and in his report on fiscal reform in India where he came out against the Commission of Inquiry nominated by the Indian Government. Kaldor feels that such exclusion cannot be defended either on grounds of equity or of economic efficiency. Nor does he agree that the taxation of capital gains can have a negative psychological effect on investment and on dealings in shares. What is achieved is a reduction in the incentives to acquire land or other capital items which are held on to solely with a view to waiting until the price goes up — for reasons which have no connection with the intentions of the owner. It is obvious that, during the time when the land is in the hands of the speculator, it is diverted from the normal productive process, since the current income from it is of no interest to the owner, who therefore is not interested in investing in it. However, the taxation of capital gains solely attributable to market movements and not to the merits of the owner does not in any way act as a disincentive to production or investment.

Rome

CESARE COSTANI

The Problem of controlling Liquidity in France

The idea of liquidity finds expression in more or less the same terms in France as in the other western countries. It has now become the established practice to distinguish between, on the one hand, the “liquidity of the economy”, which in its narrowest sense corresponds to the money supply (compared with the national income) and, on the other hand, the “liquidity of the banking system”, which comprises the banks’ holdings of notes and coin and their balances on sight accounts with the Bank of France, together with the total amount of the items which they can put into the Bank of France under the current regulations without incurring a penalty.

The methods adopted for influencing liquidity are also similar to those employed in other countries. To make them easier to understand, however, it has been thought useful to recall, by way of introduction, certain special features of France’s monetary institutions, namely of the banks, the specialised institutions and the Treasury.

Brief notes on the French institutions

First of all, a few words about the banks’ activities and the organisation of credit:

— Bank deposits consist of 85% sight deposits and only 15% time deposits or medium-term notes (bons de caisse). For one thing, the banks do not deliberately seek to attract savings; secondly, the “deposit” banks (banques de dépôts), which constitute the most important section of the banking system, are not allowed to receive deposits at more than two years.

— More than four-fifths of the total of the short-term credits granted by the banks (NF 30.4 billion out of 36.87 billion on
31st December 1959) take the form of the discounting of commercial bills. Whether they are drawn against a sale of goods or created to mobilise an advance, most of these bills satisfy the conditions for eligibility for rediscount laid down by the Bank of France (three signatures of known solvency, a currency not exceeding 90 days and, for bills mobilising advances, the prior consent of the Bank of France).

— Medium-term credits for a period of from nine months to five years (capital development and export credits) are provided by the banks, usually with the assistance of specialised institutions (the Crédit National, the Crédit Foncier de France, the Caisse Nationale des Marchés de l'Etat, the Caisse des Dépôts et Consignations and the Banque Francaise du Commerce Extérieur) and in the form of bills which can be rediscounted at the Bank of France.

— Non-mobilisable credits (advances, overdrafts, non-rediscountable bills and personal loans) actually represent only a relatively small proportion of the banks' assets.

— Since the end of the war the French banks have always substantially augmented their resources by rediscounting. This is brought out by the following table:

<table>
<thead>
<tr>
<th></th>
<th>31/12/1958</th>
<th>31/12/1959</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>billion NF</td>
<td>%</td>
</tr>
<tr>
<td><strong>Short-term bank credits:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— financed by the banks</td>
<td>25.40</td>
<td>80.0</td>
</tr>
<tr>
<td>— financed by the Bank of France and the specialised institutions</td>
<td>6.39</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Medium-term bank credits:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— financed by the banks</td>
<td>6.89</td>
<td>10.7</td>
</tr>
<tr>
<td>— financed by the Bank of France and the specialised institutions</td>
<td>7.46</td>
<td>89.3</td>
</tr>
<tr>
<td>— financed by the banks</td>
<td>8.35</td>
<td>85.2</td>
</tr>
</tbody>
</table>

Although in 1959 the inflow of gold and foreign exchange greatly added to the liquidity of the banks, the total of the bills rediscounted by the latter still amounted on 31st December 1959
to NF 10.5 billion, or 23% of their total credit outstanding. This indebtedness of the banks to the Bank of France is due to special circumstances; the balance-of-payments deficit, the introduction in 1948 of minimum holdings of short term public securities, etc. The situation was quite different before the war, especially in the period 1930-1935.

— The banks do not regard investment in medium and long-term government paper as a normal way of employing their customers' deposits.

Consequently measures restricting or easing credit have no direct impact on the capital market and there is no close link between long-term and short-term interest rates.

As to financial participations and firm subscriptions to equity issues, the deposit banks are allowed to engage in such operations only within very strict limits, and even the "banques d'affaires", although their rules are more liberal, can use for this purpose only their own resources or deposits at fixed term or notice of at least two years.

— The Conseil National du Crédit fixes minimum interest rates for bank lending and maximum rates for the interest allowed on deposits. Until recently — this rule has just been changed — the variations in the official discount rate were always based on automatically and in full to the rates charged for credits.

There is no direct link, on the other hand, between the Bank of France's rate and the creditor interest rates allowed on sight and time deposits. The Conseil National du Crédit takes care, however, to keep the rates applied by the banks in line with those of the agricultural credit banks and the savings banks and with the issue prices for Treasury Bills "on forms" (the so-called "bons du Trésor sur formulaires", issued only to non-bank subscribers).

Apart from the banks, various public or semi-public institutions play an important part in the French banking system.

Thus the Crédit Foncier de France and the Sous-Comptoir des Entrepreneurs jointly grant special loans for house-building purposes in the form of medium-term credits, which are utilised, on the average, for a period of a little over four years and are subsequently consolidated with the aid of various resources (loans from the Crédit Foncier, annuities paid by the borrowers, Treasury advances, etc.) into long-term loans redeemable over fifteen years.
During the medium-term period the bills made out in respect of the loans can be mobilised by the Caisse des Dépôts et Consignations or by “Caisse de Consolidation et de Mobilisation” (C.A.C.O.M.), established in 1957, and, lastly, by the Bank of France. Thus these bills, before being converted into long-term loans, are financed partly by savings (Crédit Foncier de France, Caisse des Dépôts) and partly by monetary resources (Bank of France). The distribution of the loans among the financing institutions on 31st December 1958 and 31st December 1959 was as follows:

<table>
<thead>
<tr>
<th>Special building credits:</th>
<th>31st December 1958</th>
<th>31st December 1959</th>
</tr>
</thead>
<tbody>
<tr>
<td>— specialised institutions (Crédit Foncier, Caisse des Dépôts, C.A.C.O.M.)</td>
<td>(in billions of NF)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.33</td>
<td>1.87</td>
</tr>
<tr>
<td>— Bank of France</td>
<td>7.01</td>
<td>6.58</td>
</tr>
<tr>
<td></td>
<td>8.34</td>
<td>8.45</td>
</tr>
</tbody>
</table>

These notes recalling a few facts about the banking system would not be complete without some brief observations about the public finances and the relationship between the Treasury and the Bank of France.

— The Treasury receives all the funds paid in to the State, the subsidiary budgets and the local authorities and finances all their expenditure.

Apart from fiscal revenue, it receives funds from various sources. It issues divisional coin and receives deposits from the public via the post offices and the government cash offices (the deposits held by private individuals and enterprises on postal current accounts and with the Treasury represent more than 20% of the total of bank money); through other channels there flow to it automatically or almost automatically funds of monetary origin (compulsory subscriptions to public securities by the banks under current regulations) or savings (subscriptions to Treasury Bills “sur formules” and, indirectly, to the extent of the amounts paid in by the Caisse des Dépôts et Consignations, excess deposits with the savings banks).

Lastly, the Treasury performs to a certain extent, vis-à-vis the banks of issue in the French franc area, the function of a Central Bank by providing, by means of “operating accounts”, the possibility of unlimited transfers.

— The Bank of France keeps the public Treasury’s current account. If the day’s transactions result in a debit balance, the Treasury has to square its account by borrowing, i.e. by discounting drafts in respect of tax payments, by obtaining funds from its correspondents, and by taking up direct advances from the Bank of France.

— The situation of the Treasury vis-à-vis the Bank of France depends only partly on the size of the budget deficit and the timing of public receipts and expenditure; it is largely governed by general factors — in particular the easiness of the money market and the volume of short-term savings.

Among the Treasury’s correspondents, attention should be drawn to the complex role played by the Caisse des Dépôts et Consignations, a public institution which derives 80% of its resources from the excess deposits at savings banks. Part of these funds are reserved by law for loans to the local authorities (departments and communes), which have access to the money market and rarely seek to raise funds on the capital market. The rest is used by the Caisse for investments of varying term: the purchases of government stock and bonds, loans to enterprises of national importance, the rediscounting of medium-term bills, and short-term lending to the State (deposits with the Treasury or subscriptions to public securities). If the Treasury’s requirements demand it, the Caisse can mobilise at the Bank of France its holdings of bills representing medium-term credit and increase its assistance to the State.

These various observations will, we hope, make it easier to understand what is said in the following pages and the solutions found both by the Conseil National du Crédit and the Bank of France to the dual problem of controlling liquidity: the liquidity of the economy and bank liquidity.

I. The Liquidity of the Economy

The “liquidity of the economy” is an essentially relative concept; it is usually measured by reference to the amount of the incomes received by individuals and enterprises by virtue of their participation in national production. The liquidity of an economy
reduce their indebtedness to the Bank of France by more than NF 3 billion during the year despite a rise of nearly NF 6 billion in the amount of their lending.

2. According to a wider interpretation, the concept of the liquidity of the economy covers other elements besides the money supply (or primary liquid resources); it also includes money-substitutes, i.e., the assets which, without appreciable loss to their holders, can be converted into money.

The Conseil National du Crédit calls these assets "liquid savings" and gives the following figures for them (1):

<table>
<thead>
<tr>
<th>Liquid savings:</th>
<th>Amount at end of period</th>
<th>Year-to-year changes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31/12/57</td>
<td>31/12/58</td>
</tr>
<tr>
<td>Time deposits with banks and medium-term bank bonds (bons de caisse)</td>
<td>11.83</td>
<td>13.94</td>
</tr>
<tr>
<td>deposits with savings banks</td>
<td>18.53</td>
<td>21.91</td>
</tr>
<tr>
<td>Treasury Bills (excess of subscriptions over repayments):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Bills covered by states</td>
<td>10.39</td>
<td>11.54</td>
</tr>
<tr>
<td>(b) Bills covered by enterprises</td>
<td>0.58</td>
<td>0.62</td>
</tr>
<tr>
<td>due to five-year bonds of the Caisse nationale de Crédit Agricole</td>
<td>6.66</td>
<td>6.87</td>
</tr>
<tr>
<td>Total</td>
<td>34.99</td>
<td>38.88</td>
</tr>
</tbody>
</table>

(1) This item includes one-year and two-year bills and bills with a progressive interest rate.

This idea of "liquid savings" differs fairly considerably from that of "secondary liquid resources" adopted by the Netherlands Bank. The latter, in its Report for the year 1953, defines secondary liquid resources as "assets which, although in form they are not money, nevertheless to a great extent satisfy the same need as does money. The distinguishing feature of these secondary liquid resources lies in the fact that those who hold them have in practice the power, by demanding repayment en masse, to force the debtors to have...

(5) Annual and quarterly reports of the Conseil National du Crédit.
recourse to the creation of money. They usually do so directly, by converting their assets into money on the date of maturity; but they may also do so indirectly by unloadng their assets before the due date on the money market.

Without describing the method of analysis in detail, it may be mentioned that if the Dutch concept were applied to France, secondary liquid resources would have to include the Treasury's sight or short-term indeddixedness to its correspondents and the bills representing medium-term credit which are held by the specialised institutions (the first-stage rediscounting institutions, the Caisse des Dépôts et Consignations and the Caisse de Consolodation et de Mobilisation des Crédits à Moyen Terme) and can be passed on to the Bank of France.

On the other hand, deposits with savings banks and the bonds issued by the Caisse Nationale du Crédit Agricole would not be included in secondary liquid resources (being regarded as belonging to the capital market), or, at least, would only be counted to an extent corresponding to these institutions' holdings of Treasury Bills.

<table>
<thead>
<tr>
<th></th>
<th>31/12/</th>
<th>31/12/</th>
<th>31/12/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1957</td>
<td>1958</td>
<td>1959</td>
</tr>
<tr>
<td><strong>Secondary liquid resources:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- time deposits with banks</td>
<td>3.83</td>
<td>3.94</td>
<td>5.44</td>
</tr>
<tr>
<td>- Treasury Bills + our formulas</td>
<td>10.39</td>
<td>11.56</td>
<td>14.77</td>
</tr>
<tr>
<td>- Treasury's correspondents balances and bills</td>
<td>18.25</td>
<td>18.85</td>
<td>24.43</td>
</tr>
<tr>
<td>- Treasury Bills on current account other than those held by banks and the Treasury's correspondents</td>
<td>1.13</td>
<td>1.16</td>
<td>1.38</td>
</tr>
<tr>
<td>- bills representing medium-term credit held by the specialised institutions and C.A.C.I.A.</td>
<td>1.24</td>
<td>3.33</td>
<td>3.93</td>
</tr>
<tr>
<td></td>
<td>34.54</td>
<td>37.82</td>
<td>47.16</td>
</tr>
</tbody>
</table>

The two methods, working with different components, actually yield fairly similar results, the total of "liquid savings", the French concept, and that of "secondary liquid resources", the Dutch concept, differing by about one billion NF for the end of each of the years 1957, 1958 and 1959.

One of the merits of the Netherlands Bank's analysis is that it brings out clearly the danger of potential inflation inherent in secondary liquid resources; it is not, however, applicable without modification to the case of France. Thus Treasury Bills "our formulas", which are intended for the public (banks can hold only bills on current account), though they are to all appearances quasi-money — some (those with a progressive interest rate) being repayable on demand three months after issue (3), while the others (those with a currency of one or two years) can be discounted at banks with a slight loss of interest — appear to be regarded by their holders much more as a lasting investment than as a second-degree liquidity reserve. The circulation of both types in fact shows an even more regular upward trend than that of deposits with savings banks; the issue of a long-term government loan or political events as important as those of May and June 1958 cause only a momentary slackening in subscriptions.

3. The following graph illustrates the French economy's tendency to liquidity since the second world war.

It will be observed that during the years 1946 to 1952, which, except for the respite in 1949-1950, were years of inflation, there was an appreciable reduction in the liquidity of the economy.

On the other hand, the return to relative stability of the franc from the summer of 1952 onwards led to a gradual rebuilding, which continued till 1956-1957, of deposits with savings banks and holdings of Treasury Bills. Over the same period, the amount of cash holdings accumulated in the form of money underwent an increase of the order of NF 12 to 15 billion.

The reappearance of inflationary tensions in 1957, which was reflected both in a rise in prices and in a large balance-of-payments deficit with foreign countries, caused a momentary reversal of the trend, and for two years in succession accumulated cash holdings declined slightly, while in 1958 the ratio of sight and short-term assets to the national income remained stable.

Not until 1959 did the liquidity of the economy again rise appreciably faster than incomes. This development did not fail to attract the attention of the monetary authorities and raised once more the problem of the direct or indirect means of controlling the overall volume of liquidity.

(3) But apt to bring held much longer by the bearers.
INDEX OF THE RATIO OF THE ANNUAL AVERAGE OF: (1) TOTAL LIQUID ASSETS (AVAILABLE SUPPLY OF MONEY AND LIQUID SAVINGS); (2) LIQUID SAVINGS; (3) THE AVAILABLE SUPPLY OF MONEY; TO THE NATIONAL INCOME.

4. The direct means of control are very limited. For it is known that the money supply and liquid savings represent an aggregate of cash holdings or assets distributed among the public; that individuals and enterprises can to a great extent fix the amount of these cash holdings or assets as they wish; and that, in particular, the tendency of idle cash holdings to be transformed into active money — or the reverse — is mainly governed by psychological factors. The same is true of the conversion of primary liquid resources into secondary liquid resources or the reverse process — the "monetisation" of secondary liquid resources. The question therefore arises whether the Bank of France and the Treasury can exert an influence on "liquidity preference".

As regards the Bank of France, the answer is relatively simple; firstly, the Bank is not able to exercise any major influence on the volume of the money supply by means of open market operations; secondly, from the point of view of liquidity preference, the effectiveness of changes in the official discount rate appears to be very dubious.

Unlike the Bank of England and the Federal Reserve Board, the Bank of France does not buy or sell medium or long-term public-debt paper in pursuance of a general policy aimed at bringing about changes in interest rates and the economy's liquidity position.

Even on the money market the purpose of the Bank of France's interventions is in theory a limited one. Under the Decree of 17th June 1938 the bank of issue is authorised to buy and sell negotiable instruments with a view to "regularising" the money market and "influencing the volume of credit". On the latter point the Bank has in fact been led for numerous reasons to act in ways different from those provided for in the 1938 decree, and its interventions on the market are primarily intended to facilitate the day-to-day balancing of the banks' cash accounts.

As to the part played by the official discount rate as a means of directly influencing the volume of the money supply and of liquid saving, it is inevitably a small one. We have already pointed out in our preliminary remarks that there is no direct link either between the Bank of France's rate and the creditor interest rates applied by the banks or between money market rates and those on the capital markets.

It should be added:

— that the Treasury Bills entered in current accounts, which are reserved to banks, the specialised institutions, insurance companies and bourse intermediaries, are issued on tap and at a fixed rate which is rarely changed (since December 1954 it has been 3.50% for two-year bills), these terms of issue being partly connected with the requirement that the banks must invest in Treasury Bills 25% of the funds deposited with them by the public;
— that the Bank of France discounts or purchases public securities within three months of maturity — or grants 30-day advances against such securities — at a privilege rate of 3%, which is at present 1% below the discount rate (3);

— that, at least since 1954, even the interest rates on the different forms of liquid savings react only very slowly to variations in the discount rate. Thus the rate for Treasury Bills “sur formules” remained unchanged from 6th December 1954 to 1st July 1966 (4), although the discount rate was altered five times during the intervening period (from 3% to 4% on 11th April 1957 and from 4% to 5% on 12nd August 1957 and then back again, in three stages, to 4% in 1958-1959).

Apart from the effects of budgetary policy and of a surplus of fiscal revenue over public expenditure, the issue of a medium or long-term Government loan is generally regarded as the only way in which the Treasury can mop up surplus liquidity and thus reduce a potential danger of inflation. Even then it is necessary to examine fairly closely the circumstances in which the loan is issued and the origin of the funds paid by the subscribers. It is obvious, for example, that a Government loan can have a deflationary effect if it substitutes financing with medium or long-term funds for financing with cash or short-term funds, but not if it is linked with a programme involving further spending. The monetary repercussions of a loan will also differ depending on whether the subscribers draw on their bank accounts or, on the other hand, use hoarded notes or liquid savings. In the first case, the transfers of funds from the banking system to the Treasury will cause a temporary tightening in the banks’ cash position and will force them to have increased recourse to discounting; in the second case, the volume of primary liquid resources will temporarily decrease or some liquid savings will be consolidated (5).

(3) Bills presentable to the Bank of France may not be rediscounted for the benefit of the Treasury.

(4) Bills with progressive interest rate: 4.25% after three years; one-year Treasury Bills, 3.25%; two-year bills, 3.35%. These rates were reduced with effect from 1st July 1956 to 4%, 3% and 3.5% respectively.

(5) Cf. on this question the articles by M. Prunet Béasse, "L'incidence monétaire d’un emprunt d'État a un emprunteur d'État", and "L'Emprunteur d'État et son action défiscalisante ou inflationniste", in the August 1956 and August 1958 numbers of the review Banque.

Actually, the last large Government loans issued in France (1954, 1956 and 1958) did not lead to the conversion of an appreciable amount of Treasury Bills “sur formules” into long-term bonds. All that happened was that the amount of bills in circulation stopped increasing for a few months in 1956 and 1958. On the other hand, the issue of these loans brought hoarded cash back into the monetary circuit and thus reduced the volume of primary liquidity.

In 1948 the Government tried a more direct method. In the hope of curbing the inflation it ordered on 31st January the withdrawal from circulation of 5,000-franc notes and the compulsory exchange of deposits of more than two such notes for certificates for which no redemption date was fixed. Relaxations were introduced during the following weeks; the certificates were gradually repaid and the measures eventually took on the appearance of a fiscal check rather than a genuine cut in the money supply. It is interesting to note, however, that the note circulation, though temporarily reduced by 200 billion francs, was back to its level of 29th January by the end of the summer and that at the same time, as a result of the way in which the certificates allocated to the holders of notes were repaid, the volume of sight deposits rapidly increased (by 55% in 1948). Thus a measure originally intended to be deflationary paradoxically resulted in a growth in bank liquidity.

5. Apart from direct means of influencing the liquidity of the economy, which are few in number and of doubtful effectiveness, what indirect methods of control are available to the French monetary authorities? The question in fact boils down to whether the Bank of France can influence the volume of the money supply via the sources of money-creation (gold and foreign exchange, the banking system’s claims on the Treasury, credits to the economy) which are referred to in the reports of the Conseil National du Crédit as the “counterparts” of the available supply of money.

Firstly, with regard to the movements of gold and foreign exchange, the recent experience of certain foreign countries shows that the policies of Central Banks do not always produce the desired results.

Furthermore, the Bank of France cannot easily oppose the creation of money for account of the State. If its receipts of all kinds do not entirely cover its out-payments, the Treasury finally resorts to drawing on the Government Advances account at the Bank within
the limits of the ceiling fixed under the agreements in force (at present NF 4.9 billion). Proposals that this ceiling be raised have naturally in the past met with resistance from the Bank, which has always demanded that the public finances should be more strictly administered and has often succeeded in securing the acceptance of precise arrangements regarding repayment.

The Bank of France is better equipped for limiting the amount of the credits granted to the economy, either — as will be seen later — by influencing bank liquidity, or by other measures of a selective or general nature, which are the only ones that will be described in this section.

The object of the selective measures applied in France is to make certain categories of credits subject to special rules in view of their nature, their purpose or their employment, in order to check — or, more rarely, to encourage — their growth. These measures may apply to certain sectors or certain categories of transaction or may entail the examination of individual cases.

The implementation of selective measures has been facilitated during the last fifteen years or so:

— firstly, by the creation in March 1956 of a Service Central de Risques which enables the Bank of France to know how credits are distributed among the different branches of activity, the banks being obliged to render monthly returns of the credits made available to each enterprise and of the amounts actually utilised in excess of a lower limit of NF 100,000 for discounts and NF 50,000 for other forms of credit.

The Bank of France has thus been able to intervene on various occasions and call upon the banks to limit their assistance to the stock-fattening trade (1948), for the holding of stocks of wine (1948-1950 and 1957-1959), to the leather industry (1949), to the wool industry, for the importing of cotton, etc...:

— secondly, by the introduction at the end of the war of a system of medium-term credits for financing capital expenditure, which were rediscountable at the Bank of France. The latter takes part in the scrutiny of the files submitted by the banks to the Crédit National or the Caisse des Marchés de l'État and then decides whether or not it will agree subsequently to rediscount each of the credits considered; it is thus able to give priority to certain credits,

to eliminate others and, even, if the circumstances require it, to limit the total volume of that type of credit to the economy.

A more general form of intervention has consisted in drawing the attention of the banks to the necessity of bearing in mind, when considering applications from would-be borrowers, whether the loan applied for is in conformity with the Government's economic aims. The effectiveness of these directives was increased in 1947 by the introduction of a rule obliging the banks:

— to require their customers to submit a detailed file which could be called for by the Bank of France;

— to obtain the prior consent of the Bank for the opening of any credit which would bring the total accommodation provided to any one enterprise up to a predetermined level. This procedure was originally applicable to credits of 30 million francs or above, excluding guarantees, "avals", and the discounting of public securities and bills of a clearly commercial nature. The limit above which authorisation had to be obtained has been gradually raised and reached NF 10 million (one billion old francs) in 1959; on the other hand, the Bank has since 1951 extended its control to all forms of credit, including contingent liabilities by way of guarantee (engagements par signature) and commercial discounts.

Independently of these measures, the Conseil National du Crédit has subjected the financing of hire-purchase transactions to a special control applying to the duration of the credit, the minimum initial payment and the total amount which the specialised institutions are allowed to lend. The strictness of this control varies according to the circumstances. In September 1966 the duration of the credit was not to exceed 18 months for most types of goods and 21 months for new motor cars; the purchaser's initial payment was to represent 25% and 30%, respectively, of the purchase price; and the specialised institutions were forbidden to assume commitments totalling more than ten times the amount of their own funds.

It will be seen later in this article that the measures of selective control, which seemed in France just after the war to be the natural complement of the Government's intervention in the country's economic life and which in many cases are still undoubtedly effective, have proved incapable of overcoming inflation.

To conclude this section, attention should be drawn to the exceptional measures adopted in February 1958 to check the growth
of credits to the economy, namely the imposition of ceilings on the credit granted by each bank. The Conseil National du Crédit and the Bank of France called upon the banks to keep the total volume of their loans and advances within a limit corresponding to the arithmetic mean of the figures at which they stood on 30th September and 31st December 1957, a margin being allowed, however, for the growth in credits for financing exports. If the banks exceeded the ceiling allotted to them, they were penalised by a lowering of their rediscout ceiling at the Bank of France. At the same time the monetary authorities fixed a maximum for the medium-term credits provided by institutions other than banks (special building loans from the Crédit Foncier de France and loans from the Caisse Nationale du Crédit Agricole) or granted to nationalised enterprises.

This imposition of overall ceilings could only be regarded as an emergency measure — to quote the term applied by the Radcliffe Committee's report to the similar imposition of ceilings resorted to in the United Kingdom in the preceding years — and also as a temporary measure, since the structure of the banking system cannot be permanently fixed. It was therefore discontinued in February 1959. Nevertheless, it enabled the expansion of credit to the economy to be kept in check in 1958 and thus played a useful part in paving the way for the monetary reform of 29th December.

II. The Liquidity of the Banking System

1. The necessity of exercising control over bank liquidity has only become clearly evident in France since the last war. It is interesting to recall the way in which ideas on this subject have developed.

Until fairly recently the primacy of the discounting of commercial bills as a form of credit-granting was an accepted principle. It was agreed that the discounting of a bill drawn in connection with a sale of goods was a perfectly sound transaction and deserved to be encouraged so long as expansion was the primary aim of economic policy. Having long experience of the granting of credit, the Bank of France was able to adapt the extent of its accommodation both to the requirements of the monetary situation and to the individual position of each applicant, whether a direct customer or a banker. Thus even before 1948 it used to allot a rediscout ceiling to a certain number of small and medium-sized banks so as to keep their commitments within limits compatible with the safety of its own operations: but it did not fix any maximum for the big banks, which possessed substantial resources and only occasionally had recourse to rediscouting.

Immediately after the war the paralysis of the economy and the shortage of all kinds of goods, the considerable expansion of the money supply and the concomitant growth in bank liquidity, and the financial requirements of the reconstruction and re-equipment of the country confronted the Conseil National du Crédit, created by the law of 2nd December 1945, and the Bank of France with two equally urgent and sometimes contradictory tasks: to revive economic activity and combat inflation.

During a first phase, which lasted until the end of 1948, the primary aim of credit policy was to stimulate production, even at the risk of adding to the inflation.

Nevertheless, in an endeavour to control the creation of money, the monetary authorities tried to do two things:

— they reserved credit facilities as far as possible for enterprises whose activity was essential to the national economy; and
— they required that all applications for credit be backed by certain supporting evidence (balance sheet, profit and loss account, turnover, etc.).

This was the purpose of the selective or "qualitative" measures, described in the preceding section, which were introduced during this period.

These measures, which were aimed at preventing the abuse of credit, were not supposed to be capable of overcoming inflation. In fact, the putting into circulation of the idle funds accumulated during the war — between the end of 1938 and the end of 1945 sight deposits had increased sixfold and the note circulation fivefold — was by itself a powerful factor contributing to the expansion in total demand.

2. During a second phase which began with the second half of 1948, the gradual economic recovery, the disappearance of food shortages, the relaxation of controls in most fields (foodstuffs, prices,
wages, and transactions with foreign countries) necessitated the
pursuit of a more energetic anti-inflationary policy, since excessively
liberal credit-granting would have jeopardised the still fragile sta-
bility that had been attained.

The deterioration of the monetary situation in 1946 and 1947
had made it clear that the Conseil National du Crédit and the Bank
of France must henceforth exercise control over bank liquidity.

In the first place, experience has shown that a selective procedure
cannot be applied as easily to the discounting of trade bills as to
the granting of bank credits, since the drawer of a bill is more the
originator of the credit than the banker himself; enterprises which
would have difficulty in getting an overdraft can sometimes obtain
from their suppliers credits which the latter subsequently discount
at their own banks. For this reason the Bank of France, which had
since 9th January 1947 been favouring the discounting of bills drawn
in respect of sales of goods by applying to them a rate half a per-
centage point below the general rate, was obliged not only to
abandon this policy but also to impose a quantitative control on the
discounting of commercial paper and fix discount ceilings for all
banks without exception (directives dated 30th September 1948 issued
by the Governor of the Bank of France, Vice-President of the Conseil
National du Crédit).

It was also essential to ensure that the banks could not aug-
ment their cash holdings by disposing of their holdings of Treasury
paper (6). This was achieved by requiring the banks, as from
1st October, 1948, to keep at least 95% of the amount of public
securities for which they held on 30th September and to invest in public
securities 20% of any increase in sight and time deposits above the
level reached on 30th September 1948 (the system of lower limits
or “floors” (“planchers”) for holdings of Treasury Bills).

The Commission de Contrôle des Banques, for its part, approach-
ing the problem from a different angle, introduced by a decision
dated 21st February 1948 a “liquidity ratio” whereby it required
the deposit banks (banques de dépôts) to maintain a ratio of at least
60% between the amount of their liquid and realisable assets, on
the one hand, and that of their short-term commitments, on the

(6) Between 1st January 1946 and 31st December 1947 the banks had reduced their
holdings of public securities from 244 billion francs to 178 billion.

other. Despite the existence of the “floors” and “ceilings”, this
ratio includes in its numerator all the statutorily rediscountable
Treasury Bills and commercial bills held by the deposit banks.

It is thus clear that this ratio is not an instrument of credit
policy but a safety measure designed to ensure that holders of credit
accounts can withdraw their balances at any time. Nevertheless, it
helps the Bank of France to keep a check on the banks’ activities,
since they have to apply for a prior assurance of rediscount for
so-called “financial” paper (created to mobilise advances) if they
wish to include it in calculating the ratio (7).

3. The system of rediscount ceilings is provided with certain
safety valves justified by various reasons, notably the desire not to
create difficulties for banks required to pay out large quantities of
notes and the necessity of encouraging investment and therefore of
giving privileged treatment to medium-term credits (8).

The severity of the decisions of September 1948 was therefore
moderated from the outset, and still is, by measures designed to
leave the banks — beyond the ceilings and apart from the funds
which they can obtain from the Bank of France in the form of
30-day advances against public securities or, accessory to, loans
against other securities — various possibilities of recourse to redis-
counting:

— Firstly, the banks are still free to mobilise their medium-
term discounts; they can thus rediscount the bills in question at the
specialised institutions which have agreed in advance to take them
in (the Crédit National and the Crédit Foncier de France); these
subsequently pass them on either directly to the Bank of France
(in the case of bills endorsed by the Caisse Nationale des Marchés
de l’État and mobilisation bills in respect of claims on foreign
countries) or to the Caisse des Dépôts et Consignations, which redis-
count them at the Bank or keeps them as an investment, depending on its
own position, which in turn is influenced by that of the Treasury.

(7) For the big banks the liquidity ratio calculated according to the rules of the Com-
mission de Contrôle is in the region of 85%.

(8) There was also another reason for excluding medium-term credits from the system of
ceilings, namely the fact that the Bank of France can check the expansion of such credits by
being less generous in giving its prior consent.
The banks negotiate these bills at the privilege rate of 3% in the case of those mobilising claims on foreign countries, at the official discount rate in the case of credits to nationalised enterprises and credits for private capital development which bear the endorsement of the Caisse des Marchés de l'État and, lastly, at a slightly higher rate in the case of credits for private capital development rediscountable at the Crédit National and the Crédit Foncier de France. This means that they do not rediscount credits of the last-mentioned type until they have exhausted their other means of raising cash and that their holdings of bills rediscountable at the Crédit National and the Crédit Foncier tend to grow whenever there is an increase in their liquidity.

There are also other types of bills, apart from those representing medium-term credit, which are rediscountable outside the "ceilings", namely, bills drawn to mobilise claims in respect of exports and bills to finance the collection of cereals bearing the endorsement of the Office National Interprofessionnel des Céréales.

Lastly, in 1951 the Bank of France gave the banks the possibility of obtaining extra accommodation, of an exceptional and provisional nature, up to a limit of 10% of their rediscount ceilings, by putting commercial bills "en pension temporaire" at a rate above the official discount rate. Subsequently the Bank of France allowed lending against bills "en pension" beyond the 10% limit, but at an even higher penalty rate. The rates applicable to these two categories of "pensions" (referred to by bankers as "enfer" and "super-enfer") rose to 8% and 12% respectively in the course of 1958; in July 1959 they were reduced again to 5% and 6%.

There have been some changes in the levels of the rediscount "ceilings" and the "floors" for holdings of Treasury Bills since 1945. Firstly, the ceilings — which were greatly overstepped during the inflation which followed the outbreak of hostilities in Korea — were generally readjusted in 1953 and in June 1957 they amounted to about 620 billion francs, against 285 billion in October 1951. Subsequently, during the second half of 1957, the Bank of France lowered them by 35%, in three stages, in order to curb the inflationary effects of the advances which it had had to grant to the Treasury.

The "floors" for Treasury Bills, which on 30th June 1956, for all the banks taken together, represented about 21% of deposits, were uniformly fixed in July 1956 at 25% of the banks' current liabilities and the practice of relating them to the position in 1948 was abandoned.

5. These explanations of the origins and mechanism of the "ceilings" and "floors" will make it easier to understand the following table, which shows the liquidity reserves of the French banking system on 31st December of the years 1955 to 1959 and on 30th June 1960.

Apart from their liquid assets in the form of cash on hand and of balances with the Treasury and the Bank of France and on postal cheque accounts, the banks' first-degree reserves include the asset items which they can mobilise at any time under the regulations in force, without incurring a penalty, i.e. the available margins within the rediscount ceiling and the possibilities of borrowing on the money market, the holdings of Treasury Bills above the "floors" and bills for the mobilisation of medium-term credits. In practice, however, part of these reserves is not available; the banks keep their liquid assets at a very low level, so that their amount is virtually irreducible; and the same is true of part of their portfolios of bills rediscountable at the Bank of France — so much so that on 30th June 1956 the first-degree reserves genuinely mobilisable by the banks totalled no more than NF 4 billion.

The second-degree reserves consist mainly of the private short-term bills which can only be mobilised, subject to the prior consent of the Bank of France, by means of "pension" transactions at rates above the official discount rate ("enfer" and "super-enfer"). The banks do not resort to these "pension" operations except when it is absolutely necessary, and then only for the shortest periods and the smallest amounts possible. Moreover, if the placing of bills "en pension" were deemed excessive — in 1958 it amounted to no more than NF 1.18 billion — the Bank of France would decide to restrict it.

Lastly, the Treasury Bills held to satisfy the "floor" requirements may be regarded as constituting third-degree reserves. These reserves are actually not available and the monetary authorities would only allow them to be mobilised in exceptional circumstances (if, for instance, a bank were in difficulties owing to a panic among its depositors).
The variations in the liquidity of French banks in recent years are particularly interesting, since they clearly reveal the influence of the main factors which reduce or increase it: movements of gold and foreign exchange, public demand for notes, and the position of the Treasury (see graph on opposite page).

**LIQUIDITY RESERVES OF THE FRENCH BANKING SYSTEM**

<table>
<thead>
<tr>
<th></th>
<th>31/12/1955</th>
<th>31/12/1956</th>
<th>31/12/1957</th>
<th>31/12/1958</th>
<th>31/12/1959</th>
<th>30/6/1960</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First-degree liquid resources:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Cash on hand, available balances with the Treasury and the banks of issue and on postal current accounts</td>
<td>1.35</td>
<td>1.70</td>
<td>1.88</td>
<td>1.94</td>
<td>1.96</td>
<td>1.69</td>
</tr>
<tr>
<td>2) Possibilities of financing by direct recourse to the Bank of France:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>— available margins within ceilings (private bills rediscountable at the B. of F. or negotiable on the money market)</td>
<td>0.93</td>
<td>0.39</td>
<td>0.60</td>
<td>0.64</td>
<td>0.88</td>
<td>0.72</td>
</tr>
<tr>
<td>— holdings of Treasury paper above the «floor»</td>
<td>0.92</td>
<td>0.39</td>
<td>0.40</td>
<td>0.23</td>
<td>0.34</td>
<td>0.26</td>
</tr>
<tr>
<td>3) Banks' holdings of bills rediscountable without limitation at the B. of F.:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Endorsed cereal-collection bills, claims in respect of exports and miscellaneous (1)</td>
<td>0.65</td>
<td>0.65</td>
<td>0.60</td>
<td>0.64</td>
<td>1.15</td>
<td>0.91</td>
</tr>
<tr>
<td>(b) Medium-term bills rediscountable at the Crédit National, the Crédit des Dépôts et Consignations and the Crédit Foncier de France</td>
<td>2.20</td>
<td>2.35</td>
<td>0.51</td>
<td>0.51</td>
<td>4.15</td>
<td>3.24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.25</td>
<td>3.71</td>
<td>1.51</td>
<td>1.51</td>
<td>5.27</td>
<td>4.18</td>
</tr>
<tr>
<td><strong>Second-degree liquid resources:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Banks' holdings of short-term bills which can be put at a «floor» or at penalty rates</td>
<td>9.05</td>
<td>11.59</td>
<td>15.03</td>
<td>15.04</td>
<td>19.36</td>
<td>20.61</td>
</tr>
<tr>
<td>2) Negotiable long-term securities (1)</td>
<td>0.31</td>
<td>0.41</td>
<td>0.10</td>
<td>0.10</td>
<td>0.66</td>
<td>0.66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9.36</td>
<td>11.99</td>
<td>15.13</td>
<td>15.14</td>
<td>20.02</td>
<td>21.27</td>
</tr>
<tr>
<td><strong>Third-degree liquid resources:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treasury bills held by the banks under the «floor» regulations</td>
<td>5.16</td>
<td>6.31</td>
<td>6.59</td>
<td>6.71</td>
<td>8.20</td>
<td>9.56</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td>20.73</td>
<td>22.02</td>
<td>27.59</td>
<td>27.55</td>
<td>37.86</td>
<td>37.67</td>
</tr>
</tbody>
</table>

(1) Estimate.
6. In 1956 and 1957 the money market came under strong pressure mainly owing to the outflows of gold and foreign exchange (over NF 7 billion in two years). At the same time the note circulation increased, but only to a moderate extent (2.61 billion in 1956, 1.54 in 1957), the economic situation having caused individuals and heads of firms to reduce the relative size of their cash holdings:

Altogether, the tightness of the market, despite the easing at the end of the period as a result of the devaluation of August 1957, caused a substantial increase in the accommodation provided by the Bank of France to the economy (NF 7 billion) and the Treasury (4.9 billion). The two years contrast with one another, however, in the following respect:

- In 1956 the Treasury received a large volume of funds, mainly owing to the raising of the minimum holdings of Treasury Bills to 25% of the banks' current liabilities in July, the issue of the "national loan" in the autumn and the rediscounting of special building loans by the Caisse des Dépôts at the end of the year. Altogether, the public sector's indebtedness to the Bank of France increased by some NF 2 billion (see accompanying graph), but there was actually a slight decline in the direct facilities extended by the Bank of France to the Treasury (mainly in the form of advances).

The banks, on the other hand, were affected by the withdrawals of funds from the market resulting from the outflows of foreign exchange and the demand for notes, as well as from the transfers of liquidity to the Treasury in connection with the raising of the "floors" and the issue of the loan. Their indebtedness to the Bank of France rose by several billion NF — including, on 31st December, liabilities incurred at penalty rates (discounts "en pension" or within the "enfer" margin) totalling NF 743 million — and the volume of their first-degree liquidity resources decreased by more than NF 2.5 billion.

- In 1957 the Treasury did not obtain such a large amount of funds as in 1956 from savings and the money market; it had considerable difficulty in covering a cash deficit of the same order of magnitude as that of the previous year and had to ask for an increase of NF 5.5 billion in the advances from the Bank of France (of which NF 4.5 billion was used during the year) at a time when the monetary authorities were embarking on a policy of severe credit restriction involving the lowering of the rediscount ceilings (June-November) and a raising of rates (the discount, "enfer" and "super-enfer" rates).

The banks, for their part, benefiting from the liquidity which flowed into the market from the Treasury, were able to meet the Bank of France's demands and also to reduce their indebtedness to the Bank by the end of the year — even though it reached a very high figure in April — to a level near that of 31st December 1956, while at the same time beginning, despite the lowering of the rediscount ceilings, to build up again their first-degree liquidity reserves.

7. In 1958 the indebtedness of the banks and the Treasury to the Bank of France remained more or less unchanged, the purchases of gold and foreign exchange in the second half of the year having offset the effect on the money market of the withdrawals of notes.

In 1959 substantial inflows of foreign exchange coincided with almost complete stability of the note circulation. An increase in personal cash holdings is itself a normal phenomenon immediately after a period of inflation, but, for the reasons already mentioned, practically the whole of it took the form of a growth in bank balances. During the year sight deposits rose by nearly NF 9 billion and time deposits by NF 1.5 billion, which enabled the banks at one and the same time to reduce their commitments to the Bank of France by NF 3.75 billion, to increase their holdings of first-degree liquid assets by NF 4 billion (mainly by cutting down their rediscounting of medium-term credits) and, of course, to subscribe for Treasury Bills so as to comply with the "floor" requirement (g).

The Treasury itself obtained a larger amount of funds from the money market and from liquid savings than in 1958 and was consequently able to reduce its indebtedness to the Bank of France by NF 3.60 billion.

Lastly, the Caisse des Dépôts was able to carry a larger amount of bills representing medium-term credits, whereas during the difficult periods it had passed nearly all of them on to the Bank of France so as to be able to augment the resources of the Treasury.

The decline in the accommodation provided by the Bank of France did not follow a parallel course in the case of the banks and in that of the Treasury. Up to the end of August 1959 the banks' cash

(g) Part of the adjustment of the banks' holdings of public securities, corresponding to the end-of-year increase in deposits, took place at the beginning of 1960.
holdings benefited more from the balance-of-payments surpluses than did the Treasury. From September 1959 onwards and in the first half of 1960 it was the other way round: the reduction of the public sector's indebtedness was accelerated, while the banks — whose customers' credit requirements were in fact fairly heavy at the end of 1959 — were obliged to increase their indebtedness again quite appreciably and had to rediscount a larger proportion of their holdings of medium-term bills.

What happened in 1959 and the first half of 1960 shows that the part played by the "floor" system since 1958 has been similar to the function performed by a system of compulsory reserves. The amount of approximately NF 3 billion which has been channelled into the public coffers in eighteen months through the banks' obligatory subscriptions to Treasury Bills has enabled the Treasury to reduce its indebtedness to the Bank of France and has ultimately been sterilised from the monetary point of view.

A system of minimum holdings can therefore sometimes have a similar effect on bank liquidity to that produced by a system of reserves. But this result is achieved only if public expenditure is kept within predetermined limits and is met by means other than the creation of money. Otherwise the proceeds of the banks' subscriptions to Treasury Bills will be reintroduced into the economic circuit by the State and will — at least in part — find their way back to the banks.

Conclusion

A study of the methods of control which can be applied in France shows that it is very difficult to exert a direct influence on the volume of the liquid resources held by the public.

The memory of the inflation periods of 1951-1952 and 1956-1957 might, moreover, give rise to doubts as to the effectiveness of the measures employed both to influence the money supply via the distribution of credit to the economy and to restrict bank liquidity. How is it possible, it will be asked, for a credit policy with such far-reaching means of action at its disposal to have proved so disappointingly ineffective that in ten years wholesale prices have gone up, in a series of waves, by nearly 75% and retail prices by 85%, while the purchasing power of the franc has declined by more than 40%?

To be fair one must really take into account the magnitude and number of the burdens which France has had to bear since the war: the immense effort of reconstruction and capital development, the military expenditure and the outlay on aid to overseas countries, which have added to the deficit in its public finances. In such circumstances it was difficult for monetary policy to achieve all its aims.

Nevertheless the curbs imposed at various times on the granting of credit and on bank liquidity — especially in September 1948, in 1951 and in 1952-1956 — have indisputably played an important part in re-establishing equilibrium.

True, the effectiveness of the system of "floors" for holdings of Treasury Bills and of rediscount "ceilings" has been mainly due to the fact that the banks have for the last fifteen years or so been constantly in debt to some extent to the Bank of France. What would happen if as a result of further substantial balance-of-payment surpluses, or even the unfreezing of part of the hoarded gold in the country, the money market were to become so easy that the banks could discharge their liabilities to the Central Bank? Ought not the latter to be provided with additional means of action?

The monetary authorities are aware of the problem.

The Conseil National du Crédit recently took a first step with a view to increasing the effectiveness of changes in the official discount rate. It decided that the banks' minimum terms for discounts and advances should in future be linked to a basic rate distinct from the Bank of France's discount rate.

This basic rate, to which variable or fixed charges are added as hitherto, is:

— equal to the official discount rate so long as this remains between 3 1/2 % and 4 1/2 %;

— equal to 3 1/2 % less half the difference between 3 1/2 % and the official rate if the latter is reduced below 3 1/2 %; and

— equal to 4 1/2 % plus half the difference between 4 1/2 % and the official rate if the latter is above 4 1/2 %.

Thus, if the discount rate were increased from 4% to 6%, the rate governing the whole scale applicable to bank lending would be raised to 4 3/4 %, i.e. by 3/4 % instead of 1%.

This means that in a period of dear money the banks' remaining profit margin when they have recourse to rediscounting is reduced, so that it is in their interest to make greater efforts to cut
down their lending to the economy than in the past, when they were able to pass on discount rate increases in full to their customers. Conversely, in periods of easy money the cost of bank credit will decline less rapidly than the official rate, so that the banks will find it to their advantage to lend out more funds at interest.

The Conseil National du Crédit was also informed last year that investigations were being carried out with a view to the possible introduction of a system of compulsory reserves. It is now probable that the monetary authorities would be more inclined to choose a different method which would make it possible to reduce, if necessary, the volume of the banks’ first-degree reserves.

HENRI FOURNIER

Paris

N.B. — Since the above article was written the Conseil National du Crédit has decided (on 6th October 1950) to introduce a "cash ratio". This will be fixed by the Bank of France and will enable it to require the banks to maintain a minimum ratio between certain of the items composing their liquid or mobilizable assets, on the one hand, and the main items of their current liabilities, on the other.

The Credit Council’s decision is designed to supplement the system, described above, of minimum holdings of Treasury Bills and rediscount ceilings. For the monetary authorities will now only have to include bills representing medium-term credit in the numerator of the cash ratio in order to reduce as may be deemed necessary the amount of the assets which the banks can pass on without incurring a penalty to the Bank of France or the first-stage rediscounting institutions.

H.F.

Technical Progress, the Production Function and Dualism

1. Introduction

While a great deal has been written in recent years on the problem of economic dualism (*), rather little has been done to connect it with the nature of technical progress. The purpose of this paper is to suggest a view of the production function and its relation to technical progress which may lead to insights into our understanding of the phenomenon of economic dualism.

By economic dualism I have in mind the phenomenon that one segment of a country develops very much more rapidly than another. With respect to Italy, the differential development of the North and South is well known. Clearly it is a phenomenon that is common to a great many underdeveloped countries. The more


I am very much indebted to Professor Howard S. Ellis for letting me read an unpublished review paper of his on the question of dualism, and especially for his helpful comments on this paper.