchants could control risk by trading it. Initially, trade in risk was mixed up with financing. The sea loan and the *commenda* both combined financing with insurance: in both cases, the recipient of the financing was freed of any obligation to the provider of the financing if ship or cargo were lost.¹⁷⁴ But any form of equity financing involved a sharing of potential losses as well as of potential gains (we shall have more to say about capital presently). Traveling merchants financed their ventures and shared the risk by accepting funds on *commenda* from small investors. The investors, in turn, diversified by entering into *commenda* contracts with many different merchants. And the merchants themselves diversified by placing funds under *commenda* with other merchants, sometimes even with those traveling on the same ship.¹⁷⁵

Over time, risk instruments emerged that separated trade in risk from financing.¹⁷⁶ Marine insurance seems to have originated in Italy around 1300 and spread gradually, first in the Mediterranean, and then, by the mid-fifteenth century, throughout Europe. A merchant would purchase insurance, through a broker, by finding a number of other merchants each willing to cover a part of the potential loss in exchange for a premium. The merchants who accepted the premium to share the risk saw it as another way to diversify.¹⁷⁷ The wool merchants of sixteenth century Burgos, for example, insured their own cargoes, while at the same time they underwrote insurance for others.¹⁷⁸ By the end of the period, derivatives were available too—especially in Antwerp and Amsterdam—in the form of options and wagers (futures contracts). These instruments allowed trade in

¹⁷³Casson (1997)

¹⁷⁴See Kohn (1999f) and Kohn (2003b) on the sea loan and *commenda*.

¹⁷⁵Krueger (1993) Krueger (1962)

¹⁷⁶See Kohn (1999f) on risk instruments in general.

¹⁷⁷Barbour (1929)

¹⁷⁸Grafe (2001) ch 3

market risk, principally exchange rates and interest rates, but also some commodities such as grain, salt, and herring.¹⁷⁹

An important source of market risk was the behavior of other merchants: their uncoordinated and unpredictable response to market conditions frequently contributed to volatility.¹⁸⁰ So one way to control market risk was to control merchant behavior through cartelization or monopolization. Of course, this had the added attraction of restraining competition, potentially providing merchants with monopoly profits. Often, however, the primary motivation for behavior that appears anti-competitive was to control market risk rather than to reap monopoly gains. The control of ruinous competition was one of the reasons merchants cooperated with one another in merchant associations.¹⁸¹

Surviving losses

The final bastion against risk was capital. A merchant with sufficient capital could absorb a loss without having to default on his own obligations.

Where did a merchant obtain capital? Sometimes a young man would start out as an agent for others—working for a share in the profits or for a commission—and gradually build up enough capital to be able to set up as merchant himself. In most cases, however, a merchant's startup capital came from his family—either a settlement or inheritance from his parents or a dowry from his wife's parents or both.¹⁸² For example, Hans Thijs, the Antwerp merchant, received a dowry of 2,000 guilders and with this went into partnership with his father-in-law; Thijs later obtained additional capital from his father's estate.¹⁸³

Over time, with luck and skill, a merchant's capital would grow. Growth could be rapid, since rates of profit, while variable, were on average quite high.¹⁸⁴ For example,

¹⁷⁹Van der Wee (1977)

¹⁸⁰See Kohn (2001a) on merchant-induced volatility in the grain trade.

¹⁸¹See Kohn (2003c)

¹⁸²See Reynolds (1952) on twelfth century Italy and Grassby (1970; Grassby (1995) on seventeenth century England. The pattern was similar both across time and across countries.

¹⁸³Gelderblom (2003)

¹⁸⁴Mazzaoui (1981) found rates of profit of 30-50% (for an undetermined period) in the fifteenth century cotton trade (p 48-53). Berlow (1979) estimates expected profits of over 100% per annum in

Andrea Barbarigo of Venice began his career in 1418 with 200 ducats. By 1431 his capital had grown to 1,600 ducats, for an average rate of growth of 17% over the period (return on equity was presumably higher, since some of it went to taxes and household expenditure). And by 1449, when he died, his capital had grown to the very considerable sum of 15,000 ducats—an average growth rate over the latter period of 13% (perhaps his trading had become more cautious with age).

Adequacy of capital was not a matter of its absolute amount but rather of its amount relative to a merchant's overall position—that is, of leverage. Given his capital, a merchant could increase the size of his overall position, and so his leverage, by taking on more debt. Increasing leverage raised the average return on capital, but it also increased the risk of default. The smaller was a merchant's own capital relative to his overall position and debt, the greater was the chance that a combination of losses would wipe out his capital and force him to default.¹⁸⁵

Merchants were well aware of the dangers of excessive leverage—of 'over-trading' or 'trading beyond one's stock'.¹⁸⁶ And, in keeping with the general emphasis on prudence, writers on commercial matters strongly recommended against over-reliance on credit. Merchants were aware of the dangers of leverage too when they extended credit to others. A merchant who was perceived to be overly dependent on credit would find borrowing expensive and credit hard to obtain.

Large ventures or enterprises posed a particular challenge in this respect. How to mobilize sufficient resources without becoming over-leveraged or under-diversified? Especially risky enterprises also posed a problem: given a merchant's capital and leverage, the greater the risk, the higher the probability of default.

maritime trade in the Mediterranean in the thirteenth century. Reyerson (1985) finds profit rates of at least 20% for the same trade, although per voyage, which translates into a much higher annual rate. Bernard (1972) estimated that 'sea adventuring' yielded 30-40%. de Roover (1958) found that the Alberti of Florence, in the fourteenth century, earned a return on equity of 10-20%.

¹⁸⁵There is little information on leverage ratios in general. In seventeenth century England a leverage ratio of two to three was common (Grassby (1995) Ch. 3).

¹⁸⁶Defoe (1869 [1725-7]) #1432]

A common solution for unusually large or especially risky enterprises was for merchants to combine their capital on one way or another. They might do so by each taking a small part of a large joint venture, through a share venture or joint stock company. Or they might do so by combining their capital with others in a company.¹⁸⁷ The Italian ‘supercompanies’ of the fourteenth century, for example, were ongoing partnerships with as many as twenty members.¹⁸⁸

Alternatively, a merchant could seek equity financing from others, frequently nonmerchants. From the mid-thirteenth century, the maritime trade in the Mediterranean was increasingly financed in this way through the use of *commenda* contracts. In the fifteenth and sixteenth centuries, equity markets developed in Germany, the Netherlands and England for shares in mines, ships, and trading companies.¹⁸⁹

Relying on equity financing rather than on debt reduces the likelihood of default with all its attendant problems. However, it entails problems of its own. With debt, the obligation of the recipient of the financing is clearly defined: he must return the principal together with the agreed interest at an agreed upon time. The problem is that he may default, either because he cannot meet his obligation or because he will not. With equity financing, the obligation of the recipient of financing is less well defined. He agrees to pay the provider of the financing a share of the profits commensurate with the latter’s contribution to the capital of the enterprise. Default is possible here too, of course. But the more serious problem is that the amount to be paid is not specified explicitly. The profits of the enterprise depend to a considerable extent on the efforts and the decisions of those who control it: will they act in the interests of the providers of equity financing? Moreover, profit is a matter of calculation: how is it to be determined? In today’s world of corporations, the problem of ensuring the providers of equity financing a fair return on their investment is known as the problem of ‘corporate governance’. The problem was no less acute in pre-corporate times.

¹⁸⁷Kohn (2003b)

¹⁸⁸Hunt (1994)

¹⁸⁹See Kohn (2003b) and Kohn (1999e) on the types of equity financing

Merchants attempted to address the ‘corporate governance’ problem through the structure of the relationship between provider and recipient of financing. Addressing this issue was one of the factors in the evolution of forms of business organization.¹⁹⁰ However, whatever the structure, trust could be reinforced by connections: most equity financing came from family and friends. Their connection with the recipient of the financing provided some assurance that their interests would be respected. Moreover, whoever it was that provided the equity financing, a significant upside helped to compensate for the difficulties of ensuring a fair return. This was another reason why it was the riskiest enterprises that tended to be financed with equity.

MANAGING INFORMATION

Information was central to everything a merchant did. Information management was largely connected with the managing of agents and with financial management. However, information was vital, too, in trading and in managing risk.

Managing information—mostly in the form of correspondence and record-keeping—took up a large part of a merchant’s time and of that of his employees. For example, the great Florentine companies of the fourteenth century—the Peruzzi, Bardi, and Acciaiuoli—each had from 50 to 120 employees and partners: all of these devoted most of their time to correspondence and to keeping accounts.¹⁹¹ Apart from labor costs, direct outlays on information management were substantial. Between 1335 and 1341 the Peruzzi spent some 1,000 lire (roughly \$40,000 dollars in today’s money) on mail. On one occasion they paid 203 lire to charter a fast ship to take a message to their agents in Rhodes. In the same period the Peruzzi purchased over 37,000 sheets of paper and 20 account books and notebooks.¹⁹² The production of paper in Europe, which began in the thirteenth century, lowered the cost of correspondence considerably. However, paper remained expensive: a laborer’s daily wage would pay for no more than a few sheets.¹⁹³

¹⁹⁰See Kohn (2003b)

¹⁹¹de Roover (1974)

¹⁹²Hunt (1994)

¹⁹³In sixteenth century England, a quire of writing paper (24 sheets) still cost a laborer’s day wages (Baxter (1989)). Presumably, paper was no less expensive in fourteenth century Italy.

The need for information and its sources

Profitable trading depended on good market information. Merchants sent goods to distant markets in the hope of selling them there at a profit. To be successful, they needed to know—or, rather, to anticipate—the state of the market. This was difficult, because prices were extremely volatile and communications slow.¹⁹⁴ In this environment: “The winner was the merchant with the best network of well-placed contacts and the speediest communications—the one who knew before anyone else and who, for several days or even for several hours, was the only one to know whether the morrow would bring war or peace, famine or plenty.”¹⁹⁵

Information was essential, too, in managing and monitoring agents. Merchants needed to know what their agents were doing. Meticulous record-keeping by both agent and merchant was vital to the management of their relationship. And to assess whether their agents were performing their duties well, merchants needed as much information as possible about the markets in which their agents were operating. If a merchant knew the market price of goods his agent was buying or selling for him, he could see whether or not the agent was obtaining for him the best terms available.¹⁹⁶ Likewise, if the merchant knew the exchange rates, interest rates and transportation costs that the agent faced.

Information was no less essential for financing. Merchants invested considerable effort in seeking out information on the credit of those with whom they might have dealings: much of their correspondence was devoted to the exchange of such information.¹⁹⁷ Moreover, to find the least expensive sources of funding, merchants

¹⁹⁴Christiensen (1941) p 177; “One thing which seems particularly striking, when we make a careful study of this correspondence, is the extreme sensitiveness of the market, with incessant fluctuations of prices and the sudden oscillations of exchanges. When we think of the slowness of transportation and the necessity for these merchants to stock up several months in advance, we understand the desire to be exactly informed as to the march of events in order to estimate as well as possible the probable course of business.” Brun (1930) p 465

¹⁹⁵Favier (1998) p 65

¹⁹⁶The modern term for this in financial markets is ‘best execution’.

¹⁹⁷“Much of the vast correspondence which successful merchants and wholesalers engaged in was in fact concerned with questions of credit.” Muldrew (1998) p186

needed information on exchange rates and on interest rates. Merchants also needed to keep a careful record of the others' debts to them and of their debts to others.

The most important type of information—because it affected everything else—was political news, especially news bearing on the likelihood or progress of wars. War affected markets both by changing the composition of demand and by cutting off supplies. For example, rumors in Antwerp of peace between Venice and the Turks caused the price of English cloth to rise and the price of Levantine commodities to fall.¹⁹⁸ War also increased the risks of traveling and of moving goods. And the financing of wars meant confiscations, higher tolls and taxes, and because of debasement disrupted systems of credit and payment. All of this threatened the solvency of merchants and therefore increased the risk of extending credit.¹⁹⁹

Merchants obtained information from their agents and correspondents abroad, as well as from travelers of every kind. For example, the Cabanis brothers of Montpellier, traders in Lucchese silks, had a connection in Valencia who warned them in 1342 of a calling of the royal *cortes*; courtiers would be buying new clothes, and this would boost the demand for Italian brocade.²⁰⁰ Locally, merchants obtained information from their customers and suppliers. Markets were major sources of information, and merchants exchanged information wherever they met or gathered to do business—the piazza, bourse, inn, or notary's office.²⁰¹

If information was so valuable, why was it provided so readily? In some cases, it was a matter of reciprocity. In others, merchants had an interest in making available certain kinds of information to prevent misunderstandings and conflicts with those with whom they did business. In yet other cases, the information that was provided so generously was

¹⁹⁸Edler (1938)

¹⁹⁹“[This] may have been as devastating as the confiscation of, or lesser demand for, products.” Reyerson (2002) p165.

²⁰⁰Reyerson (2002) Ch. 5

²⁰¹“Word of mouth was the primary means of exchange [of information] in inns and taverns, in marketplaces, in churches and in squares in front of churches, at notaries' stall, and in the streets. The written word, in letters, in a chronicle, or an official document, represents a much more restricted medium, both in its usage and in the dissemination that was possible.” Reyerson (2002)p145

false. Markets were very sensitive to rumor. For example, a rumor of the imminent arrival of Portuguese spice ships in Antwerp would cause an immediate and sharp drop in the price of spices and a sharp rise in the price of linens and other goods that the Portuguese purchased.²⁰² Word of an impending coronation or session of parliament would boost the price of silks. Conversely, the death of a monarch, actual or anticipated, would depress the price of silks and boost the price of black woolen cloth.²⁰³ So spreading false rumors was an easy way to manipulate market prices.²⁰⁴

Not all information, however, was free: there was also a market in information. Every organized market had its brokers, innkeepers, and notaries who helped buyers and sellers, and borrowers and lenders, find one another for a fee. Being at the center of things, these individuals were able to provide their customers with other information too. With the advent of printing in the fifteenth century, merchant manuals and newsletters were published for sale.²⁰⁵ Organized markets had an interest in disseminating information on exchange rates and commodities prices, and from the late sixteenth century they began to distribute printed ‘price currents’ for this purpose.²⁰⁶ Agents in the local market forwarded these price currents to their principals abroad.

Because merchants were relatively well-informed, they were able to provide information—especially political news—to their non-merchant customers. They did so either as a favor or for payment. Not infrequently, merchants acted as spies abroad for their own and other governments.²⁰⁷

Merchants recorded the information they received in notebooks to be used by their employees. Such a manual might include information on weights and measures in different places; on customs, traditions, and tastes; on tolls and taxes; on brokerage fees and exchange rates; on transportation costs, and so on. As new information came in, the

²⁰²Edler (1938) Ch. 5

²⁰³de Roover (1948); Reyerson (2002)

²⁰⁴de Roover (1971) p 71

²⁰⁵Ehrenberg (1928)

²⁰⁶McCusker and Gravesteijn (1991)

²⁰⁷See, for example, Hunt (1994) on the supercompanies and de Roover (1949) on Sir Thomas Gresham, an agent for Elizabeth I.

manual would be updated. Although these manuals were generally proprietary, some were copied and circulated, even before the invention of printing.²⁰⁸

Correspondence

Merchants and their employees spent much of their time reading and writing letters: “It befits a merchant always to have ink-stained hands” wrote Leon Battista Alberti in the fifteenth century.²⁰⁹ Letters were sent as frequently as possible. Typically, this meant a couple of times a week—more often if means of delivery were available.²¹⁰

Merchants sent instructions to their agents by letter and received from them in turn reports on their actions, market information, and political news. However:

A letter was not only a list of instructions but also an instrument of control. The man in the field would read it many times, scrutinize each word and try to understand what his boss and colleagues at home expected, what they really meant. The wording could make him happy and work twice as hard as before, or make him angry and disappointed in ‘those idiots back home who don’t understand a thing’.²¹¹

Merchants also relied on correspondence with their agents to coordinate transportation and to remit funds.

There were different types of letter. Agents of the Medici sent the head office in Florence both *lettere di compagnia* and *lettere private*.²¹² The former dealt with current business and contained notice of bills of exchange drawn or remitted, reports on shipments sent or arrived, details of debits or credits, reports of exchange rates and so on. The price information was listed in a standard format to facilitate processing.²¹³ None of this information was particularly sensitive, so these letters could be sent in the general mail and processed on arrival by the staff. The *lettere private*, on the other hand, were

²⁰⁸Dahl (1998) Ch. 6; Dotson (1994)

²⁰⁹Origo (1986) p 97

²¹⁰Dahl (1998), Brun (1930)

²¹¹Dahl (1998) p11

²¹²de Roover (1948)

²¹³McCusker and Gravesteijn (1991) The format of such *listini dei prezzi* had been fairly standard from as early as the fourteenth century. The same format was followed by the published price currents of the sixteenth century.

highly confidential. They concerned business opportunities, political intelligence, and personnel issues. They were carried only by trusted messengers and addressed to the head of the firm, for his eyes only.

In addition to letters, merchants sent a variety of business documents. From the thirteenth century, merchants and agents were sending one another bills of exchange as a way of remitting funds. From the fourteenth century, they were sending each other bills of lading to enable the recipient to claim goods shipped to him.²¹⁴

Letters, with attached documents, were usually folded in three and closed by passing a small cord through holes in the edges. The cord had a seal attached at each end. Each bundle of letters was wrapped in waterproof canvas and carried in a sealed bag called a *scarsella*. As a precaution against possible loss en route, merchants sent duplicates, or even triplicates, with different messengers or on different ships. It was common to begin a new letter with a copy or summary of the previous one.²¹⁵

Merchants sent letters by whatever means were available. They recruited travelers of all kind for the purpose—employees, friends, pilgrims, churchmen, captains of ships.²¹⁶ Merchant associations organized regular mail services among the principal markets. For example, in the thirteenth century the *Arte di Calimala* was sending two messengers a day from Florence to the Fairs of Champagne. In the fourteenth century, Venice maintained a regular mail service to Bruges. In every major market, there were also private couriers available for hire, ready to carry messages to any destination. The larger companies employed their own messengers, and these sometimes carried mail for smaller companies too.²¹⁷

Record-keeping

The need to keep records arose out of the two basic requirements of trading—agency and financing. In the case of agency, merchants and their agents needed to keep track of

²¹⁴Bensa (1925) The form of the bill of lading evolved, reaching essentially its modern form by the end of the fifteenth century.

²¹⁵Brun (1930); Origo (1986); Willan (1959)

²¹⁶Brun (1930); Dahl (1998)

²¹⁷Origo (1986) p 98-101

the goods they sent each other, of the prices at which they were bought and sold, and of the costs involved. When financing took the form of sales credit or loans, creditor and debtor needed to keep a record of what was owed. And when financing took the form of equity, the parties needed to keep track of revenues and costs and to calculate the profits in order that the providers of financing could receive what was due to them.²¹⁸ Larger firms found it wise to keep records of cash and inventories of merchandise “so that the merchant ‘can know whether he is being robbed by his employees and associates’”.²¹⁹

Merchants regarded the keeping of complete and accurate records as a key element of sound management.²²⁰ Clear records protected all the parties to a transaction. Records were valuable in substantiating claims in case of a dispute and, in particular, in case of the death of one of the parties. In pre-industrial Europe, “death was a contingency which good business management had to take into account.”²²¹ Poor record-keeping resulted in confusion, conflict, and litigation.²²²

In contrast with today, however, records were hardly ever used as an instrument of planning. Cost accounting in manufacturing was known as early as the fourteenth century, but it was not widely practiced.²²³ In commerce—and even in banking—the owners of an enterprise rarely had any idea of its overall profitability or even of its solvency.²²⁴ The focus of record-keeping was on the individual obligation or transaction rather than on the big picture.

²¹⁸de Roover (1956) argues that three factors contributed most to the development of accounting: partnership, credit, and agency—in my terminology, equity financing, debt financing, and agency.

²¹⁹Yamey (1949) p 108, quoting a seventeenth century source.

²²⁰Sapori (1953)

²²¹Lane (1977) p191

²²²Muldrew (1998) argues that the explosion of debt litigation in Tudor England was a result of a rapidly expanding economy possessing only rudimentary techniques of accounting.

²²³Edler (1937)

²²⁴Yamey (1949), Lane (1944)

Remembering debts

A primary reason to keep records was as an aid to remembering debts.²²⁵ Cash transactions were seldom recorded, since they entailed no future obligation. However, when a transaction involved future payment or future delivery a record helped the parties remember what they owed and what was owed to them.

The oldest form of record was the memory of witnesses. An oral agreement in the presence of third parties was considered binding, and if necessary the witnesses could testify to the existence of the obligation.²²⁶ Oral agreement was usually ritualized, involving a handshake, an oath, or the giving of a token coin (earnest money, *argentum dei* or ‘God’s penny’).²²⁷ The transaction was frequently sealed by the drinking of wine: “money spent *in beueragio* ... doubtless added to the pleasures of marketing and the profits of inn-keepers.”²²⁸

Memory might be assisted by non-written records such as chalk marks on a wall or notches on a stick.²²⁹ The notched stick or wooden tally was widely used throughout Europe in the thirteenth and fourteenth centuries (it continued to be used by the English exchequer as late as the eighteenth century).²³⁰ Wood was much cheaper than paper and more durable; notches were easily understood by both literate and illiterate. The tally was usually split down the middle with debtor and creditor each keeping one part.

Reliance on oral agreement and non-written records continued in more backward areas, but in the cities and among merchants there was an increasing use of records in writing. Initially, with literacy still not widespread, written records were usually created

²²⁵“Undoubtedly regular and accurate bookkeeping was valued largely because it enabled the merchant to keep track of his credit dealings with others, debtors and creditors.... Credit dealings almost certainly were responsible for systematic accounting.” Yamey (1949)p103. Also Lane (1944), Moore (1985), Marshall (1999).

²²⁶Trakman (1983)

²²⁷Muldrew (1998)

²²⁸Farmer (1991) p 422

²²⁹Muldrew (1998)

²³⁰Baxter (1989); Jenkinson (1925); Favier (1998)

and kept by some sort of public scribe or notary.²³¹ The public registration of agreements was a service provided by merchant associations, organized markets, and governments.²³²

By 1200, merchants large and small in Italy were keeping their own records in the form of account books.²³³ A shopkeeper might make do with a single ledger that he kept himself.²³⁴ In the front of the ledger he typically recorded the debts of his customers; in the back, his own debts to his suppliers. Sometimes next to an entry, he would note the name of a witness to the transaction. A more substantial merchant would rely on a more complex set of books, maintained by his staff.²³⁵ All transactions were recorded first in rough in a *memoriale*, then transcribed daily to a *giornal*, which provided a chronological record. They were then recorded in the ledger (*libro*), which was arranged by account. In addition, there would be a *libro segreto*, to which only partners had access, for confidential information such as the details of capital invested and profits paid and the salary accounts of the firms agents abroad.

The use of account books soon spread throughout southern Europe, but the practice remained uncommon in the North even in the sixteenth century. In northern Europe, merchants generally recorded debts by means of a promissory note or letter obligatory.

Account books and promissory notes provided less legal protection to the creditor than formal, publicly recorded debt. Initially, the civil courts did not recognize such informal instruments, although they were soon accepted as evidence of debt by merchant courts. On the whole, in dealing with one another, merchants found that the additional security provided by a public record did not justify the expense and the delay.²³⁶ Private records also provided greater confidentiality.²³⁷ A formal instrument was also too rigid:

²³¹The Romans had introduced public notaries in the second century to make written records of oral contracts (Usher (1943) Ch. 1).

²³²See Kohn (2003c) and Kohn (2003d).

²³³Reynolds (1952)

²³⁴Marshall (1999) Ch. 4

²³⁵Lane (1944); Favier (1998); de Roover (1956)

²³⁶Postan (1973 [1930]) #1756; Muldrew (1998)

²³⁷“It may be that Italian business practice turned away from the use of notarial contracts to enhance privacy and the confidentiality of the deal.” Reyerson (2002) p 152. Epstein (1994) suggests that the

as we have seen, merchants exhibited a great deal of flexibility in their dealings with one another. Finally, formal instruments were more difficult to assign to a third party in settlement of debts.²³⁸ In dealings between merchants and nonmerchants, however, formal instruments of debt continued to be used quite frequently. In such cases, there was less trust, and the parties presumably considered the better legal protection to be worth the cost.²³⁹

Accounting to others

The need to account to others was a second major reason for the keeping of records. Accounting to others was necessary both in relationships of agency and in relationships of equity financing. The need to account to others arose too in other, noncommercial, contexts: stewards needed to account to landowners for their actions and ships' masters or pursers needed to account to the ships' owners. In these cases too, the keeping of records played an important role.²⁴⁰

Commercial accounting naturally focused on the single 'venture' or 'voyage' (*viaggio*): the venture or shipment was the basic unit of commerce. In agency accounting, a merchant kept an account of each shipment of goods he 'recommended' to his agent.²⁴¹ The merchant charged this account with the value of the goods sent and with any expenses incurred, and he credited it with sales proceeds as reported to him by the agent. When the last of the goods were sold, he closed the account and consolidated the balance into a profit-and-loss account. The merchant also kept a separate account for each agent,

declining number of witnesses to Genoese contracts may also have been motivated by a desire to preserve secrecy.

²³⁸By the late Middle Ages, Italian merchants had largely stopped using notarial instruments. Herlihy (1958)

²³⁹Postan (1973 [1930]) #1756]

²⁴⁰See Britnell (1996) Ch 5 on agriculture and Unger (1998 [1979]) #2031] on shipping. In the Mediterranean, ships carried scribes to perform the necessary record-keeping (Byrne (1930), de Roover (1971)). They also kept records of cargo loaded and unloaded.

²⁴¹"In short it seems possible that *viaggio* accounts were devised expressly as a tool of management in handling agents." Lane (1977) p191. This form of accounting was most developed in Venice, but it was also used elsewhere—for example, by Hanseatic merchants in the north (de Roover (1956)).

debiting it for sales proceeds (which the agent owed the merchant) and crediting it for funds or goods received.²⁴² The agent similarly kept records of goods and funds that he received and sent.

In the case of equity financing, the form of accounting depended on the nature of the enterprise. When the enterprise was for a single venture, as with a *commenda* partnership, accounting was relatively simple and very similar to the venture accounting used for agency. When equity financing was provided to a multi-venture enterprise, such as a *compagnia*, the necessary ‘enterprise accounting’ was more complex. Basic accounting was still based on the venture, but ventures were consolidated into a main account which provided the basis for distribution to the partners. There had to be an account, too, of how much capital each partner provided and how much each partner withdrew during the life of the enterprise. When the enterprise was wound up at the termination of the agreement a final reckoning was made of how much was due to each of the partners.²⁴³ Periodic liquidation and the absence of permanent fixed capital made the task of accounting simpler.

Techniques of accounting

Although the technique of double-entry accounting was invented during this period, it was not widely used. Most merchants throughout the period and beyond relied on relatively simple ‘single entry’ methods, because these were quite adequate to their needs.²⁴⁴

The only exception was merchant banking, which involved large numbers of complex transactions. Merchant banks drew bills of exchange on their foreign correspondents, either their own branches or other firms, and the correspondents drew bills of exchange

²⁴²de Roover (1956). Lane (1944) Other ‘ventures’ such as investments in ventures partnerships of various kinds (see Kohn (2003b)), exchange transactions, and goods put out for manufacturing were accounted for in much the same fashion.

²⁴³de Roover (1956)

²⁴⁴“Indeed it is probable that the vast majority of enterprises used a simple form of record-keeping (which may conveniently be called ‘single-entry’) until well into the nineteenth century, even though expositions of the more complex double-entry method take up most of the space in the texts.” Yamey (1949) p105

on them.²⁴⁵ So a merchant bank needed to keep two accounts for each correspondent—a *Nostro* account for bills they drew and a *Vostro* account for bills drawn on them.²⁴⁶ A further complication was that each bill of exchange involved payments in two different currencies, necessitating parallel records in each currency. A merchant bank also needed to keep an account for each of its customers—the deliverers and the takers on their bills of exchange. And since merchant banks were generally partnerships, they needed to account to providers of equity financing. It was probably in response to these complexities that more sophisticated methods of accounting developed—including the technique of double-entry.²⁴⁷

Double-entry was used primarily as a method of checking accuracy and of catching errors. This was especially helpful when ledgers filled up and accounts had to be transferred to new books. Double-entry also helped to prevent or catch embezzlement by employees. Although double-entry had the potential for far more, it was rarely realized. Firms almost never used it to draw up an overall balance to assess the financial condition of the enterprise.²⁴⁸

This association of double-entry with finance explains why accounting methods were more sophisticated in northern Italy than they were elsewhere.²⁴⁹ Until the sixteenth century, merchant banking was almost entirely an Italian monopoly. When south German merchant bankers emerged in the sixteenth century, they soon adopted the accounting methods of the Italians.²⁵⁰ And when, in the sixteenth century, an international financial market developed in Antwerp—a market no longer dominated by Italians—Italian methods of accounting began to spread to northern Europe.²⁵¹

²⁴⁵See Kohn (1999c) on bills of exchange and Kohn (1999d) on merchant banking.

²⁴⁶de Roover (1944)

²⁴⁷The earliest evidence of double-entry have been found in the ledgers of Genoese bankers of the early fourteenth century. From Genoa, the technique seems to have spread to Florence and then to Venice. Lane (1944)

²⁴⁸Yamey (1949)

²⁴⁹de Roover (1956).

²⁵⁰Strieder (1931)

²⁵¹Van der Wee (1963) de Roover (1956)

Information technology

The demands of accounting were a powerful stimulus to the development of mathematics. In 1202, the Pisan Leonardo Fibonacci wrote a treatise on business arithmetic that introduced to European merchants the Indo-Arabic system of numbers and the number zero.²⁵² This system had the great advantage of allowing numbers to be arranged easily in columns. Despite this, the use of Arabic numerals in accounts long remained controversial, because it was believed to facilitate error and falsification.²⁵³

Ease of calculation was not a major advantage of the Arabic over the Roman system. The difficulty of calculation using Roman numerals was largely mitigated through the use of the abacus, which was, if anything, better suited to the Roman system.²⁵⁴ The abacus or counting board was the computer of the medieval merchant. It took the form of a table covered with a checkered cloth and counters that were moved from one square to another. Merchants were able to perform calculations rapidly and accurately with this device.

The needs of record keeping were a stimulus too to the standardization of dating and the precise measurement of time. The calendar was reformed in the fourteenth century, with the beginning of the year fixed on January 1. The day was divided into 24 hours of fixed length rather than having hours vary in length with the length of the day, and hours were further divided into minutes and seconds.²⁵⁵

BUSINESS EDUCATION

A merchant clearly needed to be both literate and numerate. This was obviously necessary to meet the demands of managing information—of correspondence and of record-keeping.²⁵⁶ But it was also necessary to meet the demands of civic and judicial administration, in which merchants played an active role both in the associations to which

²⁵²Mokyr (1990)

²⁵³Favier (1998); Hunt (1994)

²⁵⁴Hanham (1985) p 165

²⁵⁵Mokyr (1990)

²⁵⁶Everitt (1967) attributes the explosion of litigation in Tudor England to widespread illiteracy, which led to misunderstanding and confusion.

they belonged and in the cities of which they were citizens.²⁵⁷ By the thirteenth century most Italian merchants could read, write, and calculate and by the fourteenth century even small tradesmen were able to do so.²⁵⁸ Unlike notaries, who wrote in Latin, merchants preferred to write in the vernacular.²⁵⁹ And they took pride in their writing: some achieved lasting fame as storytellers and chroniclers.²⁶⁰ In addition to basic literacy and numeracy, the many merchants who traveled abroad required a working knowledge of foreign languages.²⁶¹ And a little knowledge of geography and an acquaintance with foreign cultures were also a considerable help.

Apart from these academic skills, a successful merchant needed an array of practical skills. Most immediately, he needed a knowledge of the goods he traded:

The first thing a youth ... is to do is to endeavor to gain a good judgment in the wares of all kinds that he is like to deal in... a nice judgment in their value and sorts, which ... is one of the principal things that belongs to trade... For want of this knowledge he is liable to be imposed upon in the most notorious manner by the sharp-sighted world... and the further consequence is, he sells as he buys, an inferior sort for a better; and in this way blasts his reputation.²⁶²

A merchant needed to possess not only a judgment of ‘wares’ but also a judgment of men. He had to assess the trustworthiness of those with whom he might deal. In a dangerous world, skill in the use of weapons was also essential: a merchant might at any time be called upon to defend himself and his goods against brigands, pirates, and robbers. And a merchant often had to fight in court as well. So a basic knowledge of laws and procedures came in handy too.

²⁵⁷Sapori (1953). In 1333, the Commune of Chioggia made the startling demand that judges and other civic officials must be able to read and write! (Grendler (1989))

²⁵⁸Marshall (1999)

²⁵⁹Hunt and Murray (1999)

²⁶⁰Sapori (1953) mentions the writers Boccaccio and Sacchetti and the chroniclers Compagni and Villani.

²⁶¹Origo (1986); Krueger (1993)

²⁶²Defoe (1869 [1725-7]) #1432] p 548-9

The acquisition of the necessary knowledge and skills required an extended period of education and training. The future merchant began his education at the tender age of five or six in grammar school. There he spent five or six years receiving a grounding in the three Rs. Although the Church had traditionally been the provider of education in medieval Europe, ecclesiastical schools did not meet the needs of a commercial society. From the late twelfth century, merchants began to see to the education of their own children either through public schools provided by the association or city or through private academies and tutors.²⁶³ By the fourteenth century secular education predominated in Italy, and a similar pattern was to be repeated later in northern Europe.²⁶⁴ Around 1560, for example, there were some 150 non-ecclesiastical schools in Antwerp.²⁶⁵

At age ten to twelve, the merchant-to-be graduated to ‘business school’.²⁶⁶ In Italy, from the thirteenth century, *maestri d’abbaco* provided instruction, privately or in small classes, in basic business math.²⁶⁷ The curriculum included arithmetic, mastery of the abacus, the use of Arabic numerals, algorithms for the more complex problems involving exchange rates and weights and measures, and a little accounting.²⁶⁸ In fourteenth century Florence, Villani lists some six *scuole d’abbaco* with a total of 1,000 to 1,200 students.²⁶⁹ These included the children of the patriciate and those of shopkeepers. From Italy, abacus

²⁶³Grendler (1989) “The merchants who dominated the now wealthy cities and towns believed strongly in the utility of learning and suited action to belief by hiring teachers.” p11

²⁶⁴Favier (1998) ch 3. In England, church schools continued to dominate into the sixteenth century. This was perhaps the reason for the generally poor level of education there (Muldrew (1998) ch 8)

²⁶⁵Van der Wee (1993) p 266-7

²⁶⁶Those wishing to pursue a professional career—in law (as notaries), medicine, or the Church—went on to higher grammar schools and then, from the twelfth century, to university (Swetz (1987)).

²⁶⁷Goldthwaite (1972), Swetz (1987)

²⁶⁸Favier (1998) p 55 provides some examples. provides a detailed discussion, based on the first known printed mathematical text, the Treviso Arithmetic, published in 1478.

²⁶⁹Goldthwaite (1972) In Florence, these schools were private. In other cities, such as Lucca, they were set up by the commune. More generally, it was in the smaller towns that tended to set up communal schools, while private schools predominated in the larger cities (Grendler (1989))

schools soon spread northwards. They were widespread in the Low Countries in the fifteenth century, and Nuremberg alone had 48 such schools in 1613.²⁷⁰

With his formal education completed by the age of fourteen or fifteen, the next step for the young merchant-to-be was to acquire the practical skills he needed. This he did by serving an apprenticeship as a junior with an established merchant. Getting a position with a good firm was vital for his career and largely a matter of connections.²⁷¹ As a junior, for as long as seven years, he took on increasing responsibility.²⁷² Towards the end of his apprenticeship, our young merchant would be sent abroad as a traveling or resident agent.²⁷³ Through all of this, he sharpened his accounting and writing skills, improved his mastery of languages, and learned to judge the quality of merchandise.²⁷⁴

But the most important aspect of a business education, then as now, was networking.²⁷⁵ Our aspiring merchant developed contacts with those with whom he would have to deal in the future—juniors of his own age at his firm and at other firms, as well as the more senior merchants with whom his master did business. He made the acquaintance too of officials, tax collectors, and judges—such friendships would always prove useful.²⁷⁶ He learned to judge the status, trustworthiness, and intelligence of others. He built his own reputation for integrity and competence.²⁷⁷ And he gained acceptance as

²⁷⁰Swetz (1987)

²⁷¹Reynolds (1952). Sometimes a young man would be sent away to a commercial center to apprentice. It was common, for example, for south German merchants to send their sons to Venice (Hildebrandt (1990)).

²⁷²James (1971)

²⁷³Grafe (2001); Christensen (1941); Kermode (1998) p208; Willan (1959); Lane (1944); Krueger (1993)

²⁷⁴Favier (1998). In his 1690 *A Discourse of Trade*, Nicholas Barbon wrote “Because the difference in quality of wares are so difficultly understood it is that the trader serves an apprenticeship to learn them; and the knowledge of them is called the mystery of the trade.” (quoted in Zehadieh (1998)).

²⁷⁵Defoe (1869 [1725-7]) #1432]

²⁷⁶Brucker (1983)

²⁷⁷Krueger (1993) p 267

a full member of his merchant association and city, with all the privileges and responsibilities that this entailed.²⁷⁸

With all this, and with a little capital, he was ready to strike out on his own.

²⁷⁸Reynolds (1952)

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