

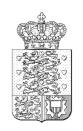
## Danmarks Nationalbank

# Report and Accounts



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## Danmarks Nationalbank

Report and Accounts

1999

## **Explanation of Symbols**

- Magnitude nil
- 0 Less than one half of unit employed
- Category not applicable
- ... Data not available
- \* Provisional or estimated figures
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## **Foreword**

Danmarks Nationalbank is the central bank of Denmark. Danmarks Nationalbank was established in 1818 and has been a self-governing institution since 1936. The legal basis for the Nationalbank's activities is the Nationalbank Act of 1936, according to which the Nationalbank's objective is to maintain a safe and secure currency system in this country, and to facilitate and regulate the traffic in money and the extension of credit. In its formulation of monetary policy the Nationalbank is independent of the Folketing (Parliament) and the Government.

The Nationalbank has 556 employees. The Management consists of the Board of Directors, the Committee of Directors and the Board of Governors. The Board of Directors and the Committee of Directors undertake organisational tasks and approve the annual accounts. The Board of Governors is responsible for the day-to-day management of the Nationalbank and for monetary-policy decisions. The Royal Bank Commissioner is the formal link between the government and the Nationalbank.

The Report and Accounts of Danmarks Nationalbank comprise a presentation and description of the bank's Accounts for the year 1999, and the Report of the Board of Governors. The Report of the Board of Governors presents recent trends in the Danish economy, the monetary and foreign-exchange policy and the development in financial markets in Denmark and abroad, together with a review of international monetary cooperation as well as some of the Nationalbank's other areas of operation and its organisation.

In the quarterly Monetary Reviews the Nationalbank publishes articles on recent trends in a number of areas – including monetary policy, statistics, banknotes and coins, Economic and Monetary Union, payment systems, etc.

# Report of the Board of Governors

## Summary

For decades the basis for Danish monetary policy has been the fixed-exchange-rate policy in various forms. Denmark participated in the European Monetary System, EMS, throughout its lifetime. The introduction of the euro on 1 January 1999 has entailed no change in the fixed-exchange-rate policy. The krone is now linked to the euro via its participation in the exchange-rate mechanism, ERM II, with a fluctuation band of +/- 2.25 per cent and a central rate which is equivalent to the previous central rate vis-à-vis the D-mark.

In recent years the Nationalbank has stabilised the krone close to its central rate against the D-mark, and now the euro. Underlying trends for fluctuation in the krone rate are countered by purchasing or selling foreign exchange and by adjusting the Nationalbank's interest rates. The krone was very stable against the euro in 1999, with an underlying tendency to strengthen in the 1st half-year. As a consequence, the Nationalbank purchased foreign exchange and the foreign-exchange reserve increased by kr. 64 billion to kr. 165 billion in 1999.

Against the background of the inflow of foreign exchange the Nationalbank lowered its official interest rates in several small steps during the 1st half of 1999. Furthermore, in April 1999 the Nationalbank lowered its official interest rates in connection with a reduction of interest rates in the euro area, and in November 1999 and February 2000 the Nationalbank increased its interest rates after rates in the euro area were raised. The short-term interest-rate differential to the euro area narrowed in 1999 and was around 0.4 per cent at the close of February 2000.

In 1999 the Nationalbank's monetary-policy instruments were adjusted in a number of areas. These were primarily technical adjustments which did not affect the overall framework for the conduct of monetary policy.

The international financial markets stabilised in 1999 after the unrest in 1998. Together with the rising level of growth during the year this contributed to a significant increase in long-term bond yields in most industrialised countries in 1999. In the course of the year long-term interest rates in the USA rose by around 1.8 per cent and in Germany by

around 1.5 per cent. In Denmark the 10-year yield differential to Germany was around 0.35 per cent in February 2000. The euro weakened against the dollar and the yen in 1999.

The gross domestic product, GDP, of Denmark's trading partners is estimated to have increased by 2.1 per cent in 1999. The upswing in the USA continued in 1999, while growth in the euro area accelerated during the year. The financial crisis in Southeast Asia has been overcome, but the situation in Russia is still uncertain.

After several years of strong growth the Danish economy lost momentum in 1999. GDP is estimated to have increased by 1.5 per cent in 1999. The lower growth was due to more subdued domestic demand, which reduced the imbalances in the economy.

A strong improvement in the trade balance reversed the deterioration in the balance of payments seen in recent years, and the current account is estimated to show a surplus in the range of kr. 10 billion in 1999, equivalent to 0.9 per cent of GDP. The improvement is related to higher exports as a consequence of the emerging upswing in Europe, lower capacity utilisation and a weaker effective krone rate. At the same time growth in imports diminished as a consequence of a strong reduction of stocks and subdued domestic demand.

In view of the continued dampening of domestic demand and higher exports it is possible to keep unemployment low while also reducing the external debt.

The Danish economy has made a "soft" landing and exports have recovered strength, but wage growth and inflation are high.

Unemployment continued to fall in 1999, reaching 5.4 per cent at the close of the year. Maintaining high GDP growth requires an increase in the supply of labour, unless productivity can be increased significantly in the future.

The rate of wage increases for the whole of 1999 was an average of 4.4 per cent, as in 1998. There was a slight dampening during 1999. Since 1996 wage increases have exceeded wage increases in the euro area. The high Danish wage increases can present a challenge to Danish competitiveness and the objective of price stability. Therefore it is important that the dampening of wage growth is sustained.

Despite reduced pressure on capacity consumer prices accelerated, which is for example related to higher energy and food prices. The inflation rate exceeds the rate of price increases in the euro area and at the close of 1999 equalled the inflation criterion for participation in the euro area.

For many years monetary policy has been used to stabilise the exchange rate. It is the task of fiscal policy and other economic policy to manage domestic demand and to ensure that the course of the economy is compatible with the requirements of the fixed-exchange-rate policy. In 1999 overall economic policy contributed to a dampening of domestic demand. The Finance Act for 2000 entails a more expansionary fiscal policy than proposed by the government in the Finance Bill for 2000. Monetary conditions continue to be expansionary, which makes it even more imperative to maintain the fiscal-policy objectives.

The banks' total profit for the year rose to just over kr. 14 billion. Losses and provisions on debtors decreased by almost 5 per cent. The mortgage-credit institutes are also expected to present a favourable profit for the year. The assets of investment associations increased considerably in 1999.

In 1999 the Nationalbank completed the issue of the new banknote series. In May the Nationalbank issued a new 50-krone note and in November a new 100-krone note. Preceding the millennium rollover the Nationalbank initiated a series of extraordinary measures to ensure a sufficient supply of cash.

The joint European payment system, TARGET, entered into force simultaneously with the introduction of the euro. The Danish part of TARGET, DEBES, was introduced without problems.

Considerable work has been done within the IMF and the EU to standardise economic and financial statistics. This makes requirements of the Danish financial statistics. In cooperation with Statistics Denmark the Nationalbank is expanding the statistical basis in order to comply with the guidelines set out.

The Nationalbank's transition to year 2000 was smooth.

The Nationalbank's accounts for 1999 show a profit of kr. 1,472 million. Negative value adjustments, etc. were kr. 3,081 million. After the

transfer of kr. 3,081 million from the Value Adjustment Reserve and the allocation of kr. 1,366 million – equivalent to 30 per cent of the profit before value adjustments – to the General Reserves the remainder of kr. 3,188 million is payable to the central government.

## The Danish Economy

After several years of strong growth the Danish economy lost momentum in 1999. The lower growth was due to more subdued domestic demand, which reduced the imbalances in the economy. Pressure on capacity diminished and the rate of wage increases subsided, but is still above the level for the euro area. Recent years' deterioration in the current account has been reversed and a surplus in the range of kr. 10 billion is estimated for 1999.

Despite the reduced capacity pressure consumer prices accelerated, which is for example related to higher energy and food prices.

There are prospects of higher growth on Denmark's export markets, giving an opportunity for further expansion of exports. The Danish labour market is still tight and there is a risk that wage increases will remain excessive and competitiveness deteriorate.

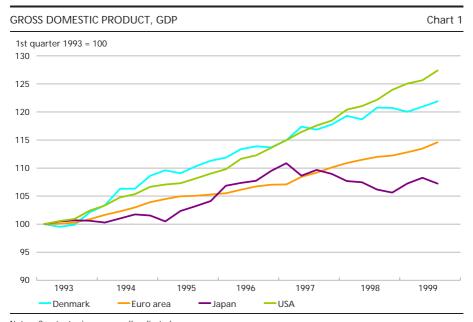
#### INTERNATIONAL BACKGROUND

The outlook for the global economy is fundamentally positive. The OECD expects growth in the gross domestic product, GDP, of Denmark's trading partners to increase to 2.7 per cent in 2000 from 2.1 per cent in 1999. The upswing in the USA continued in 1999, while growth in the euro area accelerated during the year. Crude oil prices rose significantly in 1999, leading to some pressure on consumer prices. Long-term interest rates were rising in 1999.

The financial crisis in Southeast Asia has been overcome and generally growth in that region has been strong. The situation in Russia was still uncertain at the close of 1999. However, the main issue for the global economy is whether the long period of high growth and low inflation in the USA can continue in 2000.

In the *USA*, for the third consecutive year growth was at a high level of more than 4 per cent, cf. Chart 1. The boom has thus lasted for 8 years without bringing high inflation in its wake. Excluding energy and food, inflation in fact declined in 1999. The upswing in the USA is related primarily to private consumption, which is stimulated by strong increases in share prices and rising real-estate prices, among other factors.

OECD estimates are used if figures for the whole of 1999 are not available.



Note: Constant prices, seasonally adjusted.
Source: National statistics and own calculations.

Consumption as a proportion of income has increased so strongly that households' savings are virtually eroded and the current account of the balance of payments shows a large deficit. There was a surplus on government finances in 1999.

After negative growth in *Japan* in 1998 the trend reversed. GDP is estimated to have increased by 1.4 per cent in 1999. Growth was driven primarily by government investments and private consumption, stimulated by tax reductions, among other factors. The yen rose strongly against the dollar in 1998, and increased further in 1999. The Bank of Japan sought to support exports by dampening the appreciation of the yen via intervention in the currency market.

Nonetheless, the improvement in economic activity is uncertain. The restructuring of the Japanese business and financial sectors has exacerbated fears of unemployment, which can have a negative impact on private consumption. Moreover, opportunities to introduce additional government measures are limited. In November 1999 the Japanese government put forward the ninth package of measures to boost activity since 1992, and in 1999 the general-government budget deficit is expected to be 7.6 per cent of GDP.

In the *euro area* taken as one growth accelerated during 1999 after a moderate dampening of private consumption and weak exports towards

the end of 1998 and in the beginning of 1999. The OECD estimates GDP growth at 2.1 per cent in 1999 and that growth will increase in 2000.

Despite augmented growth and the depreciation of the euro prices in the euro area dampened in 1999. Energy and food prices contributed to higher inflation. The average rate of price increases in 1999 was 1.1 per cent, which is within the bounds of the European Central Bank's definition of price stability as a year-on-year increase in consumer prices of below 2 per cent.

Euro-area unemployment fell in 1999, but was still high at the close of the year. The average unemployment rate of the euro area in 1999 was 10 per cent of the labour force, but this concealed major variations among the individual countries. Growth in wage costs in the euro area was below 2.5 per cent up to the 3rd quarter of 1999.

In 1999 the current account of the euro area showed a surplus of 0.8 per cent of GDP, while the average government deficit was 1.6 per cent of GDP. As in the case of unemployment, variations among the individual countries were considerable.

After a shortlived economic slowdown in the *UK* at the end of 1998 the economy has reversed and provisional statistics show GDP growth of 1.9 per cent in 1999. Stimulated by strong domestic demand, economic growth in the UK has thereby recovered quickly from the weakening of exports at the end of 1998 and the beginning of 1999. Net exports rose in the 2nd half of 1999 despite the continued strength of sterling, thus reducing the division of the British economy into a strong domestic sector and a weak export sector.

In *Sweden* the upswing continued in 1999 and provisional statistics indicate GDP growth of 3.9 per cent. Growth was stimulated by both domestic demand and exports. Inflation rose in 1999, but the level remained low.

After a number of years of high growth and signs of overheating *Norway* saw a dampening in 1999 with expected GDP growth of 0.6 per cent. The dampening was related primarily to a decrease in domestic demand.

*Greece*, which has announced that it will apply to join the euro area as from 1 January 2001, enjoyed high growth of around 3.3 per cent in 1999. The unemployment rate was just over 11 per cent, while inflation for the whole of 1999 was 2.4 per cent.

#### **ECONOMIC ACTIVITY IN DENMARK**

The economic reversal in 1999 stood out clearly from the upswing of previous years. GDP is estimated to have risen by 1.5 per cent in 1999,

KEY FIGURES FOR THE DANISH ECONOMY					Table 1
Real growth against the previous year, per cent	1995	1996	1997	1998	1999¹
Private consumption	2.6	2.9	3.7	3.5	0.6
Government demand	2.3	3.7	1.0	2.5	1.1
Business investments	17.1	3.6	12.3	8.5	2.7
Residential investments	5.3	7.3	7.7	5.1	0.9
Domestic demand, excluding stockbuilding Stockbuilding <sup>2</sup>	4.6 0.8	3.4 -0.8	4.5 0.1	4.1 0.4	1.1 -1.1
Stockbulluling	0.6	-0.6	0.1	0.4	-1.1
Domestic demand, total	5.5	2.5	4.6	4.6	0.0
Exports	3.5	5.0	4.4	1.4	6.7
Imports	8.8	4.3	8.5	6.4	2.9
Net exports <sup>2</sup>		0.4	-1.3	-1.8	1.5
Gross domestic product, GDP	3.7	2.8	3.1	2.7	1.5
Unemployment, per cent of the labour force.	10.4	8.9	7.9	6.6	5.7
Consumer-price index, percentage growth	2.1	2.1	2.2	1.9	2.5
Current account, per cent of GDPGeneral-government balance, per cent	1.0	1.7	0.4	-1.1	0.9
of GDP	-2.2	-1.0	0.5	1.2	2.8
Private savings surplus <sup>3</sup> , per cent of GDP	3.2	2.7	-0.1	-2.3	-2.0

Source: Statistics Denmark.

compared to 2.7 per cent in 1998, cf. Table 1. The lower growth was due to more subdued domestic demand, which was particularly apparent in the 1st half of the year, cf. Chart 2. Exports recovered and the contribution of net exports to GDP growth was positive.

Private consumption rose by 0.6 per cent, which was a clear slowdown against the preceding years. In the first six months of the year private consumption even declined, but then rose moderately. Nonetheless, the consumption ratio was still high and the savings deficit of the private sector was 2.0 per cent of GDP in 1999. The declining trend for private savings came to a halt, however.

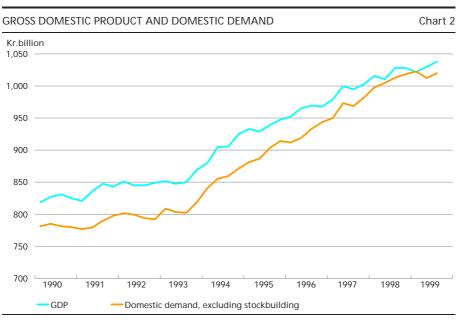
Growth in government consumption and government investments was 1.1 per cent, which was less than half the increase in the previous year.

The balance of the economy improved in 1999, related to such factors as the Whitsun package of economic measures, a higher level of interest rates and stronger growth on export markets. The objective of the

<sup>&</sup>lt;sup>1</sup> Partial estimate, based on provisional statistics from Statistics Denmark.

<sup>&</sup>lt;sup>2</sup> Contribution to growth in GDP at constant prices.

<sup>&</sup>lt;sup>3</sup> Current-account surplus plus general-government budget deficit.



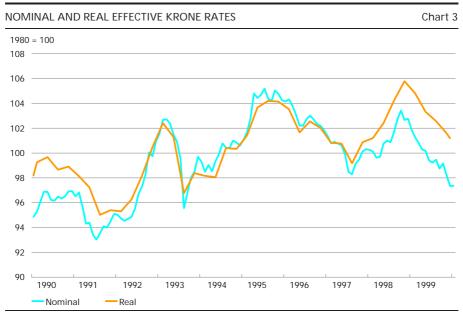
Note: 1990 prices, seasonally adjusted, annual level.

Source: Statistics Denmark.

Whitsun package, adopted in 1998 to be gradually phased in from 1999, was to dampen private consumption and boost private savings. The measures used included a reduction of the tax deductibility of interest payments in order to dampen property prices and also make borrowing less attractive.

The reduced tax deductibility of interest payments and the higher level of interest rates in 1999 can be assumed to have had an impact on private consumption, even though a dampening of property prices was not immediately apparent. Property prices continued to rise in the first three quarters of the year. The official statistics for the whole of 1999 are not yet available, but the statistics of the Association of Danish Mortgage Banks show a decrease in the 4th quarter. The dampening of the housing market at the end of the year was also reflected in the sales volume, which fell significantly in the 4th quarter.

Including the effects of the Whitsun package on private savings, the overall economic policy in 1999 contributed to a dampening of domestic demand. The Finance Act for 2000 entails a more expansionary fiscal policy than proposed by the government in the Finance Bill for 2000. However, the government still expects that the tightening resulting from the structural impacts of the Whitsun package will not be undermined.



Note: Real effective krone rate based on hourly earnings in manufacturing industry. The real effective krone rate denotes the trend for Danish wages compared to abroad in a common currency. For the real effective krone rate partial estimate for 4th quarter 1999.

Source: Statistics Denmark, OECD and own calculations.

The monetary conditions are still expansionary despite rising interest rates in the 2nd half of 1999. Interest rates are still low, and moreover the nominal and real effective krone rates fell in 1999, cf. Chart 3. This makes it even more imperative to maintain the fiscal-policy objectives.

THE DANISH LABOUR MARKET				Table 2
1,000 persons, annual average	1996	1997	1998	1999¹
Wage and salary earners				
Private sector	1,581	1,624	1,672	1,697
Public sector	780	794	805	808
Self-employed	213	211	208	206
Total employment	2,573	2,629	2,685	2,711
Unemployed	246	220	183	158
Labour force	2,819	2,849	2,868	2,869
Recipients of early-retirement benefit <sup>2</sup>	167	170	176	179
Recipients of leave benefits	63	46	41	33
Unemployment, per cent of the labour				
force	8.9	7.9	6.6	5.7
Unemployment, EU-definition, per cent of the labour force <sup>3</sup>	6.8	5.6	5.1	4.5

Source: Statistics Denmark, the Directorate General for Employment Placement and Vocational Training and own calculations.

<sup>&</sup>lt;sup>1</sup> Partial estimate, based on provisional statistics.

<sup>&</sup>lt;sup>2</sup> Including recipients of transitional allowance.

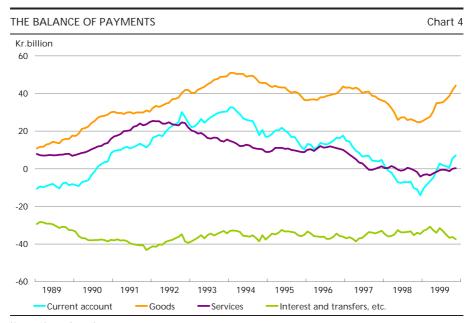
<sup>&</sup>lt;sup>3</sup> Eurostat method.

Total employment rose by 26,000 in 1999, cf. Table 2. This is less than the increase by 56,000 in both 1997 and 1998. Employment growth was lower in both the private and public sectors. The percentage increase in employment in 1999 was slightly less than the expansion of activity, reflecting a small upturn in productivity.

The dampening of employment growth was accompanied by an almost unchanged labour force and a decline in unemployment by 25,000 in 1999. At the close of the year 5.4 per cent of the labour force were unemployed.

#### **BALANCE OF PAYMENTS**

The balance of payments improved in 1999. The provisional statistics indicate a surplus for the year as a whole in the range of kr. 10 billion, equivalent to 0.9 per cent of GDP. The improvement was related to such factors as more favourable manufacturing exports in 1999 than in 1998. The growth in exports was sustained by the initial cyclical upswing in Europe, lower capacity utilisation and a weaker effective krone rate. At the same time, growth in imports diminished in 1999 as a consequence of a strong reduction of stocks and subdued domestic demand. Overall the trade balance has improved significantly since December 1998, reversing the course of the current account, cf. Chart 4.



Note: 12-month moving average. Source: Statistics Denmark.

For the first time in a number of years Danish exports did not lose market share. There are signs that in order to win market shares Danish enterprises are refraining from increasing export prices. This indicates lower pressure on manufacturing industry's capacity. The current account has thus once again served as a good and rapid indicator of the economy's course. A sustained tendency for the current account to deteriorate reflects high pressure on capacity or lack of competitiveness.

Even though the current account improved Denmark's competitiveness is still hampered by higher wage increases than abroad. To sustain the positive course of both employment and the current account, it is vital that the rate of wage increases is further contained.

The current-account surplus in 1999 in itself contributed to a reduction of Denmark's external debt. The value adjustment of assets and liabilities (shares and bonds) is evaluated to have reduced the external debt further<sup>1</sup>. The reason is that share prices rose and bond prices fell both in Denmark and abroad. At the beginning of 1999 residents held net positions in shares and non-residents held significant net positions in bonds.

#### **CREDIT EXPANSION**

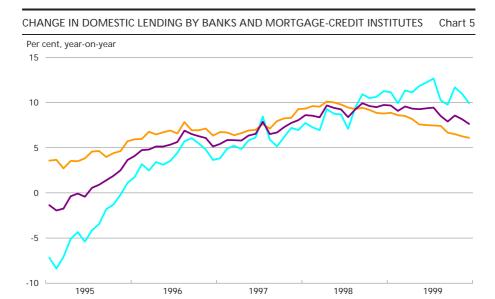
For several years private savings decreased, but in 1999 this came to a halt. This is reflected in lending by banks and mortgage-credit institutes, for which the rate of increase declined during 1999, but is still at a high level, cf. Chart 5. The weakening of credit demand was most pronounced among non-business customers, reflecting the more moderate growth in private consumption.

New lending by mortgage-credit institutes for owner-occupied homes has shifted towards loans at adjustable interest rates, in reaction to the significantly lower short-term interest rates versus long-term bond yields in 1999, cf. page 39. At the close of the year mortgage-credit loans at adjustable interest rates accounted for almost kr. 60 billion, or just below 6 per cent of total mortgage-credit lending.

At end-1999 euro-denominated lending by the mortgage-credit institutes amounted to kr. 10 billion of the total lending of kr. 1,033 billion.

The money stock, which consists of deposits with the banks from private individuals, business enterprises and local governments together with their holdings of banknotes and coins, rose by 4.2 per cent in 1999, in

Provisional statistics for Denmark's external debt at end-1999 are published at the end of March 2000.



Note: Lending denominated in both kroner and foreign exchange. Adjusted for losses and provisions.

Non-business

line with the preceding years. The money stock has thus increased by slightly more than the transaction requirement measured by the value of domestic demand.

Total

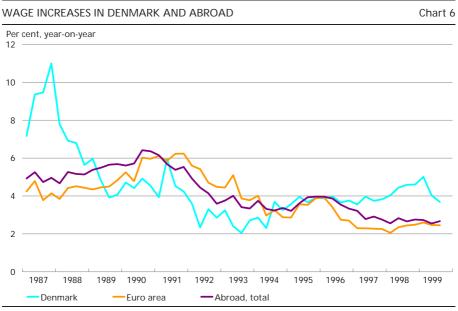
#### WAGE AND PRICE TRENDS

Business

Wage growth dampened during 1999. According to the wage statistics compiled by the Danish Employers' Confederation, wages rose by 4.2 per cent in the 4th quarter compared to 5.0 per cent in the 1st quarter. The rate of wage increase for the year as a whole was 4.4 per cent, which was equivalent to the rate of increase in 1998.

The rate of wage increase is still high and is above the rate of increase in the euro area, as has been the case since the start of 1996, cf. Chart 6. Wages in Denmark have risen by a total of 15 per cent since 1996, while the increase in the euro area in the equivalent period is 9 per cent. In view of current EU-harmonised unemployment rates of around 4 per cent in Denmark and just below 10 per cent in the euro area the Danish labour market will remain tighter than that of the euro area for some time to come, despite increasing activity in the euro area.

The high Danish wage increases can present a challenge to Danish competitiveness and the objective of price stability. Therefore it is important that the wage dampening is sustained in the face of the tight



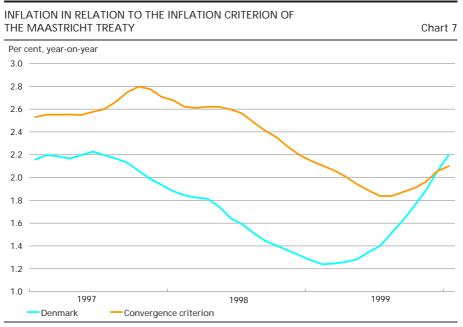
Note: Abroad, total is the countries included in the effective-krone-rate index. The wage increases are weighted together using the weights of the index.

Source: Statistics Denmark, OECD and own calculations.

labour market. It is also vital that the general-government sector does not contribute to additional pressure on wages via higher employment levels than planned, or via the derived effects of wage increases in the general-government sector. In 1999 wages in the central-government sector rose by an average of 4.5 per cent and in the local-government sector by 3.2 per cent.

The year-on-year rate of increase in consumer prices rose to an average of 2.5 per cent in 1999. The rate of increase was 3.2 per cent at the close of the year. The rising inflation is attributable in particular to higher energy prices. However, the element of inflation which is determined in the Danish market was also substantial in 1999. This is related to such factors as the high Danish wage increases.

The inflation rate exceeds the rate of price increases in the euro area. In HICP terms inflation in Denmark was 2.1 per cent for the whole of 1999, while for the euro area taken as one it was 1.1 per cent. At the close of 1999 Denmark equalled the inflation criterion for participation in the euro area, cf. Chart 7. It is not possible for Denmark to have higher wage and price increases than the euro area for an extended period without a negative impact on competitiveness, thereby jeopardising the favourable employment situation.



Note: Inflation is calculated as a 12-month moving average of HICP growth. The convergence criterion is calculated as a 12-month moving average of the averages of the three lowest inflation rates in the EU member states plus 1.5 per cent.

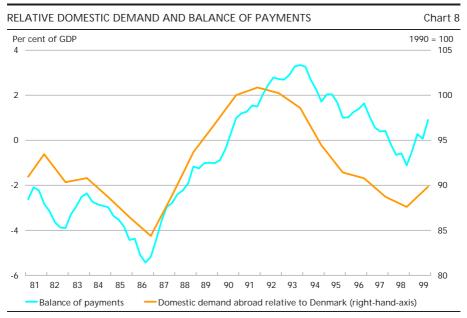
Source: Furostat and own calculations.

### **ECONOMIC PROSPECTS**

Domestic activity has subsided and growth rates among Denmark's trading partners are picking up, which prepares the ground for the Danish economy to take a more balanced course. For the first time since the early 1990s demand is rising faster abroad than in Denmark, which is beneficial to the current account, cf. Chart 8.

The prospects of continuing subdued domestic demand and higher exports are beneficial to the Danish economy. It is possible to keep unemployment low, while also reducing the external debt. In view of the future age composition of the population, with a larger proportion of elderly people and a smaller active population, it is important that Denmark does not forfeit the opportunity to reduce the external debt and to bring down interest expenditure within the foreseeable future. This requires a current-account surplus, sustained by sound competitiveness and a high level of savings in the economy. The prospect of a heavier provider burden is another reason for reducing the government debt.

Moreover, maintaining high GDP growth requires an increase in the supply of labour, unless productivity can be increased significantly in the



Note: The balance of payments is a 4-quarter moving average. Domestic demand abroad is weighted together using the weights of the effective-krone-rate index. Partial estimate for 4th quarter 1999.

Source: Statistics Denmark, OECD and own calculations.

future. A greater supply of labour will also ease the financing of public welfare benefits. With the recent reform of the labour market in the autumn of 1998 and amended rules for retirement from the labour market the government aimed to increase the flexibility of the Danish labour market and to ensure an increased supply of labour. So far it has been possible to achieve high employment without accelerated wage growth in view of the low unemployment. However, the influx to the labour force was modest in 1999. This illustrates how difficult it is to achieve the objective of an increase in the supply of labour. The demand for additional holiday leave and shorter working hours makes this challenge even greater.

The Danish economy has made a "soft" landing and exports have recovered strength but wage growth and inflation are high.

## Monetary and Exchange-Rate Policy

Denmark's fixed-exchange-rate policy was maintained after the introduction of the euro. In continuation of the previous linking to the D-mark and the other core currencies in the European Monetary System, EMS, the krone is now linked to the euro at a central rate equivalent to the previous central rate vis-à-vis the D-mark. The formal framework is the exchange-rate mechanism, ERM II, which succeeded the EMS on the introduction of the euro in 1999. The krone's fluctuation band within ERM II is +/- 2.25 per cent.

The krone was very stable against the euro in 1999. The foreign-exchange reserve increased by kr. 64 billion. Against the background of the inflow of foreign exchange the Nationalbank lowered its official interest rates in several small steps during the 1st half of 1999. Furthermore, in April 1999 the Nationalbank lowered its interest rates in connection with a reduction of interest rates in the euro area. In November 1999 and February 2000 the Nationalbank increased its interest rates after rates in the euro area were raised. The short-term interest-rate differential to the euro area narrowed in 1999.

With effect from 21 June 1999 the Nationalbank's monetary-policy instruments were adjusted in a number of areas. These were primarily technical adjustments which did not affect the overall framework for the conduct of monetary policy.

#### THE FOREIGN-EXCHANGE-POLICY OBJECTIVE

The objective of Denmark's foreign exchange policy is to maintain a stable krone rate against the euro. The formal framework for Denmark's fixed-exchange-rate policy is the exchange-rate mechanism, ERM II, which succeeded the cooperation within the European Monetary System, EMS, on the introduction of the euro on 1 January 1999. In accordance with the agreement with the euro area member states and the European Central Bank, ECB, Denmark participates in ERM II with a central rate of kr. 746.038 per 100 euro and a fluctuation band of +/-2.25 per cent. The central rate of the krone against the euro corresponds to its previous central rate vis-à-vis the D-mark. The linking to the euro is a continuation of the fixed-exchange-rate policy up to the introduction of the euro whereby the krone was linked to the D-mark and the other core EMS currencies.

In recent years the Nationalbank has stabilised the krone rate close to the central rate against the D-mark, and now the euro. Underlying trends for fluctuations in the krone rate are countered by purchasing or selling foreign exchange and/or adjusting the Nationalbank's interest rates.

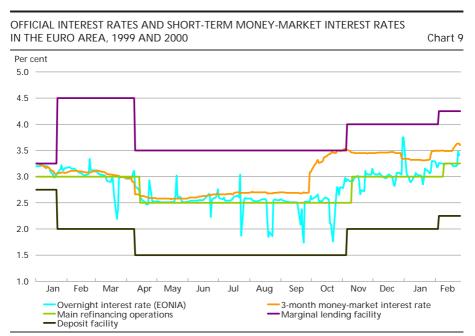
The primary objective of the single monetary policy in the euro area is to maintain price stability. The linking of the krone to the euro therefore creates a framework for price stability in Denmark. The fixed-exchange-rate policy entails a clear dividing line between monetary and fiscal policy. The monetary policy is designed to maintain a stable krone rate against the euro and is therefore closely matched to the monetary policy of the euro area. It is the task of fiscal policy and other economic policy to manage domestic demand and to ensure that the course of the economy is compatible with the requirements of the fixed-exchange-rate policy.

#### THE MONETARY POLICY OF THE EURO AREA

The practical changeover to the euro was unproblematic and trading in the new currency began on 4 January 1999 when the currency markets opened after the New Year. The euro was introduced after the irrevocable fixing of the exchange rates of the 11 member states at conversion rates based on the previous EMS central rates. At the same time the introduction of the euro represented a transition to a single monetary policy and a single money market for the entire euro area.

The ECB's primary objective is to maintain price stability as defined by the ECB as a year-on-year increase in consumer prices of below 2 per cent. Price stability is to be maintained over the medium term. To meet this objective the ECB has adopted a monetary-policy strategy based on two pillars. The first is a reference value for growth in the broad monetary aggregate, M3, while the second pillar is an assessment of the development in other key financial and economic indicators of significance to price development. The reference value for the year-on-year growth in M3 which is found to be compatible with price stability in the medium term was set at 4½ per cent for 1999. The reference value is maintained in 2000.

If there is no threat to price stability in the euro area the ECB's mandate provides for the use of monetary policy to contribute to the utilisation of the growth potential of the euro area. In the spring of 1999 the annual rate of increase in consumer prices was approximately 1 per cent in the euro area, and the cyclical position implied a favourable outlook for price stability. Against the background of the modest



Note: See the footnote for a description of the EONIA interest rate.

inflationary pressure the Governing Council of the ECB on 8 April 1999 decided to lower the rate of interest for the main refinancing operations by 0.5 per cent to 2.5 per cent, cf. Chart 9. At the same time the rates of interest for the marginal lending facility and the deposit facility were also lowered by respectively 1 per cent and 0.5 per cent. In normal circumstances these two standing facilities constitute the interest-rate corridor for fluctuations in the overnight inter-bank rate of interest EONIA<sup>1</sup>, cf. Box 1. The interest-rate adjustment narrowed the interest-rate corridor which was then symmetrical around the rate of interest for the main refinancing operations. With effect from the beginning of January 1999 the ECB had stipulated a relatively narrow interest-rate corridor of 0.5 per cent to make it easier for the market participants to adjust to the new money market in the euro area.

During the summer and autumn of 1999 there were clear indications of an upswing in the euro area, and in the autumn growth in M3 edged upwards away from the reference value. In view of the increasing threats to price stability, on 4 November the ECB decided to raise the official interest rates by 0.5 per cent. Continued strong growth in M3 and an increasing risk of future inflation due to such factors as the

<sup>&</sup>lt;sup>1</sup> Euro Overnight Index Average, or EONIA, is a weighted average of the rates of interest for uncollateralised overnight transactions reported by a panel of major banks which are active in the euro money market.

# THE ECB'S MAIN REFINANCING OPERATIONS AND THE MINIMUM RESERVE REQUIREMENT IN PRACTICE

Box 1

The weekly main refinancing operations of the ECB are auctions whereby liquidity is supplied to the market against collateral. At the weekly auctions in 1999 the rate of interest for main refinancing operations was fixed in advance, although the ECB may also choose to conduct the operations as variable rate tenders. When the credit institutions have submitted bids the ECB fixes the liquidity allotment. The ratio between the ECB's allotment and the credit institutions' bid is the allotment ratio. In general the total amount of bids was high and the allotment ratio was often below 10 per cent.

Under the ECB's minimum reserve system credit institutions in the euro area must deposit 2 per cent of selected liabilities with their national central banks. The minimum reserve requirements must be met on average during a maintenance period of one month from the 24th to the 23rd of the following month. The required reserves are subject to the rate of interest for main refinancing operations.

Fulfilment of the reserve requirement and exploitation of official interest-rate adjustments in the future are important factors behind the amounts of bids and the allotment ratios in the ECB's main refinancing operations. The highest amount of bids and subsequently the lowest allotment ratio in a main refinancing operation occurred in the tender on 1 February 2000, two days before the ECB announced an interest-rate increase.

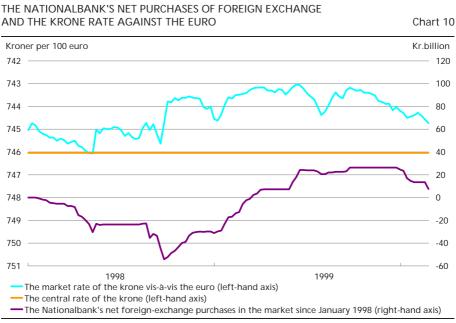
The commitment in connection with the reserve requirement becomes binding on the last day of each maintenance period, so the overnight interest rate, EONIA, may fluctuate more than usual. A substantial increase in the EONIA interest rate towards the end of a maintenance period is typically due to the fact that a number of credit institutions need more liquidity to meet their reserve requirement. A drop in the EONIA interest rate towards the end of a maintenance period can be attributed to ample liquidity among credit institutions.

euro's weakening induced the ECB to raise the official interest rates by 0.25 per cent on 3 February 2000. This brought the rate of interest for the main refinancing operations to 3.25 per cent with effect from 9 February.

In 1999 the ECB applied its monetary-policy instruments without recourse to extraordinary fine-tuning operations. Such operations can be used to smooth out unexpected liquidity fluctuations. The ECB carried out the first extraordinary fine-tuning operation on 5 January 2000 to absorb a proportion of the ample liquidity in the money market at the turn of the year.

## **INTEREST RATES IN DENMARK**

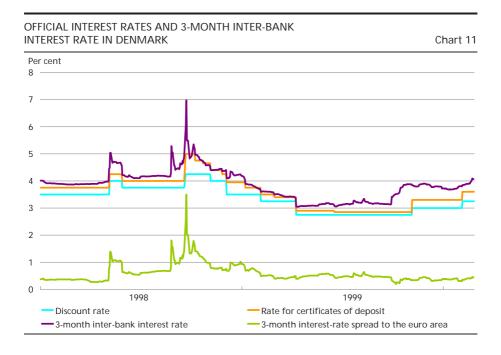
During 1999 the krone was very stable vis-à-vis the euro at a level slightly above the central rate of the ERM II agreement. The first six months saw an underlying trend for a strengthening of the krone and



Note: Weekly observations. The exchange rates vis-à-vis the D-mark are converted to exchange rates vis-à-vis the euro at the official conversion rate as at 31 December 1999.

the Nationalbank intervened by buying foreign exchange in the market, cf. Chart 10. On the basis of a considerable inflow of foreign exchange and a strong krone rate the Nationalbank lowered the rate of interest for certificates of deposit and the lending rate with effect from 7 January, 4 February and 1 March 1999 by a total of 0.55 per cent to 3.4 per cent, cf. Chart 11. When interest rates were reduced in February the discount rate was also cut by 0.25 per cent to 3.25 per cent. After the interest-rate reductions at the beginning of 1999 the spread between the short-term money-market rates in Denmark and in the euro area had narrowed to approximately 0.4 per cent after having widened to more than 3 per cent during the unrest on the financial markets in the autumn of 1998. The spread between short-term money-market rates in Denmark and in the euro area was relatively stable for the rest of 1999 and was around 0.4 per cent at the close of February 2000.

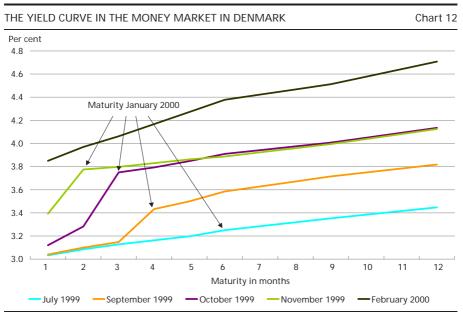
Against the background of the ECB's lowering of interest rates by 0.5 per cent on 8 April 1999 the Nationalbank equivalently reduced the official interest rates with effect from 9 April. This brought the discount rate down to 2.75 per cent, the lowest since 1933. The krone continued its slightly rising trend and after a considerable inflow of foreign exchange in the first half of June the Nationalbank on 17 June cut the rate of interest for certificates of deposit and the lending rate by 0.05



per cent to 2.85 per cent. This brought an end to the tendency towards an inflow of foreign exchange.

In the light of the ECB's decision on 4 November to raise the official interest rates by 0.5 per cent to redress the easing of interest rates in the spring, with effect from 5 November the Nationalbank raised the discount rate by 0.25 per cent to 3 per cent and the rate of interest for certificates of deposit and the lending rate by 0.45 per cent to 3.30 per cent. This narrowed the spread between the Nationalbank's lending rate and the ECB's rate of interest for main refinancing operations to 0.3 per cent. In view of the ECB's raising of the official interest rates by 0.25 per cent on 3 February 2000 the Nationalbank raised the discount rate by 0.25 per cent to 3.25 per cent and the rate of interest for certificates of deposit and the lending rate by 0.3 per cent to 3.60 per cent, with effect from 4 February. The outflow of foreign exchange of kr. 12 billion in January 2000 thus led to a slight widening of the spread between the Nationalbank's lending rate and the ECB's rate of interest for main refinancing operations.

In the 2nd half of 1999 the interest rates for money-market transactions with a maturity date after the millennium rollover were somewhat higher than the rates of interest for transactions expiring before the end of the year, cf. Chart 12. This pattern was also seen in money markets in other countries, primarily reflecting a premium on



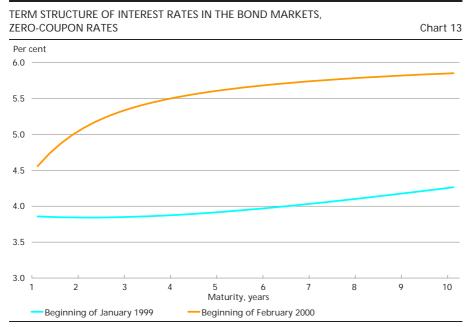
Note: Cibor rates, mid-month. The 7, 8 10 and 11 month rates are calculated by linear interpolation.

liquidity traded in the money market around the turn of the year. An interest premium in connection with money-market transactions around year-end is normal. The volume of transactions is low since the banks are closing their books and therefore seek to avoid positions which may affect the financial result for the year. However, the premium at the turn of the century was higher than in the preceding years due to concern about IT-related problems at the millennium change. Like most other central banks the Nationalbank had taken precautions in order to accommodate a possible surge in liquidity demand around the turn of the year. The Nationalbank gave access to both purchase and sale of certificates of deposit on 30 December 1999 and 3 January 2000. On the last days of the old year and on 3 January 2000 there were net sales of certificates of deposit from the Nationalbank to the banks and mortgage-credit institutes. However, the net sales on 3 January 2000 can attributed primarily to a significant liquidity effect from central-government payments. Turnover in the money market was low on the days around the turn of the year, but generally the millennium rollover progressed smoothly and in January the yield curve of the money market had regained normal shape. After official interest rates were raised in November 1999 and February 2000 the yield curve is now at a higher level than the curve in July 1999. It is also slightly steeper, indicating that the market participants expect official interest rates to be raised further in 2000.

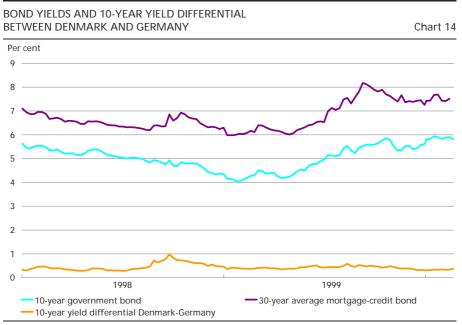
In 1999 the banks' average deposit and lending rates continued the declining trend of recent years. From the 4th quarter of 1998 to the 3rd quarter of 1999 the banks' average deposit rate fell by 1.2 per cent to 2.2 per cent, while the average lending rate decreased by 1.4 per cent to 6.9 per cent. The interest margin thus narrowed slightly. The decline in interest rates was reversed in the 4th quarter of 1999 when most banks increased their deposit and lending rates after the Nationalbank's raising of interest rates in November.

# **Bond yields**

Bond yields rose considerably abroad and in Denmark during 1999 as global economic growth gained momentum. The higher yields also reflected a certain normalisation after the flight to safety in government bonds during the unrest on the financial markets in the autumn of 1998. The yield to maturity on Danish 10-year government bonds rose from a historically low level of approximately 4 per cent in January 1999 to almost 6 per cent in January 2000. The yield curve steepened considerably as bond yields rose, cf. Chart 13. The yield differential between Danish and German 10-year government bonds was very stable at around 0.5 per cent in 1999. The yield differential narrowed a little towards the end of the year. In February 2000 the yield differential was around 0.35 per cent.



Note: A zero-coupon rate is the yield to maturity of a bond with one payment only. The zero-coupon rate is an unequivocal measure of the yield on the individual maturities. Generally zero-coupon rates cannot be observed but must be estimated.



Source: Nykredit (data on gross issues).

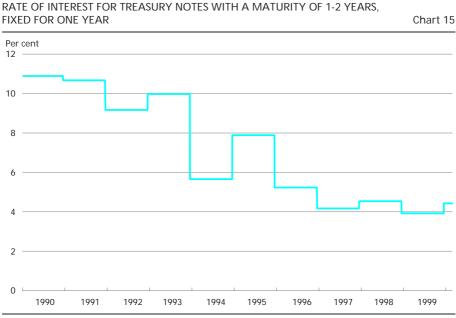
Note: Weekly observations. The average mortgage-credit yield includes 5, 6, 7 and 8 per cent series with weights corresponding to their shares of gross issues in Nykredit's open series. From the beginning of September 1999 the year of maturity for the mortgage-credit bonds was 2032 rather than 2029, which resulted in a small interest-rate increase (0.10-0.15 per cent). Furthermore, the 8 per cent series was opened at the beginning of September 1999, which also contributed to an increase in the average interest rate.

# Yields on mortgage-credit bonds

The rising government-bond yields in 1999 had an impact on the Danish mortgage-credit market, cf. Chart 14. The differential between the average yield on a 30-year mortgage-credit bond and a 10-year government bond continued to be slightly higher in 1999 than before the financial-market unrest in the autumn of 1998.

The increase in long-term mortgage-credit yields and the wider differential between short-term and long-term interest rates induced an increasing number of home owners to raise mortgage-credit loans at floating beholds interest rates, called adjustable-rate loans, whereby the rate of interest during the term of the loan can vary, cf. p. 64.

The future instalments on adjustable-rate loans are unknown since market interest rates can vary considerably during the term of the loan. The instalments on a conventional fixed-rate loan are known throughout the term of the loan. Chart 15 shows the rate of interest for Treasury notes with a maturity of between 1 and 2 years for which in mid-December the rate of interest is fixed for one year ahead. The chart illustrates that the interest-rate fluctuations seen in the last three years are moderate compared to the fluctuations earlier in the 1990s when



Note: The interest rate in mid-December is fixed for one year.

inflation was also low. The assumption that the relatively low interest rates since 1996 will be stable for many years to come is associated with a certain risk. International interest rates may rise, or the Nationalbank may be obliged to raise interest rates considerably to counter speculative pressure against the krone. In such situations the Nationalbank cannot take into consideration that private home owners will also be affected.

#### CAPITAL FLOWS AND THE FOREIGN-EXCHANGE RESERVE

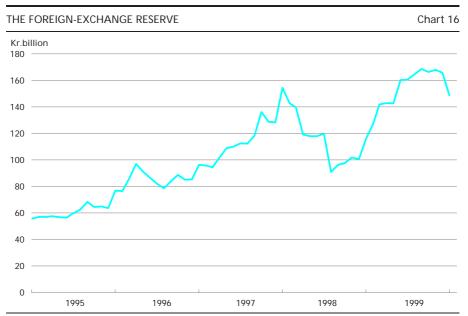
The surplus on the current account of the balance of payments is estimated to be in the range of kr. 10 billion in 1999, cf. Table 3. Private capital flows entailed net capital imports of kr. 52 billion. The National-bank purchased foreign exchange for a net amount of kr. 63 billion and for the year as a whole the foreign-exchange reserve increased by kr. 64 billion excluding value adjustments. At the close of 1999 the foreign-exchange reserve amounted to kr. 165 billion, cf. Chart 16.

Portfolio investments in 1999 led to net capital exports of kr. 33 billion. Recent years' considerable net purchases of foreign securities by residents continued and their net purchases in 1999 amounted to kr. 67 billion, of which equity securities accounted for kr. 43 billion. In 1999 non-residents' net purchases of krone-denominated bonds were kr.

CAPITAL FLOWS		Table 3
Net receipts, kr. billion	1998	1999
Current account of the balance of payments	-14	10
Capital transfers	0	1
Private capital flows:  Portfolio investments¹  Direct investments  Financial derivatives  Lending and deposits³  Estimate of unrecorded commercial credits  Errors and omissions	-42 -3 <sup>2</sup> -1 29 7 -5	-33 -5 4 88 1 -3
The Nationalbank's net purchase of foreign exchange	-29	63
Used as follows: To reduce the central government's foreign debt For the central government's sale of Tele Danmark To increase the foreign-exchange reserve	22 -21 -29	-2 64

Note: Excluding value adjustments, etc.

7 billion while their purchases of Danish bonds denominated in foreign exchange amounted to kr. 28 billion. Danish bonds denominated in foreign exchange were mostly short-term bonds denominated in euro issued by Danish banks. There were no net capital flows related to Danish shares in 1999.

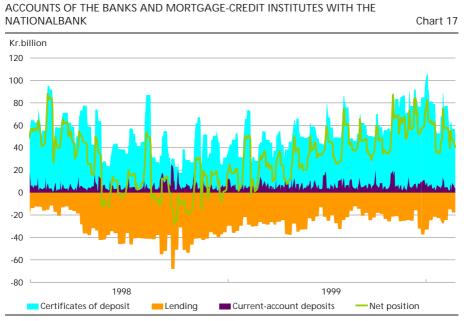


Note: End of month.

<sup>&</sup>lt;sup>1</sup> Excluding the central government's foreign bond issues.

<sup>&</sup>lt;sup>2</sup> Excluding the central government's sale of Tele Danmark shares.

<sup>&</sup>lt;sup>3</sup> Excluding the central government's foreign bank loans.



Note: The mortgage-credit institutes are included as from 21 June 1999.

Lending and deposits vis-à-vis abroad resulted in considerable net capital imports of kr. 88 billion in 1999. The net external liabilities of Danish business enterprises and private individuals increased by kr. 34 billion, which is especially due to an increase in residents' borrowing abroad in foreign currency. Furthermore, the banks' external position rose by kr. 58 billion. This increase in foreign-currency denominated liabilities may relate to the hedging of the exchange-rate risk in connection with residents' considerable net purchases of securities issued by non-residents, but may also be attributable to forward cover of exchange rates in connection with goods transactions or open positions in the foreign-exchange market.

As a consequence of the Nationalbank's considerable purchases of foreign exchange and sales of kroner in the market in 1999 there was an increase in the net krone position of the banks and mortgage institutes, i.e. their total accounts in kroner with the Nationalbank, cf. Chart 17. The substantial day-to-day fluctuations can be attributed to central-government receipts and disbursements. These payments have a neutral impact on the net position for the year as a whole since the central government's gross borrowing requirement (excluding foreign redemptions) is financed in full by issuing domestic krone-denominated government bonds.

#### THE MONETARY-POLICY INSTRUMENTS

The Nationalbank fundamentally conducts monetary policy via the terms for the overnight current-account deposits of the banks and mortgage-credit institutes with the Nationalbank, as well as the Nationalbank's weekly market operations. Via the weekly market operations each Friday the banks and mortgage-credit institutes may raise 14-day loans at the lending rate against government bonds and mortgage-credit bonds as collateral (the Nationalbank supplies liquidity), or place funds by purchasing 14-day certificates of deposits (the Nationalbank absorbs liquidity). The rate of interest for certificates of deposit is identical to the lending rate, while current-account deposits accrue interest at the discount rate. The interest rates on these instruments constitute the central element of monetary policy.

In connection with the weekly market operations the banks and mortgage-credit institutes will normally tailor their net position to providing current-account balances to cover the expected liquidity requirement for the following week. If large central-government receipts or disbursements are already foreseen, the Nationalbank will repurchase/sell certificates of deposit during the week, subject to pre-announcement. Should major unforeseen liquidity fluctuations occur the Nationalbank may repurchase/sell certificates of deposit extraordinarily without pre-announcement.

With effect from 21 June 1999 the Nationalbank's monetary-policy instruments were amended in a number of respects, cf. Monetary Review, 2nd Quarter 1999, p. 15. These adjustments were primarily of a technical nature and did not affect the overall framework for the conduct of monetary policy. The adjustments gave the mortgage-credit institutes access to the monetary-policy instruments on equal terms with the banks. The Nationalbank's repurchase agreements were restructured as lending against collateral. This restructuring required a technical adjustment of the provision of collateral, which entailed several practical and administrative advantages. The collateral provided by the counterparties in connection with monetary-policy loans, loans for cash depots and intra-day credit is now placed in a shared collateral pool. This makes the counterparties' provision of collateral to the Nationalbank more flexible. Furthermore, the restructuring repurchase agreements as lending against collateral has made it possible to settle the monetary-policy loans with immediate liquidity effect.

The collateral basis was expanded from government bonds alone to include mortgage-credit bonds. The lending basis was thereby increased significantly. In order to prevent use of current-account balances for

speculation in fluctuations in exchange rates or interest rates, limits were introduced for the current-account deposits of each bank or mortgage-credit institute. These limits total kr. 19.93 billion. If the total limit is exceeded, deposits in excess of the individual limit for each bank or mortgage-credit institute are converted to certificates of deposit. The overall ceiling has not been exceeded, but in a few cases the total current-account balance was close to the limit. Since the differential between the discount rate and the rate of interest for certificates of deposit was as low as 0.10 per cent for a period in 1999, the incentive to hold certificates of deposit rather than a liquid current-account balance was inadequate, and the system came under a little pressure. In connection with the raising of interest rates on 4 November 1999 the spread between the rate of interest for certificates of deposit and the current-account rate widened to 0.30 per cent, and widened further to 0.35 per cent when interest rates were raised on 3 February 2000. Since the widening of the interest-rate differential there has been no pressure on the overall ceiling for current-account deposits.

# International Financial Markets

The introduction of the euro on 1 January 1999 created a major financial market in Europe denominated in one currency. This contributed to a significant increase in corporate bond issues. The euro weakened against the dollar and the yen in 1999.

The financial markets were characterised by stabilisation after the turbulence in 1998. Together with the accelerating growth during the year this contributed to a significant increase in long-term government-bond yields. However, investors still prefer liquid government bonds issued by industrialised countries to securities associated with a higher credit and liquidity risk.

Prices on the stock markets generally rose strongly in 1999. Primarily shares in IT-related business enterprises were subject to rising prices.

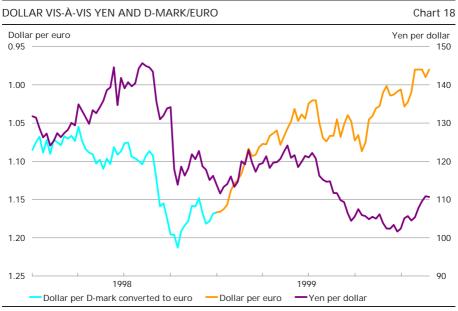
The transition to the year 2000 progressed smoothly without significant problems in the financial markets.

#### FOREIGN-EXCHANGE MARKETS

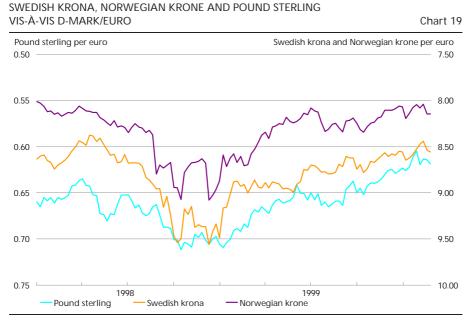
In 1999 the *dollar* strengthened by 16 per cent against the euro, cf. Chart 18. In the 1st half-year the strengthening could be attributed to continued high growth in the USA and a delayed upswing in Europe. The strengthening was less pronounced in the 2nd half of 1999 as the growth prospects for the euro area improved. The exchange rates between the large economies show considerable year-on-year fluctuations. On comparison with the exchange rates between the D-mark and the dollar the movements between the dollar and the euro in 1999 are thus not extraordinarily strong in historical terms.

In 1999 the dollar weakened by 10 per cent against the Japanese *yen*. Against the background of Japan's improved cyclical position the yen strengthened during the 2nd half of the year. Surprisingly good growth data for the 1st half-year boosted confidence in the Japanese economy and business earnings, leading to increased demand for Japanese stocks. On several occasions the Bank of Japan sold yen in the foreign-exchange market in an attempt to dampen the currency's appreciation. However, these interventions appear to have had a relatively limited and short-lived impact on the exchange rate.

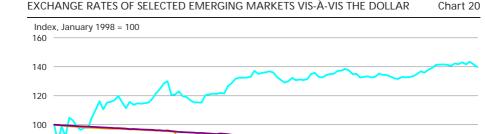
The *pound sterling* generally followed the dollar and strengthened by 13 per cent against the euro in 1999, cf. Chart 19.



Note: The exchange rates between dollar and D-mark in 1998 have been converted to euro using the official conversion rate between euro and D-mark as of 31 December 1998. Weekly observations.



Note: Exchange rates vis-à-vis D-mark until end-1998, and then exchange rates vis-à-vis euro. The exchange rates vis-à-vis D-mark have been converted to euro using the official conversion rate as of 31 December 1998. Weekly observations.



The *Norwegian krone* and the *Swedish krona* strengthened by respectively 10 per cent and 11 per cent against the euro during 1999, cf. Chart 19. The background to the Norwegian krone's strengthening was the strong oil price increases, whereas the growth rate was moderate after several years of high economic activity. The continued high growth rate in the Swedish economy was the basis for the Swedish krona's strengthening.

- Brazil

1999

Since the Brazilian government abandoned its fixed-exchange-rate policy in January 1999, exchange rates in the key emerging markets have stabilised, cf. Chart 20. Southeast Asia in particular experienced satisfactory growth in economic activity, while the South American economies have been less stable. The Russian economy improved compared to 1998, but in this case too the foundation is fragile.

#### INTEREST RATES

80

60

20

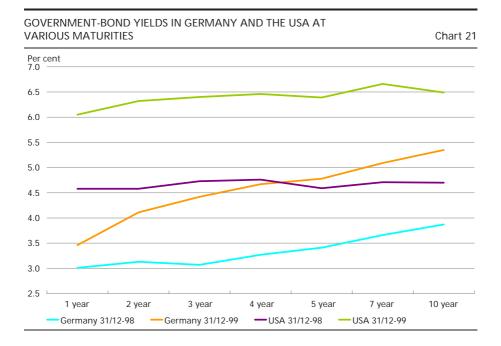
#### Development in interest rates

1998

-Russia

South Korea

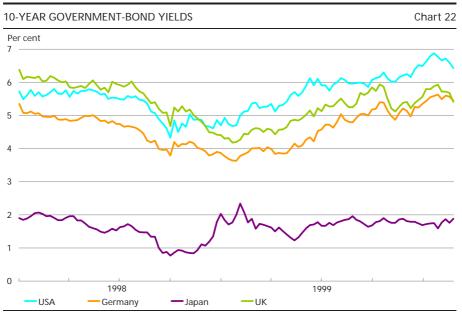
Both short-term and long-term interest rates rose considerably in most industrialised countries in 1999, cf. Chart 21. The yield curve in the USA had a slightly positive slope at the end of 1999, whereas the positive slope of the German yield curve was more pronounced. This reflects expectations that in the long term the European Central Bank, ECB, will raise its rate of interest for main refinancing operations by a higher



percentage than is expected for the Federal Reserve's raising of the federal funds target rate. However, in historical terms the slope of the German yield curve has been steeper than the US yield curve.

In the *USA* the Federal Reserve raised the official short-term US interest rate, the federal funds target rate, in June, August and November 1999 and in February 2000 by a total of 1 per cent to 5.75 per cent. This more than offset the reductions of interest rates at the end of 1998. The continued favourable key economic indicators for the US economy, a tight labour market and increases in commodity prices have led to expectations of a further tightening of monetary policy in order to curb rising inflation. In 1999 the yield on 10-year US government bonds rose by around 1.8 per cent and was 6.5 per cent at the end of the year, cf. Chart 22.

In Japan, at the beginning of 1999 long-term yields continued to show the tendency to increase seen in 1998, cf. Chart 22. However, the interest rate fell and stabilised at a level below 2 per cent when it was announced that a proportion of the central government's planned issues of 10-year bonds would be restructured to shorter maturities and that the reduction in government institutions' purchases of long-term government bonds would be less than planned. The drop in interest rates was supported by the Bank of Japan with ample liquidity and a zero-interest-rate policy. In February 1999 the Bank of Japan cut the official interest rates by 0.10 per cent to 0.15 per cent, and at the same



Note: Weekly observations.

time announced its intention to keep the overnight interest rate as close to zero as possible.

Against the background of low inflation and weak growth in the *euro* area the ECB lowered the rate of interest for main refinancing operations by 0.5 per cent to 2.5 per cent in April 1999. The upswing was stimulated by the expansionary monetary conditions. Against the background of ample liquidity and the improved cyclical conditions the ECB in November 1999 raised the rate of interest for main refinancing operations by 0.5 per cent to 3 per cent. The rate of interest was raised again by 0.25 per cent to 3.25 per cent in February 2000. Rising interest rates in the USA contributed to the increase in long-term interest rates in Europe. Long-term government-bond yields in Germany thus rose by around 1.5 per cent in 1999 to a level of around 5.25 per cent at the end of 1999.

In the *UK* the Bank of England eased the official interest rate by a total of 1.25 per cent to 5 per cent from January to June 1999 in order to counteract a dampening of the economy and a rate of price increases close to the lower limit of the government's target. The following expansion of economic activity and the low unemployment rate augmented the risk of rising inflation. Against this background the Bank of England in September and November 1999 and in January and February 2000 raised the official interest rate by 1.0 per cent in total to 6.0 per cent. The 10-year yield differential to the euro area member

states gradually narrowed in 1999. Government-bond issues in the UK were reduced as a result of the growing government-budget surplus. Since a number of institutional investors prefer central-government securities with maturities of 15-30 years this pushed long-term interest rates down in the autumn. The 10-year yield was also affected, although it rose by around 1.25 per cent to 5.5 per cent over the year.

#### The euro and the bond market

The introduction of the euro created a large bond market in Europe denominated in one currency. The euro's introduction went smoothly without technical problems. Measured in terms of GDP the euro area is the second-largest economy in the world. Its share of total world exports at the end of 1998 was almost 20 per cent, which is the largest share for one currency area<sup>1</sup>.

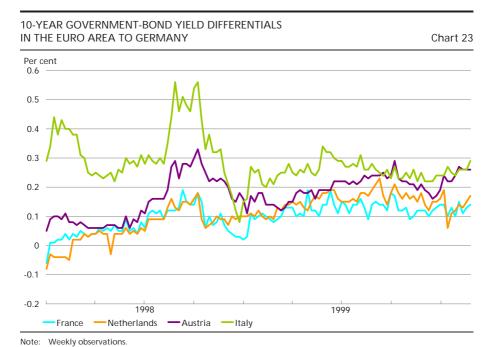
The market for government bonds, which dominates the euro bond market, has become increasingly homogenous after the introduction of the euro. The euro area member states have thus redenominated virtually all of their domestic government debt from national currencies to euro. Furthermore, a number of market conventions have been harmonised.

Even though the exchange-rate risk associated with the euro area member states' government bonds has been eliminated, yield differentials between the government bonds of euro area member states continue to exist, cf. Chart 23. This can be attributed to differences in particularly the market's perception of liquidity, but also of credit risk, i.e. the countries' ability to service their debt. Central governments have sought to influence liquidity in government bonds via their issuing policy, in order to achieve benchmark status. Issues have been concentrated on few maturities and buybacks of previously issued bonds have been utilized in order to make the series as large and liquid as possible<sup>2</sup>. In the 10-year segment, which includes a large proportion of central-government issues, German government bonds have achieved benchmark status for the euro area. The German series are some of the largest in the euro area and only German central-government securities are deliverable in the benchmark 10-year future<sup>3</sup>. This future contributes to increasing demand for the bonds which are deliverable under the contract.

See Lars Krogh Jessen and Anders Matzen, The Market for Government Bonds in the Euro Area, Danmarks Nationalbank, *Monetary Review*, 3rd Quarter 1999.

Excluding intra-euro area trade, cf. ECB Monthly Bulletin, January 2000.

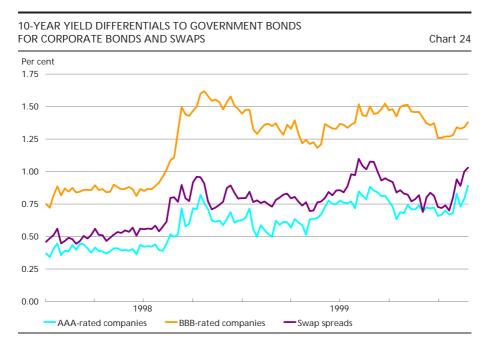
A future is a standard contract for delivery of a bond on a certain date to a counterparty for the price agreed on conclusion of the contract. The bonds to be delivered are stated in the standard contract. In general, the value of a future fluctuates in parallel with the price of the bonds to be delivered. A future whereby the seller is obliged to deliver 10-year German government bonds can thus be used to hedge against price fluctuations in holdings of other 10-year bonds.



There was a considerable increase in *corporate bond issues* in the European bond market in 1999. The establishment of a large financial market without exchange-rate risks has given issuers access to a larger base of potential investors. A high increase in the number of mergers and acquisitions, partly financed by bond issues, also contributed to increasing the volume of issues. Furthermore, it is likely that issues have been postponed from 1998 to 1999 so that business enterprises could benefit from the expected lower euro interest rate and avoid redenomination.

# Indicators of credit and liquidity risk

In 1999 the financial markets returned to more stable conditions after the unrest in the autumn of 1998. Yield differentials between e.g. dollar-denominated bonds issued by emerging markets and US government bonds, and between corporate bonds and government bonds, narrowed gradually in the 1st half of 1999, cf. Chart 24. However, a number of yield differentials widened again during the summer as large corporate bond issues in this period exerted upward pressure on yields on these bonds compared to government-bond yields. The levels are still higher than in the period up to the unrest on financial markets in 1998, reflecting that investors still prefer safe and liquid bonds.

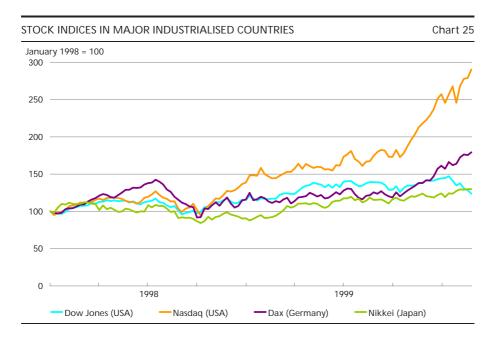


Note: US bonds and USD interest-rate swaps. Weekly observations.

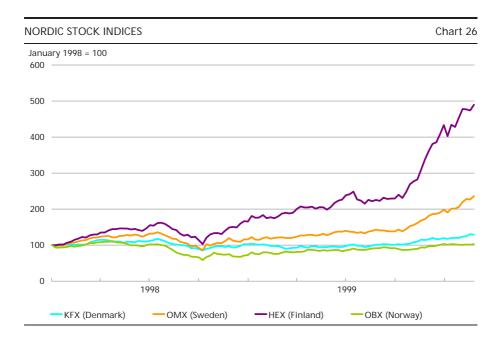
#### STOCK MARKETS

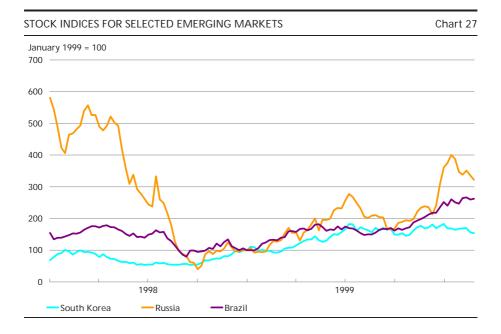
As a whole 1999 was characterised by rising equity prices. The general stock-market buoyancy continued after the New Year when several share indices reached new record-high levels in February 2000, cf. Charts 25 and 26. The US Dow Jones Index rose by 25 per cent in 1999. The higher equity prices were driven by high growth and moderate inflation in the US economy. Moreover, to an increasing degree, US households have invested in the stock market, thus boosting demand for equity securities. In addition, non-residents have also increased their holdings of US stocks. This contributed to a strong inflow of capital which in part financed the US current-account deficit. The net supply of stocks has decreased in recent years, primarily due to business enterprises' buying back their own stock and an increase in the number of mergers and acquisitions.

Especially stocks in the computer and Internet industry saw strong price increases. According to conventional stock-market valuation methods strong future earnings increases are implied in the current prices for several stocks in the IT-sector. The two computer enterprises Microsoft and Intel were included in the 30 stocks in the Dow Jones index as from 1 November 1999, reflecting the growing significance of the computer and Internet industry to the US economy and the financial markets.



The US Nasdaq index, which compared to the Dow Jones index has an overweight of technology-related stocks, rose by 86 per cent in 1999, which was the strongest year-on-year rate of increase in the Nasdaq's 28-year lifetime. However, outstandingly high price increases for a few stocks accounted for a considerable proportion of this growth.





Particularly in the 2nd half-year stronger growth in Europe led to higher prices in the European stock markets. Technology-related stocks were also in focus in Europe, especially in the 4th quarter. The Neuer Markt index<sup>1</sup> which like Nasdaq has an overweight of technology-related stocks, rose by 71 per cent in the last three months of the year alone. This rate of increase significantly exceeded that seen in the Nasdaq index in the same period.

The stock market in Japan was driven primarily by market expectations of an improvement in the economy and the financial system. This pushed stock prices upwards, particularly at the start of the year.

The Nordic stock indices also developed positively in 1999. The KFX index in Denmark rose by 17 per cent in 1999 to a record high level in February 2000. Equity prices rose even more in Sweden and Finland, cf. Chart 26. In these countries price increases were related particularly to the trend for technology-related stocks such as Ericsson and Nokia.

The stock markets of the emerging economies were extremely positive in 1999 after strong price drops in 1998 as a consequence of the financial crisis, cf. Chart 27.

The Neuer Markt index is based in Frankfurt and was created by Deutsche Börse in March 1997 to enable particularly small growth enterprises to obtain capital. In mid-1998 43 companies were registered. Today, the index includes more than 200, primarily German companies.

# The Domestic Financial System

As an element of the Nordic stock-exchange cooperation, NOREX, in June 1999 the Copenhagen Stock Exchange introduced the joint trading system, SAXESS, initially for stock trading.

The banks' total profit for the year rose to just over kr. 14 billion. Provisions and losses on debtors fell by just under 5 per cent. The mortgage-credit institutes are also expected to present a favourable annual result for 1999. The assets of investment associations showed strong growth in 1999.

#### THE BOND MARKET

The development in interest rates on the Danish bond market is described on p. 38. The *outstanding volume of domestic krone-denominated bonds* listed on the Copenhagen Stock Exchange rose in 1999 from a nominal amount of kr. 1,875 billion (161 per cent of GDP) to kr. 1,908 billion (157 per cent of GDP). The circulating volume of mortgage-credit bonds increased by kr. 43 billion, while the circulating volume of government bonds and other bonds fell by a total of kr. 10 billion during the year. In 1999 mortgage-credit bonds for kr. 169 billion were redeemed prematurely, primarily during the 1st half-year. This activity declined in the 2nd half-year as a consequence of a rising level of interest rates. For comparison, extraordinary redemptions totalled kr. 236 billion in 1998.

In 1999 non-resident investors acquired krone-denominated bonds for a net amount of kr. 7 billion. They sold government bonds for kr. 1 billion and bought mortgage-credit bonds for kr. 8 billion. Non-residents' holdings of krone-denominated bonds still predominantly comprise government bonds, but their holdings of mortgage-credit bonds have been increasing.

The *minimum coupon rate* was held at 4 per cent in 1999 and is likewise fixed at 4 per cent for the 1st half of 2000. Since the minimum coupon rate might adversely affect the efficiency of the financial market, the Ministry of Economic Affairs' Committee on "the Financial Sector after the Year 2000" has recommended the abolition of the minimum-coupon-rate rule. A bond complies with the minimum-

<sup>&</sup>lt;sup>1</sup> Cf. p. 59.

coupon-rate rule with the designation "blue-stamped" if the coupon rate is greater than or equivalent to the minimum-coupon rate applying for the period during which the bond is issued. On an increase in the minimum-coupon rate issues in many open series will normally be discontinued. The circulating volume may as a consequence be smaller than desired, so that liquidity deteriorates. This can contribute to locking effects and distortion in the market's pricing of the bonds.

To follow up on the Ministry of Economic Affairs' "Outline National Changeover Plan: Changeover to Euro in Case of Danish Participation – Danmarks Nationalbank", cf. p. 151, in the summer of 1999 the Nationalbank established a working group to consider the technical consequences for the Danish bond market if Denmark decides to adopt the euro. The working group<sup>2</sup> primarily considered the issue of redenomination of circulating bonds from kroner to euro.

The report of the working group was published at the end of January 2000<sup>3</sup>. The report emphasises the need for national legislation based on EU regulations. The report recommends that redenomination be based on each bond holder's holdings of a given bond series. This is the "bottom-up" method which most of the present euro area member states applied on their adoption of the euro. It is also recommended to round all amounts to the nearest eurocent on redenomination. Finally, the simultaneous redenomination of government and mortgage-credit bonds is recommended on joining the euro area, while it should be possible to redenominate corporate bonds during a specified period. Since the capacity of the Danish Securities Centre's computer systems is not unlimited, redenomination around a turn of the year will require one or more extraordinary closing days of the VP system.

# MEASURES IN THE STOCK-EXCHANGE AREA

# Nordic stock-exchange cooperation

As an element of the formalised cooperation, NOREX, between the Copenhagen Stock Exchange and OM Stockholmsbörsen in June 1999 the Copenhagen Stock Exchange introduced the joint trading system,

On purchase of a "blue-stamped" bond a private investor is only subject to tax on the interest income. If the investor purchases a "black-stamped" bond with a coupon rate below the minimum-coupon rate, both interest income and capital gains are subject to tax. A description of the effect of the minimum-coupon-rate rule on the financial market is found in Mads Gosvig and Jeppe Ladekarl, The Minimum Coupon Rate and the 4-Per-Cent Market, cf. Danmarks Nationalbank, Monetary Review. 1st Quarter 1998.

The working group included representatives of the Danish Securities Dealers Association, the Ministry of Finance, the Ministry of Economic Affairs, the Danish Bankers Association, the Danish Financial Supervisory Authority, the Copenhagen Stock Exchange, the Association of Danish Mortgage Banks, the Danish Securities Centre and Danmarks National Rank

the Danish Securities Centre and Danmarks Nationalbank.
See also the Nationalbank's Web site www.nationalbanken.dk under Publications.

SAXESS, for stock trading. SAXESS is expected to be expanded to include bond and derivative trading functions in the autumn of 2000.

In November 1999 the Copenhagen Stock Exchange, OM Stockholms-börsen and Oslo Børs signed a declaration of intent concerning Oslo Børs' participation in NOREX. The negotiations are expected to be finalised at the beginning of 2000, and Oslo Børs is expected to implement the SAXESS system during the 2nd quarter of 2001. Moreover, negotiations have been initiated with the stock exchanges of the three Baltic states and Iceland concerning participation in NOREX.

## European stock-exchange cooperation

In May 1999 the stock exchanges in Paris, Madrid, Milan, Amsterdam, Brussels and Zürich joined the strategic alliance between the stock exchanges of Frankfurt and London to establish a joint trading system for the largest European companies. However, the alliance encountered problems such as disagreement on joint technology. The objective of a joint trading system has been suspended until further. Instead, from November 2000 the alliance will establish a new joint electronic system which gives access to the trading systems of the participating stock exchanges. However, on the transition to the year 2000 a proposal by the Frankfurt Stock Exchange for the establishment of a pan-European stock-exchange system for the entire European financial market may impede the intended alliance between the eight European stock exchanges. The new stock-exchange system would include all areas related to stock-exchange trading and financial markets, including currency trading, registration and settlement systems.

# New disclosure requirements for stock-exchange-listed companies

In October 1999 the Copenhagen Stock Exchange introduced a new set of rules to be met by issuers of securities listed on the Copenhagen Stock Exchange. The new rules define the information to be published by the companies subject to the disclosure requirements. The objective of the new rules is to ensure a reporting level equivalent to international standards since interest in investing in Danish stock-exchange-listed securities depends on such factors as the level of information provided by the issuers. The NOREX cooperation has contributed to emphasising the need for harmonisation of the rules.

The new rules reinforce the recommendation to publish quarterly reports. The Copenhagen Stock Exchange expects that in the near future a large proportion of the KFX companies will announce their intention of following the Stock Exchange's recommendation to adhere to "best practice". In addition, the new rules impose the requirement that every

notification must state the company's own evaluation of the consequences of the information provided, and that accounts and preliminary statements must include the expectations of the board and management of the company's financial development in the current financial year.

In order to match the deadlines for the presentation of accounts to international practice the preliminary statement of annual accounts must be published no later than three months after the close of the financial year, in contrast to the previous deadline of five months. Finally, the companies must publish a stock-exchange calendar for the coming year stating the dates of publication of interim statements.

In addition, the rules tighten the requirements of internal regulations for trading in the companies' shares and state that the companies must publish details of any incentive schemes for the company's board and management. New requirements have also been introduced concerning the publication of transactions between closely related parties. Finally, the companies must plan their investor relations activities with due observance of the new rules and according to the principle of equal treatment of investors.

#### New share index

In order to increase focus on small and medium-sized stock-exchange-listed companies on 7 January 2000 the Copenhagen Stock Exchange established a new share index, the KFmX index. The index comprises approximately 230 shares not already included in the KFX index which together represent 21 per cent of the total market value on the Copenhagen Stock Exchange.

The KFX index will continue to be the benchmark index, however, since the 20 shares in the KFX index account for approximately 67 per cent of the total market value. The Copenhagen Stock Exchange has decided to review the KFX index every 6 months in accordance with the international standard.

# RESTRUCTURING OF THE DANISH SECURITIES CENTRE AS A LIMITED LIABILITY COMPANY

The Danish Securities Centre, VP, is a self-governing institution with a Board of Partners. The partners, which are all represented on the Board, are securities traders, the mortgage-credit sector, investors, the Nationalbank and issuers of shares.

In 1999 the Board of VP appointed a committee to consider various models for restructuring as a limited liability company.

The objective of a restructuring is to establish more business-oriented management of VP. The restructuring will enable VP to join an international cooperation body and should be viewed as the first step towards creating a more dynamic and market-oriented institution.

#### STATUTORY FRAMEWORK FOR THE FINANCIAL SECTOR

# Report on the Financial Sector after the Year 2000

In August 1997 the government appointed a Committee on "the Financial Sector after the Year 2000". The remit of the committee was to analyse and assess the technological and market-related development in the financial sector, and to identify the requirements for restructuring faced by the sector.

The committee published its report in September 1999<sup>1</sup>. The main challenges identified were greater international competition, the third stage of EMU, information technology as a competitive parameter, "disintermediation"2, the requirement of transparency, the requirement of adaptability and cost efficiency, and the adjustment of financial legislation.

The committee found that public measures are required in the following main areas:

- Forward orientation of financial supervision, including improved supervision of financial groups.
- Elimination of barriers to structural adjustment and efficient financial markets.
- Increased transparency and improved customer relations.

During the autumn of 1999 bills were introduced to implement a number of recommendations from the committee, cf. p. 144.

To follow up on the committee's recommendations the government has stated that the Ministry of Economic Affairs will draw up proposals for a new statutory framework in the financial area to be submitted during forthcoming parliamentary sessions.

The intention is for a new statutory framework to consist of a new Act on financial enterprises which includes general supervisory provisions and other areas of legislation which are today to a great extent re-

The concept that financial services are purchased without the intermediation of a financial

enterprise.

<sup>&</sup>lt;sup>1</sup> In addition to the committee's work 7 subreports were prepared on the following subjects: IT development and the financial sector, regulation of certain means of payment and access codes, development in the financial sector, venture capital, new participants in the financial market, the international position of the financial sector, and administration of long-term savings.

peated in the various acts governing the financial area. This will be combined with acts for each sector concerning specific regulation of the various types of activity characterising the individual sectors.

The work is initiated with a series of meetings under the auspices of the Ministry of Economic Affairs attended by representatives of relevant public authorities and trade associations.

### Proposal for new capital-adequacy rules

In June 1999 the Basel Committee<sup>1</sup> submitted a proposal for consultation concerning review of the capital-adequacy rules. As a consequence, in the autumn of 1999 the European Commission submitted a consultation paper on a new capital framework for credit institutions and investment companies. In many respects the proposals are similar, although the European Commission's proposal focuses on EU-specific issues. The consultation procedure for both proposals must be completed by the end of March 2000.

During the consultation process the Nationalbank has contributed to creating a framework for a Danish discussion of the new capital-adequacy rules. In November 1999 the Nationalbank held a seminar attended by representatives from the Danish financial sector. At the seminar the Chairman of the Basel Committee, Governor of the Federal Reserve Bank in New York, William McDonough, described the proposed new capital-adequacy rules. In February 2000 the Nationalbank held another seminar at which representatives of the financial sector and the authorities discussed the proposal from a Danish viewpoint.

The background to the proposals for new capital-adequacy rules is that the present rules have fallen behind financial innovation and modern risk-management techniques. In addition, the credit-risk weights are too broadly meshed. Other risks besides credit and market risks, e.g. the interest-rate risk in the banking book and operational risk, are not included explicitly. In general, there is a need for greater coherence between the weighting of credit risk and economic risk, and to increase the differentiation of the credit-risk weights.

The proposed capital regulation consists of three pillars: minimum capital requirements, the supervisory process and market discipline.

The first pillar concerning the *minimum capital requirements* recommends a revision of the present standardised method to the effect that

The Basel Committee with a secretariat at the Bank for International Settlements (BIS) in Basel was established in 1975 in order to increase the stability of the international financial system. The committee consists of the following countries: Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the UK, the USA, Switzerland and Luxembourg.

the credit-risk weights for each loan are calculated on the basis of the borrowers' credit rating by external rating agencies. An alternative method is envisaged whereby the weights are calculated on the basis of the banks' internal ratings of their customers. In the long term this pillar provides for the use of actual risk models. In addition, it is proposed to introduce explicit capital adequacy requirements to cover other risks besides credit and market risks, e.g. the interest-rate risk in the banking book, as well as operational risk.

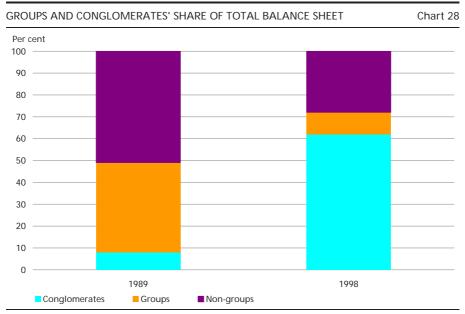
The second pillar concerning the *supervision process* contains a number of recommendations of the supervisory authorities concerning supervision of the financial institutions. The proposals include the use of differentiated capital requirements which exceed the minimum capital requirement of 8 per cent in view of the greatly varying risk profiles of the various credit institutions. Furthermore, the supervisory authorities must be able to intervene at an earlier stage and must generally monitor the credit institutions' internal procedures for evaluation of their risk profile and capital base.

The third pillar concerning *market discipline* describes how the credit institutions can contribute to creating financial stability and market transparency by publishing information on their capital base, etc. Finally, both proposals include recommendations concerning the scope of application of the new capital requirements.

#### THE BANKS

In 1999 the banks' financial results showed a sound surplus for the fifth consecutive year. The profit before tax was kr. 14.3 billion, which is a marginal increase of kr. 0.3 billion from 1998. A continuing low level of losses and provisions contributed to ensuring a sound surplus for the banks. The banks' losses and provisions on debtors fell by almost 5 per cent in 1999 and are thus still at a very low level. As yet there are no signs that the Whitsun package has aggravated the banks' losses. Value adjustments of securities rose by 75 per cent, which is the principal reason for the marginal improvement in the profit before tax. Despite the increase in total value adjustments several small and medium-sized banks saw a decrease in value adjustments, which was attributable primarily to the rising level of interest rates in 1999.

Non-interest based income increased in 1999, as net income from fees rose by 13 per cent. Net income from fees accounts for 28 per cent of total net income from interest and fees, which is a minor increase against 1998, when the share was 26 per cent. The tendency for income from fees to increase thus continued in 1999. This is attributable



Note: A financial group is normally the term used to describe financial enterprises connected by ownership. They consist of the parent company and at least one other financial enterprise. Traditional financial groups typically operate in one submarket, while a conglomerate is a group operating in several financial submarkets (banking, mortgage credit, insurance, etc.)

Source: The Danish Financial Supervisory Authority.

primarily to growth in income from fees related to conversion of mortgage-credit loans and portfolio management, as well as the general focus on potential sources of income from fees. Several banks have stated their intention to increase the interest margin vis-à-vis business customers. This may contribute to increasing interest-based earnings.

# Structural changes

In keeping with previous years, a number of structural changes were seen in the banking sector in 1999. The underlying tendency to form conglomerates continues, contributing to increasing the complexity of the structure of financial enterprises. Chart 28 illustrates the strong growth in the market share of financial groups and conglomerates as a ratio of total balance sheet. In 1989 financial groups and conglomerates accounted for almost half of the sector's total balance sheet, while the ratio had increased to 75 per cent in 1998. The conglomerates accounted for only a small proportion 10 years ago, while in 1998 their share was more than 60 per cent of the total balance sheet.

One example of the formation of conglomerates is the merger between Unibank and Tryg-Baltica in March 1999. Tryg-Baltica Forsikring was restructured as a holding company which then merged with the holding company Unidanmark as the continuing company. In December 1999 this merger was followed by the acquisition by Unidanmark of the Norwegian general insurance company Vesta. The largest Danish banks continued the tendency of recent years for establishment in the other Nordic countries. Den Danske Bank thus acquired the Norwegian Fokus Bank in June 1999.

In June 1999 Codan Forsikring concluded an agreement with Skandinaviska Enskilda Banken (SEB) of Sweden whereby SEB acquired Codan Bank, while Codan Forsikring acquired the general insurance company Trygg-Hansa, owned by SEB. In addition, Codan Forsikring and SEB entered into strategic cooperation on distribution of products.

Another example of structural changes across the national borders of the Nordic countries is the acquisition by the Swedish FöreningsSparbanken of Finance for Danish Industry (FIH) in the autumn of 1999.

The banks' use of information technology is increasing constantly. The banks have thus given higher priority to their Internet strategy and several market participants have established – or plan soon to establish – solutions for e.g. Internet trading of stocks. Most of the customer needs which were previously met by the customer contacting the bank by telephone or in person are now handled via the banks' homebanking systems. The homebanking systems offer functions such as payment of bills, transfers, budget facilities, loan and tax calculations and taxation consequences as well as securities trading, as described above. At the beginning of 2000 more than 540,000 private customers had concluded a homebanking agreement with their bank.

#### THE MORTGAGE-CREDIT INSTITUTES

In 1999 the mortgage-credit sector is expected to present a favourable financial result<sup>1</sup>, although somewhat below the result for 1998 due to reduced conversion activity, losses on the bond portfolio and increased administration costs. Lending rose by a total of 6.6 per cent in 1999.

Access to the banks' extensive network of branches has proved to be an important parameter of competition for the mortgage-credit institutes. The bank-owned mortgage-credit institutes continue to win market shares from the "old" mortgage-credit institutes<sup>2</sup>. Lending

At the time of going to press not all mortgage-credit institutes had presented annual accounts for 1999.
 By "old" institutes is meant Nykredit, Realkredit Danmark and BRFKredit, while the others are Totalkredit, Danske Kredit, Unikredit, FIH Realkredit, LRF and from 1998 BG Kredit.

by the "old" institutes increased by a total of kr. 20 billion in 1999, while the increase in total book lending by the other mortgage-credit institutes amounted to kr. 44 billion. These institutes' share of total outstanding loans thus rose to 24 per cent from 20 per cent in 1998.

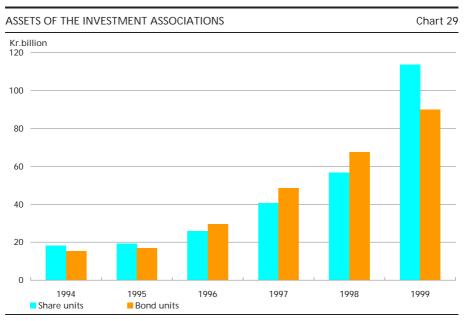
Mortgage-credit loans at floating interest rates, called adjustable-rate loans or flex loans, continue to draw great interest. This can be attributed primarily to the widening of the differential between short-term and long-term interest rates, but also to the fact that the Whitsun package gradually erodes the value of the tax deductibility of interest payments. The latter contributes to increasing the net interest saving if a house purchase is financed with adjustable-rate loans rather than long-term fixed-rate mortgage-credit Outstanding adjustable-rate loans can be expected to increase further since the financing of housing as from 2000 is based on loans subject to annual interest-rate adjustment. The share of adjustable-rate loans of total lending by the mortgage-credit institutes was almost 6 per cent at end-1999, compared to 3 per cent at the beginning of 1999. The share of adjustable-rate loans subject to annual refinancing constituted slightly more than half of the adjustable-rate loans at end-1999.

#### THE INVESTMENT ASSOCIATIONS

The total assets of the investment associations have increased strongly in the past 4 years, but particularly in 1999. The relatively low level of interest rates contributes to stimulating interest in alternative placement opportunities. The total assets of the investment associations rose by kr. 79 billion to kr. 204 billion. Nominal sales of new certificates were kr. 49 billion, while capital gains on the investment associations' securities – primarily share investment certificates – amounted to kr. 30 billion.

Interest in share units has risen strongly. In 1999 the assets of the share units exceeded those of the bond units and constituted 56 per cent of total assets, cf. Chart 29.

In general, investment associations based on foreign shares achieved the best return in recent years. Investment associations based on Danish shares yielded a return of around 20 per cent in 1999, while associations based on European and global shares rose by respectively 45 per cent and 53 per cent. Investment associations based on Danish bonds typically rose by 0-3 per cent.



Note: The Investment Associations Council.

#### VB FINANS AND HIMMERLANDSBANKEN

#### **VB Finans**

At the end of 1993 the Nationalbank made available a government-guaranteed overdraft of maximum kr. 4.4 billion to VB Finans, the company responsible for the winding-up of Varde Bank. As described in the 1996 Annual Report, p. 54f, at the beginning of 1996 bankruptcy proceedings were instigated against VB Finans, at the request of its Board of Directors. VB Finans af 1996, which in connection with the winding-up took over all of VB Finans' assets and certain liabilities, including the Nationalbank's overdraft facility, worked throughout 1999 on winding up the activities of Varde Bank.

During 1999 the company was able to pay approximately kr. 0.1 billion to the Nationalbank as a consequence of the winding-up of exposures, sale of properties and divestment of shareholdings. The company's total debt to the Nationalbank has thus been halved from almost kr. 0.2 billion at the beginning of the year to just below kr. 0.1 billion at year-end.

The ongoing winding-up of the company first and foremost concerns the conclusion of a number of court cases filed against the winding-up estate. The administration of the winding-up estate is expected to take a few more years. It is still not possible to calculate the total costs of the winding-up of Varde Bank.

# Himmerlandsbanken

In 1999 no amounts were disbursed under the guarantee provided by the Nationalbank and a number of banks to the winding-up estate of Himmerlandsbanken, cf. the 1993 Annual Report, p. 48. It is still not possible to calculate the total costs of the winding-up of Himmerlandsbanken.

# Banknotes and Coins

In the period preceding the millennium change Danmarks Nationalbank undertook a series of extraordinary measures to ensure an ample supply of cash.

At the end of 1999 banknotes and coins in circulation amounted to kr. 46.4 billion, which represents an increase of kr. 5.4 billion against the previous year. The preparations for the millennium change led to an extraordinary increase in circulating banknotes of approximately kr. 3.4 billion. This can be attributed almost entirely to larger stocks of banknotes held at the cash depots and by the banks' branches. Around the turn of the year the increase in the cash holdings of the general public thus amounted to just under kr. 0.5 billion.

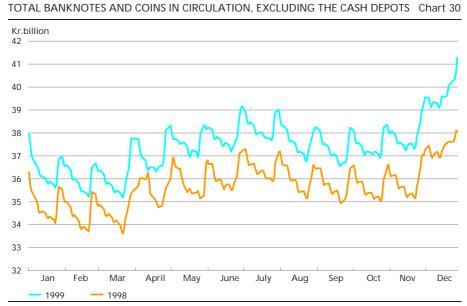
In 1999 the Nationalbank completed the issue of the new banknote series. The 50-krone note was issued on 7 May and the 100-krone note on 22 November.

#### THE CASH SUPPLY AT THE YEAR 2000

#### **Extraordinary measures**

In the period preceding the millennium change there was world-wide concern at the problems which might arise on the rollover to the year 2000, including in the area of cash supply. The Nationalbank stated on several occasions that there was no cause for concern since the financial sector had made exhaustive preparations for the millennium change. At the same time the Nationalbank warned against hoarding of cash. In order to prevent concern about a shortage of cash and a propensity for hoarding the Nationalbank refrained for a prolonged period from destroying banknotes returned to the Nationalbank for disposal. At yearend the reserve of banknotes amounted to approximately kr. 60 billion.

In December 1999 the Nationalbank undertook a series of special measures to guarantee an efficient cash supply should extraordinarily high demand for cash arise in the days immediately preceding the millennium change. These measures were related to the distribution of banknotes and applied to the period from 6 December 1999 to mid-January 2000. Besides delivery to the cash depots during this period the Nationalbank also made available banknote delivery to all banks. Furthermore, the Nationalbank's Cash Department was open to serve all banks during extended opening hours. The Nationalbank thus tempo-



Note: Including cancelled banknotes and banknotes in circulation in the Faroe Islands

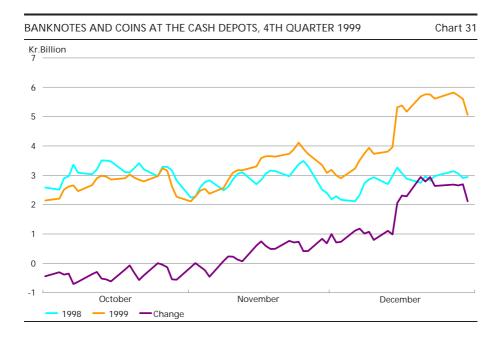
rarily acted as cash depot to the banks. Since the beginning of 1999 all cash supply in Denmark has been undertaken by cash depots at the banks.

The principal consequence of the measures for the cash depots was a temporary raising of the overall limit on the cash stocks by kr. 2.2 billion to kr 6.8 billion. The increase began in early November and was phased out during January 2000. Furthermore, an agreement was concluded concerning access to more frequent banknote deliveries during the period from 6 December 1999 to end-January 2000.

## Banknotes and coins in circulation at the millennium change

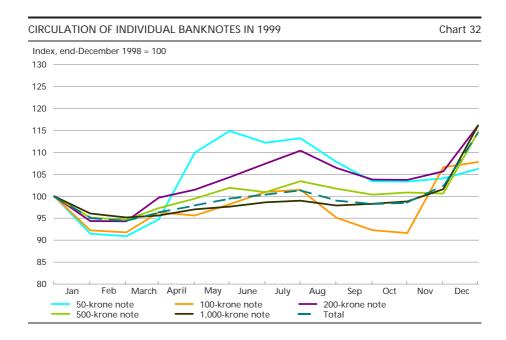
In recent years the annual increase in banknotes and coins in circulation has been 5-6 per cent. An equivalent increase was seen during most of 1999 since banknotes and coins in circulation were approximately kr. 2 billion above the level one year before, cf. Chart 30.

This increase in banknotes and coins in circulation is due to a general increase in demand for cash as a consequence of a higher transaction volume and price increases in the economy. During December banknotes and coins in circulation rose strongly to a year-end level kr. 5.4 billion higher than the level at end-1998. The special measures and increased demand around the millennium change led to an extraordinary increase in banknotes in circulation by approximately kr. 3.4 billion. Most of this increase could be attributed to an expansion of the cash depots' banknote stocks by kr. 2.1 billion, cf. Chart 31.



The remaining approximately kr. 1.3 billion is related to extraordinarily high stocks of banknotes held by the banks' branches, including ATMs, and the extraordinarily large holdings of private individuals.

On the basis of the banks' balance sheets at end-December 1999 the increase in the banks' cash stocks can be calculated at kr. 0.9 billion and the extra cash holdings of private individuals at just below kr. 0.5 billion.



Private individuals thus only withdrew very limited amounts of extra cash in connection with the transition to the year 2000. This was also the situation in the other EU member states.

The preparations for the millennium change entailed a particularly strong increase in the circulation of the large banknote denominations, cf. Chart 32. The special course of the circulation of 50- and 100-krone notes can be attributed to the issue of the new banknotes in respectively May and November. The total circulation is presented in Table 2, p. 166.

In 1999 the circulation of coins rose by 3.6 per cent, against 5.1 per cent in 1998. The total coin circulation and output of The Royal Mint are shown in Table 3a, on p. 167.

Pursuant to the Nationalbank Act of 1936 the circulation of banknotes must be covered by the Nationalbank's reserves of gold and other assets. Since 1939 an exception has been made from the gold-coverage provision.

#### THE NEW BANKNOTE SERIES

The Nationalbank issued two new banknotes in 1999. On 7 May the new 50-krone note was issued, and on 22 November the new 100-krone note was issued. This completed the new banknote series. The old series was replaced because advances in graphic technology had created a need to protect banknotes better against counterfeiting. The timetable for the introduction of the new banknotes, Series 1997, is presented in Box 2.

The old banknotes have been withdrawn relatively quickly. Approximately 90 per cent of the old 500- and 1,000-krone notes had thus been withdrawn by the end of 1999. The equivalent withdrawal rates for the 50- and 100-krone notes are 69 per cent and 46 per cent respectively, cf. The Introduction of the 1997 Banknote Series, Monetary Review, 1st Quarter 2000, p. 19.

The portraits on the new banknotes are all of people who have made a significant contribution to Danish art and culture. Literature is represented by Karen Blixen on the new 50-krone note, while music is represented by Carl Nielsen on the new 100-krone note.

TIMETABLE FOR THE INTRODUCTION OF SERIES 1997	Box 2
50-krone note	7 May 1999
100-krone note	2 November 1999
200-krone note	10 March 1997
500-krone note	September 1997
1,000-krone note18	September 1998

#### **SERIES 1997**



All of the motifs on the reverse of the banknotes are inspired by stone reliefs from Danish churches from the time just after the introduction of Christianity. The 50-krone note depicts a centaur and the 100-krone note shows a basilisk. The centaur relief is from Landet Church on the island of Tåsinge and the basilisk relief is from Tømmerby Church in Hanherred, Jutland.

Information campaigns were used to introduce both of the new banknotes. As for the previous banknote issues, a press conference was held for each banknote, a pamphlet was distributed to all households and information was given via the Internet and in television spots. As an innovation free postcards, Go cards, were available at cafés, cinemas, etc. during the period around the issue dates.

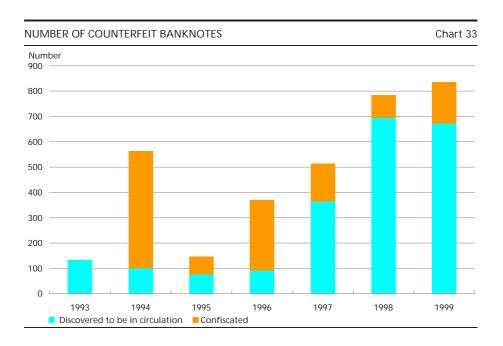
The costs of presenting the new banknote series to the general public total approximately kr. 25 million, or approximately kr. 5 million per banknote.

To mark the completion of the replacement of first coins and then banknotes over a 10-year period the Nationalbank issued a publication entitled *The Coins and Banknotes of Denmark*. It presents the full series of banknotes and coins, as well as their production. This publication is available in Danish and English and can be ordered from the Nationalbank's Information Desk. In addition, an exhibition in the Nationalbank's lobby in the period 16 November-3 December 1999 presented the creation of the new banknote series.

#### COUNTERFEITING

During the period from 1993 to 1998 the number of counterfeit banknotes found in circulation increased from 133 to 695. However, in 1999 the number was slightly lower than in 1998, i.e. 673, cf. Chart 33. The number of counterfeit banknotes confiscated before they are put into circulation varies considerably from year to year. In 1999 162 banknotes were confiscated, which is an increase of 73 from 1998. In 1999 approximately 6 counterfeit banknotes for each one million genuine banknotes were discovered in circulation. The incidence of counterfeiting is very limited in Denmark compared to other countries.

Counterfeiting, attempted counterfeiting, or conspiring to counterfeit, are serious crimes which can incur a penalty under the Danish Penal Code. The maximum penalty is a prison sentence of 12 years, which is one of the most severe maximum penalties stipulated in the Danish Penal Code. Photocopying banknotes for innocent purposes may also be a breach of the Penal Code.



# Payment Systems

Concurrently with the introduction of the euro in the 11 euro area member states in January 1999 the joint European payment system in euro, TARGET, and several other euro payment systems were also introduced. In Denmark DEBES, the Danish part of TARGET, was introduced without problems.

#### PAYMENT SYSTEMS IN EURO

#### Euro payment systems

The introduction of the euro created a need for the fast and secure transfer of large-value payments in euro within the euro area. In 1995 it was therefore decided to establish a joint euro-denominated payment system called TARGET¹. TARGET's two main objectives are to facilitate the conduct of monetary-policy transactions in the euro area and generally to provide for faster, safer and cheaper cross-border payments in euro.

EU member states which do not participate in EMU are also connected to TARGET. TARGET's Danish interface DEBES<sup>2</sup> has thus been developed by Danmarks Nationalbank in cooperation with the Danish financial sector, cf. Box 3.

TARGET operated smoothly in the first year despite minor problems with operational stability in individual countries. The central banks are working continuously to develop the system and improve its stability.

Use of TARGET increased steadily during 1999<sup>3</sup>. In December the number of euro payments processed in TARGET had increased to 4.1 million from 3.0 million payments in January, cf. Chart 34. In December the total value of the payments was euro 20,994 billion. Cross-border payments accounted for approximately 27 per cent in terms of number of payments but approximately 40 per cent in value terms. In 1999 the number of dispatched payments totalled 42.3 million, for a value of euro 239,472 billion.

<sup>1</sup> Trans-european Automated Real-time Gross settlement Express Transfer system.

Danmarks Euro BEtalingsSystem.

Cf. Jesper Berg and Thomas Christensen: "TARGET's First Year", Danmarks Nationalbank, *Monetary Review*, 1st Quarter, 2000.

#### THE STRUCTURE OF TARGET

Box 3

TARGET is a decentralised system whereby the participants hold accounts with their national central banks. The system connects the national real-time gross settlement systems via an interlinking module. Domestic payments are thereby processed in the national systems, while cross-border payments are processed in the respective national systems and exchanged bilaterally between the central banks.

A Danish bank wishing to send a payment in euro to another Danish bank should use DEBES. The money is transferred from the sender's euro-denominated account to the recipient's euro-denominated account with the Nationalbank.

A Danish bank wishing to send a payment in euro to a participant in another country will first submit the payment via DEBES. The Nationalbank transfers the amount from the Danish bank's account with the Nationalbank to the account of the recipient country's central bank with the Nationalbank. At the recipient country's central bank the amount is transferred from the Nationalbank's account to the account of the recipient bank. The central banks thus act as correspondent banks to each other

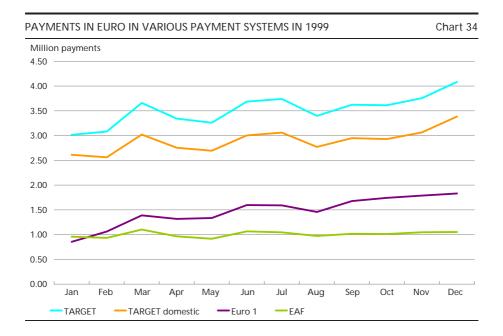
TARGET/DEBES is described in further detail in the Monetary Review, 2nd Quarter, 1998, p. 15ff.

In addition to TARGET a number of parallel euro payment systems have been developed with limited groups of participants<sup>1</sup>. These are used primarily for euro payments of lower value, including payments for business customers. These euro payment systems were also introduced without problems and in December processed payments totalling euro 8,391 billion, corresponding to a market share of approximately one third of payments in euro. The largest alternative systems are the private pan-European Euro 1 and the German EAF system whose turnover in December totalled respectively euro 3,512 billion and euro 2,917 billion.

The establishment of several alternative payment systems to the traditional network of correspondent banks requires the banks to consider which system they wish to use for transmission and receipt of payments. During the year the European Banking Association (EBA) and several other banking organisations prepared guidelines and recommendations regarding choice of payment system.

In addition to the normal closing days in 1999 (weekends, Christmas Day and New Year's Day) TARGET was closed extraordinarily on 31 December to ensure a smooth transition to the year 2000. In view of the low turnover on days which are national holidays in many countries it

For example, only two Danish banks are among the approximately 70 direct participants in Euro 1. For comparison, DEBES has 35 direct participants and TARGET has more than 5,000.



has been decided that TARGET will be closed on Good Friday, Easter Monday, 1 May and Boxing Day in 2000.

#### Cross-border collateral

The EU central banks provide credit only against full collateral. In order to facilitate the provision of collateral in TARGET the EU central banks have developed the correspondent central banking model, CCBM. Via CCBM a bank in the EU can obtain credit from its central bank by pledging collateral as securities held in a safekeeping account with the central bank of another EU member state.

Danish banks' branches in the euro area can obtain credit in euro against collateral as Danish government and mortgage-credit bonds, provided that the central bank in question accepts Danish securities as collateral. This is the case for the central banks of Germany, France, the Netherlands, Luxembourg and Finland. The central banks in the euro area jointly guarantee the value of their securities, if the collateral is to be realised. If the value of the securities is insufficient to cover the credit for which the securities were pledged as collateral the central banks in the euro area are jointly liable for the loss. Different rules apply to member states which have not adopted the euro, and the Nationalbank alone guarantees the value of the Danish securities.

Use of CCBM in Denmark is limited. As of end-December 1999 the Nationalbank provided collateral for euro 284 million. In general the EU

#### CROSS-BORDER COLLATERAL PROVIDED VIA CCBM, DECEMBER 1999

Table 4

Euro million	Credit-extending central bank	Country of issue
Austria	2,783	3,098
Belgium	7,704	28,029
Germany	40,910	25,538
Denmark	0	284
Spain	4,469	7,265
ECB <sup>1</sup>	2,821	-
Finland	1,057	1,193
France	29,379	3,884
UK	19,115	1,216
Greece	0	0
Ireland	5,384	0
Italy	1,543	73,608
Luxembourg	22,502	10,704
Netherlands	24,950	4,879
Portugal	42	1,845
Sweden	0	1,117

Source: ECB.

member states which have not adopted the euro have made little use of the cross-border provision of collateral due to the limited use of TARGET in these countries. The extensive use in the UK is attributable mainly to the fact that the Bank of England also provides credit facilities in pound sterling via CCBM. Particularly in Belgium, Germany, Luxembourg and Italy use of CCBM has been considerable, cf. Table 4.

#### INTERNATIONALISATION OF SECURITIES SETTLEMENT

Box 4

CCBM is the main channel for cross-border provision of collateral within the EU. However, certain securities centres establish links to each other to enable cross-border transfer of securities. Today the Danish Securities Centre is linked to the international securities centre, Euroclear, and the Swedish securities centre VPC.

The link model is possibly becoming outdated in view of the considerable consolidation in the European securities market in these years. Euroclear plans to give international participants access to the entire European registration system via a link to Euroclear. The plan is for Euroclear to be the hub of the European securities settlement system with spokes in the form of links to the national securities centres.

CEDEL, another international securities centre, is based in Luxembourg and will merge with Deutsche Börse Clearing, a securities centre in Germany. Finally, Euroclear and Sicovam (the French securities centre) are concluding a strategic alliance.

In addition, the securities centres in Denmark, Norway and Sweden have for some time discussed plans for a joint Nordic securities centre, S4 (Scandinavian Securities Settlement System).

The ECB is not a credit-extending central bank. The figure covers the investment of ECB's own portfolio.

In CCBM, which is based on the existing national infrastructure, the central banks perform a role which it would have been more natural for a private system to handle since the central banks provide a service which the securities centres themselves can provide. In the longer term it is likely that cross-border provision of collateral will involve a different system, cf. Box 4.

#### **EURO-DENOMINATED PAYMENT SYSTEMS IN DENMARK**

Denmark is connected to TARGET via DEBES. From the beginning of 1999 the Danish Securities Centre, VP, offered settlement of securities in euro, and in May 1999 it was possible to settle retail payments in euro in Denmark<sup>1</sup>.

The EU member states outside the euro area participate in TARGET on more restrictive terms than the euro area member states, cf. the 1998 Annual Report, p. 76. The euro area participants have access to unlimited intraday liquidity, whereas the Nationalbank may only make liquidity available to the Danish participants in TARGET on the basis of a deposit by the Nationalbank with a central bank in the euro area. The Danish participants pay for the share of the deposit to which they require access. The current price is 0.07 percentage points per annum. The deposit was originally euro 1 billion, but demand for intraday liquidity was around euro 500-600 million. As from 1 January 2000 the deposit has been reduced equivalently.

DEBES has functioned satisfactorily in its first year. The Nationalbank is constantly developing DEBES to ensure operational stability and to accommodate new requirements of the system.

After a slow start use of DEBES increased steadily. In December 1999 4,465 cross-border payments for a value of euro 101 billion were transmitted against 2,240 payments for a value of euro 79 billion in January 1999. Domestic payments also saw an increase from 181 payments for a value of euro 0.7 billion in January 1999 to 539 payments for a value of euro 1.2 billion in December 1999. The level reflects Denmark's non-participation in the euro. Turnover in DEBES is thus still very limited compared to turnover in the Nationalbank's system for payments in kroner, the DN Inquiry and Transfer System. Turnover in the euro retail clearing system is also very modest.

1

These systems are described in further detail in the 1998 Annual Report, p. 77.

#### **KRONOS**

The Nationalbank's krone payment system, the DN Inquiry and Transfer System, dates from 1981 and in certain respects is outdated. For example, screen images are not updated on a realtime basis and the banks have to enter data manually from the DN Inquiry and Transfer System to their own liquidity management systems. The Nationalbank is therefore developing a system called KRONOS, to replace the payment part of the DN Inquiry and Transfer System<sup>1</sup>. This system is more advanced and also more user-friendly for the banks. The system will include such features as a modern interactive graphic user interface for e.g. ongoing updating of screen images. Moreover, it will be possible to submit payments via SWIFT<sup>2</sup> to KRONOS, and KRONOS may be more easily integrated with other systems at the banks. Finally, KRONOS will meet the requirements for inclusion of currencies in the future international currency settlement system, CLS<sup>3</sup>. The aim of the Nationalbank is for the Danish krone to be included as a settlement currency in CLS.

KRONOS is expected to be completed at the beginning of 2001 and will replace DEBES during 2001, thereby giving the banks one single system for krone-denominated and euro-denominated payments.

The DN Inquiry and Transfer System comprises a number of other functions besides the payment part, such as trading in certificates of deposit, etc.

SWIFT is the main international network for financial transactions. For example DEBES is based on SWIFT.

CLS is described in further detail in the 1998 Annual Report, page 79.

# International Monetary Cooperation

On 1 January 1999, on the commencement of the third stage of Economic and Monetary Union, EMU, 11 of the 15 EU member states adopted the euro as the single currency. As a consequence of the Edinburgh Agreement Denmark did not adopt the euro. The other three EU member states which are not part of the euro area are the UK, Sweden and Greece. Greece will apply for membership in March 2000. Initially the euro is "account money", but on 1 January 2002 euro banknotes and coins will be put into circulation. The introduction of the euro has changed the nature of monetary and economic cooperation within the EU since the main issue is now the formulation of the single monetary policy and the coordination of economic policy in the 11 euro area member states.

During 1999 there was no need for the large-scale support from the IMF to crisis-stricken countries which was required in 1997 and 1998.

#### **DENMARK AND EMU**

Denmark has not adopted the euro. As an element of the Edinburgh Agreement, which was approved together with the Maastricht Treaty by referendum in 1993, the Danish government announced Denmark's non-participation in the third stage of EMU.

However, Denmark does participate in the Exchange-Rate Mechanism, ERM II, thereby continuing the Danish fixed-exchange-rate policy. In ERM II the Danish krone is pegged to the euro. The standard fluctuation band in ERM II is +/- 15 per cent, but member states with a favourable convergence position may conclude an agreement concerning a narrower fluctuation band. Denmark has concluded such an agreement whereby the krone may fluctuate against the euro within a fluctuation band of +/- 2.25 per cent from the central rate<sup>1</sup>. The fluctuation band is a safety net since in practice the Nationalbank stabilises the krone within a narrower band. The central rate of the krone against the euro was fixed on 31 December 1998 on the basis of the krone's previous central rate against the D-mark and the conversion rate for the D-mark against the euro.

<sup>&</sup>lt;sup>1</sup> The central rate for the Danish krone is kr. 7.46038 per euro.

OUTLINE FOR DENMARK'S P	OSSIBLE CHANGEOVER TO THE EURO	Box 5
Around 1 year	Up to 2-3 years	Max. 2 months
From a positive referendum result until Denmark joins the euro area with the euro as "account money".	From Denmark's participation in the euro area until circulation of euro banknotes and coins.	From circulation of euro bank-notes and coins until krone bank-notes and coins have been exchanged for euro.

Source: Ministry of Economic Affairs "Outline National Changeover Plan, Changeover to the euro in case of Danish participation".

In August 1999 the Danish Prime Minister announced that Denmark would hold a referendum on the adoption of the euro. The referendum is expected to be held after the Social Democratic Party's congress in September 2000 and before the next parliamentary elections, i.e. no later than at the beginning of 2002.

In response to a number of questions from the Folketing (Parliament) to the Minister for Economic Affairs in December 1999 the Ministry of Economic Affairs submitted the "Outline National Changeover Plan, Changeover to the euro in case of Danish participation". This plan was prepared in cooperation with stakeholder organisations, the financial sector, other ministries and Danmarks Nationalbank. Its purpose is to provide an outline of the course of events as well as the applicable schedules in the event of endorsement of Denmark's adoption of the euro in a future referendum.

According to the plan a period of up to 3-4 years from a positive referendum result to the introduction of euro banknotes and coins is estimated for Denmark's changeover to the euro, cf. Box 5.

Around 1 year is allocated for Denmark's preparations for participation in the euro area, including the introduction of the euro as "account money". A period of up to 2-3 years is then outlined to prepare all elements of society for the circulation of euro banknotes and coins, and finally a period of not more than 2 months is envisaged for the exchange of krone banknotes and coins for euro.

In order for the euro to be introduced in Denmark the Nationalbank must be prepared for membership of the Eurosystem consisting of the European Central Bank, ECB, and the national central banks of the euro area member states. This will entail amendment of the Danmarks Nationalbank Act, as well as a number of adjustments to the Nationalbank's areas of responsibility and many of its systems.

As a consequence of the requirements imposed on the central banks of all EU member states some of the Nationalbank's areas of responsibility require adjustment, regardless of whether Denmark adopts the euro or not. This for example applies to payment systems. The Nationalbank already participates in TARGET, the joint payment system of the EU central banks, but on more restrictive terms than the euro area member states, cf. p. 78. Moreover, the Nationalbank has embarked on the restructuring of its statistics, cf. p. 97.

Participation in the Eurosystem will require extensive development of other areas of work, in particular accounting, but also adjustments to the monetary-policy instruments and preparation for the redenomination and issue of central-government debt in euro. In addition, the establishment of an initial stock and the preparation of subsequent ongoing production of euro banknotes and coins for circulation in Denmark will also be necessary.

The changes required of the Nationalbank if Denmark decides to adopt the euro are described in a chapter of the changeover plan of the Ministry of Economic Affairs. This chapter is included as an Annex to this Annual Report, cf. p. 151. With regard to the Nationalbank the period outlined for the necessary adjustments prior to the introduction of the euro as "account money" is around 1 year calculated from the date of endorsement by referendum. An additional period of approximately 1 year is considered to be necessary for the Nationalbank to complete the preparations for the circulation of euro banknotes and coins. According to the changeover plan of the Ministry of Economic Affairs other sectors, not least the general-government sector, require somewhat longer periods of preparation before euro banknotes and coins can be introduced.

#### THE OTHER EU MEMBER STATES NOT PARTICIPATING IN THE EURO

The 11 EU member states which adopted the euro on 1 January 1999 are Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal and Finland. Besides Denmark three other EU member states are not part of the euro area. These are Greece, Sweden and the UK.

#### Greece

The Greek government will apply for membership of the euro area in March 2000.

In the convergence assessment in spring 1998 Greece did not fulfil the economic criteria for participation in the euro area and therefore could

not adopt the euro on 1 January 1999. Since then the Greek economy has shown considerable convergence towards the other EU member states. For example, Greece's government-budget deficit in 1999 is estimated to be 1.9 per cent of GDP, compared to a deficit of 4.0 per cent of GDP in 1997. Against this background the Council of Ministers of Economic Affairs and Finance in the EU, the ECOFIN Council, in November 1999 decided to remove Greece from the list of countries with an excessive budget deficit. Greece now fulfils the convergence criteria concerning the government-budget deficit and debt.

At the request of Greece, in January 2000 the central rate of the Greek drachma in ERM II was revalued by 3.5 per cent against the euro. For a prolonged period up to the revaluation the drachma had been 6-7 per cent stronger than the central rate. The fluctuation band for the Greek drachma in ERM II is  $\pm$ 15 per cent.

According to the Treaty the assessment of whether a member state fulfils the criteria for participation in the third stage of EMU is to be repeated at least every second year<sup>1</sup>. If Greece in the spring of 2000 is found to comply with all convergence criteria it will probably join the euro area as from 1 January 2001. Greece then expects to be able to introduce euro banknotes and coins together with the present 11 euro area member states by 1 January 2002. The decision on Greek participation is expected to be taken at the EU summit in June 2000.

#### Sweden

In Sweden the Riksdag (Parliament) in December 1997 adopted the government's recommendation that Sweden does not participate in the third stage of EMU from the start, but that participation from a later date is possible, provided that it is approved by the people of Sweden in connection with a general election or referendum. Neither a referendum date nor an overall schedule for the subsequent changeover period have yet been decided on.

The parliamentary decision of 1997 states that practical preparations for the euro should be made in all sectors of society in order to preserve Sweden's room to manoeuvre even though it did not participate in EMU from the start. In August 1999 the government decided that the government authorities and agencies should initiate comprehensive analysis work focusing on the changeover period required for the general-government sector. The result is expected to be submitted in March 2000.

Greece and Sweden are the only two member states to be assessed in the convergence assessment in the spring of 2000, as Denmark and the UK, in accordance with their derogation protocols, are subject to convergence assessment only at their own request.

In October 1999 Riksbanken, the Swedish central bank, submitted an analysis of the time required for preparations in the financial sector. The banking sector outlines a period of around 18 months for the preparations from the political decision on participation until full participation, including the euro. Riksbanken's own target is to be prepared for EMU participation 12 months after the political decision is taken.

On the selection of the EU member states to participate in the third stage of EMU in the spring of 1998 the assessment was that Sweden did not fulfil the exchange-rate criterion for participation in the single currency since Sweden did not participate in the exchange-rate mechanism under the EMS at that time<sup>1</sup>. Sweden's convergence situation will be reassessed in the spring of 2000.

Like the UK, Sweden does not participate in ERM II. However, the Swedish government has announced that if Sweden decides to adopt the euro, a logical first step would be to link the Swedish krona to ERM II.

#### The UK

Like Denmark, the UK has invoked its treaty-bound right not to participate in the third stage of EMU. The British government has reserved the right to participate at a later stage if EMU functions satisfactorily and is found to be economically beneficial to the UK. Moreover, the government has announced that participation would require endorsement by referendum.

In February 1999 the British government issued a changeover plan for British participation in the euro area. It appears that a changeover to the euro in the UK is expected to require around 3 years from a referendum until the conclusion of the introduction of euro banknotes and coins.

#### THE INTRODUCTION OF THE EURO

#### Practical significance

Since 1 January 1999 the euro has existed as "account money" in the 11 euro area member states. It is thus possible to hold accounts and

The convergence criteria for the transition to the third stage according to the Maastricht Treaty: as a main rule the government deficit must not exceed 3 per cent of GDP and the government debt must not exceed 60 per cent of GDP. Average inflation, measured as the growth in consumer prices against the same month of the previous year, must not exceed by more than 1.5 percentage points the inflation rates of the – maximum three – best-performing member states with regard to price stability for a period of one year prior to the selection. For a period of one year prior to the selection the average long-term government bond yield or the average yield on equivalent securities must not exceed by more than 2 percentage points the yields in the – maximum three – best-performing member states with regard to price stability. Finally, the member states must have complied with the normal fluctuation margins in the ERM for at least two years without serious tensions.

transact electronic payments in euro in connection with e.g. securities trading.

On the introduction of the euro the national currencies of the 11 participating member states ceased to exist as independent currencies and the financial markets began to trade in the new single currency, the euro. During the changeover period the national currencies are to be regarded as various subdenominations of the euro. For example, the D-mark is exactly 1/1.95583 euro¹. The exchange rates between the national currencies and the euro are thus fixed.

The official conversion rates must be applied to conversion between the 11 national currencies and the euro. The European Commission recommends that any conversion fees charged are stated separately and are not included in the conversion rate.

During 1999 the euro achieved considerable importance on the international financial markets, which inter alia is reflected by the position of the euro area in the global economy<sup>2</sup>. This development is supported by the integration of the money and bond markets of the euro area.

Private individuals in the euro area have not yet experienced any major changes as a consequence of the introduction of the euro. Although prices in euro are displayed in many euro area member states cash payments will still be made in the 11 national currencies (D-mark, franc, etc.) until 2002 when the euro is introduced as a currency for cash transactions and fully replaces the national banknotes and coins.

The production of euro banknotes and coins is under way in most of the participating countries. The euro banknotes will be the same for all countries, while the coins will have a common and a national side<sup>3</sup>. The design of the euro banknotes and the common side of the euro coins was already decided in 1997. All member states participating in the single currency from the outset have subsequently published the design of the national side of their euro coins. There will be eight different euro coins (1, 2, 5, 10, 20 and 50 eurocent, and 1 and 2 euro) and seven different euro banknotes (5, 10, 20, 50, 100, 200 and 500 euro). Until January 2002, when the first euro banknotes and coins are put into

The design of the euro banknotes and coins can be viewed at e.g. the euro Web site of the European Commission: www.europa.eu.int/euro.

The exchange rates between the national currencies and the euro were fixed on 31 December 1998.

The 11 official conversion rates are shown in Table 13 on p. 175.

In 1999 the euro area's share of the world's total GDP was approximately 16 per cent, while the USA's share was approximately 21 per cent and Japan's share approximately 8 per cent. In 1999 the euro area's population was 291 million, the USA's 271 million and Japan's 126 million.

circulation, around 13 billion euro banknotes and 56 billion euro coins will be manufactured.

In November 1999 the ECOFIN Council adopted a declaration on a very rapid changeover to euro banknotes and coins in 2002. The objective is that the majority of cash transactions will be made in euro no later than 14 days after the commencement of the circulation of euro banknotes and coins on 1 January 2002. After a period of between four weeks and two months the period of double circulation of banknotes and coins in both national currencies and euro is expected to be completed. This is a significant reduction of the period, which was stated to be maximum six months at the EU summit in Madrid in 1995. By 1 March 2002 at the latest the national banknotes and coins will thus no longer be legal tender, but may be exchanged at the national central banks for a longer period thereafter.

#### Significance to EU cooperation

The introduction of the euro has profoundly changed the monetary and the economic-political cooperation within the EU. After a number of years of focus on the preparations for the third stage of EMU the dominant issue now is the ongoing formulation of the single monetary policy among the central banks and the consequences of the adoption of the single currency for the other economic policies of the 11 euro area member states.

The Nationalbank participates in the ongoing work of the ECB to a considerably lesser extent than under the ECB's predecessor, the European Monetary Institute, EMI.

With regard to the economic-political cooperation within the ECOFIN Council as a consequence of the introduction of the euro an ever-increasing element of the discussions, e.g. the exchange of views on economic trends, is now conducted within the informal forum for the ministers of economic affairs and finance of the 11 euro area member states, euro-11. At the same time the closer cooperation has increased the need for coordination of the euro area member states' standpoints on the issues under discussion in international fora, e.g. G7¹ and IMF. In the second half of 1999 the Finnish EU Presidency thereby gained a new function when the President of ECOFIN represented the euro area member states in the G7's discussions of currency issues.

G7 comprises the USA, Canada, Germany, the UK, France, Italy and Japan.

The ECB has three governing bodies: the Executive Board, the Governing Council and the General Council. The Executive Board is responsible for the day-to-day running of the ECB, and the implementation of the monetary-policy decisions. Wim Duisenberg is President of the Executive Board which consists of six members in total.

Monetary-policy decisions are taken by the ECB's Governing Council consisting of the central-bank governors of the 11 participating member states, as well as the ECB's Executive Board. The Governing Council normally meets every two weeks especially with a view to deciding on interest-rate adjustments if necessary. The practical implementation of the decisions of the Governing Council is predominantly the responsibility of the participating national central banks.

The General Council consists of the President and Vice President of the Executive Board, as well as the governors of the central banks of all 15 EU member states, including Danmarks Nationalbank. The General Council primarily contributes to the preparations for participation in the euro area should one of the non-participating EU member states adopt the euro. Furthermore, the General Council contributes to the ECB's advisory functions and to the collection of statistical information.

Throughout the year extensive information was published on the ECB's decisions and the operations of the Eurosystem via such channels as the ECB's Monthly Bulletin and the President's monthly press conferences after meetings of the Governing Council.

The ECB is owned by the national central banks, which have contributed capital. The capital contribution of each central bank depends on the member state's economy and population size. Each national central bank's share of the ECB corresponds to its contribution to the total capital. The ECB's profit or loss is distributed proportionally among the national central banks according to their ownership share.

The four EU central banks which are outside the Eurosystem have paid up 5 per cent of the amount they would have contributed, had they joined the Eurosystem. The interest on this amount covers the expenses related to the ECB tasks which concern all 15 member states.

#### THE EUROPEAN CENTRAL BANK AND THE EUROSYSTEM

The national central banks of the 11 euro area member states and the ECB together constitute the Eurosystem<sup>1</sup>. The organisation of the ECB is described in further detail in Box 6. The Eurosystem is responsible for monetary policy in the euro area.

The Eurosystem's primary objective is to maintain price stability. The Governing Council has defined price stability as a year-on-year increase

The Treaty uses the term the European System of Central Banks, ESCB, which in some contexts comprises the ECB and the national central banks of all 15 EU member states, and in other contexts comprises only the ECB and the national central banks of the euro area member states. The ECB introduced the Eurosystem as the name of the central-bank structure under which the ESCB carries out the tasks related to the third stage of EMU.

in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2 per cent.

The monetary-policy strategy is based on two pillars which together form the basis for the monetary-policy decisions. One pillar consists of a reference value for growth in the broad monetary aggregate, M3. For 2000 this reference value has been fixed at  $4\frac{1}{2}$  per cent, which is unchanged from 1999. The second pillar consists of a broadly based assessment of the outlook for price developments on the basis of a number of leading indicators such as wages, exchange rates, bond prices and the yield curve, various measures of activity in real terms, fiscal-policy indicators, price and cost indices, and business and consumer surveys.

During 1999 the ECB managed interest rates and liquidity solely by means of the regular monetary-policy instruments, i.e. main refinancing operations, longer-term refinancing operations, two standing facilities and a minimum reserve system<sup>1</sup>. Among the ECB's monetary-policy instruments the main refinancing operations play a key role in monetary policy. They consist of weekly tenders for liquidity with a maturity of two weeks, cf. p. 34. Longer-term refinancing operations are monthly tenders for liquidity with a maturity of three months. Their significance to monetary policy is limited, however. The allocation of liquidity via the main refinancing operations and the longer-term refinancing operations is always on the basis of collateral in securities.

The standing facilities are a marginal lending facility and a deposit facility with the purpose of supplying and absorbing day-to-day liquidity respectively.

The minimum reserve system of the Eurosystem imposes minimum reserve requirements on the credit institutions in the euro area member states corresponding to 2 per cent of selected liabilities. These reserves are subject to interest at the ECB's rate of interest for the main refinancing operations. One objective of the minimum reserve system is to contribute to stabilising money-market interest rates.

The ECB's interest-rate adjustments in 1999 are described on p. 32.

#### THE STABILITY AND GROWTH PACT

After the ECOFIN Council's decision in November 1999 to remove Greece from the list of countries with excessive budget deficits all EU member states now comply with the Treaty's criterion concerning the government budget. All member states' government-budget deficits are below

The Eurosystem's operational framework is described in further detail in *General documentation on ESCB monetary policy instruments and procedures*, which is available on the ECB's Web site at www.ecb.int/pub/pub01.htm.

the limit of 3 per cent of GDP. Some member states, including Greece, have a government debt which is considerably higher than the Treaty's limit of 60 per cent of GDP, but since the debt is being reduced these member states are nonetheless found to comply with the Treaty's criterion.

To ensure fiscal discipline in the longer term the Stability and Growth Pact was adopted in June 1997<sup>1</sup>. The Stability and Growth Pact entered into force simultaneously with the introduction of the euro and imposes an obligation on all 15 EU member states to aim for a government budgetary position "close to balance or in surplus in the medium term". This is an extension of the Treaty's criterion of a budget deficit not exceeding 3 per cent of GDP.

Each EU member state has prepared a national programme for compliance with the requirements set out in the Stability and Growth Pact in the period up to 2002. In March 1999 the ECOFIN Council completed its first review of the 15 member states' programmes after the entry into force of the Stability and Growth Pact and stated an opinion on each programme. The conclusion of the ECOFIN Council was that all member states comply with the provisions of the Stability and Growth Pact concerning a budget deficit close to balance or in surplus in the medium term. However, some euro area member states' programmes were criticised for an overweight of budget-adjustment measures towards the end of the projection period and to the effect that much of the budget adjustment was the result of "passive gains" from declining interest rates and expected higher growth. However, the main point of criticism was that some member states only just comply with the criterion for the medium-term objective, which means that they have no safety margin for unexpected events.

The member states are required to update their programmes on an annual basis. The first updated programmes were available towards the end of 1999.

#### THE INTERNATIONAL MONETARY FUND, IMF

In 1999 the activities of the IMF were concentrated on ensuring financing of the special facilities for developing countries and on long-term adjustments to the IMF's surveillance scheme. The purpose of the adjustments is to make the international financial system more resistant to shocks.

The Stability and Growth Pact formally consists of a summit resolution and two Council regulations: Resolution of the European Council, Official Journal C 236, 2 August 1997 p. 1, and the two regulations: Official Journal L 209, 2 august 1997, p. 1ff.

The Board of Governors is the highest decision-making body of the IMF. It consists of a governor (normally a central-bank governor or a minister of finance) and an alternate governor for each member country. The Board of Governors normally meets once a year ("the annual meeting").

The IMF's Executive Board is responsible for conducting the day-to-day business of the IMF. It normally meets several times a week. The Chairman of the Executive Board is the IMF's Managing Director. The Board consists of 24 Directors who are appointed or elected by member countries or by groups of countries. The Nordic countries and the Baltic countries are represented by one Director who is appointed by the countries' governors. According to an informal agreement the country holding the directorship (1998-99 Denmark, 2000-01 Finland) will also coordinate the views of the Nordic countries and Baltic countries on issues discussed by the Executive Board.

The number of votes of each country or group of countries in the IMF's Board of Governors and Executive Board depends on that country or group of countries' total IMF quota. The Nordic-Baltic group holds 3.59 per cent of the votes in the Executive Board.

In November 1999 it was decided to replace the Nordic-Baltic Constituency Committee with the Nordic-Baltic Monetary and Financial Committee.

In the autumn of 1999 the Interim Committee (IC) became the International Monetary and Financial Committee (IMFC). This is an advisory committee made up of 24 ministers and central-bank governors. The members represent the same countries and groups of countries as in the IMF's Executive Board. The Committee normally meets twice a year. Since the autumn of 1998 the Committee has also met at alternate level 1-3 weeks before the actual IC/IMFC meeting.

Lending by the IMF declined in 1999 as especially the Asian economies stabilised and there was less need for extensive loan facilities than in the two preceding years. The IMF's liquidity saw a strong improvement after the increase in quota contributions which entered into force on 22 January 1999, cf. the 1998 Annual Report, p. 93.

At the annual meeting in September 1999 it was decided to establish a permanent committee, the International Monetary and Financial Committee, IMFC, to replace the temporary Interim Committee. The IMF's management and committees are described in Box 7.

#### Debt initiative and financing schemes for developing countries

1999 saw a breakthrough in the international negotiations on financing of the debt-relief initiative for the poorest developing countries, the HIPC (Heavily Indebted Poor Countries) initiative. As a major multilateral lender to developing countries the IMF, together with the World Bank, played an important role in this initiative. At the annual meeting of the IMF in September 1999 agreement was reached on the financing of the

In accordance with the IMF's Articles of Agreement the IMF's general resources, i.e. drawings on the member countries' central banks, and the IMF's general reserves, may not be reserved for a certain group of member countries. The IMF's general resources cannot thus be used to finance special facilities for developing countries, which therefore require separate financing.

These facilities are subject to separate financing via bilateral contributions from the industrialised countries in particular or by transfer from other special funds in the IMF. In order to supplement the bilateral contributions, it was decided at the annual meeting in 1999 that the IMF would revalue a proportion (14 million ounces) of its gold by selling and repurchasing this gold at market price from countries which repay IMF loans. By far the largest proportion of the IMF's gold is valued in the IMF's balance sheet at a book value of SDR 35 per ounce, while the market price is considerably higher (SDR 212 per ounce at end-1999)¹. The revaluation of the gold enables the IMF to transfer the recorded profit from the general resources to the special funds to finance the special facilities for the developing countries.

At the same time the IMF intends to increase its drawings on the member countries' central banks in order to increase its investments in interest-bearing assets. The return on the IMF's increased investments will be used to finance the IMF's costs in connection with the debt reduction initiative and for interest subsidies on the Enhanced Structural Adjustment Facility.

To prevent a reduction of the IMF's ordinary revenue, the interest on deposits from member countries contributing to the financing of the IMF is reduced, while the interest is increased with regard to countries which borrow from the IMF's general resources.

IMF's participation in the debt-relief scheme for the HIPC. The meeting also adopted the financing scheme for another IMF loan facility directed especially at developing countries, ESAF (Enhanced Structural Adjustment Facility). The financing of these special facilities is kept separate from the IMF's general resources. The facilities are financed by direct contributions from the industrialised countries in particular, and by transfer from special IMF funds. The financing of the IMF's own contribution to the special facilities for developing countries is described in Box 8.

At the annual meeting it was also decided that in the future the IMF will focus more on poverty reduction in the countries receiving assistance under ESAF. As a consequence, ESAF was renamed PRGF (Poverty Reduction and Growth Facility). This entails that the countries receiving assistance under this facility must prepare actual poverty reduction programmes.

Previously the IMF sold minor shares of its gold in the market and used the profit to finance the special facilities for the developing countries.

Denmark's contribution to the ESAF facility so far has been approximately kr. 30 million per year. Denmark's contribution to PRGF and to the IMF's participation in this debt-relief initiative are financed via Denmark's development assistance budget.

In December 1999 the Parliamentary Finance Committee endorsed the government guarantee to the Nationalbank enabling the Nationalbank to grant loans to PRGF. Together with other industrialised countries, Denmark has thus met the IMF's request for extension of the loan ceiling for the PRGF facility by SDR 2 billion. Denmark's share of this amount will be SDR 100 million or approximately kr. 1 billion.

#### Extended control of the use of IMF funds

In the light of suspected abuse of government funds and corruption in Russia and Indonesia, the IMF introduced special extended control of the use of disbursed funds in connection with loans to these two countries.

Russia's arrangement to borrow, amounting to USD 4.5 billion in July 1999, became conditional on the preparation and publication of independent auditors' reports with a view to investigating suspected abuse of previously disbursed IMF funds at the Russian central bank, as well as investigating the relationship between the Russian central bank and its branches abroad.

The reports found no indications of abuse of IMF funds by the Russian central bank. On the other hand, under a previous arrangement to borrow from the IMF funds had been retransferred from the branches to the central bank so that the central bank was able to state artificially high international reserves. This constituted a significant breach of the loan agreement with the IMF.

Disbursements to Russia in July under the new loan were therefore subject to extended control. As part of the special control measures the first tranche of USD 640 million was held in an account with the IMF for servicing Russia's previous debt to the IMF. This means that Russia has no access to the disbursed funds. No disbursements have been made under the IMF's arrangement with Russia since July 1999.

In 1999, as in previous years Russia met its debt-service obligations to the IMF. In net terms Russia's repayments exceed the disbursements made to Russia under new loans.

The IMF also required preparation and publication of an independent auditors' report in *Indonesia*. This survey disclosed corruption involving both the Indonesian government and the central bank. In September 1999 the IMF therefore postponed further disbursements under the existing arrangement with Indonesia. The last disbursement of USD 460 million was made at the beginning of August 1999.

#### Increased transparency and extension of the IMF's surveillance

In recent years the IMF has prepared data dissemination standards, cf. p. 94, and other standards for transparency in fiscal policy as well as monetary and financial policy. This work has now become even more important in the light of the experiences of the countries affected by financial crises in 1997-98. Their experiences indicate a need for increased transparency in the countries' formulation of their economic policies. Furthermore, international standards, particularly with regard to supervision of financial enterprises, should be implemented in all member countries in order to reduce the vulnerability of their financial sectors to unforeseen shocks.

The IMF and the World Bank have initiated a joint pilot project to provide for early detection of possible weaknesses in a country's financial sector. In its surveillance of the member countries the IMF will focus on those aspects of the development in the financial sector which are of macroeconomic significance. The most important conclusions will be incorporated in the IMF's reports on the member countries.

Furthermore, the IMF has initiated a pilot project on voluntary publication of the reports prepared on member countries. These reports are the regular reports on economic trends in the member countries, as well as the reports prepared when a country applies for an IMF loan. A summary of the reports is published in the Press Information Notices, PINs, for all countries. Denmark has approved the publication of the IMF's reports on Denmark, and the latest IMF report on Denmark was published on 26 August 1999.

### **Statistics**

Internationalisation in general and the cooperation within the EU in particular have increased the need for a uniform basis for comparison of the economic and financial development in various countries. Substantial work has been carried out by various international fora in recent years to standardise access to and the contents of economic and financial statistics. The IMF has developed a data dissemination standard – SDDS¹ – with the purpose of increasing the level of information on economic and financial trends in different countries. The coordination of economic policy within the EU and the adoption by 11 EU member states of the single currency make more stringent requirements of the reporting of statistical data to respectively Eurostat and the ECB. This also makes demands of the Danish statistics which particularly in the financial area require expansion in order to achieve compliance with these guidelines.

#### INTERNATIONAL STATISTICAL COOPERATION

#### IMF's Special Data Dissemination Standard - SDDS

SDDS was established in April 1996 in the wake of the financial crisis in Mexico in 1994-95. The standard was established to promote the dissemination of economic and financial statistics in order to improve the market participants' basis for assessment of a particular country's economic and financial situation.

Subscription to the SDDS is voluntary. At the close of 1999 47 participating countries, comprising both industrialised and developing countries, had subscribed to SDDS and thereby undertaken to comply with the requirements of the standard. Box 9 presents an outline of SDDS.

The requirements in SDDS are subject to ongoing tightening with regard to the data to be disseminated to the general public by the subscriber countries. In the wake of the economic crisis in a number of Southeast Asian countries the IMF's Executive Board at the end of 1998 and in the spring of 1999 adopted a number of measures to expand SDDS. At the same time the IMF generally increased the surveillance of the countries' compliance with the standard.

The Special Data Dissemination Standard.

#### THE REQUIREMENTS SET OUT IN SDDS

Box 9

SDDS covers 4 main categories within financial and economic statistics: the real sector, the fiscal sector, the financial sector and the external sector. These are supplemented with the category of population. On subscription to SDDS the countries undertake to observe the requirements listed below and to provide information to the IMF's information database.

#### Coverage, periodicity and timeliness

SDDS specifies exactly which indicators should appear from the statistics as a minimum in each category, as well as the periodicity and timeliness of dissemination.

#### Access

SDDS requires simultaneous release to all market participants and dissemination of a release calendar.

#### Integrity

The SDDS requires the dissemination for each data category of the terms and conditions under which the statistics are produced and disseminated. Furthermore, internal government access to data before release should be stated as well as information about revision policies and major changes in methodology.

At the end of 1999 the countries were required to present a national data page containing the key economic indicators. This national data page must at all times present the latest data releases and must be available from the IMF's information database via a hyperlink to the Web site of for example the national statistics agency or the national central bank.

In addition, new guidelines concerning the central banks' publication of their foreign-exchange reserves have been prepared. According to these guidelines the foreign-exchange reserves are to be published on a far more detailed basis than before and the compilation must include data on the liabilities related to the foreign-exchange reserve. The statistics must also include details of central-government assets and liabilities in foreign currency. The detailed compilation of the foreign-exchange reserves must be published on a monthly basis with a time lag of maximum one month, while data on the gross reserves must be published no later than one week after the end of the month. The guidelines enter into force on 31 March 2000.

Furthermore, it has been announced that as from 31 December 2001 SDDS will include requirements concerning dissemination of data on the countries' international investment position, which will be included from a later date.

#### Cooperation on statistics within the ECB

At European level the collection and standardisation of economic and financial statistics for the EU member states are undertaken by Eurostat, the statistical body of the European Commission, and the ECB. Eurostat is primarily responsible for the economic statistics, while the ECB handles the financial statistics. This division of work between Eurostat and the ECB is formalised in an agreement in which the exchange of statistical information is an important element.

Both areas are subject to ongoing standardisation of the statistical compilations which the EU member states are to report to Eurostat and the ECB as an element of the coordination of economic policy within the EU and the transition to the single currency in 11 EU member states.

The background to the ECB's work in the statistics field is that as the monetary-policy authority for the euro area the ECB needs to be able to assess the monetary and economic development in the euro area. Moreover the ECB also has a clear interest in being able to monitor the development in the non-euro area member states. This applies in particular to Denmark in view of the mutually binding agreement on fluctuation limits for the exchange rate of the krone vis-à-vis the euro, cf. the ERM II agreement, p. 80.

In the run-up to the introduction of the euro the EMI, the predecessor of the ECB, in July 1996 published a report, the implementation package, setting out the statistics required by the ECB in the third stage of EMU<sup>1</sup>.

The central element of the implementation package was the harmonisation of balance-sheet statistics for monetary financial institutions, MFIs. In addition to the ECB and the national central banks of the EU the MFI sector primarily consists of credit institutions as defined in the EU banking directives, as well as money-market funds. The MFI sector's liquid liabilities such as deposits and close substitutes for deposits are the basis for the compilation of the monetary aggregate for the euro area, which plays a central role in the ECB's monetary policy.

Since July 1998 the other EU central banks have reported balance-sheet statistics for MFIs to the ECB. In 1999 the work focused primarily on further harmonisation and improvement of the MFI statistics. The ECB has at the same time embarked on the preparations for implementation of the other elements of the implementation package, which are described in Box 10.

Statistical Requirements for Stage Three of Monetary Union (Implementation Package), EMI, July 1996.

In addition to the further development of the balance-sheet statistics for the MFI sector the ECB has embarked on a number of other statistics. In 1999 the ECB began to release provisional securities statistics and statistics concerning the lending and deposit rates of the MFI sector. Like the new balance-sheet statistics for the MFI sector these statistics are published in the ECB's Monthly Bulletin. The ECB's provisional statistics are compiled on the basis of the correlation of a number of existing national statistics. In 1999 the ECB began to develop permanent harmonised interest-rate statistics. This work will be intensified in 2000 and the new statistics will impose new reporting requirements on the financial sector. In addition, the ECB also began to develop permanent securities statistics.

With regard to the other financial statistics mentioned in the implementation package the ECB is expected during 2001 to release provisional statistics concerning non-MFI financial institutions such as investment associations, financing companies and credit-card companies. In 1999 the ECB worked on identifying and systemising the national statistics in this area. In the longer term the ECB is expected to develop harmonised balance-sheet statistics for these financial institutions along the lines of the new balance-sheet statistics for the MFI sector. In addition, the group of financial institutions may be expanded to include insurance companies and pension funds.

In 1999 the ECB and the national central banks continued their work on compiling quarterly financial accounts for the euro area. Financial accounts are financial balances at sectoral level. These accounts also include information on transactions in assets and liabilities on the financial balance sheet during the period in question. Financial accounts are derived statistics, i.e. they are compiled on the basis of other independent statistics. The first financial accounts for the euro area are expected to be released in 2000.

In 1999 the ECB began to publish a total balance of payments for the euro area. The main items are published on a monthly basis and are supplemented with more detailed information on a quarterly basis. Throughout 1999 the ECB and the EU central banks sought to improve the quality of the released balance-of-payments statistics. Towards the end of 1999 the ECB released the first compilation of the international investment position of the euro area.

Other economic statistics comprise e.g. price indices, national accounts statistics, various cyclical indicators and government-finance statistics. Within the EU these statistics are compiled mainly by Eurostat and the national statistics authorities. A number of statistics are released in the ECB's Monthly Bulletin.

#### THE DEVELOPMENT IN DENMARK

#### Implementation of SDDS

Denmark was one of the first countries to subscribe to the IMF's SDDS in June 1996 and observes the prescribed guidelines for dissemination of economic and financial statistics.

Preparations for the implementation of the most recent adjustments of the standard concerning the establishment of a data page for

Denmark and the guidelines for the Nationalbank's publication of the foreign-exchange reserve, cf. above, have been under way since the autumn of 1999.

The development of the Danish data page was completed at the end of 1999. The data page was then submitted to the IMF for approval. Once it is approved the data page will be published on the National-bank's Web site<sup>1</sup>. The IMF will establish a link from its information database to the Danish data page, so that the information can also be accessed from the IMF's Web site. At a later stage the data page will be maintained by Statistics Denmark which is responsible for the compilation of most of the data.

The data page contains the two latest observations for approximately 90 variables within the four main categories of financial and economic statistics in SDDS. Furthermore, the data page will present information on the publication frequency for each variable and the date of the last observation. The page will be updated on an ongoing basis as soon as new information becomes available.

The Nationalbank aims to apply the new IMF guidelines to the reporting of the foreign-exchange reserve as from March 2000. A summary compilation of the Nationalbank's foreign-exchange reserve will still be published on the second banking day of each month. The detailed compilation of the foreign-exchange reserve, including the other required information categories, such as central-government assets and liabilities denominated in foreign currency, is expected to be ready for publication at the end of April 2000.

#### New balance-sheet statistics for the MFI sector

In 1996 the trade organisations of the financial sector, the Danish Financial Supervisory Authority, Statistics Denmark and Danmarks Nationalbank concluded a mutual agreement to introduce new balance-sheet statistics for Danish MFIs based on the EMI's statistical guidelines.

In contrast to the euro area member states and the other non-euro area member states it was also agreed to let the implementation of the statistics in Denmark span over a longer period of years than prescribed by the EMI.

The practical work of establishing the MFI statistics has been ongoing since 1998 in a number of working groups which include representatives of the authorities as well as the financial sector.

The data page will be available at the Nationalbank's Web site (www.nationalbanken.dk) under Statistics - SDDS.

The balance-sheet statistics for the MFI sector¹ set out a far more detailed breakdown of the balance-sheet items by country, currency and sector than in the present balance-sheet statistics for banks and mortgage-credit institutes. The reporting population has also been expanded to include credit institutions other than banks or mortgage-credit institutes, as well as the Nationalbank. Another innovation is that statistics will also be collected from even the smallest banks, as well as from money-market funds.

The financial statistics are now reported to the Nationalbank as an element of the cooperation between the authorities. The new reporting regulations and forms are designed to also include the banks' statistical reporting to other bodies. The new reporting scheme for the MFI statistics thus now includes quarterly sectoral/industry statistics, quarterly and biannual balance-sheet statistics to BIS², and the banks' contribution to the indirect compilation of the gross national product, the FISIM statistics. MFIs subject to these reporting obligations can thus benefit from a more homogeneous and streamlined reporting scheme.

In April 1999 the working groups concerning new balance-sheet statistics in the MFI sector completed the preparation of the guidelines concerning the content and technical design of the future statistics. In the 2nd half of 1999 the reporting institutions and the Nationalbank embarked on development and adjustment of their computer systems as an element of the technical preparations.

This work is expected to be completed in October 2000 when the reporting banks will begin reporting data for the new balance-sheet statistics for MFIs. The first total balance-sheet statistics for the MFI sector will be prepared with effect from December 2000 at the latest when reporting to the ECB will also commence.

#### **Expansion of the financial statistics**

The Nationalbank finds that Denmark should at all times comply with international statistical standards. This also applies to the financial area. The ECB has put the implementation package of 1996 into practice, cf. Box 10, and against this background it can be expected that considerable expansion of Denmark's financial statistics in the coming years will be required.

The Nationalbank intends to monitor this work closely. The objective is to expand the financial statistics at the same pace as the other EU member states.

The largest banks report a breakdown by country and currency of their most significant international accounts to the Nationalbank for further reporting to the Bank for International Settlements, BIS.

A review of the statistical requirements of the MFI sector is found in Kjeld Ole Nielsen and Anders Mølgaard Pedersen, New Balance-Sheet Statistics for Monetary Financial Institutions, Danmarks Nationalbank, *Monetary Review*, 4th Quarter 1999.

Extra resources will be required in the Danish financial sector to achieve the anticipated expansion of statistics, and likewise the Nationalbank will devote considerably more resources to its own work in the statistics area, especially in the next few years.

#### THE FRAMEWORK FOR PREPARATION OF STATISTICS

# Cooperation agreement between Statistics Denmark and Danmarks Nationalbank

By tradition Statistics Denmark and the Nationalbank have cooperated closely on the compilation of statistics concerning Denmark's external balance as well as financial statistics. With regard to the balance of payments the division of responsibilities and tasks between the two institutions is relatively clear. Statistics Denmark is responsible for compiling the overall balance of payments, although a significant proportion of the data originates from the Nationalbank's payments statistics in which external payments are recorded. The Nationalbank is responsible for compiling the external debt, including collection of data, compilation and publication of the debt statistics. The division of work has been less clear in the area of financial statistics in so far as both Statistics Denmark and the Nationalbank collect and publish statistics.

The expected expansion of the financial statistics during the coming years, which is a prerequisite for Denmark's continued compliance with international statistical standards, has therefore reinforced the need to clarify the division of responsibilities and tasks as well as the specific planning of the expansion of the financial statistics. After negotiations on the scope of the work Statistics Denmark and the Nationalbank in the autumn of 1999 concluded an agreement in principle on the division of the responsibilities related to the preparation of statistics.

Under this agreement the Nationalbank undertakes to ensure compliance of the Danish financial statistics with international standards during 2001. This includes observance of the guidelines which have been and will be set out regarding the EU member states' reporting of financial statistics to the ECB. The agreement between Statistics Denmark and the Nationalbank corresponds to the division of work between Eurostat, which handles the cooperation between the statistics agencies of the EU member states, and the ECB. The agreement reflects similar arrangements in the other EU member states where financial statistics are the responsibility of the central banks.

During the spring of 2000 the agreement will be supplemented with an actual cooperation agreement covering all aspects of the cooperation on statistics between Statistics Denmark and the Nationalbank. Besides extending and formalising the cooperation between the two institutions the cooperation agreement will aim to minimise the reporting burden imposed on the sectors concerned by providing for reporting to one authority only to the greastest possible extent (the unit-reporting principle).

#### The Nationalbank's authority to prepare statistics

The Nationalbank is formally authorised to collect statistics concerning the foreign-exchange area, but not for the financial area. The financial statistics currently prepared by the Nationalbank – the monthly balance-sheet statistics for banks and mortgage-credit institutes – are based on the current accounting standards for the financial sector and on the Financial Supervisory Authority's mandate to collect accounting data from the financial sector for the purpose of supervision.

Against the background of the forthcoming expansion of the financial statistics in Denmark, which will be the responsibility of the National-bank, cf. the agreement with Statistics Denmark, it was considered appropriate that the Nationalbank be authorised to compile the financial statistics. Since the purpose of expanding the financial statistics is to enhance international comparability it will not be possible to maintain the close accordance between supervisory and statistical data which previously applied in Denmark. Furthermore, efficient cooperation between Statistics Denmark and the Nationalbank assumes access to exchange confidential information used for the preparation of the statistics. This in itself makes it necessary for the Nationalbank to be authorised to collect statistics and to have the status of statistical authority in line with Statistics Denmark.

The Nationalbank seeks to establish a mandate to compile financial statistics by amendent of the Statistics Denmark Act. The bill was submitted to the Folketing (Parliament) towards the end of 1999. Among other things the bill provides for Statistics Denmark to assign the collection, processing and publication of financial statistics to the Nationalbank. In addition, the Nationalbank's authority to collate statistics is extended with regard to both the type of information to be provided and the reporting population of business enterprises. This ensures that it holds the appropriate authority to achieve the expansion of Denmark's financial statistics. According to the bill the Act will enter into force on 1 April 2000. The Nationalbank's authority to compile financial statistics will come into effect on the conclusion of cooperation agreement with Statistics Denmark, as described above.

# Organisation

The introduction of the euro in 1999 led to changes in working procedures at the Nationalbank, which participates in the joint payment system, TARGET. The year was also characterised by the preparations for the rollover to the year 2000, which progressed smoothly.

At the close of 1999 the Nationalbank had 556 employees, which is a decrease by 10 from the previous year.

#### **CHANGES IN TASKS**

#### **TARGET**

TARGET was commissioned on 4 January 1999, the first banking day after the introduction of the euro. The payment system DEBES, which is the Danish element of TARGET, was also commissioned without problems, cf. p. 78. TARGET's opening hours in 1999 were from 7 a.m. to 6 p.m. daily, except weekends, Christmas Day, New Year's Eve and New Year's Day. This made new requirements of the Nationalbank's staff deployment.

#### Automation of note inspection

In spring 2000 the manual quality control of the printed banknotes will become semi-automatic. The quality control takes place at two vital stages of note production – in the note-printing works and when the notes are cut out. On the cutting of notes the cutting machine is integrated with the inspection machine, which can check up to 40 notes per second.

#### Information

In 1999 the Nationalbank published "Monetary Policy in Denmark" (in Danish), which is a detailed presentation of Danish monetary policy. The purpose is to provide a bridge between general textbooks and reference works on monetary policy and the practical approach to monetary policy in Denmark in 1999<sup>1</sup>. Moreover, in 1999 a brochure in Danish was prepared on the tasks of the Nationalbank so as to inform the general public of the tasks of the Nationalbank as central bank and to explain

The publication is available on the Nationalbank's Web site or can be purchased from Schultz Information.

concepts such as inflation, fixed-exchange-rate policy, interest rates and exchange rates. Finally a brochure (in Danish and in English) has been published on the banknotes and coins of Denmark. It presents the current series of coins and banknotes and also describes the production process from outline to final product<sup>1</sup>.

#### Finance for Danish Industry A/S (FIH)

In connection with structural adjustments at Finance for Danish Industry A/S (FIH) in 1998 the Nationalbank has divested its shareholding in FIH. In 1958 the Nationalbank contributed to establishing FIH, whose objective was to promote industrialisation by extending medium-term loans for industry and small trades. This lending is now in competition with other financial institutions, so the Nationalbank no longer considered it appropriate to be a joint owner. One half of the share portfolio was sold in 1998 and the rest in 1999.

#### TRANSITION TO THE YEAR 2000

In the 1st half of 1999 the Nationalbank's preparations for the transition to the year 2000 were focused on sectoral testing involving the testing of settlement and clearing systems in the financial sector. The sector testing included communication lines and computer infrastructure, securities settlement and the financial clearing systems. Moreover, the Nationalbank participated in several of the ECB's tests of TARGET.

Already in 1998 the Nationalbank tested the systems used by the bank at BEC (Bankernes Edb Central). The programs developed by the Nationalbank itself were tested in 1999. In November 1999 all new systems were tested and the systems to which adjustments and additions had been made were tested once more.

Satisfactory supplier declarations were obtained for all standard systems.

Infrastructure and technical installations were tested if possible. In a number of cases supplier declarations were obtained. At the close of the 3rd quarter of 1999 all critical operational systems were ready for year 2000.

To provide for the contingency that despite the exhaustive work of testing computer systems, infrastructure and technical installations, problems might nonetheless arise, a detailed emergency plan was drawn up in the 2nd half year. All departments of the bank with critical operational tasks contributed to the Nationalbank's emergency plan.

These brochures can be obtained from the Nationalbank's Information Desk.

Just before the turn of the year a full backup was taken of all vital computer programs and data. The Nationalbank had prepared alternative duty rosters for the ordinary duty service and for the technical duty staff. On New Year's Day the systems were started up and tested.

At the international level BIS established an information platform, the MACS project, for exchange of year 2000 information among the financial authorities in approximately 30 countries around the world. The Nationalbank and the Danish Financial Supervisory Authority were the Danish financial authorities that participated.

At the European central bank level the Nationalbank participated in work within the ECB. This work was coordinated by the ECB's Year 2000 Coordination Committee which drew up an emergency and communication plan for the actual rollover to the year 2000. Up to the turn of the year, the central banks of the participating countries several times a day informed each other of the development on the financial markets, which was supplemented immediately after the turn of the year with information on how the individual central banks were functioning with regard to both technical installations and computer systems.

The emergency and communication plans also involved the days immediately before and after 29 February 2000.

In order to be able to handle a situation with increasing demand for cash in 1999 a number of measures were prepared to ensure an adequate supply of cash, cf. p. 67. The Nationalbank also gave extraordinary access to both purchase and sale of certificates of deposit just before and after New Year, in order to ensure stable money-market interest rates around the turn of the year, cf. p. 37.

As a consequence of the exhaustive preparations and testing the rollover to the year 2000 progressed smoothly.

#### THE NATIONALBANK'S MANAGEMENT

#### The Royal Bank Commissioner

The Minister of Economic Affairs and for Nordic Cooperation Ms. Marianne Jelved is the Royal Bank Commissioner.

#### **Board of Directors**

The Board of Directors re-elected Mr. Bent le Fèvre, Mr. Jens Rostrup-Nielsen and Professor Hans E. Zeuthen for a new five-year term from 1 April 1999.

Mr. Erik B. Rasmussen took his retirement on 31 March 1999. Mr. Søren Bjerre-Nielsen was elected to the Board of Directors as from 1 April 1999.

The Board of Directors re-elected Professor Hans E. Zeuthen as Chairman and Ms. Helle Bechgaard as Deputy Chairman for the period 1 April 1999 to 31 March 2000.

In April 1999 the Folketing (Parliament) elected Mr. Christian Mejdahl, MP as new member of the Board of Directors to replace Mr. Uffe Ellemann-Jensen, MP who wished to withdraw.

Mr. Jacob Buksti, MP withdrew from the Board of Directors on 23 February 2000 on his appointment as minister. The Folketing (Parliament) has not yet elected a new member.

#### THE BOARD OF DIRECTORS OF DANMARKS NATIONALBANK, 1 MARCH 2000

Box 11

Chairman: Hans E. Zeuthen, Professor

Deputy Chairman: Helle Bechgaard, Senior Vice President, Ph.D. (Pharm.)

Elected by the Folketing for the period ending 31 March 2001:

Pia Christmas-Møller, MP

Jørgen Estrup, MP

Jes Lunde, MP

Christian Mejdahl, MP

Jan Petersen, MP

Anders Fogh Rasmussen, MP

Gitte Seeberg, MP

Appointed by the Royal Bank Commissioner for the period ending 31 March 2001:

Michael Dithmer, Permanent Secretary, Ministry of Economic Affairs

Karsten Olsen, Former Deputy Permanent Secretary

Elected by the Board of Directors:	For periods ending 31 March
Helle Bechgaard, Senior Vice President, Ph.D. (Pharm.)	2000
B. Frank Nielsen, General Manager	2000
Kirsten Stallknecht, Chairman of ICN	2000
Harry Nicolaisen, Farmer	2001
Finn Thorgrimson, Former President of the Trade Union	Federation 2001
Margit Vognsen, Vice-President of the Danish Trade Univ	on of Public Employees 2001
Jette W. Knudsen, Managing Director	2002
Kjeld Larsen, Farmer	2002
Kirsten Nielsen, President of the Consumer Council	2002
Knud Koch Jensen, Engineer	2003
Søren Bjerre-Nielsen, Group President	2003
Helge Sørensen, Civil Engineer	2003
Bent le Fèvre, General Manager	2004
Jens Rostrup-Nielsen, Director, R&D Division, dr. techn.	2004
Hans E. Zeuthen, Professor	2004

Mr. Jørgen Estrup, MP will leave Parliament on 1 March 2000 and must therefore also withdraw from the Board of Directors. The Folketing (Parliament) has not yet elected a new member.

Mr. Harry Nicolaisen takes his retirement on 31 March 2000.

The Board of Directors of the Nationalbank is presented in Box 11.

#### Committee of Directors

For the period 1 April 1999 to 31 March 2000 the Board of Directors re-elected Mr. Jacob Buksti, Ms. Margit Vognsen and Professor Hans E. Zeuthen. The Board of Directors also elected Mr. Søren Bjerre-Nielsen and Mr. Anders Fogh Rasmussen to replace Mr. Erik B. Rasmussen, who took his retirement, and Mr. Uffe Ellemann-Jensen, who wished to withdraw.

Two members of the Committee of Directors, Mr. Michael Dithmer and Mr. Karsten Olsen, are appointed by the Royal Bank Commissioner until 31 March 2001.

The Committee of Directors re-elected Professor Hans E. Zeuthen as Chairman and Mr. Michael Dithmer as Deputy Chairman for the period 1 April 1999 to 31 March 2000.

Mr. Jacob Buksti, MP withdrew from the Committee of Directors on 23 February 2000 on his appointment as minister. The Board of Directors has not yet elected a new member.

The Nationalbank's Committee of Directors is presented in Box 12.

#### **Board of Governors**

As Governor by Royal Appointment Ms. Bodil Nyboe Andersen is Chairman of the Board of Governors. The two other members are Mr. Torben Nielsen and Mr. Jens Thomsen.

THE COMMITTEE OF DIRECTORS OF DANMARKS NATIONALBANK, 1 MARCH 2000

Box 12

Chairman: Hans E. Zeuthen, Professor

Deputy Chairman: Michael Dithmer, Permanent Secretary, Ministry of Economic Affairs

Elected by the Board of Directors for the period ending 31 March 2000:

Søren Bjerre-Nielsen, Group President

Anders Fogh Rasmussen, MP

Margit Vognsen, Vice-President of the Danish Trade Union of Public Employees

Hans E. Zeuthen, Professor

Appointed by the Royal Bank Commissioner for the period ending 31 March 2001: *Michael Dithmer*, Permanent Secretary, Ministry of Economic Affairs *Karsten Olsen*, Former Deputy Permanent Secretary

#### **Auditors**

The Royal Bank Commissioner re-appointed State-Authorised Public Accountant Mr. Svend Ørjan Jensen and appointed State-Authorised Public Accountant Mr. Bjarne Fabienke to be the Nationalbank's external auditors for the year ending 31 March 2000. State-Authorised Public Accountant Mr. John Gath resigned as external auditor.

#### **ADMINISTRATION**

The Nationalbank has 16 departments, including the Note Printing Works and the Royal Mint, cf. the organisation chart on p. 108. In 1999 a new department, Security, was established. Security is responsible for security at the Nationalbank, including IT security. IT security was previously part of the area of responsibility of Information Technology.

#### Staff

The total number of staff, converted into full-time employees, had decreased by 10 to 556 at the end of 1999, cf. Table 5.

New tasks have been added and therefore the number of bank and clerical staff has increased, while other tasks have lapsed or been rationalised, leading to a decrease in the group of other staff.

In 1999 12 employees left the bank under severance agreements.

At the close of 1999 26 employees were on leave, primarily working for international organisations, of whom 9 at the ECB.

3 employees were on leave under statutory leave schemes.

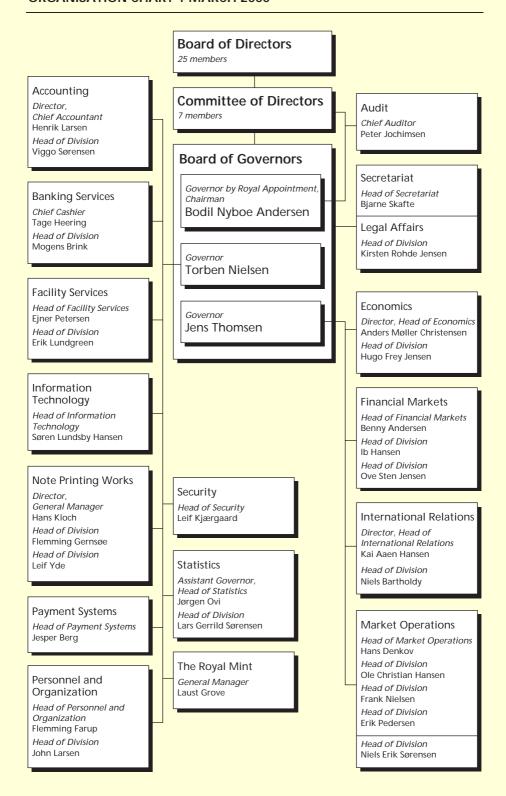
#### Further training of staff

The objective of the further training of the bank's staff is set out in the "Education Policy Objectives of Danmarks Nationalbank", adopted by the Joint Consultation Committee in 1996.

The principle is that both the bank and the employee have an interest in and share responsibility for the further education of the employee in step with the requirements imposed by new development on the Na-

NUMBER OF STAFF, CONVERTED INTO FULL-TIME POSITIONS					Table 5
Year-end	1995	1996	1997	1998	1999
Bank and clerical staff	311 83 40 158	320 82 29 155	318 82 26 153	326 77 16 147	341 73 16 126
Total	592	586	579	566	556

#### **ORGANISATION CHART 1 MARCH 2000**



tionalbank. The costs of the further education of employees have risen from just below kr. 3 million in 1995 to kr. 9 million in 1999. This amount corresponds to approximately 4 per cent of wages and salaries, etc.

Most of the increase in expenditure on education has been used to develop work-related skills, primarily professional courses, trade conferences and computer-related subjects, for which expenditure in 1999 totalled approximately kr. 6 million. Moreover, in 1999 an amount of around kr. 1 million was devoted to managerial training.

In the spring of 1998 the Nationalbank like a number of other financial institutions offered all employees a home-PC scheme. By registering under this scheme and taking courses in a number of modules under the public "PC Driving Licence Scheme" employees were provided with a PC for use at home and could buy it at market price after the expiry of the 2-year period of the scheme. This scheme has been a success and approximately 90 per cent of the bank's staff have participated in the course during the past two years. The education costs totalled kr. 2.5 million distributed almost equally over the two years.

In the coming years the Nationalbank will focus more on teaching by internal instructors in order to give employees teaching experience as an element of their career development. This applies to toolbox courses, courses in personal development and in certain areas actual professional courses.

Furthermore, to a greater degree than before the Nationalbank will support further education in the employees' own time in areas which have a certain relevance, but are not necessarily directly related to the employee's current area of work.

#### REPRESENTATION ON COMMITTEES, ETC.

As of 1 March 2000 the Nationalbank is represented on the following committees, etc.:

#### Financing institutes

The Ship Credit Fund of Denmark:

Former Governor *Ole Thomasen* is a member of the Board of Directors and the Board of Representatives. Mr. *Max Bæhring* and Mr. *Hugo Andersen* are members of the Board of Representatives.

#### The Agricultural Mortgage Bank:

Former Governor *Ole Thomasen* is a member of the Board of Directors and the Board of Representatives. Professor *Flemming Just* is appointed to the Board of Representatives.

#### Danish Venture Finance:

Professor *Hans E. Zeuthen* and Former Assistant Governor *Jørn Kjær* are appointed to the Board of Representatives.

#### GrønlandsBANKFN A/S:

Former Governor *Ole Thomasen* is elected to the Board of Directors.

#### The Nordic Investment Bank:

*Hans Denkov*, Head of Market Operations, is an alternate member of the Board of Directors.

#### Securities market institutions

The Securities Market Council:

Governor *Jens Thomsen* is a member and *Ove Sten Jensen*, Head of Division, is an alternate member.

#### The Danish Securities Centre:

Governor *Torben Nielsen* is Vice Chairman of the Board of Directors and *Jesper Berg*, Head of Payment Systems, is an alternate member.

#### Other institutions

Managing Committee for the Social Pension Fund: Hans Denkov, Head of Market Operations, is a member.

#### The Economic Council:

Governor Jens Thomsen is a member.

#### REPRESENTATION IN INTERNATIONAL ORGANISATIONS

As an element of the international foreign-exchange and monetary-policy cooperation Danmarks Nationalbank participates in a number of committees, sub-committees and working groups, of which the most significant are:

#### The European Union, EU

The Economic and Financial Committee:

Governor *Jens Thomsen* (with *Michael Dithmer*, Permanent Secretary, Ministry of Economic Affairs).

*Niels Bartholdy,* Head of Division, is an alternate member of the Committee (with *Henrik Fugmann*, Deputy Secretary, Ministry of Economic Affairs).

#### The Economic Policy Committee:

Hugo Frey Jensen, Head of Division (with Per Bremer Rasmussen, Deputy Secretary, and Thomas Alslev Christensen, Director, Ministry of Economic Affairs, and Per Callesen, Deputy Secretary, Ministry of Finance).

#### The Banking Advisory Committee:

Benny Andersen, Head of Financial Markets (with *Torben Garne*, Director, Ministry of Economic Affairs, and *Henrik Bjerre-Nielsen*, Director General, Financial Supervisory Authority).

#### The Working Group of Mint Directors:

Laust Grove, General Manager, the Royal Mint, and *Thomas Enevoldsen*, Head of Section.

#### The European Central Bank, ECB

The General Council:

Governor Bodil Nyboe Andersen.

The Nationalbank participates partly in the following ECB committees:

#### Accounting Committee:

Henrik Larsen, Chief Accountant, Director, and Allan Damm Christensen, Special Consultant.

#### Banking Supervision Committee:

Benny Andersen, Head of Financial Markets (with Henrik Bjerre-Nielsen, Director General, Financial Supervisory Authority).

#### Banknote Committee:

Hans Kloch, Director, and Tage Heering, Head of Division.

#### External Communications Committee:

Bjarne Skafte, Head of Secretariat.

#### Information Technology Committee:

*Søren Lundsby Hansen,* Head of Information Technology, and *Kristian Kjeldsen,* Special Consultant.

#### Internal Auditors Committee:

Peter Jochimsen, Chief Auditor, and Stephan Green Löwe, Head of Section.

#### International Relations Committee:

Governor Jens Thomsen and Niels Bartholdy, Head of Division.

#### Legal Committee:

*Kirsten Rohde Jensen*, Head of Division, and *Louise Mogensen*, Head of Section.

#### Market Operations Committee:

Frank Nielsen, Head of Division.

#### Monetary Policy Committee:

Hugo Frey Jensen, Head of Division, and Hanne Lyngesen, Head of Section.

#### Payment Systems Committee:

Governor Torben Nielsen and Tobias Thygesen, Head of Section.

#### Statistics Committee:

Jørgen Ovi, Assistant Governor.

#### Year 2000 Coordination Committee:

John Larsen, Head of Division.

#### The International Monetary Fund, IMF

Governor *Bodil Nyboe Andersen* is the Danish member the IMF's Board of Governors. (*Michael Dithmer*, Permanent Secretary, Ministry of Economic Affairs, is an alternate member of the Board).

#### The Nordic/Baltic Monetary and Financial Committee:

Governor *Jens Thomsen* (with *Michael Dithmer*, Permanent Secretary, Ministry of Economic Affairs) and *Kai Aaen Hansen*, Director, who is Chairman of the Group of Alternate Members.

Consultant *Ole Hollensen* is member of the Group of Alternate Members (with *Henrik Fugmann*, Deputy Secretary, Ministry of Economic Affairs).

#### Organisation for Economic Cooperation and Development, OECD

The Economic Policy Committee:

Governor *Jens Thomsen* (with *Michael Dithmer*, Permanent Secretary, Ministry of Economic Affairs, and *Anders Eldrup*, Permanent Secretary, Ministry of Finance).

#### DANMARKS NATIONALBANK'S ANNIVERSARY FOUNDATION OF 1968

In 1999 the Foundation's honorary grant was awarded to Ms. Rigmor Mydtskov, photographer, and Mr. Arje Griegst, goldsmith, who each received kr. 100,000. An exhibition of the two artists' works in the lobby of the Nationalbank marked this award.

The purpose of the Anniversary Foundation is to extend financial support for the promotion and development of the artistic design and presentation of Danish products and to support other artistic areas, mainly decorative art, architecture and design, but also music and dance. In 1999 total grants amounted to kr. 5 million. Of 1,506 applications, 147 were granted. In addition 8 grants without prior application were made.

On 1 March 2000 the Board of the Foundation comprised Governor Bodil Nyboe Andersen (Chairman), Professor Hans E. Zeuthen (Deputy Chairman), Ms. Bodil Busk Laursen, Mr. Per Magid, Ms. Bente Scavenius and Mr. Teit Weylandt.

Further information on Danmarks Nationalbank's Anniversary Foundation can be found on the Nationalbank's Web site under "About Us".

#### THE NATIONALBANK'S GUEST APARTMENTS AT NYHAVN 18

The Nationalbank has seven guest apartments at Nyhavn 18 which are made available to foreign scientists and artists. Residence in the guest apartments is free and granted from three months up to one year. In 1999 the guest apartments at Nyhavn 18 were allocated to 12 visitors.

The committee formed to advise on the allocation of the apartments consists of Professor Ole Feldbæk (Chairman), Dr. Else Marie Bukdahl and Professor Niels I. Meyer.

#### THE ERIK HOFFMEYER TRAVEL GRANT FOUNDATION

In 1999 the Erik Hoffmeyer Travel Grant Foundation awarded grants to Ph.D. student Isil Kazan and the poet Muniam Alfaker. They each received a grant of kr. 40,000 for further studies abroad.

The establishment and objective of the Foundation are described in the 1995 Annual Report.

The Board of the Travel Grant Foundation comprises Professor Hans E. Zeuthen (Chairman), Former Governor Erik Hoffmeyer and Former Chief Rabbi Bent Melchior.

## Report on the Nationalbank's Accounts

The Nationalbank's accounts for 1999 show a profit of kr. 1,472 million. The profit from financial items was kr. 1,933 million, of which negative value adjustments, etc. were kr. 3,081 million. After the transfer of kr. 3,081 million from the Value Adjustment Reserve and allocation of kr. 1,366 million to the General Reserves the remainder of kr. 3,188 million is payable to the central government. The Nationalbank's net capital has thereby decreased by kr. 1,715 million to kr. 41,758 million in 1999

The Nationalbank's financial risks mainly comprise market risks. The market risk is primarily related to the interest-rate sensitivity and the foreign-exchange exposure. In view of the low interest rates at the beginning of 1999 the interest-rate sensitivity was reduced. The foreign-exchange exposure consists predominantly of euro-denominated accounts. The credit risk is very moderate since the Nationalbank exclusively holds claims on counterparties with a high credit standing and to a significant extent requires the pledging of collateral.

#### THE NATIONALBANK'S MANAGEMENT OF FINANCIAL RISKS

The Nationalbank holds considerable financial assets and liabilities. The principal assets are foreign deposits and securities, domestic securities and loans to Danish banks. The principal liabilities are banknotes and coins in circulation, deposits and certificates of deposit, and the deposits of the central government.

The financial assets and liabilities expose the Nationalbank to various market and credit risks, which can affect its financial result.

#### Market risk

The market risk is the risk of the Nationalbank suffering a loss as a consequence of price fluctuations on the financial markets, i.e. primarily due to fluctuations in interest and exchange rates.

#### Interest-rate sensitivity

The interest-rate sensitivity indicates the capital loss which the National-bank will suffer as a consequence of a change in interest rates. For the Nationalbank, which holds significantly more fixed-rate assets than liabilities, an increase in interest rates will impose a loss.

INTEREST-RATE SENSITIVITY OF THE NATIONALBANK		Table 6
Capital loss in kr. billion on a general 1 per cent increase in interest rates	End -1998	End-1999
Kroner	1.1	1.1
Euro <sup>1</sup>	1.3	0.9
Pound sterling	0.2	0.2
Swiss franc	0.0	0.0
Dollar	0.6	0.5
Yen	0.2	0.2
Total	3.4	2.8

<sup>&</sup>lt;sup>1</sup> For 1998 the euro comprises ECU and the sum of the national currencies of the euro area member states.

The Nationalbank could avoid capital losses resulting from fluctuations in interest rates by exclusively holding outstandings at floating interest rates. However, in the long term returns on fixed-rate securities are higher than on money-market placements at floating rates. Over an extended period the Nationalbank will therefore achieve a higher return by taking an interest-rate risk.

In view of the low interest rates at the beginning of 1999 the sensitivity to changes in interest rates of the Nationalbank's portfolio of domestic and foreign bonds was reduced by kr. 0.6 billion to kr. 2.8 billion, cf. Table 6. This means that a general increase in the domestic and external interest-rate levels by 1 percentage point entails a loss of kr. 2.8 billion. The sensitivity of foreign bonds to changes in interest rates constituted just over 60 per cent of the overall sensitivity to changes in interest rates.

The sensitivity to changes in interest rates for outstandings in kroner can be related to the domestic securities portfolio. A large proportion of the sensitivity to changes in interest rates of the domestic securities portfolio relates to mortgage-credit bonds. Since mortgage-credit bonds can be redeemed prematurely, the interest-rate sensitivity is more difficult to determine than for e.g. government bonds. The National-bank undertakes model calculations of the sensitivity adjusted for the risk of early redemption of the portfolio of mortgage-credit bonds.

#### Foreign-exchange exposure

The Nationalbank holds considerable foreign-exchange assets, first and foremost the foreign-exchange reserve. The Nationalbank therefore – like other central banks – cannot avoid exposure to a foreign-exchange risk.

The Nationalbank's foreign-exchange exposure is subject to coordinated management with the foreign-exchange exposure of the central government's foreign-exchange-denominated debt. This coordinated manage-

FOREIGN-EXCHANGE EXPOSURE OF THE NATIONALBANK				
End-1999				
Market value, kr. billion	End-1998, net	Placements	Forward contracts	Net
Euro¹ Pound sterling Swiss franc Dollar Yen Gold	109 0 -1 2 -1 4	110 12 0 38 11 5	55 -11 0 -38 -9	164 1 0 0 2 5
Total	111	174	-3	172

Note: Negative amounts indicate that the Nationalbank holds liabilities. The value of SDR is distributed on the respective currencies.

ment entails that the government debt denominated in dollar, yen, pound sterling and Swiss franc in principle is set off by the Nationalbank's holding equivalent assets. The net position, i.e. the difference between the Nationalbank's foreign-exchange-denominated assets and the central government's foreign-exchange-denominated liabilities, has in recent years been primarily in the core EMS currencies, mainly D-mark, and now euro. In view of the Danish fixed-exchange-rate policy these currencies are found to entail the lowest risk. Moreover, it is sought to minimise the exchange-rate risk on both the central government's foreign-exchangedenominated liabilities and the Nationalbank's foreign-exchangedenominated assets. The exchange-rate risk on the central government's foreign-exchange-denominated liabilities is limited by e.g. the central government's use of swaps to obtain liabilities denominated in euro if loans are raised in other currencies. The Nationalbank limits the exchange-rate risk by forward sale of dollars, pounds sterling, yen and Swiss francs against euro. This reduces the exchange-rate risk on the Nationalbank's bond and money-market placements in those currencies. For example, at the close of 1999 the Nationalbank held pound sterling assets for kr. 12 billion, but had sold sterling forward for kr. 11 billion. The total net sterling outstandings thereby amounted to kr. 1 billion.

The Nationalbank's foreign-exchange exposure therefore almost entirely comprises euro, cf. Table 7. The result is thus to only a moderate degree affected by fluctuations in the krone's exchange rate vis-à-vis the dollar, yen, pound sterling and Swiss franc.

#### Liquidity

The primary objective of the foreign-exchange reserve is to be able to intervene in the foreign-exchange market. In the management of the

<sup>&</sup>lt;sup>1</sup> For 1998 the euro comprises ECU and the sum of the national currencies of the euro area member states.

THE NATIONALBANK'S VALUE-AT-RISK		Table 8
Value-at-Risk in kr. billion with a 1-year horizon	End-1998	End-1999
Kroner	1.1	1.5
Euro <sup>1</sup>	4.1	1.6
Pound sterling	0.3	0.3
Swiss franc	0.1	0.0
Dollar	1.0	0.6
Yen	0.5	0.4
Gain due to spread	2.6	1.1
Total	4.5	3.3

Note: VaR indicates the contribution from both the interest and exchange-rate risks excluding gold.

foreign-exchange reserve great emphasis is thus placed on the possibility to convert a significant proportion of the foreign-exchange reserve to liquid funds quickly. Therefore a large proportion of the foreign-exchange reserve is held in on-demand accounts or in bonds with a high credit rating which can be either easily realised or mortgaged. Moreover, the Nationalbank has access to liquidity via the central government's Commercial Paper programme for USD 12 billion. The Nationalbank also holds an automatic borrowing right at the ECB in accordance with the ERM II agreement, should the krone reach the fluctuation limit vis-à-vis the central rate.

#### Calculation of market risk

In order to evaluate the market risk and to support the setting of a framework for the interest-rate sensitivity the Nationalbank employs various risk measures, including Value-at-Risk (VaR). This risk measure includes the *probability* of interest and exchange-rate losses based on historical fluctuations. This risk measure therefore differs from the calculation of the interest-rate sensitivity and the foreign-exchange exposure. The VaR risk measure is supplemented with e.g. stress scenarios<sup>1</sup>.

At the close of 1999 the Nationalbank's VaR was kr. 3.3 billion<sup>2</sup>, cf. Table 8. This figure can be interpreted to indicate that there is only a 5 per cent probability that during the coming year the Nationalbank will have total interest-rate and exchange-rate losses exceeding kr. 3.3 billion. At the close of 1998 VaR was kr. 4.5 billion.

<sup>1</sup> For 1998 the euro comprises ECU and the sum of the national currencies of the euro area member states.

Stress scenarios are calculation examples whereby the consequence of an extreme market development is investigated, e.g. historical interest-rate and exchange-rate trends in particularly unfavourable periods.

VaR is calculated on the basis of estimated correlations and volatilities between relevant financial variables. By combining these estimates with the Nationalbank's portfolio composition VaR can be found

The decrease in 1999 is primarily related to the krone's stability vis-à-vis the euro, but also the normalisation of the financial markets after the unrest in autumn 1998.

#### Credit risk

The credit risk is the Nationalbank's risk of loss on an account with a counterparty due to the counterparty's default in obligations.

To reduce the credit risk the Nationalbank seeks to hold assets only with counterparties with a high credit standing. Moreover, to a large extent collateral is required.

The credit risk on the foreign assets, i.e. accounts with foreign governments, banks, etc., is managed on the basis of the ratings given by international rating agencies. Moreover, all significant outstandings are subject to maximum limits.

For deposits with foreign banks repo agreements are used to a great extent. In repo agreements, the Nationalbank receives government bonds as collateral. Should a foreign bank be subject to compulsory liquidation, the Nationalbank's deposit is covered by the collateral provided. The Nationalbank's foreign bonds are issued or guaranteed by states with a high rating, or issued by supranational institutions. The Nationalbank thus does not hold corporate bonds or bonds issued by governments with a low credit rating.

On placement of the domestic securities portfolio great weight is also attached to the high credit standing of the issuers. The securities

TOTAL OPEDIT EXPOSIDE ON THE EODEIGN EXCHANGE DESERVE AND

THE DOMESTIC SECURITIES PORTFOLIO, ETC., END-1999  Table 9						
	Bonds Bank transactions					
Kr. billion	Govern- ments	Others	Collateral- ised	Uncollate- ralised	Supra- national institutions	Total
Aaa	51.3	15.3	0.0	4.1	2.7	73.4
Aa1	13.5	0.7	-	3.0	-	17.2
Aa2	2.1	1.5	3.4	6.6	-	13.5
Aa3	12.3	12.7	21.1	17.3	-	63.4
A1	-	-	0.9	2.9	-	3.8
A2	-	-	-	3.0	-	3.0
A3			0.2	-		0.2
No rating	-	5.4 <sup>1</sup>	0.9	0.0	22.4 <sup>2</sup>	28.8
Total	79.1	35.7	26.6	36.8	25.1	203.3

Note: Moody's credit rating is used. The scale extends from Aaa to D, where Aaa is the highest credit rating. For more details of ratings reference is made to Kristian Sparre Andersen and Anders Matzen, The Use of Ratings in the European Capital Markets, cf. Danmarks Nationalbank, *Monetary Review*, 3rd Quarter 1998.

<sup>&</sup>lt;sup>1</sup> Individual Danish mortgage-credit institutes and similar.

<sup>&</sup>lt;sup>2</sup> Solely covers BIS and IMF.

portfolio comprises government bonds, mortgage-credit bonds and Ship Credit Fund bonds, etc.

Table 9 shows the Nationalbank's very moderate credit risk since more than 90 per cent of the foreign-exchange reserve and the domestic securities portfolio are placed with supranational institutions or in assets with a rating of Aa3 or higher.

There is only a small credit risk related to the Nationalbank's monetary-policy operations, the banks' overnight credits and cash depots, since collateral is always required.

#### PRESENTATION OF THE NATIONALBANK'S ACCOUNTS

The Nationalbank's Accounts with notes are shown on pp. 125-133.

The accounts for 1999 have been prepared in accordance with the same accounting policies as in the previous year, with the exception of reclassification of the items under expenses in the profit and loss account. Furthermore, as a consequence of the adjustments to the monetary-policy instruments banks and mortgage-credit institutes are now shown in the same items of the accounts. The reclassification does not affect the profit for the year or the value of the assets and liabilities.

The accounts reflect that the Nationalbank issues banknotes and coins, administers the foreign-exchange reserve and functions as banker to the banks and the central government.

In 1999 the profit from financial items was kr. 1,933 million and thereby kr. 3,910 million lower than in 1998. The significant decrease primarily reflects negative value adjustments of kr. 3,081 million, compared to positive value adjustments of kr. 995 million in 1998, equivalent to a deterioration by kr. 4,076 million in total. After other income of kr. 84 million and expenses of kr. 545 million the profit for the year was kr. 1,472 million, or kr. 3,956 million less than in 1998.

The balance sheet has increased from kr. 182.8 billion to kr. 281.8 billion. With regard to assets the increase is primarily in foreign assets and loans to banks and mortgage-credit institutes, while the increase in liabilities is primarily related to deposits from banks and mortgage-credit institutes and to certificates of deposit.

#### The profit and loss account

Net income from interest

Net income from interest totalled kr. 5,014 million, which is kr. 166 million more than in 1998.

Income from interest on foreign assets rose by kr. 417 million to kr. 5,519 million. The increase is primarily a consequence of the fact that on average the foreign-exchange reserve was kr. 32 billion larger in 1999 than in 1998.

Interest on lending to and deposits from the banks and mortgage-credit institutes gave respectively income from interest of kr. 822 million, compared to kr. 1,455 million in 1998, and interest expenditure of kr. 192 million, compared to kr. 212 million in 1998. The interest expenditure on certificates of deposit amounted to kr. 1,778 million, compared to kr. 1,965 million in 1998. The net interest expenditure to banks and mortgage-credit institutes (including interest on certificates of deposit) was thus kr. 1,148 million, compared to kr. 721 million in 1998. The rates of interest for certificates of deposit and lending are identical, while the rate of interest for deposits is slightly lower. The interest rates have all been lower than the equivalent rates for 1998, but since the banks and mortgage-credit institutes have had a substantially larger net position vis-à-vis the Nationalbank than in 1998, cf. p. 42, the total net interest expenditure has increased.

The Nationalbank's interest expenditure on the central government's deposit fell by kr. 217 million to kr. 1,828 million. The central government's deposit was on average higher than in the preceding year, while the discount rate, which is the rate of interest on the central government's deposit, was lower.

Interest on loans to other borrowers fell by kr. 36 million to kr. 187 million. The change can be attributed to a decrease by kr. 90 million because during the year the Danish Export Finance Corporation redeemed all loans, and an increase of kr. 54 million from currency swaps with the Ship Credit Fund of Denmark. The increase of kr. 54 million is related mainly to the settlement of income from interest at a higher dollar rate than in 1998.

Interest to other depositors, etc. rose by kr. 72 million to kr. 210 million, primarily as a consequence of the fact that in 1999 the Nationalbank took over additional commitments vis-à-vis the Ship Credit Fund of Denmark, i.e. index-linked loans for a total index value of kr. 3,066 million.

Interest and dividend on bonds and shares, etc. rose by kr. 24 million to kr. 2,544 million.

#### Value adjustments, etc.

Value adjustments, etc. resulted in a loss of kr. 3,081 million.

Value adjustment of the Nationalbank's gold stock gave a gain of kr. 636 million, which is mainly related to a higher dollar rate, while the price of gold in dollars was virtually unchanged.

In addition to the foreign-exchange reserve the value adjustment of foreign-exchange positions comprises unsettled foreign-exchange contracts, currency and interest-rate swaps and domestic foreign-exchange balances, as well as the counterpart of Special Drawing Rights (SDR) allocated by the IMF. The value adjustment gave a loss of kr. 2,684 million, which can be attributed to an exchange-rate gain of kr. 535 million and a market-value loss of kr. 3,219 million. The exchange-rate gain is related primarily to the development in SDR.

The value adjustment of (domestic) bonds and shares gave a loss of kr. 1,034 million, of which the loss on bonds was kr. 1,287 million, while the sale of shares in Finance for Danish Industry (FIH) realised a gain of kr. 253 million. This was equivalent to the sales proceeds since the Nationalbank's share portfolio was included in the accounts at kr. 1 per shareholding.

The market-value loss on domestic and foreign bonds can be related partly to the general increase in international interest rates and partly to the fact that a large proportion of the bond portfolio at the beginning of the year had a market value above par, and therefore automatically released a capital loss in step with redemption, or because the redemption date was forthcoming.

#### Other income from ordinary operations

Other income in 1999 amounted to kr. 84 million, of which the greatest part concerns the liquidation of a reserve fund under the IMF.

#### **Expenses**

Total expenses increased by kr. 63 million to kr. 545 million, or 13.0 per cent.

Staff expenses rose by kr. 35 million to kr. 298 million, equivalent to an increase of 13.1 per cent. Of the increase kr. 25 million constitutes provisions for support and severance schemes concerning both the present and previous years.

Other expenses rose by kr. 28 million to kr. 247 million, equivalent to an increase of 12.9 per cent. Part of the increase can be attributed to an increase in investments. In accordance with the bank's accounting policies these investments are entered as expenditure in the year of acquisition. Moreover, the information campaign for the new banknote series required increased expenditure.

#### Result for the year

The result for the year is a profit of kr. 1,472 million, against a profit of kr. 5,428 million in 1998. In accordance with the practice for allocation

of profits the loss on value adjustments of kr. 3,081 million is covered by a transfer from the Value Adjustment Reserve, which hereafter amounts to kr. 20 million. Kr. 1,366 million is allocated to the General Reserves. This corresponds to 30 per cent of the profit excluding value adjustments, after which the General Reserves total kr. 41,439 million. The remainder of kr. 3,188 million is payable to the central government.

#### The balance sheet

#### Stock of gold

The stock of gold amounted to kr. 4.6 billion at the end of the year, compared to kr. 3.9 billion one year before. The increase is related solely to the increase in the price of gold in kroner by 16 per cent during 1999.

#### Foreign assets

Assets amounted to kr. 154.7 billion at the end of the year, compared to kr. 89.4 billion one year before. This is equivalent to an increase of 73 per cent. The assets are placed in euro (69 per cent), dollars (18 per cent), pound sterling (7 per cent) and yen (6 per cent). The positions are held mainly in government bonds, government-guaranteed or highly-rated bonds, deposits with central banks and commercial banks, or as lending against collateral in government bonds.

Foreign assets are the most significant item of the foreign-exchange reserve, together with the stock of gold, claims on the IMF and foreign liabilities.

#### Claims on the International Monetary Fund (IMF)

The balance-sheet item comprises Denmark's IMF quota less the IMF's holdings of Danish kroner at the Nationalbank, with addition of the bank's holdings of Special Drawing Rights (SDR) with the IMF. During the year this asset decreased by kr. 0.9 billion to kr. 8.4 billion, which is related to the value adjustment for the year and the transactions of the IMF. In 1999 the quota was raised by SDR 0.6 billion. This is the background to the strong increase in the quota and in the IMF's holdings of Danish kroner.

#### Loans, etc.

Loans mainly comprise accounts with banks and mortgage-credit institutes and must be evaluated together with the item deposits, etc. and certificates of deposit. The net assets of the banks and mortgage-credit institutes with the Nationalbank increased during the

year from kr. 14.7 billion to kr. 68.3 billion. This includes loans related to cash depots, which rose from kr. 2.9 billion to kr. 5.0 billion.

#### Bonds and shares, etc.

The holdings comprise domestic securities and constitute kr. 37.7 billion, which is by and large unchanged from the previous year. The holdings are primarily municipal-credit and mortgage-credit bonds (kr. 17.0 billion), government bonds (kr. 14.1 billion) and Ship Credit Fund bonds (kr. 6.5 billion). Shares are included at kr. 1 per shareholding.

#### Banknotes and coins in circulation

Banknotes in circulation rose by kr. 5.2 billion to kr. 42.4 billion, while coins in circulation increased by kr. 0.1 billion to kr. 4.0 billion. Banknotes in circulation include Faroese notes at kr. 282 million. A large proportion of the increase in banknotes in circulation is related to extraordinarily large holdings by the banks in connection with the safeguarding of cash supplies at the millennium change, cf. p. 68.

#### Foreign liabilities

The liabilities increased by kr. 1.2 billion to kr. 2.4 billion and comprise krone deposits with the Nationalbank from supranational institutions and other central banks.

Counterpart of Special Drawing Rights (SDR) allocated by the IMF The allocation was unchanged during the year and the increase in the item by kr. 0.2 billion to kr. 1.8 billion solely reflects the value adjustment for the year.

#### Deposits, etc.

Besides deposits from banks and mortgage-credit institutes of kr. 38.7 billion this item includes other deposits of kr. 7.7 billion, of which the account with the Ship Credit Fund of Denmark is the largest at kr. 3.9 billion.

#### Certificates of deposit

Certificates of deposit, which are the Nationalbank's short-term debt securities sold to banks and mortgage-credit institutes, rose by kr. 65.1 billion to kr. 99.9 billion.

#### Central government

The central government deposit increased from kr. 37.1 billion to kr. 39.7 billion. The central government's share of the result of the Nationalbank is included in this amount.

#### Net capital

The net capital amounts to kr. 41,758 million, which is the net capital at the beginning of the year of kr. 43,474 million less negative value adjustments of kr. 3,081 million and addition of a share of kr. 1,366 million of the result before value adjustments.

Copenhagen, end-February 2000

Bodil Nyboe Andersen Torben Nielsen Jens Thomsen

At the meeting of the Board of Directors held on 16 March 2000 the Board of Governors reported on the activities of the Nationalbank in 1999. The report was noted.

The Nationalbank's accounts for 1999 were submitted by the Board of Governors for adoption on the recommendation of the Committee of Directors. The Board of Directors and the Royal Bank Commissioner accepted the recommendation.

# Accounts for the Year 1999

#### PROFIT AND LOSS ACCOUNT FOR THE YEAR 1999

Not	re		1999 kr. '000	1998 kr. ′000
	Income from interest, etc.:		KI. 000	KI. 000
	Interest on foreign assets	5,518,638		5,101,568
1	Interest on loans, etc.	1,008,982		1,678,387
	Interest and dividend on bonds and shares, etc. $\dots$	2,543,921		2,520,201
	Commission and other income	15,624		3,911
			9,087,165	9,304,067
	Expenditure on interest, etc.:			
	Interest on foreign liabilities	65,099		96,656
2	Interest on deposits, etc. and			
	certificates of deposit	4,007,796		4,359,206
			4,072,895	4,455,862
	Net income from interest		5,014,270	4,848,205
	Value adjustments, etc:			
	Value adjustment of gold	635,925		-296,006
	Value adjustment of foreign assets	-2,683,684		844,062
3	Value adjustment of bonds and shares, etc	-1,033,727		446,539
			-3,081,486	994,595
	Profit from financial items		1,932,784	5,842,800

#### PROFIT AND LOSS ACCOUNT FOR THE YEAR 1999

Note	e		1999 kr. '000	1998 kr. ′000
	Profit from financial items		1,932,784	5,842,800
4	Other income from ordinary operations		84,284	67,671
	Expenses:			
5	Staff expenses	297,999		263,454
6	Other expenses	246,926		218,740
			544,925	482,194
	Profit for the year		1,472,143	5,428,277
	Which is allocated as follows:			
	Transfer from the Value Adjustment Reserve		-3,081,486	994,595
	Allocation to General Reserves		1,366,089	1,330,105
	Payable to the central government		3,187,540	3,103,577

Pursuant to the Danmarks Nationalbank Act the profit for the year after allocations is payable to the central government.

#### **BALANCE SHEET AT 31 DECEMBER 1999**

Not	е	1999 Kr. '000	1998 kr. ′000
	Assets	KI. 000	Kr. 000
	Stock of gold	4,566,951	3,933,559
	Foreign assets	154,715,301	89,416,246
7	Claims on the International Monetary Fund (IMF)	8,441,266	9,329,804
8	Loans, etc.	72,945,688	40,225,314
9	Bonds and shares, etc.	37,696,381	37,486,642
10	Other assets	3,417,368	2,383,086
	Accruals	19,401	19,247
	Total assets	281,802,356	182,793,898

#### **BALANCE SHEET 31 DECEMBER 1999**

Note	1999 kr. '000	1998 kr.′000
Liabilities	и. 000	м. ооо
Banknotes	42,429,943	37,198,773
Coins	3,951,719	3,815,871
Foreign liabilities	2,424,958	1,252,999
Counterpart of Special Drawing Rights allocated by the		
International Monetary Fund (SDR)	1,814,683	1,605,805
11 Deposits, etc.	46,403,909	21,230,616
Certificates of deposit	99,896,000	34,752,000
Central government	39,677,540	37,130,934
Other liabilities	3,445,132	2,333,031
Total creditors	240,043,884	139,320,029
General Capital Fund 50,000		50,000
Statutory Reserve		250,000
Value Adjustment Reserve		3,101,450
General Reserves		40,072,419
Total net capital	41,758,472	43,473,869
Total liabilities	281,802,356	182,793,898
12 Off-balance-sheet items:		
Guarantees	475,172	688,508
Other liabilities	67,994,286	74,533,935
	68,469,458	75,222,443

#### NOTES ON THE ACCOUNTS FOR 1999

kr. ′000	1998
KI. 000	kr. '000

#### **Accounting policies**

The accounts for 1999 have been prepared in accordance with the same accounting policies as in the previous year, with the exception of the reclassification of items under expenses in the profit and loss account, and the inclusion of banks and mortgage-credit institutes in the same items of the accounts as a consequence of adjustments to the monetary-policy instruments. The comparative figures have been adjusted. The reclassifications do not affect the profit for the year or the value of assets and liabilities.

Gold is entered at market value at year-end.

Assets and liabilities in foreign exchange are entered at the official exchange rates and the market prices prevailing at year-end.

**Bonds and shares.** The bond portfolio is entered at the official market prices at year-end. Shares are entered at kr. 1 per shareholding.

**Properties, machinery and equipment** are entered as expenditure in the year of acquisition. At the most recent official assessment the bank's properties were valued at kr. 717 million.

#### Note

1	Interest on loans, etc. Interest on loans to domestic banks and		
	mortgage-credit institutes	821,504	1,454,884
	Interest on loans to other borrowers	187,478	223,503
		1,008,982	1,678,387
2	Interest on deposits, etc. and certificates of deposit		
	Interest on deposits from domestic banks and		
	mortgage-credit institutes	192,391	211,511
	Interest on the central government's deposits	1,828,169	2,045,415
	Interest to other depositors, etc.	209,620	137,609
	Interest on certificates of deposit	1,777,616	1,964,671
		4,007,796	4,359,206

#### 3 Value adjustment of bonds and shares, etc.

This includes sales proceeds of kr. 253.1 million on the sale of the bank's shareholding in Finance for Danish Industry.

#### **NOTES ON THE ACCOUNTS FOR 1999**

Not	е	1999 kr. '000	1998 kr. '000
4	Other income from ordinary operations  The amount mainly concerns income related to the dissolution of a reserve fund under the International Monetary Fund.	KI. 000	KI. 666
5	Staff expenses Salaries and remuneration Other staff expenses Allocations to support and severance schemes	215,966 57,033 25,000 297,999	209,917 53,537  263,454
6	Other expenses Purchases of materials, note production Purchases of materials, coin production Purchases of machinery and equipment Real property, current expenses Data processing and expenses incidental to the Danish Securities Centre Other expenses Income from sale of coin sets and medals, etc.	21,591 14,201 47,004 57,280 46,529 63,553 -3,232 246,926	17,338 17,053 32,832 41,987 59,341 53,825 -3,636
7	Claims on the International Monetary Fund (IMF)  Denmark's IMF quota  The IMF's holdings of Danish kroner  Reserve position with the IMF  Holdings of Special Drawing Rights	16,667,192 10,761,718 5,905,474 2,535,792 8,441,266	9,605,348 2,483,765 7,121,583 2,208,221 9,329,804
8	Loans, etc.  Banks and mortgage-credit institutes  Other borrowers	70,290,159 2,655,529 72,945,688	37,151,167 3,074,147 40,225,314

#### NOTES ON THE ACCOUNTS FOR 1999

Note 1999 1998 kr. '000 kr. '000

#### 9 Bonds and shares, etc.

As of 31 December 1999 the estimated market value of the bank's holdings of shares and similar investments, included in the accounts at kr. 1 per shareholding, was kr. 563 million. The portfolio comprises shares, etc. in Bank for International Settlements (BIS), SAS Danmark, GrønlandsBANKEN, Dansk Udviklingsfinansiering, Det Danske Stålvalseværk, Bella Center, Herning Hallerne, ECB capital contribution and SWIFT.

#### 10 Other assets

This amount includes outstanding interest of kr. 2,590 million.

#### 11 Deposits, etc.

Banks and mortgage-credit institutes	38,712,350	17,087,528
Other depositors	7,691,559	4,143,088
	46,403,909	21,230,616

#### 12 Off-balance-sheet items

Guarantees of kr. 475 million mainly comprise a guarantee of kr. 216 million to the Bank for International Settlements, BIS, subject to a re-guarantee from the Kingdom of Denmark, and guarantees concerning the Danish Securities Centre, the Ship Credit Fund of Denmark and the Danish Export Finance Corporation.

Moreover, the bank has also concluded a number of guarantees, etc. related to the EU, other central banks, BIS and IMF.

The bank provides price guarantees to the central banks of other EU member states in the event of the realisation of Danish securities pledged as collateral in connection with intra-day credit in the TARGET payment system.

Other liabilities include unsettled purchases on forward terms and currency and interest-rate swaps.

#### AUDIT REPORTS AND ADOPTION BY THE BOARD OF DIRECTORS

#### **Danmarks Nationalbank**

Copenhagen, 11 February 2000

Bodil Nyboe Andersen Torben Nielsen Jens Thomsen /Henrik Larsen, Chief Accountant

#### Report of the internal audit

We have audited the annual accounts of Danmarks Nationalbank for the year 1999 presented by the Management.

#### Basis of opinion

We have conducted the audit on the basis of the Danmarks Nationalbank Act and Danmarks Nationalbank's by-laws and in accordance with the auditing standards generally accepted in Denmark.

Based on an evaluation of materiality and risk we have assessed whether the Bank's procedures and internal control systems provide adequate security, just as we have tested the basis and documentation for the amounts and other information presented in the annual accounts. This included an assessment of the applied accounting policies and the accounting estimates made, as well as an assessment of the adequacy of the information presented in the annual accounts.

The audit has not resulted in any qualifications.

#### Opinion

In our opinion the annual accounts have been prepared in accordance with the Danmarks Nationalbank Act and Danmarks Nationalbank's by-laws and reflect the income and expenses for the year and the assets and liabilities of Danmarks Nationalbank as at 31 December 1999.

Copenhagen, 11 February 2000

Peter Jochimsen, Chief Auditor

#### Report of the external auditors

As auditors appointed by the Royal Bank Commissioner we have audited the annual accounts for the year ended 31 December 1999 of Danmarks Nationalbank.

#### Basis of opinion

We planned and conducted our audit in continuation of the audit performed by the Bank's internal audit and in accordance with the auditing standards generally accepted in Denmark to obtain reasonable assurance that the annual accounts are free of material misstatements. Based on an evaluation of materiality and risk, we have tested the basis and documentation for the amounts and disclosures in the annual accounts. Our audit included an assessment of the accounting policies applied and estimates made. In addition we have evaluated the overall adequacy of the presentation of information in the annual accounts.

Our audit has not resulted in any qualifications.

#### Opinion

In our opinion the annual accounts have been prepared in accordance with the Danmarks Nationalbank Act and Danmarks Nationalbank's by-laws and reflect the income and expenses for the year and the assets and liabilities as at 31 December 1999.

Copenhagen, 11 February 2000

Svend Ørjan Jensen, State-Authorised Public Accountant Bjarne Fabienke, State-Authorised Public Accountant

These accounts, audited in the manner prescribed by the by-laws of Danmarks Nationalbank, are hereby adopted by the Board of Directors.

Copenhagen, 16 March 2000

Hans E. Zeuthen Helle Bechgaard Michael Dithmer

Elisabeth Arnold Søren Bjerre-Nielsen Pia Christmas-Møller Bent le Fèvre Pernille Blach Hansen

Knud Koch Jensen Jette W. Knudsen Kjeld Larsen Jes Lunde Christian Mejdahl Harry Nicolaisen

B. Frank Nielsen Kirsten Nielsen Karsten Olsen Jan Petersen Anders Fogh Rasmussen

Jens Rostrup-Nielsen Gitte Seeberg Kirsten Stallknecht Helge Sørensen Finn Thorgrimson Margit Vognsen

# **Appendix**

#### **Press Releases**

#### INTEREST-RATE CHANGES

#### 4 February 1999 on interest rate reduction

Effective from today the Nationalbank's discount rate is lowered by 0.25 per cent to 3.25 per cent. Likewise, the rate of interest on the banks' current accounts with the Nationalbank is lowered by 0.25 per cent to 3.25 per cent. The rate of interest on repurchase agreements and certificates of deposit is also lowered by 0.25 per cent to 3.50 per cent.

The background to the lowering of the interest rates is the strength of the krone against the euro and that the Nationalbank has purchased foreign exchange for a total of approximately DKK 14 billion in January 1999.

For further information please contact Mr Bjarne Skafte on telephone +45 33 63 60 21.

#### 9 April 1999 on interest rate reduction

With effect from 9 April 1999 the Nationalbank's discount rate will be lowered by 0.50 per cent to 2.75 per cent. Likewise, the rate of interest on the banks' current accounts with the Nationalbank is lowered by 0.50 per cent to 2.75 per cent. The rate of interest on repurchase agreements and certificates of deposit is lowered by 0.50 per cent to 2.90 per cent.

The lowering of the interest rates should be viewed against the background of the reduction of the interest rates by the European Central Bank, ECB.

For further information please contact Mr Bjarne Skafte on telephone +45 33 63 60 21

#### 4 November 1999 on interest rate increase

The discount rate is raised by 0.25 per cent to 3 per cent. Likewise the rate of interest on the banks' current accounts with the Nationalbank is raised by 0.25 per cent to 3 per cent. The Nationalbank's lending rate and the rate of interest on certificates of deposit are raised by 0.45 per cent to 3.30 per cent. The increase will have effect as from 5 November.

The interest rate increase should be viewed against the background of the European Central Bank's raising of interest rates.

For further information please contact Bjarne Skafte on tel.: (+45) 33 63 60 21.

#### 3 February 2000 on interest rate increase

The discount rate is raised by 0.25 per cent to 3.25 per cent. Likewise the rate of interest on the banks' current accounts with the Nationalbank is raised by 0.25 per cent to 3.25 per cent. The Nationalbank's lending rate and the rate of interest on certificates of deposit are raised by 0.30 per cent to 3.60 per cent. The increase will have effect as from 4 February 2000.

The interest rate increase should be viewed against the background of the European Central Bank's raising of interest rates.

For further information please contact Bjarne Skafte on tel.: (+45) 33 63 60 21.

#### ADJUSTMENT OF THE MONETARY-POLICY INSTRUMENTS

#### 27 May 1999

With effect from 21 June 1999 the Nationalbank will implement a number of adjustments to its monetary-policy instruments, i.e. the facilities normally used by Danmarks Nationalbank to steer liquidity and the short term interest rate. These adjustments do not affect the overall framework for the conduct of monetary policy.

As a consequence of the adjustments mortgage-credit bonds and certain other bonds may be used as collateral for monetary-policy loans from the Nationalbank on a par with government bonds.

In connection with this expansion of the collateral basis monetary-policy lending is restructured from repurchase agreements to loans against collateral. Loans with 14 days' maturity will still be used. In economic terms there is no difference between the two types of transactions, but the restructuring does entail a number of administrative advantages. Borrowers can now use one single safekeeping account and it will be easier to change the securities pledged as collateral.

As a result of the restructuring the rate of interest for repurchase agreements (the repo rate) will now be called the Nationalbank's lending rate.

So far, only banks have had access to the monetary-policy instruments. After the adjustments mortgage-credit institutes will also be able to participate in the Nationalbank's monetary-policy operations.

Finally, as a consequence of the expansion of the amount of eligible collateral the Nationalbank has introduced an overall ceiling of approximately kr. 20 billion for the monetary-policy counterparties' overnight current-account deposits with the Nationalbank. This ceiling is not expected to play a role under normal circumstances.

Further information is presented in the article "Adjustment of the Monetary-Policy Instruments" which is available as from today at the Nationalbank's Internet website at www.nationalbanken.dk

Please direct any enquiries to Hugo Frey Jensen, tel. +45 33 63 65 81.

#### THE NATIONALBANK PUBLISHES BOOK ON MONETARY POLICY

#### 23 June 1999

Today the Nationalbank publishes the book "Monetary Policy in Denmark" This publication gives an overall presentation of Danish monetary policy. The purpose is to build a bridge between general textbooks and reference works on monetary policy and Denmark's monetary policy in practice. The book is published in Danish only.

Chapter 1 describes how short-term interest rates are fixed. Chapter 2 gives an outline of the role of the money supply and bond yields in monetary policy. Chapter 3 presents the monetary-policy objective. Chapter 4 outlines the impact of monetary policy on interest-rate formation, exchange rates and output.

The Nationalbank has previously published essays and books on monetary-policy instruments and monetary history. In addition, selected topics have been described and analysed in articles in Danmarks Nationalbank's Monetary Review.

This publication is available free of charge at the Nationalbank's Web site at www.nationalbanken.dk. Copies of the book can be ordered from Schultz Information, Herstedvang 10-12, DK-2620 Albertslund, tel.: (+45) 43 63 23 00 or from Schultz ErhvervsBoghandel, Vognmagergade 7, DK-1120 Copenhagen K. The price of the book is kr. 100 including Danish VAT.

Please direct any enquiries to Hugo Frey Jensen on tel. (+45) 33 63 65 81.

#### **NEW BANKNOTES**

#### 9 February 1999 on new 50-krone-note

On 7 May 1999 the Nationalbank will issue a new 50-krone banknote. It is the fourth note in the new series. The note series will be concluded in 1999 on the issue of a new 100-krone banknote.

The portrait on the face of the 50-krone note is of the author Karen Blixen who is known for e.g. *Seven Gothic Tales* (1934) and her memoirs *Out of Africa* (1937).

The centaur on the reverse of the note is inspired by a stone relief from Landet Church, Tåsinge. The centaur is armed with sword and shield and has a long tail ending in a bell. The principal colour of the new banknote is violet. It is the shortest banknote in the series, but has the same height as the other new notes. The dimensions of the 50-krone banknote are 125 x 72 mm.

The new 50-krone note will be presented at a press conference at Danmarks Nationalbank shortly before it is issued. A folder describing the security features of the note will be distributed to all households. The folder will also be available in English. Information will furthermore be presented via TV, the Internet and on free postcards.

The old 50-krone notes will remain legal tender, but will be withdrawn as they are returned to the Nationalbank. There are 16 million 50-krone notes in circulation. Most of the old notes are expected to be withdrawn within six months after the issue of the new banknote.

For further information please contact Bjarne Skafte on tel. no. +45 33 63 60 21.

#### 16 August 1999 on new 100-krone note

On 22 November 1999 Danmarks Nationalbank will issue a new 100-krone note. This is the fifth and last note in the new series.

The face of the 100-krone note features a portrait of the composer Carl Nielsen. He is known for such works as the opera *Maskerade* (1905-06) and the symphony *Espansiva* (1910-11). He has also written music for many cherished Danish songs.

The fabled animal on the reverse of the 100-krone note is a basilisk, inspired by a stone relief from Tømmerby Kirke in Thy, Jutland.

The principal colour of the new note is orange. The dimensions of the 100-krone note are  $135 \times 72$  mm. It is of the same height as the other banknotes, and is the second-shortest of them.

The new 100-krone note will be presented at a press conference at Danmarks Nationalbank shortly before it is issued. In connection with the issue a folder describing the security features of the note will be distributed to all households. The folder will also be available at banks. An English version of the folder can be ordered from Danmarks Nationalbank.

The banknote will furthermore be presented via TV, the Internet and on postcards. The information on the Internet is also available in English.

The old 100-krone notes will remain legal tender but will be withdrawn as they are returned to the Nationalbank. There are 59 million 100-krone notes in circulation. Most of the old notes are expected to be withdrawn within one year after the new note is issued.

Like the other banknotes the 100-krone note can be seen on the Nationalbank's Web site at www.nationalbanken.dk

For further information please contact Ms. Winnie Jakobsen on telephone (+45) 33 63 60 22.

#### TARGET WILL BE CLOSED ON 31 DECEMBER 1999

#### 31 March 1999

The Governing Council of the European Central Bank (ECB) has decided that, in view of the Year 2000 changeover, the TARGET system will be closed on 31 December 1999.

In the light of this decision Danmarks Nationalbank will close both the Danish part of TARGET and the Nationalbank's euro payment system, DEBES, on 31 December 1999.

Please direct any enquiries to Mr. Bjarne Skafte on tel. + 45 33 63 60 21.

## The Statutory Basis for the Financial Sector

#### **EU DIRECTIVES**

# Proposal for an EU directive on access to take up and pursue the business of electronic credit institution

On 24 September 1998 the European Commission submitted a directive proposal in this area. It is directed primarily at issuers of electronic money<sup>1</sup>. Towards the end of the year the EU member states reached agreement on the directive proposal, which is expected to be submitted to the European Parliament for second reading during the 1st half of 2000.

# Proposal for amendment of directive 85/611/EEC in the field of undertakings for collective investment in transferable securities (UCITS)

In July 1998 the European Commission submitted two separate directive proposals to amend the current directive from 1985. The proposals include such issues as approval, supervision, investment policy and transparency requirements of UCITS offering their shares for sale to the public and whose only objective is to invest in securities. The first proposal focuses on the product offered. The second proposal focuses on the provider. The objective of the "product proposal" is to adapt the existing UCITS directive to the market development by extending its scope to include collective investment institutions investing wholly or partly in other liquid financial assets than securities.

The objective of the second proposal is to strengthen the internal market in the UCITS field by introducing regulation of administration companies in line with the current regulation of other providers of financial services (banks, insurance companies and investment companies). An administration company can thus obtain an EU passport giving it the right to take up business in other member states via establishment or free exchange of services. The current restrictions on the activities of the administration companies are to be relaxed to allow the administration companies to undertake individual portfolio management and other accessory activities. This provides for an improved market structure, subject to greater competition. The work will continue in 2000.

<sup>&</sup>lt;sup>1</sup> The directive is described in further detail in the 1998 Annual Report.

# Proposal for an EU directive on reconstruction and liquidation of credit institutions

The directive proposal was first submitted in 1985. Progress on the directive proposal has been difficult in view of the aspects related to bankruptcy law. The negotiations were suspended in 1993. The directive proposal was subject to reconsideration in 1999 because it is considered to be of significance to the introduction of the internal market and since in the meantime a liquidation convention has been adopted by the EU.

# Proposal for an EU directive on reconstruction and liquidation of insurance companies

The directive proposal was first submitted in 1989. These negotiations were likewise suspended in 1993, cf. the above concerning the proposal for a directive on the reconstruction and liquidation of credit institutions. The negotiations concerning this directive proposal were reopened in 1999.

## Proposal for an EU directive on distance marketing of financial services

In 1997 the Council and the European Parliament adopted a directive on the protection of consumers in respect of distance contracts. Distance contracts concerning financial services were exempt from this directive. In November 1998 the European Commission submitted a proposal for a directive on distance marketing of financial services. The proposal concerns any contract between a business enterprise and a consumer concerning financial services when such contracts are concluded solely by means of communication technology. The directive proposal gives the customer the opportunity to reverse the contract within a certain period, the length of which depends on the nature of the product. One issue in the negotiations concerning the proposal is whether the directive should provide for minimum regulation, with the opportunity of further regulation in national law, or whether there should be exhaustive regulation, as requested by the European Commission and the European Parliament. This directive proposal is an important element in the creation of a de facto internal market for financial services based on competition between credit institutions throughout the EU. The work continues in 2000.

#### ACTS, ETC.

## Amendment of the Payment Card Act

The amendment entered into force on 16 April 1999 and lifts the restriction of card issuers' access to charge fees from card recipients

wishing to effect payments using payment cards on the Internet, etc. In its consultation response the Nationalbank supported this liberalisation of the Payment Card Act, while stating that the objective should be liberalisation of the area without jeopardising the benefits of the joint infrastructure in the payment systems area in Denmark. The Act contains a provision stipulating that any proposal for revision of Section 20 of the Act is to be submitted to the Folketing (Parliament) by no later than 1 November 2001.

# Amendment of the Act on Insurance Companies, the Act on Danish Commercial Banks and Savings Banks, etc., the Mortgage Credit Act and the Act on Investment Companies

These legislative amendments, which entered into force on 1 June 1999, impose minimum capital requirements on holding companies of financial groups and provide for limits to be imposed on the exposures of financial groups. Furthermore, the directors of financial enterprises may now, subject to the supervision of the Danish Financial Supervisory Authority, serve as directors of parent companies if the latter exclusively or primarily hold capital interests in financial enterprises. These amendments restrict the opportunities to leverage the share capital of subsidiaries subject to supervision. The introduction of minimum capital requirements of holding companies can be viewed as the first step towards actual supervision of financial holding companies.

# Amendment of the Securities Trading Act

The amendments entered into force on 1 May 1999 and implement provisions concerning the simplification of rules, confidentiality and definition of parties, as well as intra-Group transactions, the Financial Supervisory Authority's access to collect information and a number of amendments concerning rights of pledge/collateral. In addition, Section 31 concerning take-over bids is amended to impose an obligation on the purchaser of a shareholding in a company listed on the Copenhagen Stock Exchange or an authorised marketplace to submit a take-over bid to the other shareholders of the company if the acquisition entails a controlling influence in the form of more than one third of the voting rights.

## The Act on Cross-Border Transfer of Money

This Act entered into force on 14 August 1999 and implements the EU directive on the cross-border transfer of money. The Act applies to banks and other business enterprises commercially involved in cross-border transfer of money within the EU or the EEA. The Act contains provisions

regulating the rights and obligations in the relationship between the credit institution and its customers before and after the completion of a cross-border payment transfer, as well as in the relationship between the credit institutions if a transfer cannot be made as agreed. The scope of the Act is transfers of amounts of maximum the equivalent of euro 50,000.

#### **CONSULTATION RESPONSES**

# Concerning proposals for a number of acts regarding the financial sector

The objectives of the bills include to implement a number of recommendations from the Committee on the Financial Sector after the Year 2000.

The bills concern the following acts: The Danish Commercial Banks and Savings Banks Act, the Mortgage Credit Act, the Securities Trading Act, the Act on Insurance Companies, the Act on Investment Companies, the Act on Investment Associations and Special Purpose Associations and the Act on Company Pension Funds.

The main issues of the proposals are follows:

- to strengthen the regulation of financial supervision by including supervision of financial groups, i.e. holding companies primarily holding capital interests in other financial companies
- access to disseminate customer information internally within a group in connection with outsourcing of tasks
- lifting of the limitations of voting rights in the Mortgage Credit Act and as a consequence the introduction of restructuring provisions in the Mortgage Credit Act so that mortgage-credit institutes which are restructured as holding funds can be restructured as limited liability companies in accordance with the encapsulation model
- adjustment of the balance principle for mortgage-credit institutes
- implementation of the Finality directive
- the Nationalbank's access to the records of the Danish Securities Centre in connection with a conflict
- segregated accounts with an investment company

In a letter of 11 October 1999 the Nationalbank submitted the following consultation response:

The recent development – not only in Denmark, but also abroad – has shown that financial enterprises are increasingly tending to form more complicated structures such as financial groups across the traditional dividing lines in the financial sector. The main objective of several of the bills submitted is to strengthen the supervision of financial groups.

In principle, the Nationalbank finds that the supervision of a financial group should be independent of the group's specific structure. The Nationalbank therefore endorses the submitted proposals. At the same time, the Nationalbank finds that consideration of the future structure of financial legislation is a natural consequence of the current trends.

The Nationalbank finds it important to eliminate unnecessary barriers to structural adjustments, not least with a view to ensuring a competitive and dynamic market. Furthermore, the Nationalbank finds that as far as possible the same rules should be applied to the entire financial sector.

The lifting of the Act's provision on limitation of voting rights will provide for structural adjustments to the extent deemed necessary by the companies. Furthermore, the proposals align the rules concerning mortgage-credit institutes with the rules applying to other areas of the financial sector.

Against this background the Nationalbank endorses the amendment proposals submitted concerning limitation of voting rights and restructuring provisions in the Mortgage Credit Act.

The Nationalbank considers the balance principle to be of decisive importance to the development of the mortgage-credit sector. Moreover, the existing provisions have clearly proved to be inappropriate in a number of respects.

Against this background the Nationalbank welcomes the proposals since they increase the flexibility of the mortgage-credit sector without significantly increasing the mortgage-credit institutes' risk exposure or weakening the special status of mortgage-credit bonds. At the same time the adjustments provide for the introduction of more appropriate risk measures.

The Nationalbank finds it decisive that the mortgage-credit institutes may not undertake conversion risks, for example by financing callable loans by means of uncallable bonds. The Nationalbank therefore prefers this to be explicitly stated in the Act.

The Nationalbank otherwise endorses the adjustment of the balance principle via a framework act to be followed up by detailed regulation in executive orders. On the one hand, this ensures that ongoing adjustments can be made on the basis of experience and changes in conditions. In this regard the Nationalbank considers the limits stated in the explanatory notes to be appropriate. The Nationalbank also supports the opportunity for mortgage-credit institutes to offer adjustable-rate loans subject a maximum limit for the interest payable by the borrower, provided that the mortgage-credit institutes hedge the risk.

On the other hand, the wide statutory framework creates a need for clear and detailed explanatory notes to the bill, to prevent uncertainty concerning future regulation. The proposals concerning the Securities Trading Act implement directive 98/26/EC on settlement finality in payment and securities settlement systems. The Nationalbank finds it important to implement the proposal as it stands in consideration of the cross-border aspects of Danish payment systems.

The Nationalbank welcomes the provisions of the bill concerning access to the records of a securities centre affected by a labour-market conflict in order to limit the risk of default on significant elements of central-government payments.

The Nationalbank has no further comments on the bills.

# Concerning the proposed amendment of a number of financial acts

The amendment proposals are primarily related to financial enterprises' opportunities to hold controlling interests in non-financial enterprises and pertain to more than 10 different acts. The objective of the proposals is to implement the recommendations of the Committee on the Financial Sector after the Year 2000. The amendments can be viewed as an element of the corporate governance debate.

The most significant amendment proposal is that two financial enterprises from the same sector in principle may now jointly hold a controlling interest in a non-financial enterprise. The definition of controlling interest is decided by the Financial Supervisory Authority.

According to the amendment proposal a bank may take up other business than banking activities if:

- the bank does not hold direct or indirect controlling interests in the business enterprise in question,
- the bank does not operate the business enterprise together with banks, insurance companies, investment companies or mortgage-credit institutes which are parts of the same group as the bank and
- the activity is undertaken under the auspices of another company than the bank.

Furthermore, the final bills will include transition provisions in connection with mergers. Two financial enterprises which undertake to merge will be given sufficient time to settle investments subject to the prohibition concerning groups.

In a letter of 19 October 1999 the Nationalbank submitted the following consultation response:

The Nationalbank supports that insurance companies and pension funds be given access, according to the proposals, to hold a controlling interest other than via a financing company, i.e. a limited liability company whose sole objective is to acquire interests in or otherwise invest in one or more business enterprises.

The trend in the financial sector is towards the formation of groups and the erosion of the traditional barriers between segments. In view of this development the Nationalbank finds it natural to consider adjustment of the scope of the limitation concerning a controlling interest from an industry criterion to a group criterion. This reorientation is also in line with several of the other bills which are expected to be submitted in this parliamentary session.

At the same time, the Nationalbank attaches considerable importance to the provisions preventing one financial enterprise to hold a sole controlling interest in a non-financial enterprise, and that a controlling interest can thus only be held by at least two independent financial enterprises.

In principle, the Nationalbank shares the view stated in the report on "The Financial Sector after the Year 2000" to the effect that the primary activity of credit institutions shall be to provide loan capital.

The Nationalbank has no further comments on the proposals submitted.

# Concerning a proposal for amendment of the Act on a Guarantee Fund for Depositors and Investors

The bill is intended to solve the outstanding problems in the Act vis-à-vis the provisions of EU legislation on government subsidies. The government subsidy issue and thereby the requirements concerning notification to and approval by the European Commission of the Guarantee Fund's contribution to the winding-up of a credit institution prevent the guarantee scheme from functioning properly in practice.

The bill widens the options available to the Guarantee Fund. The Guarantee Fund's access to participate in the liquidation of a credit institution in jeopardy will no longer be restricted to providing funds or a guarantee to cover non-subordinate creditors. The proposal enables the Guarantee Fund to e.g. provide unlimited guarantees or to take over a credit institution with a view to tendering in accordance with the requirements set out in EU legislation concerning the valuation of the institution at market price.

In a letter of 26 November 1999 the Nationalbank submitted the following consultation response:

The bill is submitted in order to solve the outstanding problems concerning the Act on a guarantee fund for depositors and investors in relation to the provisions of EU legislation concerning government subsidies.

The bill widens the options available to the Guarantee Fund. The Guarantee Fund's access to participate is no longer limited to providing funds or a guarantee to cover non-subordinate creditors on the liquidation of credit institutions in jeopardy. The bill enables the Guarantee Fund among other things to take over a credit institution in jeopardy with a view to tendering in order to obtain take-over bids for the credit institution<sup>1</sup>.

The Nationalbank would like to emphasise that the Bank opposes a general bank rescue fund. Such a fund might provide the wrong incentives concerning prudent banking. In this connection the Nationalbank attaches considerable importance to the stipulation in the Act of a maximum limit for participation by the Guarantee Fund, corresponding to the limit in the existing Act. In line with previous consultation responses concerning this Act the Guarantee Fund's access to participate in the liquidation of a credit institution should supplement the existing means to achieve a solution. As in the case of the winding-up of a credit institution, mergers or other restructuring schemes without the participation of the Guarantee Fund must continue to be methods available to overcome solvency problems in a credit institution.

In general, the Nationalbank is concerned that it is up to the Guarantee Fund to decide which measures are to be adopted to overcome a crisis in a credit institution without at the same time stipulating guidelines for such decisions in the act or the explanatory notes to the Act. In this connection the Nationalbank is also concerned that the act does not stipulate a time limit for measures pursuant to Section 2.

The Nationalbank agrees that as stipulated in the proposal for amendment of Section 1, subsection 4, on having to choose between reimbursement of depositors and investors pursuant to subsection 2 and participation in measures in accordance with Section 2 of the bill, the Guarantee Fund should choose the solution which imposes fewest costs on the Guarantee Fund. The explanatory notes to this provision are not entirely clear as it appears from the notes that the Guarantee Fund may opt for another solution than that associated with the lowest costs if this is justified by specific circumstances. The Nationalbank finds that there should be no doubt that the Guarantee Fund must choose the solution associated with the lowest costs and that this should be clearly stated in the explanatory notes.

The final bill, which was submitted to the Folketing (Parliament) on 3 February 2000 includes no provisions on take-over of a credit institution.

The proposed veto right for representatives of credit institutions on the Guarantee Fund's Board must be viewed in the light of the importance attached to this provision by the European Commission with regard to the government subsidy issues. Against this background the National-bank accepts the proposed veto right.

Furthermore, the Nationalbank emphasises that the Guarantee Fund must have access to the required administrative resources on taking over a credit institution in jeopardy. At present the Nationalbank undertakes a number of administrative tasks on behalf of the Guarantee Fund, in accordance with an agreement. This does not imply that the Nationalbank can make resources available in the event of a possible take-over of a credit institution in jeopardy by the Guarantee Fund. The Nationalbank thus assumes that such resources can be made available under the auspices of the contributing credit institutions since the required staff must have commercial experience.

The Nationalbank has no further comments on the bill.

Concerning a proposal for amendment of the Statistics Denmark Act The proposal is described in further detail on p. 100.

In a letter of 26 November 1999 the Nationalbank submitted the following consultation response:

Internationalisation in general and the cooperation within the EU in particular have increased the need for a uniform basis for comparison of the economic and financial development in various countries. For this reason work has been intensified in various international fora in recent years to standardise the access to and the content of statistics for these areas. The background to this work is the constant evolution of the requirements made of statistical compilations.

In a global perspective the IMF has focused on increasing the level of information on economic trends in the member countries by setting out rules concerning the key economic indicators to be disseminated and the frequency of such dissemination. This was a consequence of experience from the most recent economic crisis in Southeast Asia. The rules are set out in the Special Data Dissemination Standard (SDDS), which was originally adopted in 1996 and is subject to ongoing revision.

Within the EU the standardisation and collection of economic and financial statistics for the EU member states are undertaken by Eurostat and the ECB. The coordination of economic policy within the EU and the transition to the single currency have gradually imposed more stringent requirements on the reporting by member states of economic and financial statistical information to respectively Eurostat and the ECB.

The Nationalbank finds it imperative that Denmark at all times complies with the international statistical standards. This also applies to financial statistics where a major expansion of the Danish statistics is considered necessary in order to keep up with the development in the area of standards for financial statistics.

As a consequence, Statistics Denmark and the Nationalbank have concluded an agreement according to which the Nationalbank shall be responsible for the work necessary to ensure compliance of the Danish financial statistics with international standards, including the guidelines which have been and will be set out regarding the EU member states' reporting of financial statistics to the ECB. This division of work reflects a similar arrangement between Eurostat and the ECB, as well as arrangements in most other EU member states where financial statistics are the responsibility of the central bank.

A precondition for the agreement with Statistics Denmark and the anticipated expansion of the financial statistics is that the Nationalbank be authorised to collect the required information from the financial sector. This cooperation likewise requires formalised access for Statistics Denmark and the Nationalbank to exchange confidential information in connection with the preparation of statistics. Since the bill will provide the necessary legal basis for the practical cooperation between Statistics Denmark and the Nationalbank the latter fully endorses the proposal. The Nationalbank was naturally involved in the preparatory work and has no further comments on the specific formulation of the bill.

# Outline National Changeover Plan: Changeover to Euro in Case of Danish Participation – Danmarks Nationalbank<sup>1</sup>

Danmarks Nationalbank will require approximately 1 year after a positive referendum outcome to prepare for participation in the euro area. After Denmark's possible adoption of the euro the Nationalbank will require approximately 1 year to establish the necessary initial stock before euro banknotes and coins can be put into circulation. After a short period with double circulation of banknotes and coins the euro will be the sole legal tender.

#### INTRODUCTION

Danmarks Nationalbank is the central bank of Denmark. As such the Nationalbank undertakes a number of tasks which distinguish it from other banks.

The Nationalbank's responsibilities include:

- Monetary policy
- Preparation of financial statistics
- Contributing to safe and efficient payment and clearing systems
- Production and distribution of banknotes and coins.

The European Central Bank, ECB, is the common central bank of the euro area. It is responsible for monetary policy in the euro area which at present consists of the 11 EU member states which adopted the euro on 1 January 1999. The ECB and the 11 national central banks in the euro area together form the *Eurosystem*.

Even though the Nationalbank is not at present a member of the *Eurosystem* it still participates in the Eurosystem's work to a certain degree, e.g. in the joint payment system, TARGET, cf. p. 74.

In order for the euro to be introduced in Denmark the Nationalbank must be prepared for membership of the Eurosystem. This entails a number of adjustments to the Nationalbank's areas of responsibility and

Extract from "Report on Changeover to Euro in Case of Danish Participation", Ministry of Economic Affairs, December 1999.

many of its systems. The Nationalbank finds that a period of 1 year – calculated from the date of a positive referendum outcome – is required for the implementation of these adjustments and the introduction of the euro as "account money".

The Nationalbank finds that an additional period of approximately 1 year will be needed for the Nationalbank to complete the preparations for the circulation of euro banknotes and coins in Denmark.

# THE SINGLE MONETARY POLICY

If Denmark decides to adopt the euro the Nationalbank will participate in the formulation of the single monetary policy since the Governor of Danmark Nationalbank will participate in the meetings of the ECB's Governing Council where decisions related to the single monetary policy are taken, for example decisions on interest-rate adjustments.

The Governing Council of the ECB consists of the Executive Board and the central-bank governors of the member states which have adopted the euro. The Governing Council is responsible for the monetary policy of the euro area, but the practical implementation of monetary policy on behalf of the ECB is predominantly handled by the national central banks. The Nationalbank will thus become the link between the Danish financial sector and the Eurosystem.

## The monetary-policy framework of the Eurosystem

The framework for the monetary policy of the Eurosystem consists of three elements:

- Open market operations: The ECB employs open market operations to manage short-term interest rates and liquidity in the euro area. An open market operation typically entails allocation of a given amount of liquidity at a pre-announced interest rate to credit institutions (primarily banks and mortgage-credit institutes) against appropriate collateral. In the weekly main refinancing operations liquidity with a maturity of two weeks is allocated. In addition, liquidity with a maturity of three months is allocated in the monthly longer-term refinancing operations. Both weekly and monthly refinancing operations are in the form of tenders.
- Standing facilities: Credit institutions may obtain day-to-day liquidity from the ECB's lending facility on an ongoing basis, or may make deposits to the ECB's deposit facility. The ECB's lending and deposit rates constitute the ceiling and floor for the day-to-day money-market

interest rate in the euro area, since the credit institutions will not borrow at a higher interest rate than can be obtained from the ECB, or make deposits at a lower interest rate than the ECB's.

• Minimum reserve system: According to the current rules all credit institutions must deposit 2 per cent of selected liabilities (primarily deposits) with their respective national central banks. This deposit accrues interest at the market rate.

The ECB's definition of counterparties in monetary-policy operations, i.e. *credit institutions*, is slightly wider than the Nationalbank's definition of counterparty, i.e. *banks* and *mortgage-credit institutes*. Furthermore, the ECB requires the counterparties to be subject to EU-harmonised supervision or supervision of equivalent standard. Finally, counterparties must fulfil a number of technical requirements.

## Adjustments at the Nationalbank

The Nationalbank's participation in the single monetary policy of the Eurosystem requires adjustment to the monetary-policy framework of the Eurosystem. In the same way, the Danish credit institutions will be required to make adjustments to the framework of the Eurosystem, including the minimum reserve requirements.

The Nationalbank has in practice conducted *open market operations* which resemble the ECB's operations, but unlike the ECB the Nationalbank does not apply the tender principle to the allocation of liquidity. In order for the Nationalbank to participate in the Eurosystem's open market operations it is therefore necessary to establish a bid system for collection of information from the credit institutions concerning the amounts of liquidity they require. For their part, the credit institutions should prepare for using the bid system. The bids are submitted by the Nationalbank to the ECB, which will allocate the fixed amount of liquidity on a proportional basis according to the bids submitted in the entire euro area.

Today the Nationalbank employs a *standing deposit facility (current account)* which resembles that of the ECB, but no *standing lending facility.* However, the Nationalbank is familiar with a lending facility, so that the adjustments will be of a limited extent.

Today, the Nationalbank imposes no *minimum reserve requirements*. One major adjustment which the Nationalbank will be required to make will therefore be to prepare for the administration of these minimum reserve requirements. The Nationalbank must develop a database for

compilation of the reserve requirements imposed on the individual credit institutions. Moreover, the Nationalbank's accounting system must be able to present the daily accounts of the individual credit institutions regarding cover of minimum reserve requirements. Finally, a system to monitor the minimum reserve requirements must be established.

#### FOREIGN-EXCHANGE RESERVES

If Denmark joins the euro area Danmarks Nationalbank must deposit a proportion of its foreign-exchange reserve with the ECB. The management of the joint foreign-exchange reserve is undertaken by the national central banks, so that the Nationalbank will be responsible for managing a share of the foreign-exchange reserve of the Eurosystem. The Nationalbank will continue to hold its own foreign-exchange reserve.

In order for the Nationalbank to manage the *reserves of the Eurosystem* it is necessary to implement the analysis and data-exchange systems used by the ECB. The ECB sets the operational targets for the foreign-exchange reserve regarding distribution by currency, interest-rate risk, credit risk and liquidity requirements. The Nationalbank's task will be to manage a specific share of the Eurosystem's reserves which currently total the equivalent of euro 39.5 billion, of which 15 per cent is gold and 85 per cent foreign exchange.

The proportion of the *Nationalbank's foreign-exchange reserve* which is not transferred to the ECB on Denmark's adoption of the euro is at the Nationalbank's disposal. However, it must be managed in accordance with the single monetary and foreign-exchange policy of the euro area.

#### **STATISTICS**

With a view to the formulation of monetary-policy for the entire euro area the ECB requires extensive knowledge of economic and financial trends in all euro area member states. To a great extent this is achieved via the statistics reported by the national central banks.

The ECB has set out a number of requirements of the statistics to be provided by the national central banks with regard to money and banking statistics, balance-of-payments statistics, financial accounts, prices and costs, government finances and a number of other macroeconomic statistics. All data is to be provided according to a harmonised structure for the compilation of aggregates for the euro area.

# Adjustments at the Nationalbank

The reporting requirements continue to develop in step with the experience gained by the present euro area member states. For the Nationalbank to be prepared to introduce the euro it must comply with the ECB's current reporting requirements at a satisfactory level for all areas. The reporting scheme requires a high level of data security and confidentiality, so that to a high degree the statistical requirements also imply the strict requirement of improvement in electronic reporting systems. Extensive development work is therefore required in this area before the Nationalbank is in compliance with the ECB's requirements.

The Nationalbank is currently engaged in extensive restructuring of the monthly balance-sheet statistics for banks and mortgage-credit institutes, etc. This restructuring is expected to be completed by the beginning of 2001 and is intended to harmonise these statistics with EU standards. Another objective is to expand the other financial statistics with a view to harmonisation with EU standards during 2001. In this connection Danmarks Nationalbank and Statistics Denmark have concluded an agreement to intensify and rationalise their future cooperation on statistics.

#### REPORTING OF ACCOUNTS

The ECB has imposed requirements concerning the presentation of accounts in the Eurosystem to ensure that all national central banks use the same harmonised accounting rules in their reporting of accounts.

In a few areas the common accounting policies have not yet been finalised. However, it can be assumed that these accounting policies will be finalised by the time of Denmark's possible adoption of the euro. This will facilitate the Nationalbank's adjustment compared to that undertaken by the present euro area member states.

# Adjustments at the Nationalbank

The Nationalbank has initiated an exhaustive analysis of its existing computer systems (business, accounting and reporting systems) in view of the increasing need for flexible reporting and follow-up systems both within the bank and in its external relations. This work also includes an analysis of whether the existing systems fulfil the reporting requirements in the event of Denmark's adoption of the euro. A considerable need for system adjustments can be expected.

The ECB has imposed daily reporting requirements on the national central banks with regard to e.g. data for the monetary-policy

operations. This data must be submitted to the ECB by no later than 8.00 a.m. of the day following the reporting day. Furthermore, emergency procedures must be prepared in the event of a breakdown of the system which transmits data to the ECB. In view of the ECB's strict requirements concerning compliance with reporting deadlines measures to safeguard against computer breakdowns must be generally tightened.

#### PAYMENT SYSTEMS

The Eurosystem's joint payment system which entered into force on 1 January 1999 is called TARGET (Trans-European Automated Real-time Gross settlement Express Transfer). Like the other non-euro area member states the Nationalbank already participates in TARGET, although not quite on the same terms as the euro area member states. For example, Denmark has less access than the euro area member states to unlimited intra-day liquidity.

TARGET is based on the national payment systems of the EU member states. TARGET facilitates the rapid and secure transfer of large-value payments in euro across the euro area. TARGET is used for monetary-policy transactions as well as commercial transactions between private banks.

# Adjustments at the Nationalbank

The Nationalbank's current payment system for krone-denominated payments is the DN Inquiry and Transfer System. On 1 January 2001 the system will be replaced by a new, state-of-the-art system KRONOS. KRONOS meets the present demands made by both the Nationalbank and the credit institutions. During the 1st half of 2001 KRONOS will be adjusted so as to also be able to handle payments in euro, i.e. the system is to serve as Denmark's link to TARGET. In addition, adjustment of other settlement systems (VP, PBS and FUTOP) is required. Finally, adjustments to Danmarks Nationalbank's accounting system will require adjustments to the payment system.

#### **IT ADJUSTMENTS**

With regard to the single monetary policy, the statistical requirements, the accounting requirements and the payment system the Nationalbank is required to develop or implement IT systems. The development work must take into account that several of the systems are closely interrelated. Furthermore, data communication systems to the Eurosystem must also be introduced. All systems must be ready by the time the euro is introduced as "account money".

#### **BANKNOTES AND COINS**

The Nationalbank's Note Printing Works and The Royal Mint must be reorganised for the production of euro banknotes and coins, and the Nationalbank's Banking Services must be prepared for handling euro.

Prior to the circulation of euro banknotes and coins the Nationalbank must establish a very considerable initial stock so as to facilitate rapid replacement. During the period after the replacement only ongoing production of banknotes and coins to e.g. replace worn-out banknotes and coins will be required.

To avoid a temporary expansion of capacity during the period when the initial stock is built up the Nationalbank has considered the possibility of obtaining part of the initial stock of euro banknotes and coins via cooperation with note printing works and mints in the present euro area member states since these will have available capacity after their own initial stocks have been manufactured.

This cooperation will enable the Nationalbank to use its own capacity, supplemented with banknotes and coins produced abroad during the period in which the initial stock is built up. As a consequence the Nationalbank will be able to establish the necessary initial stock of euro banknotes and coins approximately 1 year after Denmark's adoption of the euro.

#### Coins

The euro coins have a national side and a common side. The common side shows the denomination and various versions of a map of Europe. Eight different euro coins are manufactured (1, 2, 5, 10, 20 and 50 eurocents and 1 and 2 euro). The coins are subject to very strict security requirements to prevent counterfeiting and to ensure that the coins of all euro area member states have the same common side.

Each euro area member state has designed its own national side. Some member states have chosen different designs for the eight coins, while others have chosen the same design for all eight coins. Naturally, Denmark will have to design one or more national sides for the eight coins. After negotiation with the Nationalbank the Minister of Economic Affairs will decide the design of the coins, including whether a design contest is to be held. All monarchies in the euro area have chosen to portray their monarchs on the national sides of their coins<sup>1</sup>.

However, in the case of Spain the King is portrayed only on the 1 and 2 euro coins.

Today, the Danish coins are minted at The Royal Mint, while the blanks are purchased abroad. Each euro area member state may decide where the blanks are to be cast as long as all quality and security requirements are met. To comply with the requirements concerning production of euro coins The Royal Mint is required to gain ISO 9002 certification.

Any Danish euro coins which are manufactured at a mint abroad during the period in which the initial stock is built up will still be minted with the Danish national side, irrespective of the country of minting.

In addition to design and production The Royal Mint will also be required to adjust its coin inspection procedures to match those of the euro area.

#### **Banknotes**

All euro area member states have the same euro banknotes, which like the coins are subject to very strict security requirements. This is to ensure that all banknotes are identical, irrespective of country of production, and also to prevent the circulation of counterfeit banknotes. Seven different banknote denominations are manufactured (5, 10, 20, 50, 100, 200 and 500 euro) and it has been decided that the banknotes do not bear any national symbols.

All euro area member states have decided to print their own banknotes from the outset. The production of banknotes has already begun, to enable the note printing works to manufacture a suitable initial stock before the banknotes are put into circulation on 1 January 2002. The ECB expects the initial stocks to total 13 billion banknotes.

As part of the preparations for the printing of euro banknotes Danmarks Nationalbank is to carry out a number of test production runs which must comply with the ECB's requirements. In contrast to Denmark the note printing works of the UK, Greece and Sweden participated in the euro area member states' test production of euro banknotes. In addition to adjustments to the production process staff training will also be required on the introduction of the ECB's quality inspection system.

As from the introduction of actual euro banknotes and coins in the present euro area member states on 1 January 2002 the double circulation of euro and national banknotes and coins will occur for a period of maximum six months. Several member states have stated that the period of double circulation of banknotes and coins will be short.

Should Denmark decide to adopt the euro, for a certain initial period it will be introduced solely as a unit of account, as in the present euro area member states. When euro banknotes and coins are put into circulation the Nationalbank must ensure that all banks and possibly also shops, have stocks of euro banknotes and coins, to facilitate the changeover. On the circulation of euro banknotes and coins the approximately 123 million krone banknotes and approximately 1.3 billion krone coins currently in circulation will be withdrawn. After the period of double circulation krone-denominated banknotes and coins will no longer be legal tender, but for a certain period they may still be exchanged at the Nationalbank.

Furthermore, IT adjustments will be necessary in the Nationalbank's Banking Services which handles the distribution and processing of banknotes and coins.

#### **OVERVIEW**

The changeover to the euro at Danmarks Nationalbank.

Prior to joining the euro the Nationalbank must be prepared for:

- participation in the ECB's Governing Council
- participation in the Eurosystem and the single monetary policy
- statistical reporting, etc. to the ECB
- full participation in TARGET
- issue of government bonds in euro
- imposing minimum reserve requirements on credit institutions
- reporting accounting data to the ECB
- participation in the management of the Eurosystem's foreignexchange reserves.

Prior to the circulation of euro banknotes and coins Danmarks National-bank must:

- have established the necessary initial stock of euro banknotes and coins
- have redenominated the government debt to the extent required.

In connection with circulation Danmarks Nationalbank must:

- handle the withdrawal of krone banknotes and coins
- handle the circulation of euro banknotes and coins.

# Appendix of Tables

#### ANNUAL ACCOUNTS AND MONTHLY BALANCE SHEETS OF DANMARKS NATIONALBANK

Table 1

-			Assets		
Kr.million	Stock of gold	Foreign assets	Assets deposited with the Euro- pean Monetary Institute	Net assets with the IMF <sup>1</sup>	Lending <sup>2</sup>
1989	4,340	33,180	4,625	4,063	19,536
1990	3,720	52,707	5,200	3,053	6,246
1991	3,464	38,588	2,814	3,585	5,320
1992	3,456	63,540	2,757	3,503	29,132
1993	4,339	62,818	4,947	3,456	81,689
1994	3,790	44,658	3,460	3,723	61,749
1995	3,531	53,577	4,521	4,177	49,670
1996	3,652	73,624	4,979	4,598	49,659
1997	3,331	115,844	4,790	6,602	37,116
1998	3,934	89,416	•	9,330	40,225
1999	4,567	154,715	•	8,441	72,946
1998 Jan	3,416	137,662	4,941	8,744	46,026
Feb	3,416	126,240	4,941	8,777	33,331
March	3,418	123,002	4,941	8,787	43,580
April	3,387	101,635	5,947	8,881	49,884
May	3,410	100,456	5,947	8,915	53,427
June	3,417	100,020	5,947	9,270	60,056
July	3,434	101,284	5,652	9,632	61,881
Aug	3,434	79,268	5,652	9,304	67,766
Sept	3,435	84,958	5,652	10,064	70,984
Oct	3,487	79,810	5,593	10,014	69,135
Nov	3,504	84,982	5,593	9,372	55,457
Dec	4,320	87,835	44	9,568	40,344
1999 Jan	3,936	104,016	•	8,655	41,858
Feb	3,938	116,216	•	7,311	44,953
March	3,939	130,657	•	7,884	56,227
April	3,939	131,528	•	8,207	50,572
May	3,942	131,645	•	8,262	43,599
June	3,942	148,564	•	8,737	42,313
July	3,931	151,309	•	5,960	47,768
Aug	3,931	155,503	•	6,039	32,324
Sept	3,931	160,471	•	5,654	42,218
Oct	3,931	158,079	•	6,129	52,572
Nov	3,931	160,036	•	6,075	46,900
Dec	3,931	156,676	•	7,483	72,946

Note: End of period. The annual figures are from the annual accounts of Danmarks Nationalbank. The monthly figures (also at end-December) are from the monthly balance sheets.

<sup>&</sup>lt;sup>1</sup> A specification of Denmark's account with the IMF is given in Table 11.

A specification of the account of banks and mortgage-credit institutes with the Nationalbank is given in Table 4.

<sup>&</sup>lt;sup>3</sup> Until end-1991 including bonds acquired in connection with bond-repurchase agreements.

<sup>&</sup>lt;sup>4</sup> In 1992 written down by kr. 100 million, equivalent to the value of uncashed 5- and 10-øre coins. Discontinued at end-1994 in accordance with the Maastricht Treaty and related Council regulation.

<sup>&</sup>lt;sup>5</sup> As from 1992 guarantees are not included in the balance sheet.

<sup>&</sup>lt;sup>6</sup> Until end-1991 including uncovered forward transactions not entered in the ablance sheet as from 1992.

<sup>&</sup>lt;sup>7</sup> Until end-1990 including Post Giro funds.

	NUAL ACCOUNTS AND MONTHLY BALANCE SHEETS OF DANMARKS NATIONALBANK								
			Aktiver						
Kr.mi	Total	Other assets, etc. <sup>6</sup>	Guarantees⁵	Government guarantee for coin in circulation <sup>4</sup>	Bonds and shares <sup>3</sup>				
1	115,634	16,025	795	639	32,431				
1	128,320	18,469	569	639	37,717				
1	111,531	12,327	433	639	44,361				
1	138,272	3,327	•	539	32,018				
1	203,525	4,502	•	539	41,235				
1	159,159	2,274	•	•	39,505				
1	151,920	2,348	•	•	34,096				
1	174,003	2,383	•	•	35,108				
1	204,271	2,822	•	•	33,766				
1	182,794	2,402	•	•	37,487				
1	281,802	3,436	•	•	37,696				
Jan. 1	237,701	2,282	•	•	34,631				
Feb.	213,573	2,221	•	•	34,647				
March	221,369	2,104	•	•	35,538				
April	206,571	1,756	•	•	35,081				
May	208,878	1,544	•	•	35,179				
June	216,321	1,600	•	•	36,010				
July	219,085	1,456	•	•	35,745				
Aug.	203,476	1,668	•	•	36,384				
Sept.	214,776	2,252	•	•	37,429				
Oct.	208,501	3,408	•	•	37,053				
Nov.	198,601	1,900	•	•	37,792				
Dec.	180,477	1,623	•	•	36,743				
Jan. 1	198,160	1,884	•	•	37,812				
Feb.	212,558	1,589	•	•	38,550				
March	239,657	1,535	•	•	39,415				
April	234,094	1,309	•	•	38,539				
May	227,799	1,493	•	•	38,859				
June	245,516	2,149	•	•	39,812				
July	249,695	1,977	•	•	38,750				
Aug.	239,002	2,047	•	•	39,158				
Sept.	254,694	2,892	•	•	39,527				
Oct.	263,113	2,684	•	•	39,718				
Nov.	259,886	2,425	•	•	40,519				
Dec.	283,010	2,873	•		39,102				

ANNUAL ACCOUNTS AND MONTHLY BALANCE SHEETS OF DANMARKS NATIONALBANK

Table 1

			Lial	oilities		
Kr.million	Notes in circula- tion	Coin in circula- tion	Foreign liabilities	Contribution to allocation of SDRs in the IMF <sup>1</sup>	Deposits <sup>2</sup>	Certificates of deposit <sup>2</sup>
1989	23,290	1,755	1,304	1,553	8,977	•
1990	24,453	2,530	1,361	1,470	13,114	•
1991	25,565	2,646	3,888	1,514	18,125	•
1992	25,391	2,629	28,292	1,539	4,800	5,743
1993	26,880	2,776	790	1,664	5,455	27,812
1994	29,708	2,980	1,537	1,589	4,591	25,979
1995	31,434	3,222	2,200	1,474	3,219	33,813
1996	33,187	3,426	1,634	1,527	28,068	30,865
1997	35,079	3,631	876	1,648	33,863	52,738
1998	37,199	3,816	1,253	1,606	21,231	34,752
1999	42,430	3,952	2,425	1,815	46,404	99,896
1998 Jan	33,424	3,523	442	1,648	31,421	69,600
Feb	33,118	3,517	568	1,648	20,636	62,862
March	33,587	3,581	594	1,648	37,132	50,361
April	35,311	3,647	773	1,648	32,542	42,570
May	35,340	3,690	866	1,648	21,329	30,958
June	35,929	3,718	751	1,648	37,168	34,687
July	35,823	3,714	285	1,648	21,008	62,943
Aug	35,453	3,712	6,758	1,648	26,328	32,890
Sept	35,132	3,695	7,845	1,648	35,073	22,943
Oct	35,042	3,682	1,347	1,648	28,828	40,694
Nov	35,624	3,732	1,564	1,648	26,842	35,087
Dec	37,199	3,815	1,254	1,648	21,231	34,752
1999 Jan	35,371	3,726	852	1,606	23,074	45,413
Feb	35,102	3,716	494	1,606	23,127	40,833
March	35,835	3,741	656	1,606	34,618	50,132
April	36,402	3,756	885	1,606	27,185	50,341
May	37,002	3,825	1,177	1,606	29,112	49,637
June	37,327	3,851	1,021	1,606	40,153	54,492
July	37,715	3,843	732	1,606	29,831	58,326
Aug	36,835	3,844	1,010	1,606	32,887	52,633
Sept	36,534	3,844	1,450	1,606	41,639	50,903
Oct	36,641	3,847	1,836	1,606	50,544	56,087
Nov	38,109	3,888	2,124	1,606	38,584	71,278
Dec	42,430	3,952	2,425	1,606	46,582	99,896

Cf. the Note and notes to the Table of Assets.

Tabl	NALBANK	IARKS NATIC	ets of Dann	ALANCE SHE Liabilities	MONTHLY B	COUNTS AND	ANNUAL ACC
Kr.mill	Total	General Reserves	Value Adjustment Reserve	General Capital Fund and Statutory Reserve	Other liabilities <sup>6</sup>	Guarantees⁵	General Government <sup>7</sup>
19	115,634	28,810	•	300	14,346	795	34,504
	128,320	28,756		300	17,362	569	38,405
	111,531	32,352		300	10,698	433	16,010
	138,272	34,008	•	300	495	•	35,075
	203,525	42,727	•	300	573	•	94,548
	159,159	34,485		300	1,080		56,910
	151,920	35,927	•	300	1,523	•	38,808
	174,003	37,359	1,093	300	1,523	•	34,995
	204,271	38,742	2,107	300	1,348	•	33,954
	182,794	40,072	3,101	300	2,333	•	37,131
	281,802	41,439	20	300	3,445	•	39,678
Jan. 19	237,701	37,359	1,093	300	6,787	•	52,105
Feb.	213,573	37,359	1,093	300	6,787	•	45,685
March	221,369	38,742	2,107	300	1,232	•	52,085
April	206,571	38,742	2,107	300	1,411	•	47,520
May	208,878	38,742	2,107	300	1,947	•	71,951
June	216,321	38,742	2,107	300	2,250	•	59,021
July	219,085	38,742	2,107	300	2,713	•	49,802
Aug.	203,476	38,742	2,107	300	3,195	•	52,343
Sept.	214,776	38,742	2,107	300	3,709	•	63,583
Oct.	208,501	38,742	2,107	300	4,407	•	51,705
Nov.	198,601	38,742	2,107	300	4,953	•	48,001
Dec.	180,477	38,742	2,107	300	5,402	•	34,027
Jan. 19	198,160	38,742	2,107	300	7,548	•	39,420
Feb.	212,558	38,742	2,107	300	7,551	•	58,980
March	239,657	40,072	3,101	300	2,116	•	67,480
April	234,094	40,072	3,101	300	2,116	•	68,329
May	227,799	40,072	3,101	300	2,646	•	59,320
June	245,516	40,072	3,101	300	3,038	•	60,555
July	249,695	40,072	3,101	300	3,624	•	70,544
Aug.	239,002	40,072	3,101	300	3,971	•	62,743
Sept.	254,694	40,072	3,101	300	4,496	•	70,748
Oct.	263,113	40,072	3,101	300	4,936	•	64,142
Nov.	259,886	40,072	3,101	300	5,449	•	55,374
Dec.	283,010	40,072	3,101	300	6,156	•	36,490

SPECIFICATION OF BANKNOTES II	N CIRCULATIO	N				Table 2a
Kr.million	1,000 kr.	500 kr.	200 kr.	100 kr.	50 kr.	Total
1989	12,410	3,433	•	5,955	413	22,211
1990	13,167	3,688	•	6,544	588	23,987
1991	14,029	3,851	•	6,668	629	25,177
1992	14,164	3,806	•	6,402	618	24,990
1993	15,386	3,983	•	6,495	655	26,519
1994	17,294	4,693	•	6,646	695	29,328
1995	18,238	5,307	•	6,759	737	31,041
1996	19,280	5,819	•	6,926	778	32,803
1997	19,589	6,556	1,618	6,119	799	34,681
1998	19,787	8,088	2,182	5,881	851	36,789
1999	22,978	9,272	2,534	6,339	904	42,026

Note: End of year. Banknotes in circulation as entered in the Nationalbank's balance sheet furthermore includes the special notes circulating on the Faroe Islands (on 31 December 1999: kr. 197 million) and 20-, 10- and 5-krone notes.

ISSUE OF NEW BANKNOTES						Table 2b
Kr.million	1,000 kr.	500 kr.	200 kr.	100 kr.	50 kr.	Total
1989	3,906	1,744	•	4,616	378	11,435
1990	4,690	2,185	•	6,244	622	14,049
1991	4,535	1,630	•	4,408	679	11,538
1992	3,260	2,151	•	1,973	612	7,995
1993	5,663	1,925	•	2,659	761	11,008
1994	5,319	3,102	•	3,721	757	12,899
1995	3,666	2,673	•	6,397	870	13,605
1996	3,021	1,435	•	3,556	800	8,812
1997	1,739	6,518 <sup>1</sup>	2,506 <sup>1</sup>	2,048	886	13,696
1998	10,586 <sup>1</sup>	1,859	841	2,114	662	16,063
1999	10,139	2,303	611	5,539 <sup>1</sup>	1,092 <sup>1</sup>	19,683

<sup>&</sup>lt;sup>1</sup> The increase in the issue of new banknotes is a consequence of the issue of the new banknote series.

SPECIFICATION OF COIN IN CIRCL	JLATION							Table 3a
Kr.million	20 kr.	10 kr.	5 kr.	2 kr.	1 kr.	50 øre	25 øre	Total
1989	•	620	383	•	454	44	135	1,636
1990	746	601	392	•	459	64	126	2,388
1991	845	596	392	•	467	77	131	2,508
1992	893	599	394	•	471	88	134	2,579
1993	932	613	399	170	381	94	138	2,727
1994	1,013	656	421	214	378	105	145	2,932
1995	1,122	697	442	248	385	112	152	3,158
1996	1,211	738	462	280	393	121	158	3,363
1997	1,299	773	483	310	401	126	163	3,555
1998	1,371	813	504	337	413	134	169	3,741
1999	1,421	842	523	358	422	139	171	3,876

Note: End of year. Coin in circulation as entered in the Nationalbank's balance sheet furthermore includes 200-krone coins (commemorative coins) and 2-krone coins put into circulation up to end-1959. At the end of 1999 the circulation of 200-krone coins was kr. 65 million.

PRODUCTION OF COINS (MINTIN	G)							Table 3b
Kr.million	20 kr.	10 kr.	5 kr.	2 kr.	1 kr.	50 øre	25 øre	Total
1989	56	384	0	•	16	46	0	502
1990	707	122	234	•	0	32	27	1,122
1991	231	10	19	•	45	6	26	337
1992	20	5	12	83	82	7	2	211
1993	13	11	8	88	16	7	4	147
1994	51	41	40	55	24	12	9	232
1995	72	94	29	40	35	8	10	288
1996	193	0	13	6	10	6	11	239
1997	48	37	26	53	7	7	7	185
1998	79	60	32	9	13	7	4	204
1999	83	40	24	41	6	7	5	206

Note: The production of 200-krone coins (commemorative coins) began in 1990. In 1990, 132,655 coins were minted for a value of kr. 26.5 million, in 1992 100,300 coins for a value of kr. 20.1 million, in 1995 80.827 coins for a value of kr. 17.9 million and in 1996/97 60,022 coins for a value of kr. 12 million.

THE BALANCES OF THE	BANKS AND M	ORTGAGE-CRE	DIT INSTITUTES	S WITH THE NA	ATIONALBANK	Table 4
Kr.million	Certificates of deposit <sup>1</sup>	Deposits	Loans <sup>2</sup>	Total net position	Lending concerning cash depots	Bond repurchase accounts <sup>3</sup>
1989	•	351	18,388	-18,037	20	6,376
1990	•	1,748	3,055	-1,307	1,013	8,764
1991	•	14,369	5	14,364	1,085	2,016
1992	5,741	3,338	23,781	-14,702	1,073	•
1993	27,783	3,387	77,937	-46,767	1,267	•
1994	25,851	2,685	55,937	-27,401	1,338	•
1995	33,570	1,867	43,969	-8,532	1,361	•
1996	30,617	15,215	33,735	12,097	1,438	•
1997	52,111	17,976	19,817	50,270	1,655	•
1998	34,218	12,407	29,587	17,038	2,912	•
1999	99,447	5,949	33,027	72,369	4,991	•
1998 Jan	68,538	2,060	15,343	55,255	1,262	•
Feb	61,842	1,466	13,118	50,190	1,172	•
March	49,408	13,537	18,729	44,216	1,907	•
April	41,671	15,824	31,769	25,726	2,397	•
May	30,309	3,988	34,350	-53	2,290	•
June	34,314	14,833	36,186	12,961	2,505	•
July	62,537	2,079	41,120	23,496	2,349	•
Aug	32,541	15,187	55,102	-7,374	2,537	•
Sept	22,859	17,166	50,954	-10,929	2,687	•
Oct	40,289	1,809	41,062	1,036	2,223	•
Nov	34,453	8,233	35,417	7,269	2,375	•
Dec	34,218	12,407	29,588	17,037	2,912	•
1999 Jan	44,673	2,114	21,790	24,997	2,196	•
Feb	40,251	3,276	26,184	17,343	2,280	•
March	49,234	3,545	26,068	26,711	1,783	•
April	49,622	3,424	27,543	25,503	2,021	•
May	49,011	7,662	22,850	33,823	2,478	•
June	53,585	18,169	21,575	50,179	2,426	•
July	57,859	4,762	24,454	38,167	2,630	•
Aug	51,695	13,034	14,433	50,296	2,580	•
Sept	50,235	19,623	22,169	47,689	2,479	•
Oct	55,566	16,627	21,404	50,789	2,246	•
Nov	70,792	13,616	24,493	59,915	3,051	•
Dec	99,447	5,959	33,027	72,379	4,991	•

Note: End of period. The annual figures are from the annual accounts of the Nationalbank. The monthly figures (also at end-December) are from the monthly balance sheets. The figures exclude transactions concerning settlement accounts.

With effect from 21 June 1999 the group of monetary-policy counterparties was widened to include mortgage-credit institutes. Up to that date the statistics for the sector's net position with the Nationalbank therefore solely include banks.

<sup>&</sup>lt;sup>1</sup> Nominal value.

<sup>&</sup>lt;sup>2</sup> Collateralised loans. Previously included current-account drawings (up to March 1992) and repurchase agreements (in the period as from April 1992 up to 20 June 1999). In 1989 money-market lending was also included.

<sup>&</sup>lt;sup>3</sup> Proceeds from established bond-repurchase agreements, which were included in line with general deeds of pledges as security for current account drawings.

MONEY STOCK Table 5

		Dep	osits with the ba	anks²		
Kr.billion	Notes and coin <sup>1</sup>	On demand	At notice	Time deposits <sup>3</sup>	Money stock	Year-on-year increase in money stock
1989	23.1	187.8	37.1	120.0	367.9	1.0
1990	23.6	202.8	42.4	122.2	391.0	6.3
1991	24.2	224.7	36.9	93.1	379.0	4.2
1992	25.0	218.5	33.6	97.6	374.6	- 1.2
1993	25.8	246.4	29.7	114.7	416.6	11.2
1994	28.9	243.4	27.0	94.6	394.0	- 5.4
1995	30.6	251.7	31.8	96.0	410.1	4.1
1996	31.6	278.4	32.8	97.0	439.8	7.2
1997	33.2	295.1	30.8	103.4	462.6	5.2
1998	34.5	316.8	30.7	94.7	476.7	2.9
1998 Jan	32.7	307.6	31.2	114.1	485.7	3.3
Feb	31.8	303.6	32.1	105.7	473.2	2.9
March	32.2	300.8	30.9	94.6	458.4	2.9
April	33.4	325.8	31.5	104.3	494.9	6.2
May	33.9	317.4	32.1	103.4	486.7	5.5
June	33.6	312.8	31.2	87.6	465.2	3.5
July	34.1	324.9	31.8	112.4	503.2	5.3
Aug	33.4	317.4	32.1	107.8	490.7	6.2
Sept	32.8	315.6	31.1	111.4	490.9	8.4
Oct	33.5	333.5	31.8	111.3	510.0	4.0
Nov	33.6	321.1	30.9	98.3	483.9	4.1
Dec	34.5	316.5	30.5	94.7	476.2	2.9
1999 Jan	33.6	332.4	30.4	107.2	503.6	3.6
Feb	33.4	327.3	31.4	101.4	493.5	4.3
March	34.3	321.8	30.6	96.8	483.4	5.4
April	34.9	348.7	31.5	99.2	514.3	3.8
May	34.7	353.6	32.5	91.4	512.2	5.1
June	34.9	337.1	29.4	89.6	491.0	5.6
July	35.4	351.5	29.3	102.8	519.0	3.0
Aug	34.4	352.9	32.2	95.4	514.9	4.8
Sept	34.5	338.2	29.4	99.1	501.2	2.1
Oct	34.9	348.0	29.8	107.4	520.1	1.9
Nov	35.0	344.6	29.2	105.7	514.5	6.2
Dec	36.9	334.9	28.8	95.7	496.3	4.1

Note: End of period. On calculation of the rates of increase adjustment is made for breaks ins series. Until end-1990 including mortgage-credit institutes' deposits with the banks.

<sup>&</sup>lt;sup>1</sup> Notes and coin in circulation, excluding the banks' holdings.

<sup>&</sup>lt;sup>2</sup> Accounts with residents in resident units in kroner and foreign exchange excluding special deposit schemes aprts from premium-savings accounts. Until end-1990 including Post Giro deposits.

<sup>&</sup>lt;sup>3</sup> Including bonds, etc. with an original maturity of up to 2 years.

#### THE OFFICIAL INTEREST RATES OF DANMARKS NATIONALBANK

Table 6

Per cent per annum	Discount rate	Current account deposits <sup>1</sup>	Lending and certifi- cates of deposit <sup>2</sup>	Per cent per annum	Discount rate	Current account deposits <sup>1</sup>	Lending and certifi- cates of deposit <sup>2</sup>
1990	8.50	9.50	•	1995 23 Nov	4.75	4.75	5.00
1991	9.50	9.50	•	15 Dec	4.25	4.25	4.75
1992	9.50	9.50	13.00	28			4.60
1993	6.25	6.25	6.75	100/ 11 law			4.50
1994	5.00	5.00	5.50	1996 11 Jan	1.00	1 00	4.50
1995	4.25	4.25	4.60	25	4.00 I	4.00	4.35
1996	3.25	3.25	3.50	8 Feb 7 March	2.75	 2.75	4.25 4.10
1997	3.50	3.50	3.75	7 March	3.75 I	3.75 I	4.10
1998	3.50	3.50	3.95	21 1 April			3.90
1994 6 Jan	6.00	6.00	6.50	19	1 3.25	3.25	3.80
19	5.75	5.75	6.25	6 June	J.25	J.25	3.70
18 Feb	5.50	5.50	6.00	23 Aug			3.50
15 April	5.25	5.25	5.90	9	ı	ı	
2 May	3.23	0.23	5.80	1997 10 Oct	3.50	3.50	3.75
11			5.70	1998 6 May	4.00	4.00	4.25
13	5.00	5.00	Î	29	3.75	3.75	4.00
19	Ï	ĺ	5.60	21 Sept	4.25	4.25	5.00
7 July			5.50	8 Oct	Ī	Ī	4.75
,		,		22			4.65
1995 8 March	6.00	6.00	7.00	5 Nov	4.00	4.00	4.40
6 April			6.75	26			4.25
27			6.50	4 Dec	3.50	3.50	3.95
18 May	 		6.35	1000 7 1	1	ı	2.75
6 july	5.75	5.75 I	6.20	1999 7 Jan	2.25	1	3.75
27	[	- I	6.05	4 Feb	3.25 I	3.25 I	3.50
3 Aug	5.50	5.50	5.90	1 March	l 2.75	l 2.75	3.40 2.90
25	5.00 I	5.00 I	5.65	9 April 17 June	2.75	2.75	2.90
7 Sept			5.50 5.40	5 Nov	1 3.00	3.00	3.30
28 5 Oct				5 IVOV	3.00	3.00	3.30
9 Nov	l 4.75	l 4.75	5.30 5.15	2000 4 Feb	3.25	3.25	3.60
9 INOV	4.70	4.70	3.13				

Note: Interest rates at year-end or as from the date stated.

As from April 1992 until end-April 1997 interest-earning deposits were subject to maximum limits. Until end-March 1992 the banks also had access to drawings on current account. The rate of interest for these drawings was ½ to 1 per cent higher.

<sup>&</sup>lt;sup>2</sup> The Nationalbank's interest rate for collateralised lending as well as for sale and repurchase of the Nationalbank's certificates of deposit. On purchasing certificates of deposit before expiry the Nationalbank's buy-back price is normally based on a slightly higher interest rate. The interest rates stated exclude this premium. Until 21 June 1999 the Nationalbank's lending rate was called the repo rate.

## THE OFFICIAL INTEREST RATES OF THE EUROPEAN CENTRAL BANK

Table 7

Per cent per annum	Deposit facility	Main refinancing operations	Marginal lending facility
1999 4 Jan. <sup>1</sup>	2.75	3.00	3.25
22	2.00	3.00	4.50
9 April	1.50	2.50	3.50
5 Nov	2.00	3.00	4.00
2000 4 Feb	2.25	3.25	4.25

Note: Adjustments to the interest rate for main refinancing operations are with effect from the first following operation. Source: The European Central Bank, ECB.

On 22 December 1998 the ECB announced that, as an exceptimal measure between 4 and 21 January 1999 a narrow corridor of 50 basis points would be applied between the interest rates for the marginal lending facility and the deposit facility, aimed at facilitating the transition to the new regime by market participants.

Aug. ......

Sept. ......

Dec. .....

3,931

3.931

3,931

3,931

3,931

155,503

160,471

158,079

160,036

156,676

THE FOREIGN-EXCH	THE FOREIGN-EXCHANGE RESERVE							
Kr.million	Stock of Gold	Foreign assets	Assets deposited with the European Monetary Institute	Special Drawing Rights (SDR)	Reserve position in the IMF <sup>1</sup>	Total gross	Foreign liabilities	Total net²
1989	4,340 3,720 3,464 3,456 4,339 3,790 3,531 3,652 3,331 3,934 4,567 3,416 3,416 3,418 3,387 3,410 3,417 3,434 3,434	33,180 52,707 38,588 63,540 62,818 44,658 53,577 73,624 115,844 89,416 154,715 137,662 126,240 123,002 101,635 100,456 100,020 101,284 79,268	4,625 5,200 2,814 2,757 4,947 3,460 4,521 4,979 4,790 • • 4,941 4,941 4,941 5,947 5,947 5,947 5,652 5,652	1,850 1,246 1,430 528 580 1,107 880 997 2,291 2,208 2,536 2,205 2,238 2,249 2,231 2,264 2,165 2,189 1,861	2,213 1,807 2,155 2,975 2,876 2,616 3,297 3,601 4,311 7,122 5,905 6,538 6,538 6,538 6,651 6,651 7,104 7,443 7,443	46,208 64,680 48,451 73,256 75,560 55,631 65,806 86,853 130,567 102,680 167,724 154,762 143,373 140,148 119,851 118,728 118,653 120,002 97,658	1,304 1,361 3,888 28,292 790 1,537 2,200 1,634 876 1,253 2,425 442 568 594 773 866 751 285 6,758	44,904 63,319 44,563 44,964 74,770 54,094 63,606 85,219 129,691 101,427 165,299 154,320 142,805 139,554 119,078 117,862 117,902 119,717 90,900
Sept Oct Nov Dec 1999 Jan Feb March April May June	3,435 3,487 3,504 4,320 3,936 3,938 3,939 3,939 3,942 3,942 3,931	84,958 79,810 84,982 87,835 104,016 116,216 130,657 131,528 131,645 148,564 151,309	5,652 5,593 5,593 44	2,265 2,215 1,613 2,250 1,676 438 1,237 1,895 1,949 2,263 216	7,799 7,799 7,759 7,318 6,978 6,873 6,647 6,312 6,312 6,473 5,743	104,109 98,904 103,451 101,767 116,606 127,465 142,480 143,674 143,848 161,242 161,199	7,845 1,347 1,564 1,254 852 494 656 885 1,177 1,021 732	96,264 97,557 101,887 100,513 115,754 126,971 141,824 142,789 142,671 160,221 160,467

Note: End of period. The annual figures are from the annual accounts of Danmarks Nationalbank. The monthly figures (also at end-December) are from the monthly balance sheets.

282

282

757

792

2,386

5,756

5,371

5,371

5,283

5,096

165,472

170,055

168,138

170,042

168,089

1,010

1,450

1,836

2,124

2,425

164,462

168,605

166,302

167,918

165,665

<sup>&</sup>lt;sup>1</sup> Denmark's quota (latest raise in January 1999 to SDR 1,643 million) less IMF holdings of Danish kroner. Value adjustment on the basis of the SDR rate at the time of compilation.

As a result of exchange-rate adjustments the foreign-exchange reserve declined by kr. 3,675 million in 1989, by kr. 3,247 million in 1990, increased by kr. 2,082 million in 1991, by kr. 1,529 million in 1992, by kr. 4,965 million in 1993, declined by kr. 7,715 million in 1994, by kr. 3,841 million in 1995, increased by kr. 765 million in 1996, by kr. 1,454 million in 1997, by kr. 913 million in 1998, and decreased by kr. 366 million in 1999.

PRINCIPAL ITEMS OF	THE BALANCE	OF PAYMENTS	(NET REVENUE	S)		Table 9
Kr.billion	Goods (fob)	Services	Goods and services	Wages and property income	Current transfers	Total current account
1989	19.6	5.0	24.5	-28.8	-6.0	-10.3
1990	32.6	11.0	43.6	-32.3	-4.3	7.0
1991	33.1	19.2	52.3	-33.7	-6.9	11.7
1992	44.7	15.5	60.2	-30.2	-7.1	22.9
1993	50.5	12.3	62.8	-25.9	-7.6	29.3
1994	47.2	4.4	51.5	-24.8	-9.1	17.7
1995	37.3	4.8	42.2	-20.2	-9.6	12.3
1996	45.5	4.9	50.4	-21.2	-11.7	17.5
1997	36.4	1.3	37.7	-24.4	-8.6	4.7
1998	24.8	-4.2	20.6	-24.9	-9.7	-14.0
1998 Jan	1.1	-1.2	-0.1	-0.6	1.0	0.4
Feb	1.9	-0.4	1.4	-1.5	-0.5	-0.6
March	1.6	0.1	1.7	-4.3	-0.3	-2.9
April	0.5	-0.5	0.0	-1.8	-0.8	-2.6
May	0.1	-0.9	-0.8	-0.3	-0.7	-1.9
June	3.4	-0.5	2.9	-2.0	-1.5	-0.6
July	3.6	0.4	4.0	-1.9	-0.1	2.0
Aug	2.6	1.0	3.6	0.1	-1.2	2.5
Sept	2.9	-0.1	2.8	0.7	-1.6	1.9
Oct	2.2	-0.2	2.0	-3.4	-1.1	-2.4
Nov	2.3	-0.4	1.9	-6.6	-0.9	-5.5
Dec	2.6	-1.5	1.1	-3.3	-2.1	-4.3
1999 Jan	2.0	-0.2	1.8	-0.2	2.4	3.9
Feb	2.9	-0.1	2.8	-0.2	-1.0	1.5
March	2.5	-0.5	2.0	-1.7	-1.5	-1.2
April	3.3	0.6	3.9	-3.6	-1.0	-0.7
May	4.5	-0.1	4.4	-1.4	-1.0	2.1
June	3.5	0.5	3.9	0.1	-1.0	3.0
July	3.9	8.0	4.7	-1.3	-2.4	1.0
Aug	4.2	0.7	4.9	-1.6	-1.4	2.0
Sept	4.6	-0.7	4.0	-0.9	-1.8	1.3
Oct	5.4	1.1	6.5	-2.1	-1.9	2.4
Nov	4.7	-0.1	4.6	-7.4	-1.2	-4.0
Dec						

Source: Statistics Denmark.

# **DENMARK'S FOREIGN ASSETS AND LIABILITIES**

Table 10

	Public sector		Private	e sector	Public and		
Kr.billion	The central government	Other public sector	The banks	Other private sector	private sectors, total	The National- bank	Total
Assets							
1991	16	1	291	271	579	49	628
1992	17	4	290	293	603	73	676
1993	16	4	392	297	710	76	785
1994	17	6	310	310	642	56	698
1995	14	9	318	310	651	66	717
1996	13	15	377	399	804	87	892
1997	13	22	451	473	959	131	1,090
1998	16	29	500	575	1,119	102	1,221
Liabilities							
1991	223	18	289	426	956	4	960
1992	290	18	236	416	960	28	988
1993	442	14	192	427	1,075	1	1,076
1994	299	19	193	443	955	2	957
1995	331	16	195	439	981	2	983
1996	368	16	260	499	1,143	2	1,145
1997	398	15	400	561	1,374	1	1,375
1998	362	14	455	689	1,520	1	1,521
Net liabilities							
1991	207	17	-2	155	377	-45	332
1992	273	14	-54	123	357	-45	312
1993	426	10	-200	130	366	-75	291
1994	282	13	-117	133	313	-54	259
1995	317	7	-123	129	330	-64	266
1996	355	1	-117	100	338	-85	253
1997	385	-7	-51	88	415	-130	285
1998	346	-15	-45	115	401	-101	300

Note: End of period. The statistics for 1991, 1994, 1996 and 1998 are based on questionnaire surveys, whereas the figures for 1992, 1993, 1995 and 1997 have been calculated on the basis of the external payments statistics and value adjustments. The provisional statistics for 1999 were published on 31 March 2000 in the Nationalbank's publication series "Financial Statistict – Nyt".

#### DENMARK'S ACCOUNT WITH THE INTERNATIONAL MONETARY FUND

Table 11

	Denmark's quota in the Fund				ngs of	Denmark's reserve position in the Fund <sup>1</sup>		Allocated SDR (accumulated)		Denmark's holdings of SDR	
	SDR million	Kr. million	SDR million	Kr. million	SDR million	Kr. million	SDR million	Kr. million	SDR million	Kr. million	
1989	711	6,173	456	3,960	255	2,213	179	1,553	213	1,850	
1990	711	5,844	491	4,037	220	1,807	179	1,470	152	1,246	
1991	711	6,018	456	3,863	255	2,155	179	1,514	169	1,430	
1992	1,070	9,208	724	6,233	346	2,975	179	1,539	61	528	
1993	1,070	9,953	761	7,077	309	2,876	179	1,664	62	580	
1994	1,070	9,502	775	6,886	295	2,616	179	1,589	125	1,107	
1995	1,070	8,818	670	5,521	400	3,297	179	1,474	107	880	
1996	1,070	9,134	648	5,533	422	3,601	179	1,527	117	997	
1997	1,070	9,856	602	5,545	468	4,311	179	1,648	249	2,291	
1998	1,070	9,605	277	2,483	793	7,122	179	1,606	246	2,208	
1999	1,643	16,667	1,061	10,762	582	5,905	179	1,815	250	2,536	

Note: End of period. Conversion from SDR to Danish kroner is made at the year-end SDR-rate.

Denmark's reserve position in the IMF is determined as the difference between the quota and the Fund's holdings of Danish kroner.

CENTRAL RATES AND FLUCTUATION BAND	) VIS-À-VIS EURO IN ERM II	Table 12
Per 100 euro	Denmark	Greece
Upper limit	Kr. 762.824	Drachmas 39,186.3
Central rate	Kr. 746.038	Drachmas 34,075.0
Lower limit	Kr. 729.252	Drachmas 28,963.8

Note: For Denmark applicable from 1 January 1999 and for Greece from 17 January 2000. The central rate for Greece was written up as part of the preparations for the adoption of the euro. From 1 January 1999 to 17 January 2000 the central rate for the drachma was GRD 35,310.9 per 100 euro, with fluctuation limits of respectively GRD 50,607.5 (upper limit) and GRD 30,014,3 (lower limit). The fluctuation band for Greece is +/- 15 per cent, while that for Denmark is +/- 2.25 per cent.

CONVERSION RATES TO EURO	Table 13
	1 euro =
Belgian francs	40.3399
Finnish marks	5.94573
French francs	6.55957
Dutch guilders	2.20371
Irish pounds	0.787564
Italian lire	1,936.27
Luxembourg francs	40.3399
Portuguese escudos	200.482
Spanish pesetas	166.386
German marks	1.95583
Austrian schillings	13.7603

Note: Conversion rates are given to 6 significant digits.

Source: The European Central Bank.

EXCHANGE RATES Table 14

Danish kroner per 100 units	Euro (EUR)	US dollars (USD)	Japanese yen (JPY)	Pounds sterling (GBP)	Greek drachmas (GRD)	Swedish kronor (SEK)
1989	•	731.51	5.3079	1,197.53	4.506	113.40
1990		618.53	4.2846	1,102.04	3.907	104.50
1991		640.34	4.7604	1,128.13	3.514	105.72
1992	•	602.73	4.7606	1,062.91	3.167	103.94
1993		649.45	5.8736	974.42	2.828	83.33
1994		635.23	6.2171	972.32	2.619	82.32
1995		560.53	5.9799	884.61	2.420	78.65
1996	•	579.59	5.3316	905.17	2.409	86.47
1997		660.86	5.4761	1,082.32	2.420	86.54
1998		669.70	5.1339	1,109.36	2.270	84.23
1999	743.56	698.34	6.1755	1,129.49	2.283	84.46
1998 Jan		691.58	5.3445	1,130.83	2.410	86.32
Feb		691.32	5.4990	1,133.14	2.410	85.60
March		696.04	5.3981	1,156.07	2.283	87.36
April	•	691.66	5.2391	1,156.27	2.189	88.47
May		676.46	5.0112	1,109.19	2.203	87.89
June		682.91	4.8634	1,127.48	2.244	86.31
July	•	685.01	4.8704	1,126.27	2.287	85.78
Aug		681.08	4.7067	1,112.36	2.263	83.82
Sept		648.68	4.8172	1,089.70	2.215	82.05
Oct.		622.81	5.1597	1,055.39	2.211	79.41
Nov	•	638.96	5.3100	1,061.66	2.261	79.95
	•	634.75	5.4156	1,060.11	2.265	78.74
	744.12	640.77	5.6660	1,057.66	2.300	81.91
Feb	743.52	663.45	5.6861	1,080.42	2.309	83.47
	743.25	682.52	5.7065	1,105.83	2.305	83.12
	743.29	694.10	5.8054	1,117.92	2.285	83.35
	743.32	699.14	5.7399	1,128.45	2.285	82.83
June	743.32 743.15 743.87 743.77 743.39	715.83 718.70 701.27 707.76	5.7377 5.9250 6.0094 6.1943 6.6144	1,142.68 1,131.47 1,126.10 1,148.45	2.292 2.290 2.279 2.273	84.13 85.07 84.93 86.09
Oct	743.34	693.72	6.5451	1,150.25	2.258	85.15
	743.65	718.71	6.8613	1,166.73	2.263	86.14
	744.05	735.52	7.1738	1,186.70	2.257	86.63

Note: Yearly and monthly averages. Apart from SDRs, the exchange rates listed are fixed on the basis of market rates at 11.30 a.m. Until end-1991 the exchange rates listed are middle rates quoted in Copenhagen. The SDR rate is calculated on the basis of the market rates of the currencles included in the basket.

EXCHANGE RA	ATES						Table 14
Norwegian kroner (NOK)	Icelandic kroner (ISK)	Swiss francs (CHF)	Canadian dollars (CAD)	Australian dollars (AUD)	New Zealand dollars (NZD)	SDRs (XDR)	Nominal effective krone rate (1980=100)
105.87	12.92	447.24	617.96	••••		936.69	90.2
98.85	10.65	446.16	530.19			838.80	96.3
98.64	10.87	446.30	559.29	•••		874.70	94.6
97.15	10.47	429.85	499.19	443.10	324.29	848.77	96.9
91.38	9.59	439.43	503.09	440.77	351.63	906.68	99.9
90.07	9.08	465.26	465.51	464.62	377.06	909.23	99.9
88.45	8.65	474.22	408.39	415.80	367.64	849.63	103.9
89.79	8.69	469.65	425.08	453.67	398.76	841.42	102.9
93.36	9.31	455.35	477.44	490.90	437.20	909.13	100.0
88.70	9.41	462.37	452.28	421.66	359.66	908.10	101.3
89.47	9.64	464.63	470.26	450.86	369.27	954.73	99.6
92.30	9.51	469.02	480.32	453.59	400.64	928.95	100.2
91.49	9.58	472.10	481.92	466.11	402.94	933.30	100.1
91.81	9.60	467.77	491.31	466.41	398.97	935.76	99.6
91.86	9.61	459.38	483.96	451.04	382.91	929.02	99.7
90.81	9.48	457.35	468.30	426.78	364.54	908.81	100.7
90.10	9.57	456.82	466.02	411.74	348.93	910.36	101.0
89.86	9.57	452.61	461.32	423.45	355.33	911.77	100.8
88.27	9.50	455.75	444.41	401.83	341.66	903.47	101.7
85.59	9.26	462.48	426.34	381.68	327.24	885.19	102.7
83.78	9.09	466.00	404.15	384.91	325.55	875.42	103.4
85.79	9.12	461.92	414.97	405.32	341.06	889.53	102.6
83.61	9.11	467.16	411.77	393.29	332.10	889.95	102.7
86.00	9.23	463.45	421.44	404.81	344.66	900.02	101.9
85.87	9.35	465.19	443.04	424.27	360.74	915.95	101.2
87.33	9.45	465.96	449.98	430.50	363.28	930.18	100.8
89.31	9.49	464.04	466.26	445.67	377.08	940.89	100.3
90.24	9.48	463.82	478.40	462.87	386.48	943.16	100.1
90.96	9.63	465.93	487.23	470.07	381.76	959.34	99.4
90.96	9.65	463.77	483.66	472.62	378.54	962.39	99.2
89.97	9.62	464.72	469.63	452.21	369.05	956.67	99.4
90.35	9.75	464.12	479.02	459.30	370.16	974.08	98.7
89.62	9.80	466.27	469.82	452.41	357.30	964.20	99.1
90.72	10.01	463.41	489.86	459.60	368.37	989.19	98.2
91.85	10.15	464.60	499.13	471.14	374.26	1,009.71	97.3

EXCHANGE RATES FOR	EURO AREA MEM	BER STATES			Table 15
Danish kroner per 100 units	Belgian francs (BEF)	Finnish marks (FIM)	French francs (FRF)	Dutch guilders (NLG)	Irish pounds (IEP)
1989	. 18.559	170.46	114.61	344.72	1,036.38
1990	. 18.523	161.89	113.65	339.84	1,023.56
1991	. 18.734	158.32	113.41	342.26	1,030.27
1992	. 18.775	135.08	114.02	343.29	1,026.49
1993	. 18.760	113.54	114.47	349.23	949.92
1994	. 19.020	121.96	114.59	349.50	950.44
1995	. 19.010	128.39	112.30	349.17	898.54
1996		126.31	113.34	343.95	927.87
1997		127.27	113.17	338.51	1,001.55
1998	. 18.462	125.36	113.60	337.86	953.82
1999		125.06	113.36	337.41	944.13
1998 Jan	. 18.464	125.84	113.74	337.98	956.28
Feb	. 18.466	125.65	113.69	338.12	951.55
March	. 18.478	125.61	113.70	338.19	952.30
April	. 18.479	125.64	113.76	338.65	961.16
	. 18.472	125.39	113.64	338.17	959.17
June	. 18.465	125.32	113.60	337.92	959.71
July	. 18.478	125.36	113.66	338.01	958.55
Aug		125.26	113.62	337.78	956.21
Sept	. 18.463	125.13	113.59	337.64	953.46
Oct	. 18.431	124.97	113.41	337.18	948.33
Nov	. 18.431	125.03	113.39	337.20	945.47
Dec	. 18.444	125.14	113.44	337.57	944.87
1999 Jan	. 18.446	125.15	113.44	337.67	944.84
Feb	. 18.431	125.05	113.35	337.40	944.08
March	. 18.425	125.01	113.31	337.27	943.74
April	. 18.426	125.01	113.31	337.29	943.79
May	. 18.427	125.02	113.32	337.31	943.83
June	. 18.422	124.99	113.29	337.23	943.60
July		125.11	113.40	337.56	944.53
Aug	. 18.437	125.09	113.39	337.51	944.39
Sept		125.03	113.33	337.34	943.91
Oct		125.02	113.32	337.31	943.85
Nov	. 18.435	125.07	113.37	337.46	944.25
Dec	. 18.445	125.14	113.43	337.63	944.74

Note: Yearly and monthly averages. The figures as from 1999 are exchange rates calculated on the basis of the actual exchange rate against the euro and the mutually fixed conversion rates, cf. Table 13. In the years 1992-98 exchange rates fixed by the Nationalbank on the basis of the market rates at 11.30 a.m. Prior to 1992 the exchange rates are the middle rates listed in Copenhagen. On the transition to the single currency the euro replaced ECU in the ratio 1:1.

IANGE RAT	ES FOR EURO AREA	MEMBER STATE	S		Table 15
Italian Iire (ITL)	Portuguese escudos (PTE)	Spanish pesetas (ESP)	German marks (DEM)	Austrian schillings (ATS)	ECU (XEU)
0.5330	4.645	6.177	388.84	55.257	804.55
0.5163	4.341	6.074	382.89	54.420	787.37
0.5158	4.429	6.157	385.67	54.811	791.55
0.4911	4.471	5.905	386.53	54.928	779.97
0.4126	4.037	5.102	392.31	55.760	758.19
0.3939	3.831	4.746	391.94	55.711	752.22
0.3444	3.737	4.495	391.13	55.596	724.60
0.3758	3.759	4.578	385.42	54.783	726.24
0.3879	3.769	4.511	380.96	54.135	746.26
0.3858	3.718	4.486	380.84	54.129	751.37
0.3840	3.709	4.469	380.18	54.037	•
0.3869	3.724	4.494	380.89	54.140	752.36
0.3862	3.723	4.497	381.10	54.164	752.52
0.3871	3.725	4.496	381.18	54.179	756.00
0.3860	3.722	4.491	381.34	54.201	755.85
0.3864	3.720	4.486	381.07	54.155	750.79
0.3866	3.720	4.487	380.89	54.134	752.56
0.3865	3.725	4.490	381.06	54.161	752.94
0.3860	3.721	4.488	380.92	54.137	751.30
0.3855	3.715	4.485	380.87	54.129	749.09
0.3844	3.708	4.474	380.25	54.046	749.23
0.3842	3.708	4.471	380.20	54.039	747.49
0.3842	3.710	4.471	380.44	54.075	746.66
0.3843	3.712	4.472	380.46	54.078	•
0.3840	3.709	4.469	380.16	54.034	•
0.3839	3.707	4.467	380.02	54.014	•
0.3839	3.708	4.467	380.04	54.017	•
0.3839	3.708	4.468	380.06	54.020	•
0.3838	3.707	4.467	379.97	54.007	•
0.3842	3.710	4.471	380.34	54.060	•
0.3841	3.710	4.470	380.28	54.052	•
0.3839	3.708	4.468	380.09	54.024	•
0.3839	3.708	4.468	380.06	54.021	•
0.3841	3.709	4.469	380.22	54.044	•
0.3843	3.711	4.472	380.42	54.072	•

# DANISH BANK HOLIDAYS OTHER THAN SATURDAYS AND SUNDAYS

New Year's Day
Maundy Thursday
Good Friday
Easter Monday
General Prayer Day (in 2000, 19 May)
Ascension Day
Whit Monday
Constitution Day (5 June)
24 December
Christmas Day
Boxing Day
31 December (from noon only)

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Office hours:

Cashier services: Monday-Friday: 10.00 a.m.-1.00 p.m.

Information Desk: Monday-Friday: 9.00 a.m.-4.00 p.m.

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