

THE THEORY OF SOCIAL ECONOMY

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CHAPTER IX

ANALYSIS OF THE MONETARY SYSTEM ON THE BASIS OF ITS EVOLUTION

§ 39 *The Origins of Money*

THE origin of money is most intimately connected with the development of exchange of goods, and exchange itself is a comparatively late outcome of economic evolution. Long before it had become the general custom to exchange goods, it was possible in various ways to obtain commodities from other communities. They might be acquired by robbery, for instance, or they might be more or less regularly secured in the form of tribute by the exercise of some kind of authority. The custom of giving and returning presents has been of direct significance in the evolution of exchange.¹ It is only reasonable to expect that the present made in return should bear a certain relation to the present given, and it may be safely assumed that such relations were fixed and recognised by custom at very early stages of development. It would then be possible to stipulate a certain return-present in advance, and so the needs of exchange were able for a long time to be satisfied in the old form of present and return-present. Wherever exchange had developed into a normal economic procedure, it was conducted for a long time according to traditional standards, which, perhaps, had

¹ We get a good idea of the frame of mind which is at the root of this custom from the ancient Scandinavian poem "Havamal" (in the earlier Edda). It runs :

Never did I find a man so generous,
Or so hospitable,
That he would not take what was offered him;
Or with his treasures
So lavish to his friends
That hateful to him was the reward he received.

With weapons and garments
Do thou gladden thy friend,
And the like will be done to thee,
With gifts and return gifts.
Friendship grows old.

been defined by the priesthood or other high authorities. The paying of tribute of various kinds made it necessary, at a very early stage, to draw up tariff schedules of the various commodities accepted in payment. For it is clear that, as a rule, the various peoples, or tribes, or separate communities, would have to be allowed to pay the tribute in those commodities that they were best able to produce.

For these two reasons, schedules fixing the relative values of different commodities are economic necessities which must have made themselves felt in the earliest stages of the development of forms of exchange. That such schedules actually did exist is shown from ancient inscriptions, as well as from those primitive economic systems which have survived down to the present day. Probably the custom soon arose of settling the value of various commodities by reference to a "standard commodity." This might be done either by establishing that a unit of the standard commodity should be equal to so many units of the other commodities; or by taking a unit of each of the other commodities as equal to so many units of the standard commodity. However, in primitive conditions the valuation of commodities by reference to a standard commodity is carried out only for distinct and separate groups of commodities, and each of these groups has its own standard commodity. In early stages of cultural evolution, the very natural feeling predominates that commodities of great value should not be exchanged for others which are of considerably less worth. Thus, for example, it is said that in Africa ivory could be exchanged for certain highly valued goods, but not for others whose value was considerably less. This idea retained its influence long after the development of a money economy, as is shown by Mercantilist policy.

Although the earlier schedules for the valuation of commodities fell into various separate parts, the necessity of uniting these incomplete schedules into a coherent whole gradually made itself felt. This was attained as soon as definite ratios of value were established between the various standard commodities. Thus there resulted a uniform scale of reckoning, by means of which the value of all goods could be estimated. These scales of reckoning often consisted

of a whole series of units which were connected with each other by simple numerical relations.

Ridgeway reproduces a scale of this sort, with five different units, from Annam.¹

1 slave (male)	= 6 or 7 buffaloes.
1 buffalo	= 7 jars.
1 jar	= 4 <i>muk</i> .
1 <i>muk</i>	= 10 <i>mats</i> .

The meaning of the word *muk* seems to have been lost, and it is now merely a unit of account. The smallest unit, the *mat*, was an iron hoe used in agriculture. All other commodities were reckoned in terms of these five units, and occasionally several of these units would be employed in succession in order to express a precise value: for example, 1 good sword = 1 jar, 1 *muk*, 3 *mats*. Of course, the existence of such a scale of reckoning does not prove in itself that the most valuable commodities were exchanged for the cheapest. It was, however, a formal unified scale by means of which the value of all sorts of commodities could be reckoned.

The use of different units to express the value of dear and cheap commodities has obstinately persisted through all stages of the development of an exchange economy. The division of our modern currency systems into marks and pfennigs, francs and centimes, etc., originates from this custom. The three units of the English coinage are a particularly good example of the persistence of this point of view from ancient times.

Each unit of such a scale of reckoning must necessarily be an abstract unit of account. Thus, if a value is expressed in dried fish, the calculation must be based on fish of "average size and quality," or some other definite standard. A store of one hundred fish does not then necessarily represent a hundred fish in the sense of the unit of account. This is still more apparent when we consider what is by far the most important of such units of account – that is, cattle. When "an ox" is used as a unit for reckoning value, it perforce

¹ Ridgeway, *Origin of Metallic Currency and Weight Standards* (Cambridge, 1893), pp. 23-4.

obtains a purely abstract meaning. A real ox, just like other commodities, will be valued in these units, and in greatly varying amounts, since even primitive people compute the value of an ox very exactly according to its age, etc. The abstract nature of the unit of account can clearly be seen in those cases where the unit chosen has entirely lost its original meaning. In the Hudson Bay regions, payment was made for a long time in "skins." Skins originally were taken to mean a beaver pelt, but gradually the unit of account took on the fixed value of two shillings, while the real beaver pelts were probably valued higher.¹ Not infrequently, the original meaning of the unit of account has been completely forgotten, as we saw in the case given above.

The sum at which a commodity is valued in such an abstract unit of account is clearly a price. The unit is a price unit, and the whole scale of reckoning is a price-scale. Thus, the calculation of price is from the beginning a calculation in an abstract unit, which has always an independent existence, detached to a certain extent from the standard commodity.

Whenever a scale of reckoning of this type is drawn up, the numerical valuation of commodities is obviously made easier, and so furthers the extension of exchange. This development of barter must, in its turn, give more scope to the scale of reckoning and strengthen the position it holds in the mind of the community. This barter and the scale of reckoning develop hand in hand, and there has probably never existed anything like a developed barter trade without a scale of reckoning.

When the value of commodities is expressed in terms of a common unit of account, an exchange may take place such that, first, the prices of the two commodities to be exchanged are fixed, and then the goods in question will be exchanged in such quantities as will yield the same price for both; that is to say, such quantities as will represent the same number of units of account. The transaction then falls into two separate acts, which have to a certain extent the character of a purchase and sale: *A* buys from *B* the commodity *b* for the sum *p*; at the same time *B* buys from *A* the commodity *a*

¹ Jevons, *Money* (London, 1899), p. 21.

for the sum p . A then pays the sum p by delivering the goods a , which B has engaged to accept for the sum p . Here, however, the buying and selling transactions are still bound up together. They have not the complete freedom which will only be attained when they take place quite independently of each other.

In unilateral transactions – taxes, fines, etc. – the scale of reckoning serves to fix the extent of the obligation. It is by no means necessary that the payments should be made in the standard commodities of the scale. It is more usual, rather, for the debtor to be allowed to pay in certain other goods, or even *in quo potuerit*.¹ Of course, these other goods must have definite values in the scale of reckoning.

Thus the scale of reckoning may play an important part both in exchange and in unilateral transactions, without it being necessary for the standard commodities to be utilised in their material form.

When one country sells its products in another country, where it cannot obtain in payment any commodities that it needs, the purchasing country may be able to give in settlement a commodity for which there is a demand in a third country. This commodity will then be taken in payment and exchanged in the third country for some other commodity, perhaps, which the first country greatly values. This country then obtains possession of the goods it really desires by means of an *indirect exchange*. The detour described is the only possible way of attaining the object, when there is no demand in the third country for the goods produced by the first, or when the demand is so small that the seller would obtain no advantage through a direct exchange. Hence indirect exchange must greatly extend the possibilities of exchange, and so be most instrumental in promoting barter.

Although indirect exchange is of prime importance from this point of view, it would, however, be incorrect to regard it, and the use of means of exchange, as constituting in themselves the beginnings of a monetary system. For in a real monetary system there must be a *common* medium of exchange, that is, a commodity which

¹ Cf. Bücher, *Die Entstehung der Volkswirtschaft* (1904), p. 131.

will be used by *all* as a medium of exchange, and which will therefore be regularly accepted in settlement for other commodities.

General media of exchange seem to have come gradually into use in connection with the development of calculation in prices. It is certain that the introduction of general media of exchange can never precede calculation in prices, for the reason that the use of a general medium of exchange presupposes a price-schedule in this self-same medium, except in so far as other price-schedules do not already exist. It is not vital that the general media of exchange should be identical with those standard commodities which are the basis of the price-schedule. The need for some standard commodity to serve as a unit in calculating prices, and the need for a general medium of exchange, are two distinct necessities of economic life, and they may be met in different ways. Indeed, the qualities demanded of a general medium of exchange are in part different from those demanded of a standard commodity. If a commodity is to develop spontaneously into a general medium of exchange, it must be in itself an object of general demand. When the commodity has already been elevated to a general medium of exchange, and is commonly recognised as such, it necessarily acquires a new value in virtue of its new property. The essential qualities demanded of a general medium of exchange are three; it must be easy to *store*, easy to *transport*, and easy to *divide*.

If a commodity is to be taken in exchange merely to be used later for exchange with another commodity, it must clearly be one that is easily stored. It must be such that everyone can take it and store it without any special difficulties or arrangements. This requirement naturally takes on a different interpretation in different stages of economic development. Among pastoral peoples, one can generally say that cattle will be accepted by every household, but this is by no means the case among more advanced peoples who practise division of labour. The property of general storability postulates also a permanency, which, carried to its highest degree, amounts to indestructibility.

That a general medium of exchange must also be easy to carry about is obvious. The requirement of transportability brings with it,

in its more refined stages, the requirement also that large values should be represented by objects of as small a weight as possible. This can be achieved only when the commodity serving as a medium is at the same time one of great rarity.

Finally, divisibility is an essential requisite of a general medium of exchange, for if it is to carry out its object it must be capable of being delivered in any desired quantities. Perfect divisibility includes among its qualities that of uniformity, guaranteeing as it does that pieces of equal size may be treated as being identical in value.

The necessity of having all these requirements embodied in a common medium of exchange makes one realise how it is that, though commodities may be chosen as standard for the price-schedule, because of their high economic importance, it does not follow that they will always be found suitable as media of exchange, and other commodities will have to perform that function to some extent. We have already seen that cattle, which was the most important and most general standard commodity of primitive stages of culture, is not suitable as a medium of exchange for more advanced stages, because of its defective "storability." It does not at all fulfil the requirement of divisibility, and its transportation, especially by sea, must for a long time have been on a very small scale.

It is only natural, under such conditions, that, as soon as the need for a general medium of exchange was more strongly felt, the old major units of the price-schedule were not chosen to fulfil this want, but, instead, other commodities – especially metals, and, above all, precious metals, were employed. From what has already been said, the special advantages of the precious metals as general media of exchange are quite obvious. In addition, their use for ornament gave them that general attractiveness which alone in primitive stages of culture raises one commodity to the position of a general medium of exchange, and makes it easy to understand why the precious metals have come to be preferred to all others as such media. At the same time, other metals, especially copper (bronze) and iron, were used to represent the smaller values.

If commodities other than the standard commodities of the price-schedule are to be used as general media of exchange, their value must be expressed in the then obtaining price units; that is to say, they must have a generally recognised price. In view of the great stability of prices in primitive economic systems, this requirement is probably as a rule easily fulfilled. The regulations made by the priesthood and other high authorities as to which goods will be accepted in discharge of existing unilateral obligations have probably been of great importance in fixing the value of suitable media of exchange.

As soon as a general medium of exchange is expressed in the existing price-schedule, it obtains the character of a *general medium of payment*. It is now possible, thanks to a general medium of payment, to carry through the sale of a commodity as an isolated transaction. The obligation which the purchaser assumes – that of accepting the goods in exchange for a certain sum reckoned in price units – can now be directly carried out, without it being necessary for the sale to be completed by a purchase to the same amount. The normal method of transferring goods is now the one-sided method, in which the rendering of an equivalent value consists of a *payment*. Also, all one-sided obligations can now be met by payments made in the general means of payment.

When the use of general means of payment becomes well established, it is natural that the old price units should lose their connection with the standard commodities and gradually become abstract units for estimating values. The economic significance of these price units is clearly determined through the general price-level, and is fixed to the extent that the price-level is stationary. But the valuation of the general medium of payment has an especial influence on the value of the unit of account, in so far as this valuation is subject to the arbitrary decision of some ruler. When a definite “*legal tender power*” is assigned to a certain means of payment – that is to say, when it is provided that obligations to pay in the existing price unit shall be met with a certain means of payment according to a definite ratio – this must ultimately influence all prices, and thereby also give a new material significance to the

price unit itself. As soon as a State reserves to itself the right of regulating the means of payment, the economic significance of the price units becomes, in the long run, completely dependent on the value that is ascribed to one or other of the means of payment.

The price-schedule and the general means of payment together make up the *monetary system*. Thus the monetary system has arisen from two natural requirements of trade by what was probably a very slow process of development. This development has no doubt kept pace with the development of exchange at all its stages. Already in the earliest sources where there is mention of trade we find a price-schedule, and there is no doubt that the general media of payment were in use wherever trade got beyond the elementary stage. Even in later stages, the development of barter was never in advance of the monetary system. When, finally, in the nineteenth century, barter, driving out the old self-contained patriarchal system, set up a developed barter economy in its place, this only occurred in conjunction with a further great development in the monetary system.

This attempt to reconstruct analytically the main lines of evolution of the monetary system receives a good confirmation in the account that Ridgeway gives of the corresponding development which took place in the ancient world. This distinguished scholar informs us that the ox was for thousands of years a chief unit for the settlement of prices in the whole of the Mediterranean region, from the Atlantic Ocean to Central Asia. At the same time, sub-units were used, such as the sheep, and possibly a slave (whose value equalled three oxen) was used as a higher unit. It is at a quite early date that other commodities, the metals, came into use as general means of exchange or payment. In the earliest stages, metals were valued according to their bulk. They were drawn out into bars, and measured with a unit of length derived from the human body. Gold was used as an ornament in the form of bracelets (often spiral-shaped), but, if necessary, it was also used as a means of payment, the form making it easier to estimate the different amounts. To facilitate their use as means of exchange, the

metals were moulded into pieces of a definite size in the shape of rings, nails, needles, etc. The first weights were grains of wheat and other seeds, as is demonstrated by the English unit of weight, the "grain," and the "carat" (which signifies *keration*, the seed of the carob), still used in weighing gold. It is particularly noteworthy that gold was always measured in a unit which corresponded to the value of an ox. This unit had a weight of about 130 grains troy (= 8.4 grammes). Even before measurement by weight was invented, gold was probably shaped into pieces which represented the value of an ox. The system of weighing then simply adhered to this tradition, and the first unit of weight was that piece of gold which has been regarded since the earliest times as the gold unit, and which represented the value of an ox.

There can be no doubt that this quantity of gold was used as a medium of payment in the much older price-schedule founded on the ox unit. The custom of counting in "oxen" was long retained, and the ox-scale was turned into a purely abstract scale of reckoning, the original meaning of which was probably entirely lost, real oxen being priced by it and paid for in gold. In such circumstances it is natural that the quantity of gold which represented an ox should be known as an "ox," and that the name should be retained after the quantity of gold in question had been given the form of coin. The essential feature of the development was that a definite quantity of gold, the value of which was taken to equal that of an ox, was generally recognised as a medium of payment with a fixed value. This power of payment was made legal when the power of the State developed. In the course of these changes the connection of the unit of account with the live ox was lost.

Other metals have also been used as means of payment in quantities which were suitable for the earlier units of account. In Rome, for instance, copper was used, 100 *as* representing the value of an ox, and 10 *as* the value of a sheep.

The conception of a monetary system is necessarily connected with the existence of a scale of reckoning, and also with a medium of payment reckoned by this scale. With the presence of these two

elements, a monetary system already exists. Lack of clarity on this point is largely responsible for the unsatisfactory treatment which money received at the hands of archæological and ethnographical research; undoubted indications of money were not recognised as such, and so its early evolution was, for the most part, ignored. It is greatly to be desired that the attention of investigators should be more sharply drawn to cases exhibiting the existence of a money economy, as well as to those showing signs of the use of a means of payment. In this first respect, the system of book-keeping should be especially noted, as it is developed even in the earliest stages of primitive society that have been discovered by archæologists. As soon as such a system of book-keeping is carried on in terms of a common denominator, a system of money-reckoning exists. With regard to the second point, special attention should be devoted to the use of ornaments of exactly uniform size, or having an easily measured shape, as such ornaments have been probably used also as means of payment.

Recent research has shown that the system of money-reckoning reached a suprisingly high standard even in early civilisations. In ancient Babylon payment was made by means of orders drawn on credit balances, even for distant places. This system of payment was actually so highly developed that it must be regarded as a genuine system of payment by cheque. Highly developed, also, was such a system of cheque-payment in ancient Egypt, on the basis of grain stored in the big granaries. We know, too, how actively trade, on the basis of payment in uncoined pieces of metal, manifested itself. Gold, either in the form of rings or spirals, was by no means such a primitive medium of payment as people to-day are inclined to think. Actually, the use of gold as a means of payment in the form of rings or spirals was so popular that it persisted for more than a thousand years after the invention of coins in the seventh century B.C. It is easy to understand why the Nordic people, in their relations with Mediterranean peoples, after discovering the variety and complications of the then existing monetary system, still preferred to employ gold as a means of payment in the shape of rings and spirals. Such "ring money" has also been found in large

quantities in Swedish soil. The diagram gives a good representation of the use of this money for payments in different amounts.

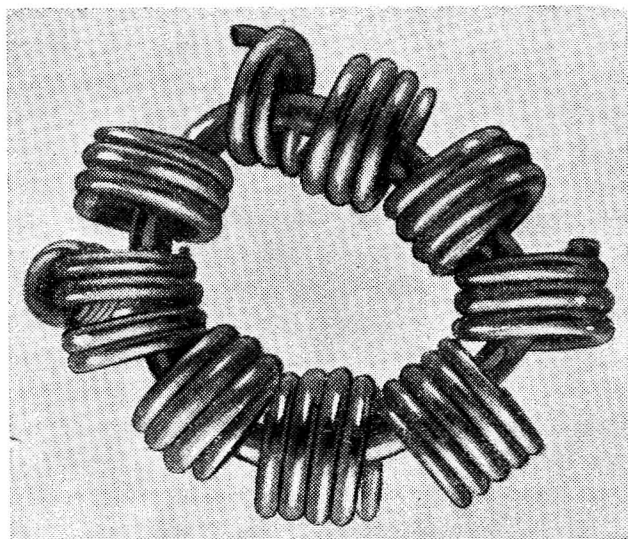


FIG. 1.—RING MONEY.

It might be disputed which of the two elements of the monetary system is the more important. The scale of reckoning could probably claim precedence, on the ground that it is possible to have an estimate of value in terms of a definite unit of account, and this may serve as basis for an exchange of goods, although there is no general medium of exchange or payment; whereas the creation of the latter necessarily presupposes the general use of a unit of account. However, both elements are definitely indispensable to our existing monetary system, so that a comparison of their relative importance is out of the question.

The theory of money has directed its attention mainly to the analysis of the nature of *money*. As, however, money was primarily conceived as a material commodity, the material medium of payment has been given undue prominence. It was asked what characteristic requirements had to be fulfilled before an object

could be defined as money, in this material sense. It is clear that the concept of money must be defined not by the properties of any particular thing, but with reference to its essential functions. It follows from this conception that the analysis must be brought to bear directly on the essential functions of money. It is the co-ordination of the institutions which fulfil these functions that constitutes the monetary system. The question of what is to rank as material money is only of secondary interest. It can be answered in the most general sense by saying that every general medium of payment which is recognised as such is "money." Nevertheless, it is clear that the monetary character of such a money is the more strongly pronounced the more exclusively it is used, or is capable of being used, as money – that is to say, the more the "money" divorces itself from the "commodity."

For theoretical economics, our analysis of money has a special significance. Just as the fixing of prices is a primary practical need of every system of exchange, so also must the fundamental treatment of the theory of exchange be carried through as an analysis of the determination of prices. It has been shown in the first two Books of this work that such a theory can be worked out as a theory of the determination of prices without it being necessary for special attention to be devoted to the part played by the existing means of payment. The analysis of the origin of the monetary system shows that this rôle, by its very conception, is distinct from the part played by the price-scale. For the purposes of theoretical treatment, it is natural that the part played by the means of payment, and especially its significance for the price-scale, should be made the object of a special inquiry. This gives us the task of Book III.

§ 40 *The Minting of Money and its Significance*

When once the use of metals as a means of payment had been established, the creation of *coinage* was sure to follow. This development was due to two important advances. In the first place, at a very early date, even before the invention of the weighing scale, the metals were made into pieces corresponding to the units of account or fractions and multiples thereof, in order to facilitate