

ESSAYS IN INTERNATIONAL FINANCE

No. 43, September 1963

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MONETARY POLICY IN AN OPEN  
ECONOMY: ITS OBJECTIVES,  
INSTRUMENTS, LIMITATIONS, AND  
DILEMMAS

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MARIUS W. HOLTROP



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS

PRINCETON UNIVERSITY

Princeton, New Jersey

*This is the forty-third number in the series ESSAYS IN INTERNATIONAL FINANCE published from time to time by the International Finance Section of the Department of Economics in Princeton University.*

*This essay is based on a Memorandum Submitted to the Canadian Royal Commission on Banking and Finance in August 1962 and is published in this series with the permission of the Royal Commission. The International Finance Section previously published, as ESSAY No. 42, the Memorandum submitted by the late Sir Dennis Robertson, with a foreword containing a description of the mandate of the Royal Commission and of the project of this Section to publish some of the Memoranda of Evidence.*

*The author of the present essay, Dr. Marius Wilhelm Holtrop, is President of De Nederlandsche Bank. He has also been President of the Bank for International Settlements and Chairman of its Board of Directors since 1958. He was Alternate Governor of the International Monetary Fund from 1947 to 1952, and has been a Governor since then. As an economic theorist, Dr. Holtrop is best known by his important study on "The Velocity of Circulation of Money," and by his valuable contributions to the analysis of monetary problems contained in the annual reports of De Nederlandsche Bank and in several articles in economic journals.*

*Dr. Holtrop's Memorandum is here presented in a revised and elaborated version: he has eliminated restatements of the original questions asked by the Royal Commission, divided the essay into sections, and added a new first section on the monetary theory behind the approach to monetary problems. In order to indicate that this essay is not a literal reproduction of the Memorandum to the Commission, Dr. Holtrop has given it a new title.*

*The Section sponsors the essays in this series but takes no further responsibility for the opinions expressed in them. The writers are free to develop their topics as they will. Their ideas may or may not be shared by the editorial committee of the Section or the members of the Department.*

*The submission of manuscripts for this series is welcomed.*

FRITZ MACHLUP, Director  
International Finance Section

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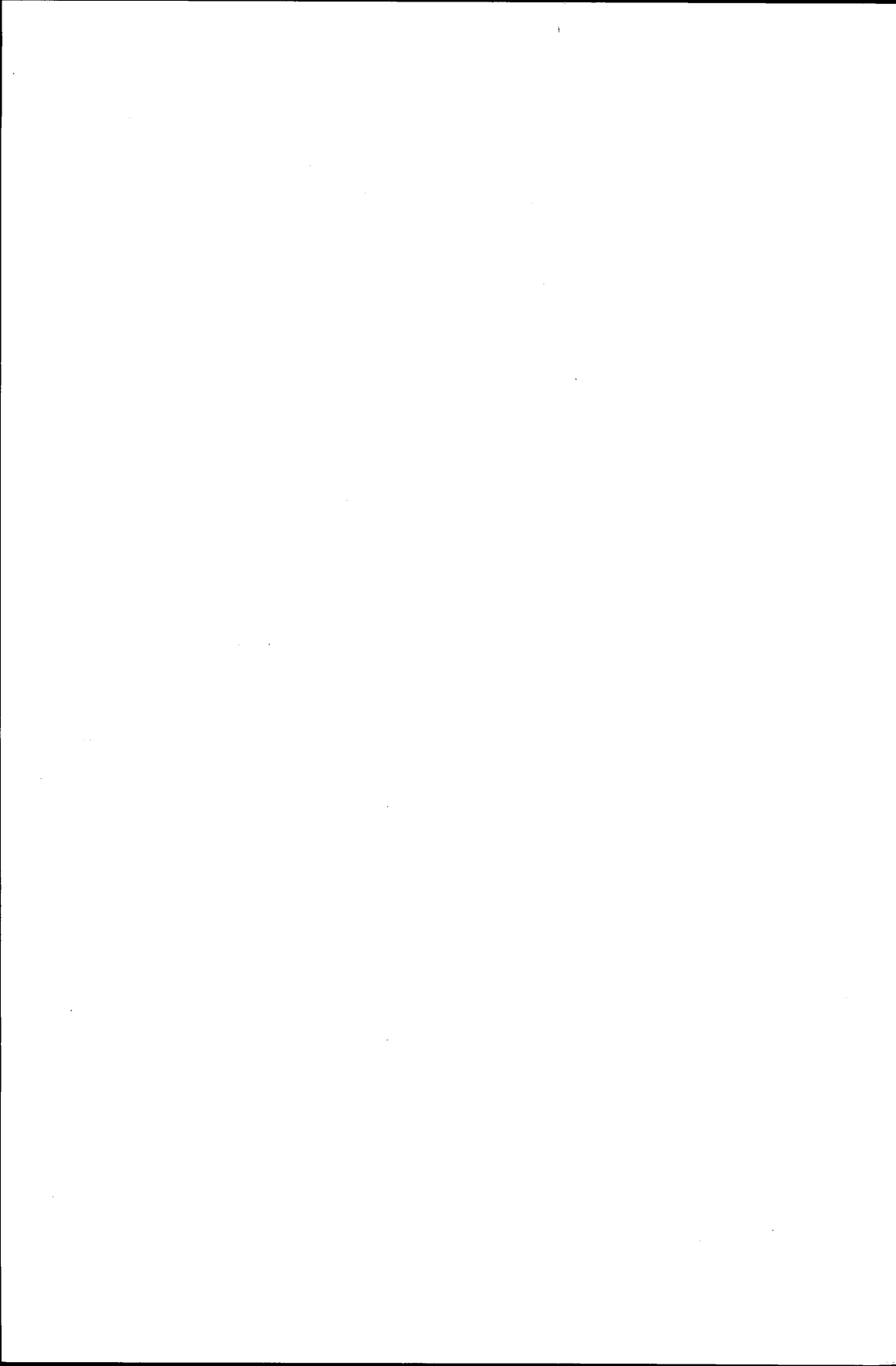
## INTRODUCTORY NOTE

The following essay essentially represents a somewhat revised version of the Memorandum of Evidence submitted by the author, in the summer of 1962, to the Canadian Royal Commission on Banking and Finance in reply to a number of questions laid before him. An introductory section on the theoretical background of the author's approach to the monetary problems has been added and in some places the argument has been somewhat elaborated—more especially in sections III and V—but in general the original has been preserved. Consequently the course of the argument continues to bear the imprint of the questions originally put before the author by the Royal Commission.

It is hoped that publication in the present form may be helpful in familiarizing the general reader with some of the problems and some of the dilemmas of monetary policy, as these present themselves to one who, as a central bank president, actually has to play a part in monetary management.

M.W.H.

Amsterdam, March 1963





# I. ON THE MONETARY THEORY BEHIND MONETARY POLICY

## 1. *Ultimate aim of monetary policy*

Monetary policy is the art of managing money. Money must be managed because its very use introduces a potential threat to the stability of the economic system. For the use of money enables economic subjects to create a time lag between their acts of supplying goods and services to the market and their acts of purchasing goods and services from the market. Consequently, in a given time period, total spontaneous supply and total spontaneous demand may not be equivalent, as they would necessarily be in a barter economy. The fact that money, received for services rendered, may indefinitely be hoarded, or at a later moment again dishoarded, and the fact that newly created money may be injected into the flow of spending, thus reflecting a demand for goods and services not matched by a commensurate supply, means that the use of money creates the possibility of disturbances in the regular circuit flow of demand and supply. The ultimate aim of monetary policy should be to cancel out such disturbances if and when they occur, thus assuring a steady flow of total demand that will continually absorb the steady flow of total supply. Under conditions of perfect competition, this is bound to be accompanied by the full utilization of available productive resources.

Monetary policy, however, cannot adopt the control of the flow of total demand as its immediate objective, because of the impossibility of directly observing the totality of the acts of spontaneous hoarding—that is, of spontaneous accumulation of cash or, in a somewhat wider sense, of liquidity—and of spontaneous dishoarding for which it is supposed to compensate. If such observation were possible, the sole objective of monetary policy could be defined as one of regulating the activities of the banking system and the financing of government in such a way that the net creation of money (or liquidity) in a given period of time will be equal to net spontaneous hoarding of money (or liquidity) in that same period. Since, however, direct observation of the totality of spontaneous hoarding and dishoarding is not possible, the monetary managers can only be guided by observing the net effects on the economy of the total of monetary impulses, that is, of net spontaneous hoarding (or dishoarding), on the one hand, and of net liquidity creation (or contraction), on the other.

## 2. *Monetary equilibrium in a closed economy*

In a closed economy (one with no foreign trade), an excess of spontaneous hoarding (negative monetary impulses) will necessarily lead to a fall in total money income. Under conditions of perfect competition, this fall in national income may be assumed to translate itself into a fall in the level of prices and incomes, without a fall in the volume of production. In reality, where perfect competition does not exist, and least of all in the sphere of income formation, the volume of production will be affected in a downward direction. A new equilibrium will only be established (that is, the downward movement of national income will only come to a stop) when the fall of income, which may be assumed to be accompanied by a proportionate fall in cash or liquidity requirements, has generated a sufficient amount of induced dishoarding to match the initial spontaneous hoarding that started the monetary disturbance. Contrarily, an excess of liquidity creation by credit expansion or deficit financing, or an excess of spontaneous dishoarding, will show up in a rise of total income, that is, in a rise of the level of prices and incomes, and—provided unused productive resources are available—in an increase of productive activity. This rise of income will come to a stop when it has generated an amount of induced hoarding—satisfying the increased liquidity requirements that normally accompany a rise of income—sufficient to match and absorb the initial excess of liquidity creation or of dishoarding.

It follows that, in a closed economy, the only state in which the level of prices and incomes will not be affected by monetary disturbances is the state in which net liquidity creation equals net spontaneous hoarding, that is the state of what may be called "monetary equilibrium." It is in this state only that the goal of stability of the value of money can be attained. Whether that stability is defined as stability of the level of prices or as stability of the level of incomes is a matter of choice. The general preference is for the first definition. This means that the gradual rise in labor productivity which results from technological and organizational development must be allowed to translate itself into a commensurate rise in the level of wages. It also means that the volume of hoarding that will necessarily accompany such a rise in the wage level, in order to provide for the additional cash or liquidity requirements, is to be considered part of the spontaneous hoarding for which monetary policy must compensate by sufficient liquidity creation. It finally means that monetary policy, in a closed economy, may safely consider the stability of the price level as the indicator that most truly shows whether the desired state of monetary equilibrium is actually attained. As a secondary

criterion it may use the volume of employment, the movement of which, however, will only be indicative of disturbances of a monetary nature when it is in the same direction as the movement of prices.

That the movement of prices, in a closed economy, is for all practical purposes a sure indication of monetary disturbance—whereas the movement of employment would be so only if it coincided with the movement of prices—can be explained as follows. The general price level can rise for nonmonetary reasons only when there is a general scarcity of goods. This is a phenomenon that may still occur in a predominantly agricultural economy, and it would be a mistake to interpret such a phenomenon as a monetary disturbance and try to combat it by deflationary monetary policies. In predominantly industrial economies, with their prevailing trend of ever-increasing productivity, a general scarcity of goods will only occur in cases of catastrophe, such as war. In such an economy a general rise (or drop) of the price level is almost sure to indicate causes of a monetary nature, unless accompanied by stability of employment and stability of the level of incomes. In that case the drop in prices may be the result of increased productivity, not accompanied by an increase in the income level.

The movement of employment may be taken to confirm the monetary causation of a movement of prices if it goes in the same direction—that is, rising prices with rising employment or falling prices with falling employment. If, however, in a closed economy, unemployment tends to increase, while at the same time prices and incomes tend to rise, it is most unlikely that monetary causes are at work. We must then rather suspect that imperfect competition in the labor market has led to too high a wage level to be consistent with full employment. Combatting such unemployment with expansionary monetary policies would not mean trying to maintain monetary equilibrium. It would mean employing the monetary technique of generating demand inflation in order to restore full employment in the face of monopolistic wage developments. Such a policy might be successful, but it would unavoidably lead to a certain measure of price inflation.

### 3. . . . and in an open economy

We have been thinking so far of monetary phenomena in a closed economy. The complication now has to be faced that monetary policy actually does not work in a closed economy, but only in open economies. This means in economies which, to a smaller or larger extent, are linked with the outside world through international trade. Because of the general adoption of a system of fixed rates of exchange, maintained

by the joint action of monetary authorities of the participating countries, international trade has important reverberations in the monetary field. For the monetary authorities, by their willingness to buy freely any excess of foreign exchange that might be earned in foreign trade, and to supply freely any amount of foreign exchange that might be demanded, have created a situation in which in external trade, as in internal trade, total supply and demand of foreign exchange need no longer match. Consequently, any excess of exports of goods and services over imports not matched by a commensurate export of capital, and any excess of imports over exports not neutralized by the import of capital, have become monetary phenomena with the same impact on the economy as net liquidity creation and net spontaneous hoarding, where excess exports or imports are of an autonomous character, and with the same absorbing effect as any induced dishoarding or hoarding, where excess exports or imports are the result of internal monetary disturbances.

Thus, in an open economy, foreign trade and international capital movements, by bringing about balance-of-payments surpluses or deficits, add another variable to the monetary equation. The state of internal monetary equilibrium, the attainment of which was taken to be the ultimate aim of monetary policy, must, for the open economy, be redefined as the situation in which net spontaneous hoarding is matched by the sum of net internal liquidity creation and of autonomous balance-of-payments surplus.\*

#### 4. *Induced and autonomous foreign deficit*

A further word should be said, perhaps, about the difference between an induced and an autonomous balance-of-payments surplus or deficit. It must be clear that in an open economy any internal monetary disturbance will have a balance-of-payments effect, generally proportionate to the marginal import quota. Any spontaneous dishoarding, or any excess of liquidity creation, will necessarily affect import demand as well as home demand without directly influencing exports. It will thus lead to a larger external deficit or to a smaller external surplus and to a drop in monetary circulation. This loss of liquidity will perform exactly the same function of absorbing part of the effect of the initial inflationary impulse as the induced hoarding that occurs simultaneously in reaction to the rise in national income.

An autonomous increase in imports, or a drop in exports, on the

\* Balance-of-payments surplus, in this connection, is to be defined as national liquidity surplus, that is, total balance-of-payments surplus on current and capital account exclusive of external transactions of the money-creating institutions.

other hand, due for example to shifts in demand, will create a balance-of-payments deficit that has the same impact on the economy as a credit contraction or as a bout of spontaneous hoarding. Such an autonomous deficit, therefore, has the character of a spontaneous monetary impulse.

It is certainly not always easy to determine whether or to what extent an actual surplus or deficit is autonomous or induced. Yet, this may be recognized by the accompanying circumstances. An autonomous surplus will occur in an inflationary atmosphere which cannot be attributed to any internal excess of credit creation, as the latter would lead to deficit, not surplus; it will be accompanied by a tendency to rising prices and overemployment. An induced surplus, on the other hand, will occur in a deflationary atmosphere, accompanied by recession and underemployment. The reverse, of course, is true for autonomous and induced deficits.

Thus, monetary policy finds in the balance-of-payments position an additional indicator, the movement of which, in relation with concurrent internal developments, will clarify the state of internal monetary equilibrium.

#### *5. Dilemma between internal and external equilibrium*

An open economy and a fixed rate of exchange, together with the possibility of autonomous surpluses and deficits, create for monetary policy a completely new situation, in which it can no longer strive exclusively to maintain internal monetary equilibrium. As has already been observed, it is the monetary authorities who are held responsible for exchange parity; it is they who manage exchange reserves. It is consequently they, who have to follow, within their field of action, such policies as protecting reserves against depletion, and who have to help, because of national as well as international responsibilities, in preventing the unrestricted accumulation of reserves.

It appears, however, that monetary policies directed towards protecting reserves against an autonomous foreign deficit are, generally, inconsistent with monetary policies directed towards maintaining internal monetary equilibrium. Since, as has already been observed, in an open economy monetary equilibrium is a state in which net spontaneous hoarding must be equal to the sum of net internal liquidity creation and autonomous foreign surplus, it follows that, in order to maintain internal monetary equilibrium, a spontaneous foreign deficit would have to be matched by internal liquidity creation of the same magnitude. Obviously such a policy, while maintaining monetary equilibrium, would

likewise perpetuate the deficit and lead to exhaustion of reserves. If monetary policy, therefore, wants to defend reserves against an autonomous foreign deficit, it must to some extent abandon trying to maintain internal monetary equilibrium. If it sticks to maintaining internal monetary equilibrium, it cannot completely stop the loss of reserves. It is here that monetary policy meets its most agonizing dilemma.

It must be concluded that an autonomous foreign deficit, for all practical purposes, cannot be eliminated by purely monetary measures without prejudice to internal monetary equilibrium. Ultimately other policy measures apt to affect international trade and capital movements in the desired direction—be they in the field of income policy, tax policy, trade policy, or other—or developments in the outside world working in the right direction—such as cost and price increases in reaction to a persistent balance-of-payments surplus—will have to play their part in restoring international equilibrium conditions.

An induced foreign deficit, on the other hand, will completely disappear when internal monetary equilibrium is reestablished; it therefore can be fully controlled by monetary policies alone. It follows that the identification of the autonomous or the induced character of a foreign deficit or surplus is of the utmost consequence for the proper handling of monetary policy.

## II. ON THE OBJECTIVES AND INSTRUMENTS OF MONETARY POLICY

### I. *Objectives of monetary policy*

Approaching the problem from a practical instead of a theoretical point of view, I am inclined to say that the primary objective of monetary policy can best be formulated as that of maintaining, under conditions of reasonably full employment, the internal and external value of the monetary unit, or, in other words, stability of the price level and stability of the exchange rate.

The twofold objective, thus stated, implies one of the important dilemmas of monetary policy: the possibility of authorities having to choose between giving priority to either part of the objective.

Actually, simultaneous realization of stability of prices and stability of exchange rates is possible only under conditions of neutrality in the outside world, and even then may run into snags. If these conditions of neutrality do not exist and if a country has to face inflationary or deflationary pressures coming from abroad, monetary authorities cannot,

in the long run, avoid choosing between internal and external stability. There is no a priori rule as to which of the two should prevail.

Another potential dilemma of monetary policy lies hidden in the presupposition of the existence of reasonably full employment.

If such a situation does not exist, this may have been caused by failure or deficiency of monetary policies in the past. If so, it is likely that a positive monetary policy can restore full employment without prejudice to its primary objective. It is also possible, however, that the situation of underemployment is due to external causes, or to internal developments in other than the monetary field. In such a case, using monetary policy to try to restore full employment may very well lead to a clash with the primary objective of price and exchange stability.

It is for this reason that I do not think the attainment and maintenance of full employment should be included among the primary objectives of monetary policy, even though they must, of course, be considered among the foremost objectives of economic policy generally. The inclusion of full employment as a primary objective tends to create the illusion that monetary policy is the proper instrument to combat any and all types of underemployment. This is not so. Only underemployment caused by a general decline of demand, or a lagging of demand in proportion to growing resources, can be successfully fought with monetary measures.

## *2. Essential characteristics of monetary policy*

Monetary policy consists essentially in exerting an influence on the present and future volume of total national expenditure by controlling the internal creation of liquidity, that is, the creation of money (primary liquidity) and of near-money (secondary liquidity).

Monetary policy may also exert some influence in the same field by manipulation of the rate of interest, so as to influence the net import or export of capital. The latter activity is most likely to be successful when directed to the manipulation of the short-term rate, thus exerting an influence on the movement of short-term capital. The main objective, though, may then be to increase or decrease foreign-exchange reserves rather than influence the volume of national expenditure.

In order to prevent an inflationary excess of total expenditure—which would lead to overemployment, an upward pressure on prices, and a balance-of-payments deficit, in the long run endangering exchange stability—as well as a deflationary deficiency of total expenditure—which would lead to underemployment, a downward pressure on prices,

and a balance-of-payments surplus—monetary policy must strive to maintain the flow of total expenditure at an optimum level.

To fulfill equilibrium conditions this level should be such that the part of total expenditure spent *abroad* will equal foreign demand in the home market, plus net capital imports, and that the part spent *internally* will just manage to buy sustainable output at current prices, less exports. Thus price stability, balance-of-payments equilibrium and therefore exchange stability, and full employment will simultaneously be assured.

The several dilemmas with which monetary policy may be faced result from the fact that not the same level of total expenditure may satisfy all the conditions just set forth.

The level of total expenditure, the domestic part of which will just buy sustainable output less exports, may induce a level of imports that exceeds the total of exports and net capital imports (or the amount of exports less net capital exports, as the case may be) and thus lead to a balance-of-payments deficit. The lower level of total expenditure needed to reduce imports to the sum of exports plus net capital imports may not satisfy the condition of full employment. Increasing the level of exports may require a lower level of cost than can be induced by monetary policy. Increasing net capital imports may be possible by increasing interest rates but may, in the long run, create balance-of-payments difficulties by the burden of debt service.

Thus we must conclude that, though it is easy to define the ideal set of equilibrium conditions, reality will force monetary policy, even strictly within the limits of its own objectives, to aim at compromise.

### 3. *Instruments of monetary policy and the authorities who control them*

The techniques available to monetary policy toward maintaining the conditions of full internal and external equilibrium described above consist in

(a) regulating quantitatively the creation of money, and to a certain extent also of near-money, with the purpose of directly influencing the volume of total expenditure; and

(b) manipulating the level of interest rates, or the relationship between short-term and long-term rates, particularly by working on the short-term rate, with the purpose of

(1) influencing the public's and the business community's propensity to spend, with the purpose of thus indirectly influencing the volume of total expenditure;

(2) influencing ways of financing, both active and passive—that is, the choices between borrowing long term or short term, and



between lending, respectively investing, long term or short term—with the purpose of thus influencing the volume of liquid wealth held in the form of money and near-money; and

(3) influencing the net import or the net export of capital, so as to buffer the balance-of-payments consequences of changes in the propensity to import and/or changes in the demand for exports.

In regulating the creation of money and near-money the aim of monetary policy—unless considerations of external equilibrium should intervene—must be to allow the creation of a sufficient volume of money and near-money to compensate the net loss of expenditure that will result from the joint effect of

(a) spontaneous additions, held back out of the current flow of income, to the average stock of money and near-money, held by the public and the business community, that will necessarily accompany any growth of real income;

(b) spontaneous additions to the liquid holdings of the public and the business community that will result from any drop in the economy's propensity to spend; and

(c) spontaneous withdrawals out of the liquid holdings of the public and the business community, to finance additional expenditure, that will result from any increase in the economy's propensity to spend.

Though one may thus, conceptually, nicely define how monetary policy ought to compensate exactly fluctuations in effective demand which are due to the possibility of hoarding and dishoarding money, it actually is impossible to observe these fluctuations closely. Monetary policy must therefore rely on indirect indications to judge the adequacy of current money creation. It therefore can, at very best, only approximately succeed in maintaining the flow of total expenditure at its optimum level. Fluctuations in induced investment—that is, in inventories, in foreign-exchange reserves and in actual production—will buffer the impact of fluctuations in total expenditure that monetary policy has been unable to prevent.

Apart from creation of money by external causes through balance-of-payments surplus—or cancellation through deficit—actual internal creation of money and near-money will, generally, be achieved by the private banking system and, possibly, by other deposit-taking institutions, by way of financing some part of the expenditure of the private or the public sector out of deposits with a money or a near-money character.

Money creation may, however, also take the form of direct recourse by the government to the central bank or to the money market. Recourse

to the central bank would, of course, mean actual creation of money. Recourse to the money market might mean money creation if the banking system took the paper; it would mean creation of near-money if the paper were taken by the public.

The power of monetary authorities to regulate the creation of money and of near-money depends largely on their power to control, by direct or indirect means, the credit and investment policies of the money-creating institutions. This power of control is generally vested in the central bank.

By direct recourse to the money-market the government can, however, also exercise a direct influence on the process of creation of money and near-money. Likewise important is the power of the government to exert a contrary influence, namely that of cancelling money. It can do so by accumulating surplus out of current income and using such surplus to repay debt to the central bank or the banking system. It can do the same by borrowing in the capital market in excess of financing requirements.

It follows that monetary policy does not consist only of the policy of the central bank. It includes that part of budgetary policy which is concerned with the choice between the financing of government expenditure, in excess of income from taxation, out of capital-market or out of money-market resources. It also includes that part of debt-management policy which is concerned with the choice between consolidation or deconsolidation of outstanding debt.

Consequently the responsibility for monetary policy cannot be considered to be a responsibility of the central bank only. The responsibility of the government will always be involved, also in those cases where the government does not share in ultimate responsibility for central-bank policy proper.

The possibility that monetary authorities manipulate the rate of interest to a certain extent is based on

(a) the power of the central bank to fix the rate at which it is willing to make its own credit available to the market;

(b) the influence the central bank may exert on market conditions by its open-market policies; and

(c) the influence the government may exert on market conditions as one of the principal borrowers.

Manipulation of the rate of interest can be expected to influence the present or future volume of total expenditure in so far as

(a) higher short-term rates will tend to lessen demand for bank loans;

(b) higher long-term rates may cause certain investment projects to become unattractive; and

(c) higher long-term rates will depress capital values and may for this and other reasons lessen the propensity to spend.

Lower rates can be expected to have an opposite influence.

On the other hand it must be taken into account that

(d) higher short-term rates will cause shifts from money holdings to near-money holdings, which may increase opportunities for financing additional expenditure; and

(e) higher rates generally, will tend to attract foreign short-term and long-term capital, which will increase opportunities for financing expenditure while, at the same time, improving the balance of payments.

Countereffects (d) and (e) lessen the usefulness of the rate of interest as an instrument of monetary policy, except that the combination of effects (a) to (c) with balance-of-payments effect (e) may precisely be desired.

The fact that the restrictive effect on total expenditure of an increase in the rate of interest may be doubtful does not mean that in case of a tendency to overexpenditure an increase of interest rates could be avoided. If monetary authorities by quantitative measures put a limit to the possibilities of inflationary financing, the excessive demand for credit is bound to lead to a rise in interest rates. Such a rise, which could only be avoided by satisfying the excessive demand for credit through further credit expansion, should not be confounded with the rise of interest rate induced by policy measures. It would be simply an unavoidable consequence of market conditions.

#### 4. *Relationship between monetary policy and other instruments of policy*

Having set forth what I believe to be the main objectives and the main implements of monetary policy, I may now revert to the problem of the relationship between the aims of monetary policy and those of other economic and financial policies.

The aims of general economic policy comprise a large number of subjects, partly economic or social goals in themselves, partly conditions considered essential for the proper fulfillment of the ultimate goals. Among the ultimate goals I would mention in the very first place the maximization of wealth, a goal that comprises the secondary goals of full employment and satisfactory growth. The latter subject brings in the problem of choice between maximization of present or of future wealth, clearly a problem with partly political aspects. Among the ultimate goals one may also reckon a fair distribution of income, a harmonious occupational distribution, a larger or smaller degree of collective provision and

of public ownership, and other desiderata of a social-political character on which differences of opinion are obviously possible.

Not among the ultimate goals, but among the conditions considered essential for their fulfillment, we find the double objective of monetary policy: the maintenance of stable prices and of equilibrium in the balance of payments.

It is exactly this fact, that the main objective of monetary policy is the establishment and maintenance of conditions that are in the long run essential to any economic system and neutral in respect to the pursuit of any of the possible ultimate goals of social-economic policies, that sets monetary policy apart from other instruments of policy, such as budgetary and fiscal policy, wage and price policy, foreign-trade and agricultural policies, and others. Most of these other instruments of policy either affect the distribution of income or the direction of expenditure. It is monetary policy alone that is interested only in the level of income and expenditure, and not in its composition. This is, no doubt, the reason why in many countries it is felt that the management of monetary policy can, to a large extent, be delegated to a nonpolitical authority: the central bank.

Of course this does not mean that in the short run the objectives of monetary policy may not occasionally come into conflict with other political aims. I shall have the opportunity to discuss examples later. It does mean, however, that in the long run the objectives of monetary policy, precisely because of their neutrality in respect to other aims, will have to prevail.

A word might be said, in this connection, about the relationship between monetary policy and growth. The determinants of growth are still somewhat controversial. Underemployed resources, level of education, organizational capacity, industrial know-how, saving and investment, all have to play their role. There is nothing monetary policy can add to these conditions. But it is all-important that, once the process of growth has started, monetary policy should assure an internal creation of money large enough to satisfy the growing cash requirements induced by the rise of money income that is necessary for real growth with price stability. If not, these requirements will have to be met out of balance-of-payments surplus, which will only be possible if competitive conditions allow, and even then may cause disturbances in international monetary relations. Or, if conditions do not allow for a surplus, the lack of response of the monetary sector will constitute a drag on potential growth by creating a deficiency of demand that is likely to lead to a downward pressure on prices and a certain measure of unemployment.

### III. ON THE INDICATORS OF DESIRABLE MONETARY ACTION

#### 1. *General state of business activity*

It is unavoidable that in discussing the indicators of desirable monetary action I should mainly draw on my own experience as governor of the Central Bank of the Netherlands. Differences in regard to powers of the monetary authorities, conditions and traditions of the markets, statistical data available and, last but not least, relative importance of similar phenomena in a dissimilar environment, all combine to create a different national background in which monetary policy has to work and therefore also have a bearing on the weight to be attributed to the different indicators of desirable policy. Even so, I believe that the experience of any country is important for all, as the fundamental monetary issues behind the observable phenomena are the same for all.

It might be stated at the outset that there exist long periods during which monetary policy generally, and central-bank policy particularly, do not need to be spectacularly active because deviations from the ideal situation of reasonable stability of prices, balance-of-payments equilibrium, and reasonably full employment are not of such a magnitude that corrective monetary measures seem to be indicated. During such periods monetary policy can limit itself to taking care that no developments occur that might impede the control of future disturbances. I am thinking, for example, of the possibility that, though monetary equilibrium ad hoc is maintained, interest policies favor a situation in which the volume of liquidity available to the public be built up to such an extent that it might easily get out of hand at some future moment.

Circumstances in which corrective monetary action is clearly indicated are

(a) periods of boom and overemployment, of rising costs and rising prices, during which the balance of payments shows a deficit;

(b) periods of recession and underemployment, during which the balance-of-payments position is satisfactory.

Circumstances, on the other hand, in which, even though action might be indicated, monetary policy is faced with serious dilemmas are

(c) periods of boom and overemployment, during which the balance of payments shows an important surplus, or at least, is not unsatisfactory; and

(d) periods in which recession and underemployment coincide with balance-of-payments deficits.

In the after-war years the Netherlands went through experience (a) during the Korea-boom of 1950 to early 1951, and again in the period 1956 to early 1957. It went through experience (b) in 1952, and to some extent in 1958. It finally lived through a rather prolonged period of experience (c) during the years 1960 to 1962. It did not find itself during those years in position (d).

In the periods mentioned above, Central-Bank policy in the Netherlands was always of an anti-cyclical character. In the periods 1950-1951, 1956-1957 and 1961-1962 credit-restrictive measures—that is, measures aiming at directly affecting the volume of credit expansion as compared with a basic period in the recent past—were taken and the Bank's discount rate was increased. In the years 1952 and 1958 restrictive measures were discontinued and the bank rate was reduced. The Government took strong compensatory actions in the years of foreign-exchange crisis, 1951 and 1957. Programs of retrenchment of expenditure and increase of taxation, designed to stop inflationary developments that had occurred in the previous years, were introduced in both years. Though highly effective in the years of introduction, it cannot be denied that these programs by their after-effects added to the recessive tendencies that prevailed in the years 1952 and 1958. A compensatory monetary policy was also followed by the Government in the years 1960 and 1961, this time, however, not by cutting expenditure, but by delaying planned reduction of taxation and by long-term borrowing in the capital market in excess of financing requirements.

In judging the appropriateness and efficacy of its own and of the Government's monetary policies the Central Bank has, of course, to keep in mind the characteristics of the period under review and the limitations, thus created, to exerting an observable influence on developments.

In the periods clearly indicated for positive monetary action, the Bank will turn to the usual indicators of economic behaviour to judge whether developments move in the desired direction. It will especially give attention to (a) industrial production, (b) employment, (c) foreign trade, (d) prices and wages, and finally, to the one indicator that is available daily: (e) the movement of foreign-exchange reserves. On the other hand, the Bank will not only look at results, but also at factors that are indicative of direction and force of the monetary influences that are being exerted, such as: (f) the course of Government finance, (g) the development of the banking system's loans and investments, and (h) the movement of the rates of interest on money and capital markets. It will, as an indicator of the monetary leeway still available, give attention to (i) the liquidity situation of the banking

system and to (j) the volume of liquidity, that is, of money and near-money available to the economy. Finally, as an important indicator of potential future developments, it will give close attention to (k) the forecasts of the Central Planning Bureau, a Government agency, that has the function of analyzing current economic developments, of making estimates of the likely consequences of policy decisions, and of forecasting future developments generally.

## *2. Balance of payments*

In a country like the Netherlands, with a turnover in foreign trade (and services) equal to national income, the balance of payments is a particularly sensitive indicator of internal over- or underexpenditure. The marginal proportion of any increase or decrease in total expenditure showing up in larger or smaller imports will always be very great.

This situation is very helpful in making monetary policy effective in a period of internal overexpenditure. For the balance-of-payments deficit that is likely to ensue will drain the liquidity of both the economy itself and of the banking system and thus tend to strengthen the impact of any restrictive measures taken by the monetary authorities.

On the other hand, it is of course also true that small countries are far more sensitive than big ones to the impact of balance-of-payments surpluses or deficits that do not take their origin from internal monetary disturbances, but result from shifts in international demand or from inflationary or deflationary developments in foreign countries. Such surpluses or deficits cause inflation or deflation in exactly the same way as an internal inflation or deflation of demand would, except of course for their reversed impact on the balance of payments. If, in a country suffering external imbalances, authorities strive to maintain monetary equilibrium, such compensatory action will tend to perpetuate the balance-of-payments surplus or deficit and therefore exert a prolonged and cumulative influence on the volume of foreign-exchange reserves.

It follows that, the smaller a country, or rather, the higher a country's proportion of international trade in relation to national income, the more important the balance of payments will be as a possible indicator of monetary action. Yet, in the long run, no country can escape the discipline of the balance of payments. The difficulty monetary authorities have to face, however, is that surpluses or deficits may be suggestive of opposite monetary action, all depending on whether such surpluses or deficits indicate internal under or overexpenditure, or whether they are of an autonomous character, that is, due to monetary or other developments abroad, or to internal shifts in demand between homemade and foreign goods and services.

### 3. *Active operations of the banking system*

A particularly important direct indicator of the efficacy of central-bank policy is, of course, the development of the banking system's active operations, that is, of the sum total of its loans and investments, inasmuch as this magnitude will largely determine the volume of possible additions to the flow of total expenditure, to control which is the very purpose of monetary policy.

In the Netherlands the Central Bank has, in periods of actual or threatening overexpenditure, set quantitative limits to the expansion of the banking system's loans. During the greater part of 1962, for example, the banks were not allowed to increase the volume of their loans, as compared with an agreed basic period, by more than one-half-of-one per cent per month. If this percentage was exceeded, special non-interest-bearing deposits had to be made with the central bank in the amount of such excess. The extent to which such limits set by the central bank are complied with constitutes, of course, an important direct measure of the efficacy of the Central Bank's policy.

### 4. *Liquidity of the economy*

A factor which deserves the particular attention of the central bank in judging the efficacy of policies, but also, and perhaps still more, in gauging the potential threat to future monetary equilibrium, is the state of liquidity of the economy, as measured by the ratio between total volume of money and near-money in the hands of the public at large and national income.

By near-money, or—to use the more fashionable term—by “secondary liquidity,” is meant the sum total of short-term claims (other than money proper, that is, currency and demand deposits subject to check) on the banking system and on the government which are used by the business community as a liquidity reserve. Thus defined, secondary liquidity comprises essentially time deposits with the banking system and short-term government paper held outside the banks. The main characteristic of this group of short-term money claims is that, in the case of massive withdrawal, claimants can, for all practical purposes, compel debtors to resort to money creation in order to settle their debts. For the banking system such recourse simply takes the form of crediting demand deposits and debiting time deposits; for the government it means falling back on the banking system or on the central bank which, under the circumstances, will hardly be able to refuse accommodation. In this respect there exists an essential difference between secondary liquidity and other supposedly liquid claims and assets, which can only be turned



into cash in so far as the debtor holds liquid reserves or can borrow in the market, or in so far as a substitute holder can be found for the asset.

Experience in the Netherlands, and in other countries has shown that the ratio of money plus secondary liquidity to national income varies within rather narrow limits. With rising or falling short-term interest rates there may be shifts between the proportion of money and of secondary liquidity in the total, but the total itself remains largely unaffected. Roughly, the total volume or total mass of liquidity in the Netherlands amounts to about 45 per cent of national income, with money constituting somewhat less than two-thirds and secondary liquidity somewhat over one-third of the total. In periods of internal overexpenditure and balance-of-payments deficit, the total has gone down to 41 per cent; in periods of recession and/or of balance-of-payments surplus, a ratio as high as 47 per cent has been reached. Higher figures occurred only in the years of repressed inflation of the late forties and very early fifties. Comparable ratios in other countries, based on the same type of assets, are of late found to be around 54 per cent in the United States, 47 per cent in the United Kingdom, but only 28 per cent in Germany.

The constancy of the ratio between the mass of liquidity and national income implies that any desirable increase in national income—real income—must be accompanied by a proportionate increase in the mass of liquidity. Otherwise the public, in trying to increase its liquidity by way of hoarding, will cause a deficiency of demand that will bring income down again to a level consistent with the existing volume of liquidity. Contrariwise, any unwanted increase in the mass of liquidity will sooner or later give rise to increased spending that will not come to a stop before, by a rise of income or a loss of liquidity through the balance-of-payments leak, the mass of liquidity and the volume of national income are again back at their equilibrium ratio.

A higher ratio of the mass of liquidity to national income than is normal for a country—and from country to country there appear to exist quite important differences in this respect—thus gives an indication of, perhaps, an unusual temporary demand for liquidity, but also of the potential threat of a coming spending spree. Since the latter, especially in a country with a high proportion of foreign trade, might lead to heavy losses of foreign exchange and, generally, to an inflationary situation—just as an unusual low liquidity ratio might lead to depressive conditions—it is clear that any deviation of the actual liquidity ratio from the normal is an important indication for the monetary authorities.

It has for this reason been the constant policy of monetary authorities in the Netherlands to prevent the mass of liquidity from being built up

above a reasonable minimum which the economy clearly wishes to hold. For that reason the Government has, in the last decade, in principle abstained from financing any part of budgetary expenditure by short-term borrowing, thus leaving the necessary creation of liquidity in proportion to real growth to the banking system's lending to the private sector. It has, moreover, in periods of excess liquidity, such as the country has recently experienced in consequence of a balance-of-payments surplus, proceeded to reduce liquidity by borrowing on the long-term market for repayment of external debt and for consolidation of internal short-term debt held by the Central Bank and the banking system.

In view of the specific characteristics attached to the secondary liquidity holdings of the economy, the Netherlands Bank considers the financing of expenditure out of creation of secondary liquidity just as much an inflationary form of financing as financing out of creation of money.

It is true that the inflationary effect of such financing, that is, its effect on the volume of total expenditure—which effect, according to circumstances, may or may not be desired by monetary authorities\*—may be compensated ad hoc by a spontaneous withdrawal of money out of the current flow of gross income by the business community. Even so, that withdrawal may prove to be of only a temporary nature.

Very easily, however, the addition to the mass of secondary liquidity may come out of the activation of existing cash resources, and may then mean an increase in the velocity of money circulation, with no compensating effect on the volume of total expenditure at all. Or it may enforce a switch from time deposits to sight deposits with the banking system, a creation of money in which the banking system would only play a passive role.

The Netherlands experienced a bad case of this type of inflationary financing when in 1956-1957 the municipalities, finding the capital market exhausted, financed continued investment expenditure by placing short-term bills in the money market. These were readily taken up by corporate business and financed out of the liquid reserves the latter had been holding with the banking system.

\* The term "inflationary" as used in this connection has therefore no derogatory connotation. It simply means: "increasing the volume of total expenditure."

## IV. ON SOME LIMITATIONS AND DILEMMAS OF MONETARY POLICY

### *1. Limitations of objective and limitations of performance*

When speaking about the limitations of monetary policy, one should distinguish between the limitations that must rightly be set on the range of objectives of monetary policy, and the limitations that must be faced by monetary policy in trying to achieve these objectives.

The problem of what limitations monetary policy should set to its objectives has already been discussed in section II. From this it appears that I believe monetary policy must not be asked to aim at more than establishing and maintaining conditions of internal and external monetary equilibrium—that is, conditions in the long run most conducive to the realization of full employment and of sustainable growth.

It should not be used—and for practical purposes can hardly be used without ultimately betraying its true objectives—as an instrument to achieve a fairer distribution of income, a more preferable distribution of expenditure, or a more rapid rate of growth.

As to the limitations monetary policy encounters in the pursuit of its proper objectives, I think it is useful to distinguish between three types:

- (a) limitations of an institutional character;
- (b) limitations of an operational character; and
- (c) limitations due to contradiction of purposes.

Limitations of an institutional character can be due to institutional traditions of a country or to rules and regulations set by law or statute restricting the field of action or the instruments of policy of monetary authorities.

It would certainly go beyond the scope of this essay to try to give an exhaustive survey of all the possible limitations of this type. They become apparent when one compares the differences of law and tradition in different countries. As examples of different institutional traditions one might mention the following: (1) whether the market has automatic access to central-bank credit (as in the United Kingdom, where by tradition the Bank of England does not refuse to discount treasury bills offered by the discount houses) or only by way of privilege (as in the United States and the Netherlands, where, in case of need, the commercial banks have to resort directly to the central bank, and can be refused facilities); (2) whether the banking system follows hard-and-fast rules of liquidity—and cash—ratios (as in the United King-

dom, where the 8-per-cent cash ratio and the 30-per-cent liquidity ratio used to be considered sacrosanct) or whether such firm traditions do not exist; and (3) whether a country knows clear functional separations between money market and capital market and between deposit banks and savings banks or does not. As examples of legal differences, one might think of (4) whether the central bank has or has not the power to finance government directly; (5) whether the central bank can or cannot give directions to the banking system for the conduct of its business (reserve requirements, credit ceilings, etc.); and (6) whether the government is or is not subject to limitations as to interest policy and volume of debt.

Limitations resulting from law and tradition will not make monetary policy impotent. They may, however, be rather frustrating and they certainly mean that in different countries different techniques have to be followed to accomplish comparable aims.

The limitations set by traditions are usually difficult to overcome. Yet they can be very important, as they may, for example, determine whether credit restriction can be accomplished by direct limitation of accommodation or only indirectly by an increase in the discount rate.

Limitations of law have a slightly better chance of disappearance. Laws, after all, are sometimes changed, and these changes can help, by the introduction of new techniques, bypass the limitations set by tradition.

For the benefit of both the efficacy of national monetary policies and of constructive international monetary cooperation, it must be hoped that future legislation will give monetary authorities the widest possible choice of instruments to be used in the pursuit of their task.

It is particularly central-bank policy that is subject to limitations of an operational character. Central banks and the banking system are, after all, not in the business of spending and investing themselves, but only in the business of making credit available, indirectly or directly, to the business community and to the government. The initiative for expenditure has to be taken by the borrower and the central bank can hardly do more than make credit tighter when demand is brisk and total expenditure is on the increase, or easier when demand slackens and total expenditure is falling. It is, therefore, only to a limited extent that central-bank policy can be of a truly compensatory nature. It can, in a boom, choke off the increase in expenditure; it can, in this way, even force expenditure down below the inflationary level to which it had previously risen as a result of the expansion of bank credit and the activation of idle liquidity. But it cannot, for all practical purposes,

succeed in enforcing an actual contraction in the total volume of bank credit to the private sector during a boom, nor in creating an actual expansion amidst a depression. And it is such action that would be necessary before one rightly could speak of action of a compensatory nature, that is, of such character as to cause an actual reduction (or increase) of expenditures in some fields, fully compensating for the increase (or reduction) of expenditures taking place in other fields.

It is true that, in theory, it would be conceivable that a central bank might dispose of an open-market portfolio of such magnitude and such composition that it could sell, during the upward phase of the cycle, sufficient paper to draw an appreciable part of current savings out of the market, thus depriving the private sector of means of finance and forcing it to cut expenditure. Practically, however, such a policy can only be followed by government. Likewise, only government has the power to cut or increase its own expenditure in order to compensate for fluctuations in expenditure by the private sector, or to increase or decrease taxation for the same purpose.

In this sense it is only government policy that can be fully compensatory. Central-bank policy must limit itself to creating the conditions in which overexpenditure will automatically come to a stop because it has exhausted the possibilities of inflationary financing on which it feeds itself. It must also, in periods of underexpenditure, limit itself to creating the conditions most conducive to recovery. I believe that central-bank policy has the greatest possibilities of success in the first instance, and government monetary policy in the second. The best results, no doubt, will ensue when the two cooperate.

## *2. Dilemmas due to contradiction of purposes*

The limitation of monetary policy that can haunt authorities most is the one which results from the impossibility, under certain circumstances, of taking measures that will simultaneously tend to fulfill the three equilibrium conditions implied by the definition of the objective of monetary policy, as given in section II, namely, price stability, balance-of-payments equilibrium, and full employment.

For the authorities, this impossibility may create a most vexing contradiction of purpose: they must ultimately decide to give precedence to either one or the other part of their joint objective. The causes of such a situation may originate either abroad or at home.

The classical case in which the causes of disturbance come from abroad is that of a country which by itself enjoys conditions of perfect internal equilibrium, but is faced by a balance-of-payments surplus (or

deficit) resulting from an increased (or decreased) export demand clearly caused by inflationary (or deflationary) conditions abroad. Usually such a country will just have to ride out the storm and absorb the disagreeable consequences, in the expectation that the countries where the monetary disturbance originated will take the proper corrective measures. But if the disturbing condition continues too long, the moment may come when authorities have to choose between trying to maintain the internal value of their currency by changing the exchange parity, or maintaining the exchange rates but giving up the struggle for internal price stability.

Some of the devaluations of the thirties and revaluations of the period just after the war may well be attributed to this dilemma.

A more subtle case of monetary disturbance coming from abroad is the one where the country which originally found itself in an equilibrium condition is faced with a balance-of-payments surplus due to (a) increased exports caused not by inflationary conditions abroad but rather by shifts of demand in international trade or to (b) an inflow of foreign capital.

The difference in this situation is that from a world point of view there is no question of a monetary disturbance at all. This is not the case of an increase in total expenditure made possible by inflationary financing, but of a shift in expenditure for goods and services in the private or in the government sector from spending in one country to spending in another. The fact of the matter, however, is that such shifts present themselves from the national point of view as monetary disturbances because surpluses and deficits in the balance of payments automatically mean that much creation or cancellation of money. In the case just mentioned, it will be observed that in some other country or countries the reverse phenomenon occurs, namely, a balance-of-payments deficit due to increased imports of goods and services or to an outflow of capital. One will also find that this balance-of-payments deficit—other than one caused by monetary inflation at home—is accompanied by a falling-off of total expenditure in the home market and, as a consequence, by generally recessive conditions.

It will easily be seen that the described situation is in many respects characteristic of the relationship that has, for the last few years, existed between continental Europe and the United States.

In such a situation monetary authorities in the surplus country will be inclined, in defense of their internal equilibrium and of the purchasing power of their monetary unit, to take restrictive measures. In the deficit country, on the other hand, especially so long as the reserve situation does not look too disturbing, they will be disposed to follow an expan-

sionary monetary policy, in order to correct the drop in home demand and to counteract the tendency to underemployment. Thus, on both sides policies may be followed that can only serve to prolong and perhaps even to reinforce the balance-of-payments problems that both parties have to face.

The answer to the authorities' dilemma is that the situation does not ask for this type of monetary action at all. One cannot correct by deflationary or inflationary measures a disturbance that fundamentally has no monetary causes, and, as we have already seen, the present one has not. If the shift of demand—or the movement of capital—that caused the balance-of-payments problem is of a temporary nature only, monetary reserves will have to absorb the ultimate net effect. If the shift is of a permanent character, an adaptation in the cost relationships between the surplus and the deficit countries will have to create a new situation of trade equilibrium.

This adaptation may come from the slow process of increases in unit cost in the surplus country—which unavoidably will bring some drop in the purchasing power of money—and from some decrease in unit cost in the deficit country. It may also come from a change of parity on either side. This means that the final solution will force monetary authorities to sacrifice either the internal or the external value of their monetary unit.

The shift of demand in international trade discussed in the previous paragraph need not be a spontaneous one. It may be the reaction to preceding differential-cost developments between countries, and more specifically to increases in labour cost that outstrip increases in productivity, either in a country generally or in the important export industries of a country. It is also conceivable that such increases in labour cost lead not only to shifts in international demand, but also to shifts in national demand, thus creating partial unemployment.

It will be well to remember that also this phenomenon of "cost inflation" or "wage inflation," as it is often referred to, is beyond the reach of monetary policy to rectify. The price increases it may bring cannot be corrected by a restrictive policy without creating more unemployment. Nor can the unemployment be corrected by an expansionary policy, without creating more balance-of-payments troubles.

Monetary policy is not and cannot be a cure-all. Its true limitations are that it is an instrument of policy which should be used neither for more, nor less, than preventing as far as possible, and correcting if need be, disturbances of a monetary nature only.

## V. ON THE ROLE OF DEBT MANAGEMENT AND DEFICIT FINANCING

### I. *Debt management in the Netherlands*

The technical scope of debt management in the Netherlands is more restricted than in the Anglo-Saxon countries. These are the main reasons:

(1) The Government generally follows the rule not to finance budgetary expenditure with money-market resources. Possible deficits are therefore covered by long-term borrowing. Consequently net money-market operations are, generally, restricted to taking care of seasonal fluctuations in Government income and expenditure;

(2) Government borrowing on the capital market, generally, takes the form of issuing 25 to 40-year loans, repayment of which takes place by redemption spread over the life of the loan. Consequently there are very few loans with fixed maturity and long-term loans therefore do not gradually become money-market material.

As a consequence of the condition mentioned in (2), there exists a clear separation between what is considered the Government's short-term debt (treasury bills and treasury notes) and its long-term debt (mainly bonds), and also between the money market and the capital market. The commercial banks do not operate, generally, in the bond market. The only form of long-term Government paper they hold to any important extent consists of 1,200 million guilders of 8, 10 and 12-year treasury certificates, created in 1954 by way of consolidation of short-term debt in the hands of the banking system, and only negotiable between banks themselves. (The 1962 maturity of these certificates has been prolonged for another 10 years.)

Operations of a debt-management character that might occur under conditions presently prevailing in the Netherlands are

(a) increasing long-term debt in order to finance budgetary expenditure;

(b) increasing long-term debt in order to repay short-term debt, or, at any rate, to sterilize the proceeds;

(c) increasing long-term internal debt in order to repay foreign debt;

(d) repayment of long-term debt out of current income;

(e) repayment of long-term debt out of increases in short-term debt;

(f) increase of short-term internal debt to repay foreign debt;

(g) repayment of short-term debt out of current income;

(h) manipulation of the average maturity of the short-term debt.



From the point of view of monetary policy, I consider transactions (a), (d) and (f) as neutral, since they generally will not affect the internal expenditure/output relationship. It is assumed that capital-market resources will ultimately find their way into investment. The Government's activity on the market may somewhat speed up or slow down this process, but will in the end only affect the rate of interest and not the volume of expenditure. There may, however, be an indirect influence, through the rate of interest, on the balance of international capital movements. The transaction (f) will likewise tend to leave the internal demand/supply relationship undisturbed, but will, of course, affect the foreign-exchange reserves held by the authorities or by the banking system.

Transactions (b), (c) and (g) are clearly of a deflationary, or rather a counter-inflationary, character, as they tend to reduce actual or potential expenditure by taking money out of the flow of savings—as in the case of (b) and (c)—out of the flow of income—as in the case of (g)—or out of an existing stock of excess liquidity, without these proceeds being fed back into the flow of expenditure.

The Netherlands Government has repeatedly made use of these techniques to compensate inflationary pressures, as for example in the late forties in order to consolidate still existing excess liquidity, and in the periods 1953-1955 and 1960-1962 in order to compensate the influence of inflow of foreign capital and excessive export demand.

This leaves us to account for transactions (e) and (h).

The first one is clearly of an inflationary, or reflationary, character. It has so far never been used in the Netherlands. Conceivably it might be part of a reflationary programme in a period of serious recession.

Transaction (h), manipulation of the average maturity of the short-term debt, must be considered as having potentially an indirect bearing on the expenditure/output relationship, inasmuch as it will affect the liquidity situation of the banking system, and, to some extent also, of the private sector of the economy generally. In the Netherlands it takes the form of influencing the average maturity of the outstanding volume of treasury bills, which usually run from three months to one year, and treasury notes usually running from 2 to 5 years. This short-term Government paper constitutes the main investment opportunity on the money market. A large part of it is held by the banking system.

The responsibility for debt management, as far as the operations of the Government are concerned, lies with the Government, which acts not through the Bank but through its own agency in Amsterdam.

The Bank, however, has a responsibility of its own for buying or selling Government paper, for or out of its own portfolio. The Bank

will transact these operations for reasons of monetary policy only. It has the authority to operate in the long-term market as well as in the short-term market, but has so far operated only in the money market.

The Bank advises the Government with respect to the Government's operations. It will not operate itself without previous consultation with the Government.

Debt management, when defined in the broad sense used in the foregoing paragraphs, and therefore including not only the management of existing debt but also the increasing or reducing of debt, embraces all the activities of government of a monetary nature, namely, the creation and cancellation of money and near-money and the exerting of an influence on the interest rate. Thus, it includes the very essence of what I have previously called monetary policy of the government.

It must be clear, therefore, that debt management, from a policy point of view, must be entirely integrated with monetary policy in general.

## *2. Debt management and deficit financing in general*

I opened the foregoing paragraph with the statement that the Netherlands Government generally follows the rule not to finance budgetary expenditure with money-market resources. This must be understood as a statement of fact, not as a statement of principle. For, under certain circumstances, the exigencies of monetary equilibrium may very well require the Government to finance part of its expenditure by incurring short-term debt, to be placed either with the public or with the banking system.

If the Government sticks to long-term financing only, this means that the supply of liquidity has to come from the active operations of the banking system, that is, mainly from credit expansion or from balance-of-payments surplus. In a country with a real rate of growth of the national income of say 4 per cent—actually the average real rate of growth in the Netherlands in the ten-year period 1952 through 1961 was 5.0 per cent per annum—and a marginal liquidity ratio of, say, 40 per cent, this would require an annual supply of liquidity of 1.6 per cent of national income. Only a small part of this can be created out of foreign surplus; no country can in the long run wish to accumulate gold and foreign-exchange reserves in excess of its considered requirements, nor can it afford to accumulate in the long run more than its fair share of world gold production plus a fair share of key-currency holdings, if it does not want to create international problems.

It follows that the larger part of the liquidity supply, say in the example above some  $1\frac{1}{4}$  to  $1\frac{1}{2}$  per cent of national income, has to

come from the activities of the money-creating institutions, that is, for all practical purposes, from the banking system. It will depend upon circumstances whether such volume of liquidity creation is or is not easily attainable. In the Netherlands, for example, the relevant assets of the institutions concerned—that is, exclusive of their long-term assets financed out of long-term liabilities—roughly amount to some 15 per cent of national income. An increase to the rate of  $1\frac{1}{4}$  to  $1\frac{1}{2}$  per cent of national income would therefore mean an expansion of these assets by 8 to 10 per cent a year. If the banking system's liquidity does not allow for such an expansion, it is, apart from temporary aid the central bank may be able to give, unavoidable that also the government must take a part in the creation of liquidity. For the liquidity of the banking system is nowadays almost completely based on its holding of short-term government paper. Also, if for other reasons the money-creating institutions are not in a position to expand their operations sufficiently to take care of the requisite creation of liquidity, the government will have to step in and, by debt management or deficit financing, place additional short-term paper either directly with the public or with the banks, as special circumstances may indicate.

In the framework of thinking followed in this essay, only those debt-management operations are of actual relevance that affect the volume of debt in the hands of the money-creating institutions, or that affect the volume of short-term debt in the hands of the public. Operations aimed, for example, only at lengthening the average maturity of the long-term debt may affect the future liquidity situation; they do not have an influence on the total volume of liquidity presently held by the public.

Debt management operations aimed exclusively at switching short-term debt into long-term, or long-term debt into short-term, are relatively rare. Of the latter type of transaction, made on purpose and not from necessity, I know of no other example than cases of voluntary prepayment of foreign long-term debt, financed by the central bank. The switch from short-term into long-term was applied, in the Netherlands, in the early fifties to mop up excess liquidity left over from a previous period, and again in 1959 to 1961, as a counter-inflationary measure, to dampen the effect of an excessive balance-of-payments surplus, which was partly caused by capital imports (export of securities).

The debt-management operations we hear the most about are those consisting of the continuous renewal of existing short-term and long-term debt. Unless these transactions lead to a shift in the ratio between long and short, they are from a monetary point of view to be considered neutral.

Such is, of course, not the case with transactions connected with the financing of the current budgetary deficit, or surplus. After what has already been said, it is hardly necessary to repeat that these transactions are of essential significance and that they offer opportunities for government to influence monetary equilibrium that in many respects outstrip the possibilities of central-bank policy.

A budgetary deficit, by itself, has no monetary meaning. The important point is out of what resources it is financed. If it is financed out of capital-market resources, it may have an influence on the supply of capital to other sectors of the economy, but it will have no influence on monetary equilibrium; it will, by itself, be neither inflationary nor deflationary. Only if it must be assumed that the long-term money with which it is financed would otherwise have found no employment, might its influence be called anti-deflationary. If it is financed out of money-market resources, it may be anti-deflationary if these resources originate in current spontaneous hoarding; it will be inflationary if they do not. It is always inflationary when it is financed by the banking system. Even so it must be kept in mind that there are circumstances where such inflationary impact may be desirable, in order to compensate for deflationary impulses elsewhere.

A budgetary surplus will rarely fail to have a deflationary impact. Of course, it is possible to use it for repayment of long-term debt, and the resources thus supplied to the market are likely to find their way into other investments. There will, however, almost unavoidably be delays. If the surplus is used for repayment of debt to the banking system, the deflationary impact will be definite. Again, this deflationary influence may be desirable in order to compensate inflationary impulses from elsewhere. The budgetary surplus in the Netherlands in 1960 was, for example, welcomed as an antidote against imported inflation. But this, after all, is a rare occurrence. Generally, budgetary surpluses are more difficult to digest without some deflation than budgetary deficits without some inflation.

## VI. ON THE ROLE OF CENTRAL-BANK POLICY

### 1. *Techniques of central-bank policy in the Netherlands*

The instruments of policy which the Netherlands Bank has at its disposal to make its monetary control effective are

- (a) discount policy;
- (b) open-market policy;

- (c) variation of cash-reserve requirements; and
- (d) the giving of directions to the banking system.

The use of discount policy has two aspects, namely, (i) the fixing of the rate of interest at which the Bank's credit shall be available, and (ii) the willingness of the Bank to admit borrowers to its facilities.

Though by tradition the rate of interest charged by the banking system for its loans is in large part linked to the official discount rate, the significance of the latter rate in determining the volume of credit available to the economy should not be overestimated. Experience does not show the demand for credit to be very sensitive to its price, and the variations in the discount rate are not necessarily linked with changes in the availability of credit to the public. The banking system is not usually indebted to the Central Bank, and when it is not, the Bank may have to use other means than the control of the price and the availability of its own credit to exert an influence on the volume of credit.

Nevertheless there are occasionally periods during which the market has to resort to the Bank. For such periods it is important that the Bank take the view that use of its facilities is not a right, but merely a privilege to be used only temporarily. Thus, once the market has recourse to the Bank, the latter can exert a direct control on the volume of its credit.

This also gives the opportunity of stipulating special conditions. In 1957, for example, the Bank announced penal discount rates for banks that might have exceeded certain limits of credit expansion. Likewise in 1957 it provided accommodation to the savings banks on condition that they make no further investments while they were indebted to the Bank. Finally, the discountability of short-term paper of local public authorities can be made dependent upon the volume of their short-term debt.

The automatic availability of the Bank's credit to the Treasury is limited to an interest-free debit margin of 150 million guilders. The Bank is free to buy treasury paper from the market or from the Treasury directly. There exists an understanding between the Treasury and the Bank that the latter cannot be expected to accommodate the Treasury for the purpose of financing budgetary expenditure. On the other hand, the Bank has been willing in many instances to finance the Government for other purposes, such as repayment of debt to the money market. Likewise, the Bank has been willing to finance the Treasury for drawings of guilders by the International Monetary Fund and occasionally for repayment of other foreign debt.

In principle the Bank is in a position to exert an influence on the liquidity of the banking system by its open-market policy. In practice there is not much scope for this policy, as the open-market portfolio of the Bank is small—at present, February 1963, some 300 million guilders—and consists mainly of paper with a maturity of less than one year. For this reason, the open-market portfolio has been used in the last few years chiefly to maintain orderly conditions on the money market and to buffer fluctuations in the cash liquidity of the banks.

The fundamental cause of the limited volume of the open-market portfolio is to be found in the fact that the gold and foreign-exchange reserves held by the Bank, though not representing more than about four months' imports, about equal the bank-note circulation increased by the average credit balance of the Government. This situation leaves only limited room for holding other assets.

It was this same circumstance that led in 1954 to the introduction, by gentleman's agreement between the Bank, the commercial banks, the agricultural-credit banks and the postal giro-system, of the system of obligatory cash reserves in the Netherlands. According to this agreement the Bank, taking into consideration the fluctuations in foreign-exchange reserves and the causes thereof, is to determine monthly the percentage of cash reserves in proportion to deposits the banks shall hold on a noninterest-bearing account with the Bank. The percentage shall not exceed 15. In February 1963 it was 5 per cent. An increase in foreign-exchange reserves, which was accompanied by increased liquidity of the banks, would lead the Bank to increase the reserve ratio. A drop in exchange reserves, provided it was not caused by excessive credit expansion by the banks, would lead to a reduction of the reserve ratio.

For all practical purposes the obligatory cash reserves act as an extension of the Bank's open market policy. Reserve ratios have occasionally been changed for purely internal reasons with no relation to fluctuations in the exchange reserves.

The Act on Supervision of the Credit System of 1956 authorizes the Bank to give credit institutions general directions for the conduct of their business, if it deems this necessary in carrying out the task laid upon it in Art. 9 of the Bank Act of 1948, that of regulating the value of the monetary unit. Such directions may contain provisions regarding (i) minimum liquidity ratios, (ii) maximum extent of loans or investments, and (iii) prohibition or limitations of specified types or forms of credit. Such directions can be given either in agreement with the representative organizations of the group of credit institutions concerned, or without such agreement. In the first case they are immediately effective; in the latter case they first need the approval of the Minister of

Finance. Moreover, within three months, a bill will then have to be introduced in Parliament, confirming them.

When, in 1959 as a consequence of large balance-of-payments surpluses, the liquidity of the banking system became such that it would no longer be possible for the Bank to curb effectively, in case of need, a credit expansion by means of its open-market and cash-reserve policies, the Bank started consultations with the representative organizations of the commercial banks and of the agricultural-credit banks. These consultations led, in 1960, to an agreement giving the Bank power to direct the banks to limit credit expansion in relation to the volume existing at an agreed date. As a penalty, transgressing banks had to deposit with the Bank an amount up to that by which they had exceeded the admissible ceiling, provided that also all banks taken together had broken through the ceiling. In the summer of 1961 limits to credit expansion were actually introduced. Since January 1962 the established ceilings have been transgressed and 100 per cent deposits have been made.

It is believed that the described technique will enable the Bank to curb credit expansion, even though the liquidity of the banks and the volume of their foreign assets would make them unsusceptible to normal central-bank pressure. It is too early, perhaps, to judge finally the merits of the technique, but there seems to be no doubt that during the past year it has appreciably affected the banking system's credit policies.

The Bank so far has not made use of its power to give the banking system directions regarding liquidity ratios or regarding limitation or prohibition of specified types or forms of credit. It has, however, made use of moral suasion in this direction, as when, in 1957, it asked the banks to limit their loans to the municipalities which at that time were financing investment by short-term borrowing, and when, in 1955, it requested the banks to reduce their lending for investment purposes and hire-purchase financing.

## *2. Central-bank policy generally*

It would go beyond the scope of this essay to try to enumerate the many techniques other than those discussed in the foregoing paragraph, which central banks in different countries may have at their disposal to exert an influence on the volume of active operations of the banking system. Nor do I want to elaborate upon the different significance of similar techniques under varying circumstances. Both the techniques themselves and their potential impact will differ from country to country, according to the traditions of the markets, the state of banking legislation, and the data on the internal situation.

Generally, it can be said that, apart from the powers formally given to the central bank by law or tradition, its grip on the market is influenced

(a) by the role which its own credit normally plays in the market, that is, the relative importance of its internal assets;

(b) by the susceptibility of a country to balance-of-payments influences, which depends on the ratio between its foreign trade and its national income; and

(c) by the prevailing traditions with respect to the accessibility of the central bank's credit.

As to the first mentioned point, it is clear that a central bank which finds its banking system in the position of an habitual borrower has much more opportunity to influence credit policy of that banking system than a central bank to which the commercial banks have only rarely to take recourse. If the central bank's internal assets do not consist of claims on the commercial banks or on the private sector of the economy, but on government, these claims may at least take the form of an open-market portfolio, the manipulation of which may create the opportunity of affecting the liquidity of the private banks and the rate of interest. If the central bank, however, for all practical purposes holds no internal assets, its grip on the market must be well-nigh nonexistent, or, at best, depend upon its power to require the banking system to hold balances with it.

The situation that a central bank finds it difficult to hold internal assets of any importance is bound to occur in any country where the gold and foreign-exchange reserves—held by the central bank—tend normally to exceed the bank-note circulation. This may easily happen in relatively small countries with a high proportion of foreign trade. Switzerland and the Netherlands are examples of such countries, where, as a consequence, money-market rates normally tend to be very low and where central-bank influence has to depend upon other factors than actual manipulation of the market.

In this type of country, it is to a certain extent a saving grace for monetary policy that another factor works in the opposite direction: the more susceptible a country is to fluctuations in the balance of payments, the more likely the central bank is to get a strong hold on the market in case of a balance-of-payments deficit. On the other hand, the less grip it is likely to have in case of continued surplus. For the deficit drains both the private sector of the economy and the banking system of liquidity, thus giving the central bank, as soon as the market needs its aid, the option between a policy of ease which will help maintain internal activity, or a policy of constraint that will help restore balance-of-payments equilibrium. The choice will have to depend upon



the causes of the deficit and the state of the reserves. However, in case of surplus, the central bank will find itself in a rather helpless position. The private economy and the banking system both becoming more and more flush, there is little that central-bank policy can do to restore either internal or external equilibrium.

The prevailing traditions in respect of the degree of automatism of the market's access to the central bank will affect the central bank's position only in those cases where it would like to follow a restrictive policy. If, in such circumstances, the market has practically a right of access to the bank, either by tradition, or because of the availability of certain types of paper—most likely government paper—which the central bank is bound to discount or to accept as collateral for loans it cannot refuse, the bank has only the rate of discount available as a possible deterrent. Much stronger is the position of the central bank that considers access to its resources a privilege it is free to grant or to refuse.

## VII. ON THE MONETARY SIGNIFICANCE OF “NEAR-BANKS”

### I. *Position of deposit-taking institutions in the Netherlands*

In the Netherlands the Act on Supervision of the Credit System of 1956 brings all credit institutions under supervision of the Netherlands Bank. By credit institutions the Act means: commercial banks, agricultural credit banks, security credit institutions, and general savings banks. By commercial banks it means all corporate bodies, partnerships, and physical persons that to a substantial extent make it their business to accept monies on deposit for their own account, and to grant credits for their own account, with the exception of agricultural-credit banks and security-credit institutions, which are separately defined. By general savings banks, the Act means all corporate bodies which devote themselves exclusively to the promotion of saving and with that object accept monies on deposit.

The system of the Act means that, practically, all deposit-receiving institutions come under the control of the Bank and that no such institution can escape control if it also grants credits to a substantial extent. Finance companies and building societies in the Netherlands do not finance themselves with deposits but only with fixed loans.

The Bank, according to the Act, can give, and actually has given, all the institutions under its supervision directives for the conduct of their business in the interest of their own solvency and liquidity. It

also can give them, as mentioned above, directions for reasons of monetary policy.

The fact of the matter is, however, that so far the Bank has given such monetary directions only to the banking system. It has not found it necessary to extend them to the savings banks, because it has not believed that the savings banks exert any appreciable monetary influence. The monies deposited with these banks can generally be considered actually to represent spontaneous private savings; they are only to a small extent just temporarily idle cash balances.

Nevertheless the Bank has observed instances where savings banks have extended facilities to their depositors which tended to give savings deposits the character of cash balances. Such facilities have been accompanied with an appreciable increase in the velocity of turnover of such deposits. The Bank is closely studying this situation. It might consider, for reasons of monetary policy, subjecting institutions giving such facilities to more severe prescriptions than other savings banks.

## *2. Some observations about "near-banks" elsewhere*

One finds that in many countries, such as the United Kingdom, Canada, and South Africa, a number of institutions have developed which, under different names, freely compete for deposits (to be used for making loans or investments) but that, under prevailing banking laws, are not considered banks (for example, because their deposits are not "subject to check") and therefore do not come under any form of control or influence from the central bank.

The question arises whether such institutions are of monetary significance and, if so, whether monetary authorities should in one way or another have some control on their activities.

It would seem somewhat rash to jump, on the basis of Netherlands experience only, to policy conclusions about countries with a very different situation. Yet I believe that the following considerations are pertinent to the question whether "near-banks" should or should not be brought under control of monetary authorities:

(a) As long as the monies deposited with so-called "near-banks" can be supposed essentially to represent spontaneous private savings only and to be, therefore, of the same character as the monies deposited in savings banks, their monetary influence can be discounted. It is true that even then they may have some stimulating influence on the velocity of circulation of money—namely in so far as deposits do not originate from current savings but from hoards of money representing old savings—but this factor may safely be neglected.

(b) As soon as the facilities, or the rates of interest, offered by these institutions, make it likely that the monies deposited with them do not represent real savings, but to a large extent consist of temporary cash balances, previously held in the form of money in order to buffer the discrepancies between receipts and expenditures, their stimulating influence on the velocity of circulation of money may become important. In that case their activities assume a monetary character.

(c) This will especially be so when the deposits received by these institutions come not only from private persons but also from corporations.

(d) A useful indication of the monetary significance of the institutions concerned might be found in the velocity of turnover of their deposits, or of any special group of their deposits. I believe that any yearly velocity of turnover in excess of unity should be looked upon with suspicion.

(e) It must be taken into consideration that any credit structure based on borrowing short and lending and investing long is liable to the risk of liquidity crisis. In case of a liquidity crisis it is only the central bank that, as lender of last resort, can offer solace. It would not be reasonable to expect the central bank to assume responsibility for a rupture in a liquidity setup on which it would never have been able to exert any control.

## VIII. ON THE INFLUENCE OF THE INTERNATIONAL PAYMENTS SYSTEM

### 1. *Adequacy of international liquidity*

The problems of monetary policy have been discussed in the foregoing chapters as they present themselves within the framework of existing international financial arrangements. That framework implies the maintenance of the gold-exchange standard and of fixed rates of exchange, subject only to alteration with approval of the International Monetary Fund in case of a fundamental disequilibrium. It also implies free convertibility of currencies for current transactions and a rather broad measure of freedom for capital movements.

Managing money within this framework necessitates the availability of ample actual or potential foreign-exchange reserves, in order to enable countries to bridge temporary deficits in their balance of payments, to be held in the form of gold and key currencies or to be virtually on call in the form of international credit facilities. It is this availability of

reserves which is now generally referred to as the sufficiency of "international liquidity."

It is pertinent to ask whether, in the light of the size and distribution of international liquidity, these international arrangements can be considered adequate and also whether and to what extent this framework of international arrangements may inhibit the freedom of individual countries to pursue individual monetary policies.

As to the adequacy of international liquidity, I have no hesitation to say that, considering the volume of visible reserves of the major trading countries and considering the drawing rights on the International Monetary Fund that are potentially available and that have been supplemented by the "General Arrangement to Borrow," concluded in January 1962, through which an amount of six billion dollars was made available to the IMF, there is presently no reason whatever to complain about a lack of international liquidity. I am rather inclined to say that there is too much liquidity around.

I do not deny that over a somewhat longer period of time the problem of a sufficient supply of international liquidity might arise. We do not know enough, however, about the determinants of the demand for international liquidity, in the form of exchange reserves, to be quite sure. Moreover, one can think of many techniques for satisfying such demand if the occasion should arise.

As to the distribution of international liquidity, there will probably always be reasons for dissatisfaction, since there always will be countries the reserves of which are considered inadequate in comparison to their "needs." These needs are usually based on the fluctuations likely to occur in their balances of payments, and on the desire to have a minimum reserve for emergencies.

However, a country can only hold reserves if it can resist the temptations of internal inflationary financing, as the latter will always lead to dissipation of reserves. Since there will, I fear, always be countries that succumb to this temptation, there will ever be countries with inadequate reserves.

Of course, a loss of reserves may also be due to other causes than internal inflation. In Section IV, paragraph 2, I have discussed shifts of demand in international trade as one of these causes. Reserves are then needed to bridge the period of time necessary to carry out the policies that must lead to restoring equilibrium. I believe that in most countries the sum of reserves and available international monetary facilities are adequate to perform that task. But, of course, proper policies must actually be pursued.

As to the question whether the existing international framework might inhibit the freedom of countries to pursue individual monetary policies, the answer must be in the affirmative. Indeed, a country cannot individually follow an inflationary policy without getting, in the long run, into serious trouble. I think it is rightly the function of international financial arrangements to thus put up a check. If they did not, it would mean that a country could freely spend beyond its means and yet continue to be supplied by the outside world.

Presently international financial arrangements imply the willingness of participating countries to make their currencies available freely in exchange for gold or dollars at a fixed rate. The possession of foreign-exchange reserves, be they in gold or dollars or another reserve currency, therefore implies the power to buy without selling, that is the power to exert an inflationary influence on other countries that have to supply their currency against gold or dollars. Such power must be liable to exhaustion. No country could otherwise submit to it.

The threat of exhaustion of reserves is the ultimate incentive that will rouse countries to pursue the policies that will help reestablish their external equilibrium. I do not think this should be felt as an unwarrantable inhibition of their freedom. That a country, in the long run, has to live within its means is a matter of course. Freedom lies in the choice of the means to accomplish this end.

## *2. Fixed versus fluctuating exchange rates*

The Netherlands has never considered establishing a fluctuating exchange rate. In view of the volume of its international trade in proportion to national income and the measure of integration of its economy with that of neighbouring countries, a fluctuating rate would constitute a very severe obstacle for export industries. In case of an international system of fluctuating rates, the Netherlands, in my opinion, would therefore prefer to seek a fixed-parity relationship with one or more of its important trade partners, rather than fluctuate on its own.

Nevertheless, the blessings of maintaining a fixed rate have not been quite unmixed, as has been proved by the decisions to devalue in 1949 and to revalue in 1961.

Yet, both these changes of parity might also be seen as an action to maintain parity with one of the most important trade partners—in the one case the United Kingdom, in the other Germany—with which parity, at the moment of decision, was considered more important than parity with the rest of the world.

When the difficulties in maintaining parity come from the inside—that is, when a country is faced with a serious balance-of-payments deficit due to internal inflationary conditions, or with a surplus due to the prevalence of deflationary factors—they always enhance the effectiveness of monetary policy. Nothing is easier for a central bank than to follow restrictive policies when the banks are anyway drained of liquidity by a balance-of-payments deficit, or to follow a policy of ease when there are no external worries and the banks are flush.

But it is different when the problems come from the outside and when boom and surplus, or recession and deficit, combine to bedevil the authorities. Under these circumstances the fixed parity no doubt sets a limit to the effectiveness of a monetary policy that would prefer to aim at internal equilibrium only.\* This, however, is the price that has to be paid for enjoying the advantages of international integration. It is also the reason why, these days, all countries are so intensely involved in the internal policies of their major trade partners and why, more than ever before, so much effort is put into the furtherance of international monetary cooperation.

\*See also Section I, §5, and Section III, §2.

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