

# The Economic and Social Problem

by Michael Flürsheim

## CHAPTER III.

### Money.

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The flood of money debates, which submerged this country in the nineties, has so wearied the people that it requires a considerable degree of optimism to expect a patient hearing on this subject. However, no full view of the great problem is obtainable without going into the Money Question, and all I can do to mitigate its tedium is to treat the subject with the utmost brevity compatible with clearness.

Money is called the lifeblood of the economic body, and just as blood was circulating for millions of years before Harvey expounded its laws, so money has been and is used by millions who have not the least conception of its real nature. Many of those who know most about it have a personal interest in concealing their knowledge. So early as 1577 we find the keen and piercing intellect of Bodin remarking thus: "For men have so well obscured the facts about money that the great part of the people do not see them at all. The moneyers do as the doctors do, who talk Latin before women, and use Greek characters, Arab words, and Latin abbreviations, fearing that if the people understood their recipes they would not have much opinion of them."

I do not wish to fatigue the reader with the many conflicting definitions given of Money by economists, but shall follow the course adopted through the whole of this book, of taking the word as nearly as possible in the meaning given to it by the custom of everyday life. In this sense I shall confine the term to anything, which is legal tender for debts, i.e., which has to be accepted as the final settlement of a debt by the creditor to whom it is tendered.<sup>1</sup> In Great Britain sovereigns and half-sovereigns are legal tender for all debts; smaller coins are only legal tender for debts up to 40 shillings, and Bank of England notes for all debts above £5, except the debts of the bank. British coins and Bank of England notes, therefore, are Money in Great Britain. If I give the English system as an example, instead of the American one, it is merely because I do not want to call up at this stage the subject of bimetallism.

Other means of payment or exchange, such as those bank notes which are not legal-tender, checks, bills of exchange, promissory notes, etc., are not money, but money representatives,

money promises. They are included with money under the general name of currency; but whereas money is only that which has been made legal tender for debts, currency is anything, which passes as a means of exchange and payment. Money is always currency; currency is not always money. There are three kinds of money.

1. Any kind of merchandise may be made money by law or general agreement. We might call this money merchandise money, or commodity money. A number of different kinds of merchandise have been chosen as commodity money at different times and in different countries. Cattle have been formerly mostly used, of which "pecuniary" (from 'pecus' = cattle) still reminds us. Different metals paid out by weight come next in order. Certain shells, salt, fishhooks, etc., have been or still are money in certain countries. Whether a special form is given to the money commodity, whether it is marked by some kind of stamp, or whether the special form and the stamp exist concurrently, makes no difference so long as the value of the money, as such, does not differ from that of the raw material it contains, as is the case with the newly-minted English and American gold coins, for instance. It is self-evident that the parity between the value of the coin as money and the coin as bullion, as merchandise exists only so long as no abrasion has taken place, and can only be maintained while free coinage exists, for without free coinage, which enables any possessor of bullion to have it changed into coins of equal value, free of cost, coinage becomes a monopoly, and coins obtain a monopoly value liable to differ from their bullion value. Without free coinage coins enter the confines of money, class 2.

2. The stamp is applied to a commodity, which would fetch an appreciable price even if the stamp had not been added; but the stamp increases this value, more or less. Silver, copper and nickel coins at present belong to this class, and also gold coins which, through seigniorage or wear and tear have a higher value as money than they possess as bullion. Class 2 offers a transition to class 3.

3. The commodity value has entirely disappeared, the value imparted by the stamp alone remains. We have reached Token Money or Money of account. In our time it is exclusively known in the form of paper money—not to be confounded with bank notes payable or supposed to be payable in legal coin. The best known prototype of this class is the French Assignats of the eighteenth century; but money of this kind was already used in remote antiquity, in China, Rome and Carthage, in the shape of small pieces of leather supplied with certain signs; iron, whose commodity value was destroyed, in Sparta, etc.

The wooden tallies issued by the English Treasury up to the reign of William III. belong to the same class. They were accepted in payment of taxes by the Treasury, but not paid in gold or silver.

What has more than any other cause contributed to complicate the money problem is the difficulty of drawing a sharp line between this third class of money and a special kind of currency, called bank or treasury notes. Where these are merely money promises, they are not money; but where they have been made legal tender they are legitimate money, even though, as in the case of the Bank of England notes, the bank has to pay coin for them on demand. With most kinds of legal-tender bank or treasury notes this obligation does not exist; for though at some time or other coin was obtainable for them, the practice has become obsolete, and to all ends and purposes they are just as much mere tokens, or paper money, as the French Assignats were. To this class belong the notes of Argentina,<sup>2</sup> Brazil, Greece, Portugal, Spain, Turkey, etc. Austria-Hungary and Russia resumed specie payments after a very long period of non-convertibility; but I do not think the payments have been permanently resumed in Russia. In spite of the text of the notes promising coin, her people there had so entirely ceased to associate paper roubles with coin that the peasants in many cases refused the new coins at first, because in their eyes—exclusively familiar with the paper—they were not roubles.<sup>3</sup>

Though the hybrids just enumerated are responsible for most of the confusion reigning in the field of currency reform, the elasticity of the boundary line between class 1 and class 2 is

equally productive of mischief. Thus the main bone of contention between monometallists and bimetallicists is the question whether or not the value of gold or silver as merchandise can be kept at par with their money value where both are made legal tender for all debts, after a permanent relation between the amounts of metal respectively used in the gold and silver coins has been established; or, in other words, whether both together can be kept within our first money class. It is evident that, whenever the merchandise value falls below the money value, the coin has, for the time, passed from class 1 into class 2. A possible temporary excess of the merchandise value over the money value can be left out of account, because dealers in the precious metals will at once take care to eliminate such coins from the money domain altogether, by selling them as bullion for melting purposes. Coins selling at a premium in legal tender are practically no longer money, but a merchandise.

Without wishing to pre-empt at this stage which class of money proves the best in practice, we can at least conclude that each presents a degree of evolution from the preceding class, an evolution corresponding to a more advanced state of civilization, just as the use of class 1 itself was a decided progress from primitive barter. It is barter still, but improved barter; or, as it has also been called, a double barter. The tailor who wanted to exchange a coat for a table had not only to find a person who wanted a coat, but one who at the same time had a table to dispose of. If by custom certain commodities are accepted in exchange by everybody, whether specifically required or not, because, through this general acceptance, other things which are required can be procured for this special commodity, the work of our tailor is much simplified. He has only to find someone who wants a coat and is willing to give the generally accepted commodity for it. He is sure then to obtain a table in case one is in the market, even if the owner of the table does not want a coat; because the latter will certainly accept the special commodity, for which he in his turn can obtain anything he may need.

The next step will perhaps be that the community makes its taxes and fines payable in this special generally accepted commodity; and finally, not only the prices of all goods and services are computed in the quantities of the special commodity for which they are obtainable,<sup>4</sup> but debts are made payable in our commodity, which becomes legal tender, and consequently money. When it is supplied in exchange for anything else, or when it is handed over for a debt, we call the transaction a payment; bartering becomes buying and selling.

It is generally considered that the adoption of certain metals as the money commodity, because of their comparative indestructibility, their homogeneity, their divisibility and their general use in the arts, marked a further progress. We shall yet have to consider whether another of their qualities—their scarcity—usually given as their principal claim to the money honor is not more in the nature of a disqualification than of an advantage, through the dangers it involves.

A further good quality of metals, usually stated, is their impressibility. (I should prefer to use the word 'coinability'.) Metals offer the great advantage of delegating the trouble of weighing and assaying each piece to special parties, instead of forcing this work on every receiver of money. It is a perfection, however, which in its consequences supplies the most powerful weapon for the gradual but certain dethronement of the precious metals from their money kingship. The stamp itself obtains a value more and more independent of the raw material to which the stamp is applied, until, after class 2 is passed, the value of the raw material entirely disappears, and class 3, token money, is reached—a very ancient class; for the money of some high civilizations of the past belonged to it, and it is capable of a perfection to which the other classes cannot aspire.

The money of the first class is the remnant of a stage of development not far distant from the savage condition. Credit, the child of confidence and trust, is not born. The money accepted has as much value if sold as an ordinary merchandise as the commodity which is supplied for it. The money of the third class, however, has no other value but that imparted by the stamp, for the material on which the stamp has been affixed is practically worthless.

Parting with valuable goods for a mere token of no independent market value presupposes a certain amount of trust in others, the trust that they will pay equal honor to the stamp.

Robert Ellis Thompson says, in his *Political Economy*, p. 152: "If barter may be compared to the rude mode of transportation on human backs, and coin to transportation in carriages by horses, paper money is the steam carriage, whose use calls for larger precautions against danger, but whose superior utility far outweighs that consideration"; and further on, pp. 156, 157: "The third and the most perfect form of money is money of account. It possesses in a still higher degree all the advantages that make paper money better than coin." (Under paper money Thompson understands banknotes; money promises; 'money of account' is his expression for token money.) "As much as paper money is less material than coin, by so much is money of account less material than paper money." After comparing money of account related to bank notes with a flying machine as related to a steam carriage, he goes on: "It is the money of civilization; its use involves a degree of intelligent insight into the true nature of wealth and of exchanges; and a strong confidence in the general honesty and trustworthiness of mankind, that are impossible to the savage or half-civilized man. ... It originated in the communities of Italy; from there it came to Amsterdam, Hamburg and Stockholm." (Thompson here leaves out of sight the token money of ancient times, i.e., that of China, Carthage, Rome, Sparta, etc.) He relates that the republics of Venice and Genoa authorized their creditors to establish banks on the basis of the certificates of the city's debt. After stating that the bank of Venice dated from 1171, he proceeds:

"Then to secure a uniform currency, the Government decreed that all wholesale transactions should be paid in the form of a transfer of bank stock—unless otherwise stipulated—so that whoever had a boxful of coins gathered from the four quarters of the earth through the manifold channels of Venetian trade, took them to the bank to get credit upon its books according to their weight and fineness. The standard by which their value was estimated was called 'money of account,' to distinguish it from the various moneys that were translated into it. The Government treated these masses of coin as payment for the privilege of a credit in the bank's book, and all idea of their repayment was lost sight of."

Benjamin Franklin says: "Paper money, well founded, has great advantages over gold and silver, being more light and convenient for handling large sums, and not likely to have its volume reduced by demands for exportation. No method has hitherto been formed to establish a medium of trade equal in all its advantages to bills of credit made a general legal tender."

David Ricardo says: "The whole charge for paper money may be considered as seigniorage. Though it has no intrinsic value, yet by limiting its quantity, its value in exchange is as great as an equal denomination of coin or of bullion in the coin. It is not necessary that paper money should be payable in specie to secure its value, it is only necessary that its quantity should be regulated." ... "A regulated paper currency is so great an improvement in commerce that I should greatly regret if prejudice should induce us to return to a system of less utility. The introduction of the precious metals for the purposes of money may with truth be considered as one of the most important steps towards the improvement of commerce and the arts of civilized life. But it is no less true that with the advancement of knowledge and finance we discover that it would be another improvement to banish them again from the employment to which during the less enlightened period they have been so advantageously applied."

In *Munera Pulveris*, p. 21, John Ruskin says: "The use of substances of intrinsic value as the material of a currency is a barbarism, a remnant of the conditions of barter, which alone renders commerce possible among savages."

In a letter to Col. Edmund Taylor, December, 1864, Abraham Lincoln said: "Chase thought it a hazardous thing, but we finally accomplished it and gave to the people of this Republic the greatest blessing they ever had—their own paper to pay their own debts."

In thus considering the third class the highest evolution of money, I do not wish to prejudice the question whether it is also to be considered the best money under any

circumstances; this important question will be treated later on. Our first task was to define and classify.

We have now to investigate what constitutes the value of money. If I were a German professor of political economy I should begin with a definition and history of Value, which, by itself, would compass not less than 500 pages, to contribute my share to the Dryasdust library on that famous subject. Fortunately my apprenticeship has not been passed in a university, but in practical business: in banking, manufacturing and trading. Before I ever read a book on political economy I had a twenty-five years' practical survey of the field covered by this science. This enables me to get through with our friend "Value" in a few lines and without entering into those tedious elaborations, to which we may well apply Macaulay's estimation of ante-Baconian philosophy: "Words, and more words, and nothing but words, had been all the fruit of all the toil of all the most renowned sages of sixty generations. . . . The taint of barrenness had spread from ethical to physical speculations." We may add, "and not only to physical speculations but to speculations of a still more important nature—to those of political economy." If anything were necessary to prove how thoroughly infected all domains of human thought have been with scholasticism, it may be found in the fact that two and a half centuries after the *Novum Organum*, the science which has the task assigned to it of teaching humanity a fair and just system of production and distribution prefers to waste its precious opportunities in barren speculations about the nature of 'Value.'

I shall at once simplify my task by leaving 'Value in use' entirely aside, for it is self-evident that an object must have value in use before it can have a market value or value in exchange, the only kind of value economic science need concern itself about. Nor need we trouble about certain values in use, which have no market value because of their abundance, such as water and air under normal conditions. Anything has a market value for which something else is currently offered in exchange. We can call this other thing its price. Price alone determines value in an economic sense, the only kind of value we are concerned with in this treatise. We can safely resign the balance of the whole value-field to those parties who are fond of scholastic playthings, and once for all have done with that bugbear of students in the field of economics.

There is only one way to find the value of money: it is to obtain the prices of goods and services. In other words, the value of money is its purchasing power.

There is no other gauge; just as money measures the value of merchandise, so merchandise measures the value of money.<sup>5</sup> This holds good for money of all three classes, with the only difference that, as the value of the money of the first class corresponds to that of the merchandise it is composed of, it is immaterial whether we speak of the value or price of this merchandise or that of the money made out of it.

Gold is the money material adopted by the principal commercial nations which are using money of the first class; for even in the four bimetallic countries: France, Italy, Switzerland, and Belgium the silver money no longer belongs to the first class; free coinage has been given up—which more when we discuss bimetallicism. Consequently, we may as well speak of the value of gold in such countries when we speak of the value of their money. It is immaterial whether, for instance, in England we speak of the value of the pound sterling, or of the value of the 123.374 grains troy of standard gold composing it, as anyone who carries this quantity of standard gold to the British mint can obtain a sovereign free of cost for it, a right to which we give the name of Free coinage.

In the United States whoever brings 25.8 grains of standard gold, nine-tenths fine, to the mint can demand its free coinage into a gold dollar. As gold dollars are no more coined, he obtains a five dollar piece for five times 25.8 grains.

This definition of the value of money is certainly simple enough, and seemingly beyond any possible chance of dispute; yet even here, as everywhere in monetary science, confusion has crept in, and we cannot proceed without devoting some space to two causes of error.

One is due to the jargon of the Stock Exchange. When its devotees speak of dear or cheap money, they do not mean the only thing which these words really signify: the increased or decreased purchasing power of money, but the rate of interest at which money can be borrowed. We often find money very cheap—in Stock Exchange parlance—in times of commercial depression, because capital is shy, and prefers the 2% to 3% it can obtain on best securities to any high percentage offered in commerce. On the other hand, in times when the discount of the Bank of England is at its lowest, often money cannot be borrowed at all, unless a security is offered that the average businessman cannot supply.<sup>6</sup> The rate of interest is low, but the risk premium is exceptionally high. This difficulty of finding money, this height of the risk premium, forces the business world to sell goods at any price; and usually such times of exceptionally low rates of interest are accompanied by low prices. But low prices of merchandise mean a high price of money, whose purchasing power has risen, has appreciated. Thus when the bill-broker says that money is cheap, it is dear. On the other side, when he finds it dear, it is cheap; because when industry and commerce are flourishing, when capital finds remunerative investment in business, it does not compete so sharply for the securer investments bearing a lower rate of, interest. In such times the price of consols falls, because many people sell them to take stock in industrial enterprises, and the Bank of England rate rises because the business world eagerly offers bills for discount. But when industry and commerce are in a flourishing condition, prices generally have a rising tendency, and, consequently, the purchasing power of money becomes reduced. So money is cheaper at the very time when the broker tells us that its price has risen.

But this is not the only source of error in this field. When the fall of prices during the last thirty years is discussed (this was written in 1901 before the trusts forced up prices), you hear that this does not imply the appreciation of gold, of money, but that it means, through our technical progress, goods are produced at lower prices. The worthy gentlemen who reason in this way do not see that their argument is on a level with that which denies that John is taller than Charles because Charles is shorter than John. It is absolutely immaterial whether less gold is given for woolen goods because woolen goods can be produced at one-half the price of  $x$  years ago—the same worker being able to spin and weave during the same number of working hours a much greater quantity of wool by means of our improved machines—or perhaps because gold has become scarcer in proportion to the demand and costs relatively more to produce. All we want to know is whether or not it is true that twice as many woolen goods have to be given for the same quantity of gold. If they have, then the purchasing power of gold measured in woolen goods has doubled, and if all other goods have fallen in price at the same rate gold in general has correspondingly appreciated. If, on the other side, the new gold mines opened within the same period had produced so much gold that the offer of gold in the market had increased much more rapidly than the supply of all other classes of merchandise for gold, the prices of merchandise might have risen in spite of reduced cost of production, and gold might have depreciated.

The relation between the quantity of money offered for goods and the quantity of goods supplied for money—in other words, the law of supply and demand—determines not only the price of goods, but also, at the same time, the price or the value of money. We must be very careful, however, not to infer from this definition—usually called the quantity theory—that there is anything like a fixed relation between the quantities on both sides of the equation, such as, for instance, John Stuart Mill seems to assume, when he says (Book III., Chapter VIII., par. 2 of his *Principles of Political Economy*): "If the value of money in circulation was doubled, prices would be doubled. If it was only increased one-fourth, prices would rise one-fourth." He qualifies his dogma, however, in Chapter XIII. of the same book, when he discusses the effect of credit on prices. He could not fail to see that elements more powerful than the mere money or goods quantity come into play and make such a raw conception of the quantity theory impossible.

Anyhow, Mill realized that it is not the quantity of the money stock we must consider, but the quantity, which circulates in the market. Money may be plentiful, but it may be locked up in the safes of misers; and the poor producer who wants to sell his goods to obtain the money he needs may find a good deal of truth in the facetious German saying: "Money by itself does not confer happiness; we must possess some of it." Prices may thus be very low, in spite of a large stock of money.

Then we have the rapidity of circulation, which plays an important part in the problem. Francis Bowen illustrates this influence well when he says: "The circulation of money and merchandise bears some relation to the momentum spoken of in physical science, which is composed of the velocity multiplied by the mass. The movements are equal, though the velocity should be increased ten-fold, provided that the mass is but one-tenth as great. So also the momentum of wealth is its value multiplied by the rapidity of its circulation."

On the other hand, the quantity of goods offered in the market by itself has no influence on the prices of goods and money, but only the quantity offered for money. Where exchange transactions are mostly done by barter, a comparatively small quantity of money may correspond to a much larger turnover of goods than where business is done solely on a cash basis. And barter has played, and still plays, a much more important part in business transactions than many people are aware of. Many of the Australian farmers' business transactions are performed on the basis of mutual exchange. Prices and sums are expressed in money, but no money passes. In some parts of the world even barter has not yet been reached. Even in progressive New England the farmer's wife, during the first half of the nineteenth century, still made her own soap, candles, sugar (maple), linen, and part of the woolen apparel of the household. The farmer brewed his own beer, made his own cider, or pressed a sour wine from poor grapes. Rosegger, an Austrian author still living, tells us in one of his most humorous writings, from his own experience, how the peasants' in his native village tanned their own leather, which the shoemaker, while he boarded in their houses, made into shoes in exchange for produce, in the same way in which the weaver made cloth from the homespun wool or yarn. Often the peasant had his own loom. Most of the furniture was home-made, from the table and chair to the mattress made from home-spun and woven flax, and filled with hair cut from the farmer's own horses, or feathers from the geese of the barnyard. Similar primitive conditions still obtain in many parts of the world.

But barter in our times is a less important substitute for money in business than credit, and especially one form of credit—money representatives. In some countries the check does most work of this class. A buys some goods from B, B from C, C from D, and so on until Z buys from A. Each gives a check; and if all transactions have been made on the same day, all these checks come into the bank at about the same time, and they are booked for and against the parties. A large turnover may thus take place without a penny of money having passed, even if the parties have different banks. For such a case the banks, among themselves, have an institution, called a clearinghouse, where all bring their checks payable at the other banks, and these are compensated just as the checks of those who bank in the same establishment are compensated in its books. In England, the balances are paid by checks of the Bank of England; and thus billions are turned over without the use of coins to any great extent. "In a return," says M'Leod, "laid before Parliament by an eminent city firm, it was shown that out of £2,000,000 payments and receipts by the firm, only £40,986 were paid in gold, silver, and copper, all the rest in different forms of credit, and some bankers found that in banking only .0025%, were paid in coin; all the rest in credit."

The bank clearings in the United States for the year ending September, 1906, were \$157,749,000,000, which were settled by paying \$5,793,000,000 (3.69%) in cash.

Next to checks: bank notes, bills of exchange, promissory notes, and I.O.U.'s are the principal forms which the money representatives usually take. It is impossible to estimate exactly their quantity relation to the money stock. At all events I think M'Leod's estimate

exaggerated when he calculates the credit (resting on no millions of actual coin in Great Britain) to amount to 10,890 millions, or about one hundred of credit to one of coin. I came to the conclusion that the relation does not exceed 40 to 1; and if we deduct those debts, which are compensated by other debts due to the debtor, the proportion will probably not exceed 30 to 1, nor be less than 20 to 1. According to the director of the United States mint, the debts of the world payable in gold in the year 1893 amounted to \$60,000,000,000, while the stock of the world's gold amounted to \$3,582,605,000, which is 17 to 1; but I think this is far below the real indebtedness at the present time. This lowest figure is, however, quite ominous enough, for it means that if all creditors press for payment in money, only one dollar in seventeen can be forthcoming. If we assume that our largest financial concerns owe on the average about six times more than their money stock amounts to, we are on the safe side. J. C. Leaver states in *Money*, p. 20, that the chief London banks, exclusive of the Bank of England, owe to the public £227,000,000, and that the cash in hand and at the Bank of England amounts to £27,000,000 (less than one-eighth).

George Clare, in his *Money Market Primer*, which has been included in the list of books recommended by the Council of the Institute of Bankers, says: "The sum due on 31st December, 1890, by the banks of the United Kingdom, under the head of Deposit and Current Accounts, was estimated by the *Economist* on the basis of the balance sheets published by the joint stock establishments at, in round numbers, 650 million pounds, while our whole stock of legal tender does not exceed 126 millions ... and of these 126 millions it is quite likely that half to two-thirds are in actual circulation among the people, leaving a balance of, say, 50 or 60 millions available for banking purposes."

Sir Robert Giffen in a lecture delivered in London March 26, 1908, figured the banking liabilities of England at over 900 million sterling; available reserves at not over 50 million.

A similar state of things obtains in the English colonies. The different banks of New Zealand, including the savings banks, owed in 1904 for deposits about £27,000,000, to which about £1,500,000 bank note circulation has to be added. The gold and silver available for these debts amounted to somewhat less than £4,000,000, about one pound for eight due. If we deduct £9,000,000 of fixed deposits, for which a certain time is given within which the banks are supposed to be able to raise the money—a very vain hope when we consider the similar position of the English money market and of other countries, besides the fact that financial crises usually extend over the whole world—£19,500,000 were left, which the creditors could claim from one day to another, and of which only four shillings in the pound (one-fifth) could be paid.

On June 30, 1906, 6,053 National Banks of the United States<sup>7</sup> owed \$4,819,974,251 for deposits, against a cash reserve in bank of \$651,233,603, or 13.51%, a little over one-eighth. Other commercial banks owed for deposits \$4,860,399,428, against a cash reserve of \$308,808,254, or 6.35%. The Savings Banks owed \$3,300,000,000 for deposits, against 26 millions in cash, = 4-5%. All three together owed in round figures 13 billion dollars, with a cash reserve of only one billion, or 8% = one-thirteenth. But this cash reserve includes greenbacks, bank notes, gold and silver certificates. Gold coin, bullion and gold certificates amounted to only 487 millions, or 3¾% = one twenty-sixth of their gold debts, which almost exceeded threefold the whole gold stock of the world. At that date the money in the United States treasury as assets figured up to \$325,400,000; that in circulation outside of the treasury and the banks at \$1,728,000,000, so that the total, including the money of the banks, amounted to 3 billions gold, silver and paper. The gold alone would hardly figure up to more than one-half of this, so that the whole gold of the country would only pay one-ninth of the bank debts, leaving all other debts out of account.

Under such conditions, the actual money stock can only have an indirect effect on prices, and consequently on the value of money. Tooke and Newmarch, in *A History of Prices and of the State of the Circulation from 1793 - 1837*, give some interesting facts proving this,



showing how the state of credit is of much more importance than the money stock, and how periods of low prices at different occasions coincided with a larger, and of higher prices with a smaller money stock. Most instructive is the course of the English crisis of 1847.

Prices at the Stock Exchange fell enormously; from one day to another as much as 1¼% discount was paid; which is at the rate of 450% per year. General ruin was in view, when at last the Government promised a suspension of the Bank Act. At once the panic disappeared, and large treasures of sovereigns and bank notes came out of their hiding places. That there was no exceptional demand for gold was proved by the fact that during the whole time of the crisis there was no diminution in the issue of bank notes; and what is more, as soon as the permission was given to the bank to issue more notes, not quite £400,000 in all were demanded. This was specially mentioned in the defence, which the Chancellor of the Exchequer made in the House of Commons. He said that the money in the hands of the public was sufficient, but that its circulation was lamed by a panic, as all reports received by him proved. The Government was asked for assistance from all sides, but everyone said: "We don't want any bank notes, we want confidence. Tell us that you will assist us, and we have enough. When we know that we can obtain bank notes we do not need them, it is indifferent how high the interest rate demanded, confidence will at once return."

Here we see clearly that it was assuredly not the gold coins which the people wanted, and not even the bank notes, but only the certainty that they could obtain them in case they wanted them. Bank notes, they knew, could not be converted into gold in case a general attempt had been made; for even in ordinary times, without any repeal of the Bank Act, the issue of 15¾ million pounds of notes is permitted to the bank (at that tune not less than 14 millions) without any gold cover; and the suspension of the Act might have largely increased the amount for which no coins and no bullion were in stock. The people made no attempt to demand gold for the notes. The notes were legal tender, they could be used to pay off liabilities, and that was all they wanted.

We have thus arrived at the conclusion that the condition of credit determines the value of money, a credit the foundation of which is the certainty people possess, or believe they possess, that monetary engagements can be regularly kept, that the money promised will be forthcoming when due and demanded. The actual money stock of the country—as a remarkable historical example has just shown us, and as the facts of everyday life prove—plays a much less important part than other causes of which the temporary disposition of the money-creditors is the principal one. When I use the word "money-creditors," I do not mean merely the rich, powerful as their influence necessarily must be.

The financial crisis of 1893 in this country, whatever may have started it, became so acute through the fears of the poor savers, who became afraid for their balances at the savings banks, and came in crowds to claim their own in cash. Savings banks cannot keep much ready money in stock, but are forced to invest the deposits for more or less extended terms, so that they may obtain the interest, which their depositors claim from them. If an exceptional demand be made, when a tightness in the money market disables them from borrowing at reasonable terms enough to tide them over the temporary difficulty, they must of necessity suspend payment. The simultaneous demands made by their depositors thus caused a pretty general temporary suspension of these banks. Other financial institutions, whose creditors pressed for money in the same way, followed suit, and finally the excitement of the small savers became the panic of the nation. Money was as good as unobtainable, and as much as ½% per day, or 180% per year, was paid by solvent parties supplying the best kind of securities.

This crisis of 1893 is especially instructive because there was no exceptional cause for the sudden alarm. No war threatened the country or the world; no catastrophe of nature had caused unexpected losses; the crops were good. The Chicago Exhibition brought millions into the country and into circulation; politics indicated fair weather. It was merely the case of a sleep-walker quietly stepping along the border of a chasm. He has not the least fear; he has passed

over much more hazardous places before without heeding them. But suddenly something or other awakens him; he becomes conscious of his danger; he sees it, and headlong he falls. The chasm between the amount of money due and the actual money stock may have been much wider at other times; but the people did not pay any attention, and went on with their daily routine, when some mere trifle occurred. Perhaps it was a report from somewhere that there was danger of suspensions—a danger threatening them all the time and sometimes even with much greater force, but a report now, spreading and swelling through the very effects it brings about. When this report makes them start and survey the position, they recognize the patent fact that there is absolutely no money to be got if they really should choose in a body to claim their dues. The simplest calculation would have shown this all along; but their thoughts were elsewhere, and thus they had not seen what now suddenly—like an apparition illuminated by the lightning in an ink-black night—gives challenge to their horror-smitten minds.

But not all are sleep-walking, awakening only in panic times, and dearly paying for their previous blindness. Our financiers have their eyes open all the while, and though they do not know the hour of the impending catastrophe, they see the chasm and they know their danger. This knowledge finds its expression in the high risk-premium demanded, so high that the average debtor cannot pay it. The permanent load of usury presses with a much heavier weight on the people than the dangers and losses of the occasional crises. These are the acute outbreaks of a chronic disease, which is sapping the life-energy all along, growing in violence from year to year, from crisis to crisis. Take away the terrible nightmare generated by the certainty that whenever an exceptional demand for money may occur, a crisis must ensue, and our wild struggle for life will have lost its intensity at once. But this struggle must be hopeless with a money whose quantity corresponds to that of a certain precious metal, a quantity so ludicrously small when compared with the demand that a credit building about thirty times as high as the diameter of its narrow foundation had to be erected on it to enable us to carry on at all. While all the time invention succeeds invention, technic progress follows technic progress and creates a continually growing demand for more currency. We have seen that the banks of one single country, leaving aside all other debts, owe twenty-six times as much gold as they possess, and about three times as much as the whole gold stock of the world, coined and uncoined, figures up to.

The danger inherent in this state of things has been realized not only by financiers but by growing numbers of thinking men of all trades, and it is the soil on which has grown bimetallism. Bimetallism has been attacked on the ground that it is impossible to make two different commodities—two precious metals—at the same time the standard of value: that if both are coined as legal tender money, one of them has generally to lose its money character, becoming a mere merchandise for the time. This seems plausible, for bimetallism presupposes free coinage of both metals at a certain unchangeable ratio. Suppose this legal ratio to be sixteen to one. This would mean that anybody bringing to the mint 25.8 grains troy of "standard" gold has a right to claim for it a new gold dollar containing the same quantity of gold; and anybody bringing to the mint sixteen times the 25.8 grains of "standard" silver can claim one silver dollar, which is to be legal tender for all debt, just like the gold dollar. But will the market price of the two metals—which follows supply and demand—permit the maintenance of a fixed ratio? You could certainly not buy in the market the above quantity of silver, say, for ninety cents, and thus make ten cents profit on every dollar coined,—no matter how much lower sixteen pounds of silver could be produced than one pound of gold,—as long as the mint gives a silver dollar, which is legal tender, for the silver. But the price of money would fall together with, and in the same way in which the price of silver falls; the price of merchandise would rise, and especially one merchandise—gold, provided its cost of production did not cheapen in the same proportion with that of silver. It is certain that if it costs more to produce one pound of gold than sixteen pounds of silver, the price of standard gold must rise above one dollar for 25.8 grains: and consequently, not only will no more gold

come to the mint which gives only a dollar for this quantity, but the existing gold dollars will be withdrawn from the market and will sell as bullion.

Gresham's law will come into operation, according to which the better money is driven out of the market by the inferior one,<sup>8</sup> and the country will practically have a silver currency. This is not a mere theory, but has been the result of bimetallism wherever tried. Generally either gold or silver became a merchandise, and was withdrawn from its circulation as money, at least as far as wear and tear had not too much reduced the weight of the coins. My own experience during my apprenticeship in a banking house proved to me the fact most unpleasantly in the beginning of the sixties. It was a continual calculation whether gold was at a premium, or silver; and accordingly, gold or silver coins of different kinds were bought to be sold as bullion. Many a weary day had I to assort sack pyramids of silver five-franc pieces into four different kinds. Those up to and including Louis XVIII. (till 1824) contain a certain amount of gold, and therefore were sold to Allard's refining establishment at Brussels. Those of Charles X. (1824-30) contain less gold, and were sent separately to the same firm, fetching a little less. The newest pieces after these reigns, those of Louis Philippe, the Republic, and Napoleon III. were sorted out to go off as silver bullion to Amsterdam; while those of these last three reigns which were too much worn to pay as bullion were sent to the nearest branch of the Bank of France, and we drew bills of exchange on Paris against them. They alone were left in circulation, or in the vaults of the bank; the others disappeared, as fast as bankers and money-dealers could get hold of them. Gresham's law began to produce its usual effects; the money with the greatest raw material value disappeared from the money into the bullion market. There is nothing in this which reasonable bimetallists will not agree to, as they are fully aware that bimetallism could only succeed if carried internationally: if all commercial nations—anyhow, the principal ones among them—open their mints to the free coinage of gold and silver to any amount at the same ratio, both metals being legal tender for all debts. This would so increase the demand for silver that its price would never fall below the relative money value assigned to it by the law. The use as money is paramount to any other to such a degree that the market value of the metal is bound to conform to its money value as long as the value of its use in the arts does not prime the money value, which might finally be the case if the money value fell too low. This might happen to silver in case the ratio between the two metals were put farther apart than the late market price of silver put it, if this ratio were beyond 32 to 1. As far as gold is concerned, the limit of the ratio in the opposite direction also depends on the value which gold would maintain for its use in the arts, independent of its money value. The ratio is said to have been as low as 1 to 6 in Japan in the sixteenth century, and August Boeckh's Political Economy of Athens, I am told, speaks of times when silver had a superior value to gold.

Snobbism is the principal value creator in the case of gold. Snobs wear gold watch chains or use gold plates, not because the metal is better than some cheaper materials for the purpose, but because it is costly. If, without in the least changing its qualities, its value fell, we should see some more expensive material take the place of gold. Universal bimetallism, by depriving gold of its exclusive money monopoly and thus depreciating its price, would at the same time also reduce its value in the arts. Instead of bringing about its withdrawal from the money market, bimetallism would perhaps effect the contrary; it might bring more gold to the mint.

One weighty objection has been made to this by the antagonists of bimetallism: cost of production. Though in the first place supply and demand determine the price of commodities, these gentlemen maintain, correctly enough, that this price cannot oscillate far from cost of production in the long run, which renders the arbitrary fixing of a relation between the two metals impossible, as long as we cannot do away with variations in cost. The argument seems irrefutable, and so it would be if an important element in the cost of production of both metals had not been left out of consideration: the effect of bimetallism on the margin of production. Ricardo in his law of rent, which plays an important factor in this calculation, calls it the

margin of cultivation, by which he means the most unfavorable conditions under which production is still carried on, conditions which just yield the lowest wages at which labor would engage in the work, and the lowest profit at which capital will consent to invest. At this margin the price of a commodity is finally determined, when production is forced there by the demand for it, this demand not being satisfiable under better conditions. The price cannot be below cost at this point because it is exactly on the margin where labor and capital will yet join in production. If the price were lower than cost at this point, the margin would come inward to a line where better conditions obtain, and this would be the new margin of production. Nor can the price be above cost at the margin, for the extra profit thus obtained would induce production under inferior conditions, as long as the usual wages and the usual profit are obtainable. In other words, the margin would be forced outward until again no extra profit is obtainable; the margin would still determine the price. A growth of the demand forces the margin still further out, which can only be done if the price increases accordingly. In case land (including mines) forms a prominent factor in the production of the commodity—which is not the case in the manufacture of watch-springs, pens and needles, but is the case in the mining of iron ore, for instance,—the extra profit made inside the margin takes the shape of Rent.

Ricardo in fact limited his law to such cases where the extra profit appears as rent, and, though since then extended to all production and consequently to all profits---especially by Professor Boehm-Bawerk and his disciples---we may still call it Ricardo's Rent law. Though usually illustrated by its effects on wheat production, this law is however still more applicable to the precious metals than to wheat, for while a larger consumption of wheat is soon met by a correspondingly increased production through a slight pushing back of the margin of cultivation, the scarcity of the precious metals renders this effect on the margin much more powerful. It is quite certain that the remonetization of silver would make many mines pay which now lie untouched, just as the demonetization of this metal has stopped the working of many mines which before yielded a dividend. The farther the margin is forced back, i.e., the less fertile the least paying mine yet worked, the higher is the cost of production, and, according to Ricardo's law, the cost at the margin determines the market price.

In other words, as long as they are money materials, with a fixed price, it is, within certain limits, not the cost of production, which dictates the market price of the precious metals, but their market price, which determines the cost of production. The remonetization of silver would at once open to it the money market, together with gold; and its value, as money, would determine its market price as long as this value is not inferior to that in the arts. As the latter was found at a ratio to gold which bimetallicists would probably never adopt: the ratio of 32 to 1, whereas the ratio they propose varies between 20 to 1 and 15 to 1, we may leave out of consideration this contingency of the value of silver in the arts ever exceeding its money value under bimetallicism. Thus the only question will be how far down the limit of the ratio might be narrowed without forcing gold out of the money use. This question cannot be answered, for nobody can foretell what value gold would preserve after it ceases to be used as money.

I think even a reduction of the ratio to that of Japan in the sixteenth century of 6 to 1 need not necessarily drive gold out of the money use; and as long as this does not happen, such a ratio would simply mean that new silver mines will be opened and gold mines will be closed until the least fertile silver mine produces six pounds of silver at the same cost at which the least fertile gold mine produces one pound of gold.

The result is that under any conditions likely to occur the relative cost of production for the two metals will always correspond to the ratio of value, which the international monetary convention gives them.

To be quite exact, I have, however, to add a few words in regard to another element entering into the cost of mine produce particularly, though not quite absent in other fields of production: gambling.

Del Mar (History of the Precious Metals) states that the 450 million dollars of gold

produced in California, from 1848 to 1856 inclusive, cost in labor alone some 2,250 millions, or five times its mint value: but this is not the cost I mean. His cost price includes the element of speculation, of gambling, which makes lotteries such paying enterprises, because the dazzling effect of great prices entirely blinds the gambler to the well-known fact that, on the average, a lottery ticket only brings back a part of the price paid for it. This element of gambling may be responsible for the fact that certain gold and silver mines are worked, though they swallow every penny expended, in the hope of finally striking the long-expected lode; but still there remains a margin beyond which speculation refrains, and this is the margin which is narrowed by the depreciation and forced out by the appreciation of the metal. Speculation may have the effect of forcing the margin beyond its economic limit, but this artificial level must finally follow the same laws as the economic one.

Whether and how far bimetallism would narrow the margin of production in gold mines, thus cheapening the cost of gold by destroying the rent of now rent-yielding mines, depends on the question whether the large increase of legal tender money would have a price-depressing effect on money or not. It may seem preposterous merely to express a doubt as to the absolute certainty of a general depreciation of money under bimetallism; but I have already shown that we must not accept the quantity theory in the literal sense given to it by some tyros. No matter what kind of money the twentieth century may have, business will continue to be done by means of the money representative, the money promise; but this assuredly does not signify that the amount of the stock behind the promises is of no importance whatever. The admission of silver would certainly increase this stock; but whether this increase would be sufficient is more than doubtful as I shall presently show. Taking the price of silver as it stood before its demonetization began, the actual yearly production of both metals for some time to come will hardly much exceed 750 million dollars. From this we should have to deduct a very considerable part, at least one-half, for abrasion, loss, and use in the arts; but I refrain, because we have to add, on the other side, the increase of the silver yield through the opening of new mines, which would be rendered possible by the rise in price following its remonetization. The present world stock of gold is figured at 5,000 million dollars; that of silver is unknown, as we cannot even guess at the amounts hidden and circulating in the East. Let us add another 5,000 million, and thus bring the total of our stock of precious metals to 10,000 millions. The yearly increase would, therefore, be one-thirteenth of the existing stock. To reach the amount of money promises so as to make our money representatives represent a reality instead of a dangerous fiction, our stock of 5,000 million dollars gold, which forms the basis of a credit building of say, thirty times its basis, would have to be increased to 150,000 millions of the new bimetallistic money. Consequently it would take, at the present rate of production, almost two centuries before the 150,000 millions were reached. But this calculation presupposes two conditions: (1) Our gold and silver production must never fall below the present figures; and, what is much more important, (2) Our turnover must not increase.

Now, whoever has realized the enormous increase of trade within the past century, in spite of the fettering effect which our social conditions have exercised, with our currency system as one principal hindrance, will agree with me when I prognosticate such an immense increase for the next couple of centuries that, before the 200 years are passed, money representatives would have got farther ahead of the actual money stock than in our time, though the stock of the money metal had increased thirty fold; so that the basis of this circulation would certainly not be as broad as the one we now possess, one to twenty, or thirty, perhaps forty. A child can see that our productivity in thousands of commodities of all kinds must always far outrun our productivity in two special commodities in spite of our artificially interfering with general production by forcing it into dependence of that special production of two precious metals. The relation of all production to the production of gold and silver is now about 400 to 1; but as only one half of the production of the precious metals is used for money purposes, the relation to be considered is 800 to 1.

Independent of this, however, the mere cheapening of general merchandise production through further technic progress would, as in the past, cause an appreciation of money, because the progress in the production of the precious metals does not keep step with it.

For the time being, the remonetization of silver would be beneficial for all that. The mere temporary widening of the insecure foundation on which our whole financial circulation rests, would greatly revive confidence, and would largely increase credit, trade and, consequently, production; until soon the money promises would as much outrun the money stock in both metals as they are now exceeding the gold stock. For a time prices might rise, and thus debtors would be eased in a double manner. The depreciation of the money would reduce their debt, and the greater demand for products of labor would give them a chance of satisfying their creditors.

But this help would only be a temporary one, and would be obtained at a ridiculous sacrifice. Millions more of workers would be employed in digging ores from the ground, extracting, transporting, and perhaps also coining the precious metals; as well as in feeding, clothing, housing the metal producers; making the water-pipes, machines and tools or means of transportation, etc., they require. And what would be the real practical outcome of all this labor? Simply takings the money material out of one set of earth-holes to put it into another, where most of it will practically be as undisturbed as at the tune before the miners went down to get it, that it might be shifted from the vaults of Nature to the vaults of the banks. There the greatest part of the silver and gold might lie till Doomsday, without serving any other purpose than to form the basis of the credit paper circulation, which will always be the real tool of exchange and payment.

I forgot another result: the creation of a large number of new millionaires and the further enriching of others, the owners of the gold and especially the owners of the silver mines. How far the latter form the officers of the bimetallic army of which the debtor class are the soldiers may be left uninvestigated. This is the plight we have come to at the dawning of the twentieth century by dragging into it that old fetish of a past civilization: the commodity money.

Prince Bismarck once told a story in the German Reichstag of a ferocious watch-dog kept on a chain for a dozen years because he might otherwise have proved dangerous. For twelve long years the animal ran forward and backward in front of its kennel, as far as the chain would permit, until a deep rut had been worn into the ground in the form of a semi-circle. Meanwhile, the dog's teeth gradually decayed, danger faded away, and liberty was at last granted to him. The chain was taken off and the dog released. The poor creature might have gone where it listed, but habit had so accustomed it to its old groove at the chain's length that it continued in this groove until it died. A stupid dog! Certainly; but are we less stupid in continuing in the old groove of commodity money, the old relic of primitive barter, when the greater part of our business is actually done by means of money promises; widely outrunning the world's money stock, and are thus practically mere tokens only. Like the dog, we do not make use of our liberty to run free from the old chain from which in reality we have long since been released—the old chain of distrust and ignorance. Why continue making believe we trade by means of gold and silver, a belief sadly destroyed to our great cost whenever we want to put it to practical test. As the currency of our world is in reality money of our third class—token money to the extent of at least nineteen-twentieths—why preserve the virtually worthless one-twentieth, which exposes us to such terrible dangers, when practically the question in nineteen cases out of twenty lies not between gold and paper money, but between no gold money and paper money? Because we must have some standard and measure of value, is the reply we mostly obtain even from comparatively unprejudiced men. A nice standard of value indeed, which is continually varying! The very quality of the precious metals, which their defenders always fall back upon, makes them a bad standard of value. I mean their intrinsic value, as it is falsely called. Falsely, for there is no such thing as an intrinsic value. Value—in the sense of

market value, here meant—is a relation, the mere result of supply and demand. Where was the intrinsic value of the bag of gold found by the dying Arab in the desert? Gladly he would have given it for a drink of water; but the water was not forthcoming, and consequently the gold was valueless. No supply of water, no demand for gold in the water market then and there! It is true gold has a market value in most times and places, and water has not; but it is not true that this gives us a right to call value intrinsic in one case, and refuse to call it intrinsic in the other; nor does the value of gold remain more stable than that of most other commodities.

The friends of gold money point to the large stock which serves as a huge reservoir to eliminate the effect of a varying supply, but the very effect of this large stock disqualifies gold as a standard of value. As value is a relation, the most serviceable standard must be the one, which most closely keeps unchanged its relation to the objects it has to measure. It is true that an unchangeable yard-stick is a better standard of length than a changeable one, but it is true only under existing conditions. In a world, however, in which everything without exception gradually grows, or in which everything decreases in size in the same proportion, though an unchangeable yard-stick might have the advantage of showing the general rate of growth or of diminution of things, and thus form a scientific instrument of great value for philosophers and historians who are interested in such phenomena, still, such a yard-stick would not be as practical and advantageous for the purposes of everyday life as one which changed in size at the same rate with everything else. To the merchant who purchased cloth by the unchangeable yard-stick before the cloth increased in length, and who sells the cloth by measure at the old price, the increase would yield an extraordinary profit, and his customers would be losers at the same rate. If, on the other hand, everything in the world—except the yard-stick—became shorter, the merchant would lose, if under a contract to supply goods at the old prices without any regard to the change of length. Which is exactly what happened in regard to most goods sold by the gold yard-stick, whose admirers boast that it has remained unchanged while other things have varied. The man who, for the last forty years, has been under a contract to supply a regular quantity of wheat yearly—say, as rent for land—has this land much cheaper than his neighbor who pays a money rent, for the same amount of money will now buy more wheat, and the same quantity of wheat will fetch less money in the market than it did forty years ago. We have always to keep in mind that the price of goods measures the price of money as much as the price of money measures that of goods. More goods have to be sold to pay now a money debt of forty years' standing than were obtainable for the money when it was borrowed. And a money of this class is called a perfect standard of value! Just as a yard-stick, which increases or decreases in length in the same proportion with all other things in this world, would be a much better measuring instrument of length than an unchangeable one, so a money which changes its value in exact proportion with that of all kinds of merchandise would be a much better measuring instrument of value, to all intents and purposes, than one the value of which remained unchanged. As value, in its economic sense, is a mere relation, the standard which changes as the things it measures change, and thus keeps up the same relation to them, is more perfect than the standard which has remained fixed, and has thus varied in the only direction in which its stability is of practical importance: in its relation to the things it measures.

Thus the defenders of silver are perfectly correct when they maintain that silver has for the last four decades been a more perfect standard of value than gold, because its price fell and rose with that of other merchandise. But we have not the least guarantee that this relation will keep up for the next four decades. Processes of manufacture may be found which reduce the average cost of all kinds of merchandise one-half, while silver may become scarcer and rise in value instead of falling at the same rate as other commodities. In this case our children would be in the same predicament with silver debts incurred in our time as we were in regard to gold debts made in 1870 and due in 1900. After what I have said about the relation of the money quantity to the turnover, according to which it is not likely that even the greatest increase in silver-mining which we could expect would be likely to keep up with the growth of our

turnover in all merchandise and our money demand, it may be realized that such a change in the relation of the silver price to the price of merchandise would almost inevitably occur.

Nor will it help us to look round for other classes of merchandise to serve as the money commodity, for we have no certainty that their price relation to other commodities will not vary considerably in the course of time. Wheat has been proposed, for instance, but its price variations are even greater than those of the precious metals.

The clumsiness of wheat as money, independent of the cost of storage, would not be so great a drawback as we might think at first. That a bushel of wheat is not as handy a means of exchange as a dollar is undoubted; but that a paper note promising a bushel of wheat is as easily pocketed as a paper note promising a dollar is equally true, and most of our business is done by means of paper representatives. Even the smallest payments might be thus made. An Argentine five cents bank-note is worth a trifle more than two cents, and our postage stamps are also passing as money among the people. The wheat would remain in the storehouses as most of the gold and silver is doing, only to be handled over in the exceptional cases in which the holders of the wheat-warrants, the new banknotes, would want the real money.

The want of scarcity, the other indictment made out against wheat-money by its opponents, is an indictment the very preferring of which exhibits the degree to which the financiers have prejudiced public opinion. They stand up for scarcity as if it were a good quality of money, whereas it makes a dangerous weapon in the hands of the money-owners. The scarcer the money material, the stronger the monopoly which the possession of money confers, the tighter the corner into which the money creditors can squeeze the money debtors, the higher the usury they can exact from them. In fact, here we have the unavowed main reason why the financiers have used their powerful influence to force through the demonetization of silver, and thus to increase the scarcity of the money material. That England, the world's creditor, has always been the stronghold of monometallism, is not fortuitous. Through the demonetization of silver the debt due to its capitalists has been increased in purchasing power by untold millions, and the tribute chain they have laid on the balance of the world has been made proportionately heavier.

Cattle and wheat money are certainly clumsy currencies, but they have one immense superiority over gold and silver money: everybody can produce wheat or raise cattle by his labor, provided he can gain access to land, the condition without which existence is impossible. Few can gain access to paying silver or gold mines, and to obtain their product somebody has to be found who is ready to sell it for other goods. The more the productive power of labor increased, and consequently the easier it was for the money owner to procure other goods, the more difficult it became for the producer to exchange his product against the scarce gold or silver money. The owner of this money has his choice among the products of the land. All are at his disposal; the producers are at his feet, anxious to sell their goods for the scarce money which they not only need to buy necessities of life with—barter might do that to a certain extent—but mainly to pay money debts, which are growing all the time, through the usurer's interest charges, in consequence of the very difficulty of obtaining the money.<sup>2</sup> With a money consisting of ordinary products of labor the usurer's chain could never have been forged; for while on the one hand the debtor could produce the money by means of his labor, not depending on the goodwill of a customer who owns the scarce metal, on the other the treasuring of the new money through its perishable necessitates so much labor that the money owner perforce becomes more dependent on the worker than the worker on him.

We are only too apt to forget that money is not merely a measure of value and means of exchange, but is also demanded in payment of debts. Whatever advantages the precious metals may offer in the two first-mentioned qualities are greatly outweighed by the terrible danger their use as money implies in consequence of their having been made exclusive legal-tender for debts. We have seen that the amount of debts in gold currency countries exceeds at least twenty-fold the value of the gold they possess, which gold is practically the only legal tender



for these debts.

The power of extorting interest for the loan of the scarce money enables the money owners to double their demands within fourteen years at 5%, a percentage rather below the average rate of gross interest (interest proper, plus risk premium), which the debtor pays. Experience has confirmed what arithmeticians could foretell in such a case—that the chain of usury weighing upon the producers gets heavier from year to year, while the victim's power of self-ransom grows weaker and weaker.

Thus the monopolists of the scarce money have it in their power to fix their own prices at which they will accept labor's product, or even to decide whether they will be gracious enough to accept it at all. Most of us are the slaves of the money power, with the titular dignity of free workers. In the case of skilled labor the title may be even more sonorous, though the facts are unaltered. The poor professor at a German university, to whom the State gives the title "Hofrath" to make up for a not forthcoming increase of salary, is just as really a slave of the money power—underpaid and bowed down by the cares of keeping soul and body together, of educating his children and preserving appearances—as a simple laborer.

Need we wonder that, under such conditions, the wealth purchasing power of gold increases?

A nice standard of value, indeed! A standard changed at the will of the creditor class, who, independent of the regular and certain increase of their claims, which the widening gulf between the demands of compound-interest and the gold-earning power of labor creates, can at any time force on a financial panic that will put the produce of the workers and the workers themselves at their mercy. It is just as valuable a standard as a yardstick, which a merchant can lengthen at his own will when he goes round to make his purchases of dry goods.

If it were not for the power of that wonder-working giant, Habit, the fact—that with a full knowledge of all these conditions, we are still religiously conserving the gold standard—would be inconceivable. Only habit—which veils our eyes so that we see without heeding, the wonders of Nature all around us; the development of the tiny acorn into the mighty oak, the metamorphosis of the humble caterpillar into the brilliant butterfly, our own birth and being—only habit makes us support the worst monstrosities without thinking about them. And even where we think, it is generally in the direction of justifying or sanctifying that, which is, merely because it is. As an amusing proof of this truism, I cannot abstain from quoting a few passages out of *Money and Its Laws*, by Henry V. Poor.

"They (the precious metals) are the foundation upon which rests the superstructure of civilized society. Without them there could have been no exchanges, no wealth, no government, no institutions, no history; nothing but the eternal iteration of savage or barbarous existence. ... Without them utter chaos would at once take the place of the order which now conducts to prosperous ends the industry of every laborer. ... As without such standards there could be neither industry, wealth, nor civilization, the inference is irresistible that the universal demand for the precious metals at their cost, and the uniformity of their supply, are, equally with moral laws, 'part of God's providence with man.'"

Then, speaking of the possibility of leaving money for the endowment of scientific institutions, and pointing out that this could not be effected by "dedicating thereto great store of food or clothing," which are speedily perishable, he says that, "in this way, through silver and gold, man can invest himself, as it were, with the attributes of immortality. ... No commercial people ever have adopted, nor will they ever voluntarily adopt, standards of value other than those providentially appointed."

This man evidently believed in a bimetallic providence, and if ever he became a monometallist, he would have to change not only his currency theories, but also his theology and religion.

H. D. Macleod once made the striking comparison of modern circulation to the movements of a top, which spins round on a very fine metallic point. As our civilization rests upon such a

circulation, it is no wonder it is in continual danger of toppling over, and that it keeps going only by continual whipping! Under such conditions we need no longer be surprised at Mr. Poor's giddiness. Not everybody can stand the continual turning of a top on which he is forced to dwell.

My quotation from this amusing book reminds me that I have said almost nothing about the function of money as a store of wealth.

The fact is, I could not well imagine that anybody in our times should be so hare-brained as to recur to such an obsolete conception, unless the reading of *A Thousand and one Nights*, with its treasure-troves and its Ali Baba caves, or of Dumas' *Monte Cristo* has turned his head. Our modern Monte Cristos, our Rockefellers, Rothschilds, Vanderbilts, Carnegies, etc., own very little gold and silver; the security of their wealth rests on something much more solid—on human stupidity, which makes something exclusive legal tender which does not exist in nineteen cases out of twenty, and so gives to the creditor class the power of claiming enormous tributes for its loan; on still greater human stupidity, which permits the few to own part of God's earth given to all, and to claim tribute from those who want to use it.

The wealth of our present world, including the land values, exceeds 500 billion dollars, while the total value of its precious metal stock does not reach 10 billions; in fact, would not reach 5 billions if these metals were demonetized. Of every \$50 of wealth about \$1 now is of every \$100 of wealth \$1 would then be. based on the possession of gold and silver. What pitifully insignificant stores of wealth!

An American lady wrote a tale, describing the discovery of immense deposits of gold. The State, their owner, distributes the metal among the people at the rate of \$10 of gold per day per inhabitant. The result is a general catastrophe, because not one of these "rich" people wants to work any longer, and all would have had to starve if the gold had not finally been confiscated and destroyed.

Let us contrast with this starving Golconda our America as it would be if there were not a particle of gold or silver in the world, either above or below the ground, if this country had only its present thrifty population, its soil, climate, and minerals of different kinds, exclusive of the precious metals. Does anyone imagine that production and distribution would stop, that less wealth would be produced? On the contrary, it will be quite clear to all who have learnt to understand the real function which the precious metals and the money made out of them are playing in our economic system, that, once freed from their pernicious effect on distribution, and consequently on production of wealth, our country would soon be much richer in everything required by human beings, and that our civilization would rise to higher levels, in spite of our Poor friend and his co-religionaries.

Another standard of value—labor time—has often been proposed, and tried, for instance, in Owen's Labor Exchanges (see Chapter VII)—a very poor standard, as the failure of all such experiments proved. A good standard only with men like that peasant who had his tooth extracted by a celebrated dentist, and who protested when he was asked to pay two dollars for the operation: "Two dollars! Why, man, our barber at home only charges me a quarter, though he pulls me about the room for a couple of hours, and you want two dollars for two seconds!"

Until the period arrives when communist Utopias become a reality, until the hour spent by an Andrea del Sarto at his canvas or by a Newton at his desk shall be estimated as valuable and worth the same pay as that spent by a washerwoman at her tub or a crossing-sweeper with his broom, labor time—as a measure of value—must be relegated to the domain of those day-dreams which give a zest to the poet's compositions, but which are better left out of economic dissertations. As long as labor is paid according to its current value—found as the result of supply, and demand, the higgling of the market; as long as its price does not correspond to mere time units, so long will the labor-time standard remain a mere theory—and a false one at that—without any practical application, in spite of the most learned disquisitions of a Karl Marx and his disciples.

The device of counting skilled labor in multiples of ordinary labor does not advance us in the least, so long as we have no gauge for the magnitude of the multiplier.

Proudhon expressed it in these words: "The value of labor is a figurative expression, an anticipation of effect from cause. . . . It is a fiction by the same title as the productivity of capital. Labor produces, capital has value; and when, by a sort of ellipsis, we say the value of labor, we make an 'enjambement,' which is not at all contrary to the rules of language, but which theorists ought to guard against mistaking for a reality. Labor, like liberty, love, ambition, genius, is a thing vague and indeterminate in its nature, but qualitatively determined by its object; that is, it becomes a reality through its product. When, therefore, we say: This man's labor is worth five francs per day, it is as if we should say: The daily product of this man is worth five francs."

It seems unnecessary to insist upon the fact that nothing can be a standard of value without being obtainable in the market. It is a truism; for how can we gauge a standard of value except by the result of supply and demand, higgling in the market; and how can this result be obtained unless there is a real supply? To find out the value, the standard of money, it must be offered in the market like any merchandise, and only its regular and permanent supply can enable us to effect a continual verification of its price-relations to other merchandise. If I at all insist on this self-evident truth, it is because I have met with the assertion that gold might be preserved as a standard of value for paper money, even though the paper were not convertible into gold, a single gold piece being sufficient to preserve the standard. The persons who maintain such nonsense cannot see that the value of this gold piece is its purchasing power for goods, which can be estimated in no other way but by a market operation, and this single market operation may take our gold piece out of the market for ever. Where is now the standard for all other market operations? It is self-evident that these market operations must be continuous, as the purchasing power of gold in general can be found only by its regular supply for other goods offered in exchange. In other words, except under the compulsion of the socialist State, neither the value of gold nor that of any other commodity can be found in any other way but by the higgling of the market, which higgling implies the offer of the real article in quantities more or less corresponding to the demand; nothing can be a standard of value without being permanently in the market.

Vagaries of this kind arise mainly from an abuse of imagery, whose office is to illustrate, but not to prove. Measuring lengths and weights is an entirely different process from measuring values, though the poverty of our language forces us to the metaphorical use of the same term. We measure a length and a weight by finding out how many times the length or weight of a measuring tool of a certain length or weight is contained in the length or weight of the object whose length or weight we want to ascertain. We measure the price or value of a certain class of merchandise by finding out how many coins of a certain price or value the market is ready to offer for it, which is attained by a number of business operations in which the objects whose value we want to ascertain are exchanged for the measuring objects. It is a never ceasing, continually varying operation, absolutely depending on the mutual supply and demand of merchandise and money. If all the yard sticks in the market are burned, except one, this one stick can serve as well to ascertain the lengths of the cloth to be sold, and not a single yard of this cloth will be under- or over-measured in consequence. It is totally different, however, if the value measuring tool runs short. In the crisis of 1857 most staples in England fell 27% on the average within two weeks. Was it that cost of production had suddenly fallen? Certainly not; it was simply because the quantity of the legal tender money obtainable for these goods had suddenly decreased. Whenever it is shown that the supply of yardsticks or pound weights influences the length and weight of merchandise in the same way in which the supply and demand of coins influences the price of merchandise, the metaphor will have become a reality instead of a misleading illustration.

Criticizing standards of value can be productive of little good unless something better than

the existing ones is proposed; for even an inferior standard is better than none at all. From the negative part of my work I therefore now proceed to the positive. From the pulling down business, I come to the constructive department.

The money of the first class has been found wanting. The money of the second class is only money of the third class burdened with an unnecessarily expensive raw material. Instead of putting the money stamp on cheap paper it is affixed to expensive silver, copper, nickel, or whatever material coins are made of. Much labor is wasted; and for all that, forgery is easier than in the case of paper money, the raw material of which can be prepared in a special way with water-marks, and other distinctions, which are imitable by paper makers only, and their trade cannot so easily be followed in secret as that of the coiner.

J. Shield Nicholson, in *A Treatise on Money*, says (p. 220): "As to forgery, it is a curious fact that in Scotland spurious sovereigns are more frequently met with than forged £1 notes; and the art of engraving notes has made much progress since England had £1 notes in circulation (1826)."

Del Mar, in his *Science of Money*, says: "The silk-threaded distinctive fibre-paper, the water-marks, the printing in colors, the highly artistic vignettes, the geometrical lathe work, the numbers, the signatures, and other mechanical safeguards of the modern paper-note render it far more difficult to imitate than coin."

We shall now pass on to class 3: Token Money. Many economists fail to see that this money is of an absolutely different nature from the money of the first class, from commodity money. For instance. Dr. C. F. Taylor, when he says that the present idea of money "is like writing a deed to a house on a plate of gold of equal value with the house. It is an enormous waste. Money is a title to wealth, and money made of gold and silver is just like the titles to property written on gold and silver." In this he absolutely misconceives the nature of our gold money, for this money is no title to wealth, but a marketable commodity, which is bartered for other commodities. It is true that certain peculiarities, especially the stamp, and our legal tender laws have made it the most marketable of all commodities, but for all that its value is that of the commodity it is composed of: no more nor less. Mr. Taylor's argument applies to money of the second class, which practically is token money printed on an expensive raw material, a material in some cases almost as valuable as the merchandise bought with the money. This certainly is unmitigated folly. Either we live under a reign of trust and confidence, of order and good faith—in this case token money, printed on a valueless material and issued under certain precautions, yet to be discussed, is the best money in the world. Or we are anarchistic barbarians, distrusting ourselves and our government—in this case no money is good enough which is not a merchandise sufficiently valuable, without its form and stamp, to purchase as much in the market as we gave for it, and only money of the first class will do this. Money of the second class ought never to be produced at all, except in small coins found more convenient than paper counters of the same value, so that the greater convenience warrants the extra cost.

The objection, often made against token money, belongs to the intrinsic value domain, which I have already exhibited at its real worth. But even on the principle that value is a relation, it seems impossible to compare a thing, which has no market value at all with real wealth, with merchandise of any kind. At least, such is the objection made by men like Professor Karl Knies (Heidelberg), who has written valuable books on money and credit. According to him, money must be a merchandise, because you can as little measure the value of a commodity by anything else but the value of another commodity as you can measure a length without something that has a length.

We might agree with the learned gentleman without, in consequence, being compelled to exclude inconvertible paper money from the money category. What is the autograph of a celebrated man? What is a postage stamp even when cancelled by the post office? Are they commodities or not? Both sell as merchandise in the market, and Professor Knies cannot take

their merchandise quality from them. He will also have to agree with me that their merchandise or market value in no way depends on the amount of labor they embody.<sup>10</sup>

To a certain extent their value depends on their scarcity, for an autograph, which can be had by the million or a common cancelled postage stamp which can be had anywhere for the asking, are practically worthless, even if the former is in the handwriting of the most celebrated man, or if the other has the most beautiful picture impressed on it. But scarcity alone does not give value to an autograph; for the signature of a boor who wrote his name once in his life does not gain any value thereby. The only real element of value in an economic sense in these, as in all cases, is supplied by the market, by supply and demand.

It is the price, which the market is ready to pay. This makes a picture of Raphael valuable in our markets, while among the negroes of Central Africa it might not fetch as much as its canvas without the painting on it. This gives value to the autograph, to certain cancelled postage stamps, and to the piece of paper money. There is no difference in kind from an economic point of view between the mercantile value of Raphael's Sistine Madonna, an autograph, a cancelled or un-cancelled postage stamp, and an inconvertible bank or treasury note. Their mercantile value is what they will fetch in the market. The motives of the buyers have as little to do with the matter as many other case. A race-horse which has just won the Derby will equally be a merchandise whether bought with the intention of making sausages from it or of winning races through its help. Nor will the merchandise character of a piece of paper be changed in the least, whether it is bought because a great artist painted something on its surface, because a great man appended his signature to some words written on it or because the Government printed a certain text and applied a certain stamp. Neither does it make any difference whether the picture is bought for its artistic value or for its scarcity, for the purpose of adorning a drawing-room or of completing a collection. The economic classification of a postage stamp or bank-note does not change in the least, whether they are bought for a collector's album, or if the one is used to prepay a letter and the other to purchase goods. The fact that a certain piece of paper printed with certain signs is accepted as money at a certain price in the market does not change its commodity character; and in so far, we might as well have refrained from dividing money into three classes. In thus dividing it, we do not pretend that the money of our third class is not as much a commodity as our money of the first class; but merely that, whereas money of the first class maintains its market value after it ceases to be used as money—a new gold eagle being worth ten dollars, even if sold as bullion—the money of the third class loses its market value after losing its money quality. Even this is only true within certain limits; for if gold coins cease to be money after gold has been demonetized, their value as bullion will no doubt decrease thereby; and paper money, though demonetized, may still conserve a value for collectors or amateurs of certain classes of wall-paper.

In this way, I maintain that token money is money even according to the German professor's limitation. But if, according to a common saying, the best proof of the pudding is in the eating, the best proof of the money quality of inconvertible paper notes must be that they actually pass as money in many countries of the earth. Facts, however, have no power over academicians. They often act like the physician who had declared a patient incurable, and who, when the man had the impudence to recover, in spite of the doctorial dictum, quietly told him: "Scientifically you are dead, sir!" Or our learned professor may imitate one of his colleagues, who, when shown that facts did not agree with his theory, replied: "So much the worse for the facts!"

It is, however, insufficient to prove that paper money exists scientifically as well as practically; we have to show that it is a better money than our metal money, or any money of our first and second classes. The general opinion is that paper money has been a failure. Gold has fluctuated considerably, but it never has shown such variations of value as most of the paper moneys we are acquainted with. As a warning example, three different historic cases are usually produced: Law's bank paper, the French Assignats, and the notes of the American

confederacy. From parity with gold to no value at all, are fluctuations which no commodity money ever experienced; and it is not to be wondered at that, with all their drawbacks, our gold and silver currencies, are generally considered as superior to paper currency. The ground thus taken seems unassailable, for the money of our first two classes can never lose its value to such an extent as paper money; but for all that, I intend to prove that paper money can be made a more stable standard of value than gold, silver, or bimetallic money.

Adam Smith, M'Culloch, Ricardo, Tooke, Stuart Mill, Jevons, and other great authorities have freely acknowledged, and the facts of every-day life have proved, that paper notes, though inconvertible into gold, if made legal tender, can be kept at par with gold coins under certain conditions, i.e., they take the place of gold coins withdrawn from circulation. 15¾ million pounds of notes issued by the Bank of England are not backed by gold, and yet they are at par with gold, as they will always be required for internal circulation. That paper money has often been of great benefit—even where it did not keep at par with gold—is also well known.

R. H. Patterson says in *The Economy of Capital* (p. 447): "How did England manage from 1797 to 1815, when there was hardly a guinea in circulation? That period was the most trying which the British Empire ever came through, a period remarkable for a great expansion of our trade and commerce; nevertheless, though gold almost disappeared from circulation, no difficulty was found in settling the foreign exchanges; and the Government was even able besides to obtain large sums of metallic money to pay and feed our armies abroad and to subsidize those of other states."

The difficulty remains of finding the exact margin for the quantity of inconvertible paper money which can be kept floating at par. Must not the paper depreciate, when a certain amount required for internal circulation is overstepped, when, according to Gresham's law—that the bad money drives out the good—the gold coins have disappeared, and gold has to be bought at a premium for outside payments?

The history of American Greenbacks has shown this very clearly; for it is an exaggeration or downright falsehood, which has helped more than anything else to discredit paper money, to contend that what brought greenbacks into disrepute, what finally reduced their gold-purchasing power to almost one-third of their nominal value, was the law which made the interest of certain loans and the custom duties payable in gold. These people do not reflect for one moment what the loans were contracted for. At that time many goods required by the country, especially for war purposes, could not be produced fast enough within the States, and had to be bought outside where greenbacks were not accepted, but where gold or other salable merchandise of some kind were demanded in exchange. Now for the time the merchandise or gold thus demanded could not be produced in sufficient quantity, and money had to be borrowed abroad to pay for the passive trade balance. The parties who lent this money wanted their capital and interest guaranteed in gold; for nobody could tell whether greenbacks would ever procure them gold at their face value or goods at a corresponding price, when even the very continuance of the Union was in question. So the foreign loans had to be made payable in gold, capital and interest, and it became necessary to ensure a sufficient gold revenue to pay for the incurred debts. It is true the Government might have accomplished this otherwise than by making the duties payable in gold. These duties might have been made payable in greenbacks, with which the Government would have bought in the market the gold it required. But foreign exchanges naturally were against a country which had an unfavorable balance of trade to pay for and no gold in stock for the purpose. Gold had to be borrowed in some way or other at its market price, which grew with the demand for it. The Government's financial measures had nothing to do with the premium thus paid for gold, which was produced by the foreign exchanges. The only difference would have been that instead of paying duties in gold which they had to purchase at a premium with greenbacks, the importers would have to pay their duties in greenbacks, but the amount of the duty would have been raised sufficiently to

enable the Government to purchase the gold it needed. The only difference would have been to force the importers to provide the Government with enough greenbacks to buy gold, instead of having to buy the gold themselves. Greenbacks were bound to fall in value in either case, as long as their issue exceeded a certain quantity demanded for internal circulation. Still, their fall would never have been so considerable if the Government had not committed the folly of authorizing the so-called 'National Banks' to issue a currency of their own, even making them a present of the interest profit thus obtained. This concession added unnecessarily to the inflation.

The friends of paper money would do well to profit by an experience daily realized in any department of reform work: the experience that exaggeration and radicalism overshoot their mark. The greatest enemies of a rational currency are those radical apostles of paper money who want it issued to any amount, secured by real estate. This class of currency reformers finds its principal adherents among land-owning farmers, who thus hope to obtain from the State cheap money on mortgages. Such a concession would merely add to the unearned increment by forcing up the prices of land, and thus the compensation which the community would have to pay some day when the people take back their own; but leaving this aside, the whole plan shows an entire ignorance of the currency question. There can be only one kind of security behind money, and that is its wealth-purchasing power.

If real estate is the wealth on which the money is issued, the money, if issued beyond the needs of circulation, is only good if the real estate can at any time be obtained for it, which is not at all the intention of the men who propose the plan. They do not dream of handing over their farms and houses to anyone who presents for redemption the money lent to them on such security. They merely want to keep this money for an indefinite time, or at least for an extended period, at a low rate of interest. Their real estate is not in the market for the money they received; in fact, usually it is not in the market at all, most certainly not at those very periods when people want to see something substantial for the paper in their hands—the times of crises and panics; for at such moments their property would certainly not fetch more than was borrowed on it, and probably not even that. Thus the security is no security at all in the only sense in which a security is needed, i.e., to keep up the full purchasing power of money, the security that its issue does not exceed the quantity of merchandise offered for money in the market.

Can we blame gold fanatics if they stick to their gold standard as long as experience justifies them in the belief that gold, with all its fluctuations of value, is after all not subject to such excesses in this direction as most of the paper currencies on record? But they leave out of sight the fact that not a single case is known in modern history where an inconvertible paper money was issued under normal conditions, for the purpose of providing a better money than metal coins. Invariably such money was issued in times of wars or revolutions, or at least as the result of acute financial distress. Under such conditions it could hardly be expected that the issue would conform to rules adapted to maintain a fixed standard of value for the paper, which in no way proves that such rules might not be devised.

On the contrary, a closer investigation will show us the feasibility. A perfect standard of value for money is reached when the average price of merchandise does not vary, and this can only be obtained where the quantity of the money supply in the market adapts itself to the demands of the market, where more money appears when prices tend to go down, and where the surplus disappears when the tendency is in an upward direction. This is impossible in the case of metal money, whose supply depends on the goodwill of those who control the bullion market: but it is within the reach of possibility in the case of paper money, which can be supplied to any amount at the shortest notice, whose issue can thus be adapted to the market's exigencies, more money being issued when prices fall, and money being retired when prices rise. Thus, while our present law fixes the price of gold, the new task is to fix the average price of goods through a regulation of the money circulation. All those commodities, which

constitute an appreciable portion of the general turnover, are tabulated, their prices being multiplied with their turnover. The addition of the sums thus obtained gives us the average figure, which has to guide us in the issue or withdrawal of paper money.

Before I quote from *Honest Money* by Arthur I. Fonda, of Denver, Colorado, a detailed description of his scheme, I want to say that, though perhaps its best exponent, Fonda is by no means the originator. A number of other proponents are mentioned in *Rational Money*, by Professor Frank Parsons (C. F. Taylor, Philadelphia), and in *The Measurement of General Exchange Value*, by Correa Moylan Walsh (Macmillan, 1901), though both lists are far from complete. For instance, the article of Professor Marshall, of Cambridge, is not mentioned, which appeared in the *Contemporary Review*, of March, 1887: nor does either of the two authors speak of Silvio Gesell, one of the most energetic propagators of the principle, whose first publication on the matter dates from 1893, the same year in which Fonda came out with the plan; nor of Professor Alfred Russel G. Wallace, who proposed the scheme in 1898. It is probable that such a simple and valuable method of obtaining a money with an invariable standard has recommended itself to many others unknown to fame.

The *Arena*, of September, 1897, published a reproduction of a Treasury Note issued in 1780 in the State of Massachusetts, promising payment not of a fixed quantity of gold, but of a sum equivalent to the gold proceeds of given quantities of corn, beef, wool, and leather. This multiple standard was intended as a safeguard against fluctuations in the value of the currency, and is described by the editor as the most nearly honest piece of money ever issued in a civilized state. This strange money points in the direction of a proposal made by W. Stanley Jevons in *Money*, and, it seems, as far back as 1822, by Joseph Lowe, and 1833 by G. Poulet Scrope.

The plan was that of using the multiple price standard, not to regulate the money, but as a standard of value for money contracts, by increasing the amount due if the higher sum of the table indicates a depreciation of money, and decreasing the amount if the reverse takes place. Only mere theorizers could ever make such a proposal; any businessman would at once have seen its impracticability. Its adoption would keep all financial engagements in a state of perpetual fluidity. The amount of pensions, salaries, fines, taxes, duties, debts, in fact of financial engagements of any sort, would fluctuate continually according to the results of this kind of tabular standard. Just imagine what that means! A man has to pay his butcher bill of last year, another has signed a promissory note, and so on through thousands of mutual engagements of daily life. Before any payment is made the tabular standard must be consulted; a discount has to be taken off or a premium is added, according to this tabular standard; and these complicated calculations are to be carried on daily, hourly, and mostly by men to whom the job of multiplying quantities with prices and adding the products, when they buy a bill of goods, is already sufficiently complicated. When they have borrowed money, the calculation of the interest they have to pay is hard enough for them; and now they are also to add or deduct percentages varying with the money standard. Most of them will have to rely on the cleverer people who understand 'this new fad'; and we know what that often means. Adding another trap for the unwary and ignorant, and heaping additional work on everybody, would cause this tabular standard to be looked at as such an unmitigated curse that people would rather put up with all the dangers of our monetary fluctuations than correct them in this insane fashion.

The general abhorrence of inconvertible paper money entertained by most English economists of that period, alone can explain how intelligent men should have passed by the only practical application of the tabular standard to stumble into such impossible proposals. Had they been less prejudiced they would easily have seen that, instead of using their tabular standard to change the amount of money obligations, leaving the money circulation itself untouched, the obligations might have been left untouched by changing the money circulation according to the tabular standard for the purpose of balancing the variations of the latter. By thus steadying the price of merchandise, the value or price of money, its purchasing power,



remained invariable, and money obligations could safely be left alone. These enemies of paper money ought to have seen that the danger they were afraid of—Inflation—can be guarded against by means of the very instrument of which they wanted to make such a preposterous use. Just as a fall of prices demands the issue of more money, so prices rising above the normal at once indicate that too much money has been issued, lousiness men, members of Congress, or chambers of commerce through their experts can thus easily find out at any time whether an under- or over-issue has taken place, and whether an increase or a restriction of the money circulation is called for, thus controlling the parties entrusted with the note issues.

Fonda says: "Let a commission be appointed by Congress to select a sufficient number of commodities, say one hundred, to be used as a standard of value. This selection should comprise the commodities most largely bought and sold and most independent of each other in their values, preference should be given to those which are products of this country—but foreign products should also be included—and to those which are reliable in quality and of which the prices are regularly quoted—such, for instance, as wheat, corn, oats, rye, barley, cotton, wool, tobacco, rice, gold, silver, lead, copper, tin, iron, steel, cotton and woolen cloths, leather, hides, lumber of various kinds, sugar, beef, pork, mutton, etc. The aim should be, while not including all commodities, which would of course be impossible, to include a sufficient number and of such varied kinds as to fairly represent all. Less than a hundred might be sufficient, or it might be better to take more than that number. With the aid of statisticians, the average price of each of the commodities selected, in their principal markets for a few years past, should be ascertained and tabulated. The commodities, of course, should be of specified grade and quality, and in a specified market, but not necessarily the same market for all. The length of time over which the average of prices should extend would be determined as closely as possible by the average length of time that existing indebtedness had run (The reason for this will be explained later.) In addition to the average prices of each commodity, the approximate amount or value annually consumed in this country should be ascertained.

From these data, a table should be prepared showing the amount one dollar would have purchased, on the average, of each of the commodities for the time determined, and from this a final table should be made taking such multiples of the amounts found in the previous table as should represent their proportionate consumption--- in other words, their relative importance in trade.

For example, suppose the time selected were five years, as representing twice the average time existing debts had run; that during that time one dollar would have bought, on the average, 1.25 bushels of wheat, or 3 bushels of corn, or 100 pounds of pig iron, or ten pounds of cotton, all of specified grade in specified markets; that, further, the importance of each of these commodities in the trade of this country was in the approximate proportions of 5, 3, 2 and 1, respectively. Then the final table would show:

5	x	1.25	=	6.25 bushels of wheat	=	\$	5.00
3	x	3	=	9 bushels of corn	=	\$	3.00
2	x	100	=	200 lbs. of pig iron	=	\$	2.00
1	x	10	=	10 lbs. of cotton	=	\$	1.00
Total						\$	11.00

Considering these four commodities only, the dollar, as the unit of value of our system, would be defined by law as one eleventh of the sum of the values of 6.25 bushels of wheat, 9 bushels of corn, 200 pounds of pig iron, and 10 pounds of cotton. This illustrates the method of arriving at, and the definition of the standard. Extended to all the commodities selected, the definition would be the same with the substitution of the proper figures. This would evidently provide a standard that would closely represent the average purchasing power of one dollar for the time selected. As to the length of time over which this average should extend, if there were

no such thing as existing debts, it would clearly be of little importance what the value of the unit selected was, just as it would be of no importance now whether the foot or the pound had been originally fixed at greater or less than their present length and weight; but because of the vast amount of existing indebtedness, the value of the unit that is to be made permanent should be most carefully fixed at the value it had when such indebtedness was created, so as to do as little violence as possible to outstanding obligations. The fact that in the past the debtors have been wronged to the advantage of creditors, by an increasing value of money, furnishes no excuse for a reversal of this injustice and a wronging of creditors by permanently fixing the value of the dollar at what it was twenty or thirty years ago. The debtors and creditors of today are not the same individuals who stood in those relations in the past, and two wrongs do not make a right.

The object should be, therefore, to determine as closely as possible how many years, on the average, existing debts have run, and take twice that period for the total length of time over which prices should be determined. This would doubtless work a slight injustice to those whose debts are of a longer standing—though a less injustice than they are subject to now—and would be a slight injustice to the creditors of more recent date; but as some time would be occupied in getting the system to work, so that the actual value of the money would correspond with the standard, the injustice would be more or less distributed, and would at most be slight. It would be substituting only a gradual rise in prices for the decline that has been going on, until prices were back to the level of perhaps two or three years before, and then fixing the level at that point.

After the statistical work outlined above has been completed, Congress should repeal the present monetary laws, substituting for the definition of the 'dollar' the new definition agreed upon. It should then provide a currency or money to take the place of that now used. This currency should be a paper money similar to our 'greenbacks.' It should be a legal tender for all debts public and private (except, of course, such as by their terms are payable in gold). In fact, the only difference between such notes and existing 'promises to pay' of the government would be that the new notes, as is evident from the new definition of the dollar, would be promises to pay a definite value, and not a definite quantity of one commodity of uncertain value.

The notes could be made redeemable in any commodity at its current market price, and should contain a pledge, on the faith of the government, that the amount of the currency in circulation would be at all times so controlled by the government that its actual purchasing power would conform to the standard on which it was based.

To carry out this pledge, it would be necessary to have a small corps of statisticians who would receive and tabulate the current market prices for each day; and who would calculate there from the aggregate prices of the specified quantities of all the commodities constituting the standard—in similar form to the final table before mentioned, and of which an example has been given. If this aggregate for any day were more or less than the total of the standard table, it would show that prices in general had risen or fallen, and some money should be withdrawn from circulation, or more issued until the daily total corresponded with the standard total.

Doubtless several plans might be proposed for putting such a money into circulation and controlling its volume. The following seems to commend itself by its simplicity and effectiveness of control, for at least a part, if not all, of the issues, viz.: The money to be loaned by the government on approved securities, such as their own bonds; other bonds of states, counties, cities, railroads, etc.; warehouse receipts, gold and silver deposits, etc. First-class commercial paper, when guaranteed by solvent banks, might also be taken, especially in case of threatened panic. In short, such securities as would be considered the safest for banks and trust companies to loan upon, all under such proper restrictions and safeguards as would insure their safety as collateral. The rate of interest charged for such loans to be a variable one, decreasing as prices tended to fall, and increasing as they tended to rise, and without other restrictions. This would absolutely control the volume of money, within narrow limits, since

more would be borrowed at a lower, and less at a higher rate, of interest, yet the control would be elastic. While the loans should be for a short time, they could be renewed at pleasure, and as often as desired, at the current rate of interest, the security remaining good.

Such a plan would not interfere with general banking business to any considerable extent. In order to prevent monopoly, the loans should be open to all on equal terms, and the list of approved securities acceptable as collateral should be made as wide as possible, consistent with safety. It would probably be found by experience, however, that the principal borrowers direct from the government would be the banks, who would reloan the money (at a sufficiently higher rate to pay them for their trouble) to their customers, on local securities, commercial paper, etc., as they now do. The legal tender provision of the notes would be necessary only as specifying the medium in which payment of debts should be made, to prevent misunderstanding, and for the protection of debtor and creditor alike. The new dollar being a quantity of value, and not of a specified commodity, a loan might be returned in any commodity of that value but for some such provision. The provision could in no case wrong a creditor, for what he would receive in payment for the debt would be a positive guarantee to deliver him the value specified in any commodity he chose. Making the money redeemable in any of the commodities on which it is based would be only a form, and might be omitted; it is suggested merely as obviating any objections to an irredeemable money. Of course, the government would never be called upon to so redeem money, since the holder of it could exchange it for the commodity wanted in the open market to equal advantage. No reserve of commodities of any kind need be kept, therefore, for redemption purposes. One great difference between this plan and existing systems will, of course, be seen at once the present system promises a definite amount of gold, and must, therefore, keep a gold reserve; but as no one really wants the gold, except in exchange for commodities, this plan proposes to do away with the necessity of a gold reserve by guaranteeing that the money can be directly exchanged for such commodities at the current market price—which is all that can be done with the gold<sup>11</sup>—and that the average purchasing power of such money shall not vary as gold does." ("Honest Money", pages 158-173.)

The nationalization of commerce, proposed in Chapter VIII, would make the new paper actually redeemable in merchandise obtainable from the issuer, like the exchange notes of the co-operative societies, or the Mutual Banks of Chapter VII. The State in such a case would pay for its merchandise purchases with the new money and would accept it in payment.

Even without the centralization of commerce the general accessibility of the new money can be secured through People's Banks on the Raiffeisen system, of which the first was founded in 1849, in the Westerwald, Germany—the mother of over a thousand offspring. These banks, together with another kind of people's bank on the Schultze-Delitzsch system, and the different kinds of co-operative institutions organized by the people, possessed, in 1892, a capital of 1,250 million dollars. Though the Raiffeisen banks lend on personal security, the losses were only about 60 cents per member in that year. As they are based on an extensive or unlimited liability, each member watches his fellow-members, which is not difficult, as the members usually live close together.

In Italy, 28.68% of the members were then engaged in small industries and trades, 8.40% were artisans, 15.40% were school teachers, Government employees, etc., 19.08% small cultivators, and 3.18% laborers. The balance were agriculturists, manufacturers and traders, or persons without a calling. One thousand societies existed with over 150 million lire capital (30 million dollars). They lent out over 500 million lire, and had about 400,000 members. The losses in Milan, a society with \$2,500,000 capital and reserve, had not reached ten cases in twelve years.

A leading feature of these banks has been the capitalization of profits, a principle especially to be recommended to co-operative societies in general. The security offered by these banks can best be concluded from the fact that in 1866 and 1870, the two war years when deposits

were withdrawn wholesale from other banks, they were actually pressed upon the Raiffeisen banks, without a time limit, as long as they proved trustworthy and used the money for productive purposes. The Rhineland law courts even allowed trust money to be lent them.

How much greater will be this security where the money due does not consist in a scarce commodity, but is expanding with the demand! These banks could be the main instrument through which the state issues the new money to the producers and traders, as long as trade is not nationalized. Their collective security is good enough to procure them the loans of all the new money, which will be wanted as a cover of their check accounts.

Then there will be the Postal Savings Banks, which do such splendid service in some other countries and which we are sure to get as soon as the only argument against them in this country is put aside: the personal interest of our private bankers, just as we shall yet obtain a parcel post when the six reasons of Postmaster Wanamaker, why we should not have it, have been met; the six express companies. The new Postal Savings Bank, with a branch in every post office in the Country, would not only accept deposits, but might also grant loans against certain specified securities, which, in case of need, it might obtain from the State's money-issuing department. It could also attend to free transfers of accounts all over the country, as it is doing in Austria-Hungary, where, in 1906, 1500 million dollars were transferred through the Postal Savings Bank, and 3700 million dollars were paid with the checks drawn on this institution. Switzerland copied this excellent system in 1906, and Germany intends to do so now.

Professor Erwin Nasse sees a certain difficulty in the work of exactly finding the quantities of the different articles, which are to form the basis of the calculations. Others have discussed the question whether wages, tools of production and land values, i.e., rent, ought to be included in the lists. In any case, we shall never quite eliminate all sources of inaccuracy; but by the wanderer lost in the wilderness, even the rough indications of the native he meets, as to direction and distance, will be welcomed. He will not refuse to avail himself of them because a map with exact delineations would be preferable. Even an approximate price standard is better than none at all, and certainly no system of tables made out on the best available data would hide from us fluctuations like those, for instance, which, in the English crisis of 1857, caused the prices of the principal staples to fall 27% within two weeks; not because their cost of production had decreased so much within that short period, but because money had suddenly become exceptionally scarce. Patterson, in *The Economy of Capital*, mentions cotton, going down from 7 to 43½% for the different numbers between August 15 and November 5, 1866, in consequence of the scarcity of money (p. 366). It would never do to give up the attainable because perfection seems out of reach. However, I do not think the difficulty quite so great as Nasse finds it. New Zealand gives fairly exact statistics of the turnover made in the different trades, and there is no reason why other countries should not succeed as well. Of course, we would not take retail prices, but the prices obtained by the producer. If we gave retail prices, we should only increase the total of each article in about the same proportion without affecting the result. If prices vary in different parts of the country, we should take the middle price. Raw materials would figure several times in the list wherever they are used as the component of other merchandise; but so would manufactures, which enter into the composition of other fabrics, such as leather in shoes and saddlery wares, cotton thread in cotton cloth, etc. This can only affect the quantity relation, which each article can claim; but as the same addition to quantity takes place in all branches of manufacture it does not sensibly affect the final result. It makes no difference whether in our lists the price of every article is multiplied with half or double the quantity: the average will not change thereby. Neither can it well be avoided that some manufactures, which enter into the composition of others will not appear in the list, because they are produced in the same factory, and thus do not pass through the market; as, for instance, where the yarn is spun and woven in the same works or where the tannery and boot factory are in one hand and the product thus will only figure once where others manufactured

by different firms are counted twice. This does not matter much, however, as such causes of error will occur in different branches, and thus will compensate each other in a certain measure. Land values and rents, on the other hand, ought not to figure in the list for their relation to the value of money is not the same as that of the products of labor. Though both rise with the rise of prices and the depreciation of money, it does not follow that the opposite tendency will force them down; for the simple reason that the fall of prices in our times is mostly due to the greater productivity of labor in consequence of technic improvements, and that this fall has by no means kept pace with the increase of this productivity. The balance appears to a small extent in a rise of wages, to a larger extent in the increase of profits, including interest, but chiefly displays itself in the rise of rent. Rent and land values have risen much faster than the value of our metal money, which is easily accounted for by the fact that, though the quantity of our metal money does not increase so rapidly as the productivity of labor, still it increases quicker than the surface of available land. The price of the latter, therefore, is forced up more rapidly. The inclusion of land values and rents in our tabular standard would therefore simply falsify the result. We might see prices of goods fall with rising land values and rents, and if we included the latter in the tabular standard they would produce a corresponding counter effect on the influence of the price fall, and thus at all events prevent a sufficient issue of new money. On the other hand, a new issue of money would cause such an upward tendency of land values that the currency restriction this would entail would overstep the real necessity.

Wages ought not to figure in the tables, because they form a part of cost price. As C. M. Walsh correctly remarks, "what laborers give in return for their hire is not the labor, which nobody wants, but the product of that labor." To count wages, after having counted the product paid for with these wages, would have the same effect as the double counting of raw materials. Of course, Fonda's plan of lending out the new money and of regulating its issue through the interest rate, a flood-gate lowered and raised according to the demand, is meant only for that portion of the money circulation which is in excess of a certain minimum below which the demands of the market can never fall. The money required below this line need not be lent out, but can be paid out for public improvements, for instance the construction of railways, canals, etc.

It is questionable whether the regulation of the money circulation need ever entail a withdrawal of money from circulation. In all probability it will only mean a restriction of the issue. My reason for believing this rests on the steady increase of productive power, population and trade, liable to assume much greater proportions than those we are used to in our time with its unnatural fetters on circulation, mostly due to our currency system. More currency will thus be demanded all along, and a rise in prices would in most cases not demand a retirement of money from circulation, but a temporary raising of the interest flood-gate which governs the volume of the daily issue.

That, as Tooke and Newmarch have proved by many facts, an increase in the money circulation does not necessarily bring about a depreciation, is also illustrated by the case of Brazil, given in the report of the Committee on Indian Currency, of 1893 (par. 92): "The case of Brazil is perhaps the most remarkable of all, as showing that a paper currency without a metallic basis, if the credit of the country is good, can be maintained at a high and fairly steady exchange; although it is absolutely inconvertible, and has been increased by the act of the Government out of all proportion to the growth of population and of its foreign trade. The case, it need hardly be said, is not quoted as a precedent, which is desirable to follow. The Brazilian standard is the milreis, the par gold of which is 27d. A certain number were coined, but have long since left the country, and the currency is, and has since 1864 been, inconvertible paper. The inconvertible paper was more than doubled between 1865 and 1888, but the exchange was about the same at the two periods, and very little below par or 27d." Besides, an increase in the money issue may not mean an increase of the money circulation.

The money may be kept in the vaults of the Treasury or State Bank, at the disposal of its depositors who opened a check account with it. The checks thus drawn may be the main circulating medium as they are in our time.

The method proposed by Fonda to effect a regulation of the money issue: the raising of the interest rate, or even a suspension of loans, may meet with a certain prejudice, because we meet with the application of this method under absolutely opposite conditions, where it has an aggravating effect. At present the rate of interest is raised and credit is limited to a minimum in times of financial crises, which force the banks to such steps. These steps in their turn intensify the crises, no matter how much they may be demanded in the interest of the banks. The mere proposal of raising the interest rate must therefore call up unpleasant associations. A closer observation, however, shows us that the new conditions produce totally different effects. Today we find the interest rate raised to an abnormal height at the beginning of a crisis in consequence of the scarcity of money. Under the reign of the new currency the reverse happens, for the scarcity of money finding its expression in a general fall of prices, government forces more money into the market, by reducing the interest rate so as to stimulate a demand for the new money issues. At the very time, which sees our banks lock up their money and raise their interest rate or refuse loans altogether, a flood of new money submerges the market at reduced interest rates, to spur on enterprises, so as to enliven the demand for labor and its products. The raising of the interest rate, on the other hand, comes when money is plentiful. Thus at the very time when now the rate is lowest, stimulating speculation and forcing up prices, a rise of the rate acts like the drawing of a bridle to regain control over a runaway horse. The supply of money is reduced and the prices of goods return to their normal height.

One objection will have to be met before we pass over to the effects of the new currency on the process of circulation in the next chapter: the influence of the trusts on prices apparently partly independent of the money circulation, which has been exhibited in this country during the past six years. Though the relation of the money stock to the turnover of merchandise has been an ominous one, prices have been artificially forced up by the great combinations, and even in the height of the financial crisis we are passing through, while I am adding these lines in the first days of January, 1908, no noticeable reductions have so far been made, except in copper, in which an unprecedented overproduction had taken place. Pretty well everywhere else the combines have been able to meet any lessening of the demand caused by the money stringency by a limitation of the output, without a reduction in prices. The main cause for this phenomenon must be looked for in the fact that it is not the quantity of legal tender money, but that of the currency which has an effect on prices, as has been shown before. The money quantity comes into play only indirectly, through its influence on credit and consequently on the currency. Now, the financial power of the great combines has enabled them to force up the credit building to an unheard-of height, as the bank statistics of 1907 have shown us; and even now, during the financial crisis, this power has not entirely lost its hold. Independent of this, however, it is evident that where a number of combining business giants have obtained such a power over the production of a country that they can hold back competition at lower prices, where financial causes tend to force on such competition, we can not expect to see economic laws produce their usual effects. The monstrous growths are not doing their nefarious work in this field alone. The continuance of their despotic power might not merely render the best currency system inoperative, but might have far more deleterious consequences, through their interposition against the natural effects of supply and demand, by curtailing the supply and preventing its adaption to the demand, through an adjustment of prices. Chapters VII and VIII will show how such obstructive tactics can be dealt with, without special legislation.

Continued

[List of Content](#)

1. We shall yet see that 'legal demand' would be a far better term than 'legal tender.' There is no great need of forcing creditors to accept money tendered them. Most of our calamities arise from the legal right of demanding something which is less and less obtainable.
2. The Argentine Republic offers an interesting example of the hybrid nature of certain kinds of paper money. In 1869 the province of Buenos Ayres issued real paper money, on which was printed: "La Provincia de Buenos Ayres reconoce este billete por i peso, moneda corriente." (The province of Buenos Ayres recognizes this note for i peso, current money.) The present paper money of the Argentine Republic has the inscription: "La nacion pagara al portador a la vista por medio del Banco de la nacion Argentina i peso." (The nation will pay to bearer at sight through the bank of the Argentine nation, i peso.) Which means that for the paper another paper of the same kind is handed over on demand. This paper is legal tender money, and is issued even for small change down to 5 centavos. As a peso in paper is worth about 45 cents, the 5 centavos paper is worth about 2 cents. These notes are not only a hybrid between paper money and money representatives, but also one between treasury and bank-notes.
3. This recalls a remark made by Thompson, in his "Political Economy," of the Scotch bank-notes down to 1845: "The people will take guineas instead, if they must, but they pass them off as soon as possible, as a pretentious, unthrifty, eminently un-Scottish kind of money, much inferior to a native bank-note coined in any corner of Scotland."
4. Jevons draws special attention to this function as a measure of value by pointing out that "between one hundred articles there must exist no less than 4,950 possible ratios of exchange ... all such trouble is avoided if any one commodity be chosen, and its ratio of exchange with each other commodity be quoted."
5. Professor Simon Newcomb says: "The fluctuations of money escape our notice. Our whole education leads us to look at the dollar as absolutely invariable. It is like the earth. We do not see it move. The sun and stars appear to move round the world, and commodities appear to move while gold stands still, whereas in both cases the actual fact is the reverse of appearances."
6. As Emory Storrs once said, after being frequently told that money was plentiful, yet whenever he tried to borrow was asked for collateral he did not possess, "it isn't money that's scarce, it's collateral."
7. A special institution of this country, organized on the plan of keeping your pudding and still eating it. These banks deposit in the United States treasury, bonds whose interest they pocket, and on the strength of these bonds they obtain money, almost interest free, which they lend out at high interest, thus getting double interest for their capital.
8. Better and inferior in the sense of the market price of the material coined. As William A. Whittick points out in his *Value and an Invariable Unit of Value* (Philadelphia, 1896): "The best money is that money that performs the money function the best and at the least cost. The use of a valuable metal as a tool of exchange is just as absurd as would be its use in the manufacture of spades and shovels, and other tools of industry. An iron or steel shovel would always drive out a gold shovel, just as cheap money drives out dear money. For three centuries this paradox has been the apologist of an absurd system of money---a system in conflict with the universal law that the fittest survives. The money that runs away from its duties---that refuses to circulate---is, according to this absurdity, the best money. The soldier who runs away from the field of battle is, by this reasoning, the bravest and best soldier."
9. Tolstoy in *Money* gives an interesting proof of this from the history of the Fiji islands, whose financial ruin was accomplished by a money fine imposed by an American man of war. They might gradually have paid the fine if it had been levied in their produce, but gold was not found on the island and to procure it they had to run into debt at a high interest rate and upon other onerous terms, which ended their independence.

10. Professor Senior says very correctly: "Any cause of limiting supply is just as effective a cause of value in an article as the necessity for labor for its production. The cost of producing money is only important as affecting the supply. Limit the supply, and it does not matter whether there be any cost of production or not."

11. This ought to read "could be done with gold if, in consequence of its present monopoly position, it had not become an instrument of extortion and blackmail."