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## CONFERENCE REPORTS

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### *Money and the European Economy from the XIIIth to the XVIIIth Centuries*

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All the central aspects of monetary history, and in particular those relevant to a period running from the early Middle Ages to the Enlightenment, were tackled during the VIIth Study Week held in Prato between 11 and 17 of April 1975 by the F. Datini International Institute of Economic History. The session opened with a paper by R.S. Lopez and closed with that of Philippe Wolff. In his paper Lopez identified, often incisively, several fundamental aspects of the problems in question. He stressed the close connection between money supply and credit, and noted that for the 13th century, at least, the production of both gold and silver was quite adequate for society's needs, and that there was at the time no problem of an unfavourable balance of payments. In the 13th century in fact «... Europe's exports to the Levant were considerably greater in value than those of the Levant to Europe». The way in which he treated the issue of the return to the gold currencies of Genoa and Florence was of particular interest. To explain the origins of the Genoese gold currency, Lopez suggested a motive arising both from monetary and economic considerations — that is the high gold-silver exchange rate which encouraged the minting of gold coin. He claimed that the motives for adopting gold coin in Genoa were essentially economic rather than prestigious, a characteristic of this type of currency which developed only later. The enterprise was undertaken as a financial operation by a group of bankers with international dealings, with the explicit objective of creating profit and «... when it ceased to be convenient they no longer pressed it». Lopez pointed out that it was, in any case, no mere coincidence that both Florence and Genoa should have struck gold coinage in the same year, and that there was in

fact some form of understanding between the groups involved in this operation in both of the cities, which was at the start an essentially economic and financial operation. It was only some time later that the Florentine chronicler Villani proudly boasted of the prestige held by Florentine currency. But Lopez also noted that the reasons for the success of the Genoese and Florentine currencies lay not only in the fact they contained 3.5 grams of pure gold, but also because they formed part of a particular economic situation at a moment when both Florence and Genoa were reaching out to establish increasingly important positions in both the Italian and international markets. It was not only motives of imitation or emulation, then, which led much of Europe to mint new forms of currency in the following decades. The studies which have attempted to establish the dates, methods, volumes, types, the mints and the minters of these new currencies should not be seen simply as exercises to identify the chronology of the process, or even of the relative intrinsic values of the different coins, but rather as a serious attempt to trace the subtle connections between the different currencies and the nature of the links between different monetary areas. Such research is extremely valuable because it can reveal the comparative indices which bear witness not only to the level of development of a particular society and economy, but also the specific reasons which lay behind individual instances of the introduction of new coins and currency.

Phillips Wolff's paper (*Money and Economic Development in Medieval Europe*) was concerned with a very different set of problems, however, and was concentrated mainly on methodological issues, which included a perceptive review of the most recent literature on the subject. In his view, the two fundamental issues in the Carolingian period were: a) from where did the mass of coin struck in this period come? The answer, he claimed, lay in the existing stock of coin struck in earlier periods, which consisted of the bullion accumulated through military conquests, of the metals derived from trade with the Arab world, and from mining; b) what role did money play in the economy? On this there was no simple solution, as it would be necessary to study individual regions separately. However, he concluded «... I would tend to believe that if one takes an overall view the use of coin in the Carolingian period was marginal. Money served to establish prices and was used for saving wealth, but to a much lesser extent was it used in exchange transactions». But between the 10th and 13th centuries the situation changed and money began to assume a more important function. His two general conclusions for this period were: a) «... that it was during the "feudal" period that money developed its full economic use...»; b) «... it seems clear that the driving force lay in demographic and economic expansion. Money responded to this movement not particularly well and with considerable disorder — one reason for this was the absence of strong political structures, and another the primitiveness of economic thought».

In the third period, which Wolff labelled as the « innovation of the 13th century », southern Italy and Catalonia, where gold coin had been struck without any interruption, are of central interest, as is also the return to the use of gold and the revival of gold currencies. As well as describing this classical picture of the development of monetary systems, Wolff also discussed the recent theories of A. Watson.<sup>1</sup> He finally turned to the early Middle Ages and dealt with the conflicting explanations of the late 13th century recession, with Postan's demographic thesis and the monetary explanation argued by Robinson and Mayhew, and suggested that « . . . the two explanations, the demographic and the monetary, need to be combined ». He also asked « to what extent can one talk of monetary contraction, or even of a general economic contraction, in the period from the mid-14th to the mid-15th centuries? », and in this context he discussed the increase in mineral production and the development of fiduciary currency, in particular the bill of exchange.

Between these two papers there were a mass of other contributions which tackled the theme and the general problems involved from a variety of standpoints. Although nearly all were of interest and importance, space prevents us dealing with each in detail, even if all deserve to be mentioned. We must however limit ourselves to a small number, and direct the reader to the Proceedings of the conference which will shortly be published. We shall discuss only those which were particularly striking by virtue of originality of approach, novelty of information, the importance of their conclusions, the breadth of their scope or the interest of their suggestions. V. Janssens in his paper on "The coining of money in the Netherlands in the 17th and 18th centuries", for example, concluded that: « a) coin was struck frequently in the first three-quarters of the 17th century; b) the rate declined rapidly in the last quarter of the century; c) there was hardly any coin struck in the first half of the 18th century; d) an extraordinary expansion occurred between 1749 and 1770, but initially this was fuelled by large scale recoinage of gold ducats; e) the volume of coin struck again declined between 1770 and 1790 ». Of particular interest was the question he raised about whether the stagnation in issue of coinage evident in the southern Netherlands between the late 17th and mid-18th century was common to other European countries as well, and its relations with the economic depression. A point raised by Von Stromer was also of interest, as he has for some time persisted in questioning the view that before the age of the Fugger there was in Central Europe « . . . neither a money market common to different regions nor even an exchange market, nor institutions which functioned as banks ». He is, on the contrary convinced, and took the opportunity to expound his views fully, that in the course of the 14th century « a comprehensive parallelism

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<sup>1</sup> A. WATSON, *Back to Gold and Silver*, « Economic History Review », n. 1, 1967.

developed between the economic difficulties of the inter-regional money market of north western Europe and that of southern and western Germany », and this was due to the fact that « Europe's supply of monetary metals depended on the production of silver in Central Europe ». But in the late 15th century a new phenomenon occurred with the creation of « written money » by those companies which attempted to « exploit their credit to the full limit of their commercial reputation and assets . . . Fiduciary credit could also provide long-term capital for investment ». On this final point Von Stromer pointed out the main distinction between the activities of the Italian and the German companies, and claimed that it was their ability to make long-term investments in the basic sectors of the mining and metallurgical industries which gave southern German capital such predominance in the 16th century.

The papers dealing with the relations between money and the state were also of great interest. Whoever explores contemporary monetary problems can be left in no doubt that it is the state which exercises the greatest control over the monetary system and over the complex mechanisms accompanying both the issue of currency and its behaviour in the economy. But this is not equally true of the pre-industrial era, when the state was not, for example, the sole authority entitled to mint currency. As is well known this was a highly controversial issue in the Middle Ages, and in the 12th and 13th centuries the choice between "*monnaie merchandise*" and "*monnaie signe*" was a fundamental problem. This gave rise to considerable problems affecting determination of value and by whom it might be fixed, which were, one might say, resolved only at the beginning of the modern period by the establishment of nation states. It was only from then on that the state's exclusive right to issue money was established. J. Favier dealt with these problems in an extremely informative way when discussing monetary history in the later Middle Ages, and in particular the problem of "*bonne monnaie*". Although differing on so many other issues, on this principle the views of the theoreticians, of the businessmen, and of the common people, proved unanimous, and by this simple phrase they jointly demanded intrinsic soundness and plentiful supply of coin. But the two demands were often mutually contradictory, and the inadequacy and primitiveness of the measures adopted often meant that monetary policy consisted in little more than debasing the coinage. This created complex problems of all sorts, ranging from the moral issue, on which the Church and canonical writers insisted greatly, to that of public order. But what did these debasements consist of? Gold coins were never, and silver coins only rarely, affected by changes in metallic content, and the usual practice was to alter the legal exchange rate, which was in any case much the easiest course to adopt. There were other alternatives, however, such as the issue of new

currency, but this was a more difficult operation and one which could not be done speedily, even though it allowed for a very substantial profit.

There were two other points which were raised on this issue which deserve to be mentioned. G. Felloni spoke on "State finances, currency issue, and the alteration of money of account in Italy from the 16th to the 18th centuries". Taking the conclusion that is generally held to be valid, that during the 17th and 18th centuries «... the operations of the mints normally provided the treasury with very slight profits», he claimed that these profits arose mainly from the minting of small coin even though «... the costs of producing silver, mixed, and copper coin varied directly according to their weight and tended to decrease as the size of the coins increased». Felloni then discussed his research on the virtually complete records of the coin struck in the four important Italian mints of Milan, Genoa, Florence and Turin in the 17th and 18th centuries. Although he warned of the difficulties involved in estimating the total output of any one mint over such a long period, he felt able to state that «... there is good reason to believe that during the 16th and 17th centuries it was the minting of coin with full intrinsic value which provided the largest source of income». Turning to the thorny question of the monetary imbalances in the period, Felloni spoke of the «slippage of the smaller coin» as the main cause and suggested numerous reservations over the value of the monetary model which envisages the causes of inflation to lie in the «notable difference which existed between the intrinsic value of large coins and an equivalent number of smaller coin». For the latter, the result of this would have been «a shortage, hence an imaginary margin (of value) which the free market would have refused to accept as coin».

Ugo Tucci dealt with a number of problems confronting the Republic of Venice in the late 18th century. The oriental experience of the Venetian thaler shows clearly the difficulties facing the Republic in the final days of its history. By issuing this coin the Venetians hoped to rival to some extent the better known thaler of Maria Theresa, but the confrontation was in fact hopelessly unequal and in face of over 50 million thaler struck by the Austrian mints between 1775 and 1795, Venice only succeeded in minting 3 million. The Venetians' aim had been to establish a commercial currency which would encourage and assist the expansion of their own trade.

The third of the topics discussed at the conference was monetary doctrines and policies. But with regard to the theoretical positions developed in this field, too often only the individual thinkers were discussed with no real attempt being made to examine the needs which these theories were devised to meet, or even the function which they might have performed at a given time. Ingram, for example, observed that «before the 16th century very few things were fully worked out»! But such a verdict clearly stems from, and hence invites comparison with, economic theory at a relatively

advanced state of development and conceptual maturity. But it would be ungenerous to neglect the function of theoretical ideas in economic practice both before, and in the early years of, the modern period. It was often the case that general solutions were attempted as a result of the demands made by civil society itself, and this was clearly the case in the field of monetary problems. One need only think, for example, of the constant references made by "theoreticians" to the reforms or projects introduced periodically by the political authorities. It is nonetheless even more true that the day to day realities of the economy were important, for it was here that new methods which owed little to theoretical models were constantly being created, of which the bill of exchange provides an obvious example.

To this theme the wide-ranging, documented paper given by G. Barbieri was devoted. He traced the development in the writings of John of Salisbury and Leonardo Fibonacci of the "principal of content" which grew out of the "nominalist principal" defended by Thomas of Aquinas. It was particularly interesting to discover that the theologian Bonino of Alexandria, at the turn of the 12th century, considered that it was legitimate to practise the trade of money changer, especially when the exchanges were genuine. But on the whole, the business of changing money provided the medieval writers with numerous moral dilemmas due to the prevalence of debasement in the 14th century, a topic which held a central place in Oresme's "De origine, natura, iure et mutationibus monetarum". Barbieri showed that the bishop-economist had a clear understanding of "Gresham's law". This was almost certainly the case, for as F. Mauro pointed out « history has been very generous toward Sir Thomas Gresham, for even though he was not the first to state it, the famous law still carries his name ». The law was in fact also known to Copernicus, whose ideas were treated at some length in this paper, and it was shown that his writings influenced the monetary reforms introduced by Sigismund I, which followed Copernicus' theories to the letter. The paper ended with a rapid review of developments in monetary theory in the 17th and 18th centuries.

In one of the following papers W.L. Letwin discussed an extremely interesting problem, "Monetary practice and theory in the North American colonies during the 17th and 18th centuries", which historians have hitherto neglected. His description of the monetary policies of the colonies revealed an extraordinary degree of intervention in monetary issues « . . . paper currency, bills issued by a public authority and circulating as legal tender, was at that time an innovation in the western world ». Historians have, however, reacted rather cautiously to this « . . . the colonies, they say, turned to paper money in despair, because they were perpetually in want of silver coin, especially of British coin, this shortage resulting from deficits in their balance of trade with Britain. Colonial paper money, they say, then depreciated because too much was issued, whereupon inflation set in ». But,

as Letwin pointed out, this makes it very difficult to explain the subsequent take-off of the north American economy scarcely a century later. In fact, by looking at the facts in a fresh light it can be shown that « . . . the colonists did not suffer deficits on their balance of payments and hence were not depleted of coin; on the contrary the most consistent interpretation of what we know about their situation is that their money stock, including coin, grew more or less steadily. Second, paper money did not cause inflation; with one or two brief and local exceptions, prices rose only modestly before 1715 ».

Van Uytven's paper, "Monetary policy and economic trends in the southern Netherlands from the 14th to the 16th centuries", also tackled a number of very interesting problems. It dealt mainly with the effects of devaluation and revaluation on the structure of the economy, on industry, and on wage levels, and also with the ways in which different social groups pressed the claims of one or another of the possible alternatives. There was also much of interest in the paper by J.C. Jensen ("Danish monetary policies from the 13th to the 17th centuries"), although that by G. Soldi Rondanini ("Economic policy and theory in the age of the Visconti") struck us at too descriptive.

One of the major themes discussed during the conference was that of "Money and the Social Classes". It became clear that the nature of this relationship has changed greatly over time, and not only in a quantitative sense. In many cases social classes do not fit into any "given" model, and this is particularly true for transition periods when rigid social stratifications are inevitably destroyed as new social groups emerge to replace old ones. One of the central problems which have traditionally been tackled is that of determining the extent to which specific societies have used money to effect exchanges and the extent to which they have allowed an internal non-monetary sector to survive. Both are dependent on the type of economic structure and also on the degree of internal social dynamism. It is not only a question then of discovering who possessed money, but also of establishing the ways in which exchanges were effected, either in payments for goods or remuneration for labour, within a given society.

The topic was introduced in the paper by Aldo de Maddalena entitled "Men and money in the pre-industrial era; characters in search of an author". De Maddalena claimed that one would expect to find that money was generally used in agrarian communities, but the problem was what sort of money, what was the relationship between the use of strong and weak currencies? Although he did not quantify his statement, he suggested that « in the use of money, countrymen played a part which was both more active and developed than has generally been appreciated ». In addition to the constant use of money, De Maddalena also suggested that « . . . even if in modest proportions and only in special circumstances, countrymen

were not ignorant of the use of transferable securities in place of metallic currency, and they used forms of "written money" which tended to be expressed not in money of account but in effective money». Nor did he feel that it was unheard of for «... some bold member of the rural community to be carried away by his fascination for the "fairs of Besançon", entrusting his savings to specialists... and hence... changing his "ordinary money" into "fair money"». The author also discussed the ways in which types of money were distributed amongst different social groups involved in production, both mercantile and professional, and also «the size and composition of the money stock available to each of the three social and economic categories».

There were numerous interesting points made during the discussion of this paper. A subsequent paper by M. Aymard ("Money and Peasant Economies") suggested that the traditional view needed to be discarded, and that until the end of the 18th century the two sectors of market production and auto-consumption continued to coexist. He claimed that the traditional view was that «the two economies followed each other in time. But the transition was long, and between the 13th and the 18th centuries they existed jointly. At the start the "natural" economy predominated but gradually became subordinate, so that today it survives in only a few residual pockets in Western Europe». Aymard then discussed a number of points to clarify this: a) the irregularity of agricultural production which could in certain cases benefit the peasant producer; b) the structure of peasant society, the delicate structure whose stratification was «... threatened on one hand by the emergence of an elite of wealthy farmers, and on the other by the development of a relatively large number of landless peasants who were forced to demand either a ready wage or part of the means of subsistence; c) the indebtedness of the peasantry which indicated that money relations were already well established. These points were based on an examination of the agrarian economy in Sicily between the 16th and 18th centuries, by means of which the author illustrated the weaknesses of the traditional interpretation.

A. Maczak's paper ("Money and Society in Poland-Lithuania of the 16th-17th centuries") was also of great interest. Discussing the movement of the balance of trade, he stated that «... abundant, although indirect and never satisfactory, evidence suggests that for the country as a whole the era of a positive balance of trade ended in the first decades of the 17th century and that the fateful years of the 1620s opened a prolonged period of negative balance». After looking at foreign trade and the consumption of luxury goods he explained why it was that the «... highly favourable balance of sea trade did not cause a spectacular rise in prices in Poland. The influx of precious metals did not saturate the economic system. A particular structure of demand and supply of luxury goods

directed a large share of the surplus balance abroad ». The subjective aspects of the problem were equally important, and led him to discuss the group most involved in trade, the type of money circulation and the channels through which money circulated, and he described how the merchants, the latifundists, the magnates and the nobles' courts acted as the centres of circulation, as well as the relations between the state and its creditors.

Although read by a colleague due to the author's absence, the paper by A. Dominguez Ortiz ("Money and Society in Spain under Austrian Rule") was equally interesting. The paper dealt mainly with Castile, due to its central role in Imperial Spain during the 16th and 17th centuries, and emphasized the archaic mentality which hampered commercial and banking activities. This created many difficulties in view of Spain's incessant involvement in European affairs, the success of which depended on the ability to draw off huge quantities of liquid capital. As a number of studies, many of which have now become classical such as those of Carande and Lapeyre, together with the more recent work of Felipe Ruiz Martin, M. Ulloa and Dominguez Ortiz himself, have shown, Spain's European involvements had serious repercussions on monetary and financial policy. But the Spanish, and especially the Castilian, situation was unique due to the specific political and economic circumstances of the period: a) through Seville, Castile constituted the place of entry for the precious metals of the Indies, and for this reason «...it suffered more strongly than elsewhere the consequences: inflation, worsening of regional contrasts, influx of foreigners etc »; b) the use of this capital «...as an instrument of its foreign policy, with major domestic repercussions; c) the specific social stratification and the use of money by different social groups. After discussing the circulation of precious metals, the Spanish historian turned his attention to the ways in which the Spanish state attempted to find the capital needed to maintain its imperial obligations, touching on the issues of fiscal policy, of the "juros", and the role of the Genoese in Castile, which has been studied by Castillo Pintado and Felipe Ruiz Martin.

Another important topic was that of money and the international economy. The main difficulty here lies in the problem of successfully identifying the nature of an "international economy" before the contemporary period. What does the term imply? The existence of at least three prerequisites: a) an international market, that is to say the movement of goods supplied and demanded over geographically distant areas, of goods that are varied in nature yet still capable, by virtue of their quantity or value, of providing a profit for those exchanging them; b) a complex of structures and mechanisms capable of guaranteeing the functioning of this market. In the 14th century, for example, great strides were made in the differentiation of transport charges and in the creation of methods which were sufficiently flexible for mercantile needs (the whole system of mercantile credit, for

example, which has been revealed by F. Melis); c) social groups who were prepared to enter into commerce and undertake risks.

In different ways then an international economy developed in specific historical periods without ever achieving that degree of irreversibility which characterizes it today. But an international economy, by its very nature, also required a base which would make the exchange of goods feasible, for otherwise, even though trade might constantly increase, the level of expansion would always be limited by the goods themselves. But for money to be able to overcome such limitations, it was essential that it should be internationally recognized as suitable. This was made very clear in the early part of the paper given by Luigi de Rosa on "International monetary transactions from the 16th to the 18th centuries". He rightly pointed out that, while it is true that an international economy, in the modern sense of the word at least, has not always existed, international monetary currencies which fulfilled the function of «... a commodity that was international in demand and supply» had previously existed. De Rosa argued that these included the currencies which pre-dated the revival of the minting of gold as well as the strong Italian currencies of the 13th and 14th centuries. These currencies were linked to the expansion of the economic system and acted as a standard of reference in the area affected by the expansion of the economy: «In that area, in short, this currency came to act as a common denominator for the other currencies, so that the latter tended to be exchanged for it». As markets and trade expanded so a country with large trading involvements was forced both to make payments and receive them in sums of money. For this purpose it was necessary to devise a way of making payments more flexible, and to free them from the physical transfer of currency, an operation which became increasingly impracticable and risky as trade grew. De Rosa stressed the enormous advantages offered by the introduction of bills of exchange for international trade, for these quickly came to dominate the transactions taking place at the great fairs, and in ways that were increasingly flexible and functional: «... the issue of bills of exchange... became one of the bankers' primary activities, to the extent that "banking and issuing bills of exchange became synonymous terms"». The author then examined the structure of these bills, their circulation and price, and showed how the international fairs gradually moved away from their original function as fairs for commodities to become fairs exchanging bills, to that they were in the end «regular and valuable opportunities for clearing different currencies between the different European countries involved». This development can be traced from the Champagne fairs to those of Geneva and from those of Lyons to Medina del Campo and finally the famous fairs of Besançon, which for a long period marked the triumph of "cosmopolitan capitalism". The organization of the fairs was examined in detail as well as the ways in which transactions were conducted, and in their most devel-

oped form these were based on a single monetary standard which became the international currency *par excellence*. At the same time, and increasingly frequently, a different method was employed for clearing operations. In the great commercial cities of northern Europe, and in Antwerp from 1531, a "Bourse", or money exchange, began to act as the centre for financial and monetary transactions, and this institution gradually took over from the once glorious fairs as they ceased to be functional.

In the context of the discussion of money and the international economy, the paper by N. Chauduri ("The monetary and currency problems of European trade with Asia during the 17th and 18th centuries") was also very interesting. Equally important was the paper by H. Dubois. In his far-ranging and stimulating discussion of "International Commerce: Precious metals and currency movements on the Eastern borders of the French Kingdom from the 13th to the 15th centuries" he attempted to establish the relations between the scale of international trade and currency and/or precious metals, and international trade in this area. For the Rhône-Burgundy region his conclusion was that: "It is clear that with the possible exception of the years from 1320 to 1360 currency developments were not the product of changes in commodity trades. But precious metals themselves constituted a commodity which evolved on its own".

H. Kellenbenz discussed "Money and International Banking from the late 15th century to the early 17th; the example of Southern Germany". He examined the monetary activities of the great German merchant bankers of the 16th and 17 centuries and their influence on the attempts made in the Empire to establish a unified monetary system, discussing the ordinances of 1524, 1551 and 1559. The author then turned to the monetary situation in Southern Germany, and traced the rise of the Augusta market up to the establishment of the Public Bank in Nuremberg in 1621, and used the detailed records of the Fuggers to provide a wealth of information on the bills moving between different foreign markets. Kellenbenz's conclusions on the golden age of the Fugger company were unequivocal: « There were large supplies of large silver coin, and gold as well, at Nuremberg, the centre with the widest commercial and monetary contacts in Germany. Venice provided a channel for the leading Italian financial markets, as well as for those of Lyons, Antwerp, Augusta and Nuremberg, and received quantities of Fugger silver from the Schwaz, and on some occasions gold as well. In the later years of Charles V and the early years of Philip II, Antwerp provided the main centre for financial operations in the Hapsburg empire, with contacts stretching out to Spain, Portugal, Germany and England ».

The final topic of discussion was that of money and economic development. This was an extremely broad issue which lends itself to wide-ranging generalizations, not all of which are notable for their clarity, but on this occasion these were by and large avoided. One of the problems

discussed was that of the revival of the minting of gold currency in Western Europe. In order to understand the problem fully, however, it is necessary to explain why this had virtually ceased between the 9th and 13th centuries. It was this problem, as we mentioned at the outset, which was tackled by Philippe Wolff. An equally important issue was that of the relations between the economy and the commercial world. In his paper "Financiers and economic concessionaries in early Stuart England" R. Ashton examined the relation between the court and the business world, in particular the role of the financial elites in the early 17th century. The paper was interesting because it provided information on this problem in the context of England in the Stuart period, and while we are relatively well informed about such relations in the Spanish Hapsburg empire, the English aspects of the problem have only recently been examined and mainly through Ashton's work: «... the main reason why early Stuart governments elected to farm their customs revenues to syndicates of businessmen rather than to administer them directly was not so much the oft-cited advantages of fixed annual revenue which was peculiarly sensitive to commercial fluctuation, nor even the increased yield which customs farming seems to have brought as compared with direct administration of the customs, but rather the volume and variety of the services which the farmers rendered as lenders ».

Due to the interest which historians have, until recently, taken predominantly in Spain, very much less is known about the other Iberian kingdom. Portugal has been of interest only, it would seem, for the discoveries of her navigators or else for that period between 1580 and 1640 when her history merged with that of Spain. But in the years since the war economic historians in particular have shown how the two kingdoms were essentially different. The initial studies of V.M. Godinho have been followed by the equally important work of Virginia Rau, Gentil Da Silva and F. Mauro. The last mentioned gave a very interesting paper entitled "The Role of Money in Portugal's unsuccessful economic take-offs from the 15th to the 18th centuries". It is now common practice to see the Portuguese economy as dominated by three successive secular cycles, each driven by a specific internal leading sector — in the 16th century by spices, in the 17th century by sugar and in the 18th by gold. F. Mauro was not so much concerned with the general aspects of this process as with the changes between one cycle and another, and with the different alternatives for an economic take-off which was in fact never fully achieved. In an economy based on international trade such as the Portuguese, Mauro argued, economic take-off can result either from substituting imports or from the growth of exports. By the term "substitution of imports" the author meant the alternative forms of development open to the economy at a given time. In Portugal's case the first

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<sup>2</sup> A. ASHTON, *The Crown and the Money Market 1603-1640*, Oxford, 1960.

occasion came around 1530, due to the decline in her trade with the east. Between 1530 and 1570 the structure of Portugal's colonial economy was in fact changed, and the spices of India and the sugar of Madeira gave way to the attempt to colonize Brazil and produce sugar there, while in Madeira wine was to take the place of sugar. Dutch competition in the Caribbean, however, reduced Portugal's ability to dominate the world market. The fall in world sugar prices produced a crisis in the sugar economy which reached its height in the 1680's; «... The crisis of 1680 led to a decline in Brazilian and Portuguese exports to Europe, to a fall in Portugal's revenue and a deterioration in her trading balance». But the crisis provided the opportunity for a structural change along the lines of that undertaken in France by Colbert. The policy was never fully achieved, however, due mainly to the political and economic situation embodied in the Treaty of Methuen which established the commercial relations between England, Brazil and Portugal and ensured the former a permanently favourable position. The resulting deficit was to be paid in gold, hence the increase in gold production and so also the start of the economic "cycle of gold". But by the second half of the 18th century this cycle was already in decline. Pombal's economic policy, which had at first encouraged trade, now sought to create industries which would reduce the need for imports. The Portuguese economy reacted well, and between 1789 and 1806 the volume of Portugal's trade increased four-fold. But once more we are faced with an economic take-off which was never achieved, this time due to the confrontation with the industrial revolution taking place in England.

Such brief summaries serve to show the interest and importance of the Prato Study Week. It is evident that monetary history is a field in which economic historians have developed increasingly sophisticated criteria and parameters which are, among other things, well adapted to quantification. Monetary history is in fact a particularly well favoured branch of economic history, and can draw on an extensive documentary basis which permits the historian to study his subject in considerable depth, as M. Bloch pointed out in a well-known article: «... among the whole range of indicators which reveal to the historian the hidden movements of an economy, monetary phenomena are without doubt the most sensitive». To have taken such a topic as the central theme in a wide ranging series of debates and studies was not the least of the merits of the session organized by the Francesco Datini International Institute of Prato.

