MONEY AND ITS USE IN MEDIEVAL EUROPE BY SPUFFOLD

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The Place of Money in the Commercial Revolution of the Thirteenth Century[1]

1160 – 1330

Just as Fernand Braudel wrote of a 'long sixteenth century', there seems also to have been a 'long thirteenth century', stretching from the 1160s to the 1330s. It is within this 'long thirteenth century' that fundamental changes took place in the methods of doing business that have been dignified with the title 'the commercial revolution'. Dramatic changes certainly also took place in the physical form of the coinages of western Europe during this long century of the commercial revolution and it is these that have generally attracted the attention of historians and numismatists alike.[2]

Although these changes in the physical forms of the currency were so dramatic, and can be seen so vividly by handling the surviving coins, they were not in my opinion fundamental, nor were they directly linked, as is so frequently repeated, simply to the increasing scale of international trade.[3] The purpose of this chapter is to suggest that these changes were only the visible counterpart of a range of complex and important developments that represent the true role of money in the commercial revolution of the thirteenth century.

The quantity of money in circulation, the use to which it was put, and the attitudes to it, seem to me to be more important than the forms in which it circulated. From the 1160s there was a continuous sequence of large-scale producers of silver within Europe until the Villa di Chiesa mines went into a sharp decline in the 1330s and 1340s and those of Kutná Hora a little later.[4] The silver produced by this sequence of mines vastly surpassed that produced by the mines of the Harz in the tenth century and rivalled that produced by the mines of central Europe at the beginning of Braudel's long sixteenth century itself.

In my opinion the changes brought about by this mass of silver were greater than those effected by either tenth- or sixteenth-century silver-mining. The scale of mining in the tenth century was never great enough to bring about the qualitative

[1] An earlier version of this chapter appears in John Day (ed.), *Études d'histoire monétaire XIIe–XIXe siècles* (Lille, 1984), pp. 355–95.

[2] For the new grossi see the previous chapter, pp. 225–34, and for the new gold coins see above, pp. 176–8.

[3] For the actual local use of grossi see above, pp. [illegible]

changes that occurred in the thirteenth century, and the sixteenth-century revival of the stock of European silver operated on an economy already transformed in the thirteenth century. It is moreover quite possible that the quantities of coin available in the sixteenth century were no greater than those available in the thirteenth.[1]

As money increased in quantity it could be used more freely for a wide range of activities in which it had previously played a minimal role.

In the countryside money-rent could oust both labour-rent and rent in kind as the dominant form of peasant rent. peasant rent

In Picardy, in northern France, for example, in a 'labour-rent' area of Europe, Professor Fossier found that rent services were entrenched up to around 1170, although, of course, even here, there was also a considerable element of payment in kind in the rents that tenants owed their landlords, besides a light *cens* in money – a few deniers a year. As increasing quantities of money came into the area after 1170, more and more land was let on terms whereby money replaced the hitherto-dominant labour element in the rent. By the period 1220–50 he was able to conclude that the possibility of paying a money-rent was liberating for the richer peasants with extensive farms, who were able to sell their produce for sums greatly in excess of the rents demanded of them. For their poorer neighbours, money-rent was burdensome, for it was not possible for them to sell enough produce to pay their rent, and they were consequently compelled to find outside work, paid by money-wages, to meet the financial demands put on them. The poorest peasants could not by any means raise the necessary money and still continued to pay the rent for their tiny plots of land with their own labour. Meanwhile the produce element in the rent, which here was normally in grain (for Picardy was a predominantly cereal-growing area), remained unchanged until the second quarter of the thirteenth century. It then also very rapidly gave way to payments in cash. Fossier's whole description of rural Picardy in the mid thirteenth century is of a society in which money had become common. For produce to be sold for money had become normal. For wages to be paid in money had also become normal. Payment of rent by work had become an abnormal survival, which was to disappear there totally by the end of the century.[2] pay rent with money food wages

When, in 1931, Marc Bloch wrote about 'the great metamorphosis which overtook the seigneurie between 1100 and 1200', he believed that the attenuation in services and the shrinking of the demesne were peculiar at this period to France.[3] It has now for long been apparent, largely on account of the studies provoked by Bloch's own work, how much more widespread such an attenuation of services had been, where, that is, labour rent had ever been important.

[1] See above, p. 205.

[2] Robert Fossier, *La Terre et les hommes en Picardie jusqu'à la fin du XIII^e siècle* (Paris–Louvain, 1968), pp. 588ff, 723ff, and 405.

[3] Marc Bloch, *French Rural History* (1931; English trans. 1966), pp. 93–9.

rent in Kind vs. work-rent

In much larger areas of Europe rent in kind was, by the twelfth century, traditionally far more important than work-rent. Professor Toubert's study of Latium, in central Italy, provides an excellent example of the alternative tradition. There labour service was light or non-existent in the twelfth century. There was also a light *cens* in money there, but the bulk of the rent consisted of payments in kind – a third of the grapes or olives grown, or a quarter or a fifth of the cereals. However, here too the arrival of money in large quantities in the area had the same effect as in Picardy, and at the same time. The existing pattern of rent payments, however different, was transformed into payment in money.[1] A series of other studies, like Slicher van Bath's for the Netherlands or Dollinger's for Bavaria, show the same transformation from rents in kind to money-rents for large areas of Europe in the late twelfth and early thirteenth centuries. In Bavaria a rather late example is provided by the abbey of Baumburg. At the end of the twelfth century, neither its dependent *mansi* nor the outlying parcels of field and vineyard that it possessed yet provided the abbey with anything but agricultural products. Half a century later, in 1245, 90% of the minor holdings and 75% of the *mansi* were farmed out exclusively for cash-rents. The abbey of Baumburg was not in the forefront, for other Bavarian examples of money-rents, like those paid to the abbey of Asbach, go back to the 1170s, to the very beginning of the new wave of silver.[2]

payment in money

Netherlands Bavaria

1170s - new wave of silver

In all these cases the initiative was the landlord's, but it was not possible for the transformation to take place fully until there was a market, and money available for the peasant to obtain by selling his produce. For example, in parts of northern France when landlords wished to reduce their labour services and lease out parts of their demesnes in the middle years of the twelfth century they could not yet do so for money. Instead they had to lease them out for a proportion of their yield (*champart*).[3] When money was available at the end of the century and the beginning of the next, *champart* gave way to money-rent.

market + landlord's initiative

* market

Fossier has shown how payment in money rather than in work was an increased burden on all but the most prosperous tenants. To have his labour returned to him and to be expected instead to provide a money- or goods-rent out of the produce of a holding that he had hitherto farmed to sustain himself and his family, without the size of the holding being increased, meant the handing-over or compulsory sale on the market of a large proportion of the produce that he and his family had

[1] Pierre Toubert, *Les Structures du Latium médiéval . . . du IX^e à la fin du XII^e siècle*, Bibliothèque des Écoles Françaises d'Athènes et de Rome CCXXI (Rome, 1973), pp. 502 (labour services 3–8 days a year), 537–9 (*cens* 2d.–6d. a year) and 545 (rent in kind).

[2] Philippe Dollinger, *L'Évolution des classes rurales en Bavière* (Paris, 1949), pp. 145–50.

[3] Bloch, *French Rural History*, pp. 93–9; by contrast, in southern England, the other area in which labour-rent had been strongly entrenched, there was still enough coin left over from the previous monetary expansion of the tenth and eleventh centuries for it to be possible to begin to transform labour-rent directly into money-rent in the middle years of the twelfth century and to farm out demesnes for money even before the stocks of new silver started to reach the country.

previously consumed, and so a radical diminution of their standard of living. Tenants who had traditionally paid their rents largely in produce did not necessarily find the substitution of money-rents such a burden, although a fixed money-rent did mean that the tenant, rather than the landlord, took the risks of poor harvests or, alternatively, of low sale-prices. The initiative and the advantage was the landlord's, and he was able to impose his will on his tenants because of the pressures of population. Although there are no statistics that can be used with any certainty outside very limited localities, the impression strongly held by historians is that when the flood of new silver became available in the late twelfth century Europe was already in the grip of a population explosion, which continued, in parallel with the expanding stocks of silver, throughout the course of the thirteenth century. Estimates of when the rise in population came to an end vary not only with the area of Europe considered, but also with the predilections of the individual historian. However it seems clear both that the population increase had begun before the increase in the supply of bullion, and that it had come to an end before the supply of bullion diminished in the fourteenth century. Already, in the middle of the twelfth century, the increase in population and the competition for tenancies meant that landlords could alter the conditions of tenancy to their own advantage. However it was not until adequate supplies of money were available at the end of the century that this advantage could be turned to practical account.

lower standard of living

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population pressure

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The transition to an economy in which money was the measure of all things, from one in which money had had a relatively minor role, was not, however, without its difficulties even for landlords. As has been seen, rent in money, already common by the end of the twelfth century in some parts of Europe, went on to supplant surviving rents in kind and labour-rents as the thirteenth century proceeded. The thirteenth century was, however, subject to strong inflationary pressures, primarily because the increased population put pressure on the agricultural resources and caused the price of basic foodstuffs to rise, but partially also, no doubt, because of the increased money supply itself, and partially because of the diminution of the silver content of the individual coins. This diminution was generally only the necessary reduction in weight at longish intervals to compensate for wear and tear, but sometimes took the form of violent debasements to help meet the financial emergencies of the rulers.[1] Inflation, from whatever cause, meant that the real value of money-rents diminished and that only those that had been most recently commuted gave any real advantage to the landlord.[2] Landlords dealt with, or failed to deal with, the problem of the decline in rents in a variety of different ways. In southern England and Tuscany, for example, landlords were faced with the problem in a peculiarly acute form. In southern England, where the

[1] See pp. 289–318.

[2] Georges Duby, *Rural Economy and Country Life in the Medieval West* (Paris, 1962; English trans. 1968), pp. 237–9.

coinage was not debased, the problem has been associated with the sudden surge in the money supply at the end of the twelfth century and the beginning of the thirteenth, when a greater quantity of silver entered the country than the economy was ready to absorb.[1] The price of wheat doubled, from 1s. 6d. to 3s. a quarter between 1190 and 1210, and that of cattle tripled over the same period of time from 2s. to 6s. a head.[2] The reaction of many landlords was to attempt to benefit directly from the market price for agricultural goods, which continued to rise, although not so rapidly, throughout the thirteenth century under the twin pressures of rising population and rising bullion stocks. Many landlords therefore took back into their own hands the demesnes that had already been leased for money. When the demesnes had been leased, villein tenures for labour-rent had naturally been transformed into tenancies for money-rent at the same time, since the labour had no longer been needed. Landlords who took their demesnes back into their own hands varied in their treatment of their villein tenants. In some cases instead of entirely reimposing the old labour services on their villein tenants they took advantage of the freer use of money to employ *famuli*, full-time workers for money-wages, to cultivate their demesnes round the year, and only reimposed on the tenants of villein land the obligation to perform boon-works, to labour on the demesne at the busiest seasons of the agricultural year, at lambing-time, at haymaking, or at the harvest, for example. In other cases they nominally reimposed the whole range of labour services, but in practice demanded cash on an *ad hoc* basis instead of a variable and often large proportion of the services each year, according to that year's particular needs. In yet others, work-rent was not reimposed at all and the demesnes were entirely worked with wage-labour. In general, services permanently disappeared north and west of the line from the Wash to the Severn, and were reimposed to some extent to the south and east of this line.[3] However the surviving Hundred Rolls, from 1279, covering a considerable part of this area, show that by then money-rent still, or again, predominated over labour-rent in southern England.[4] In these ways, landlords were able to maximise their advantages – rising prices for demesne produce sold on the market for money, produced by the labour of *famuli* who were paid decreasing real wages, together with the services, where needed, of villein tenants, who were still paying most of their rent in money. The system was excellently adaptable to changing circumstances.

In Tuscany, where there was no tradition of labour services and no demesne, landlords reacted differently to bouts of inflation largely induced by the declining

[1] See above, pp. 139–40.

[2] P. D. A. Harvey, 'The English Inflation of 1180–1220', *Past and Present*, LXI (1973), 3–30.

[3] Edward Miller and John Hatcher, *Medieval England. Rural Society and Economic Change 1086–1348* (London, 1978), pp. 121–8 and 213–24.

[4] E. A. Kosminsky, *Studies in the Agrarian History of England in the Thirteenth Century* (1947; English trans. Oxford, 1956), pp. 152–96.

silver content of the denaro. Even in the twelfth century landlords switched between fixed money-rents and leases for fixed quantities of agricultural produce as opportunity arose and circumstances demanded, frequently reverting to leases for agricultural produce in periods of monetary instability. In the thirteenth century long leases were replaced, when they came up for renewal, by shorter and shorter leases, and if money-rent was preferred, it was increased each time to match the inflation. Eventually, by the end of the thirteenth century, landlords began to abandon fixed rents altogether, and leased their land for half its produce or rather, unless they happened to wish to consume the produce, for the prevailing market price of half the produce. This new system, *mezzadria*, enabled Tuscan landlords to share directly in the rising prices of foodstuffs in an inflationary situation.[1] The widespread rural use of money, despite occasional difficulties, could thus always be turned to the landlords' advantage with imaginative adaptation to changing circumstances.

Tuscany

The landlords' initiative in demanding money-rents was part of a whole revolution in attitudes towards money. Just as cultivable land ceased to be regarded simply as a source of immediately consumable produce and came to be seen as a source of money, so other resources came to be judged in terms of the money that they would produce. Forests ceased to be seen merely in terms of hunting for pleasure or food and were valued in money terms. In Champagne, for example, in the 1170s under Count Henry the Liberal, good timber began to be treated as a cash crop to be cultivated and sold for building, whilst scrub was to be cleared and transformed into cultivable land. Such new assarts paid money-rents from the start. The same count deliberately invested in building mills, both for grinding corn and for fulling cloth, and in having ovens and winepresses constructed for the money income that they would produce.[2] His contemporary, Philip of Alsace, Count of Flanders from 1168, whose mints, like Henry's, were among the first to actively provide more coin at this very time,[3] treated his forests and fens in the same way, as a source of money. He invested in drainage schemes to reclaim fresh land for cultivation and sold his reserves of peat for fuel. It is not surprising that the same count and his brother Matthew, Count of Boulogne, were among the earliest founders of new towns for profit. They included Calais, Dunkirk, Nieuwpoort, Damme and Gravelines.[4] Their subjects rapidly added to the investment. Quick-

money income

[1] P. J. Jones, 'An Italian estate 900–1200', *Economic History Review*, 2nd series, XII (1954), 18–32; Philip Jones, 'Medieval agrarian society in its prime, Italy', *Cambridge Economic History of Europe*, 2nd ed., I (Cambridge, 1966), 340–431; P. J. Jones, 'From manor to mezzadria: a Tuscan case-study in the medieval origins of modern agrarian society', in N. Rubinstein (ed.), *Florentine Studies* (London, 1968), pp. 193–241.

[2] Jean Longnon, 'La Champagne', in Ferdinand Lot and Robert Fawtier (eds.), *Histoire des institutions françaises au moyen âge*, I, 'Institutions seigneuriales' (Paris, 1957), pp. 123–36.

[3] See above, pp. 196–7.

[4] A. Verhulst, 'Initiative comtale et développement économique en Flandre au XIIᵉ siècle', *Miscellanea mediaevalia in memoriam Jan Frederik Niermeyer* (Groningen, 1967), pp. 227–40.

ened by the profit motive, the men of Bruges and St Omer almost at once organised the cutting of channels suitable to bring sea-going vessels inland from the new coastal towns of Damme and Gravelines respectively.[1] Not only ruling princes and townsmen were involved in this investment for profit. Vast numbers of lesser landlords invested on a smaller scale with the monetary returns clearly in mind, and even began to employ professional managers and accountants to get the most out of their resources. By the early thirteenth century the chapter of Amiens reckoned to make 20s.–40s. a year from a winepress, 12s. from an oven, and 24s. from a mill,[2] whilst the bakers and millers themselves made so much profit that they joined the village élites of the richer peasants, who were hard to distinguish from impoverished knights.

for profit

The richer peasants, who gained from the new opportunities presented by a market for their produce, and welcomed the new cash-rents as freeing them to have more time to spend on the cultivation of their land, also benefited from the labour-saving winepresses and mills provided by their landlords, whilst their poorer neighbours continued to wear themselves out milling their grain by hand. They very soon acquired the new outlook towards money themselves and bought tenancies and bits of tenancies from their poorer neighbours as well as allodial land. Fossier began to find such peasant land-purchases for money around 1175 in Picardy. They became much more common there after 1225, and even more so after 1250.[3] Well-to-do peasants, as well as purchasing the land of some of their poorer neighbours outright, also invested surplus cash in purchasing rent-charges on the lands of others, and so increased their money income yet further.[4]

Kings and princes, as the greatest landlords in their territories, stood to gain, like other landlords, from the increased possibilities of compelling their tenants to pay rents in money. Many other traditional sources of 'income' in goods and services were equally transformed into money. The Counts of Flanders, for example, had systematically imposed this conversion to money by 1187, and in royal France a similar transformation was largely brought about early in the thirteenth century by Philip Augustus.[5]

In addition, the widespread availability of money in the hands of a numerous peasantry also allowed for the imposition of direct taxation in money on a much larger scale than anything attempted since antiquity.[6] In the thirteenth century the

[1] Alain Derville, 'Le Marais de Saint Omer', *Revue du Nord*, LXII (1980), 73–93.

[2] Fossier, *La Terre et les hommes en Picardie*, p. 621.

[3] *Ibid.* p. 577. Paul R. Hyams, 'The origins of a peasant land market in England', *Economic History Review*, 2nd series, XXIII (1970), 18–31, suggests a similar development in East Anglia by 1240 at the latest.

[4] Fossier, *La Terre et les hommes en Picardie*, p. 604. Rent-charges became common in Picardy after 1210. They were very rare before that date.

[5] Bryce Lyon and Adriaan Verhulst, *Medieval Finance* (Bruges, 1967).

[6] See below, p. 383. The tenth-century expansion of the use of money had allowed for some direct taxation, for

burden of direct taxation on the countryside was frequently much greater than that of indirect taxation in the town. In the 1280s the countryside of Pistoia supported a tax burden six times as high as that paid by the city. This excessive tax burden was only a part of the sucking-dry of the *contado* by the city at this period. In Tuscany, payments from the country to the city greatly exceeded payments from the city to the country. The countryside fell into a state of endemic debt to the city. Repeated and continuous loans from the city to the countryside, and the purchase of rent-charges on the countryside by city-dwellers, only made the situation worse. *Contadini* were compelled to concentrate on cash crops rather than their own needs, and a cycle of deprivation was set up not unlike that in parts of the Third World today.[1]

Such enormously increased money incomes of cities, princes and kings quickly affected the conduct of war and politics. The use of money in politics and war is well illustrated by the 40,000 marks of silver that John of England sent to pay for the Bouvines campaign of 1214.[2] Indeed their enlarged money incomes allowed kings and princes the possibility of running their states and maintaining power by the payment of regular salaries in money, without prejudicing the future by grants of land to maintain officials or soldiers.

In the last quarter of the twelfth century money-fiefs, *fiefs-rentes*, *feoda de bursa*, very suddenly became common in the Low Countries. From 1190 the same swift increase in such grants took place in England, and from 1200 in France and Germany. They were not new. The earliest-known example comes from the end of the tenth century, when the church of Utrecht in 996 enfeoffed a knight, Frethebald, not with land, but with 12 livres of deniers, payable annually. However, only half a dozen similar cases are known from the eleventh century and not many more from the first three quarters of the twelfth century. It was only when rulers regularly had enough money in hand that money-fiefs could replace enfeoffments with land as the normal means of paying knights and also, occasionally, other officials.[3] This was at the same time that it became normal to pay salaries in money to the general run of non-military officers in the service of the rulers of western Europe. The availability of adequate and regular money incomes allowed for a revolution in the government of states.

Castellans and knights paid with money did not become hereditary as their land-

example the English Danegeld, but this had ceased in the late eleventh and early twelfth century when money became scarcer again.

[1] David Herlihy, *Medieval and Renaissance Pistoia* (New Haven, Conn., 1967), pp. 143–4; David Herlihy, 'Santa Maria Impruneta: a rural commune in the late Middle Ages', in Rubinstein (ed.), *Florentine Studies*, pp. 266–7. After the mid fourteenth century the burdens were reversed.

[2] Georges Duby, *Le Dimanche de Bouvines* (Paris, 1973), p. 39. The sum of 40,000 marks is quite within the bounds of possibility. If coined as sterling, it was 6.4 million pennies. The total amount recoined in 1205 had been around 40 million pennies, and that had not been a total recoinage.

[3] Bryce D. Lyon, *From Fief to Indenture* (Cambridge, Mass., 1957).

paid predecessors had done, nor did 'civil servants' paid with money. Henry the Liberal was able to reorganise the local administration of his county of Champagne into twenty-nine *prévôtés*, each administered by a *prévôt* who was paid in money, not land.[1] Thus the first post-feudal states could emerge.

As well as such annual payments of regular money-fiefs to castellans or knights, the greater availability of ready money allowed rulers to make irregular supplementary payments to knights in cash when actually on campaign. Writing in the context of the Bouvines campaign, Professor Duby suggested that by the opening of the thirteenth century such payments on campaign were normal, and were the vital element that kept knights from drifting away from the host and going home after their 'feudal' service had been done. Most of the knights at Bouvines, he pointed out, had received money for being there, or expected to do so, over and above their income from land or money-fiefs.[2]

In the eyes of contemporaries there was no scandal in that. The scandal lay in paying non-noble mercenaries. Such mercenaries were not entirely new in the second half of the twelfth century, but the increasing availability of money allowed them to be hired on a scale never known before. Henry the Liberal of Champagne appears again as one of the earliest rulers who could afford to employ such men. It was in the 1170s that non-noble mercenaries proliferated. They were much hated for their brutality and were frequently described pejoratively as 'Brabançons', presumably from the place of origin of some of the most notorious of them. It was as 'Brabançons' that they were condemned by the Third Lateran Council in 1179. Some 700 of these hated 'Brabançons' in John's pay were slaughtered mercilessly by the victorious French after their victory at Bouvines.[3] So brutality breeds brutality. By the 1180s such mercenaries were already to be found in organised companies with leaders sufficiently well known for their names to feature in chronicles. Such companies could be extremely expensive to employ and strained the resources of even the wealthiest princes at the end of the twelfth century. In 1183, shortly before his premature death, the young King Henry, son of Henry II of England, had to resort to desperate measures at Limoges to keep his mercenary troops in his service. He exacted a forced loan of 1000 livres from the citizens and seized a similar sum from the treasury of St Martial. Such acts by desperate princes caused Professor Duby to describe these mercenary companies as marvellous agents of the *déthésaurisation* that nourished and increased the stock of circulating money from the last quarter of the twelfth century onwards. They also, of course, 'dethesaurised' a considerable amount of silver by straight-forward looting. One chronicler was scandalised that a camp of mercenaries at Dun-le-Roi in Berry in 1183 was not only full of whores, but also full of chalices and *ciboria*.[4]

[1] Longnon, 'La Champagne'.
[2] Duby, *Le Dimanche de Bouvines*, p. 103.
[3] *Ibid.* p. 64.
[4] *Ibid.* pp. 105–10.

It was in the thirteenth century that the problem of financing post-feudal war began to be solved. When the size and regularity of their money incomes was sufficiently assured, and when banking had evolved to an adequate scale,[1] rulers were able to use their regular incomes as security for borrowing large lump sums. Such possibilities of anticipating their regular incomes gave rulers a much greater freedom of action in emergencies. In this way post-feudal armies could be paid in wartime, just as post-feudal administrations could be paid in peacetime. Sienese bankers gave this sort of help to Frederick II, Florentine bankers to Charles of Anjou, and a variety of Tuscan bankers to both Edward I and Philip IV in their wars with one another.

As well as being freer than their predecessors to hire and fire non-hereditary officials and troops, rulers had also become freer, from the second half of the twelfth century, to choose where they would live. Hitherto they had had to perambulate incessantly between places to which the produce of their estates could conveniently be brought for consumption. When the proportion of the produce of their estates received in money rather than in kind increased rapidly, it became much easier for them and their courts and administrators to remain static for long periods. In this way each of the patchwork of formerly feudal states that made up twelfth-century 'France' was able to develop a 'capital' in which its ruler, or at least his administration, was permanently to be found – for example at Ghent, Paris, Provins, Poitiers or Toulouse.

This same liberation from the necessity of living in the countryside was also experienced by the landowning classes in general. Many of them chose to spend at least part of the year 'at court', living in newly built, noble town houses in or near the capital of their ruler. At Provins, the *hôtels* of some of the nobility of Champagne still survive in the upper town beside the palace of their count. Such noblemen brought their rural incomes with them, or had them remitted to them there by their stewards. Their time 'at court' was a time for great spending, on, for example, conspicuous extravagance to emphasise political importance, or on foreign luxuries only available in such cities. The flow of silver around Europe from the mining-areas to the ports by which it left Europe for the Levant was thus not a simple flow, but one with complex eddies of diffusion into the countryside and re-concentration into the towns. The places on which it concentrated were primarily those of political importance where the nobility increasingly congregated.

flow of silver to Levant

When, in the course of the thirteenth century, the kings of France acquired so many of these twelfth-century states, Paris came to absorb the attributes of their lesser capitals into itself. Paris thus became the greatest single focus in France, not

[1] See below, pp. 252–6.

only for political activity, but also for consumer demand, whilst Provins and Toulouse died as capital cities. The greater landlords, lay and ecclesiastical, from all the principalities ruled directly by the kings of France came to maintain *hôtels* in Paris. Similarly the higher clergy and greater nobility of England came to build inns in London or Southwark near to their king's capital at Westminster. The failure of central monarchy in the Empire meant that, apart from Prague and Rome, no single major capital developed there. In Germany the minor princely capitals, which largely vanished from France in the thirteenth century, survived and flourished. In Italy too the nobility increasingly chose to live in the cities, whether under republican or signorial constitutions. Indeed some of the cities obliged the nobility of the *contado* to spend a certain proportion of each year within their walls. Grim, noble tower houses dominated the cities of North and Central Italy in the first half of the century, only giving way to more spacious aristocratic *palazzi* at the end of it. In Sicily and the Regno the monarchical capitals of Palermo and Naples attracted the nobility to build their own *alberghi* around the palaces of their Hohenstaufen, Angevin and Aragonese rulers. The papal monarchy too, which no longer merely survived on goods and services from the Patrimony of St Peter, but drew a money income from all parts of Christendom, developed a capital for itself, first at Rome and then at Avignon. The palaces of the cardinals, and other papal 'nobility' were to be found there, scattered around the Lateran in the ruins of ancient Rome, and later clustered about the new palace at Avignon, or facing it across the Rhône from Villeneuve-lès-Avignon.

The nature of the goods in demand in these capital cities is one of the commonplaces of medieval economic history. There was a rapidly expanding clientele for luxury foods such as sugar in place of honey, or for pepper, cloves and other Asiatic spices to give a superior flavour to local food, as well as for luxury drinks such as the finer wines of the Rhineland, Burgundy or Bordeaux instead of the poor, local *vins ordinaires*. The largest market of all was for clothing and furnishing, for luxury woollen clothes from Flanders and Tuscany, rather than local homespun, for high-class linen from Artois, Champagne and Lombardy, for superior leather from Pisa, for high-quality furs from Ireland or northern Russia, for tapestry, damask, brocade, cloth of gold and for the most expensive silks from Lucca, Sicily, Byzantium and even China. There was also a prodigious demand for conspicuous display articles such as gold and silver plate, often made in the capital cities themselves, or bronze and enamel from the Meuse valley, the Rhineland and Limoges, or pearls from the Persian Gulf, and diamonds, rubies and other gems from India. In addition, there was a huge market for commodities specifically related to the noble way of life of a still very military aristocracy, for high-class war horses from Lombardy or Hungary, and for arms and armour from Solingen and Toledo, and, later, from Milan. The dramatic increase in the popularity of the

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tournament, dating, significantly, from the 1170s and 1180s,[1] was both an expression of the new ability of landowners to indulge in conspicuous expenditure and a cause for channelling much of that expenditure into prestigious armour and horses. There was also, of course, a continuous demand for the services of whole armies of prestigious, and less prestigious, hangers-on, from accountants to cooks, from armed retainers to peaceable valets, who thronged the *hôtels*, inns, *palazzi* or *alberghi* that the nobility had erected in the new capital cities. All these too needed feeding, clothing and housing, as did the suppliers of goods and services, grocers and lawyers, whores and tailors.

The increase in the demand for luxury goods, backed up by the newly liberated quantities of ready cash, arising from the revolution in rents, brought about an enormous quantitative change in the volume of international trade. Moreover, as the amount of business focussed on a limited number of particular places, or rather along a limited number of routes between those places, passed a critical mass, qualitative changes in the nature of commerce began to take place as well as merely quantitative ones. Such qualitative changes in the ways of doing business, have been dignified with the title 'commercial revolution' on the analogy of the title 'industrial revolution' for changes in the organisation of manufacture. This vital transformation could only take place when the concentrated supply of money, and consequently of trade, rose beyond a certain critical point.

revolution in rents ↓ rev in intl trade

Until the critical scale of operations was reached, on any particular route, all that occurred was an increase in the volume of trade within the traditional framework. Italian merchants, for example, merely added extra mules loaded with goods to the mule-trains that accompanied them when they ventured northwards across the Alps. However, once the critical volume was reached, the scale of enterprises allowed for a division of labour.

When that point was reached, businesses became large enough and continuous enough to maintain three separate parties: the sedentary merchants remaining full-time in northern Italy, who specialised in the financing and organisation of import-export trade; the specialist carriers, whether *vectuarii* by land or shipowners by sea, who took the goods from the principals to their agents; and thirdly the full-time agents themselves, resident overseas or beyond the Alps, who devoted their energies to sales or procurements according to the instructions sent to them by their principals.

Such a three-fold division of labour naturally took place first on the routes along which demand was most concentrated at an early date, along which the quantity of trade first passed the critical point at which qualitative change became possible. This occurred first on those routes which ran from the ports of northern Italy to the

[1] Duby, *Le Dimanche de Bouvines*, pp. 110–28.

Levant. Colonies of resident Venetian, Genoese and Pisan agents came to live permanently from the twelfth century at Acre, Alexandria and Constantinople. Only a little later, similar North Italian colonies began to be found in Rome, Naples and Palermo and at the Fairs of Champagne, as well as colonies of agents from other cities within the cities of North Italy itself. Later still, by the end of the thirteenth century, they were to be found in the northern capitals, at Paris and London, and also at some of the greater ports with wealthy hinterlands, such as Bruges, Seville, Barcelona and Montpellier.

This transformation of commerce, by which the peripatetic merchant moving about western Europe and the Mediterranean with his goods was replaced by several different men with specialised functions, only became possible in turn in those areas in which a sufficient amount of money and a sufficient scale of demand came to be concentrated. The lack of an effective central monarchy in Germany meant that, since there was no single great capital, demand was too diffused for any single route to carry enough trade to warrant the new commercial division of labour. As a consequence the trade of the Hanseatic cities, northwards and eastwards from Bruges, did not reach this critical volume at this period, and that of the South German cities was still equally primitive in its organisation. Germany and central Europe, with one exception, was not yet ready for the commercial revolution. Only at Prague, where the last Přemyslid and the first Luxemburg kings of Bohemia ran a centralised monarchy, as well as enjoying mining-revenues, was there a capital large enough for the scale of demand generated in it to warrant even a small resident Italian business community. It was much later, in the second half of the fourteenth century, that the Angevin monarchs of Hungary, supported by the new gold from Kremnica, managed in the same way to make Buda a focal point for the nobility of Hungary and hence also for Italian businessmen. The fourteenth-century kings of Poland never succeeded in drawing in their nobility to Cracow in this way, despite their attempts to do so.

The byproducts of this revolutionary commercial division of labour have been increasingly understood by historians since the Belgian businessman and scholar Raymond de Roover first pointed out the essential elements of this vital transformation at a meeting of the American Business Historical Society in 1941.[1] Partnerships and financing, which had previously lasted only for a single voyage, took on a more permanent aspect, lasting for terms of several years at a time, often renewed at the end of the term, on a similar basis, for a further period. In Tuscany, in

[1] 'The commercial revolution of the thirteenth century', *Bulletin of the Business Historical Society*, XVI (1942), 34–9, repr. in F. C. Lane and J. C. Riemersma (eds.), *Enterprise and Secular Change* (London, 1953), pp. 80–5. He expressed this insight more fully in his chapter on 'The organization of trade' in the *Cambridge Economic History of Europe*, III (1963), 42–118. It has since become part of the stock-in-trade of medieval economic historians, although the specific role of the money supply in the transformation has not been explored until now.

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particular, partnership was extended enormously. The capital of one of the largest companies, the Bardi of Florence, when renewed for 21 years in 1310, was divided into as many as 56 shares.[1] Such shares were transmissible within the lifetime of the company without breaking up the partnership. They were held not only by members of the families of the founders of a company, and by its principal employees, who were encouraged to put their own savings into their own company, but also by other rich men. These were investors not at all concerned with the actual running of the company. In addition to the *corpo*, that is, the capital raised by the shareholders when a company was formed or re-formed, additional capital could be put in later, by shareholders, by employees and by outsiders. Such *denari fuori del corpo* carried fixed rates of interest, like modern debentures. The sedentary merchant at home was no longer a simple individual capitalist; as head of a company he was a manager responsible to his shareholders. As well as the expansion of the scale of firms at home, which mobilised such large amounts of capital, there was an equivalent expansion of the scale of enterprise abroad. It was perfectly possible to repeat the principal–agent relationship over and over again, with agents of the same principal in many different places. The earliest such multi-branched companies, such as the Chiarenti of Pistoia, or the Cerchi of Florence, came into existence in the middle years of the thirteenth century.[2] Commercial correspondence, which had been unnecessary when the merchant had his own goods under his own eyes and struck personal bargains with sellers and buyers, became much more prolific, and regular courier services developed between the main commercial centres. Commercial accounting, which had been rudimentary and largely unnecessary for the same reasons, came to be much more complex, as business firms had to deal with shareholders, suppliers, customers, multiple branches and associated companies over long distances and long periods of time.[3] At about the same time the trade along some routes passed the critical volume at which tolls exacted on it became large enough to finance what has been called a road revolution.[4] As well as a straightforward resurfacing of roads, new bridges were built, new Alpine passes were opened, new hospices for travellers were founded where major routes passed through uninhabitable mountains and forests, new

Shareholders

[1] Armando Sapori, *La crisi delle compagnie mercantili dei Bardi e dei Peruzzi* (Florence, 1926), pp. 227–81.

[2] For multi-branched companies in Pistoia, see Herlihy, *Pistoia*, pp. 165–6; a former student of mine, Dr Clare Baggott, is at present engaged in a study of the early Cerchi and hopes to be able to publish an article on them shortly.

[3] Double-entry book-keeping was the most significant of these advances in accounting (Raymond de Roover, 'The development of accounting prior to Luca Pacioli according to the account books of medieval merchants', in A. C. Littleton and B. S. Yamey (eds.), *Studies in the History of Accounting* (London, 1956), pp. 114–74, repr. in *Business, Banking, and Economic Thought in Late Medieval and Early Modern Europe. Selected Studies of R. de Roover*, ed. Julius Kirshner (Chicago, 1974)).

[4] Johan Plesner, *Una rivoluzione stradale del Dugento*, Acta Jutlandica (Copenhagen, 1938).

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insurance

harbour-works were undertaken, and new lighthouses constructed. All of these made the work of the professional carriers easier and safer. For the calamities that could not be avoided, particularly at sea, insurance was invented.

mutual confidence = credit

A further consequence of the regularity and scale of trade was the growth of mutual confidence amongst international merchants, and between them and their suppliers and customers. On the basis of this confidence credit sales could take place, so effectively anticipating and increasing the supply of money.

bill of exchange 1300

The most important consequence of this mutual confidence between merchants was the use of various instruments of payment out of which the bill of exchange was gradually perfected. No longer did every prospective purchaser or returning vendor need to carry with him large and stealable quantities of precious metals, whether in coin, or in marks of silver or ounces of gold, depending on the trading-area. Instead the static manager could send and receive remittances from his factors and agents by bills of exchange. The bill of exchange seems to have evolved into its definitive form by the end of the thirteenth century. Its evolution had begun over a hundred years earlier with the notarised *instrumentum ex causa cambii*. The surviving Genoese notarial registers include some such instruments from the late twelfth century, mostly involving transactions between Genoa and the Champagne Fairs. In the thirteenth century the Champagne Fairs were not only the principal bullion-market of Europe but also the principal money-market as well, and the forcing-house for the development of the bill of exchange. By the first half of the fourteenth century it had become normal to make commercial payments by bill of exchange between a wide range of cities in western Europe. The merchant-banking network was focussed on the great trading cities of North Italy, particularly of Tuscany. It extended westwards to the papal curia when it was at Avignon, to Montpellier, Barcelona, Valencia, Seville and sometimes Lisbon; northwards to the Champagne Fairs, until they faded from importance, and to Paris, Bruges and London; and southwards to Naples and Palermo.[1]

Even between these cities, although the majority of transactions could be carried out by bill of exchange, any eventual imbalance had ultimately to be settled up in gold or silver. When an imbalance between two banking-places became too great, the rate of exchange rose (or fell) to such an extent that it passed one of the specie points. In other words it temporarily became cheaper, in one direction, to transport bullion with all its attendant costs and risks, than to buy a bill of exchange. The net quantity of silver transported from Bruges to London or Paris to Florence, or of gold from Seville to Genoa did not diminish as a result of the development of bills

[1] Raymond de Roover, *L'Évolution de la lettre de change (XIVe–XVIIIe siècles)* (Paris, 1953), and numerous other writings, the most important collected in *Business, Banking and Economic Thought*. Most, but far from all, the exchange rates collected in Peter Spufford, *Handbook of Medieval Exchange*, Royal Historical Society (London, 1986), fall within the geographical area outlined above.

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of exchange, but the amount of business that it represented was increased out of all proportion. The bill of exchange enormously multiplied the supply of money available for international transactions between these cities.

Although bills of exchange were developed by merchants for merchants, they very quickly came to be used by non-merchants as well. Successive popes were the most considerable non-commercial users of bills of exchange. Papal collectors in England and the Low Countries, northern France, the Spanish kingdoms and Italy normally used bills of exchange to transmit the money they had collected to the apostolic *camera* at Avignon in the first half of the fourteenth century.[1] Bishops travelling to the curia no longer needed to ensure that their chamberlains were loaded down with an adequate quantity of mark bars of silver.[2] Noblemen, whether on pilgrimage or representing their princes on embassies, could also avail themselves of bills of exchange. There were, however, limits. Certain international political payments, such as wages to keep whole armies in the field for protracted periods, subsidies for expensive allies, or royal ransoms and dowries, could easily prove too large for the normal commercial system to handle, and so had to be transmitted largely, or wholly, in silver, or gold.[3] Nevertheless a very large proportion of normal payments within this network of cities was made by bill of exchange by the early fourteenth century.

However, outside this range of banking-places, even ordinary international payments had still to be made primarily in bullion. Nevertheless credit, when extended from buyer to seller, or vice versa, still stretched the money supply here too, by deferring payment and so enabling a greater volume of business to be transacted. Where there was a large and continuous imbalance of trade, as there was between the mining-centres of Europe and the commercially advanced areas, a bill-of-exchange system had little chance of developing. In the fourteenth century, papal collectors in Poland still had to take bullion to Bruges or Venice before they could make use of the West European banking-system by acquiring bills of exchange to remit to the curia.[4] Until the fifteenth century even the most prominent trading-cities of Germany, such as Lübeck, basically remained outside this network of exchanges.

Between Christian Europe, Muslim North Africa and the Levant, the use of bills

[1] Yves Renouard, *Les Relations des papes d'Avignon et des compagnies commerciales et bancaires de 1316 à 1378*, Bibliothèque des Écoles Françaises d'Athènes et de Rome CLI (Paris, 1941), and see below, pp. 392–5.

[2] See above, pp. 209–10.

[3] For example, when John XXII needed to pay 60,000 florins to the papal army in Lombardy in the summer of 1328, he had to send it in coin. It is an excellent example of the risks involved in carrying coin, for, despite a guard of 150 cavalry, the convoy was ambushed and over half the money lost on the way (Giovanni Villani, *Cronica*, Book x, chapter xli). The political payments discussed in the conclusion, below, pp. 390–2, all had to be made in silver or gold.

[4] Armando Sapori, 'Gli Italiani in Polonia fino a tutto il quattrocento', in his *Studi di storia economica medievale – secoli XIII, XIV, XV*, III (Florence, 1967), 149–76.

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was little developed. This was so even though the scale of trade was very large, and the division of labour between manager, carrier and factor developed early, for here there were not only chronic imbalances of trade, but also decided differences in the values given to gold and to silver in the three areas concerned. Since Europe was a silver-producer and Africa a gold-producer, silver was less valued in Europe than Africa, and gold less valued in Africa than Europe. When this disproportion in value was sufficiently great to overcome the risks and costs of the voyage across the western Mediterranean, it occasionally became worthwhile to take European silver to Africa in order to purchase African gold. Much more frequently it was commonsense to carry additional silver southwards and gold northwards along with other more ordinary merchandise.[1] The balances both between Christian Europe and the Levant, and between Muslim North Africa and the Levant, were strongly in favour of the Levant, and were consequently settled by sending enormous quantities of European silver and African gold.[2] The Near East itself had a generally unfavourable balance with the Middle and Far East, so that much African gold and European silver continued further into Asia.[3] Such circumstances were the very antithesis of the more balanced trading-conditions in which the bill of exchange evolved.

E-W ratio

local banks - money changers

In addition, local banking developed at the same time as international banking. Within certain of the leading commercial cities money-changers extended their activities from manual money-changing to taking deposits, and then to transferring sums from one account to another on the instructions of the depositors. In Genoa, the most precocious centre for such local banking-activities, the notarial register of Guglielmo Cassinese (1190–2) indicates that local payments could be made not only by transfer between accounts within the same bank, but also by transfer between accounts in different banks in the city.[4] This was possible because the bankers maintained accounts in each others' banks. In this way interlocking banking-systems came into existence. The largest of these was that at Florence,

[1] Andrew M. Watson, 'Back to gold – and silver', *Economic History Review*, 2nd series XX (1967), 1–34; and R. S. Lopez, 'Back to Gold, 1252', *Economic History Review*, 2nd series, IX (1956), 219–40.

[2] As a consequence of the chronic imbalance between the Maghreb and the Levant, all payments from one to the other were made in coin, although a number of banking-instruments had already evolved within the central countries of the Muslim world. The *suftadja* there was the equivalent of the European bill of exchange, and the *ṣakk* of the cheque. Although the *suftadja* and *ṣakk* evolved some two centuries before their western counterparts, there is no convincing evidence that they had any direct influence on European developments, apart from the possible derivation of the word 'cheque' from *ṣakk*. Indirect influence is probable, but too nebulous to pin down, for considerable numbers of eleventh- and twelfth-century Italian merchants must have become aware of the banking-instruments used, between themselves, by the Muslim merchants with whom they traded in the cities of the eastern Mediterranean (Eliyahu Ashtor, 'Banking instruments between the Muslim East and the Christian West', *Journal of European Economic History*, I (1972), 553–73).

[3] Eliyahu Ashtor, *Les Métaux précieux et la balance des payements du Proche-Orient à la Basse Époque* (Paris, 1971).

[4] Raymond de Roover, 'New interpretations of the history of banking', *Journal of World History*, II (1954), 38–76, repr. in his *Business, Banking, and Economic Thought*, pp. 213–19.

where there were reputedly as many as eighty banks by the early fourteenth century.

By the fourteenth century it had become customary amongst merchants within a limited number of cities to make payments as far as possible by assignment on their bank accounts (*per ditta di banco*). Such assignment was initially normally made by oral instruction by the account-holder in person at the bank. In the course of the fourteenth century, written instructions, or cheques, supplemented and eventually supplanted oral instructions.[1] By 1321 it was apparent that some Venetian bankers were reluctant to pay out cash, instead of making transfers between accounts, for in that year the Great Council had to legislate that bankers were to be compelled to pay out cash within three days if asked to do so.[2] By allowing overdrafts and thus letting their cash reserves fall below, and often well below, the total of their deposits, such local deposit-bankers were not only facilitating payments, but also effectively increasing the money supply.

cheques

making money

In Venice, to which so much unminted silver came in the course of the thirteenth century, it had become normal practice by the fourteenth century for merchants to be paid for the bullion that they brought to the city by crediting them with its value in a bank account. Its importers could then immediately pay for their purchases of spices and other merchandise by assignment in bank.[3]

As well as these current accounts, on which no interest was paid, these money-changer banks also ran deposit accounts on which interest accumulated. These were suitable for sums of money that were not required for several years, the dowries of orphan girls for example, and could therefore be invested by the banker in long-term enterprises. Some Venetian bankers invested directly in trading-voyages. A complete round trip, from Venice to the Levant, back to Venice, onwards to Flanders, and back to Venice again, took two years. To make an investment in such a voyage the banker had to be certain that his depositors would not call for their money suddenly.

Such transfer banking developed in other cities much more slowly than in Genoa. In Venice, for example, the earliest direct evidence of a money-changer

[1] Two Pisan cheques of 1374 are illustrated as doc. 155 in Federigo Melis, *Documenti per la storia economica* (Florence, 1972). See his sections on banking in that book, pp. 75–104 and 463–96, and also his *Note di storia della banca pisana nel Trecento*, Pubblicazioni della Società Storica Pisana I (Pisa, 1955). On the use of cheques in fourteenth- and fifteenth-century Florence see Marco Spallanzani, 'A note on Florentine banking in the Renaissance: orders of payment and cheques', *Journal of European Economic History*, VII (1978), 145–65. Similar written orders to pay came into use in Genoa and Barcelona, but Venetian banks continued to insist on the presence of the payer, or of an agent with a notarised power of attorney, to give oral instructions (Reinhold C. Mueller, 'The role of bank money in Venice 1300–1500', *Studi Veneziani*, new series, III (1979), 47–96).

[2] Reinhold C. Mueller, *The Procuratori di San Marco and the Venetian Money Market* (Ph.D., Johns Hopkins, 1969; printed Arno Press, New York, 1977), p. 188. Another habit, of which the bankers' account-holders complained in Barcelona and Genoa as well as Venice, was to send them to other banks to look for cash (Mueller, 'Bank money', p. 75).

[3] *Ibid*. pp. 61–7.

running bank accounts is as late as 1274, and then it is not clear if they were current or deposit accounts. Indirect evidence, however, suggests that such banking activities had by then already been going on for several years.[1] Outside Italy the earliest evidence is a little later still. The Privilege of Barcelona in 1284 implies that current-account banking, with credit transfer between accounts, already existed there at that date, and the register of the treasurer of Aragon for 1302–4 shows that it then also existed at Valencia and Lerida.[2] The evidence for money-changers acting as local bankers in Bruges also begins around 1300.[3] Later evidence suggests that they were also acting in this way in the course of the fourteenth century in Liège, Strasbourg and Constantinople.[4]

Bank accounts were quite clearly part of the money supply by the end of the long thirteenth century, and legislation was introduced to protect those who used them. In Venice a guarantee of 3000 lire was required in 1270 before a money-changer banker was allowed to set up in business.[5] In Barcelona, from 1300, book entries by credit transfer legally ranked equally with original deposits among the liabilities of bankers. Those who failed were forbidden ever to keep a bank again, and were to be detained on bread and water until all their account-holders were satisfied in full. In 1321 the legislation there was greatly increased in severity. Bankers who failed and did not settle up in full within a year were to be beheaded and their property sold for the satisfaction of their account-holders. This was actually enforced. Francesch Castello was beheaded in front of his bank in 1360.[6]

International banking and local banking soon came to be combined, where that was possible. Thus bills of exchange could be bought by debiting a bank account and their proceeds credited to a bank account.[7]

It can be argued that the money supply was also increased in the thirteenth century, again in a limited number of cities such as Genoa, Florence and Venice, by the creation of negotiable paper, such as shares in the *monte*, the public debts of the cities. In Venice for example, where forced loans had been exacted since 1164, the

[1] Mueller, *The Procuratori di San Marco*, pp. 163–4.
[2] A. P. Usher, *The Early History of Deposit Banking in Mediterranean Europe*, I (Cambridge, Mass., 1943), 239 and 256–7.
[3] Raymond de Roover, *Money, Banking and Credit in Medieval Bruges* (Cambridge, Mass., 1948), pp. 171ff.
[4] De Roover, *La Lettre de change*, pp. 24ff.
[5] In 1318 this was increased to 5000 lire to compensate for the decline of the lira (Mueller, 'Bank money', p. 73).
[6] Usher, *Deposit Banking*, pp. 239–42.
[7] Raymond de Roover has described how this was done in Bruges and Barcelona; Reinhold Mueller in Venice ('Bank money', pp. 57–9) and Jacques Heers in Genoa. Heers gives a late but vivid example of how important this combination of the two forms of banking became. Between 1456 and 1459 an account-book of the Piccamiglio records the receipt of payments from abroad by bills of exchange totalling 159,710 Genoese lire. Of these only 11,753 lire's-worth of bills were paid to them in cash. All the rest, over 92½% of them, were met by transfer in bank (*Gênes au XVe siècle*, abridged ed. (Paris, 1971), p. 90).

rights to their repayment became negotiable in 1262. In the meanwhile, the purchaser became entitled to the interest.[1]

It will be apparent that bank money and other additions to the money supply did not develop where the money supply was generally poor, but, on the contrary, in some of the places where the money supply was already most abundant. The silver mined in Europe largely ended up in Asia. Much of it passed on the way through wide areas of the European countryside and through the capital cities of the west, but a great deal of it concentrated in its passage through Europe in the great commercial cities. It was the middlemen of these cities who took the largest profits and added most to the value of the goods passing through their hands. In consequence, it was in their cities, and in certain areas of primary production, like wool-growing England, that the largest accumulations of silver were to be found. The middlemen of the Middle East did not seem to have the same success as their West European counterparts, particularly the Italians, in detaining a large proportion of this silver on its way to India or China. It was therefore only in a limited number of cities, mostly in North Italy, that the money supply built up to an adequate level for giro banking to develop. Once it did so, it increased the money supply still more and allowed further developments to take place.

Once certain levels of monetary activity had been reached, quantitative changes thus led on to qualitative changes in commercial methods, which themselves increased the money supply and the scale of business still further.

Among the natural consequences of this revolution in the use of money and the increased possibilities of productive investment was a radical change in attitudes towards lending. Coin and ingots, instead of being hoarded for safety, or only lent reluctantly at rates of interest that were very high, to compensate for the risks involved, were commonly mobilised for investment. A great dethesaurisation of previously hoarded precious metals added further to the supply of money and its velocity of circulation.[2] In Italian cities it is easy enough to find examples of investment rather than hoarding. When a moderately well-to-do Genoese nobleman, Guglielmo de Castro, died in 1240, his executors discovered that, apart from his house and domestic goods, all his assets, some 1100 Genoese lire and 440 bezants, had been invested by him and his wife over the previous six years in two dozen separately notarised *commenda* contracts.[3] A generation later, in 1268, the

[1] G. Luzzatto, 'Il debito pubblico nel sistema finanziario veneziano dei secoli XIII–XV', *Nuova Rivista Storico*, XIII (1929), repr. in *Studi di storia economica veneziana* (Padua, 1954), pp. 211–24.

[2] H. van Werveke, in his 'Le Mort-gage et son rôle économique en Flandre et en Lotharingie', *Revue Belge de Philologie et d'Histoire*, VIII (1929), 53–91, illustrates the way that ecclesiastical treasure was put into circulation, particularly in the late twelfth and early thirteenth centuries.

[3] Inventory printed in R. S. Lopez and I. W. Raymond, *Medieval Trade in the Mediterranean World* (New York, 1955), pp. 92–4.

executors of the extraordinarily rich Venetian doge, Ranieri Zeno, discovered that he had no less than 22,935 Venetian lire di piccioli invested in 132 *colleganza* contracts, compared with only 3388 lire in actual coin.[1] Less than 7% of his enormous wealth was liquid, whilst 46% was invested in the commercial enterprises of others.

The same phenomenon of wide investment is equally striking when seen from the other end, and on a much smaller scale. The executors of a Genoese businessman, Armano, who died in Bonifacio in Corsica in 1239, found that he had managed to persuade twenty-six men and women to finance his business by commending small investments to him, to a total of 1201 Genoese lire. He also had a partner who had put 400 lire into the business.[2] By the end of the century small investors, rather than putting their money directly into business ventures, were in some cities alternatively able to deposit it in greater safety in banks, which took the risk of the eventual commercial investments. By combining investments, some very small indeed, in this way, quite enormous sums could be mobilised. A striking, although rather late, example of this is provided by the Aiutamicristo bank of Pisa, which was able to lend 100,000 florins of its depositors' money to the Sancasciano company of Pisa, for purchasing cloth, between 1354 and 1371.[3] Large investors, on the other hand, continued to invest directly in business ventures.[4]

As commercial loans became an ordinary part of North Italian economic life, so North Italian canonists reworked the ecclesiastical doctrine of usury to make the payment of interest acceptable under certain circumstances. The old approach condemned loans at interest, with biblical and classical precedents, because in a largely non-commercial age such loans had primarily been consumption loans and trapped the borrower in a downward spiral of misery. A new approach was needed to cope with productive loans that enabled the borrower to expand the scope of his business. The key to the new approach was *lucrum cessans*, the profit the lender would have made himself if he had kept the money to trade with, but had in fact forgone in order to lend it to the borrower so that he could trade with it instead. The most significant of the early writers along these lines was the Lombard canonist Henry of Susa.[5] In 1271 he wrote: 'If some merchant, who is accustomed to pursue trade, and the commerce of the fairs, and there profit much, has . . . lent (me) money with which he would have done business, I remain obliged from this to his *interesse*.'[6]

[1] In addition he had 6500 lire in negotiable state bonds (G. Luzzatto, 'Il patrimonio privato di un Doge del secolo XIII', *Ateneo Veneto*, XLVII (1924), repr. in his *Storia economica veneziana*, pp. 81–7).

[2] Inventory printed in Lopez and Raymond, *Medieval Trade*, pp. 95–8.

[3] Melis, *Banca pisana*, pp. 147–61.

[4] See above, p. 253.

[5] Better known as Hostiensis, since he became Cardinal Bishop of Ostia.

[6] Hostiensis, *Commentaria super libros decretalium*, V, 'De Usuris', as quoted by Barry Gordon, *Economic Analysis*

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As men felt freer to invest rather than hoard, commercial interest rates dropped, particularly in those places where the money supply was most plentiful, like the cities of northern Italy, to a level at which a great many undertakings could be profitably financed that would have been impossible at higher rates of interest.

In Genoa in 1200 bankers were making commercial loans at 20% per annum,[1] in Florence in 1211 at 22%,[2] and in Venice Pietro Ziani, doge from 1205 to 1229, lent at 20%.[3] Commercial interest rates were still at the same rate as personal loans. The loans on the security of land in central Italy in the third quarter of the twelfth century were also at 20% per annum.[4] A hundred years later things were very different. In the first half of the fourteenth century commercial loans in Genoa could sometimes be obtained for as little as 7%, although they were generally rather higher. In Florence the Peruzzi bank in the first quarter of the century was paying its depositors 8% and charging 2% more for loans.[5] In Pisa in the 1350s the Aiutamicristo bank was still lending to the Sancasciano company at this same average rate of 10%.[6] In Venice money was cheaper still. In the 1330s, the banker Francesco Cornairo was only paying his depositors 5% and 7%,[7] whilst loans were being made to shopkeepers and craftsmen at 8%.[8] Late-thirteenth- and early-fourteenth-century cities paid their own citizens for forced loans at even lower rates,[9] but had to pay the market rate when they wished to attract voluntary loans.[10] Princes, noblemen and other private individuals, all bad risks, still had to pay high rates, whether to loan sharks, or even to reputable bankers who sometimes extended their operations into these grey areas.[11] The differential between commercial and non-commercial loans is clearly illustrated in the cor-

before Adam Smith (London, 1975), p. 157. The standard work on the evolution of the doctrine of usury is J. T. Noonan, *The Scholastic Analysis of Usury* (Cambridge, Mass., 1957).

1 Sidney Homer, *A History of Interest Rates* (Rutgers, New Brunswick, 1963), p. 91.

2 De Roover, 'Accounting prior to Pacioli', pp. 116–17.

3 As his father had done before him. Funds accumulated in the hands of pious foundations and lent to those engaged in the Levant trade had also paid 20% in the twelfth century (Frederic C. Lane, 'Investment and usury', *Explorations in Entrepreneurial History*, 2nd series, II (1964), repr. in *Venice and History: Collected Papers* (Baltimore, 1966), p. 63).

4 Toubert, *Latium medievale*, p. 614.

5 Homer, *Interest Rates*, p. 94.

6 Melis, *Banca pisana*, pp. 147–61.

7 Mueller, *The Procuratori di San Marco*, p. 175

8 8% was the standard rate for *colleganza* within the city in 1330, but rates were still dropping. They were down to 5% after 1340. Pious foundations had only been getting 5% on funds invested in the Levant trade since the previous century (Lane, 'Investment and usury', p. 60).

9 Nominally 5% in Venice from 1262. Since this was well below the market rate, the shares in the public debt changed hands at well below par. Between 1285 and 1316 their price fluctuated between 60% and 78%, giving a return of 6½% to 8⅓% on the market price. When the rate of interest on bank deposits fell to 5% in the 1330s the shares rose to par (Luzzatto, 'Il debito pubblico nel sistema veneziano', in his *Storia economica veneziana*, pp. 213–14).

10 The Venetian government, through the Ufficio del Frumento, offered 8% to 12% in the late thirteenth century, but this rate too dropped to 5% or under by the mid fourteenth century (Mueller, 'Bank money', p. 78).

11 For the effect of loans to princes see above, p. 249.

respondence of the Vicente company in 1260. 'Money here', they wrote from Siena, 'is priced at five and six denari per lira between merchants, and for those who are not merchants at ten and twelve denari per lira.'[1] The dropping of commercial interest rates in the principal cities of Italy in the course of the thirteenth century from 20% per annum and upwards to 10% per annum and below is a very clear indication of the change in scale of the money supply.[2]

In the thirteenth century the return on money invested in land also fell significantly, although it was always lower than the return on loans. In Picardy, Fossier found that land purchase gave 9% to 12% in rent before 1200, but only a mean of 5% after 1260.

Chamberlains 1240–1343 11x increase in terms of gold

Another clear indicator of the change of scale of the money supply is provided by the share of it that passed through the coffers of the state. This is most clearly seen in the case of the Italian city states. For example, the chamberlains of the city of Florence in 1240 accounted for revenues received at the rate of 26,000 Florentine lire a year, whilst a century later in 1343, they received 942,000 lire.[3] Even allowing for the falling value of Florentine petty money, this represented an eleven-fold increase in the revenue of the Florentine state in terms of gold. Can one hazard that the means of payment available in Florence increased in the same proportion? For comparison, both public revenue, and the means of payment, in Great Britain, only increased seven-fold in the century of industrialisation from 1811 to 1913.

Bills X

Numismatists, and historians who have concentrated on the physical form of the coinage, have hitherto made much of the return to using gold coin in the west. However, in my opinion, a much more radical change than the convenience of using gold coin rather than uncoined gold, as far as international trade was concerned, was the evolution of the bill of exchange for transactions between the major international banking-centres of Europe.

Bills X transfer banking bank money

Historians who have emphasised the new multi-denominational nature of everyday currency, after the creation of the silver grosso, have not, hitherto, adequately linked this with the growing complexity of life within the great cities of the west. Just as the introduction of the bill of exchange was more significant than that of gold coinage for international trade, so, within some of these great cities, the evolution of transfer banking and the creation of bank money was a more significant change than the creation of a multi-denominational currency. The bill of

[1] 'Chè Sapi ch'è denari ci sono valuti, da uno merchatante ad altro, cinque d. e sei libra, e altri che ne siano merch[at]anti sono valuti diece d. e dodici in chorsa' (Siena to Provins, 5 July 1260) (C. Paoli and E. Piccolomini (eds.), *Lettere volgari del secolo XIII scritte da Senesi* (Bologna, 1871), p. 16). They regarded the commercial rate that they were quoting as abnormally high on account of the war with Florence.

[2] The decades when interest rates dropped have not yet, to my knowledge, been pinpointed. It is, however, noticeable that the dei Boni only paid 7% at Pistoia on money invested with them *fuori del corpo* as early as 1259 (Herlihy, *Pistoia*, p. 164).

[3] David Herlihy, 'Direct and indirect taxation in Tuscan urban finance *c.* 1200–1400', *Finances et Comptabilité Urbains du XIII^e au XVI^e siècle*, Pro Civitate, Collection Histoire in 8°, VII (Brussels, 1964), 385–405.

exchange and the oral precursor of the cheque, rather than the florin or the grosso, were the really radical and important developments in the means of payment associated with the commercial revolution of the thirteenth century.

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The increase in the supply of money may not have been directly a cause of that commercial revolution, but it was a necessary pre-condition for it. Without an adequate money supply available in the countryside, albeit seasonally, the landlords could not have taken advantage of the pressure that growing population was enabling them to put on their tenants and bring about the revolution in rents that they desired. Without such a revolution in rents the landlords could not have achieved an enhanced standard of living and obtained a variety of choice of purchases that had not been available before. The demand generated in the mining-areas may have initiated commercial and industrial expansion, but it was the strong and sustained demand from the rulers and landowners that acted as the stimulus to continuous commercial and industrial growth almost uninterruptedly for a century and a half. Without the concentrated force of that demand in capital cities, rather than scattered between rural castles throughout western Europe, merchants could not have operated on an adequate scale for the revolutionary division of labour in commerce to take place, with all its ancillary changes.

Increased money supply precondition

revolutionary division of labour in commerce

An example that elegantly ties together a number of these strands is provided by the accounts of the Trésor du Louvre. Philip IV of France, in need of money for his war with Aragon, was granted permission to tax the revenues of the French clergy by Pope Nicholas IV. In 1289 one of the largest international business houses in Florence, the company of Musciatto and Albizzo di Guido di Figline, commonly known as the 'Franzesi' on account of the amount of business they did for the King of France, were nominated as receivers of this tax, a tenth, in the Auvergne. The company sent out three men, led by Noffo Dei, their resident agent at the Champagne Fairs, to collect it. Having collected it in ready cash, they transported it by cart to the May Fair at Provins, where the coin was used for loans and the purchase of goods.[1] At one stroke coin was drawn out of rural Auvergne directly into the mainstream of international banking and trade.

From rural rent to courtly living, from banking and international trade to public revenue and military service, the long thirteenth century of the commercial revolution witnessed a series of fundamental transformations, each associated with a complete change in the scale of, and attitudes to, the use of money. The whole period from this commercial revolution to the industrial revolution of the eighteenth and nineteenth centuries possessed an economic unity, the basis of which was established by these radical transformations arising from the new uses of money in the long thirteenth century.

[1] Quoted by R. Davidsohn, *Storia di Firenze* (1896–1927; Italian trans. 1956–68), VI, 628–9.