

The Adventures of the Lira

Professor Cipolla's little book *Le avventure della lira* (1), covering twelve centuries of monetary history, is at once so interesting, so authoritative, and so unlikely to become available in English that it seems appropriate to attempt an article outlining its substance and summarizing, all too briefly, the material which the book presents.

The lira, like the pound sterling and the old livre which eventually became the French franc, originated in a weight, the Roman *libbra*, which amounted to about 325 grams. Cipolla points out that this weight was not a money, although it formed the basis of the monetary system in that the weight of the coins was defined in terms of the *libbra*.

Those coins, before Charlemagne, were the gold *soldo* and *tremisse*, the latter being simply one-third of the former.

Charlemagne, defeating the Lombards and occupying a large part of Italy between 780 and 790, changed all this, introducing the monetary reform which his father and he had initiated in the kingdom of the Franks and which King Ethelbert II and then King Offa, probably on the example of the Carolingians, had effected in the kingdoms of Mercia and Kent.

"In its final state the reform:

- (a) established silver monometallism in the monetary field;
- (b) introduced as sole legal metallic coin the silver denarius of which the mint had to deliver 240 for each pound (*libbra*) of silver received;
- (c) increased the weight of the pound (*libbra*) itself from about 325 grams to about 410 grams and perhaps more" (2).

Charlemagne's reform did not establish the lira as a monetary unit; that arose spontaneously. The denarius was a silver coin of 1.76 grams

(1) CARLO M. CIPOLLA, *Le avventure della lira* (Milan, Edizioni di Comunità, 1958). Hereafter cited simply by page.

(2) P. 12.

weight, 0.950 fine (3); thus it contained 1.67 grams of pure silver, or about one-fourth less than an American dime (or ten cent piece), which is 2.50 grams weight, 0.900 fine, making its silver content 2.25 grams. Given the primitive state of the economy in the eighth and ninth centuries, the prevalence of barter, and the high purchasing power of silver at that time, this was by no means a negligible coin. At the same time there were major transactions, such as the purchase of horses, land, or slaves, for which the denarius was not convenient, and the Carolingian reform had made no provision for coining a multiple of the denarius. Since for one *libbra* (weight) of silver people got 240 denari in coins, people found it convenient to say "one lira" instead of "240 denari", "three lire" instead of "720 denari", or "3 lire 30 denari" instead of "750 denari". Cipolla likens this to the practise of measuring road distances in kilometers rather than meters, or the taxi-drivers' habit of reading the meter as "three thirty" rather than spelling out "three hundred and thirty lire".

Thus begins the story of the lira, as a phantom money, a mere money of account, and such it remained for a thousand years. People talked of lire, bought and sold in terms of lire, without ever having seen or touched a coined lira; not until the eighteenth century was such a coin minted, and by that time it represented far less than a pound weight of silver!

"However, this strange phantom represented at its birth the unit of value of all or almost all the Christian West of that time. From the British shores of the Channel to the court of Aix-la-Chapelle, to the Paduan plain and the Tuscan hills, the silver lira (4) was the common unit of value and everywhere it meant 240 denari (5). The territorial conquests of the Carolingians and their connections with the kings of Mercia and of Kent had served to make of the Christian West a single monetary area distinct from the Byzantine monetary area on the one hand and the Moslem on the other".

(3) I.e., nineteen-twentieths silver and one-twentieth base metal; the decimal system is the most convenient way of describing alloys and will be used throughout this article, as in the book.

(4) The word must be considered to include *libbra*, *livre*, pound, etc.

(5) The English pound, though also 240 denari, was somewhat less than the continental because the English penny weighed less than the denarius; 1.3 grams initially (presumably because the English were still working from a *libbra* of about 325 grams rather than the 410 grams to which Charlemagne changed it; see first quotation above) and about 1.5 grams later. P. 15, f/n 13.

"The area of the lira never included all Italy, however. The southern limit of the area cut the peninsula in half. South of Rome either the Roman-Byzantine monetary tradition persisted or the influence of the Arabian coinage prevailed in the end. Rome itself represented a twilight zone" (6) where both the lira and the southern coinage were in use through a large part of the Middle Ages.

The exchange between the old soldo of gold and the new silver denaro was eventually stabilized at 12 denari to the soldo. Soon, though the soldo was no longer coined, it became *customary to say "one soldo" as a convenient way of describing "12 denari"*. As this meant 20 soldi to the lira of 240 denari, we get the "1 lira=20 soldi=240 denari" relationship which is easily recognized as the pounds-shillings-pence system still used in so large a part of the English speaking world (7).

For more than a century there was no change in the weight and fineness of the Carolingian denarius (8), but by the first quarter of the tenth century we find a coin only 0.746 fine and by the time of the Ottos (961-983) the legal weight was only 1.420 grams, 0.833 fine, which meant less than 1.2 grams of pure silver (9). By that time however the meaning "240 denari" had become so firmly attached to the word "lira" that people continued to use it in that sense even though 240 denari now amounted to only 330 grams (0.833 fine) instead of 410 grams (0.950 fine). "The phantom money lira was thus moving away from the unit of weight from which it had taken its origin; the lira was no longer the *libbra*" (10).

In a digression on the mediaeval purchasing power of the currency, the author explains that as the ratio of value between gold and silver was about 12 to 1 the Carolingian lira, representing about 390 grams pure silver, was worth something over 30 grams fine gold and the Ottonian lira of about 275 grams pure silver was worth less than 25 grams

(6) P. 15.

(7) P. 14, f/n 12, which also states that this usage continued in the other monetary systems of Western Europe until replaced by the decimal system under the influence of the French Revolution. Note also that we still abbreviate pounds, shillings and pence as though they were spelled lire, soldi and denari.

(8) P. 16, where the author also expresses doubt whether this stability should be attributed to good administration or to economic stagnation.

(9) Pp. 16-18, citing numerous authorities.

(10) P. 19.

(11) P. 19. The actual figures are $3\frac{1}{2}$ and 23, rounded to "over 30" and "under 25" respectively to avoid an impression of exactness not warranted by the limitations of the data, the imperfections of minting and alloying, etc.

fine gold (11). In terms of current United States dollars (12) these equivalents come to about \$35 and \$27 respectively, but "in the time of Charlemagne, in northern Italy with... half a lira two little fields and a wood could be bought; one lira bought a slave; with eight lire one figured on buying five fine properties with their houses and all their lands and the accompanying woods" and at the beginning of the eleventh century, while the lira had already begun to fall, we have the sad tale of the heir who was forced to sell 18 measures of land in the Modenese including vineyards, ploughed fields, meadows and swamps to pay an ancestral debt of six lire! (13).

"The period between the age of the Ottos and the middle of the thirteenth century was rich in events and profound innovations. Our monetary system assumed in that period a structure and features which it was then to maintain almost intact until the beginning of the current age. In many respects there is more difference between the Ottonian monetary order and the monetary order in the middle of the 1200s than between the latter and that existing almost five centuries and a half later on the eve of the French Revolution" (14).

Three conspicuous developments were the decline of the denarius from the established mints (15), the appearance of new mints (16) and the formation of new monetary areas, and the appearance of new monies besides the denarius.

Both old and new mints cut the weight and debased the alloy of the coins shamelessly, and no doubt competitively, so that before the end of the twelfth century we find a denarius from the Verona mint under half a gram, less than 0.250 fine, thus containing only 0.1 gram pure silver. A lira of 240 such denari would contain less than 25 grams of silver; allowing for inadequacy of the data and variation in available samples, the author concludes that the reduction in silver content, from 275 grams around the year 1000, was in the order of 70% for the lira of Lucca, 80% for that of Pavia and 85% for that of Verona. Note too that with the mints not working to a common standard we no longer

(12) Defined as the equivalent of 15 4/21 grains of gold 0.900 fine, which is 0.89 grams fine gold. In terms of silver dollars, the Carolingian and Ottonian lire would come to about \$16 and \$11 respectively, but the secular decline in silver having been much greater than in gold and silver being currently overvalued at the mint (i.e., the dollar containing less than 100 cents worth of silver) the author's basis of comparison seems the sounder.

(13) Pp. 19-20.

(14) P. 20.

(15) Pavia, Milan, Verona, Lucca and (less important at the time) Venice. P. 21.

(16) Twenty-four by the end of the thirteenth century. Pp. 31-32.

have "the lira", but a whole series of lire, each used chiefly in the area where it was minted (17).

The eleventh and twelfth centuries were a period of increasing population and economic growth in northern and central Italy. The division of labor was accentuated and the country moved toward an ever more decisively monetary economy. Coined money tended to become the usual means of exchange and of payment, especially in the urban centers. The result was a great increase in the demand for money, at a time when it proved impossible to increase materially the output of silver. An effort was made to substitute more primitive currencies, such as pepper and similar goods, and there was a "rudimentary development of practises which would later become banking and credit institutions and organizations". All this proved insufficient, however; "scarcity of silver or shortage of money" was the constant complaint, and it was met by inflating the currency — debasing the content and increasing the issue of coins.

"What in practise was the mechanism through which the pressure of increased demand for money effected progressive debasement of the denarius, we do not know exactly". It seems safe to say that the waning imperial authority, the multiplication of independent (or quasi-independent) governments with their own mints run as business enterprises, war and other expenses, all played a part in making multiplication of coins and reduction of their content the easiest way of meeting the demand.

"The fall of the denarius was in my opinion rather a good than an evil. In substance it permitted the Italian society of the time to avoid having the inelasticity of offerings of the precious metals and the lack of an efficient credit mechanism exert a deflationary effect which would have strangled the process of economic development. However this was not a solution reasoned from a quite clear and logically thought out monetary policy. It represented rather the spontaneous and uncontrolled result of various forces and empirical reactions" (18).

It is possible that the fall of the denarius at length began to stir opposition; it is certain that by the middle of the twelfth century the denarius had not only become too cheap but too small and too fragile for convenient use. The denarius of Verona weighing less than half a gram, for instance, was one-third smaller than the silver three cent piece

(17) P. 22.

(18) Pp. 29-32.

which the United States abandoned nearly a century ago and its silver content was only half a cent. Clearly there was need for a coin both larger and more valuable.

The first move was made in Lombardy by Frederick I, who about 1160 began the coinage of an "imperial denarius" containing a little less than 0.5 grams pure silver, or about twice as much as the then current denarius of Pavia or of Milan. "The new coin did not succeed at first in completely replacing the old; denari of Pavia and of Milan continued to circulate alongside the imperials at the exchange of two Pavian or Milanese for each imperial. But in this fashion it had a notable success. The very mints of Milan, of Pavia and of other Lombard cities, allies or enemies of Barbarossa, set to work striking denari of the imperial type. A chronicler of the time says that already in 1175 '*imperiales medolianses currebant per totam Ytaliam*'. And in course of time the imperial prevailed at length over every other denarius becoming in the course of the thirteenth century the means of exchange and the unit of account most used in the Lombard region and bordering zones".

Around the end of the twelfth century a reform along somewhat different lines was successfully tried at Venice and Genoa. The Venetian mint began striking a *grosso* or silver ducat 0.965 fine and about 2.2 grams weight, equivalent to 26 of the old local denari, and the mint at Genoa began to coin a *grosso* 0.960 fine and a little under 1½ grams weight, worth 4 Genoese denari of the time. "In contrast with the imperial reform the Venetian and Genoese reform did not look to introducing controversially a revalued denarius in replacement of or competition with the current denarius. Not confused by political preoccupations, the Venetians and the Genoese had understood that what the economy needed was not a revaluation of the denarius but rather the creation of a multiple of the denarius which was not to replace the latter but to work with it: not deflation but a rational set of means of payment. Having understood that the new unit need not replace the denarius enabled the Venetians and the Genoese to proceed so that their new coins should represent a value higher in proportion to the local currency than did the imperials in relation to the denari of Pavia or Milan". This solution was eventually adopted in Tuscany too, after earlier experiments along the imperial line.

"The final, revolutionary act of this century-long process of reform and innovation was accomplished in 1252". With a decline in the value of gold as compared with silver, "Genoa and Florence coined a money

of pure gold 3.5 grams in weight (19), which took the name of 'gold genovino' at Genoa and 'gold florin' at Florence. In 1284 Venice followed this example and coined the 'gold ducat' (later called *zecchino*) with the same intrinsic characteristics as the florin and the genovino. The silver monometallism established by Charlemagne and respected for nearly five centuries was ended" (20).

"In the monetary order which had at length been worked out by the middle of the thirteenth century and which lasted through succeeding centuries, the metallic currency in circulation came to be divided neatly into two groups. On one hand the customary denarius, reduced in intrinsic value, was confined exclusively to the area of local transactions as the usual means of exchange and payment in purchase and sale at retail, in settlement of wages, and in small and middling operations of local credit. On the other hand the larger silver coins and the gold florins (and in that term we include also, and will include hereafter, the genovini and the gold ducats) through the high unit value represented were soon isolated in the area of international transactions, of wholesale operations, and of high finance. The current language of the time underlined this neat distinction, styling one monetary group '*moneta piccola*' (little money) and the other '*moneta grossa*' (big money). There is no doubt that this terminology originated from the different size of the silver pieces belonging to the two groups, but in course of time it assumed a significance entirely economic. Practically the two 'monies', that is the *piccola* and the *grossa*, instead of forming together the various but connected elements of a single organic monetary system, immediately formed two quite distinct monetary systems, each with its own distinct circulation, geographic, social and business. The consequences of this fact made themselves visible quite soon and represented for centuries the great unsolved problem of monetary policy.

"The inflationary forces which continued to operate were concentrated on the '*moneta piccola*' which remained — as has been said — the money predominating in the internal circulation and which constituted the basic unit in the system of internal prices. It must be added that in the new situation inflationary pressure was further excited and accentuated among other things by the exclusively 'internal' character assumed by

(19) Much like the pre-Roosevelt quarter-eagle or \$2.50 gold piece, which was 4.18 grams 0.900 fine. (Note by reviewer, not author).

(20) Pp. 34-39.

the '*moneta piccola*' and by the new mechanism of the system and of the money market (21).

"While the '*moneta piccola*' was being overturned by the converging inflationary forces, the '*moneta grossa*' — as has been said — was retiring into the rarefied atmosphere of international transactions and of high finance where economic motives and reasons of prestige alike sustained it in a privileged position of intrinsic stability.

"One money continuing to slide and the other remaining stable or nearly so in the course of the centuries, necessarily the rate of exchange between the two monies went on increasing continuously and progressively... the '*moneta grossa*' did not and could not assume the functions and the role of multiple of the '*moneta piccola*' lacking the essential element, that is stability of rate. The problem from which the lira was born remained unsolved". The florin in 1252 was designed to equal 240 Florentine denari, but within twenty-five years it was worth 396 denari; similar attempts at Venice in 1472, at Milan in 1474, and in Savoy in 1562 fared no better ... "the lira remained a phantom: the shadow two hundred and forty times lengthened of a petty money which continued to depreciate" (22).

In the course of centuries the denarius fell in one place after another to the point where it could no longer be coined. At Milan and Venice, for instance, the last denari were struck in the first half of the sixteenth century. One mint after another had set itself to coining pieces of three, four, five, six and eight denari, and eventually "soldini" of twelve denari. The lira continued to mean 240 denari whether in the form of 60 fours, 40 sixes, or 20 *soldini*.

About 1252 the Genoese lira and the imperial lira of Milan appear to have represented about 70 grams pure silver, the Florentine about 35, and the Venetian about 20 — a far cry from the 390 of Charlemagne or even the 275 of the Ottos. At this time the French livre represented about 80 grams and the pound sterling 320 grams, the latter unchanged since 991. By the end of the fifteenth century the Genoese lira had been reduced to less than 13 grams, the imperial to 8.6, the Venetian to 6.2 and the Florentine to 5.7. Now the French livre was about 22 grams and

(21) The mechanism which translated a rise of the "exchanges" into an increase of profits and thus interested the entrepreneurial group in a policy of depreciation of "*moneta piccola*" is analyzed in detail in C. M. CIPOLLA, *Mouvements monétaires*, pp. 25-27.

(22) Pp. 43-47.

the pound sterling around 172. In each period the lira had fallen more (23).

The declines from 1252 to 1500 were not continuous, being interrupted by periods of stability which might last from a decade to a generation. The author lists seven inflationary factors:

- (a) pressure of entrepreneurial groups;
- (b) increase in the demand for money;
- (c) management of the mints and technic of monetary issues;
- (d) difficulties in the balance of payments;
- (e) state expenses;
- (f) erosion and clipping of pieces in circulation;
- (g) fluctuation in the ratio of gold/silver values.

These have a familiar sound, and the observation that "Sound and clear criteria for regulating the issues... were completely lacking" need not surprise us, but the idea that the management of the mints, whether farmed out or operated directly by the state, was directed by the profit motive, is strange to the modern mind. It must also be evident that the distinction between "big money" and "little money" tended to insulate the ruling classes from the adverse effects of inflation, to make it attractive to entrepreneurs, and to put a positive premium on its use to promote exports or cover state deficits (24). The author remarks that the governing classes thought it more "*honestum*" to cover deficits by debasing the currency than by raising taxes, citing examples (25).

The greater depreciation in Italy as compared with France and more particularly England is ascribed to the greater rate of economic development (increasing the demand for money more rapidly), to control of the city governments by the social and economic groups interested in inflation, and to the greater importance of exports in these smaller states (26).

(23) Pp. 47-53.

(24) This suggests to the reviewer the interesting question whether foreign credits, particularly sterling, did not play the role of "*moneta grossa*" in the inflations which were so numerous in South America in the nineteenth century. Such almost continuous inflation, repeatedly wiping out small savings, has been suggested as a major factor in preventing the formation of a middle class and creating those extremes of wealth and poverty which present such serious social and economic problems in many of those countries. To the extent that the ruling classes had their assets in real property or other tangibles or in foreign credits they were insulated from the burden of internal inflation, did not suffer from it, and had little reason to oppose it.

(25) Pp. 53-55.

(26) P. 57.

To what extent the reduction in silver content was reflected in rising wages and prices the author is not prepared to say; he tells us that historians report a rise in the value of silver from the eleventh century through the thirteenth, and again in the fifteenth, but "the reply to the problem is still hidden in the old papers in the archives" (27).

The supply of the precious metals began to increase by the middle of the fifteenth century; first Portuguese gold from Africa and silver from the mines of Saxony, Bohemia and the Tyrol, and by the sixteenth century a flood of both metals from the Americas. The silver from Germany came first to Milan and Venice, but the metals from the west flowed more naturally to Genoa, and by the end of the seventeenth century we find the Venetian mint buying silver from that city. The trade with Portugal and Spain, to which the metals came from the New World, was dominated by the English, Dutch, French, and Genoese. "The center of gravity of international economic life was shifting to the west".

The increased supply of precious metals, especially silver, moved the ratio of gold/silver values from the range between 10 to 1 and 13 to 1 within which it had fluctuated since Roman times to 15 to 1 by the middle of the seventeenth century. Despite the increased supply the deterioration of the lira continued, presumably because most of the inflationary forces mentioned in previous paragraphs continued strong. By the end of the seventeenth century the Genoese lira had been reduced to about 4.9 grams pure silver content, the Milanese and Florentine to about 3.9, and the Venetian to 3.0. The lira of Savoy, introduced at 11.5 grams in 1562, had been reduced by half, to 5.8 grams in 1700. Only the money of Florence, after the reforms of 1537-57, showed comparative stability, its shrinkage in the next century and a half being only about 13% (from 4.5 grams to 3.9).

On prices and wages data are somewhat better than for earlier periods, though by no means satisfactory. Such information as can be found, at Florence and Milan for instance, seems to indicate that in the half century of "wars, devastation, famine, pestilence, and endless misery" to 1550 and in the succeeding "Indian summer of the Italian economy with long term economic expansion and general economic reconstruction" until about 1620, there was the usual inverse correlation between the intrinsic value of the currency and the price level, wages and prices advancing as the currency depreciated. During the balance of the seven-

(27) Pp. 57-59.

teenth century however, "the tragic period of the economic decline of Italy, of the definite end of the economic supremacy of the Italians, of the passage of Italy from the privileged group of the developed countries to the great gray miserable mass of the underdeveloped countries" the correlation seems to have been positive, prices in Milan for instance falling about 40% even though the silver parity of the lira was reduced 20%. Evidently the collapse of effective demand which accompanied the "tragic economic decline" outweighed the purely monetary factors (28).

"In the monetary field too the Eighteenth was the century of reform". The Enlightenment sought to bring order out of the confusion inherited from the Middle Ages, to have a limited number of coins which should be multiples or fractions of one another, to stabilize the relation between "big money" and "little money", to give a body to the long phantom lira, and to fix once for all the metallic parity of the coinage.

The lira had now reached a point where if coined it would no longer be "big money" suitable only for wholesale trade, international transactions or high finance, but could be expected to pass from hand to hand in every day trade. The "little money" had declined to a subsidiary role, like the fractional currency of our day, and the dual system had practically disappeared. Genoa "finally gave body to the current Genoese lira" by coining a *madonnina* in 1745 (29). At the eve of the French Revolution the Genoese lira contained about 3.5 grams pure silver, the Milanese 3.5, the Florentine 3.8, the Venetian 2.4 and the Savoyard 5.4. It is interesting to see the Florentine practically unchanged from the beginning of the century, the Savoyard reduced less than 10% and the Milanese little more; even the Venetian declining 20% and the Genoese nearly 30% did not look as bad as in earlier centuries (30).

At this point we must turn to France for a minute. On the eve of the Revolution, the French livre of 20 soldi or 240 denari, represented 4.5 grams of pure silver. In 1795 it was "established that: (a) the monetary unit should be called the franc; (b) the franc should be divided into 10 dimes and the dime into 10 centimes; (c) the silver money should be 9 parts pure silver and one part alloy; (d) the one franc piece should weigh 5 grams". In 1803 it was further "established that: (a) the franc

(28) Pp. 59-69.

(29) Pp. 71-74. Other states probably did likewise; the exact content of various reforms identified by place and date is not stated.

(30) P. 75.

monetary unit must weigh 5 grams of silver 0.900 fine; (b) there would also be coined gold pieces 20 and 40 francs 0.900 fine with unit weights of 6.451612 grams and 12.903224 grams respectively (by which the franc came to equal in fine gold 0.2903225 grams); (c) coinage was unlimited and whoever brought gold and silver to the mint would not have to pay anything but the actual expense of coinage... Thus France came to put itself on a regime of bimetallism at the gold/silver ratio of 15.5 to 1" (31).

The franc and the decimal system followed the revolutionary armies into Italy, first into Piedmont, then in 1805 into Genoa and Liguria, and with the institution of the Napoleonic Kingdom of Italy into Lombardy and the Venetian area. The decree of 1806, ordering that the money of the Kingdom of Italy should be "uniform with the legal money already in circulation in our Empire of France", established the first coin carrying the name "Italian lira", of silver 5 grams weight 0.900 fine, with gold coins of 20 and 40 lire.

After Waterloo, attempts were made to re-establish the old currencies, and in the Lombard-Venetian areas an Austrian currency, but the key decision was that of Piedmont to go ahead with "the new lira of Piedmont". This Napoleonic lira, of 4.5 grams pure silver or 0.290322 grams fine gold (subdivided into 100 centimes rather than 20 soldi) became at Unification the money of the Kingdom of Italy.

Actually, since by 1862 the 15.5 gold/silver ratio adopted by the countries of the Latin Monetary Union (32) somewhat undervalued silver and would, through the working of Gresham's Law, have driven that metal out of circulation, the lire were actually coined with only 4.175 grams pure silver, issued in limited amount, and good for payments only up to 50 lire, the state undertaking to maintain their convertibility into gold. Within a generation, however, the declining price of silver and the fear of being swamped with that metal as Germany, the United States and other countries switched to the gold standard, had led the Latin Monetary Union to successive steps the effect of which was to abandon bimetallism in favor of a monometallic gold standard (33).

In 1861, the total Italian circulation of money and equivalents is estimated at 1,500 million lire, of which about 75% was metallic money, 15% bank notes, and 10% bank deposits, including savings deposits. The proportion was not very different in 1866, when the combination of an

(31) Pp. 75-77, citing R. SEDILLOR, *Le franc*, pp. 79 and 167-173.

(32) Belgium, France, Greece, Italy and Switzerland.

(33) Pp. 77-89, with numerous citations.

international financial crisis and the prospect of war with Austria threatened collapse of Italian finances. The latter were shaky enough at best — an unfavourable balance of payments, revenues but half the state expenses, a disturbing increase in foreign debt. It was thought necessary to issue a legal tender decree, assuring the state a loan of 250 millions from the National Bank and declaring bank notes legal tender. This act has remained in force ever since, although a temporary condition of *de facto* convertibility did prevail for a few years at the opening of the twentieth century, "the period of 'paper at a premium over gold': the period that our fathers remember with such nostalgia". The legal definition of the lira remained unchanged until the First World War; 0.29032258 grams fine gold per lira equivalent to 3.44 lire per gram, and gold sold at or below that price in several years of the 1880s and in every year from 1903 through 1911 (34).

Meanwhile, as in other countries, the use of paper money and bank credits increased. By 1911 the metallic circulation was about 15% lower than in 1861, but the outstanding paper money had increased fifteen times and bank credit more than forty times; of the 10,829 million total, coins represented only 9%, paper money 28%, and bank credit 63%. By 1921 coin had disappeared, except for fractional currency, and the 48,776 million total was represented by 1% such petty cash, 49% paper money, and 50% bank credit. By 1951 the total was 5,117,709 millions, of which coin was negligible, paper money less than 30%, and bank credit more than 70%. The price of gold rose to 15.68 lire per gram in 1921, after the first war and its inflation and to 17.09 in 1926. Then a planned deflation reduced the price to 12.64 in 1928, and the world depression brought it to 11.45 in 1933. By 1938, after the Ethiopian War and rearmament but before the Second World War, it had risen to 21.38. That figure prevailed nominally into 1943, but thereafter it rose to 703.13 in 1955 (35).

So far as purchasing power is concerned, that was remarkably stable before the First World War, the official index of the cost of living, based on 1913 as unity, varying between 0.868 in 1871 and 1.065 in 1874 (the only decade, incidentally, in which it showed any such range). By 1918 it had risen to 2.641 and by 1926 to 5.167, from which it was reduced to 3.381 in 1934. By 1943 it had risen to 11.880, despite wartime

(34) Pp. 89-95.

(35) Pp. 92-95, with accompanying tables.

controls; by 1947 to 198.875 and by 1959 to 289.728 (36), although inflationary pressures have been pretty well controlled for the last decade.

"... The lira has so deteriorated in the course of centuries that we must always compute with figures in the order of hundreds, thousands and millions. Enterprises of some importance frankly have to use billions for their statements. Even in daily trade the one lira coin is no longer useful. We are constantly forced to use pieces — coin or paper — of 10, 50, 100, 500, 1000, 10000 lire. Coins of one lira or a little more are no longer seen. The lira again becomes a phantom"(37).

New York

DONALD M. STREET

(36) Official table among appendices, pp. 122-23.

(37) Pp. 96, 98.