

# Danish Monetary Policy During the Last Decade

By Erik Hoffmeyer and Leif Hansen, Copenhagen

## I. Introduction

During the early years of the sixties monetary policy aims were pursued through the traditional instruments, consisting mainly of variations in the official discount rate and the lending facilities available to the banking system, supplemented by open market operations. Variable cash reserve ratios were not applied. A couple of attempts to introduce this instrument failed to find sufficient political backing.

The formulation of monetary policy was changed decisively in 1965 when Danmarks Nationalbank concluded voluntary agreements with the banks (the Deposit Agreement — see below) to keep domestic credit expansion within limits designed to maintain economic stability, while the Bank undertook to provide adequate liquid funds for the banking system. This system of voluntary agreements concluded between the Bank and the money and capital market institutions has since been the leading principle of monetary policy in Denmark<sup>1</sup>. The uses made of the traditional monetary-policy instruments during that period should therefore be viewed in the light of this general principle as well as of the specific agreements concluded with the institutions of the money and capital markets on this basis.

Heavy reliance on market mechanisms has, however, been a characteristic feature of monetary policy in spite of this system of voluntary

---

<sup>1</sup> In October 1973 the Folketing (parliament) passed the Credit Regulation Act in order to strengthen the existing credit policy and to pave the way for selective credit management. The Act took the form of powers for the Minister of Economic Affairs to promulgate — after negotiations with Danmarks Nationalbank — regulations on a ceiling on lending, cash reserve ratios and selective credit policies, but any such regulations would to the widest possible extent give way to agreements between the Bank and the financial institutions. As the Bank and the associations of commercial banks and savings banks agreed to maintain the existing system of agreements from early 1965, adapted to conform to the aims of the Credit Regulation Act, it has not been necessary to resort to the powers vested in the Minister under this Act.

agreements. This applies particularly in the field of interest rate policy where growing political understanding has been won for this principle. Another characteristic feature of the monetary policy pursued during that period was that the agreement system contained neither formal rules on selective credit management — not even after the provision made for such rules in the Credit Regulation Act of 1973 — nor placement rules governing the institutions of the money and capital markets.

The economic environment in which monetary policy was pursued during the period under review may be divided in two parts — see Table 1 — viz. 1965 - 1973 which, with few exceptions, was a period of vigorous expansion and low rates of unemployment. The resulting pressures on the economy soon led to considerable disequilibria on the current account of the balance of payments and to heavy inflationary pressures. During most of this period, therefore, the authorities pursued restrictive economic policies, which were reflected *inter alia* in surpluses on central government accounts.

During the period 1974 - 1977 the economic background of monetary policy changed decisively on account, especially, of the oil crisis. The pervading features of this period were low rates of economic growth,

Table 1  
Economic Indicators

	1965 - 1973	1974 - 1977
	Average figures	
Percentage changes in GNP at constant prices .....	4	1 1/2
Unemployment <sup>a)</sup> .....	1 1/2	5 1/2
Wage-regulating price index <sup>b)</sup> , percentage increase .....	6	10
Deficit on current external payments, as per cent of GNP, current prices ..	2	3
Net foreign debt, as per cent of GNP, current prices .....	5 1/2 <sup>c)</sup>	17 1/2 <sup>d)</sup>
Surplus on central govt. accounts as per cent of GNP, current prices ..	1/2	- 3

a) Registered unemployment in per cent of labour force. — b) Used for indexation of wages, etc. Unlike the consumer price index, the wage-regulating index does not include indirect taxes and subsidies. — c) Year-end 1964. — d) Year-end 1977.

high levels of unemployment and worsening balance-of-payments and price trends; a significant change in the problems of monetary-policy management was caused by the swing from surpluses to large deficits on central government accounts.

The ultimate goals of the monetary policy throughout the period under review were, of course, the same as those of general economic policy, namely to achieve sustained economic growth, stable prices and full employment while maintaining equilibrium in external payments. Whereas the principal aim of monetary policy in the last half of the sixties — supplementary to restrictive fiscal policies — was to ensure internal economic stability, a higher priority had to be assigned to considerations of external stability — notably the financing of the deficit on current external payments — in the last few years, especially after the foreign-exchange crisis in 1969.

This does obviously not imply that the aim of internal stability has had to be abandoned, but whenever the two aims clash — as they may often do with an exchange-rate policy aim of relatively fixed exchange rates and an exchange-regulation policy aim of relatively free capital movements — priority has to be given to the external considerations.

The target variables (bond yield, bank lending, money supply or other monetary aggregates), which have formed the basis of monetary-policy formulation, and changes in the relative weights assigned to the various factors, should be viewed in the light of the above mentioned economic developments, and the application of the various instruments of monetary policy should be seen against the background of the relative weights assigned to the target variables.

The assignment of weights to the respective target variables and the application of monetary-policy instruments during the two periods 1965 - 1973 and 1974 - 1977 will be described below. Before this description, however, developments in credit expansion through the main sources of finance throughout the period will be reviewed; in this context certain characteristic institutional features of the Danish financial system will be explained.

## **II. Credit Expansion Through Main Sources of Finance 1965 - 1977**

The expansion of credit for the private sector through banks, bond-issuing institutes, and via government and external payments is shown in Table 2. The table also illustrates movements in  $M_2$  and in that part



Table 2: Credit Expansion Through

	Central government		Commercial banks and major savings banks	Mortgage credit institutes, etc.		Other domestic credit expansion
	Net borrowing requirement	Of which: Counterpart of M2 (i.e. drawings on Nationalbank and net purchases of government paper by Nationalbank and the banking system <sup>c)</sup> )	Increase in direct lending (all of which: Counterpart of M2)	Total net supply of bonds, at market value <sup>a)</sup>	Of which: Counterpart of M2 (i.e. net purchases of bonds by Nationalbank and the banking system <sup>c)</sup> )	Total (all of which: Counterpart of M2)
1965	- 0.6	- 0.6	2.3	4.7	1.5	- 0.2
1966	- 0.9	- 0.9	4.0	4.0	1.4	- 0.3
1967	0.1	0.1	2.9	4.2	1.4	- 0.2
1968	0.9	0.9	3.0	6.7	3.1	- 0.4
1969	- 0.8	- 0.8	5.6	8.1	2.2	- 0.9
1970	- 1.6	- 1.6	2.9	6.6	1.2	- 0.6
1971	0.5	0.5	2.0	9.4	3.7	- 0.7
1972	- 0.5	- 0.5	5.9	12.3	3.4	0.1
1973	- 3.3	- 3.3	8.5	15.5	3.5	- 2.3
1974	0.6	0.6	4.4	14.0	5.4	- 2.4
1975	10.8	10.5	1.8	18.9	12.3	- 0.9
1976	10.0	8.4	11.5	17.2	3.3	- 1.3
1977 <sup>d)</sup>	11.1	5.0	9.4	14.8	1.3	- 0.7
Average 1965-1973	- 0.7	- 0.7	4.1	8.0	2.4	- 0.6
Average 1974-1977	8.1	6.1	6.8	16.2	5.6	- 1.3

a) Except for that part of the net supply which is offset by the Social Pension Fund's bond purchases; these are included in the central government's borrowing requirements. — b) From and after 1976: Excluding subordinate loan capital raised

## Main Sources of Finance 1965 - 1977

Total domestic credit expansion		Private net capital imports <sup>b)</sup>	Total credit expansion		Surplus on balance of payments current account	Change in M 2	
Aggregate	Of which: Counterpart of M 2	Total (all of which: Counterpart of M 2)	Aggregate	Of which: Counterpart of M 2	Total (all of which: Counterpart of M 2)	Absolute	Year-on-year increase
Kr. billion							Per cent
6.2	3.0	1.3	7.5	4.3	- 1.2	3.1	9.7
6.8	4.2	1.8	8.6	6.0	- 1.4	4.6	13.0
7.0	4.2	1.7	8.7	5.9	- 2.0	3.9	9.9
10.2	6.6	1.3	11.5	7.9	- 1.6	6.3	14.4
12.0	6.1	2.2	14.2	8.3	- 3.1	5.2	10.4
7.3	1.9	3.8	11.1	5.7	- 4.1	1.6	2.9
11.2	5.5	2.6	13.8	8.1	- 3.1	5.0	8.8
17.8	8.9	0.7	18.5	9.6	- 0.4	9.2	15.0
18.4	6.4	5.4	23.8	11.8	- 2.8	9.0	12.7
16.6	8.0	4.7	21.3	12.7	- 5.6	7.1	8.9
30.6	23.7	1.3	31.9	25.0	- 3.0	22.0	25.5
37.4	21.9	1.9	39.3	23.8	- 11.5	12.3	11.3
34.6	15.0	6.7	41.3	21.7	- 9.9	11.8	9.8
10.8	5.2	2.3	13.1	7.5	- 2.2	5.3	10.8
29.8	17.2	3.6	33.4	20.8	- 7.5	13.3	13.9

abroad by banks. From and after 1975: Excluding net revenue of loans obtained abroad by the Mortgage Bank of the Kingdom of Denmark. — c) Mortgage Bank, Post Giro Office, commercial banks and major savings banks. — d) Preliminary.

of the above defined credit expansion which represents the counterparts of  $M_2$ . The difference between total credit expansion and the counterparts of  $M_2$  corresponds to the change in Exchange-listed bonds held by the private sector (other than banks and bond-issuing institutes).

The banking system in Denmark forms a distinct sector separate from other financial institutions, seeing that only commercial banks<sup>2</sup> and savings bank<sup>3</sup> are entitled to approach the general public for the purpose of offering themselves as recipients of deposits. They have the exclusive right and the obligation to use the word "bank" in their names. Up to 1st January 1975 their activities were governed by separate laws, one for commercial banks and one for savings banks, but the previous legislation was then consolidated in one single Act of Parliament, common to the two categories of banks except for the provisions governing their capital bases: commercial banks must still be incorporated as joint-stock companies, while savings banks must be organised as self-governing non-profit institutions. Commercial and savings bank activities are defined by the new Act as "the performance of functions relating to transactions of money, instruments of credit and securities and the associated services". Commercial banks and saving banks are normally not allowed to engage in any other activities.

Bond-issuing institutes, consisting primarily of mortgage credit institutes, undertake a very special form of lending: Their loans are financed by current issues of bonds corresponding to the mortgage deeds received as security for loans granted to borrowers. Such loans have in principle been disbursed in bonds carrying the same nominal rates of interest and amortised over the same periods as the mortgage deeds received as security for mortgage credit loans. Hence, borrowers normally have to sell their bonds through a bank or stock-exchange broker. Mortgage credit bonds are issued to bearer and are quoted every day on the Copenhagen Stock Exchange.

The activities of the mortgage credit institutes are governed by legislation. The institutes have set up a Mortgage Credit Board. This body operates as a "professional" organisation but it has also undertaken the responsibility for supervision and enforcement of the rules governing

---

<sup>2</sup> At end-1976 there were about 80 commercial banks.

<sup>3</sup> At end-1976 there were about 100 savings banks with an available capital (ordinary deposits, deposits of subordinate loans capital and net capital) of not less than Kr. 10 million.

the valuation of properties for lending purposes and upper limits of loans, in order to avoid competition in these fields.

The mortgage credit system, which is very efficient, provides for easy access to mortgage financing of residential as well as non-residential property. This form of financing has therefore become the principal source of finance on the capital market — see Table 2.

It will also be seen from Table 2 that the central government generally maintained net cash surpluses during the period 1965 - 1973. The counterparts of these surpluses appeared as increases in Treasury deposits with Danmarks Nationalbank. Central government operations therefore generally had liquidity-absorbing effects.

During the 1974 - 1977 period, on the other hand, the central government had large net borrowing requirements which were met partly by drawings on the Bank and, from 1975 onwards, by growing sales of government paper on the open market. The central government therefore added very large amounts to the volume of liquid funds held in the economy during that period. Since only a limited proportion of the sales of government paper was taken up by the private non-bank sector, the central government also made very substantial contributions to the creation of money.

There are no statutory limitations on the central government's debt to or claims on Danmarks Nationalbank, which acts as banker to the government. On 1st April 1976, however, the Bank and the Ministry of Finance concluded an agreement on the interest allowed and charged on such claims and debts.

The central government's net borrowing requirement, as shown in Table 2, does not comprise all government transactions: Government net borrowing abroad is not included. Such borrowing operations are intended only as compensatory balance-of-payments financing and serve no budgetary purposes. The proceeds are deposited in the Nationalbank, and they have no effects on liquidity.

Contributions to the credit expansion during the period 1965 - 1973 by way of external payments were modest: On average, private capital imports were generally large enough to meet the big current deficits recorded during that period. The biggest deviations were seen in 1969 when private capital imports were not sufficient to meet a heavy deterioration of the current external balance, and again in 1973 when Denmark's entry into the EEC was followed by a steep rise in private



capital imports of such a magnitude that even a considerable rise in the current account deficit could not prevent a substantial expansion of liquidity by way of external payments.

During the period 1974 - 1977 the current balance of payments deteriorated — especially because of the oil price rise — to such an extent that private capital imports could not prevent a heavy contraction of liquidity by way of external payments, notably in 1976.

Practically all the factors listed in Table 2 can generally be influenced by the monetary authorities. The extent to which the authorities have focussed their attention on these factors, or on combinations of them, has varied over time, or, expressed in another way: different factors have been target variables over time.

The changing focus on the target variables of monetary policy and on the application of monetary-policy instruments to achieve desired movements in the variables are described in the following paragraphs.

### **III. Monetary Policy 1965 - 1973**

The principal aim of monetary policy, as part of the general economic policy pursued during the first years of the sixties, was to curb demand in order to keep rises in prices and costs at the lower end of similar movements in other countries, thereby improving the relative competitiveness of Danish industries. Until the summer of 1965 this restraint was allowed to penetrate primarily to the bond market and led to a considerable rise in effective bond yields. The resulting fall in demand was, of course, reflected especially in investments in building activity and, in part, also in farming. The purpose was to leave room for investment in the other sectors of the economy, especially in manufacturing industry. This policy was supplemented by relatively liberal rules — in compliance with the Code of Liberalisation of Capital Movements of the OECD — governing capital imports in the form of trade credit and direct investment in Danish industries. This policy, which led to the accumulation of a substantial net foreign debt, was considered appropriate during this period when the diminishing importance of the agricultural sector made heavy demands on the economy in the shape of requirements for a rapid expansion of the manufacturing industry. Denmark's Nationalbank's participation in such a policy was, however, based on the explicit assumptions that this policy would be pursued only for a transitional period and that it would be an important aim of



economic policy to restore equilibrium on the current account of the balance of payments, seeing that monetary policy would otherwise become more sensitive to disturbances on foreign-exchange markets than was considered compatible with the aim of ensuring stability in the real economy.

During this period the primary target variable of monetary policy was the direct lending operations of the banking system. The attempts made to control these operations took the form of changes in the official discount rate as well as in the credit facilities available to banks in Danmarks Nationalbank.

However, the banking system did not respond to liquidity restraints in the manner expected: In the early sixties, there was a growing tendency for banks to continue the expansion of lending in spite of persistent contractions in their holdings of liquid funds.

Against this background Danmarks Nationalbank in early 1965 concluded a Deposit Agreement with the banks in order to ensure that the rise in bank lending took a course which was in better harmony with economic developments.

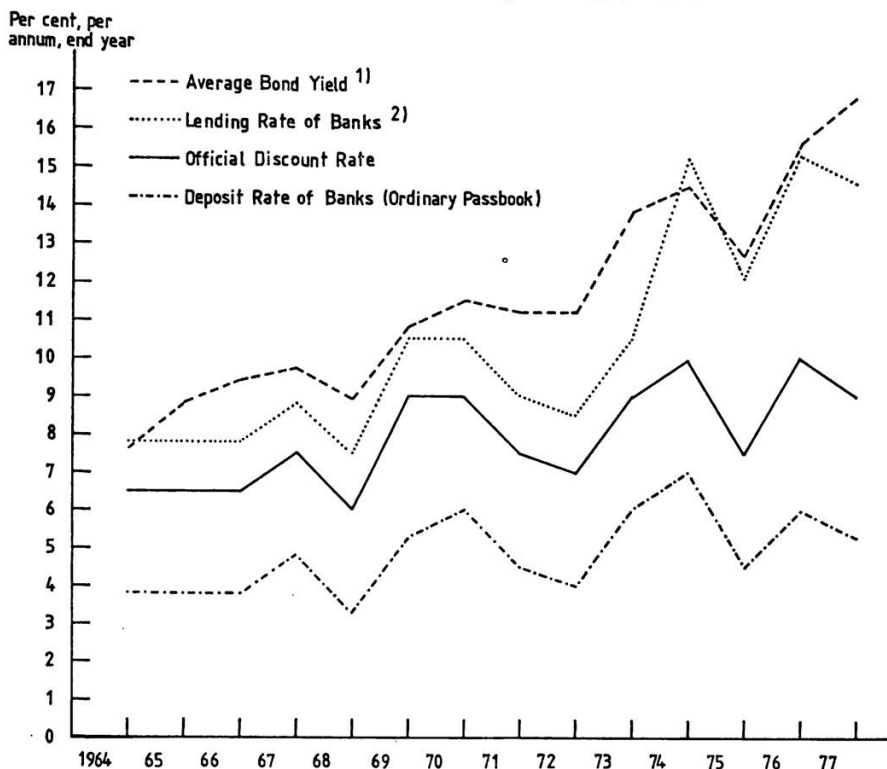
The main features of this agreement were that specified proportions of increases in customer deposits with banks were to be tied as special deposits in Danmarks Nationalbank or placed abroad; another important rule was that if a bank increased its net foreign indebtedness the whole amount of any such deterioration of its net foreign-exchange position would be deposited in the Bank. For its part, the Bank undertook to supply the banking system with adequate liquid funds.

Later in 1965 the agreements with the banks were followed up by agreements with the bond-issuing institutes, involving temporary restrictions on bond issues. The reason was that these issues were growing at a fast rate which made effective bond yields move upward, and the yield on bonds still held a fairly high priority as a target variable of monetary policy.

From 1965 onwards the emphasis of monetary policy thus shifted towards quantitative instruments. The Bank then found itself in a position to provide liquidity support for the banking system, for instance by purchasing bonds on the open market, which placed the Bank in a better position to pursue the aim of keeping interest rates stable. Effective bond yields actually showed little change from mid-1965 to the end of 1967, and the official discount rate remained unchanged between

mid-1964 and end-1967 when the discount rate was raised in connection with the devaluation of the Danish krone — see Chart.

Chart: Interest Rate Developments 1964 - 1977



1) 1964 - 1968: Government bonds. 1969 - 1977: Average yield for all bonds.

2) 1964 - 1973: Principal commercial banks. 1974 - 1977: Average of typical interest rates, including current commission, charged by banks for new overdraft facilities.

From these details it will be seen that the monetary policy pursued during this period was determined mainly by internal considerations. This was the case even more in 1968 when economic activity — also in the building industry — slowed down very appreciably. As the balance of payments improved somewhat at the same time, monetary policy was eased considerably in 1968: the discount rate was lowered and the bond rationing was lifted. The Bank bought large amounts of bonds in order to prevent the large backlog of loan applications, accumulated during the bond rationing, from having major repercussions on the interest level.

In terms of monetary policy these purchases were not without risks, but in view of the slower rate of economic expansion in 1968 a higher priority had to be assigned to movements in interest rates. Moreover it was understood, as part of the aims laid down in the monetary policy agreements, that banks would hold back on the credit expansion; finally the Bank issued one- to five-year deposit certificates in an attempt to curb the increasingly ample bank holdings of liquid funds.

However, domestic activity accelerated at a much faster rate than expected, and this led to a deterioration of the balance-of-payments position. In the beginning of 1969, these movements, together with rising international interest levels (and strong expectations of a revaluation of the D-Mark) gave rise to a speculative outflow of capital which, in turn, generated heavy demands for credit in the banking system. With ample holdings of liquid assets, the banks participating in the voluntary agreements did not show sufficient discipline with the result that bank lending increased sharply in the course of 1969 — see Table 2.

The currency crisis in 1969 showed that Denmark's freedom of action in economic policy was very limited, especially in the field of monetary policy. Danmarks Nationalbank pointed out<sup>4</sup> that in view of "the wide scope of liberalisation in international payments, seen in the context of Denmark's large short-term foreign debt, confidence in the par value of the krone and in better equilibrium on the balance of payments must be given much higher priorities as policy aims than they had in the sixties".

External considerations have since held top priority in monetary-policy formulation. This aim has been served primarily through a policy designed to keep the Danish interest level within the upper reaches of international levels and through additional restraints in the rules laid down in the voluntary agreement with the banks concluded in 1970 when ceilings were introduced on bank lending commitments.

In Danmarks Nationalbank's negotiations with the organisations of the commercial banks and the savings banks in the autumn of 1969 the parties agreed that lending had grown too fast. A new type of credit restraint was therefore initiated. It was based on the banks' lending commitments (overdraft facilities) over which bank managers can exercise direct control, whereas they have no immediate influence on drawings against overdraft facilities. It was agreed that the quota system

---

<sup>4</sup> Annual Report, 1969, p. 9.



introduced for lending commitments (known as the credit ceiling) was to be for a temporary period only, but in view of subsequent economic developments the quota system has been prolonged and is still in force.

The purpose of the interest policy and the credit ceiling has been partly to curb the total expansion of credit and partly to induce the private enterprise sector to raise loans abroad in order to help meet the persistently large deficit on the current account of the balance of payments. It was an obvious and important condition for the success of this policy that liberal rules were applied in respect of capital imports in the form of trade credit as well as direct investments and, from 1968, also in the form of financial loans.

As a general rule, Danmarks Nationalbank has remained neutral (being neither a net buyer nor a net seller) on the bond market since 1969. During the last part of the period 1969 - 1973, when government budgets were in surplus, the absorption of liquid funds through these surpluses was allowed to work through to bank liquidity. This resulted in heavy bank indebtedness to Danmarks Nationalbank.

From time to time, banks nevertheless expanded their total activity to an extent that exceeded what was considered desirable from the point of view of monetary policy. Quantitative regulations kept the rise in lending within fairly reasonable limits, but banks increased their portfolios of securities at an unacceptably fast rate. Banks may perhaps have been tempted to do so by the relatively low interest rates charged for bank loans from Danmarks Nationalbank.

Apart from the normal requirements for collateral security, there were no formal limitations on the loan facilities available to banks in Danmarks Nationalbank. One of the principal forms of security was the banks' own portfolios of bonds. The Bank could, however, adjust these facilities by changing the discountable value of the assets offered as security.

Banks bought very large amounts of bonds, especially in the second half of 1971 and the early months of 1972 — see Table 2. In view of the undesirable monetary consequences of these purchases, the Bank introduced six- and nine-months deposit certificates in the spring of 1972 as alternatives to bond purchases.

While the control of total credit expansion was not without problems during this period, it was relatively easy to achieve the aims of interest policy, because movements in bank interest rates were determined very

largely by the official discount rate while the rates allowed on customer deposits were governed by the Inter-Bank Interest Rates Agreement which existed until 1973.

Against this background, it was no problem to obtain sufficient private capital imports to meet the deficit on the current balance of payments. But the restrictive monetary policy as reflected in interest policy could not prevent devaluation pressures on the krone — at times quite severe — during periods of currency unrest; such pressures, however, were overcome in all cases by interest-policy intervention and by Bank operations on the forward market for foreign exchange.

High rates of activity and heavy demand pressures were the salient features of the Danish economy in 1973. This was reflected in a large external deficit and accelerating inflation. The opportunity to improve the balance of payments, inherent in Denmark's entry into the EEC on 1st January 1973, was missed. Monetary policy was therefore tightened in the course of 1973, partly by increases in the official discount rate and partly by modest increases of the credit ceiling. Strong demand for credit led to added drawings on overdraft facilities in the banks with the result that the intended credit-policy restraint was not reflected in actual lending, which increased sharply. These developments led to a tightening of the rules governing the credit ceiling — see p. 159, Note 1.

#### **IV. Monetary Policy 1974 - 1977**

Since oil imports account for a very high proportion of Denmark's energy supplies, the serious balance-of-payments situation was aggravated by the steep rise in oil prices in late 1973.

At the same time, unemployment rose at a faster rate than in most other countries during 1974. As Denmark had had practically full employment during most of the sixties and the early years of the seventies, and as this had been a high-priority aim of economic policy, the steep rise in unemployment to almost 6 per cent of the labour force during the second half of 1974 and prospects of a further rise in 1975 were clearly unacceptable.

The recession was, however, also reflected in a considerable weakening of the rate of inflation and in a substantial reduction of the deficit on the current account of the balance of payments in 1975. In the short run, inflation and balance-of-payments considerations could therefore

be moved down on the list of priorities of economic-policy aims, giving way to considerations of employment and production.

Relaxations of economic policy consisted mainly of a large reduction of direct taxes which, together with a sharp rise in expenditure on unemployment relief and other measures, resulted in a radical swing from surplus to big deficits on the central government's budget.

Already in late 1974, Danmarks Nationalbank called attention to the repercussions which the reversal of the government's financial position would have on the formulation of monetary policy, and the Bank strongly advocated open-market sales of government bonds to meet the central government's borrowing requirement.

The weak demand for consumer goods in 1975 and, not least, the reversal of the government's financial position — after accumulation of large deposits in Danmarks Nationalbank over a period of several years — were responsible for the slow progress in political negotiations for authorisation to raise government loans. In this context it should be borne in mind that the government had raised no domestic loans since the late fifties — apart from a couple of small premium lottery loans issued to curb consumption.

In this situation the Bank itself initiated a reform of its instruments of monetary policy. The very wide scope of credit facilities available to the banking system in Danmarks Nationalbank was no longer necessary after the swing in government finance. Instead, a system of borrowing limits was introduced as from 1st May 1975. Since then, this system has been the Bank's principal instrument of liquidity policy. Its main features are: Limits are fixed for quarterly periods with a maximum for each bank's average borrowing. They are based on the equity capital of each bank and unlike the previous system, collateral security is not required for credit obtained under this system. In order to ensure progressivity in interest rates in step with increases in borrowing, limits are divided into tranches — normally three — with the official discount rate being charged for the first tranche while the effective bond yield determines the rate charged for the third tranche. The division into tranches and the interest structure can be modified by the Bank at any time.

The introduction of the borrowing limits system involved no immediate contraction of bank liquidity, but liquidity potentials were reduced appreciably.



The negotiations for authorisation to issue government loans succeeded in June 1975, and the resulting bond issues were sold during the following quarter, but almost all of these bonds ended up in bank portfolios.

It had been difficult to find political support for domestic sales of government bonds because it was feared that they would have negative repercussions on the market for mortgage credit bonds. The authorisation was therefore given for only a limited amount, and the maturities of the bonds were relatively short.

In November, Danmarks Nationalbank therefore resumed its issues of deposit certificates, which had been suspended when the borrowing limits were introduced. Unlike the previous deposit certificates, which could be discounted in or resold to the Bank and thus represented fully liquid funds, the new certificates offered no such facilities and, being offered for tender, served as a direct means of absorbing liquid funds.

In spite of this improvement of the monetary-policy instruments, the Bank's influence on money supply was still extremely limited. The money supply rose at an unacceptable rate in 1975, almost twice the growth of GNP at current prices.

Against this background Danmarks Nationalbank approached the Ministry of Finance in late 1975 about the consequences of the Treasury's drawings on the Bank, pointing out that added drawings must give rise to negotiations about sales of government paper. The Ministry concurred in this view.

Late in 1975 the lending operations of the mortgage credit institutes again became subject to quantitative restrictions, partly because the regulation of bank lending had caused a shift towards mortgage credit financing, partly — and especially — because competition between the institutes had gradually brought mortgage financing up to an excessively high level.

These improvements of the instruments of liquidity policy, the regulation of mortgage credit lending and the political acceptance won for the need to meet the government's borrowing requirement by sales of government paper (as far as possible to private non-bank buyers) practically completed the adjustments of the monetary-policy instruments necessitated by the swing in government finance. The years 1976 and 1977 offered ample opportunities to test the efficacy of the new instruments when economic developments necessitated a vigorous

tightening of monetary policy, because considerations of external equilibrium again had to take absolute priority in the formulation of economic policy.

The quantitative regulation of bank lending was not sufficient to ensure a balanced rise in lending in 1976 and 1977. The reason was, above all, that the utilisation of overdraft facilities gradually made total lending increase sharply in 1976 in spite of the limited increases in the credit ceiling which, as explained previously, covers lending commitments.

Moreover, Treasury drawings on the Bank contributed materially to the rise in money supply ( $M_2$ ) in 1975 and 1976. This did not provide a good basis for the efforts to cope with the pressure on the krone which arose in 1976 in connection with the international currency unrest and tensions in the snake.

There were strong political wishes to ensure that the government's borrowing requirement should be met in a manner that would not generate any disproportionate upturn of long-term interest rates, whereas short-term rates should be kept sufficiently high to provide continued incentives for private capital imports. Through sales of short-term paper the Bank should absorb enough liquid funds to allow for intervention in support of the market for long-term mortgage credit bonds or, in other words, to attempt an "operation twist".

It was soon realised, however, that there was no basis for such an interest policy. As a result of massive pressures on the krone in March 1976 the Bank had to abandon practically all of its support to the long-term market.

The curbs on interest policy were eased in connection with the currency turbulence experienced prior to the exchange-rate adjustments in the snake in October 1976: The prices of government paper were lowered considerably and the outflow of foreign exchange was allowed to work through to bank liquidity. The banks therefore soon exhausted their borrowing limits in the Bank with the result that interest rates on the money market (for inter-bank loans) rose steeply. Rather than raising the borrowing limits the Bank intervened directly in this market to the extent that it was considered reasonable and useful in order to ease the pressure on the money market.

During the following six months, Bank intervention in the money market was used as an instrument of monetary policy supplementary

to the system of borrowing limits. As, however, the concurrent use of these two types of instruments proved inexpedient, the Bank has only intervened in the money market in exceptional cases since the first quarter of 1977. Since then the borrowing limits have again become the Bank's principal instrument of liquidity policy. From the third quarter of 1977 this system was supplemented by interest-bearing deposit facilities for banks. Like the borrowing limits, these facilities are fixed in relation to the equity capital of each bank, but they are not split up in tranches. The deposit facilities, which enable banks to earn interest on short-term surplus holdings of liquid funds, should reduce the incentive for banks to engage in other operations, for instance on the bond market, which could generate undesirable short-term fluctuations in bond yields.

After the exchange-rate adjustment in October 1976 the domestic interest level has been kept so high and bank liquidity so scarce that the domestic credit expansion has been of a volume that is compatible with private capital imports of a magnitude which has generally been sufficient to meet the current external deficit and kept movements in money supply in line with or slightly lower than the growth of GNP at current prices.

But this could not prevent devaluations of the Danish krone twice in 1977 in connection with exchange-rate adjustments in the snake. Unlike the adjustment in 1976, however, the adjustments in 1977 were due more to the devaluations of the Swedish krona than to actual pressure on the Danish krone.

Even if monetary policy thus served its external purpose in 1977, this was achieved at the expense of a growing spread between the Danish interest level and the international level to the detriment of business investments and, consequently, to the longer-term possibilities of restoring employment to a satisfactory level.

## **V. Recapitulation and Evaluation of the Last Decade's Monetary Policy**

An evaluation of the efficacy of the monetary policy pursued during the period under review must obviously start from an appraisal of the extent to which the goals established for this policy have been reached.

From a narrow point of view — i. e. that the primary task of monetary policy has been to ensure external stability (defined as overall equilibrium while maintaining a stable rate of exchange) — monetary



policy has coped successfully with the functions assigned to it. The underlying philosophy was that the saving deficit in the internal economy, reflected in a deficit on the current external balance, could be reduced at a more steady pace by means of other economic measures. But the pressure to resort to such other measures becomes less urgent the more successful monetary policy is, seeing that the political system normally functions with fairly narrow time horizons. It has therefore been difficult to find political backing for adoption of the necessary economic measures.

The result has been that instead of reducing the deficits on current payments, these deficits (including rising interest payments) have grown persistently up to and including 1976, thereby further narrowing down the freedom of action in monetary policy because it has also become necessary — in addition to financing the deficit on current payments — to prevent premature repayments of foreign debt and to refinance matured debt. The costs of this policy are reflected above all in the Danish interest level, which is higher than in most other western countries.

As explained above, the monetary policy pursued during this period has been based on the assumption that other corrective action would be taken, but such action has been too weak and too late. It may be argued, therefore, that it would have been better to pursue a less restrictive monetary policy in order to elicit the necessary adjustments in other fields of economic policy.

As a consequence, however, of the meagre foreign-exchange reserves, such a monetary policy would soon lead to chaos. The events in 1968 and 1975 demonstrate how quickly serious foreign-exchange difficulties may arise if monetary policy is allowed to make excessive contributions to internal expansion.

The efficacy of monetary policy, viewed in relation to the goals established for economic policy, cannot be measured without taking into consideration the other elements of the economic policy pursued during the period under review. If this is done, there can be no doubt that monetary policy contributed materially towards ensuring external stability and, to some extent, also kept certain parts of investments in check by means of the high interest level. But it has constantly been necessary to apply new monetary-policy instruments whose effects, however, gradually wear out. It is against this background that Denmark's Nationalbank advocates a shift in weight between monetary

policy on the one hand and fiscal and incomes policy on the other hand. It is gratifying, therefore, that there appears to be a growing political acceptance of the view that monetary policy is being overworked in Denmark.

## Zusammenfassung

### Die dänische Geldpolitik in dem letzten Jahrzehnt

Die Prioritäten der allgemeinen ökonomischen Zielsetzungen der Geldpolitik veränderten sich in dem betrachteten Zeitraum, weil die Überlegungen über die außenwirtschaftliche Stabilität, besonders nach der Währungs-krise von 1969, die Auffassungen über die binnenwirtschaftliche Stabilität veränderten.

Nach 1965 bestand das Hauptmerkmal der Geldpolitik in einem System freiwilliger Abkommen verschiedenster Art, die zwischen der dänischen Nationalbank und den Organisationen des Geld- und Kapitalmarktes geschlossen wurden. Ungeachtet dieses Systems war es jedoch ein charakteristisches Merkmal der in diesen Jahren verfolgten Geldpolitik, daß man dem Marktmechanismus besonders bezüglich der Zinspolitik stark vertraute.

Die allgemeine Wirtschaftsentwicklung, auf der die Geldpolitik basierte, kann man in zwei Perioden unterteilen. 1965 - 1973 und 1974 - 1977. Vor allem der Umschwung von Überschüssen zu großen Defiziten im Staatshaushalt zwischen diesen beiden Perioden ist herauszustreichen, der Anlaß zu signifikanten Änderungen in den geldpolitischen Instrumenten und den Zielvariablen gab.

Das wesentliche Ergebnis besteht darin, daß die im Betrachtungszeitraum verfolgte Geldpolitik signifikant auf die außenwirtschaftliche Stabilität gerichtet war und, bis zu einem gewissen Grade sogar, auch auf die binnenwirtschaftliche Stabilität, indem sie ein hohes Zinsniveau aufrecht erhielt. Damit entzog sich jedoch die Geldpolitik ihrer Hauptaufgabe. Allerdings kann gesagt werden, daß in dem Maße wie es der Geldpolitik gelingt, die Finanzierung des Zahlungsbilanzdefizits sicherzustellen, es schwieriger wird, politische Übereinstimmungen über notwendige Korrekturen auf anderen Gebieten der Wirtschaftspolitik zu erlangen, so daß man vielleicht besser eine weniger restriktive Geldpolitik verfolgt hätte, um solche Regulierungen vornehmen zu können. Jedoch hätte eine solche Politik bei den geringen dänischen Währungsreserven bald zu einem Chaos geführt, wie es durch die Ereignisse entstand, die man 1968 und 1975 erfahren hatte. Insofern war die Geldpolitik offensichtlich überfordert. Das traf besonders für die letzten Jahre zu, als unter anderem die dringende Notwendigkeit bestand, neue geldpolitische Instrumente zu schaffen, deren Wirkung jedoch allmählich erschöpft war. Es scheint allerdings, daß man mehr und mehr politisches Verständnis für diese Probleme aufbringt, so daß dies schließlich zu einer Schwerpunktverlagerung von der Geldpolitik zu der Fiskal- und Einkommenspolitik führen dürfte.

## Summary

### **Danish Monetary Policy During the Last Decade**

Priorities of the general economic aims of monetary policy shifted during the period under review because considerations of external stability, especially after the currency crisis in 1969, outweighed considerations of internal stability.

After 1965 the main feature of monetary-policy formulation has been a system of voluntary agreements (notably of quantitative nature) concluded between Danmarks Nationalbank and the organisations of the money and capital market institutions. Notwithstanding this system, however, it was a characteristic feature of the monetary policy pursued in those years that heavy reliance was placed on market mechanisms, notably in respect of interest policy.

The general economic trend on which monetary policy was based may be divided into two periods: 1965 - 1973 and 1974 - 1977. More particularly, the swing from surpluses to large deficits on government budgets between the two periods gave rise to significant changes in monetary-policy instruments and target variables.

The principal conclusion is that the monetary policy pursued during the period under review contributed significantly towards external stability and, to some extent, also towards internal stability by means of the high level of interest rates. Monetary policy thus discharged its main function. It may be argued, however, that the better monetary policy succeeds in ensuring the financing of the external payments deficit, the more difficult it is to win political acceptance of necessary adjustments in other fields of economic policy, so that it might have been preferable to pursue a less restrictive monetary policy in order to elicit such adjustments. However, with the meagre foreign-exchange reserves held by Denmark such a policy would soon have led to chaos — as borne out by the events experienced in 1968 and 1975. Monetary policy thus appears to have been overworked, especially in the last few years, which, among other things, has caused a persistent need to introduce new monetary-policy instruments which, however, gradually wear out. It appears, however, that there is growing political understanding of these problems and that this should lead to a shift of emphasis from monetary policy towards fiscal and incomes policy.

## Résumé

### **La politique monétaire danoise pendant la dernière décennie**

Les priorités en matière d'objectifs économiques généraux de la politique monétaire subissent des modifications dans la période de référence, les considérations sur la stabilité économique extérieure modifiant les conceptions sur la stabilité économique intérieure, surtout après la crise monétaire de 1969.



La principale caractéristique de la politique monétaire après 1965 était un système d'accords libres de tous genres conclus entre la banque nationale danoise et les associations financières et de capitaux. Abstraction faite de ce système toutefois un élément caractéristique de la politique monétaire suivi pendant ces années était la forte confiance mise dans le mécanisme du marché, surtout en matière de politique des taux d'intérêt.

L'évolution économique générale, sur laquelle était basée la politique monétaire peut être divisée en deux périodes: 1965 - 1973 et 1974 - 1977. Il faut principalement souligner le retournement de situation passant des surplus à des déficits considérables dans le budget de l'Etat entre ces deux périodes, ce qui entraîna des modifications significatives dans les instruments de politique monétaire et les variantes des objectifs.

Le résultat essentiel réside dans le fait que la politique monétaire suivie pendant la période de référence fut axée de manière significative sur la stabilité économique extérieure et, jusqu'à un certain degré même, également sur la stabilité économique intérieure, en ce qu'elle parvint à maintenir un haut taux d'intérêt. Par là la politique monétaire s'est toutefois soustraite à sa principale fonction. On peut cependant dire que dans la mesure où la politique monétaire réussit à assurer le financement du déficit de la balance des paiements il devint plus difficile d'atteindre des concordances politiques sur des corrections nécessaires dans d'autres domaines de la politique économique, en sorte qu'il aurait peut-être été souhaitable de suivre une politique monétaire moins restrictive, afin de pouvoir procéder à de tels règlements. Une telle politique aurait toutefois, vu les maigres réserves monétaires danoises, conduit à un chaos, comme il arriva par les événements que l'on a connu en 1968 et 1975. Dans cette mesure la politique monétaire a été visiblement dépassée. Ceci vaut surtout pour les dernières années, lorsque surgit notamment la nécessité urgente de créer de nouveaux instruments de politique monétaire, dont l'action s'était toutefois progressivement épuisée. Il semble cependant qu'on accorde à ces problèmes de plus en plus de compréhension politique, en sorte que ceci devrait entraîner un déplacement de l'accent de la politique monétaire vers la politique fiscale et des revenus.