The Theory of Money in France since 1945

The past thirty years have, as readers will be aware, witnessed great changes in the theory of money. There can be little doubt that the most interesting contributions in this field have been the work of British or Swedish economists. The conception of monetary equilibrium, the Cambridge equation, " Marshallian K ", liquidity preference — most of the major themes round which international discussions have revolved are due to compatriots of K. Wicksell or Lord Keynes. Even the extremely interesting research by contemporary Dutch economists on neutral money may be said to stem from the Wicksellian conception of monetary equilibrium. We must, at the outset, pay tribute to the efforts of these great pioneers.

But it would not be fair to pass over less striking ventures and to fail to point out that the traditional subtlety and canniness of the Latins have produced important papers. Sooner or later, to take one example, there will have to be a stock taking of the contribution made by Italian economists, and all the indications are that these will add up to an impressive total. In the same way, there would appear to be much to be said for recapitulating the most important developments due to my French compatriots since 1945.

I. Discussion Between the Two World Wars

First of all, let us see what point French monetary theorists had reached prior to 1945.

The concrete problems with which they were most concerned between the two world wars were those relating to the return to the gold standard after a strong bout of inflation and the maintenance of that standard in a depression. The theoretical counterpart of these questions was the resumption of the old quarrels between nominalists and metallists and between supporters and opponents of the quantity theory. But, whereas in other countries these two arguments were often kept apart, and it was not unusual to come across economists, who, though nominalists, nevertheless believed in the quantity theory, in France there has always been a link between the two issues. Those economists who continued to uphold the monetary traditions of the nineteenth century have always believed both in metallism and in the quantity theory, while, in the opposite camp, the nominalists have unfailingly come out against that view.

About 1930, then, there were two groups, one still carrying on the traditions of the nineteenth century (1), the other composed of economists who felt that the facts warranted a more advanced attitude.

(a) The traditionalists held that any currency is made up in essence of gold coins and that that metal never derives any benefit from being minted. It remains a commodity " like the rest " and its purchasing power is not thereby modified. The other means of payment (bank notes, whether convertible or not, current account bank balances) are mere " Ersatz " for money. This, in substance, was the point of view of the metallists.

These economists believed, too, in the quantity theory. That is to say, they thought there was a close link, both in the short and in the long run, between issues of money and the movements of " the general price level ". Their main argument was that, since money is a commodity like any other, a plentiful supply of it ought to lead to a reduction in its value, that is to say to an increase in the prices of all commodities measured by the monetary unit.

Nevertheless, when confronted with the facts, most of the advocates of the quantity theory had begun to water it down. Some of them stopped speaking of a *causal* relation between the movements of issues and those of prices and admitted that the initial source of movements might possibly be found in prices and that thereafter the money in circulation adjusted itself accordingly. Most of them gave up the idea of a strictly proportionate relation between the two sets of movements, and expressed doubt as to

(1) We are well aware that, all through the nineteenth century, there were those who revolted against the prevailing doctrine (*e.g.* bimetallists, supporters of credit expansion) but they never succeeded in having their views accepted. They were always regarded as heretics.

whether issues could influence the movements of all prices equally. They all admitted that account had to be taken not only of the quantity of money issued but also of its velocity of circulation. In fact, in the face of the evidence, they ended up by accepting the idea that " Ersatz " forms of money played a part in determining prices, but, since this could not be explained by the idea of money as a commodity, they argued that these Ersatz forms increased the velocity of circulation of real money or, alternatively, that, when these were issued in excessive quantities, there was a fall in the amount of gold which they represented and that, in this way, they no longer bought as many ordinary goods. Some economists, departing froms strict metallism, ended up by allowing all means of payment to rank as " money ".

It should be added that these traditionalist economists did not analyse the *demand* for money. Walras, it is true, had conducted his research along these lines but that great pioneer has, as is notorious, never been much heeded in his own country. As to the Austrian economists who had already shown an interest in this problem, they were known only to a handful of specialists at the time when Aftalion drew attention to their work.

Lastly, the French economists in this first group never really contemplated the possibility that issues of money might influence variables other than the price level. They were far from imagining that this influence might also make itself felt on the level of activity or on the volume of real production. For them, money was " neutral ". It might possibly act on the facade constituted by the general level of prices, but it certainly did not possess the power to modify the *real* factors in the economy.

(b) It was against this body of doctrine which remained faithful to nineteenth century thought that the opposition campaigned. The most notable economists in this trend were Bertrand Nogaro and Albert Aftalion.

The first target of their attacks was " metallism " which they subjected to a fairly drastic critical review. The " nominalism " of the French economists, however, did not at that time extend its strictures to the gold standard. On the contrary, they defended it, generally speaking, against the charges levelled at it by certain Anglo-saxon economists at the time. The fact was that, in 1925, France wanted to go back to gold and, during the slump, it was one of the last countries to remain faithful to the "gold block". The vital contention of French nominalism, then, was that money does not require any metal backing (2), and that such backing, when it exists, no longer behaves like an ordinary commodity. Just as the value of silver had been stabilised by the bimetallist system, that of gold is both stabilised and increased, under monometallism, by being minted. This analysis of the nature of money was perfectly compatible with the view that "good" money is usually either metal or convertible into metal.

Criticism of the quantity theory was much sharper. Bertrand Nogaro, for example, thought that price movements were not strictly dependent on those of issues of money, and that, in certain cases, an excess of issues might even lead to a drop in prices as the credit mechanism came into play. For he argued, when credit is plentiful and cheap, money is abundant, production is stimulated and costs lowered, except where the growth of the economy is arrested. This increase in production and reduction in costs may lead to a fall in price. Nogaro doubtless made it clear that this extreme situation could only occur fairly seldom. But he always contended that in more normal circumstances the price increase caused by an expansion of issues need not be proportionate to it and that it was unequal from one market to another, so that the conception of "a general price level" was quite unscientific. In any case, he held that issues can always give a fillip to economic activity and that a price increase can only take place where activity is arrested by a bottleneck and is stagnant. He was thus led to regard price increases as a phenomenon which is not automatic or necessary but contingent. About 1935, during the slump, the "monetary expansionists" (3) adopted these arguments with great gusto, but without the necessary prudence or rigour. Since they did not indicate the limitations of the effect of the issues as a tonic to activity, they ended up by indulging in extremely dangerous pleas for the expansion of credit.

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(2) As far back as 1887, Marcel Mongin had said that, for anyone possessing it, a franc was not a certain weight of gold but a certain power to purchase bread, wine or tobacco; that no person holding a franc knew its weight in gold but was well aware of what it would buy. This argument has since then been exploited by all nominalists.

(3) Cf. the works of Albert Despaux, completely forgotten nowadays, and certain echoes of this theory in the columns of the stock exchange journal *L'Information* in 1935 and/or 1936.

Bertrand Nogaro cut at the roots of the quantity theory but, in our opinion, he did not succeed in reconstructing a new overall theory on its ruins. It is to Albert Aftalion that credit must go for having worked out the most important theoretical analysis in France in the inter-war period (4). Taking as his starting point the writings of the Austrian school, and in particular those of von Wieser, he began by developing a "theory of income" according to which the value of money is determined by the marginal utility of our money income, but he was not satisfied with it. He therefore replaced it by a "psychological" theory of money and contended that the value of money was mainly dependent on the subjective appreciations (hopes or fears) of economic units regarding its future. When there is a belief that the value of the monetary unit will fall, the "rush towards real values" leads to an immediate drop; belief in an imminent appreciation, on the contrary, immediately sets in motion a rise in its value. Thus, attention was drawn not only to the quantitative factors which were expounded by the traditional theory and whose influence Aftalion did not deny but also to the effect of certain other "psychological" or qualitative factors. In this way, the pure quantity theory was abandoned and the way opened for a new approach (5).

(c) Of the two groups of economists in question, it was undoubtedly the latter who were in the right. Their analyses were more complete and took fuller account of contemporary phenomena. Nevertheless, a number of their propositions appeared somewhat dangerous. Was it not possible for the alluring doctrine of a "forward monetary policy" to cloak itself in their authority? In actual fact, the economist with the greatest following in the inter-war period was Charles Rist who owed his prestige, not to the clear cut logic of his reasoning, but to his cautious intermediate position between the two conflicting theories and to the care with which he avoided a systematic presentation of his views as a whole.

Charles Rist's ideas were, there is no doubt, very close to those

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(4) Cf. especially *Monnaie, Prix et Change*, first edition, Sirey, 1927. A new edition was brought out by Sirey in 1948 and 1950, with the title *La valeur de la monnaie dans l'économie contemporaine*. There are two volumes, of which the first is called *Monnaie, Prix et Change* and the second *Monnaie et économie dirigée*.

(5) Aftalion was a forerunner of the modern theories of "behaviour" and of the theories based on "elasticities of expectations" (cf. below).

of the metallists. He regarded money as essentially metallic and paper money as a dangerous experiment. Forms of credit convertible into gold, such as banknotes or current account balances, were not, in his view, really money. The fundamental function of money (too often forgotten by academic experts) was that of a store of value, and hence he concluded that gold alone was fitted to play a monetary role. He reminded nominalists that non-metallic monetary systems had both emerged and even managed to survive, but he pointed out that these systems had *originally* been based on gold and could not have been created without that backing (6). He untiringly defended the gold standard against its critics or against the countries who claimed to be faithful to gold but refused to play the gold standard game (7). Nevertheless, Charles Rist's position was much more that of a "metallist" than of a "quantity" man. Although he never virulently attacked the quantity theory, it must not be forgotten that he always came out against the "logician" Ricardo, who was a fervent protagonist of this theory, and in defence of Tooke, because that economist had shown that issues of money are often determined by a *previous* price movement. Particularly in his work on "La déflation en pratique" (Deflation in practice), Charles Rist showed that, even after periods of rising prices, it was possible for "inflationary residues" to persist. Currencies might be up-valued without the floods of previously issued money being reabsorbed, and other currencies might be stabilised without the issues being completely stopped. Recovery by the restoration of confidence was as certain as the purely quantitative reduction in the fiduciary circulation. One wonders whether Charles Rist ever realised the extent to which his writings on inflationary residues ran counter to the strict tenets of the quantity theory.

These, then, were the main positions taken up by the leading economists of the pre-1940 epoch. French thinkers seemed at that time to waver between traditions which were, politically speaking, in favour of sound money but which were based on inaccurate

(6) We believe, however, that this did not really answer the arguments of Mongin or Nogaro. The *origin* of monetary systems not based on metal is unimportant. The fact remains that they are able to survive without it being possible to say what quantity of gold is represented by the monetary unit.

(7) Charles Rist, "La question de l'or", *Revue d'Economie Politique*, November, 1930. "Le mécanisme de l'étalon-or a-t-il été faussé?", *idem*, 1932.

analyses, and newer theories based on more correct and complete ideas but which could be put to bad political uses. Veering between these two groups, Charles Rist was the man behind French monetary policy.

II. Developments Since 1945: Three Main Groups

Since 1945, there has been a great change in the scope and atmosphere of the discussions.

The concrete problems to be answered are both many and new. First and foremost the causes of inflation must be explained and means found to stop it. Then, too, France has been forced to concern herself with questions arising out of her membership of international payment systems which do not necessarily involve the restoration of the gold standard. She has been constantly searching (and still is) for exchange parities which will stimulate the expansion of her economy, or, at the very least, will be compatible with such an expansion. She knows that the restoration of the convertibility of the franc is conditional on the nation finding a good par exchange rate. Lastly, the advent of a new system of credit control (the institutionalisation of the "Central Bank") and of cover for credit operations (discount ceilings and minimum purchases of Treasury paper, beginnings of an "open market") has also led to a great deal of discussion.

This controversy has entailed a revision of the basic concepts of the *general theory* of money; the main modifications have centred on the following points: 1) the essence of "nominalism", that is, the idea that money need not be metallic, now seems to be generally accepted, but there is still some debate as to whether "good" money is not bound to be metallic and as to the virtues of the gold standard; 2) the quantity theory has been revised in the sense that, while no one denies the connection between the quantity of issues and price movements, other factors affecting these movements are now brought in. A start has been made on the study — somewhat neglected in the past — of the *demand* for money. Moreover, there is a growing tendency to drop the more rigid forms of this theory (such as causality, automatic functioning, proportionality); 3) more and more attention is being paid to the influence of monetary policy on variables of the economy other than the *general* trend of prices. It is generally admitted that money, which is definitely *not* neutral, can distort certain real factors (such as the level of activity or of global income) in the operation or structure of the economy using it.

Our aim is to summarise the attitudes of the French monetary experts towards these major problems, whether in deliberately theoretical or non-topical works or in connection with concrete issues. It would seem that French economists may be classed under three headings:

1. Even nowadays there are still economists who have remained faithful to the basic ideas which, at the beginning of the twentieth century, underlay "orthodox" economics. This term will be applied to them from now on.

2. Other economists feel that they must cut free from classical thought and are searching for new instruments of analysis, whether created by them or borrowed from abroad. This group will be termed "heterodox economists", a label which does not *a priori* imply either criticism or approval.

3. We feel that certain specialists in national accountancy should be given separate treatment. These experts, while not specifically out to improve *monetary* theory, have nevertheless in the course of their studies incidentally made important contributions to that theory.

1. The «Orthodox» Economists

In the pages which follow the term "orthodox school" will be used as conveying merely a relative degree of fidelity to what was regarded at the beginning of the twentieth century as being the true doctrine about money. We do not wish to imply that the "orthodox" school has always been right. In all sciences, what was heterodox today will often be orthodox tomorrow. Nor, conversely, is the "orthodox" school of today lacking in originality. On the contrary, we believe that, faithful as they have been to a certain metallism and to a certain form of the quantity theory, they have justified their point of view by new arguments or modified the formulas and the political conclusions of classical economics and

even broken fresh ground. That is their claim to serious consideration. And here, in our view, are their main contributions:

A. Even after 1945, the defence of the gold standard as a basic principle has been one of the major preoccupations of a number of leading economists such as Charles Rist, Louis Baudin and Jacques Rueff. But the arguments on which they rest their case are not quite the same as before the war. Charles Rist alone, both after 1945 and before 1939, propounds the idea that the essential function of money is to be a store of value and that gold alone is capable of adequately fulfilling that role.

The other economists are not quite so downright. For one thing, they agree to regard as money the various non-metallic means used to conduct trade (e.g. bank notes or current account balances). For them, the "money market" is the place where liquid assets can be obtained in whatever form. In addition, if, out of all the forms of money, gold alone or credits convertible into gold appear to them to constitute "good" money, an increase in the quantity thereof is no longer effected in the same way as was the case in the thirties.

1. The gold standard, they argue, is the monetary system best suited to a free market economy, and to that economy they are extremely attached. In a system of that type, everyone retains the liberty to spend as much as he wants and when he wants. He therefore has at his disposal an excellent means of hoarding which enables him to space out his purchases in time as he pleases and to give to his assets a form which it is not within the caprice of a government or bank to depreciate.

2. This school also affirms that the gold standard is alone capable of achieving a permanent automatic equilibrium in international payments and at the same time an automatic regulation of domestic monetary markets. This idea would seem to be borrowed from Ricardo. Nevertheless, there is a difference between the modern view and the nineteenth century outlook. Whereas, in Ricardo's day, people believed in an equilibrium in international payments obtained by *movements of metal*, modern writers no longer imagine that these can be relied on exclusively, and stress is laid on the regulative role of variations in the rate of interest and especially in the discount rate. At the same time it is contended

that, under the gold standard, variations in that rate are bound to take place at the right moment and in such a way as to restore the balance (8).

3. It is generally held, too, that the gold standard is the only system capable of protecting modern economies against the demagogy of full employment or against the distribution of "*fausses créances*" (spurious commitments). Unless the currency is backed by gold, all these experiments end up in the currency being depreciated and becoming "*l'égout collecteur des fausses créances*" (the central drain for spurious commitments) (9); but this sanction is only effective when the commitments fall due; under the gold standard, such spurious commitments are not even possible since they would quickly mean the end of convertibility.

4. True, those taking up the cudgels for gold have not forgotten the criticisms of its scarcity and maldistribution during the slump. But they do not accept them. They are convinced that, if the gold standard could function without any restriction (and even without the restrictions accepted under the gold exchange standard system) each country could automatically ensure the equilibrium of its international payments, so that there would be no movements of "hot money" over any substantial period.

And that is why all these economists are not content with a purely theoretical apology for the gold standard but demand the return in practice to the convertibility of currencies into gold and are convinced that this would be possible in a fairly short space of time.

B. The case for the quantity theory is put forward with less vigour than that for gold. On the whole, the criticisms of Nogaro and Aftalion have had their effect and the quantity theory is now always qualified, even by its advocates, by certain specific reservations of which the main ones are as follows:

1. As far back as 1925, François Divisia had subjected the conception of the general price level to a severe scientific analysis (10)

(8) Cf. for instance in the *Revue d'Economie Politique*, p. 1, the article by Jacques Rueff, "La régulation monétaire et le problème institutionnel de la monnaie".

(9) Cf. Jacques Rueff, "L'ordre social", Paris, Sirey, 2nd edition, 1945.

(10) Cf. in the *Revue d'Economie Politique* for 1925 and 1926 "L'indice monétaire et la théorie de la monnaie".

and had shown that the rise in prices in the event of inflation might vary from one market to another. The studies carried out by him since 1945 in collaboration with MM. Dupin and René Roy "in quest of the lost franc" (11) stress the "dispersion of prices", that is, the disparities between the movements of various prices and have established that certain increases in price may sometimes take place earlier than issues of money which will merely consolidate them (12). This means dropping the idea that there is a causal relation between issues of money and price movements. It also means admitting that monetary disturbances modify the structures of income distribution, and hence that money is not neutral. Now, the whole quantity theory had been built up on the idea that monetary disturbances modify only a facade, the "general level of prices", as if, in the event of inflation, it was only the measuring rod that changed.

2. Louis Baudin, too, gave up the idea of a causal relation between issues of money and price movements, and also that of a proportionate relation between these two series of movements. Does he not in his book "La monnaie et la formation des prix" (Money and price formation) (13) admit that "causal form" is merely one possible formulation of this theory among many and that, whether this formulation or any other is adopted, price variations may be agreed to be not proportionate to those of issues of means of payment?

3. It seems, however, that it is Charles Rist most of all whose ideas have evolved since 1945. It has been seen above that the conception of "inflationary residues" could not really be raconciled with the pure tenets of the quantity theory. Since the end of the war and till his death in 1955, Charles Rist did not seem very convinced that this theory could be confirmed in the short run. He appeared convinced only that, *in the very long run*, price movements depended on the volume of gold output (14). Moreover, in

(11) Divisia Dupin and Roy, *A la recherche du franc perdu*, des Editions "Hommes et Mondes", 3 vols, 1955-56.

(12) Cf. p. 78 of that work.

(13) Cf. the 2nd edition of that work, Sirey, 1947, p. 512.

(14) The same idea is brought out by P. Dieterlen, "The quantity theory is almost always proved wrong in the very short run. It is broadly confirmed in the long run". (Extract from a draft article by P. Dieterlen for one of the forthcoming bulletins of the National Bank of Belgium).

analysing the causes of the post-war French inflation, he attributes it above all to *over-investment*. Thus, in his opinion, price increases should not necessarily be linked to an expansion of the money in circulation in the strict sense of the word. They might be due to a disequilibrium between certain *real* factors in the economy or to a bad use of income (excessive consumer expenditure or investment) or again of certain characteristics of commodity production (e.g. a shortage).

4. In the same way, Jacques Rueff, in his efforts to evolve a dynamic theory of money in his " Ordre Social ", seems to have been trying to replace the old quantity theory — which was definitely too static and simple — by a new instrument of analysis — the theory of " spurious commitments " and " spurious claims ". Was not his aim to go *beyond* the pure quantity theory and to try to ascertain, behind the issues of money, the causes of the gap between the mass of liquid income offered on the market and that of the goods available for sale? Or was it perhaps also to show the importance of income distribution on price trends? If it is remembered that this economist has always stressed the effect on prices of any gap between the funds needed and those offered by the banking system, we may conclude that, in his view, the value of the monetary unit does not depend solely on the issues of means of payment but on a certain number of other factors such as the overall supply of other goods, the demand for money by those using it, the distribution of means of payment and the way in which they are expended. In this way, light is shed on factors not covered by the quantity theory in the strict sense of the term, some of them objective (such as the level of the overall supply of goods) others subjective (such as the desire for funds). This does not really run completely counter to the quantity theory but it *does* complete, quite independently, the old formulations thereof. It is easy to see, therefore, why in his latest studies, Jacques Rueff does not regard quantitative restrictions as absolutely indispensable in order to ensure the strengthening of a currency. In the event of a return to gold, he feels, a qualitative control might be sufficient, so that only then would the monetisation of " real debts " (15) take place.

(15) Cf. for instance the end of the 1951 article quoted above.

To sum up, the adjustments to the quantity theory carried out by those economists still claiming to support it may be defined as follows: price movements depend not so much on issues of money as such as on the use to which those holding money put it (16). Price movements are considered, not so much as automatic, and more as human, phenomena.

C. The writings of the " orthodox " school are characterised by other traits including one which is not unimportant. They do not think that the monetary authorities are able to determine the volume of the mass of money in circulation.

Thus, Charles Rist, both before and after the war, has often stated that no deliberate attempt at monetary expansion could bring about a revival after a period of depression. He argued that the banks could not take the lead as regards the distribution of credit; they could merely respond to appeals by the businessmen. It followed that, in a boom, they were in a position to check price increases but not, in a depression, to enable the economy of a country to absorb means of payment which that economy did not want (17).

Jacques Rueff has expounded the same idea much more systematically. " I have often ", he writes (18), " seen the Bank of Issue become worried at the variations in the circulation and try to counteract them. I noticed that these variations responded only sluggishly to its wishes. At no point did I have the impression that the Bank of Issue suceeded in varying the quantity of money". And a little further on: " Direct controls, the fixing of minimum subscriptions to Treasury Bonds or of ceilings for the granting of credit affect the quantity of money only to the extent, which varies widely, to which they do not provoke inverse reactions in the other processes which lead to the creation of new money. In any case,

(16) Hence possibly, the fear of " wage inflation " which is so acute among most of these economists.

(17) It must be confessed that this reasoning has always seemed suspect to us. For, if one considers the economy as a whole, the demand for money seems to us to remain extremely plentiful even in a slump. Especially if account is taken of the demand for hoarding created by the hopes of a drop in prices, it can be stated that the demand for money in any economy is insatiable. What will be lacking, but only in a depression, is the demand for money based on sound guarantees, or at least deemed such by the banks.

(18) Cf. in *Revue Economique* of July 1957 his article: " Eléments pour une théorie du taux d'escompte et de la balance des comptes ".

they do not directly determine the amount of issues". On the contrary, this economist affirms that there is a "sovereignty of the users of money" and it is these users who by their reactions decide the volume of money in circulation.

This assertion seems to us extremely important for it leads straight to another proposition. If the monetary authorities have no power to fix the *volume* of the money in circulation, they are also debarred from taking effective action as to the *value* of the monetary unit. Without explicitly formulating this idea, the "orthodox" school of monetary specialists, who are generally speaking liberals undoubtedly base their arguments on the idea of "the sovereignty of the users of money" in order to secure acceptance of their belief that no policy adopting a planned economy can work. Here, however, these economists come up against the objections put forward by all those who hold that, on the contrary, the monetary authorities have at least certain courses open to them by which they can influence the value of the currency and that the choice of exchange parities is not absolutely pre-determined. (See below). We believe that the latter school is in the right. Those holding money have so often been duped or disappointed in this century of inflation that it is not possible to believe in their "sovereignty". Even if we admit that their reactions are of the greatest importance, it must not be forgotten that these reactions may be greatly influenced by the steps taken by the monetary authorities. And there is no lack of examples of such controlled reactions in recent years.

D. In the field of monetary policy, the orthodox school favours the devaluation of the French franc. Most of these economists have made statements on this point of varying degrees of caution. A number of them are prudent enough to believe that this step could only be decided on after a fairly lengthy preparation of the revival of production. Others, the bolder spirits, feel that devaluation would be sufficient to restore a stable monetary order, at least provided the authorities abstain from any further inflation. They are one and all convinced that devaluation is an essential prerequisite for a return to convertibility but that, once the franc has again become convertible, and if the rules of the game are applied under the pure gold standard system, there could be no further profound and lasting disequilibrium in the international balance of payments.

Unfortunately, this conviction rests on a certain number of highly debatable assumptions, to wit: 1) the belief that there is no really *structural* balance of payments deficit; 2) the idea that the price-elasticity of imports and exports is very high and hence that devaluation can only have "normal" and not "perverse effects" (worsening of the terms of trade of the country devaluing); 3) lastly, the conviction that on the foreign exchange market there can only be one par exchange rate, i.e. the parity of the respective purchasing powers. At bottom, this approach flows from the robust optimism common to all liberals who are convinced that, given the free play of the market (and hence the gold standard system) the mechanism of adjustment automatically creates an equilibrium. It will be seen a little further on that a study of the facts has led the non-orthodox economists to adopt a much less hard-and-fast approach.

E. Lastly, most "orthodox" economists have no great faith in the action of money on the level of activity and on the other real variables of the economy. It has already been shown that, at least in their theoretical analyses, they were almost exclusively interested in the "general price level", that is, that they did not credit money with any distorting influence except on the nominal estimate of the national income. In their eyes, inflation and deflation only distort the means of measure.

We must, however, be careful not to generalise. For certain economists who regard themselves as "orthodox" have left classical thought behind on this point. Two instances of this tendency may be cited.

Louis Baudin (19) has clearly realised that money has a special value, that it "is worth more than the sum total of goods to which it entitles the holder". Thus, our friend and colleague is gradually coming round to the idea that cash assets constitute a privileged form of possessions and that money may be in demand *for its own sake*. He has not, however, gone to the length of asserting that the origin of the preference for assets in the form of money flows from its "liquidity" but he comes very close to that idea when he points out that money is a commodity "the purpose of which is indeterminate", and which confers on its owner the privilege of freedom of choice.

(19) Cf. *La monnaie et la fonction des prix*, 2nd edition, p. 367.

Now, if it is admitted that money may be in demand *for its own sake*, the next step is of necessity that of studying the reasons for the demand for money and for the action which the fluctuations in this demand may have on prices and also on the other variables in economic life. And this is precisely the course taken by Louis Baudin. True, he is too cautious to talk explicitly of a clear cut action of issues of money on the real constituents of the economy, but he has at least admitted, thereby going beyond Fisher's theory, that the quantity of money might affect the curve of transactions (20), and even that an increase in the means of payment might expand the supply of goods at the same time as the demand for goods (21). It may be this which has kept him from adhering, as has been shown above, to too binding a formulation of the quantity theory.

It would appear that Alfred Pose has gone even further (22), so that he could be classed among the "heterodox" economists, did he not regard himself as being very close to the classical doctrines. For his criticism of the "principle of inertia" (23) proves to the full his conviction that the monetary authorities can, by means of issues at the right moment, stimulate production and the growth of the national income. The expansion of credit does not inspire him with excessive terror. He feels that it can, in certain circumstances, set in motion a *drop* in prices "as a result of the influence of monetary expansion on the supply of goods" (24). He regards the mission of the banks as that of ensuring stability in business rather than in prices (25). That takes us a long way from the classical theories of money.

Let us, then, try to take stock of the main contributions by the "orthodox" economists of our age to the theory of money. All these economists hark back with nostalgia to the gold standard and to the time when equilibrium was effected automatically. But they now expound a much more elastic form of the quantity theory, which no longer appears to them to account for the part played by money. The quantity of means of payment in circulation is

(20) Cf. *La monnaie et la fonction des prix*, p. 518.
(21) *Op. cit.*, p. 536.
(22) Cf. *La monnaie et ses institutions*, Paris, Presses Universitaires de France, 1942.
(23) *Op. cit.*, p.844.
(24) *Op. cit.*, p. 848.
(25) *Op. cit.*, p. 879.

not the only factor to determine price trends. (The use made of these means and the psychology of the persons holding them are at least as influential as the quantity itself). Moreover, the quantity acts on other variables besides prices. The conclusion may therefore be drawn that the old theory should be, perhaps not completely abandoned, but thoroughly overhauled.

2. The «Heterodox» Economists

But there are other writers in France, generally younger ones, who are not concerned with preserving their orthodoxy. On the contrary, they seek a factual basis for a more concrete theory of money. *A priori*, these "heterodox" writers are not worried about the same points as their elders. Thus, they do not regard it as essential to dwell on the virtues or defects of the gold standard. Whether they are in favour of it or not, they hardly mention it. Their main preoccupation is to make a correct analysis of what happens in the event of a "monetary disequilibrium", especially in inflationary conditions, whether open or repressed, or, to put it a different way, to explain the part played by money in determining activity and prices. But they are perhaps even more interested in its influence on activity than on prices. This is no doubt why, although they borrow frequently from the theories of Nogaro and Aftalion (always, however, with the intention of widening these economists' theories), they make even greater use of the works of the great foreign masters who, from Wicksell to Keynes, via the marginalist school, have endeavoured for the past fifty years to fit the theory of money into the wider framework of value and of economic fluctuations.

A. At the outset of this development, we must place the two extremely concentrated studies of François Perroux published in 1943 in the review "Economie Contemporaine" entitled "De l'intégration de la théorie de la monnaie à la théorie générale des biens" (On the integration of the theory of money into the general theory of commodities). The most interesting ideas advanced in that article and those which had the greatest theoretical impact in the following years were as follows:

When he wrote these studies, François Perroux was mainly interested in the problems discussed by the great Austrian marginalist thinkers and by certain British economists. The former, it may be remembered, had raised the question whether money was really a commodity and whether it had a value of its own as distinct from that of the goods it could buy. The latter, throughout the great slump, had taken a close interest in the influence of issues of money on the expansion of activity.

Perroux answered the question raised by the Austrians by a clear "yes". Money is a commodity and even a special commodity. It has a particular usefulness of its own by virtue of its character of "liquidity". Anyone with liquid assets has an advantage over someone with the same nominal value of non-liquid assets. He can buy what he wants, when he wants, without any argument about the value of what he offers in exchange. The owner of non-liquid assets on the contrary, must realise them before buying and then runs the risk of their depreciating. Money, therefore, is a sort of asset raised to a higher power. Hence the special demand for it, as distinct from that for the goods which it is subsequently possible to buy with it. It is not merely a "veil" concealing purchasing power, but a reality. It may therefore have a price (for example in the form of a rate of interest).

We must then examine how this price is formed. According to François Perroux, the value put on money is based on the psychological reactions of the persons holding money. Aftalion had already made that point, but here François Perroux goes further than his master. Aftalion had merely had in mind the reactions of individuals. Perroux is thinking of the reactions of *groups* of persons holding money. For he sees that the different forms of money in demand cannot be treated "en bloc", any more than the group demanding the money, or their reactions. In the last resort, the value placed on money is based therefore on the disparities between the reactions of the various groups demanding the money. And, as these groups try to forecast the future, this value is always very problematical, in the sense that certain groups are liable to be mistaken in their estimates and over- or undervalue money at any particular moment.

This analysis of the demand for money is accompanied by an outline of a dynamic approach, not to monetary theory alone but to economics in general. That is, François Perroux's aim is not to see how the value of money may evolve but how, under the impact of monetary factors, the economy may be transformed.

For he has no doubt that the monetary authorities, by their policy, can stimulate or check production or the redistribution of total income.

Thus, this study does not merely answer the old Austrian problem as to the nature of money but has also the merit of raising a series of new questions. It has in effect opened up new avenues along which the researchers of the new generation could advance.

B. For, the younger economists were to concentrate mainly on the study of the factors which, in an inflation, affect the value of the currency.

It would seem that there is a tendency common to all the heterodox authors — the inclination to "demonetise" the theory of inflation.

On the one hand, inflation no longer appears as a mere monetary process, but as an overall phenomenon which has a bearing on the whole economy in its real operations and even in its structure by altering the level of activity and incomes and bringing about a redistribution of the latter, as well as increasing prices.

On the other hand, these economists were no longer content to seek the cause of inflation in issues of money (whether fiduciary or scrip). There are inflations where there have been no issues, or which have preceded issues. If issues have in fact led to a rise in prices, the tendency is to conclude that they have only acted as a go between or a link. We have to try to discern, behind them, the basic causes of the rise in prices. They are to be found in real factors — excessive investments, excessive wage payments, subsidies, or "jobs for the boys". Everything increasing liquid income in the hands of private persons enables them to step up their demand and therefore pushes up prices. Thus, between 1919 and 1945, the analysis of the causes of inflation has changed. In 1919, state borrowings from the banking system were made the scapegoat for inflation. Shortly afterwards, Charles Rist, speaking of monetary recovery, gave by and large, the following advice: "Balance your budget and all other things will be added unto you". Nowadays, the view is that any excessive distribution of monetary incomes tending to increase expenditure (whether on consumption or investment) beyond a certain point entails an inflationary increase in prices, whatever the sector (be it State or private) in which the movement originated. Hence, the real source of the inflation which has raged in France since the end of the war is no longer sought in banking policy or necessarily in the State's finance. The culprit is now thought to be excessive investment in relation to national savings, or certain imprudent moves in wage policy.

But, at this point, there is a divergence of views:

(a) The first school of thought explains the process by which excessive expenditure causes inflation by drawing heavily on the theory of the "inflationary gap" outlined by Keynes in his 1940 pamphlet "How to pay for the war", and subsequently developed by a number of American economists. For some young Frenchmen, as for their Anglo-Saxon masters, inflation stems from a gap between two masses — the mass of real consumer and investment goods and that of the liquid funds available for the purchase of these goods. This explanation has the advantage over the old quantity theory of showing that inflation originates in under-production or insufficient savings (and hence in the *real* factors of the economy) as well as in excessive circulation. Unfortunately, it is still very mechanistic, quantitative and undynamic. In other words, it pays little heed to the behaviour of people holding money (whether individuals or groups); the psychological reactions of these entities are hardly taken into account because they cannot be measured, and it shows practically no interest in the potential consequences over time of a monetary disequilibrium. Is this disequilibrium automatically reabsorbed by the mere fact of the increase in prices? (The early advocates of the "inflationary gap" theory seemed to believe so). Or does it not, on the contrary, lead to a spate of repercussions which, before they ensure a perfect adjustment, prolong or even aggravate that disequilibrium?

These difficulties were clearly realised by young French economists using the theory of the "gap", such as Jacques Le Bourva, in his thesis (26) on "French post-war inflation". They were not unaware of the significance of the psychological reactions of people holding money, although they laid less emphasis on it than did the other economists with whom we will deal below. Their main concern was to make the theory which they took as their starting point more dynamic, particularly by talking of a gap, not between two masses, but between two *flows*. They also

(26) Published by the Centre d'Etudes Economiques, A. Colin, Paris, 1952.

showed that the increase in prices consequent upon the inflationary gap existing at a given moment did not ensure the achievement of a stable equilibrium but unleashed a series of chain reactions which led to disparities and new disequilibria and might in certain cases bring about an almost uncontrollable hyper-inflation. The definition itself (27) given by, for example, Jacques Le Bourva shows the extent to which he regards inflation as a continuous price *movement* which does not come to a stop automatically and which is always difficult to master.

(b) The other trend is represented by the "behaviourists"; it may be regarded as including economists such as Henri Aujac (28), Yves Mainguy (29) and Jean Gabillard (30). Clearly, what they have set out to study is not so much the *origin* of inflationary stresses (which may be caused by any initial gap between the total supply of and demand for goods) as the *rhythm* of the inflationary movement. What is it which accelerates or slows down that movement? How can it be stopped? To solve these problems, the behaviourists believe that they must bring in the psychology of people holding money and that the reactions of such people are decisive. They are careful, however, not to revert to the theory of the Austrian masters or of Aftalion in spite of the respect in which they hold them. Aftalion, in Aujac's opinion, was unable to explain how simple *individual* psychological dispositions may determine an *overall* phenomenon such as a change in the value of money. It is not, therefore, in individual psychology that these analysts expect to find an explanation but in the behaviour of *social groups*. Aujac, for example, thinks that, when confronted by inflationary stress, social groups may behave in one of two ways — they may either break with the former monetary relationships, which means that, faced with a rise in prices, they will claim an increase in their income so as to maintain the same level of expenditure, or else they will adjust themselves, that is, they will resign themselves to spending less. Inflation will spread more rapidly,

(27) Cf. *op. cit.*, p. 22. "Inflation is the cumulative process of price increases which results, during a given period, from the monetary struggle by the various economic entities in order to maintain or increase their real income or capital, although the volume of goods available in the economy is inadequate to satisfy all these demands simultaneously".

(28) and (29) Henri Aujac and Yves Mainguy, "L'influence du comportement des groupes sociaux sur le développement d'une inflation", *Economie Appliquée*, April 1950.

(30) *La fin de l'inflation*, Paris, 1953.

the more widely the *dominant* groups in a country's economy try to maintain their purchasing power.

This explanation is undoubtedly correct. It is, however, of little use in practice. It would only be so if it were possible to foresee the attitude which these " groups " would adopt and that would call for a profound knowledge of them. How, for example, should they be classified? Are they homogeneous bodies? Are they coherent? Are they rigid? Mainguy and Nyblen have, it is true, in the ISEA studies, portrayed the fate of money as depending on the outcome of a struggle between various groups. But the models with the aid of which they have tried to measure the reactions of social groups are still by no means fully worked out (31). Jean Gabillard, who thinks that inflation is a phenomenon reflecting economic fluctuations rather than a strictly monetary process has shown that it dislocates price movements and therefore creates disparities in the income trends of the different groups. But here again, since it is not possible to base the conclusions on more or less constant reactions of coherent social groups, this explanation has not furnished a very precise instrument for forecasting future developments.

(c) Pierre Dieterlen seems to us to be most appropriately placed at the point of convergence of these two currents. He uses both their contributions but seems closer to the theory of the " gap " than to the behaviourist credo.

For types of behaviour do not seem to him to be really *measurable* and, since the psychological reactions of persons holding money, whether individuals or a group, are always reflected in changes in the total supply of and demand for goods and cannot influence the value of money in any other way, Pierre Dieterlen prefers to study these changes themselves because they can be measured. This does not mean that Pierre Dieterlen has neglected the psychology of persons holding money. He even attaches the greatest importance to it, but his manner of studying it is by no means the same as that of the behaviourists. He makes use in the main of J. R. Hicks' theory of elasticities of expectations but he goes further than his English colleague. He was tempted, to start with,

(31) Cf. for instance the conclusion of the article by H. Aujac and Y. Mainguy.

to affirm that the rate of inflation depends on the magnitude of these elasticities, but he ended up by basing his analysis, not so much on the level of these elasticities considered as a whole, as on the disparities between the elasticities of the various economic units. In his view, these elasticities are never uniform. If they were, there would either be an immediate hyper-inflation (if the elasticity is greater than 1) or else (in the event of a negative elasticity) inflation would give way to a slump. For inflation to proceed at a moderate rhythm, the elasticities must be different; some persons holding money must believe in a further rise in prices, while others expect a fall.

Is it not obvious that, in this analysis, Pierre Dieterlen is trying to " compartmentalise " the study of the reactions of persons holding money in the same way as the behaviourists? He still, however, differs from the latter in a number of ways. For one thing, the types of behaviour which he studies are those of individuals and not of coherent and unequally strong social groups. Moreover, the flows studied by him are not of the kind which are transmitted from one social group to another. They are on the contrary *determined by an economic function*; they relate for example to the flow of consumption or of investment. This method is more precise and more suited to econometric exploration. But it is less effective as an instrument for investigating the basic causes of inflations, since it ignores the study of group reactions. It assumes that it is impossible to classify these groups and to identify each of them clearly.

When all is said and done, the hallmark of the heterodox French economists nowadays is their refusal to be confined to an excessively mechanistic quantitative approach to inflation.

C. These writers also differ from their orthodox elders by their relative scepticism as regards the automatic functioning of monetary mechanisms. They do not believe in the *automatic* restoration of monetary equilibrium. They are more inclined to believe that inflation tends spontaneously to unleash reactions which speed up its rhythm, unless these reactions are checked by intervention of some kind.

Moreover, as opposed to the over-liberal orthodox economists, they believe that the monetary authorities are not entirely helpless when it comes to controlling the value of a currency, i.e. to influencing home prices or the rate of exchange. They are even convinced that these authorities can use money to plan the course of the real factors in the economy. In short, they do not believe either in the "sovereignty of the users of money" or in the neutrality of money.

Let us see how they view the significance of inflation. Mainguy, Nyblen, Aujac and Gabillard, for instance, look upon it as a means of re-distributing income from one group to another, so that, in the struggle between these groups for the share-out of total income, the monetary authority, on whichever side it comes down, always intervenes — with some difficulty — in favour of one or other of these groups. Or again it may be a form of taxation (cf. Alfred Sauvy) which can be used to finance major items of national expenditure up to the point at which its excesses lead to the disappearance of the very sources of taxation, i.e. of liquid funds. In any case, it is portrayed as a manipulation aimed at a particular objective and as one which is effective only up to a certain point.

They believe, too, that monetary policy may form an instrument of international pressure. Maurice Niveau (32) has strongly emphasised the fact that, even in the 19th century, the City of London was able, by granting or refusing international credits, to ease or to tighten monetary conditions in a number of foreign countries and even to influence the quotations of certain important raw materials. No doubt, in the 20th century, the City has been shorn of a part of this power, but only of a part. And other financial centres are now trying to step into its shoes. However that may be, it does seem as if the fate of certain currencies has in the past depended and may still depend on the policy of the monetary authorities of the great financial centres at least as much as on allegedly automatic mechanisms.

It is above all the discussions on the choice of a rate of devaluation which are now giving rise to a certain revolt against the old monetary orthodoxy. It has already been shown that the traditionalists regarded devaluation as inevitable in the event of inflation and the degree of devaluation as determined by the "purchasing power

(32) Cf. his doctoral thesis: "L'èquilibre économique international et l'expérience des paiements intra-européens 1946-1952. Roneoed thesis, Poitiers 1952 (and his articles in *Economie Appliquée*, No. 1 of 1953 and No. 1 of 1956).

parity", which is alone capable of ensuring an equilibrium in international payments. By contrast, and even without taking sides as regards the advantages or disadvantages of devaluation, the heterodox economists take the line that the choice of the degree of devaluation is never *pre-determined* and that there is not just one "equilibrium rate". For Maurice Byé, for example (33), any choice of an exchange rate in a dynamic economy amounts to a gamble on the future structure of the national economy. One rate may favour a particular sector of the economy and another a different sector. One rate may give a fillip to agriculture, another may stimulate industrial progress. By this choice, too, it is possible either to keep out-of-date or stagnant activities going or to foster the rapid growth of new activities. But either rate may make it possible to balance the country's foreign accounts so that the problem is not to find *the* equilibrium rate but *that one of the equilibrium rates* which offers the best guarantee of rapid economic development.

This is an extremely interesting theoretical point for it explains:

1) The jettisoning of a number of old ideas such as the belief that equilibrium can only be achieved at purchasing power parity;

2) The belief that the monetary authorities are able to determine the value of the national currency;

3) The belief that, by manipulating monetary factors, the institutions which are the poles of the monetary system (Central Bank, Treasury, etc.) can influence the real factors in the national economy, and in particular the present and future level of activity and of the national income.

It will be seen how thoroughly modern theory has broken with nineteenth century orthodoxy. The heterodox group shows less confidence in the ability of mechanisms to produce spontaneous equilibrium and more in the power of the authorities responsible for protecting the national currency.

(33) Cf. especially his roneoed course at the Faculty of Law, Paris, 1955-56 and 1956-57. Cf. also his article "Taux de change et options sur les structures", in *Economie Appliquée*, 1953, No. 4.

3. The National Accountancy Experts

The experts in national income accounting must be dealt with separately, for their contribution, although very promising, bears no resemblance to the contributions just described.

Their aim is not, in France any more than in other countries, to work out a theory of money. Indeed, the non-French experts pay fairly little heed to money. In Britain, for example, it would not appear that Stone's admirable work has really taken account of monetary phenomena in the strict sense of the word. In America, the vast work of Leontief and his pupils on inter-sectorial or inter-regional relations covers *real* flows of goods and services. While these flows are evaluated in terms of money, money is only used as a neutral instrument of measure and is not regarded as being able to distort those flows. The same can be said of the studies by Simon Kuznets. No doubt there have been in addition excellent analyses of the monetary flows (by Copeland, for instance), but they have not been linked up with the others, so that the two series of flows (real and monetary) have been studied separately.

In France, on the contrary, since the first attempts at national accountancy were made during an inflationary period, the creators of the new science were unable to remain quite as indifferent to money and this is perhaps why greater technical progress has been effected than by Anglo-Saxon national accountants. It proved necessary to take account at the same time of two series of flows owing to price changes, especially in order to enumerate or try to forecast orders by "households" or at least to take account of the monetary counterpart of real flows. These considerations have led our national accountants to commit themselves, at least indirectly, as regards certain general theories concerning the role of money.

A. *A priori*, these contributions do not seem very original, in the sense that they do not provide a new reply to the problems traditionally tackled by the theory of money. At most, they confirm the ideas of the "heterodox" economists. But their analysis of flows is entirely novel.

The best evidence on this point is supplied by Claude Gruson (34). He argues that monetary equilibrium is not achieved

(34) Cf. for example his article "Le franc et la politique du credit", in *Economie Appliquée*, 1952, p. 45 and especially his "Esquisse d'une théorie générale de l'équilibre économique".

spontaneously. Global demand is linked with monetary incomes, which come from two sources — sales of goods and services and advances by the banking system. The latter may cause an additional flow of money. Two flows, therefore, converge to form the global demand. Moreover, that demand may lead to additional production. The rise in prices which, according to the quantity theory, takes place when credit is expanded does so in fact only if production is throttled by a bottleneck or by rigidities in the national economy. In other cases, the expansion of credit involves an expansion of the real factors of the national economy. Money is not neutral.

Taking this approach a stage further, the "national accountants", in their analysis of the flows, distinguish between several sources and consider that the various flows have different effects according to their origin. J. Marczewski, for example (35), holds that available income is of two kinds: 1) the increase in cash balances "represents in principle unsold final products" (36) and in this way a reserve for consumption is built up, whereas; 2) circulating capital "is the counterpart of intermediate goods or goods in process", and constitutes a reserve for investment purposes.

This distinction is an extremely felicitous one for it makes it possible to follow money incomes more closely through the labyrinth of national accountancy (37).

All these economists have dropped the belief in the existence of a purely quantitative mechanism, for the extent and direction of the flows depend, in their view, on the behaviour of economic units, whether taken in isolation or in groups. There is room, therefore, in their analyses for an appeal to behaviourist theories.

It should perhaps also be pointed out that there is no longer any argument about certain contributions by the "national accountants". To take only one example, a number of these experts, in

(35) Cf. especially J. Marczewski, "La comptabilité économique nationale et ses liaisons avec les comptabilités privées et publiques", in *Economie Appliquée*, 1949, p. 80.

(36) J. Marczewski, "Les tableaux de la comptabilité et du revenu de la nation", in *Le Revenu National*, Presses Universitaires de France, 1947, p. 236.

(37) We cannot however subscribe to all the ideas suggested to J. Marczewski by this distinction, for example, the view that hoarding is made up of "the sums of money which, for an indefinite time, are withdrawn from the market and *no longer influence prices*". No doubt the author would be quite willing to accept the idea that these sums still act as a threat; when they pile up, there are grounds for fearing the action of dishoarding on prices.

their anxiety to group all the income flows under observation in the simplest possible categories, have tended to put an excess of imports on the same footing as an increase in consumption or at least in expenditure. This equation, although mathematically correct, seems somewhat dangerous. Actually, an excess of expenditure of this type, even if modest from the point of view of general monetary equilibrium, may yet be considerable from the point of view of the balance of payments, and the market concerned is a particularly sensitive one (i.e. the foreign exchange market). It therefore seems to us to expose the national currency to a more immediate and greater risk of depreciation than additional expenditure inside the country would entail.

B. But, in order to assess the contribution made by the "national accountants", we must not confine ourselves to their reply to the classical monetary problems. That reply, which is not the work of monetary specialists, has no claim to originality. What is interesting in their studies is the fact that their new methods of analysing general economic phenomena compel them to raise new monetary problems. It may be worth giving a few examples of this, even if these problems are still a little hazy and if the replies to them are still tentative. That is because national accountancy thinks that the action of the different flows varies according to their origin and especially according to the nature of the monetary institutions from which they stem. For instance, a monetary flow originating in the State Treasury need not play the same part as a flow caused by the expenditure of industrialists or peasants, since it does not evoke the same reactions on the part of the social groups affected.

In this perspective, the problem of the "localisation" of inflation inevitably arises. Does inflation take on a different form according to the sector in which the inflationary stress originally appeared? Does that influence the rate of its acceleration? Are the obstacles which should be placed in its way the same in all cases?

This also brings us to a closer examination of the reactions of the groups taking part in the transmission of inflationary stresses to the economy as a whole. National accountancy makes it possible to ascertain that certain groups accelerate inflation (for example, by increasing their demand disproportionately to the increase in their incomes), that others tend to damp it down (for example by stepping up sharply their production of real goods), and that others, again, exercise a neutral action in this respect. National accountancy alone, it may be, will one day enable us to go beyond the purely formal and abstract models which the behaviourists have put forward. It may enable us, for instance, to effect a better classification of the various groups concerned (whether social or professional, or graded by income) and to calculate the different propensities (to invest, save, consume, import or export) of each of these groups. At the same time, the disparities produced by inflation in the trend of the various prices may at last be closely examined. It is probable that studies on these lines will completely dispose of the old idea of the "general price level" which has been so strongly criticised for the last fifty years.

Lastly, a new subject for study, which has hardly been touched on as yet, will become more and more important — that of the part played by "liquid balances" in the unleashing or evolution of an inflation. It is already known that liquid balances occur in fairly different forms — bank notes and current account balances — and it is suspected that, since they are not all used in the same way, they do not play exactly the same part in the course of a rise in prices. It is even believed that large notes (of 10,000 francs for example) are more likely to lead to hoarding than small ones (of say, 500 or 1,000 francs) and play a less important role in producing inflation. The study of monetary flows will clear up this point. It is realised, too, that the creation of "liquid balances" is almost automatic in certain cases. Certain assets (paper which is eligible for bank accomodation) are easily convertible into money. They are sometimes referred to as "secondary reserves of liquidity" and the expression "tertiary reserves of liquidity" might perhaps be applied to securities (stocks and shares) which the excellent market organisation makes it possible "to realise" from one day to another. This makes it somewhat difficult to analyse the connection between the increase in "liquid balances" (what sort of balances are really meant?) and price movements. National accountancy, whose job it is to study the movements of money incomes, is bound to try to clear up its problems of monetisation and will therefore throw light, which is still lacking, on the action of "liquid balances" on prices.

In brief, the methods of the " national accountants ", although not *a priori* designed for the study of money, promise to make a fruitful contribution to that subject.

III. Conclusions

It is not possible to sum up the above considerations on the contributions made by French economists to the theory of money since 1945. We should like, however, to stress a few important points.

The essence of the matter is an almost general move away from a purely mechanistic version of the quantity theory. Since monetary phenomena are also human ones, the value of the currency is determined much less by the volume of money in circulation than by the use which the persons holding it make of it. It is therefore their psychology (i.e. that of both individuals and groups) which is likely to hold the key to the problem of prices.

The other main point to emerge is the conviction that the monetary authorities have an important part to play. Firstly, as regards price movements. There is no contradiction between this idea and the previous assertion as regards the role of the psychological reactions of people holding money. It is known that monetary authorities may influence these reactions by creating, for example, confidence or lack of it in the currency. Moreover, Frenchmen are more and more convinced that the monetary authorities may, by using money, which is certainly not neutral, plot a course for the national economy and influence a number of the real factors comprised by it.

In conclusion, it is easy to foresee the direction which forthcoming research will doubtless take. It by studying the various propensities which determine the flows of money that the national accountants will be most certain to advance the general theory of money.

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