



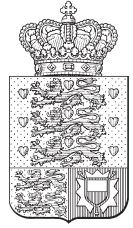
Danmarks  
Nationalbank

Report and  
Accounts

2001

D A N M A R K S  
N A T I O N A L  
B A N K 2 0 0 1





# Danmarks Nationalbank

## Report and Accounts

2001

The small picture on the front cover is a characteristic view of the Danmarks Nationalbank building at Havnegade 5 in Copenhagen. The building dates from 1965-78 and was designed by the architect Arne Jacobsen (1902-71).

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## Foreword

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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 Danmarks Nationalbank's activities is the Danmarks Nationalbank Act of 1936, according to which the Nationalbank's objective is to maintain a safe and secure currency system in Denmark, and to facilitate and regulate the traffic in money and the extension of credit. In its formulation of monetary policy Danmarks Nationalbank is independent of the Folketing (Parliament) and the Government.

The Report and Accounts of Danmarks Nationalbank comprise a presentation and description of Danmarks Nationalbank's Accounts for the year 2000, 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-rate policy, the monetary policy of the European Central Bank, and the development in financial and foreign-exchange markets, as well as a review of international monetary cooperation, together with Danmarks Nationalbank's other areas of operation and its organisation.

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



# Report of the Board of Governors



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## Summary

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The basis for Denmark's monetary and foreign-exchange policy is the fixed-exchange-rate policy vis-à-vis the euro. In its policy statement the new government that took office in November 2001 has confirmed that the fixed-exchange-rate policy will be continued as the basis for the economic policy.

Since the start of the third stage of EMU Denmark has participated in the exchange-rate mechanism, ERM II. After Greece joined the euro area on 1 January 2001 Denmark is the sole participant. Denmark has entered into an agreement whereby the krone is part of the exchange-rate mechanism with a fluctuation band of  $\pm 2.25$  per cent around the central rate against the euro. In order to maintain a stable krone rate Danmarks Nationalbank may both intervene in the foreign-exchange market and adjust the official interest rates.

During 2001 the European Central Bank (ECB) lowered its interest rates on four occasions by a total of 1.5 per cent. On each occasion, Danmarks Nationalbank followed suit by lowering the Danish interest rates. The discount rate was reduced in step with the ECB's interest rates, while the lending rate was lowered further, in view of the strength and stability of the krone. Moreover, Danmarks Nationalbank unilaterally lowered the lending rate on three occasions during 2001. The background is that immediately after the referendum on Denmark's participation in the euro Danmarks Nationalbank raised the lending rate in order to avoid uncertainty concerning the krone rate, but held the discount rate unchanged. The spread between the lending rates of Danmarks Nationalbank and the ECB narrowed by 0.30 per cent during 2001, and closed the year at 0.35 per cent. The spread narrowed further in 2002.

After the terrorist attacks on the USA on 11 September, the Federal Reserve lowered the fed funds target rate by 0.5 per cent in order to counter the uncertainty concerning the course of the economy arising after the attacks. On the same occasion, the ECB lowered its interest rates by 0.5 per cent, while a number of other central banks also reduced their interest rates. The Federal Reserve reduced the interest rate on a total of 11 occasions in 2001, seven times before and three times

after the terrorist attacks, in order to prevent a hard landing of the economy. Overall, the US rate was cut by 4.75 per cent to 1.75 per cent, the lowest level for 40 years.

The terrorist attacks affected New York's financial centre. The US bond market was closed and was not re-opened until 13 September, while the New York Stock Exchange was closed for almost a week. There were no major interruptions to payment systems. The Federal Reserve immediately made considerable amounts of liquidity available, and several other central banks, including Danmarks Nationalbank, undertook extraordinary operations to contribute liquidity in order to ease the functioning of the money markets.

The Danish foreign-exchange market took a stable course in 2001 and Danmarks Nationalbank only intervened on rare occasions. The foreign-exchange reserve was kr. 27.5 billion higher at the end of 2001 than at the beginning of the year, primarily as a consequence of a large influx of foreign exchange at the end of September that was e.g. related to portfolio adjustments in the life and pension insurance sectors.

Long-term yields in the USA and Europe closed 2001 at around the same level as at the beginning of the year. However, the fluctuations during the year were considerable, and in the autumn long-term yields briefly reached a very low level. In Denmark too, the yields were stable for the year overall. Yields fell by more in Denmark than in Germany in the autumn, and the 10-year Danish-German yield differential narrowed from 0.3 to 0.2 percentage points.

During 2001 the dollar strengthened by approximately 5 per cent against the euro.

On 1 January 2002 euro banknotes and coins were put into circulation in the 12 euro-area member states, marking the completion of the Economic and Monetary Union. The actual changeover to the euro did not present any significant problems, and was achieved more quickly than expected. After only a few weeks most cash payments already took place in euro.

The global economy almost came to a standstill during 2001. In autumn 2001, the OECD evaluated the growth in the gross domestic product (GDP) of Denmark's trading partners at 1.3 per cent in 2001. This is the

lowest level for eight years, and reflects stagnation or a direct decline in large parts of the year. The negative trends were strongest in the USA and Japan, but the euro area was also affected. The significant drop in oil prices dampened price development.

The global economy weakened, but the Danish economy stayed relatively robust in 2001. Unemployment remained low and the balance of payments showed a sound surplus of kr. 34 billion. The rate of price increase fell, and was lower on average than in the euro area. Nonetheless, economic growth was below the level of 2000, while domestic demand was by and large unchanged.

A short-lived weakening of the global economy is not a problem for the Danish economy in the current situation of high capacity utilisation and a tight labour market. The rate of wage increase exceeds the level in the euro area, however, and there is a risk of sustained high wage increases and deteriorating competitiveness. It is necessary to ease the pressure on the labour market by ensuring a stronger influx to the labour force, and better utilisation of idle resources.

The future demographic structure of the population makes it important to reduce the government debt further, in order to ensure sufficient economic scope in the future. This requires a surplus on government finances. A sound surplus will also give some leeway for the automatic stabilisers to offset any future cyclical downturn.

The Danish banks continued to present sound earnings with substantial profits for the seventh consecutive year, although losses and provisions have increased in view of the slowdown of the economy. The mortgage-credit sector also reported higher profits in 2001 in view of the expansion of lending activity and high volume of conversions. Investment associations achieved a good increase in the circulating volume of investment certificates. Since the 3rd quarter of 2001 Danmarks Nationalbank has published new quarterly statistics for investment associations with details of the breakdown of ownership of investment certificates by sector.

Danmarks Nationalbank's new payment system, Kronos, was launched on 19 November 2001, replacing Danmarks Nationalbank's previous payment systems. In 2001 Danmarks Nationalbank and the Danish Financial Supervisory Authority established a cooperation agreement on surveillance of systemically important payment systems.



Danmarks Nationalbank issued 10- and 20-krone coins with a new portrait of the Queen in 2001. A new Faroese 50-krone note was issued in 2001 as the first in a new series of Faroese banknotes.

Danmarks Nationalbank's accounts for 2001 show a profit of kr. 4.8 billion, against a profit of kr. 5.7 billion in 2000. The principal factor behind the change is a decrease in value adjustments by kr. 1.2 billion to kr. 0.1 billion. Of the profit for the year, kr. 3.3 billion is payable to the central government, increasing the net capital of Danmarks Nationalbank by kr. 1.5 billion to kr. 46.7 billion.

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## The Danish Economy

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*The global economy weakened significantly, but the Danish economy stayed relatively robust in 2001. Unemployment remained low, and the balance of payments showed a sound surplus. Inflation fell, and was lower on average than in the euro area. Nonetheless, economic growth was below the level of 2000, while domestic demand was by and large unchanged.*

*A short-lived weakening of the global economy is not a problem for the Danish economy in the current situation of high capacity utilisation and a tight labour market. The rate of wage increase again exceeds the level abroad.*

*There is a risk of sustained high wage increases and deteriorating competitiveness. It is therefore necessary to ease the pressure on the labour market. At a high level of activity a stronger influx to the labour force and better utilisation of idle resources are required.*

*Further reduction of the government debt is just as important, in order to create scope for the future demographic structure with more elderly people and a diminished population of working age.*

### INTERNATIONAL BACKGROUND

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The global economy almost came to a standstill during 2001. Before the year began, growth in the gross domestic product (GDP) of Denmark's trading partners was estimated at 3.1 per cent for 2001. However, the OECD's autumn forecast indicated a growth rate of 1.3 per cent.<sup>1</sup> This is the lowest level for eight years, and reflects stagnation or a direct decline in large parts of the year. The negative trends were strongest in the USA and Japan, but the euro area was also affected, cf. Chart 1. The significant drop in oil prices dampened price development.

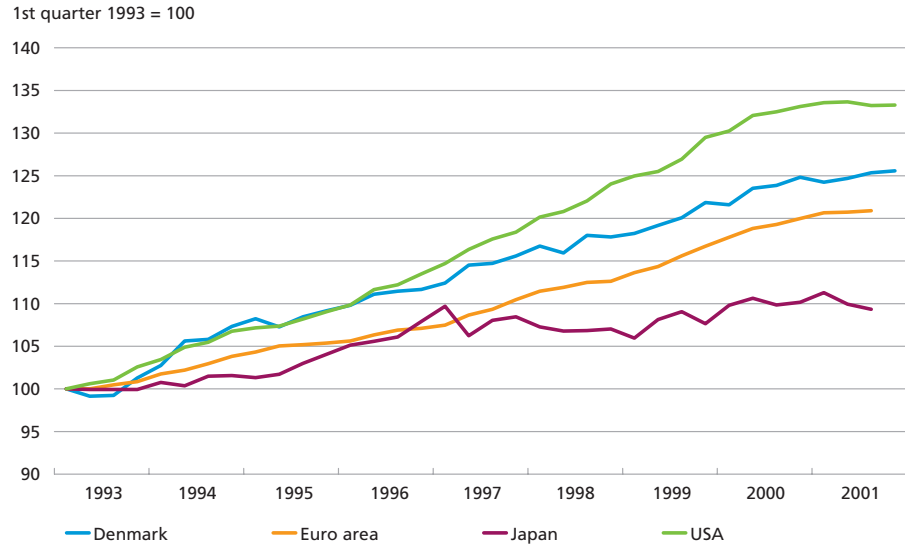
The USA has been in recession since the spring of 2001 after the longest upswing for more than 50 years. Yet as a consequence of the strong growth throughout 2000, total output in 2001 was still more than 1 per cent above the average for 2000. The downturn is due especially to the decline in business investments from a very high level, and more subdued growth in consumer spending.

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<sup>1</sup> OECD's autumn forecast 2000, Economic Outlook No. 68 and autumn forecast 2001, Economic Outlook No. 70.

## GROSS DOMESTIC PRODUCT, GDP

Chart 1



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

The US economy weakened further after the terrorist attacks on 11 September. Consumer confidence declined and unemployment increased further. The downturn in employment worsened during the autumn, and spread to the service sector. Even though domestic demand was dampened the balance of payments improved only slightly.

In response to the weakening of the economy, both monetary and fiscal policy were eased. The USA has a broad monetary-policy objective which is to contribute to maximum employment, as well as stable prices, and a moderate level of long-term interest rates. In 2001 the strategy was to counter diminishing demand with an expansionary monetary policy. The Federal Reserve thus cut the fed funds target rate by a total of 4.75 per cent on 11 separate occasions during 2001, thereby reducing the rate to 1.75 per cent, which is the lowest level for 40 years. The government budget surplus fell from 2.4 per cent of GDP in 2000 to 1.3 per cent in 2001, and a deficit is expected in 2002.<sup>1</sup>

Inflation declined during 2001, but disregarding items such as energy and foodstuffs the annual rate of increase was stable at around 2.7 per cent.

Towards the turn of the year there were dispersed initial signs that the economy was recovering. Various confidence indicators became less negative and employment decreased less strongly.

<sup>1</sup> Congressional Budget Office, January 2002. The US fiscal year 2001 runs from the 4th quarter of 2000 up to and including the 3rd quarter of 2001.

*Japan's* economic situation deteriorated throughout 2001. In the 2nd and 3rd quarters output began to drop, and this is expected to continue into 2002.<sup>1</sup> The economic reversal follows a full decade of low growth at around 1 per cent per annum. Japan's exports were affected by the dampening of the global economy, and domestic demand was weak in 2001. Unemployment has been increasing for some years and now exceeds 5.5 per cent, the highest level for decades. The level of prices fell throughout 2001.

The government maintained its expansionary fiscal policy in order to stimulate economic activity, and the government debt rose to 130 per cent of GDP. The Bank of Japan pursued an expansionary monetary policy, and the short-term interest rate was close to zero.

The *euro area* was affected by the deterioration in the global economy, and the strong growth in 2000 was followed by a marked decline in 2001. Provisional estimates of economic growth were thus revised downwards by 1.5 per cent during the year to the level of 1.6 per cent.<sup>2</sup> In Germany the slowdown was significant. The euro area's exports weakened during the year, and domestic demand was driven by private and public consumption, while investments fell. Unemployment was by and large unchanged in 2001.

The average rate of increase in consumer prices in the euro area was 2.6 per cent in 2001, compared to 2.3 per cent in 2000. Inflation rose at the start of the year, but subsequently declined. Disregarding energy and foodstuffs, inflation rose throughout 2001. The definition of price stability of the European Central Bank (ECB) is a year-on-year increase in consumer prices of below 2 per cent in the medium term.

The euro area has a clearer dividing line between monetary and fiscal policy than the USA. Price stability is a treaty-bound objective of the ECB, and monetary policy can only be used to support economic activity if this does not jeopardise the prospects for price stability. During 2001 the ECB reduced the interest rate on four occasions by a total of 1.5 per cent to 3.25 per cent. The more cautious lowering of interest rates than in the USA is also related to the relatively high rate of price increase. Moreover, at the beginning of the year interest rates were below the USA's level.

The public finances of the euro area as a whole moved from a small surplus in 2000 to a deficit in 2001. In 2000 public finances were affected by the extraordinary revenue from sale of transmission licences for 3rd

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<sup>1</sup> Where figures for the whole of 2001 and for 2002 are not available, the OECD's autumn forecast Economic Outlook No. 70, November 2001, is used.

<sup>2</sup> OECD's autumn forecast 2000, Economic Outlook No. 68 and autumn forecast 2001, Economic Outlook No. 70.

generation mobile telephony. The deterioration in 2001 was also related to dampened growth and tax-relief measures in several member states.

An upturn in the economy during 2002 is widely expected. By the turn of the year the negative business and consumer confidence trends had been overcome, although the confidence indicators are still at a low level.

GDP growth in the *UK* exceeded 2 per cent in 2001. Growth was driven by private consumption. Inflation rose in the 1st half-year, but then declined. The labour market remained tight.

The international slowdown severely affected exports from *Sweden*. Private consumption was likewise weak, and GDP growth was around 1.5 per cent in 2001. Inflation was higher than in 2000.

GDP growth in *Norway* was 1.4 per cent in 2001. Norway's economy was characterised by high capacity utilisation and a tight labour market. Disregarding adjustments to indirect taxes and energy prices, inflation was unchanged around the Bank of Norway's inflation target of 2.5 per cent. This target was introduced in March 2001.

## **ECONOMIC ACTIVITY IN DENMARK**

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Denmark's economy was robust compared to most other countries in 2001. Unemployment remained low, and total employment was still high. There was a sound surplus on the balance of payments, and public finances likewise showed a surplus. Nonetheless, the Danish economy lost ground in 2001, achieving GDP growth of just over 1 per cent, compared to 3 per cent for 2000, cf. Table 1. The low growth is due to dampened business investments and a strong decline in housing investments. In 2000 the latter were affected by the extensive repairs necessary after the hurricane in December 1999. This made an extraordinary contribution to growth in 2000, and negatively affected growth in 2001. The slowdown in business investments is accompanied by declining capacity utilisation, and very high investment activity in 2000. To some extent growth in 2001 was set off by extensive stockbuilding, of which a proportion may have been unintended. Export growth diminished, but the low domestic demand also dampened imports. The composition of growth was more balanced than in preceding years, cf. Chart 2.

Private consumption rose by just over 1 per cent in 2001, and was subdued, despite low unemployment and high property prices. Housing prices were buoyed up by low interest rates, but the geographical distribution of the development in prices was very uneven. The strong price increases in the Greater Copenhagen area have pushed up growth in the

KEY FIGURES FOR THE DANISH ECONOMY						Table 1
Real growth against the previous year, per cent	1997	1998	1999	2000	2001	
Private consumption .....	2.9	2.3	0.2	-0.3	1.1	
Government demand .....	0.8	2.7	1.8	1.0	1.8	
Business investments .....	13.7	13.5	0.4	11.1	1.1	
Residential investments .....	7.1	4.2	2.5	11.0	-15.0	
Domestic demand, excluding stockbuilding .....	3.9	4.2	0.8	2.4	0.5	
Stockbuilding <sup>1</sup> .....	0.9	-0.1	-1.3	0.2	0.3	
Domestic demand, total .....	4.9	4.0	-0.5	2.6	0.8	
Exports .....	4.1	4.3	10.8	11.5	3.4	
Imports .....	10.0	8.9	3.3	11.2	2.6	
Net exports <sup>1</sup> .....	-1.7	-1.4	2.8	0.6	0.5	
Gross domestic product, GDP .....	3.0	2.5	2.3	3.0	1.2	
Unemployment, per cent of the labour force ..	7.9	6.6	5.7	5.4	5.2	
Consumer-price index <sup>2</sup> , percentage growth ....	1.9	1.3	2.1	2.7	2.3	
Current account, per cent of GDP .....	0.4	-0.9	1.7	1.6	2.5	
Government balance, per cent of GDP .....	0.4	1.1	3.2	2.5	1.9	
Private savings surplus <sup>3</sup> , per cent of GDP ....	0.0	-2.0	-1.5	-0.9	0.6	

Source: Statistics Denmark.

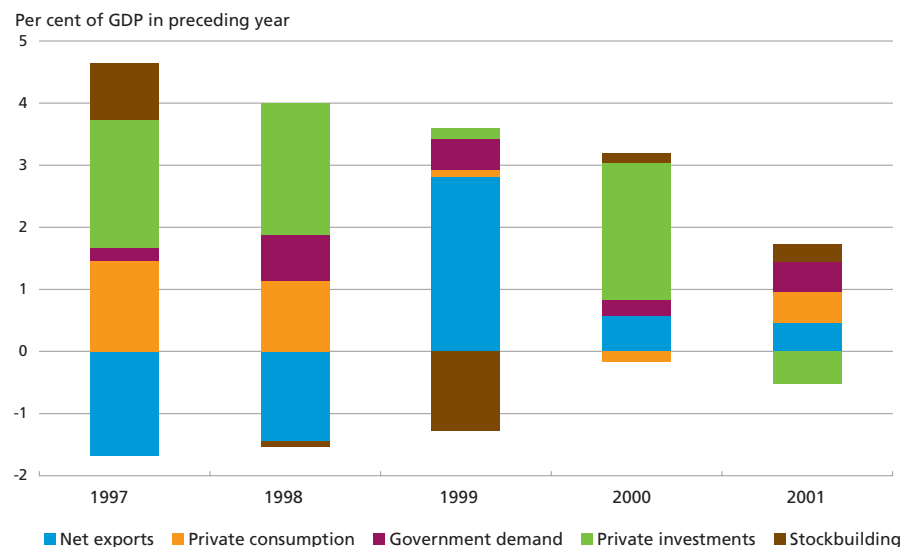
<sup>1</sup> Contribution to growth in GDP at constant prices.

<sup>2</sup> The Harmonised Index of Consumer Prices (HICP).

<sup>3</sup> Current account minus government balance.

## CONTRIBUTIONS TO GROWTH

Chart 2



Note: Private investments comprise business and residential investments.

Sources: Statistics Denmark and own calculations.

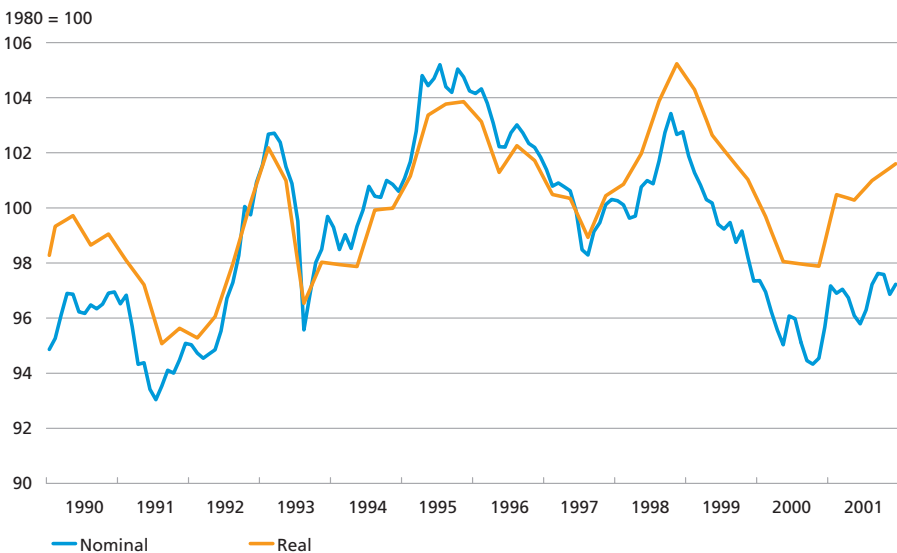
general index. Price increases were sustained by the limited supply of sites for new construction in the Greater Copenhagen area.

The net savings of the private sector have risen in recent years, with a savings surplus equivalent to 0.6 per cent of GDP in 2001. As the first surplus on private savings since 1996 this should be viewed against the elements of the Whitsun package of incentives to stimulate savings, and the development in investments in 2001.

Growth in government consumption and investments was 1.8 per cent. Fiscal policy was moderately contractive measured in terms of fiscal effect, taking the structural effects of the Whitsun package into account. The government budget surplus was almost 2 per cent of GDP in 2001, compared to 2.5 per cent in 2000. The diminished surplus is due mainly to falling stock prices, reducing proceeds from taxation of pension returns, and is only to a minor degree related to the dampening of economic activity. The restructuring of the taxation of pension returns has made government revenues more sensitive to fluctuations in stock prices.

The tight labour market and expansionary financial conditions made a moderately contractive fiscal policy appropriate. Especially short-term interest rates fell throughout most of 2001, and the effective krone rate remained at a low level, even though the declining trend was reversed, cf. Chart 3.

NOMINAL AND REAL EFFECTIVE KRONE RATES Chart 3



Note: The 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 hourly wages partial estimate for 2001.

Sources: OECD, Danish Employers' Confederation and own calculations.

THE DANISH LABOUR MARKET					Table 2
1,000 persons, annual average	1997	1998	1999	2000	2001
Wage and salary earners					
Private sector .....	1,606	1,638	1,664	1,684	1,694
Public sector .....	795	812	821	823	831
Self-employed .....	206	201	200	198	195
Total employment .....	2,607	2,651	2,685	2,705	2,720
Unemployed .....	220	183	158	150	145
Labour force .....	2,827	2,834	2,843	2,855	2,865
Recipients of early retirement benefit <sup>1</sup> .....	170	176	179	180	180
Recipients of leave benefits .....	46	41	33	24	23
Unemployment, per cent of the labour force .....	7.9	6.6	5.7	5.4	5.2
Unemployment, EU definition, per cent of the labour force <sup>2</sup> .....	5.7	5.3	5.2	4.7	4.5

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

<sup>1</sup> Including recipients of transitional allowance.

<sup>2</sup> Eurostat method.

Total employment rose by 15,000 in 2001, cf. Table 2. The annual growth in employment has diminished in recent years, but the employment level is high. Private-sector employment declined in the 2nd half of 2001, while employment in the public sector rose throughout the year.

Output rose only slightly more than employment, reflecting a moderate rise in productivity.

The dampening of economic growth was not reflected in registered unemployment, which closed the year at 5 per cent – the lowest level for more than 20 years. The labour market remained tight, with a shortage of manpower in certain sectors.

## BALANCE OF PAYMENTS

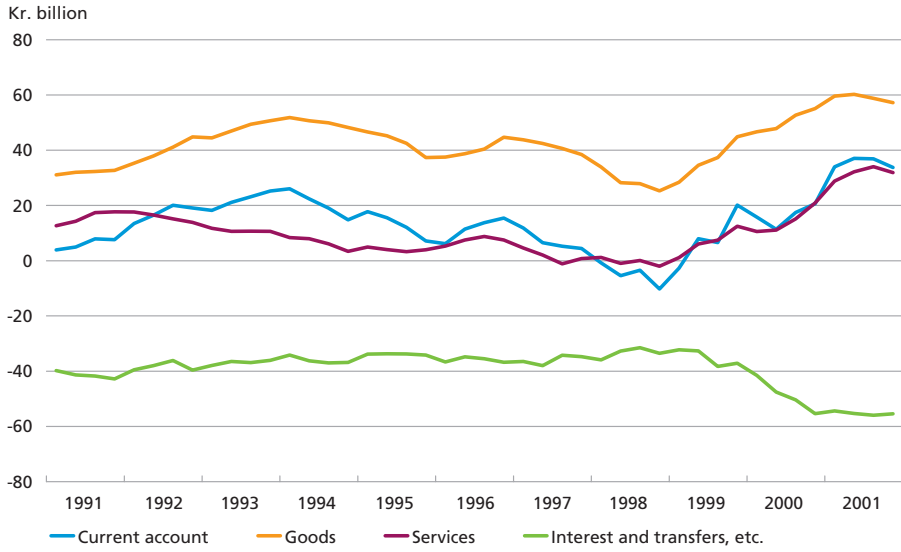
The current-account surplus was almost kr. 34 billion in 2001, equivalent to 2.5 per cent of GDP. Moderate domestic demand dampened imports and reduced capacity utilisation. Idle capacity can be used to increase output for export, although exports also depend on growth on export markets and the development in competitiveness. Agricultural and energy exports, as well as sea freight, benefited from high prices for a period. Manufactured exports remained by and large unchanged throughout 2001, and the surplus on the balance of goods was maintained at a high level, cf. Chart 4.

A substantial current-account surplus and low unemployment bear witness to favourable competitiveness, notwithstanding the development in the effective krone rate and wage levels in 2001.



## THE BALANCE OF PAYMENTS

Chart 4



Note: 4-quarter moving average.  
Source: Statistics Denmark.

The international slowdown weakened Denmark's export markets, but Danish exports tend to be less sensitive to cyclical fluctuations than exports from the other EU member states. The reason may be that Denmark's exports include a larger element of services, including sea freight, as well as agricultural products and pharmaceutical products, than exports from most other European countries, while traditional manufactured products account for a smaller share. Moreover, Denmark has a relatively large number of small and medium-sized enterprises with a strong capacity for rapid adjustment. Less volatile exports mean that, all other things being equal, Denmark's market share increases in periods of low international growth, which was also the case in 2001. In the longer term, there is a clear relation between the development in costs and market shares. It is therefore vital that Denmark's wage-increase rate does not exceed that of the euro area.

The current-account surplus contributed to reducing Denmark's external debt, viewed in isolated terms. The external debt is also affected by value adjustment of assets and liabilities (shares and bonds).<sup>1</sup>

## CREDIT EXPANSION

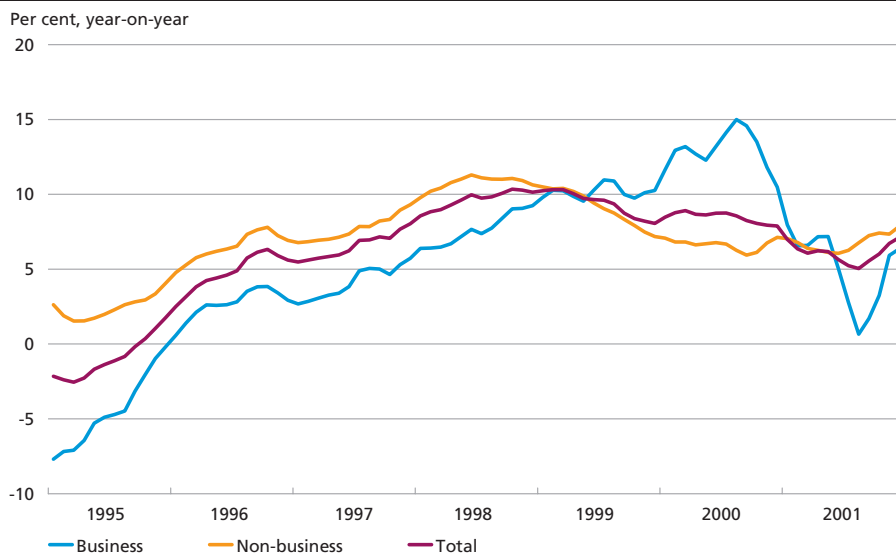
Increased private savings and diminished investments were reflected in lending by banks and mortgage-credit institutes. The growth in business lending dampened into the 1st half of 2001, cf. Chart 5. Towards the

<sup>1</sup> A provisional estimate of Denmark's external debt at end-2001 is published at the end of March 2002.

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**CHANGE IN DOMESTIC LENDING BY BANKS AND MORTGAGE-CREDIT INSTITUTES** Chart 5


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Note: 3-month moving average. Lending denominated in both kroner and foreign exchange. Non-business includes the self-employed.

end of the year the rate of increase gained momentum, but was still below the preceding years' level. Lending to households rose moderately during the 2nd half of 2001.

The significant decline in especially short-term interest rates in 2001 contributed to an increase in the proportion of homes financed with mortgage-credit loans at adjustable interest rates. At end-2001, variable-interest loans were close to kr. 240 billion, equivalent to 20 per cent of total mortgage-credit lending, against 9 per cent in 2000. Around 20 per cent of the variable-interest loans were denominated in euro.

The money stock, M3 (primarily the deposits with the banks of private individuals and business enterprises, together with their holdings of banknotes and coins and short-term mortgage-credit bonds), increased by just over 7 per cent in 2001. This is slightly more than the transaction requirement measured as the value of domestic demand.

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## WAGE AND PRICE TRENDS

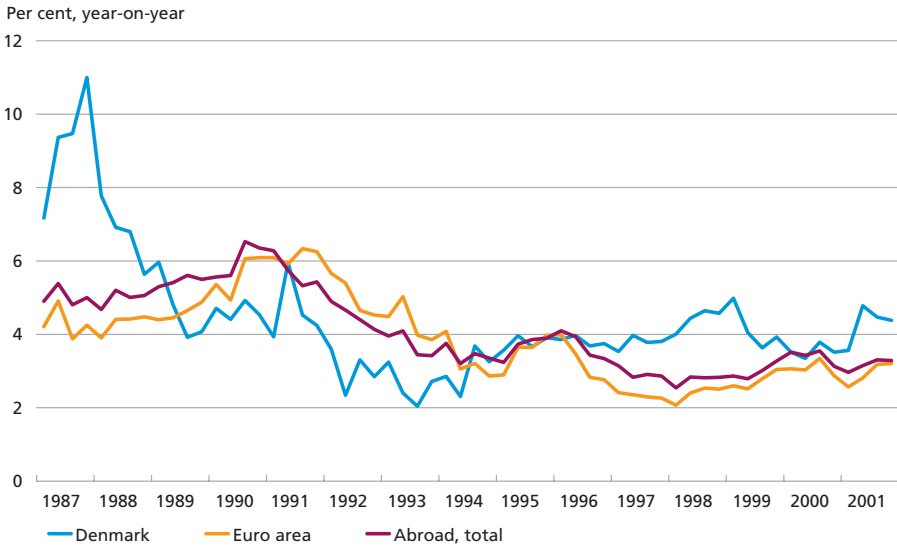
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The rate of wage increase accelerated in 2001 to exceed 4 per cent at the close of the year. The adjustment of 4 family-leave days to 4 extra days of holiday leave was incorporated in the 2nd quarter, which explains the abrupt increase in the rate of wage increase in that quarter.

An annual rate of wage increase of more than 4 per cent exceeds wage increases in the euro area. The rate of increase in Danish wages

## WAGE INCREASES IN DENMARK AND ABROAD

Chart 6



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. Wage increases are wage increases in the manufacturing sector. Partial estimates for 2001.

Sources: OECD, Danish Employers' Confederation and own calculations.

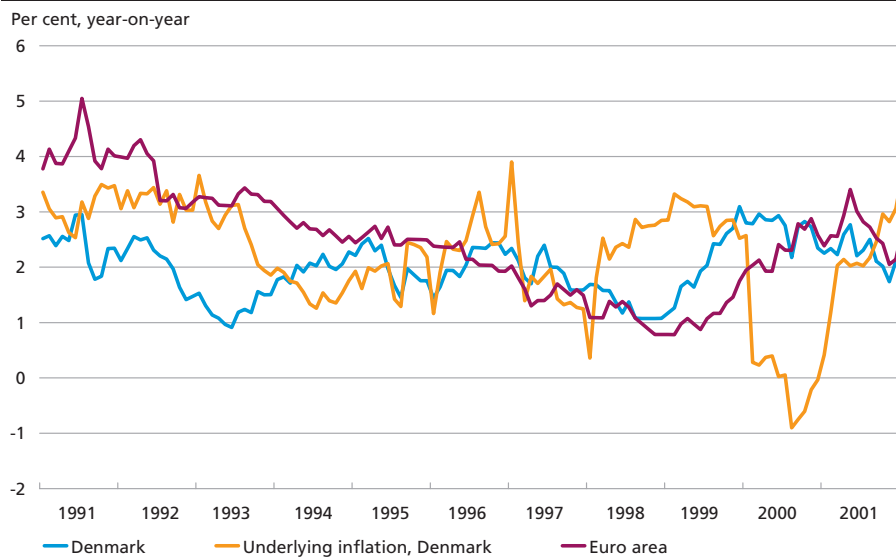
has thus again moved away from the rate in the euro area after the two preceding years of convergence, cf. Chart 6. Over time the high Danish wage increases can present problems for Danish competitiveness and the objective of price stability. It is therefore important to dampen wage development, despite the tight labour market that will probably stay tighter than in the euro area in the immediate future. At the close of the year the EU-harmonised unemployment rates were 4.4 per cent in Denmark and 8.5 per cent in the euro area.

Measured in HICP terms, inflation in Denmark declined for most of 2001, cf. Chart 7. The average rate of price increase in 2001 was 2.3 per cent, compared to 2.7 per cent in 2000. The price increases gained momentum at the turn of the year, partly due to energy and food-stuffs.

Despite higher wage-increase rates, average inflation in 2001 was lower in Denmark than in the euro area. This is due mainly to the development in food prices. The rate of increase in Danish food prices fell strongly in 2001 after increasing in the first months of the year, whereas euro-area food prices rose in the 1st half-year, followed by a slight decline. The development in energy prices helped to push down inflation in both Denmark and the euro area. Disregarding energy and foodstuffs, prices in Denmark and the euro area increased at equivalent rates in 2001.

## INCREASE IN CONSUMER PRICES AND UNDERLYING INFLATION

Chart 7



Note: Underlying inflation is a measure of the domestic market-determined price increases and has an overweight of services.  
Sources: Statistics Denmark, Eurostat and own calculations.

The pattern of inflation excluding energy and foodstuffs is also reflected in Denmark's Nationalbank's compilation of underlying inflation, which is a measure of domestic market-determined price increases. Underlying inflation has risen since mid-2000, after falling in the preceding period. This may reflect that business enterprises absorb the savings from using cheaper raw materials, whereas previously they refrained from passing on increases in raw materials prices to consumers.

## ECONOMIC PROSPECTS

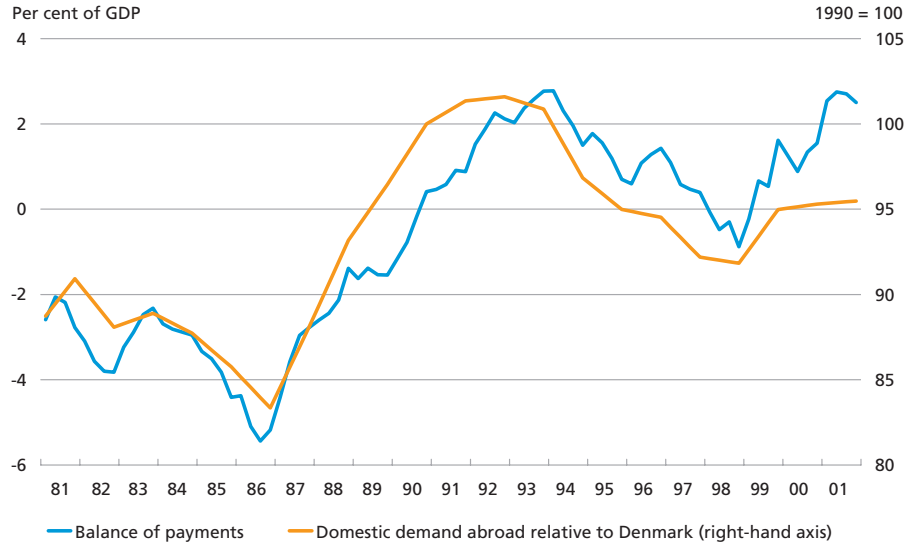
The Danish economy achieved dampened, balanced growth in 2001. There were no acute imbalances at the start of 2002. There is a substantial current-account surplus, and unemployment is low. Public finances likewise show a surplus.

The weakening of the global economy is not a problem for the Danish economy in the current situation of sustained high capacity utilisation and a tight labour market. If the expected turnaround in Denmark's export markets fails to emerge, increasingly negative effects on the exporting industries are nonetheless unavoidable.

Domestic demand has been dampened in recent years. Lower domestic capacity utilisation has made room for exports and favoured the balance of payments, without leading to higher unemployment, cf. Chart 8. During the past two years the development in domestic demand has not

## RELATIVE DOMESTIC DEMAND AND BALANCE OF PAYMENTS

Chart 8



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.

Sources: Statistics Denmark, OECD and own calculations.

varied significantly from development abroad, but particularly favourable net revenues from energy exports and sea freight have contributed to improving the balance of payments.

It is vital that the pressure on the labour market is eased in order to maintain competitiveness. At a high level of activity a stronger influx to the labour market and better utilisation of idle resources are required.

A stronger influx to the labour market is also important in view of the demographic trends of an ageing population and a diminishing population of working age. The moderate new influx to the labour market in recent years shows that it is difficult to achieve the objective of increasing the supply of available working hours.

The ageing of the population will likewise exert pressure on public finances. It is therefore vital to reduce the government debt further. This requires a surplus on government finances. A sound surplus will also give some leeway for the automatic stabilisers to offset any future cyclical downturn.

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## Monetary and Exchange-Rate Policy

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*As a consequence of Denmark's participation in ERM II, the krone is held within a narrow band vis-à-vis the euro. The new government has confirmed that the fixed-exchange-rate policy will be continued unchanged.*

*During 2001 official interest rates were lowered in many countries, including the euro area and Denmark. The European Central Bank (ECB) cut its interest rates on four occasions by a total of 1.5 per cent. On each occasion, Danmarks Nationalbank followed suit by lowering its official interest rates. The discount rate was reduced in step with the ECB's interest rates, while the lending rate was lowered further in view of the krone's strength and stability. Since the beginning of 2001, the spread between the lending rates of Danmarks Nationalbank and the ECB has narrowed by 0.35 per cent.*

*The foreign-exchange market was very stable throughout the year, and Danmarks Nationalbank only intervened on rare occasions. The foreign-exchange reserve was kr. 27.5 billion higher at the end than at the beginning of 2001. This was primarily related to a large inflow of foreign exchange at the end of September.*

*The current-account surplus was kr. 34 billion in 2001. Denmark's inward and outward capital flows were considerable, resulting in net capital exports of kr. 5 billion from the private sector.*

### THE FIXED-EXCHANGE-RATE POLICY

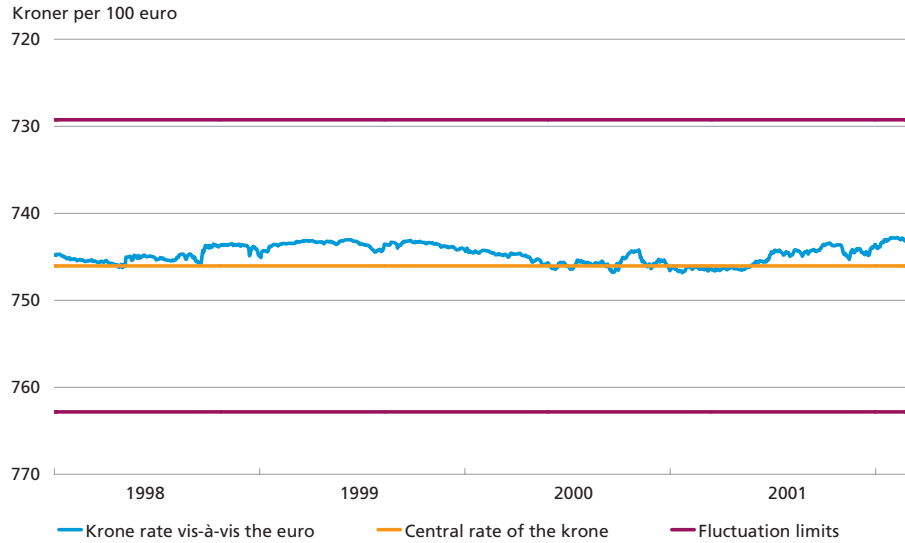
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The objective of Denmark's monetary and exchange-rate policy is to keep the krone stable against the euro. In view of the primary objective of monetary policy in the euro area to maintain price stability the linking of the krone to the euro creates a framework for the economic policy that ensures a sound basis for stable economic development in Denmark. In its policy statement the new government that took office in November 2001 has confirmed that the fixed-exchange-rate policy will be maintained, and that the stance of economic policy will be designed to maintain the linking of the krone to the euro within the narrow fluctuation band.

Since the start of the third stage of EMU Denmark has participated in the exchange-rate mechanism, ERM II. After Greece joined the euro area on 1 January 2001 Denmark is the sole participant. The ERM II agreement stipulates a standard fluctuation band for each participating cur-

## THE KRONE RATE VIS-À-VIS THE EURO

Chart 9



Note: Daily observations. For 1998 a synthetic krone rate vis-à-vis the euro is used which is calculated on the basis of the krone rate vis-à-vis the D-mark and the official conversion rate between D-mark and euro.

rency vis-à-vis the euro of +/-15 per cent around the central rate. Denmark has entered into an agreement whereby the krone participates in the exchange-rate mechanism with a narrower fluctuation band of +/-2.25 per cent around the central rate of kr. 746.038 per 100 euro. In order to maintain a stable krone rate Danmarks Nationalbank may both intervene in the foreign-exchange market and adjust the official interest rates.

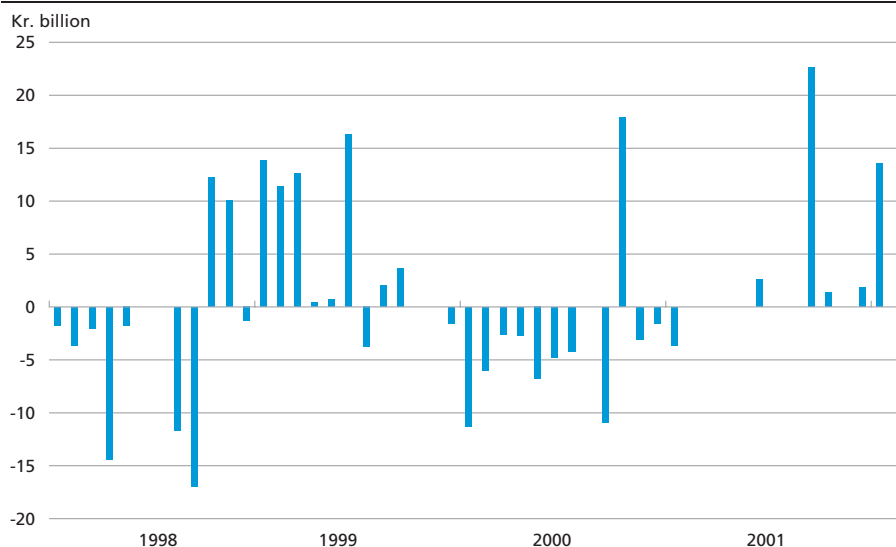
As a consequence of the fixed-exchange-rate policy Denmark's official interest rates are adjusted in step with the ECB's adjustments of interest rates for as long as the foreign-exchange market is stable. If the krone comes under pressure, or there are sustained inflows or outflows of foreign exchange, Danmarks Nationalbank unilaterally adjusts its official interest rates in order to stabilise the krone.

The krone's rate against the euro was close to the central rate throughout the year, cf. Chart 9. At the beginning of 2001 the krone was marginally weaker than the central rate. During the summer it strengthened a little, and closed the year on the strong side of the central rate. Since the krone was stable, Danmarks Nationalbank only rarely intervened to stabilise the krone in the foreign-exchange market, cf. Chart 10. The market has thus to a high degree ensured the stability of the krone.

The stability of the foreign-exchange market was maintained in the period immediately after the 11 September terrorist attacks in the USA.

## INTERVENTIONS IN THE FOREIGN-EXCHANGE MARKET (MONTHLY FIGURES)

Chart 10



Note: A positive value indicates that Danmarks Nationalbank bought foreign exchange in the market. The intervention figures are included in Danmarks Nationalbank's net foreign-exchange purchases stated in the monthly press releases. The minor deviations between interventions and net foreign-exchange purchases primarily comprise government payments.

The foreign-exchange market reacted calmly to this uncertain situation. In order to meet the increased demand for kroner in late September, Danmarks Nationalbank bought foreign exchange and sold kroner in the market.

## MONETARY POLICY AND THE SHORT-TERM INTEREST RATES

The year was characterised by relaxations of monetary policy in Europe, the USA and Japan. The European Central Bank (ECB) lowered the official interest rates on four occasions in the course of the year by a total of 1.5 per cent. At the close of 2001 the minimum bid rate was 3.25 per cent. Danmarks Nationalbank likewise reduced its official interest rates. Box 1 presents a review of the Danish monetary-policy instruments.

In the spring, the ECB's Governing Council evaluated the risks to price stability in the medium term to be in greater balance than was the case at the end of 2000. The background was partly the declining growth in the monetary aggregate, M3, which was approaching the reference value of 4.5 per cent. Moreover, the economic and financial indicators of the future development in prices indicated in overall terms that inflationary pressure was diminishing, especially because the inflationary effects of the preceding oil-price increases and the depreciation of the euro were considered to be subsiding.



The monetary-policy instruments remained unchanged in 2001. Danmarks Nationalbank makes two facilities available to the banks and mortgage-credit institutes that are its monetary-policy counterparties. The first is access to place liquidity as overnight current-account deposits, but subject to individual limits. If the total limit for all banks and mortgage-credit institutes taken as one is exceeded, the current-account deposits exceeding the individual limits will be converted automatically to certificates of deposit by Danmarks Nationalbank. The current-account deposits accrue interest at the current-account rate, which is equivalent to the discount rate. Secondly, the monetary-policy counterparties may participate in the weekly open market operations whereby Danmarks Nationalbank grants loans against collateral, and moreover gives access to place funds at Danmarks Nationalbank by purchasing certificates of deposit. Both collateralised lending and placements via certificates of deposit are subject to a maturity of 14 days, and the related interest rates are called respectively the lending rate and the rate of interest on certificates of deposit. The two 14-day interest rates are identical and are higher than the discount rate.

The net position of the monetary-policy counterparties vis-à-vis Danmarks Nationalbank is compiled on the basis of the counterparties' use of the two facilities. The net position is calculated as the difference between on the one hand the sum of the counterparties' current-account deposits and holdings of certificates of deposit, and on the other hand their loans from Danmarks Nationalbank. The net position varies over time with especially fluctuations in central-government payments and Danmarks Nationalbank's purchase and sale of foreign exchange, but these fluctuations are of no significance to monetary policy. In the event of major fluctuations in the liquidity requirement, e.g. due to substantial central-government payments, Danmarks Nationalbank will supply or absorb liquidity by giving access to purchase and sale of certificates of deposit outside the weekly market operations.

On 10 May, the Governing Council cut the official interest rates by 0.25 per cent, reducing the minimum bid rate for the main refinancing operations to 4.5 per cent, while the rates of interest for the deposit facility and the marginal lending facility were set at respectively 3.5 and 5.5 per cent. The Governing Council stated several factors as the grounds for the reduction: firstly, monetary developments were no longer considered to present a risk to price stability. Secondly, the demand pressure on consumer prices had declined as a consequence of the international slowdown. Thirdly, maintained wage moderation was considered to be a factor that positively influenced the prospects of price stability. On the same day, Danmarks Nationalbank lowered the discount rate by 0.25 per cent to 4.5 per cent, and the lending rate by 0.3 per cent to 5 per cent, cf. Table 3.

On 30 August the Governing Council again lowered the ECB's interest rates by 0.25 per cent with reference to the improved outlook for price stability. In addition to weak international demand there were now also signs of dampened consumption in the euro area. Both factors also had

INTEREST RATES OF DANMARKS NATIONALBANK AND THE ECB				Table 3
Per cent	Discount rate	ECB <sup>1</sup>	Lending rate <sup>2</sup>	Spread <sup>3</sup>
Beginning of 2001 .....	4.75	4.75	5.40	0.65
9 February .....	4.75	4.75	5.30	0.55
10 May .....	4.50	4.50	5.00	0.50
6 July .....	4.50	4.50	4.95	0.45
30 August .....	4.25	4.25	4.65	0.40
17/18 September .....	3.75	3.75	4.15	0.40
5 October .....	3.75	3.75	4.10	0.35
8 November .....	3.25	3.25	3.60	0.35
1 February 2002 .....	3.25	3.25	3.55	0.30

Note: Publication dates.

<sup>1</sup> The minimum bid rate in the Eurosystem's main refinancing operations.

<sup>2</sup> Danmarks Nationalbank's lending rate is equivalent to the rate of interest on certificates of deposit.

<sup>3</sup> The spread is the differential between Danmarks Nationalbank's lending rate and the minimum bid rate in the Eurosystem's main refinancing operations.

a negative impact on investment. Growth in the money stock began to increase during the summer, as the relatively flat yield curve and weak stock markets made it more attractive to hold short-term deposits and marketable paper, which are included in the money stock. Since growth in lending to the private sector still continued to decline, a tendency which commenced at the beginning of the year, the Governing Council considered monetary developments to be consistent with the target of price stability in the medium term. In Denmark, the lowering of interest rates was matched by a reduction of the discount rate by 0.25 per cent, while the lending rate was cut by 0.3 per cent.

In the wake of the terrorist attacks in the USA, on 17 September the Federal Reserve cut the fed funds target rate by 0.5 per cent to 3 per cent. Later on the same day, the ECB's Governing Council reduced the official interest rates by 0.5 per cent. On the next day Danmarks Nationalbank followed suit with an equivalent lowering of interest rates. A number of other central banks also reduced their official interest rates in order to counter the greater economic uncertainty that was a consequence of the terrorist attacks.

On 8 November, the ECB's Governing Council cut the official interest rates by 0.5 per cent.<sup>1</sup> The reasons given were in line with those applying to the lowering of interest rates in August. Once again, especially the economic and financial indicators for the future development in prices indicated lower inflationary pressure. There were still signs of weak aggregate demand, which was attributable partly to the general uncertainty after the terrorist attacks on 11 September. A further decline in demand-driven pressure on prices could therefore be expected. The Governing

<sup>1</sup> At this meeting, the Governing Council also decided that in future, as a rule, the level of the official interest rates will only be assessed at the first meeting of the month.

Council also assessed that the accelerating growth in the money stock still did not present any risk to price stability, since it primarily reflected investors' increased preference for liquidity as a consequence of the flat yield curve, developments in global stock markets, and greater uncertainty in the financial markets. The data also showed a continued decline in the growth of credit to the private sector. On the same day, Danmarks Nationalbank lowered the discount and lending rates by 0.5 per cent.

Since the beginning of 2001 Danmarks Nationalbank has lowered the lending rate by more than the discount rate, cf. Table 3. The background to this difference is that immediately after the referendum on Denmark's participation in the third stage of EMU Danmarks Nationalbank raised the lending rate by 0.5 per cent in order to counter uncertainty concerning the krone, but maintained the discount rate unchanged. The krone then strengthened against the euro, and in October 2000 the lending rate was reduced on two occasions by a total of 0.2 per cent. In connection with the ECB's lowering of interest rates on four occasions, Danmarks Nationalbank, as stated, also reduced the lending rate, in two cases by 0.05 per cent more than the ECB, in view of the krone's stability in the preceding months. In addition, Danmarks Nationalbank also unilaterally lowered the lending rate on three occasions, again as a consequence of the krone's strength and stability. Danmarks Nationalbank lowered the lending rate further by 0.05 per cent on 1 February 2002 in view of a substantial inflow of foreign exchange. As a consequence of these unilateral interest-rate reductions, the spread between Danmarks Nationalbank's lending rate and the minimum bid rate for the Eurosystem's main refinancing operations determined by the Governing Council has narrowed to 0.3 per cent.

As the ECB's main refinancing operations are conducted as variable-rate tenders, the marginal rate (the lowest interest rate at which liquidity is allotted) will sometimes exceed the minimum bid rate. In these cases the spread between Danmarks Nationalbank's lending rate and the ECB's marginal rate will not be as wide as the spread between the lending rate and the minimum bid rate. In 2001, the spread between the marginal and minimum bid rates was usually only a few basis points. The deviations were short-lived and mainly of a technical nature.

### **The money market**

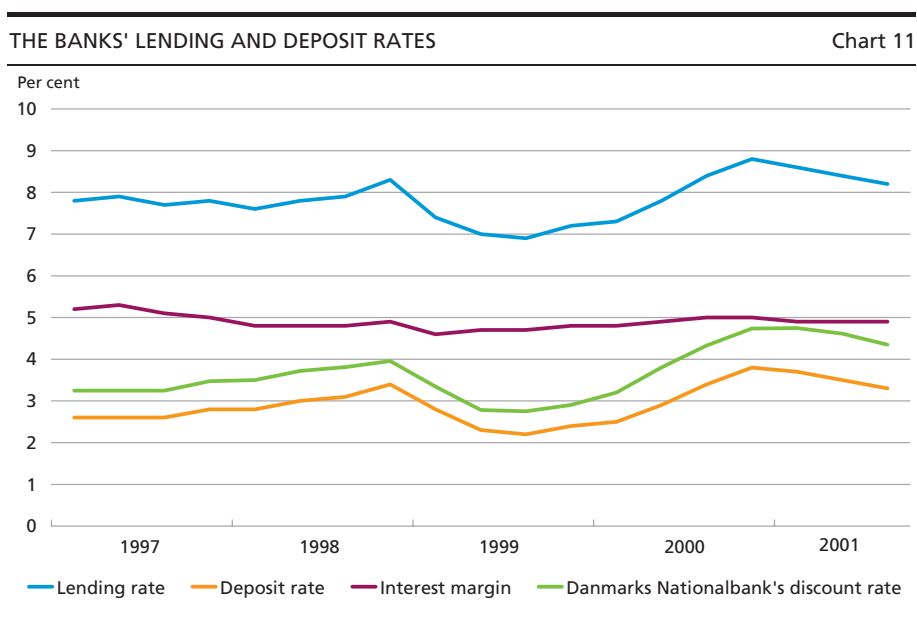
The Danish money market was calm in 2001. The money-market interest rates fell during the year, and the 3-month money-market interest rate was generally around the level of Danmarks Nationalbank's lending rate.

In the period after 11 September the functioning of the money market drew considerable attention. The destruction in New York immediately

led to great uncertainty in especially the US money market. Employees of several banks were reported missing, and documents and computers had been destroyed. Doubt also arose as to how quickly the market participants would be able to close agreed deals via their back-up facilities. Payment systems are highly dependent on the punctual settlement of all payments, and just a few lacking payments can present settlement problems. In order to avoid this situation the Federal Reserve immediately made available considerable amounts of liquidity. Several central banks established temporary agreements with the Federal Reserve in order to be able to supply their own financial institutions with liquidity in dollars. Danmarks Nationalbank also made dollar liquidity available to the banks and in this connection lent 400 million dollars (against collateral) for a period of one day at the current market interest rate. Moreover, several central banks, among them Danmarks Nationalbank, conducted liquidity-providing operations to facilitate the functioning of the money markets. The outcome was that the money markets functioned without major difficulties, despite the devastation in New York.

### The banks' interest rates

The banks' average deposit and lending rates decreased in line with falling short-term interest rates, cf. Chart 11. The banks' interest rates have been falling since the 4th quarter of 2000. The total decrease in lending rates up to the 3rd quarter of 2001 was 0.6 per cent, while de-



Note: Quarterly averages.

posit rates fell by 0.5 per cent in the same period. The banks began to reduce their interest rates before Danmarks Nationalbank lowered the discount rate for the first time midway through the 2nd quarter of 2001.

### **Interest rates for short-term mortgage-credit bonds**

Interest rates for mortgage-credit loans also fell during the year. The statistics of the Association of Danish Mortgage Banks show that the yield on short-term mortgage-credit bonds fell by just over 1 per cent to a level of approximately 4 per cent at end-2001. In December the mortgage-credit institutes held auctions of the short-term mortgage-credit bonds on which variable-rate loans are based. The result of the auctions was that borrowers who have opted for annual interest-rate adjustment pay interest at approximately 4 per cent in 2002, while the interest rate for an equivalent euro loan is around 0.5 per cent lower.

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

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The balance of payments improved in 2001 as a consequence of the growing surplus on the balance of goods and services. The surplus on the current account was kr. 34 billion, cf. Table 4. The private sector's capital exports amounted to kr. 5 billion, and Danmarks Nationalbank purchased foreign exchange for kr. 28 billion. In 2001 the central government repaid foreign loans for kr. 1 billion, and the foreign-exchange reserve increased by kr. 28 billion.

Private capital flows leading to net capital exports totalling kr. 5 billion reflect substantial, to some extent offsetting, amounts for a number of sub-items, cf. Table 4. From contributing net capital imports of kr. 57 billion in 2000, direct outward investments exceeded direct inward investments in 2001, and resulted in net capital exports of kr. 17 billion. This item has become highly volatile in recent years, and the underlying gross movements have increased significantly. The same applies to the portfolio investments, which led to net capital exports of kr. 27 billion. Danish investors' purchase of foreign shares and bonds for a total of kr. 118 billion, as well as non-residents' sale of krone-denominated bonds for kr. 18 billion, contributed to the capital exports. However, these were partly set off by non-residents' purchase of Danish shares for kr. 8 billion, and of Danish bonds issued in foreign currencies for a total of kr. 102 billion. In 2001 loans and deposits led to capital imports of kr. 7 billion.

Portfolio adjustments after 11 September led to substantial international capital flows. In September Danish pension funds and insurance companies sold back foreign shares for a value of kr. 22 billion, and in

CAPITAL FLOWS		Table 4
Net receipts, kr. billion	2000	2001
Current account of the balance of payments ...	21	34
Capital transfers .....	0	0
Capital imports:		
Direct investments .....	57	-17
Portfolio investments <sup>1</sup> .....	-139	-27
Of which: Foreign shares .....	-112	-32
Foreign bonds .....	-80	-87
Danish shares .....	19	8
Danish krone-denominated bonds .	-21	-18
Danish currency-denominated bonds.	55	102
Financial derivatives .....	-2	0
Lending and deposits <sup>2</sup> .....	58	7
Estimate of unrecorded commercial credits <sup>3</sup> .	12	10
Errors and omissions .....	-45	22
Danmarks Nationalbank's net purchase of foreign exchange .....	-38	28
Used as follows:		
To reduce the central government's external debt .....	5	1
To increase the foreign-exchange reserve ...	-43	28

Note: Excluding value adjustments, etc.

<sup>4</sup> Excluding the central government's foreign bond issues.

<sup>5</sup> Excluding the central government's foreign bank loans.

<sup>6</sup> Compensation for the hurricane in December 1999 is included as capital exports in 1999 and as capital imports in 2000.

October and November bought foreign bonds for kr. 31 billion. Other sectors also bought foreign bonds in October and November, so that Danish investors' total purchases of foreign bonds reached kr. 64 billion in these two months. The extensive divestment of foreign shares in September took place in the course of a few days, and led to strong demand for kroner. To counter fluctuations in the krone rate, Danmarks Nationalbank sold kroner in the foreign-exchange market and thereby increased the foreign-exchange reserve.

Even if the current account of the balance of payments shows an increasing surplus, the foreign-exchange market is still dominated by capital flows between Denmark and abroad. The significance of capital flows to price formation in the foreign-exchange market is, however, reduced by the fact that one type of private capital flow is often set off by another type in the opposite direction. A Danish investor's purchase of bonds denominated in foreign currency will naturally not affect the foreign-exchange market if the investor simultaneously hedges the purchase. However, the case is different for the growing volume of Danish bonds issued in foreign exchange which are purchased predominantly by non-residents. A proportion of these are mortgage-credit bonds, which

underlie variable-rate loans denominated in euro, but most of the issues originate from Danish banks and business enterprises. Where the Danish borrower converts the proceeds to kroner and assumes the exchange-rate risk, issues of Danish bonds in foreign exchange will contribute to supporting the krone rate.

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## Financial Markets

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*The economic slowdown and diminishing inflationary pressure, as well as the consequences of the terrorist attacks on the USA on 11 September, caused central banks in primarily the USA, but also in Europe and Japan, to take a number of measures to ease monetary policy. The Bank of Japan in practice returned to its "zero-interest-rate policy". At the end of the year long-term yields in the USA and Europe were at virtually the same level as at the beginning of the year. In the autumn the long-term yields briefly reached a very low level.*

*The dollar strengthened by 5 per cent against the euro and by almost 15 per cent against the yen in 2001. This strengthening e.g. reflects investors' continued preference to invest in US rather than European or Japanese enterprises.*

*Stock prices in the industrialised countries generally declined up to the autumn, against the background of the slowdown in the economy. Stock prices fell strongly after the terrorist attacks on 11 September. A recovery followed, however, and by the end of 2001 the leading stock indices in the USA, Japan and several European countries were higher than immediately prior to 11 September.*

### INTEREST RATES

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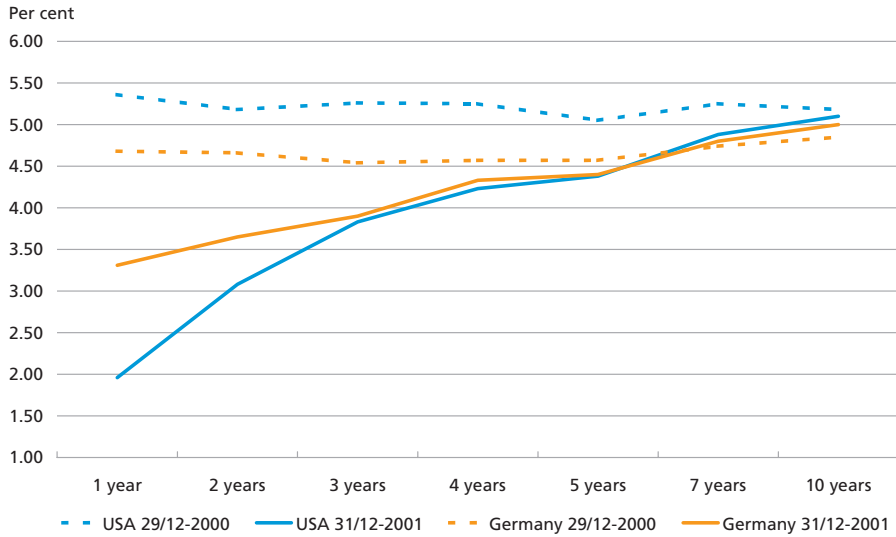
#### Interest rates in the USA

The terrorist attacks on the USA on 11 September affected New York's financial centre. The US bond market was closed and was not re-opened until 13 September, while the New York Stock Exchange remained closed for almost a week. When the bond market re-opened the settlement period was increased temporarily from the normal two days to five days. There were no major interruptions to payment systems. Immediately after the terrorist attacks the Federal Reserve made considerable amounts of liquidity available, cf. p. 35 and lowered the fed funds target rate by 0.5 per cent when the stock market re-opened. Prior to the terrorist attacks the Federal Reserve had cut the fed funds target rate on seven occasions in 2001 by a total of 3 per cent, in order to prevent a hard landing of the economy. After interest rates were reduced on 17 September the rates were lowered on a further three occasions by a total of 1.25 per cent. The fed funds target rate hereby reached 1.75 per cent, which is the lowest level for 40 years.



## TERM STRUCTURES IN THE USA AND GERMANY

Chart 12

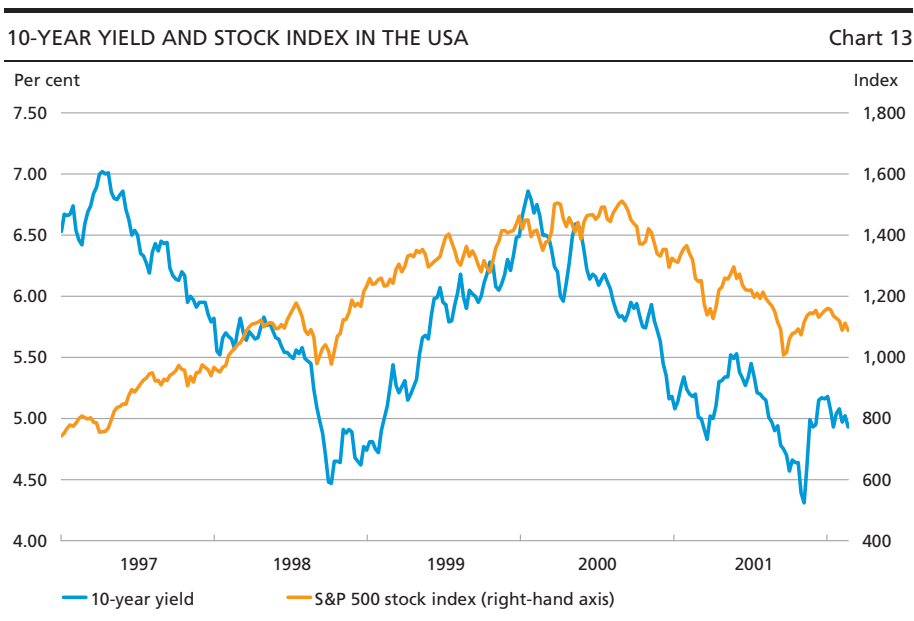


Note: The yield curves are based on yields to maturity.

At the end of 2001 the yield on 10-year US government bonds was 5.1 per cent, which is generally unchanged from the beginning of the year. The easing of monetary policy thus implied a steepening of the yield curve, cf. Chart 12. This was also the case in the euro area.

At the beginning of November the 10-year yield briefly reached the same low level as during the unrest on the financial markets in autumn 1998. The preceding decline in interest rates was sustained by the recession and the highly expansionary monetary policy, but also by a number of special factors. These include the greater uncertainty in the aftermath of the terrorist attacks on 11 September, causing investors to move from stocks into bonds. Furthermore, long-term yields fell strongly on the last day of October and first days of November after the US Treasury announced the suspension of issues in 30-year government bonds. Finally, the low and declining level of interest rates in the autumn pushed up the prepayment risk on mortgage bonds, whereby the expected remaining time to maturity was reduced. This gave rise to extraordinarily strong demand for long-term government bonds, causing yields on government bonds to decline further.<sup>1</sup> Long-term yields rose strongly in the course of a few weeks from the low level at the beginning of November. Investors increasingly preferred stocks to bonds, in view of the positive data releases for the US economy. Interest rates increased more as the extraor-

<sup>1</sup> This is described in further detail in Louise Mogensen, Market Dynamics at Low Interest Rates, Danmarks Nationalbank, *Monetary Review*, 1st Quarter 2002.



Note: Weekly observations.  
Source: EcoWin.

dinary demand for government securities declined in step with the diminishing prepayment risk for mortgage bonds.

In recent years there has been a relatively close positive co-variation between the development in the 10-year yield and in stock prices, cf. Chart 13. This reflects that investors to a certain degree have sold bonds to finance purchases of stocks, and vice versa.

The sustained upswing in the US economy up to mid-2000 led to an improvement in the government budget balance, and thereby a reduced financing requirement, contributing to a lower level of interest rates. The recession and the easing of fiscal policy reversed this pattern in 2001, and the US budget balance is expected to deteriorate further in 2002. In the short term, issues of government securities are thus expected to increase. This is also the case in a number of European countries and in Japan.

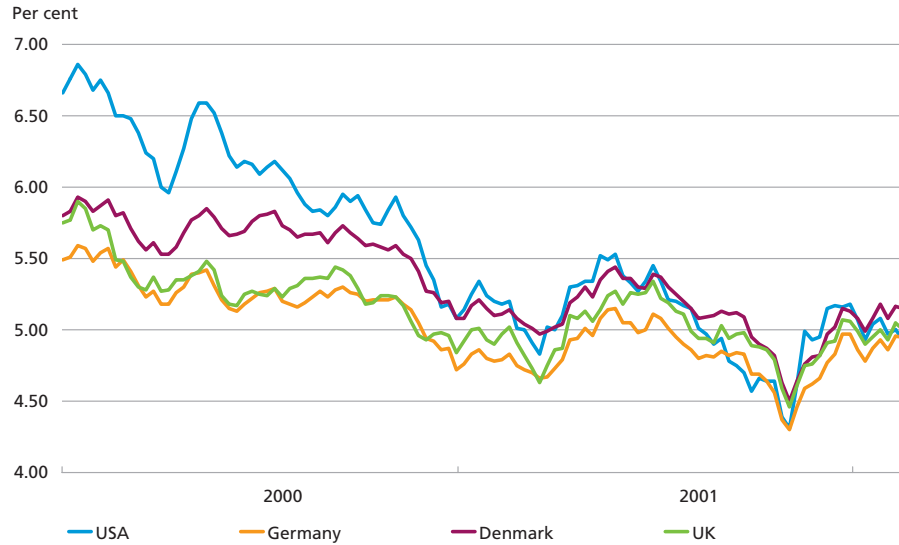
### Interest rates in Europe

The development in interest rates in the USA had a significant impact on the European bond markets in 2001. In the autumn long-term yields fell to a very low level, but were by and large unchanged for the year overall, cf. Chart 14.

In the *euro area* the ECB lowered the interest rate for the main refinancing operations by a total of 1.5 per cent to 3.25 per cent by the

10-YEAR YIELDS IN THE USA, GERMANY, THE UK AND DENMARK

Chart 14



Note: Weekly observations.

close of 2001, cf. p. 33. The yield on the benchmark 10-year German government bond was 5.0 per cent at the end of the year, against 4.9 per cent at the beginning.

In *Denmark* Danmarks Nationalbank lowered the discount rate in step with the ECB's reductions of interest rates, while the lending rate was reduced by a further 0.30 per cent, cf. pp. 33-34. With effect from 1 February 2002 Danmarks Nationalbank again lowered the lending rate by 0.05 per cent. At the end of 2001 the yield on the benchmark 10-year government bond was 5.2 per cent, compared to 5.1 per cent at the beginning of the year. The decline in long-term yields in the autumn was stronger in Denmark than in Germany, and the 10-year yield spread between Denmark and Germany narrowed from 0.3 to 0.2 percentage points, while the yield on 30-year government bonds even fell below the German level. The narrowing of the long-term yield differentials reflects a particularly strong interest in these Danish securities from especially domestic pension funds and life assurance companies. In view of their interest guarantees and substantial holdings of mortgage-credit bonds, pension funds and life assurance companies generally require assets with a longer remaining term to maturity when interest rates are low and still falling.<sup>1</sup> Subsequently the 10-year yield differential between Denmark and Germany widened slightly, and at the end

<sup>1</sup> This is described in further detail in Louise Mogensen, Market Dynamics at Low Interest Rates, Danmarks Nationalbank, *Monetary Review*, 1st Quarter 2002.

of February the yield on the 30-year government bond exceeded the equivalent German yield. In the autumn, when interest rates were low, a number of pension funds and life assurance companies moreover purchased euro-denominated interest derivatives to gain a degree of protection against further decreases in interest rates. This demand pressure contributed to a considerable increase in prices for these instruments.

In the *UK* the Bank of England lowered the base rate on seven occasions by a total of 2 per cent. The background was diminishing inflationary pressure and increasing risk of a slowdown in the economy. The yield on the benchmark 10-year government bond was 5.1 per cent at the end of 2001, against 4.9 per cent at the beginning of the year. The 30-year government-bond yield was lower than the 10-year yield in view of significant demand pressure from pension funds and life assurance companies in the UK.

In *Sweden*, Sveriges Riksbank raised the repo rate by 0.25 per cent in July in order to keep inflation within the target band of 2 per cent +/- 1 per cent in the medium term. After the terrorist attacks on the USA, Sweden's repo rate was reduced by 0.5 per cent. The yield on 10-year Swedish government bonds rose by 0.6 per cent to 5.4 per cent during 2001. The 10-year yield differential to Germany widened by 0.3 per cent in view of the Swedish AP funds' preference to invest in other assets, including foreign stocks. Rising inflation also contributed to a higher level of interest rates in 2001. Moreover, the yield differential was extraordinarily narrow at the beginning of the year.

In March 2001, *Norway* abandoned its formal fixed-exchange-rate policy in favour of an inflation target. The aim of monetary policy is now to keep growth in consumer prices within a band of +/-1 per cent around 2.5 per cent. In view of the development in prices Norges Bank lowered the official interest rates by 0.5 per cent in December. At the close of 2001 the 10-year yield on Norwegian government bonds was 6.3 per cent, against 6.0 per cent at the beginning of the year.

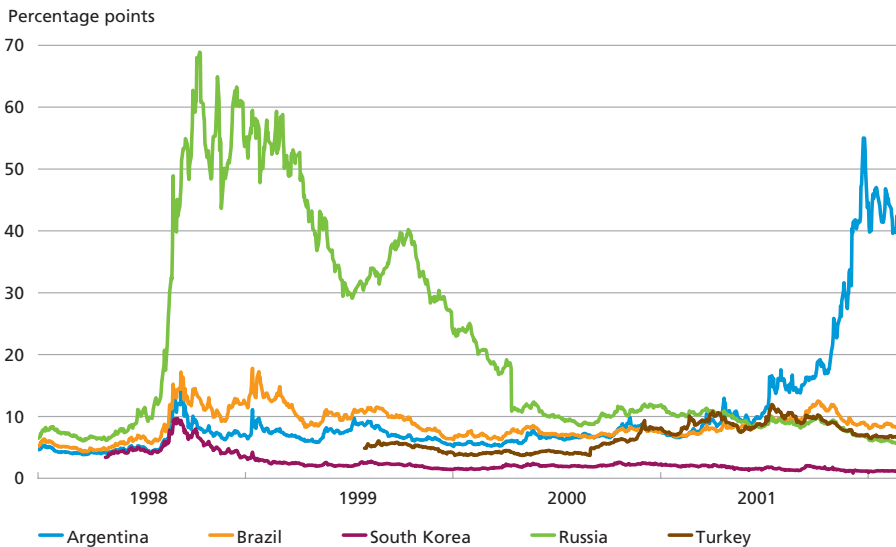
*Iceland* also abandoned its fixed-exchange-rate policy in March 2001, in favour of an inflation target. The aim over time is to keep consumer-price inflation within a band of +/-1.5 per cent around 2.5 per cent. Seðlabanki Íslands lowered the repo rate on two occasions in 2001 by a total of 1.3 per cent to 10.1 per cent. The yield on 10-year Icelandic government bonds was 6.1 per cent at the end of 2001, compared to 7.0 per cent at the beginning of the year. This is a real yield as the cash flows are linked to the consumer-price index. The annual rate of increase in Iceland's consumer-price index was 8.6 per cent at the end of 2001.

### Interest rates in Japan

The Bank of Japan lowered the discount rate on 3 occasions in 2001 by a total of 0.4 per cent to 0.1 per cent. As a ceiling for the very short-term money-market interest rates, in early February 2001 the Bank of Japan introduced a standing credit facility at a rate of interest equivalent to the discount rate. The discount rate thus became of real significance to the money-market interest rates. In mid-March the Bank of Japan adjusted its monetary-policy instruments from a target for the overnight interest rate to a target for the banks' deposits at the central bank. At the same time the overnight interest rate fell to a level close to zero. In practice, Japan had returned to the "zero-interest-rate policy" pursued from February 1999 to August 2000. Long-term interest rates remained at a very low level in 2001. For most of the year the 10-year government bond was traded at a yield in the range of 1.25-1.50 per cent. The background to the low level of interest rates is the highly expansionary monetary policy, the economic downturn and falling prices, as well as Japanese investors' relatively strong interest in domestic bonds. Moreover, as part of monetary policy the Bank of Japan increased its purchases of government bonds. These factors overshadowed the upward pressure on interest rates from the rapidly increasing government debt and from the leading rating agencies' downgrading of the credit ratings of Japan's domestic government debt. In 2001 Japan's debt was downgraded to Aa3 by Moody's and to AA by both Fitch and Standard &

YIELD DIFFERENTIALS TO THE USA

Chart 15



Note: The yield differentials shown are country-specific sub-indices of the EMBI<sup>1</sup>-yield differential to the USA.  
Source: J.P. Morgan Chase.

Poor's. Up to the autumn of 1998 Japan's government debt held the best rating from all three rating agencies (Aaa by Moody's and AAA by both Fitch and Standard & Poor's).

### Interest rates in the emerging markets

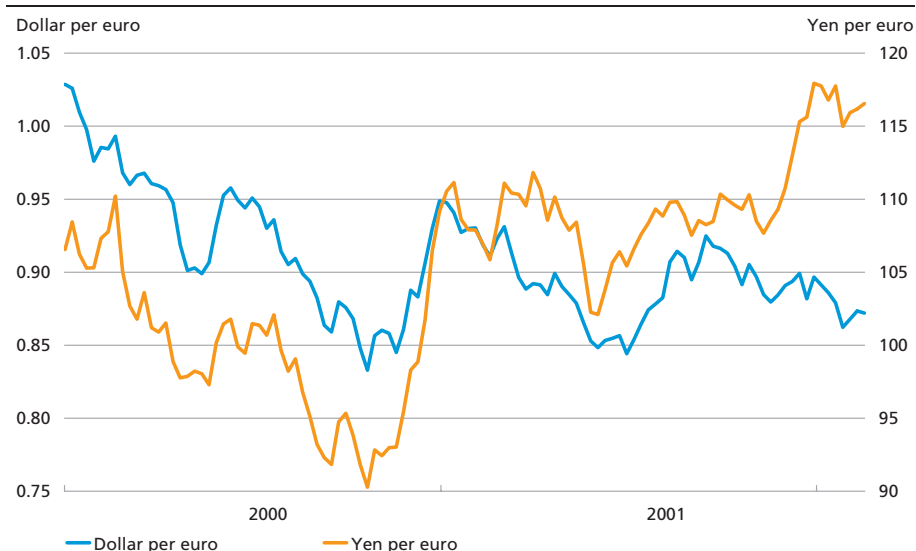
The worsening economic and political crisis in Argentina caused bond yields to increase significantly during the autumn of 2001, cf. Chart 15. The situation in Argentina had only a short-lived and limited impact on the other emerging markets, including Brazil. The widening of the yield differential between Turkey and the USA from mid-2000 to mid-2001, cf. Chart 15, should be viewed against the background of Turkey's financial crisis. The financial conditions in Argentina and Turkey are described in further detail on p. 83-84.

## FOREIGN-EXCHANGE MARKETS

During 2001 the *dollar* strengthened by approximately 5 per cent vis-à-vis the euro, and by a further 2 per cent at the beginning of 2002 to the level of 0.87 dollar per euro at the end of February, cf. Chart 16. The substantial easing of monetary policy in the USA in 2001 meant that yields on short-term interest-bearing US securities, e.g. short-term US Treasury notes, fell in both absolute and relative terms compared to

EURO VIS-À-VIS DOLLAR AND YEN

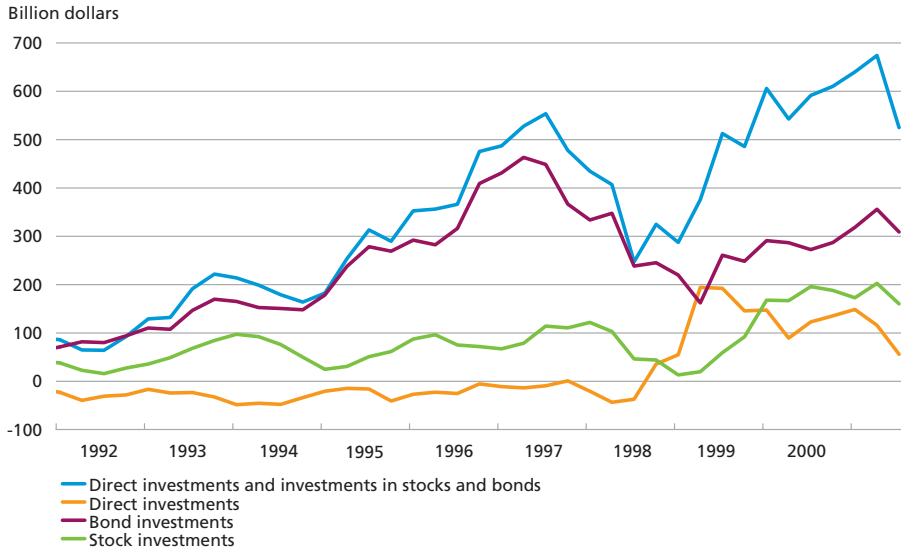
Chart 16



Note: Weekly observations.

## US CAPITAL IMPORTS

Chart 17



Note: Net flows between US residents and non-residents, current sum of four quarters.  
Sources: The US Treasury and EcoWin.

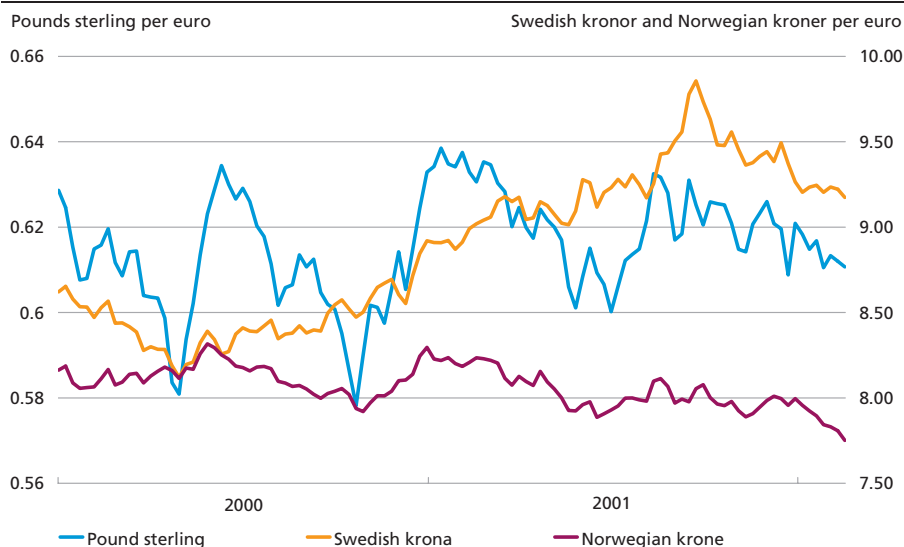
equivalent instruments denominated in euro. The initial limited impact of monetary policy on the development in exchange rates can be explained by the fact that a large share of the USA's capital imports in 2001 were related to non-interest-bearing instruments such as share purchases, mergers and acquisitions. This adheres to the pattern of recent years, cf. Chart 17, whereas a larger proportion of the capital imports up to 1999 comprised investments in bonds and other interest-bearing instruments. The interest-rate differential between the USA and abroad thus has a less immediate impact on the exchange rate.

The *Japanese yen* weakened by almost 15 per cent against the dollar and by almost 10 per cent against the euro in 2001. The currency weakened mainly in the 4th quarter, after coordinated intervention between the Bank of Japan and the Federal Reserve.

The *pound sterling* strengthened slightly against the euro and weakened a little against the dollar in 2001. The *Norwegian krone* strengthened by almost 4 per cent against the euro.

The *Swedish krona* weakened by almost 13 per cent against the euro up to the end of September 2001 to a level very close to 10 kronor per euro, cf. Chart 18. This weakening reflects an outflow of capital due to diminished interest in Swedish stocks on the part of foreign investors, in view of the falling Swedish stock market, which has an overweight of technology stocks, and increased investments in foreign stocks by the AP

SWEDISH KRONA, NORWEGIAN KRONE AND POUND STERLING VIS-À-VIS EURO Chart 18



Note: Weekly observations.

funds. Subsequently the krona has strengthened by almost 9 per cent. This strengthening was supported by a wider spread between official interest rates in Sweden and the euro area, an increase in stock prices, and expectations of a stronger krona on its possible participation in EMU.

The *Icelandic krone* weakened considerably by almost 21 per cent against the dollar in 2001. It fell most during the spring after the announcement by the government and the central bank that Iceland would abandon its fixed-exchange-rate policy in favour of an inflation target.

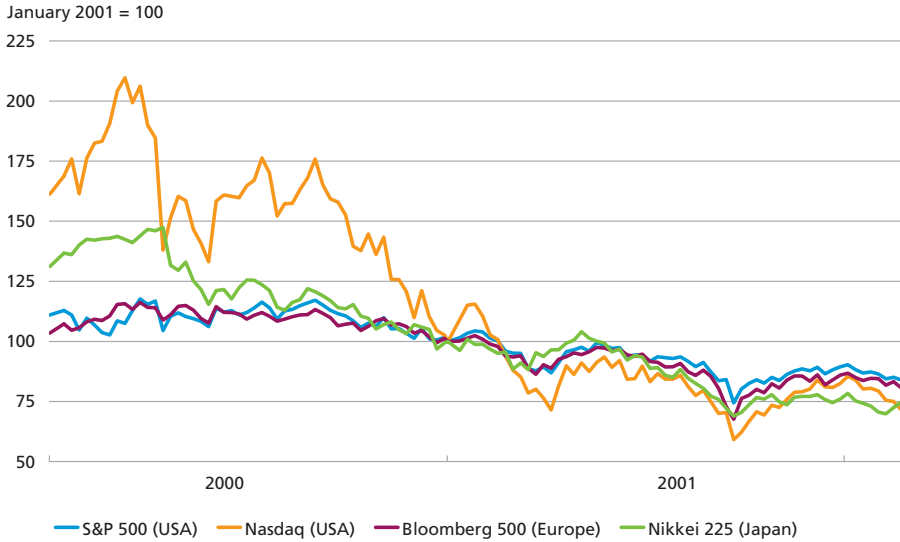
## STOCK MARKETS

Two separate courses of the global stock markets can be distinguished for 2001. The negative tendencies from 2000 continued, and the industrialised countries saw a general decline in stock prices up to the autumn, as a consequence of the economic slowdown in the USA, cf. Chart 19. The relaxations of monetary policy buoyed up stock prices at the beginning of the year, but the moderate optimism was replaced by widespread pessimism as business earnings declined. The negative trend was amplified by the terrorist attacks on the USA on 11 September 2001, which triggered substantial price drops on the European stock exchanges on the ensuing days. Stock exchanges in the USA were closed after the terrorist attacks. When they re-opened on 17 September there



## STOCK INDICES, USA, EUROPE AND JAPAN

Chart 19



Note: Weekly observations.

was record-high turnover at plummeting prices up to 21 September, when the stock markets in the USA and Europe closed at the lowest level for the year.<sup>1</sup> The leading stock markets then recovered, and by the end of the year the benchmark stock indices in the USA, Europe and Japan were at a higher level than just before 11 September.

Again in 2001, the development in technology stocks was a strong factor driving stock-market prices. IT stocks in Europe generally fell more than IT stocks in the USA. The background includes the relatively larger number of newly established enterprises in the European IT indices. As yet, these new enterprises cannot present positive financial results to support their continued existence.<sup>2</sup> In addition, the European indices were affected negatively by the debt-burdened European telecommunications companies, while certain computer stocks had a positive impact on the US stock market.<sup>3</sup> From the end of September and up to the turn of the year especially IT stocks rose in expectation of a reversal of the US economy in 2002, leading to an upswing in tech-

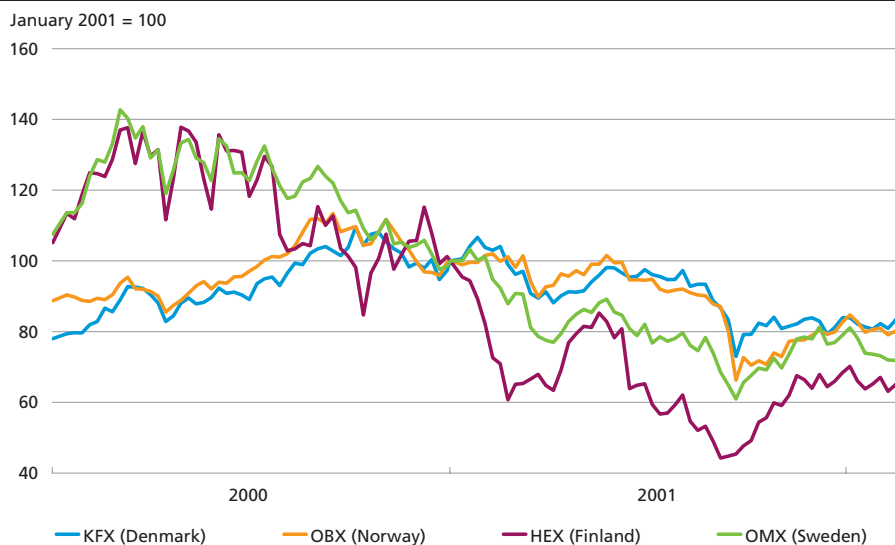
<sup>1</sup> The Japanese stock market reached its lowest level of the year on 17 September.

<sup>2</sup> Neuer Markt (Germany), techMARK 100 (UK) and Nouveau Marché (France) are examples of European IT-related stock indices. In terms of market value and turnover, these indices are far smaller than the Nasdaq 100 (USA). IT stocks also fell on the Copenhagen Stock Exchange, and the KVX index for growth stocks had fallen by 40 per cent at the end of the year.

<sup>3</sup> Microsoft and Intel for instance rose by 53 per cent and 1.3 per cent respectively in 2001. Since these companies are strongly weighted in Nasdaq 100, this in itself contributed to the development of the index (on 16 January 2002 Microsoft accounted for approximately 11 per cent of the Nasdaq 100 market value, while on the same date Intel accounted for 7 per cent).

## STOCK INDICES, NORDIC COUNTRIES

Chart 20



Note: Weekly observations.

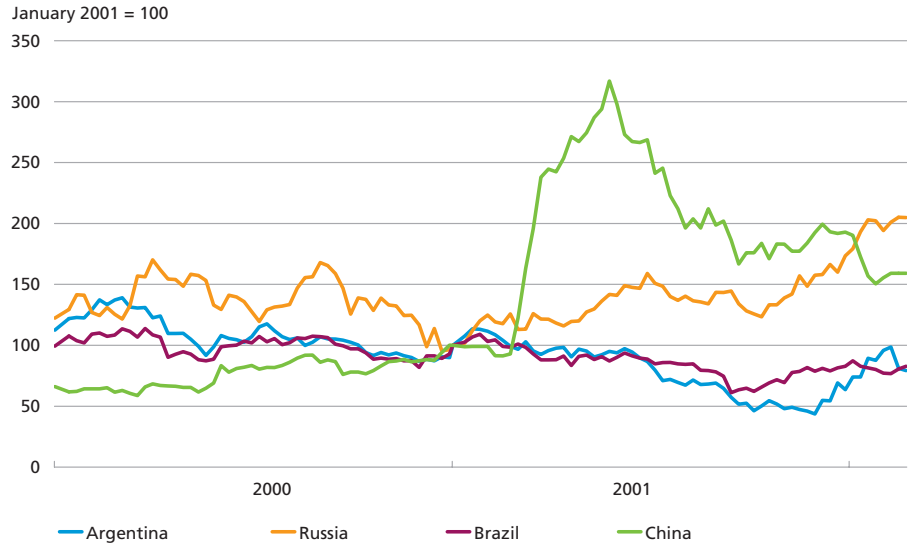
nology investments. Stock prices fell again, however, at the beginning of 2002.

The Nordic stock markets matched the global markets, with a general decline up to 21 September, after which prices recovered, cf. Chart 20. Whereas stock markets in Denmark and Norway rose in 2000 contrary to global markets, the leading indices in all the Nordic countries ended 2001 at a lower level. The price decreases were least pronounced in Denmark since the KFX index has a relatively small proportion of very cyclical stocks. Sweden and Finland were still most severely affected by the development, due to the relatively high proportion of telecommunications enterprises in their stock indices. This applies to the drop in stock prices up to the autumn, as well as to the subsequent price fluctuations.

The stock prices of emerging markets took highly varied courses in 2001, cf. Chart 21. The price fluctuations in the Chinese Shenzhen B-share index attributable to e.g. domestic adjustments to Chinese share legislation are particularly noteworthy. The more stable political climate in Russia supported Russian stock prices in 2001. The buoyant Russian stock market in early 2002 is related especially to the most recent increase in oil prices. The deterioration of Argentina's economic situation was reflected in falling stock prices. The benchmark stocks rose at the end of the year, however, in anticipation of a

STOCK INDICES, SELECTED EMERGING MARKETS

Chart 21



Note: Weekly observations.

devaluation and its beneficial impact on competitiveness, and also as a consequence of the flight from cash holdings due to fears of restrictions and sequestrations.

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## The Domestic Financial System

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*The banks continued to present sound surpluses in view of the increase in net income from interest, which is still the largest source of revenue.*

*The falling market interest rates in the autumn led to strong conversion activity among homeowners. Loans at adjustable interest rates now account for approximately 20 per cent of total mortgage-credit lending.*

*Returns in investment associations developed in line with the market. Bond funds achieved good returns, whereas the returns of equity funds were generally poor.*

*In connection with the adoption of the Financial Business Act it was decided to set up a Financial Business Council, which among other things is to decide on matters of principle relating to supervision.*

### THE BANKS

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Based on the annual accounts that had been presented at the time of going to press, it can be concluded that the banks achieved sound surpluses for the seventh consecutive year in 2001. The bank's total result is expected to be at the level of the result for 2000.

The trend for the overall result reflected a continued increase in net income from interest. The increasing net income from interest was attributable primarily to growth in deposits and lending. For banks resident in Denmark<sup>1</sup> lending increased by 11.2 per cent in 2001, while deposits rose by 5.0 per cent. Growth in lending has generally exceeded growth in deposits since the mid-1990s, cf. Chart 22.

Net income from fees and commission was lower in 2001 than in 2000. The increase in fee income from conversions of mortgage-credit loans was not sufficient to set off the decrease in fee income from e.g. securities trading.

In 2001 value adjustments were affected by capital losses on stocks, which were, however, more than offset by capital gains on bonds.

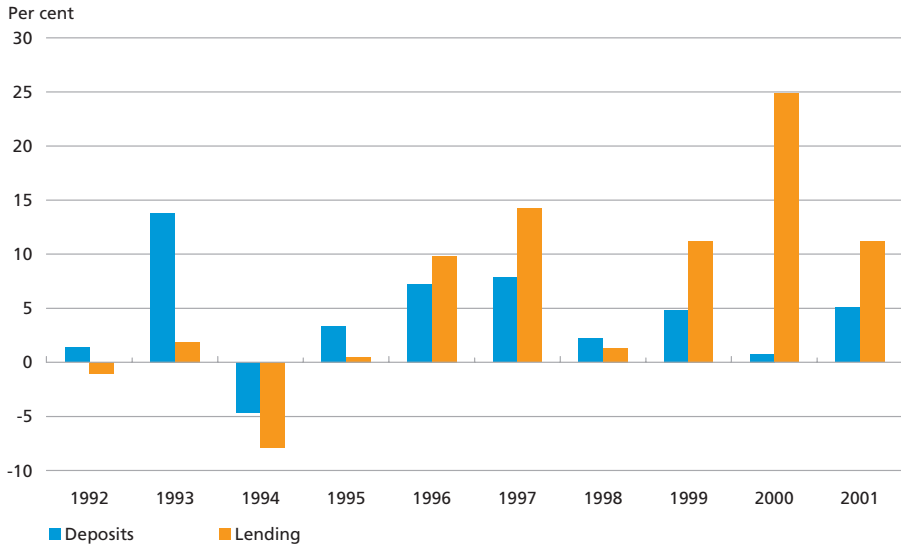
Losses and provisions rose in 2001, but from a low level. The losses and provisions for the year were still significantly below the high level in the early 1990s.

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<sup>1</sup> The main offices of Danish banks and branches and subsidiaries of foreign banks.

## BANKS' ANNUAL GROWTH IN DEPOSITS AND LENDING

Chart 22



Note: Deposits from and lending to the non-financial sector via banks resident in Denmark, i.e. the head offices of Danish banks, and branches and subsidiaries of foreign banks.

Source: Danmarks Nationalbank.

The return on net capital after tax of the banking sector in 2001 was just below the return of 13.5 per cent in 2000.

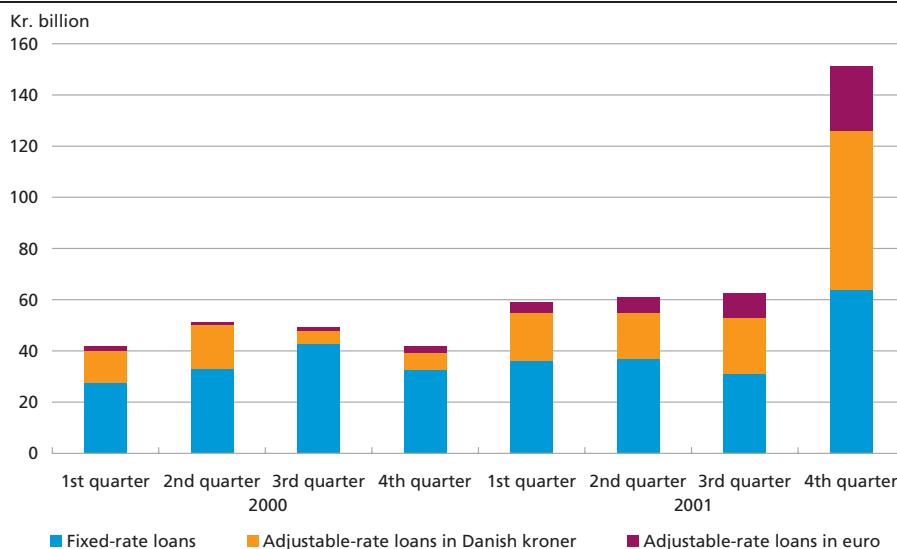
For the last two years, Danmarks Nationalbank has published a report on financial stability in the Monetary Review for the 2nd quarter. As from May 2002, this report will be issued as a separate annual publication.

## THE MORTGAGE-CREDIT INSTITUTES

The result after tax of the mortgage-credit sector rose to kr. 5.0 billion from kr. 4.6 billion in 2000. The improved result relates to an expansion of lending and a high volume of conversions. Although losses and write-offs increased in 2001, the level was still low.

Gross new lending by the mortgage-credit sector amounted to kr. 338.0 billion in 2001, against kr. 183.1 billion in 2000. There was an increase in mortgage-credit lending at adjustable interest rates in both Danish kroner and euro. Adjustable-rate loans accounted for almost 50 per cent of new lending in 2001, cf. Chart 23.

MORTGAGE-CREDIT INSTITUTES' GROSS NEW LENDING BY LOAN TYPE, YEAR-END Chart 23



Source: The Association of Danish Mortgage Banks.

At the end of 2001 mortgage-credit loans at adjustable interest rates accounted for approximately 20 per cent of total mortgage-credit loans, compared to 9 per cent at year-end 2000.

## INVESTMENT ASSOCIATIONS

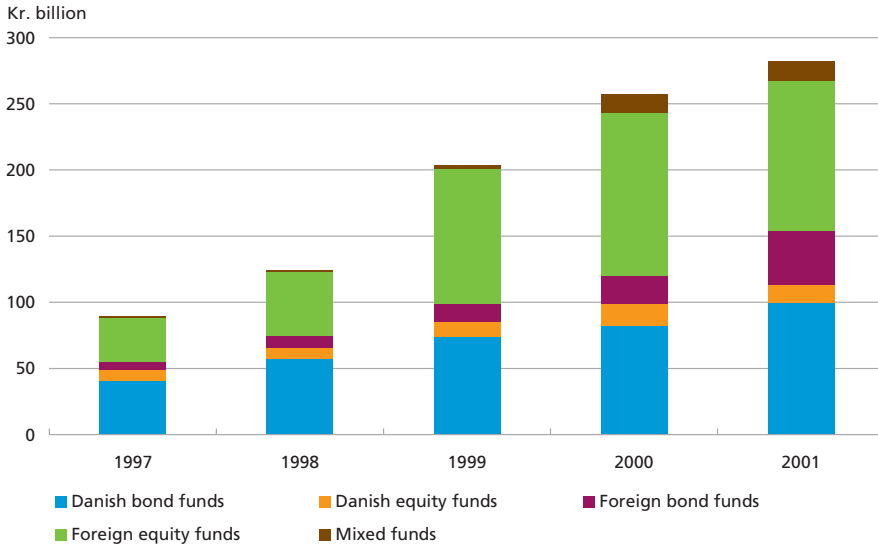
Investment certificates still attract many investors. The nominal value of circulating investment certificates increased by 26 per cent in 2001. The investment associations' largest customer group is private Danish customers with a share of almost 54 per cent at market value, followed by Danish insurance companies and pension funds with a share of 21 per cent. Foreign investors hold approximately 4 per cent. The returns of investment associations are influenced by trends in the Danish and international financial markets.

At end-2001 the market value of the equity funds was kr. 127 billion, which is a decrease of kr. 14 billion against the previous year. The decline is attributable mainly to capital losses. The market value of the bond funds rose to kr. 140 billion from kr. 103 billion at end-2000. Bond funds account for 50 per cent of the total assets of investment associations, against 40 per cent at the end of 2000.

The investment associations manage assets totalling kr. 282 billion in 453 funds, which is an increase by 59 funds in 2001, cf. Chart 24.

ASSETS OF INVESTMENT ASSOCIATIONS BY FUND TYPE, YEAR-END

Chart 24



Note: The distributions by fund before and after 2000 are not fully comparable. Before 2000 fund types are determined on the basis of the categories of the Federation of Danish Investment Associations in the market statistics. As from 2000 the principle of Danmarks Nationalbank is used whereby the funds are distributed on the basis of published prospectuses.

Sources: Danmarks Nationalbank and the Federation of Danish Investment Associations.

### New statistics

Since the 3rd quarter of 2001 Danmarks Nationalbank has published new quarterly statistics for investment associations with details of the distribution of investment certificate holders by sector.

### New trading place

On 1 March 2002 the Copenhagen Stock Exchange established a new marketplace, called the XtraMarked, for unlisted investment associations. The XtraMarked is an authorised marketplace for trading in unlisted investment associations via the Stock Exchange systems in the same way as listed investment certificates are traded in the stock market.

## THE BOND MARKET

The outstanding volume of listed domestic krone-denominated bonds was nominal kr. 2,081 billion at the end of 2001, which is an increase by almost 7 per cent on 2000, cf. Table 5.

The larger volume of krone-denominated bonds reflects an increase in circulating mortgage-credit bonds by kr. 146 billion in nominal terms, which more than offsets the decrease in government bonds by an

**OUTSTANDING VOLUMES OF LISTED DOMESTIC KRONE-DENOMINATED BONDS (NOMINAL VALUE)**

Table 5

Kr. billion	2000	2001
Government bonds .....	626	616
Mortgage-credit bonds .....	1,208	1,353
Other bonds .....	116	112
<b>Total .....</b>	<b>1,950</b>	<b>2,081</b>

Source: Danmarks Nationalbank.

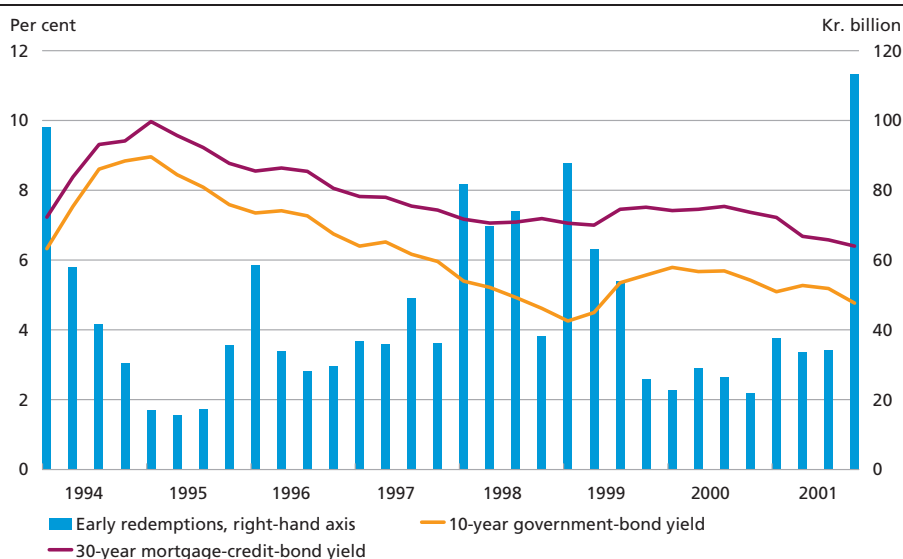
amount of kr. 10 billion in nominal terms. The government budget surplus has made it possible to reduce the volume of outstanding government bonds.

In 2001 mortgage-credit bonds for kr. 219 billion were redeemed prematurely. The corresponding figure for 2000 was kr. 100 billion. The increase in premature redemptions is related to the falling interest rates, cf. Chart 25.

At the end of 2001 financial institutions, insurance companies and pension funds held 54 per cent of the circulating volume of krone-denominated bonds. Of the remainder, 17 per cent is held by the house-

**EARLY REDEMPTIONS OF MORTGAGE-CREDIT BONDS AND BOND YIELDS**

Chart 25



Note: The leading 30-year mortgage-credit bond is the series priced below par in which bond loans are typically issued. A switch to a new series takes place when a suitable outstanding volume has been reached. The yield on the leading 30-year mortgage-credit bond is not a precise indicator of when it is favourable to remortgage.

Source: Danmarks Nationalbank.



holds, 12 per cent by the general-government sector, and 18 per cent by non-residents.

The minimum coupon rate<sup>1</sup> was lowered extraordinarily from 4 to 3 per cent as of 23 November 2001. The minimum coupon rate for the first half of 2002 is again 4 per cent. During the short period at 3 per cent, 3 per cent bonds for a nominal value of kr. 10.8 billion were issued.

The development in interest rates in the Danish bond market is described on pp. 42-43.

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## STATUTORY FRAMEWORK FOR THE FINANCIAL SECTOR

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### **The Financial Business Council**

In connection with the adoption of the Financial Business Act, cf. p. 6, it was decided to establish a Financial Business Council. The former Insurance Council is the model for the new Financial Business Council, and the remit of the Council covers most of the financial sector. The establishment of the Financial Business Council accords with the intentions of the Financial Business Act, which are to create uniform rules and decisions for the greater part of the financial sector in view of the greater integration of the financial markets, including the formation of financial conglomerates. In organisational terms, the Financial Business Council is part of the Danish Financial Supervisory Authority. It holds the following powers:

- to settle supervisory issues of a principal nature;
- to settle supervisory issues which have major consequences for financial undertakings and financial holding companies;
- to advise the Danish Financial Supervisory Authority on issuing regulations;
- to assist the Danish Financial Supervisory Authority in its information activities.

The members of the Financial Business Council are appointed by the Minister for Economic and Business Affairs. In addition to the Chairman and Vice Chairman the members of the Council represent the organisations of the financial sector, the Danish Consumer Council and Danmarks Nationalbank.

In connection with the establishment of the Financial Business Council the Insurance Council was abolished.

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<sup>1</sup> The minimum coupon rate determines whether a bond is "blue-stamped". A bond is designated "blue-stamped" if the coupon rate is greater than or equal to the minimum coupon rate applying to the period in which the bond is issued.

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**SELECTED CHANGES PROPOSED BY THE BASLE COMMITTEE SINCE THE PUBLICATION OF THE SECOND CONSULTATIVE DOCUMENT**

Box 2

In the consultation period following the publication of the second consultative document, the Basle Committee received more than 250 responses from financial institutions and organisations. The comments can be viewed on the Committee's Web site ([www.bis.org](http://www.bis.org)). After the expiry of the consultation period the Committee has published a number of working papers which seek to incorporate some of the comments. The most significant comments and the Committee's proposed changes are outlined below.

In general, the new 3-pillar<sup>1</sup> structure has been received well. The responses and the preliminary results of empirical studies have, however, indicated a lack of incentive to substitute the internal rating-based approach for the revised standardised approach. Consequently, the Committee has proposed changing the risk weights for the internal rating-based approach to ease the capital requirement in relation to the revised standardised approach.

In addition, the Basle Committee has decided that the capital requirement for operational risks should be eased. The second consultative document suggests a capital requirement for operational risks of 20 per cent of the total minimum capital requirement. The Committee has subsequently proposed lowering this percentage to 12.

It has been argued that loans to small and medium-sized enterprises (SMEs) require excessive capital cover which could lead to more costly credits for such enterprises. To offset this effect, it is proposed that some of the SMEs be treated as retail customers. Greater acknowledgement of credit-reducing instruments would also reduce the capital requirement.

Under Pillar 2, national supervisory authorities are granted significant discretionary powers. It is important that this does not lead to unequal terms of competition between countries, and that supervisory convergence is promoted.

With regard to Pillar 3, Market Discipline, it has been proposed to reduce the amount of information to be disclosed by the banks in relation to the second consultative document. On the other hand, disclosure of this reduced amount of information will be mandatory. In the second consultative document a distinction is drawn between primary and secondary (supplementary) disclosures.

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<sup>1</sup> Pillar 1: minimum capital requirements; Pillar 2: the supervisory review process; and Pillar 3: market discipline. For a description of the proposal, see Suzanne Hyldahl, *New Capital-Adequacy Rules for Banks*, Danmarks Nationalbank, *Monetary Review*, 1st Quarter 2001.

## Status of new capital-adequacy rules

In January 2001 the Basle Committee<sup>1</sup> issued its second consultative document on the new capital requirements for banks. In parallel with the Basle Committee's work the European Commission also issued a

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<sup>1</sup> The Basle Committee, whose secretariat is at the Bank for International Settlements (BIS), was set up in 1975 with the purpose of strengthening the stability of the international financial system. The following countries are represented on the Committee: Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, UK and USA.

new consultative document. The two documents have many similarities, although the Basle Committee's standards focus on large international banks, while the European Commission takes a more EU-specific approach that covers both large and small banks, other credit institutions, and investment firms. A further difference is that the Basle Committee's standards are advisory, while the rules of the European Commission will be mandatory.

In connection with the consultation process, a Danish working group was set up in early 2001, with representatives from the Financial Supervisory Authority, the Ministry of Economic Affairs, the Danish Bankers Association, the Association of Danish Mortgage Banks and Danmarks Nationalbank. The working group expressed the Danish viewpoints in a joint Danish response to the European Commission<sup>1</sup>. Box 2 outlines some of the Basle Committee's proposed amendments since the publication of the second consultative document.

In the summer of 2001 the expected implementation year for the new capital-adequacy rules was changed from 2004 to 2005.

In December 2001 the Basle Committee published another revised schedule. In that connection the issue of a third consultative document was postponed from early 2002 until after a quantitative survey of the effects of the latest proposed amendments on the bank's capital requirements which is to take place in 2002. The third consultative document will be presented thereafter. The target for implementation of the new rules is still 2005.

### **Measures in the insurance and pension sector**

Several pension funds were severely affected by the falling stock prices after the terrorist attacks on 11 September 2001, and had to implement restoration plans. The subsequent decrease in interest rates contributed to the tight economic conditions in the pension sector, which typically offers customers nominal long-term interest guarantees. A number of legislative measures during the autumn of 2001, which had already been subject to consideration before 11 September, have helped to ease the pressure on the companies. The measures include amendments to the Corporation Tax Act and the solvency order for insurance companies. In addition, the accounting rules for insurance companies have been amended so that assets and liabilities are stated at market value.

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<sup>1</sup> The joint response to the European Commission can be viewed at [www.oem.dk](http://www.oem.dk) (in Danish only). Danmarks Nationalbank also sent a response to the Basle Committee expressing similar viewpoints. This response is presented on p. 143.

## **NEW REGULATIONS IN THE STOCK-EXCHANGE AREA**

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### **Executive Order on good securities trading practices (best execution)**

The Danish Securities Council has issued a new Executive Order on good securities trading practices that took effect on 1 December 2001. The Executive Order specifies the code of ethics which securities dealers are obliged to observe. The purpose of the code is to ensure optimum conditions for customers in connection with securities trading. The code will thus help to enhance transparency and safeguard private investors' confidence in the market.

### **New Executive Order on reporting**

The Danish Securities Council has issued an Executive Order on reporting of transactions in securities listed on a stock exchange, that took effect on 1 July 2001. The primary purpose of the new Executive Order on reporting is to eliminate a number of cases of double reporting of certain types of trades, and to harmonise the rules of the Copenhagen Stock Exchange with international standards. The amendment of the Executive Order on reporting creates a basis for the compilation of statistics for securities dealers' market shares in relation to the Copenhagen Stock Exchange. The Copenhagen Stock Exchange publishes market-share statistics for stock trading as from the beginning of 2002.

### **New rules of ethics of the Copenhagen Stock Exchange**

The Copenhagen Stock Exchange amended its rules of ethics for members with effect from 1 December 2001. This amendment was among other things in response to the Danish Securities Council's Executive Order on good securities trading practices.

### **New rules governing listing on the Copenhagen Stock Exchange**

With effect from 1 January 2002, the Copenhagen Stock Exchange has issued amended rules relating to listing, prospectuses and ongoing disclosure obligations. The amended rules widen the requirements concerning issuers' disclosure of information in a number of areas, especially with regard to stock-exchange-listed shares and investment certificates. The amendment is part of the harmonisation of the rules of the Copenhagen Stock Exchange with international standards.

### **New joint rules for the Norex alliance**

Norex, an alliance between four Nordic stock exchanges, which are the Iceland Stock Exchange, the Copenhagen Stock Exchange, the Oslo Stock

Exchange and the Stockholm Stock Exchange<sup>1</sup>, has adopted a new set of joint harmonised rules, the Norex Member Rules, which came into force on 1 October 2001. The new rules harmonise trading rules and membership requirements, and are a step towards the establishment of a pan-Nordic securities market.

## **VB FINANS AND HIMMERLANDSBANKEN**

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### **VB Finans**

In November 1992 Danmarks Nationalbank and seven banks issued a guarantee of kr. 750 million to Varde Bank, cf. the 1992 Annual Report, p. 49, and at the end of 1993 Danmarks 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, cf. the 1993 Annual Report, p. 49.

The winding-up of Varde Bank's activities continued throughout 2001, and only a small number of exposures remained at year-end. As a result of the winding-up, VB Finans was able to pay approximately kr. 30 million to Danmarks Nationalbank in 2001.

In 2000 Danmarks Nationalbank filed two cases against the estate, both related to the preferential position of the subordinate capital in the estate. In connection with the hearing of the cases negotiations for a settlement were initiated. In December 2001 the parties arrived at an amicable settlement which entails the accelerated winding-up of the estate and thereby also earlier distribution of dividends to subordinate creditors. Provided that the settlement conditions are met in the first half of 2002, the planned final winding-up of the estate and distribution of dividends can take place. The settlement gives subordinate creditors a dividend of 37 per cent, payable in two instalments: 30 per cent in the first half of 2002, and 7 per cent on 1 April 2003.

The government-guaranteed overdraft of kr. 4.4 billion will only come into force should the Guarantee Consortium's guarantee of kr. 750 million, of which Danmarks Nationalbank is liable for the first kr. 250 million prior to the other guarantors of the Consortium, prove to be insufficient. Final implementation of the settlement will entail that Danmarks Nationalbank's total expected losses in connection with the guarantee will be within Danmarks Nationalbank's provision of kr. 250 million. Neither the other Guarantee Consortium participants nor the government will thus be required to contribute financially to the final winding-up of Varde Bank.

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<sup>1</sup> See [www.norex.com](http://www.norex.com) for further information about the Norex alliance.

### **Himmerlandsbanken**

As stated in previous annual reports, Danmarks Nationalbank and a number of banks made available a guarantee of up to kr. 150 million in connection with the bankruptcy proceedings of Himmerlandsbanken in August 1993. The purpose of the guarantee was partly to cover certain actual exposures which were not included in the majority of Himmerlandsbanken's assets and liabilities acquired by Spar Nord, and partly to cover unbooked guarantees or claims on the Himmerlandsbanken estate. The purpose of the guarantee was not to cover share capital or subordinate capital, however. In addition to the limited guarantee, Danmarks Nationalbank provided an unlimited guarantee for unbooked liabilities. Claims recognised as unsecured claims on the estate will be covered by the guarantees of either the Guarantee Consortium or Danmarks Nationalbank.

Final settlement of the estate awaits the settlement of the cases involving illegal use of company funds reserved for the payment of company taxes (asset stripping) in the estate as well as the lawsuit filed against the estate relating to Himmerlandsbanken's issue of bonds in the form of subordinate capital. In March 2001 the court in Hobro ruled against the estate, ordering it to acknowledge that the capital originally subscribed for as subordinate capital should be acknowledged as an unsecured claim on the estate. The court upheld that it would be unreasonable to oblige the plaintiffs to acknowledge their agreements to acquire bonds. The estate has appealed the case to the High Court, which is expected to rule in the case in June 2002.

In 2001, kr. 6 million was disbursed under the Guarantee Consortium's guarantee. The total costs of the winding-up of Himmerlandsbanken cannot yet be calculated, as the asset-stripping cases and the aforementioned case have not yet been settled.

## Banknotes and Coins

At the end of 2001 banknotes and coins in circulation amounted to kr. 47.3 billion. This represents an increase of kr. 2.5 billion against the previous year.

In 2001 Danmarks Nationalbank issued 10- and 20-krone coins with a new portrait of the Queen.

A new Faroese 50-krone banknote was issued in 2001 as the first in a new series of Faroese banknotes.

### BANKNOTES AND COINS IN CIRCULATION

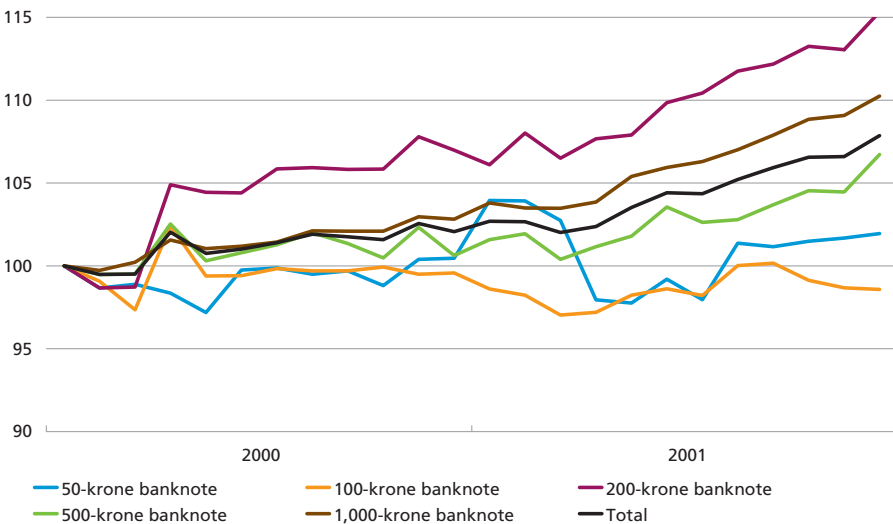
The total banknotes and coins in circulation at the close of 2001 amounted to kr. 47.3 billion, which represents an increase of kr. 2.5 billion against the previous year, equivalent to growth of 5.6 per cent. This is generally in line with the trend in recent years of an annual increase in the circulation of banknotes and coins by 5-6 per cent, disregarding the extraordinary increase up to the millennium rollover and the equivalent subsequent decline, cf. p. 69 of the Annual Report for 2000.

In recent years the proportion of large-denomination banknotes in circulation (the 200-, 500- and 1,000-krone notes) has increased, cf. Chart 26.

CIRCULATION OF INDIVIDUAL BANKNOTES

Chart 26

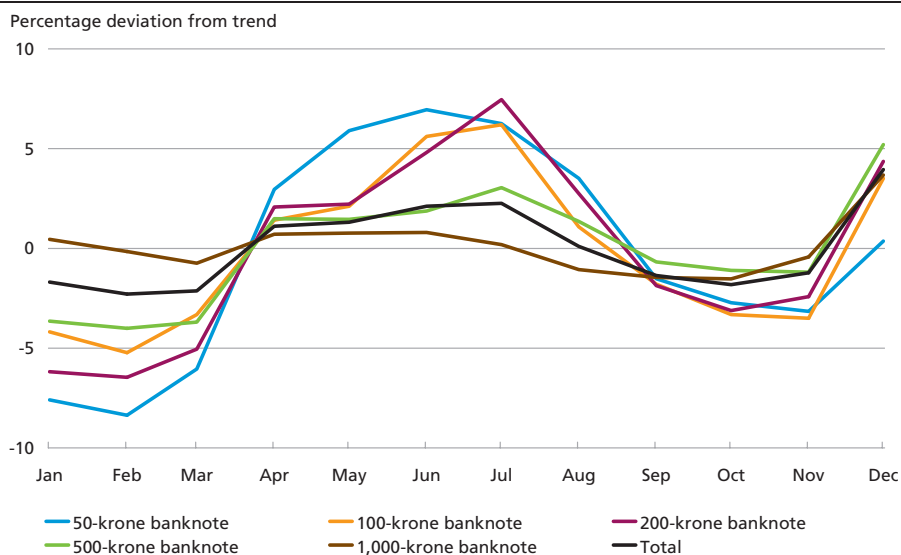
Index January 2000 = 100, seasonally adjusted



Note: End of month.

## CIRCULATION OF INDIVIDUAL BANKNOTES – SEASONAL PATTERN

Chart 27



Note: Calculated on the basis of monthly observations for 1999-2001. Adjusted for extraordinary movements in connection with the millenium rollover.

Circulation of particularly the 200-kroner banknote has risen, at the expense of especially the 100-kroner note.

Use of the three smallest banknote denominations (the 50-, 100- and 200-kroner notes) fluctuates considerably over the year, peaking in the summer months and towards the end of the year, when the use of all banknote denominations is generally high, cf. Chart 27.

Coins likewise showed an increase in circulation of the large denominations, and particularly the share of 20-kroner coins has increased. Both the average coin value and the average banknote value have increased steadily in recent years, cf. Chart 28.

The total circulation of banknotes is presented in Table 2a on p. 160, while the total coins in circulation and the production of The Royal Mint are presented in Tables 3a and 3b on p. 161.

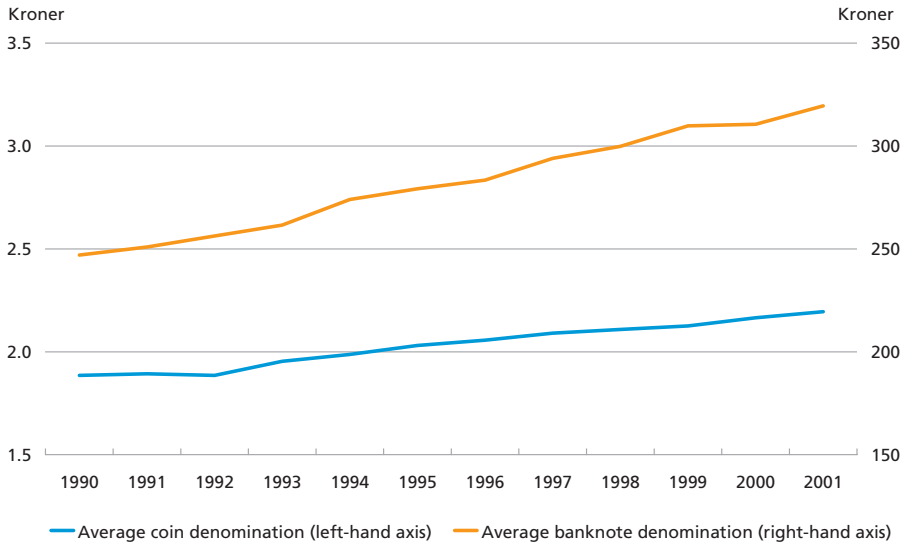
Pursuant to the Danmarks Nationalbank Act of 1936 the circulation of banknotes must be covered by Danmarks Nationalbank's holdings of gold and other assets. Since September 1939 an exception has been made from the gold coverage provision.

In 2001 Danmarks Nationalbank established cash depots in the Faroe Islands to replace the cash distribution previously handled by the High Commission. Cash depots were established at Føroya Banki and Føroya Sparikassi. Cash supply in the Faroe Islands thus now adheres to the same principles as in Denmark and Greenland.



## AVERAGE DENOMINATIONS OF BANKNOTES AND COINS

Chart 28



## NEW PORTRAIT OF THE QUEEN ON THE 10- AND 20-KRONE COINS

As from 2001, the 10- and 20-krone coins are minted with a new portrait of the Queen. The new portrait is by the sculptor, Professor Mogens Møller, who also undertook the portrait on the commemorative coin issued to mark Queen Margrethe's 60th birthday, cf. the Annual Report for 2000, pp. 70-71.

The portrait of the Queen on the 10- and 20-krone coins is replaced from time to time to ensure a contemporary portrait which is a good likeness. For the current coin series, which commenced in 1989, two previous portraits of the Queen have been used. These portraits were designed by Hanne Varming (used in 1989-1993) and Jan Petersen (used in 1994-1999).

## 10- AND 20-KRONE COINS, SERIES 2001

Box 3





## NEW FAROESE BANKNOTE SERIES

Danmarks Nationalbank issued a new Faroese 50-krone note in 2001. It is the first of a series of new Faroese banknotes to be issued over a period of 5 years. The dominant motifs on the five new banknotes are fragments of Faroese animals. Other motifs on the face and reverse of the banknotes are inspired by the Faroese landscape.

The dominant motif on the 50-krone note is a ram's horn printed in intaglio. The reverse shows a hillside from the village of Sumba on the west side of Suðuroy, based on a watercolour by the artist Zacharias Heinesen.

The Faroe Islands have the same currency as Denmark, but in accordance with the Act on Faroese Banknotes they have their own banknotes that are manufactured by Danmarks Nationalbank. Faroese banknotes are legal tender in the Faroe Islands, but Danish banknotes can typically also be used. Danish banknotes can also be exchanged on a 1:1 basis free of commission. Faroese banknotes can be exchanged at Danmarks Nationalbank on a 1:1 basis free of commission. The Faroe Islands use the same coins as Denmark.

## COUNTERFEITING

The number of counterfeit banknotes found in circulation in Denmark per year has remained close to a level of around 700 since 1998. In 2001, 720 counterfeit banknotes were found in circulation – an increase of 55 on 2000<sup>1</sup>.

The number of confiscated counterfeit banknotes that had not been put into circulation varies from year to year. In 2001, 2,274 counterfeits

<sup>1</sup> For further details, see Ulrik Bie and Johan Sebastian Gabel, Counterfeit Banknotes, Danmarks Nationalbank, *Monetary Review*, 1st Quarter 2002.

were seized, which is a considerable increase on 2000. Most of the counterfeit banknotes found in 2001 that had not been put into circulation related to one extensive case. There is thus no corresponding increase in the number of counterfeiting cases.

The extent of counterfeiting is still limited in Denmark compared to other countries. In 2001, 5.4 counterfeit banknotes were found per million genuine banknotes. This ratio is low in relation to comparable countries.

Counterfeiting, attempted counterfeiting, or aiding and abetting counterfeiters, are serious offences liable for criminal penalties under the penal code. The maximum penalty is 12 years.

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## Payment Systems

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*Danmarks Nationalbank's new payment system, Kronos, is now operational. The system is a central element of Denmark's payments infrastructure and serves as a home banking system for current-account holders at Danmarks Nationalbank. The system can be used for settlement of both krone- and euro-denominated payments. In the sum clearing and VP settlement systems the volume of euro payments is still moderate compared to krone payments.*

*During the past year, Danmarks Nationalbank has worked on achieving fulfilment of new international principles for the role of central banks in relation to payment systems. Danmarks Nationalbank has assessed Kronos against international standards and has worked with system owners to establish fora for oversight of the sum clearing system and the VP system. In 2001, international recommendations were prepared concerning the safety and efficiency of securities settlement systems. These recommendations will form the basis for Danmarks Nationalbank's future oversight of the VP system.*

*In 2002, the international currency settlement system (CLS) is expected to be launched. The krone will participate from the following year. Work is also in progress to extend the scope of the automatic collateralisation agreement to include the sum clearing system and CLS.*

### **KRONOS**

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Kronos is Danmarks Nationalbank's new RTGS<sup>1</sup> system for kroner and euro. Kronos was launched on 19 November 2001<sup>2</sup>, replacing the outdated DN Inquiry and Transfer System from 1981, and the DEBES euro payment system, as the backbone payment system in Denmark.

On the launch of Kronos it became mandatory for all current-account holders at Danmarks Nationalbank to participate in the system. In that connection, approximately 130 financial institutions chose to join Kronos, including almost 30 account holders that had not participated in the DN Inquiry and Transfer System. Almost 30 current-account holders terminated their accounts at Danmarks Nationalbank.

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<sup>1</sup> RTGS – Real-Time Gross Settlement.

<sup>2</sup> For a detailed description of Kronos, see Thomas Angelius and Astrid Henneberg Pedersen, Danmarks Nationalbank's New Payment System, Kronos, Danmarks Nationalbank, *Monetary Review*, 1st Quarter 2002.

Kronos is the current-account holders' "home banking system", whereby they can manage their accounts at Danmarks Nationalbank, e.g. transmit payments to other current-account holders. Kronos is structured to give current-account holders the option to load payments manually via the Kronos terminal, the interactive graphic user interface for Kronos, or to transmit payments via the international payments network, SWIFT.

Kronos is designed to facilitate account holders' liquidity management, and thus offers a number of queuing facilities that the current-account holders can manage via the Kronos terminal. In addition, a liquidity-saving mechanism has been introduced that can facilitate the settlement of payments when liquidity is scarce and payments are mutually awaiting each other's settlement (called gridlock resolution<sup>1</sup>).

With Kronos, Danmarks Nationalbank has enhanced its opportunities to monitor payment settlement in the system with a view to ensuring the smooth and efficient settlement of payments.

## KRONE PAYMENT SYSTEMS

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There are four payment systems that can handle krone payments. The nature of the payment normally determines which of the four systems is used. Large and small payments are typically settled in separate systems, while payments related to securities trading and trading in futures and options are handled in dedicated settlement systems. Danmarks Nationalbank owns and operates the system for large payments (Kronos). For all of the other systems, Danmarks Nationalbank makes accounts available for participants to exchange payments. The transaction volumes in the krone payment systems are shown in Table 6.

*Kronos* is Danmarks Nationalbank's RTGS system, cf. the above. In an RTGS system, payments are settled individually and each payment is booked immediately. This makes the system particularly well-suited for settlement of large-value payments.

The *sum clearing* is the Danish retail payment system and handles payments via Dankort (debit card), cheques and BetalingsService (direct debit). The system is owned by the Danish Bankers Association and operated by PBS. The sum clearing system is a net settlement system. Once a day, PBS calculates the net mutual positions of the banks, and the amounts are settled via the banks' accounts with Danmarks Nationalbank. Far more transactions pass through the sum clearing system than through Kronos. On the other hand, the individual payments are considerably smaller – almost kr. 5,000 on average, compared to approximately kr. 90 million in Kronos, cf. Table 6.

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<sup>1</sup> For a detailed description of gridlocks, see Morten Linnemann Bech and Kimmo Soramäki, Gridlock Resolution in Payment Systems, Danmarks Nationalbank, *Monetary Review*, 4th Quarter 2001.

KRONA PAYMENTS	Table 6		
	1999	2000	2001
<b>Kronos / DN Inquiry and Transfer System</b>			
Number of transactions, '000 .....	368	388	398
Amount per transaction, kr. million .....	57.0	66.2	90.3
<b>Sum clearing</b>			
Number of transactions, '000 .....	765,216	810,544	852,734
Amount per transaction, kr. '000 .....	5.0	5.0	4.8
<b>VP settlement</b>			
Number of trading transactions, '000 .....	3,530	6,815	5,315
Amount per transaction, kr. million .....	6.2	3.3	3.8
<b>FUTOP settlement</b>			
Number of contracts, '000 .....	1,735	1,042	493

Sources: Danmarks Nationalbank, the Danish Bankers Association, VP A/S – The Danish Securities Centre and the Copenhagen Stock Exchange.

The *VP System* is the system of VP A/S – the Danish Securities Centre, for settlement of trades and other securities transactions. At fixed times each day, the participants' net positions in terms of both securities and money are calculated. The net positions in securities are exchanged via the participants' VP safekeeping accounts, while the net positions in money are exchanged via the participants' accounts at Danmarks Nationalbank. The large fluctuations in the number of transactions can be attributed to a strongly varying number of share trades, while the number of bond trades has fluctuated moderately during the last three years.

Trades in options and futures (derivatives) are settled by the *FUTOP* Clearing Centre A/S. Participants' net positions are settled via Kronos to accounts at Danmarks Nationalbank. The number of settled contracts has been reduced by half from 2000 to 2001.

## EURO PAYMENT SYSTEMS

In Denmark, payments in euro can be effected via three different payment systems, depending on the type of payment. A distinction is made between large cross-border payments, small payments and payments related to securities trading in euro. Table 7 shows the transaction volume in euro.

Cross-border payments in euro can be processed in Target<sup>1</sup>, the joint European system for euro payments. Target interlinks the national RTGS systems, in Denmark's case via a special Target module in Kronos.

Use of Target, including Danish participants' use of the system, has increased year by year. In Denmark, Target is still used predominantly for

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

EURO PAYMENTS	Table 7		
	1999	2000	2001
Target – all participating countries			
Number of transactions, '000 .....	42,258	47,980	53,666
Value of transactions, euro billion .....	239,472	263,291	330,031
Of which Danish participants			
Number of transactions, '000 .....	61.0	80.0	106.3
Value of transactions, euro billion .....	1,223	1,456	1,431
Sum clearing			
Number of transactions, '000 .....	2.5	10.4	23.6
Value of transactions, euro billion .....	0.07	0.27	0.46
VP settlement			
Number of transactions, '000 .....	6.8	5.8	79.1
Value of transactions, euro billion .....	1.3	1.4	11.8

Sources: ECB, the Danish Bankers Association and VP A/S – The Danish Securities Centre.

cross-border payments, while the EU member states that have adopted the euro as their national currency also use the system for domestic payments to a considerable extent<sup>1</sup>.

Retail payments in euro can be settled via the sum clearing which has separate settlement runs in euro. The transaction volume in euro is very small compared to the transaction volume in kroner. Since the sum clearing system only has domestic participants it cannot settle cross-border euro payments.

Securities trades in euro are handled via the VP settlement system according to the same principles as trades in kroner. Cross-border securities trades may be settled via VP's links to securities centres abroad. The volume of transactions in euro has increased considerably, but is still modest compared to the transaction volume in kroner.

## OVERSIGHT

For some years, the international focus has been directed at the role of the central banks in relation to payment systems, and in mid-2000 the central banks of the G10 countries published a report on safety and efficiency in payment systems entitled *Core Principles for Systemically Important Payment Systems*<sup>2</sup> (CPSIPS). The report sets out ten Core Principles for systemically important<sup>3</sup> payment systems, and four principles

<sup>1</sup> For further information, see Danmarks Nationalbank, *Report and Accounts 2000*, p. 77.

<sup>2</sup> The report can be downloaded from [www.bis.org](http://www.bis.org).

<sup>3</sup> A payment system is regarded as systemically important if system events could in themselves cause disruptions in the financial sector, or if financial problems could spread via the system to other areas of the financial sector.

CPSIPS sets out four principles for the central banks' role in relation to systemically important payment systems:

- A: The central bank should define clearly its payment-system objectives and should disclose publicly its role and major policies with respect to systemically important payment systems.
- B: The central bank should ensure that the systems it operates comply with the Core Principles.
- C: The central bank should oversee compliance with the Core Principles by systems it does not operate and it should have the ability to carry out this oversight.
- D: The central bank, in promoting payment system safety and efficiency through the Core Principles, should cooperate with other central banks and with any other relevant domestic or foreign authorities.

governing the role of central banks in this respect<sup>1</sup>. The four principles, A-D, are shown in Box 5. On assessing the stability of a member country's financial sector, the International Monetary Fund, (IMF) may choose to include an assessment of whether systemically important systems comply with the Core Principles, and whether the country's central bank adheres to the four principles of CPSIPS, cf. the description of the IMF's FSAP programmes on page 86.

During the past year, Danmarks Nationalbank has worked to comply with the principles governing the responsibility of central banks in connection with systemically important payment systems. In addition to Danmarks Nationalbank's system, Kronos, the sum clearing and VP settlement systems are regarded as systemically important systems.

- *Principle A:* Danmarks Nationalbank's role and policy in relation to oversight of systemically important payment and securities settlement systems was published in the Monetary Review, 2nd Quarter 2001.
- *Principle B:* Danmarks Nationalbank has furthermore reviewed Kronos in relation to CPSIPS, which is presented in Box 6. Overall, Kronos complies with the Core Principles, as eight of the Principles are fully observed, while Principle 7 is deemed to be broadly observed. Principle 5 is irrelevant to Kronos, as the system does not apply multilateral netting, but real-time gross settlement. The assessment of Kronos can be found on Danmarks Nationalbank's Web site<sup>2</sup>.

<sup>1</sup> For a detailed survey of the Core Principles and the principles governing central banks' responsibility, see Tobias Thygesen, International Standards for Payment Systems, Danmarks Nationalbank, *Monetary Review*, 1st Quarter 2001.

<sup>2</sup> The assessment of Kronos can be found under *About us, Transaction of payments, Danmarks Nationalbank's oversight of payment and securities settlement systems*. The review of Kronos is based on the documentation available and the steps initiated when the system was launched on 19 November 2001. In the course of 2002, Kronos will be reassessed on the basis of operational experience and observation of the few outstanding issues identified at the first review.



CPSIPS sets out ten Core Principles for systemically important payment systems:

- *Core Principle 1:* The system should have a well-founded legal basis under all relevant jurisdictions.
- *Core Principle 2:* The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.
- *Core Principle 3:* The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants, and which provide appropriate incentives to manage and contain those risks.
- *Core Principle 4:* The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.
- *Core Principle 5:* A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.
- *Core Principle 6:* Assets used for settlement should preferably be a claim on the central banks; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.
- *Core Principle 7:* The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.
- *Core Principle 8:* The system should provide a means of making payments which is practical for its users and efficient for the economy.
- *Core Principle 9:* The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.
- *Core Principle 10:* The system's governance arrangements should be effective, accountable and transparent.

- *Principle C:* As regards oversight of the sum clearing and VP settlement systems, a working group has been set up, headed by Danmarks Nationalbank and with representatives of the system owners. The latter provide input and material regarding their respective systems. Initially efforts are focused on the sum clearing system, as the final principles for securities settlement systems were not published until the 4th quarter of 2001, cf. below.
- *Principle D:* Finally, in early summer 2001, Danmarks Nationalbank and the Danish Financial Supervisory Authority (DFSA) concluded a cooperation agreement<sup>1</sup> regarding oversight of the systemically important systems not operated by Danmarks Nationalbank itself. The agreement sets out the framework for cooperation and exchange of information and is aimed *inter alia* at avoiding duplicated work by Danmarks Nationalbank, DFSA and the system owners whenever possible.

<sup>1</sup> See Danmarks Nationalbank, *Monetary Review*, 2nd Quarter 2001.

## INTERNATIONAL WORK ON PAYMENT SYSTEMS

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On 12 November 2001, the central banks of the G10 countries and the IOSCO<sup>1</sup> published a report on the safety and efficiency of securities settlement systems, Recommendations for securities settlement systems.<sup>2</sup> The report states 19 minimum recommendations for all securities settlement systems, including their legal framework, risk controls, access, governance, efficiency, transparency and regulation and oversight. The recommendations thus relate to functions which may involve several players, including securities centres, stock exchanges, custodian banks, issuers and investors.

The ECB will work with the CESR<sup>3</sup> to coordinate the implementation of the recommendations in the securities settlement systems of the EU member states. The ECB and the CESR will e.g. investigate whether the EU securities settlement systems should also observe other or more stringent recommendations than the minimum requirements outlined in the report. Danmarks Nationalbank participates in this work.

The G10/IOSCO recommendations and any further recommendations from the ECB/CESR will form the basis for Danmarks Nationalbank's assessment of the VP securities settlement system.

## DEVELOPING THE PAYMENTS INFRASTRUCTURE

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### CLS

The international settlement system for currency trades, CLS (Continuous Linked Settlement), is expected to be in operation before the end 2002. CLS, which is owned by a private banking company, has been established by the world's largest commercial currency dealers to minimise the risk related to currency trades. Only shareholders can participate directly in CLS, which will initially handle trades in US, Australian and Canadian dollars, euro, Japanese yen, pounds sterling and Swiss francs. Subsequently Danish and Norwegian kroner and Swedish kronor will be included in CLS, probably early in 2003.<sup>4</sup> Payment transactions relating to the currency trades settled in CLS will be settled via the national RTGS systems of the participating currencies and booked to accounts with the relevant central banks. When the Danish krone joins CLS, the system must thus be able to pay out/receive Danish kroner via Kronos. CLS must therefore participate in Kronos.

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<sup>1</sup> The International Organisation of Securities Commissions is an international forum for cooperation between authorities responsible for supervision of securities markets.

<sup>2</sup> The report can be downloaded from [www.bis.org](http://www.bis.org).

<sup>3</sup> The Committee of European Securities Regulators is a forum for cooperation between the authorities responsible for overseeing securities markets in the EU member states.

<sup>4</sup> For a more detailed description, see [www.nationalbanken.dk](http://www.nationalbanken.dk) under *About us, transaction of payments*.

**Extending the automatic collateralisation agreement**

A working group under the Danish Bankers Association with representatives of the Danish Bankers Association, The Danish Securities Centre (VP) and Danmarks Nationalbank has recommended extending the scope of the automatic collateralisation agreement to include the provision of collateral in connection with sum clearing and CLS.

The automatic collateralisation agreement is a special procedure for provision of collateral. Currently it is used only in connection with securities trading in the VP settlement system. Under the automatic collateralisation agreement, credit may be obtained from e.g. Danmarks Nationalbank if a special VP safekeeping account contains sufficient collateral in the form of securities. In contrast to traditional collateral arrangements, a paper is not earmarked as collateral for credit facilities unless the borrower defaults. The automatic collateralisation is thus an extremely flexible method of pledging collateral, and the participants in the Danish payment systems would also like to be able to use this system in connection with the sum clearing system and CLS.

One consequence of the requirement for more efficient pledging of collateral vis-à-vis Danmarks Nationalbank is the greater interaction between the various systems, and thereby also a risk that events/problems in one system will affect the other systems. The recommended model for expanding the automatic collateralisation agreement weights the need for efficient pledging of collateral against the consideration of safety in the payment systems. The expansion of the automatic collateralisation agreement is expected to be implemented at the end of 2002.

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## International Monetary Cooperation

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*Euro banknotes and coins were put into circulation on 1 January 2002, marking the full achievement of the Economic and Monetary Union of the 12 euro-area member states. The changeover was smoother than expected, and after only around two weeks virtually all cash payments were made in euro. The EU member states that do not participate in EMU are the UK, Sweden and Denmark.*

*The Stability and Growth Pact imposes an obligation on the EU member states to seek to maintain a budgetary position close to balance or in surplus. The significant slowdown in growth in 2001 presents a major challenge to some of the euro-area member states.*

*For the IMF, 2001 was characterised especially by the large loans to Argentina and Turkey to alleviate financial crises in those countries. Reform proposals for greater involvement of the private sector in resolving financial crises are being discussed more and more actively.*

### **THE CHANGEOVER TO EURO BANKNOTES AND COINS**

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On 1 January 2002 euro banknotes and coins were introduced in the 12 euro-area member states<sup>1</sup>. Concurrently the central banks began to withdraw the legacy currencies (e.g. D-mark, Finnish markka and Dutch guilder) from circulation. The introduction of the new banknotes and coins and the withdrawal of the legacy currencies progressed more smoothly than expected. Around two weeks after 1 January the European Central Bank, ECB, could already note that virtually all cash payments in the 12 euro-area member states were made in euro, even though the citizens of most of the member states were still able to use the legacy currencies up to 1 March 2002. The retail sector was a key changeover channel whereby shops received amounts in legacy currencies and gave change in euro. Many citizens also exchanged their money at private banks, and ATMs in all the member states adopting the euro had been adjusted to exclusively dispense euro banknotes as from 1 January 2002 or a few days thereafter. Both the retail sector and the general public appear to have wished to make the changeover as quickly as possible, which put significant pressure on the supply and distribution of euro banknotes and coins. Overall, the changeover presented no major problems.

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<sup>1</sup> Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.

Legacy currencies can still be exchanged for euro. Banks in many euro-area member states offer exchange services for a number of months after 1 March, and the euro-area central banks will exchange banknotes and coins in legacy currencies for euro free of charge for several years after the changeover.

The banknote series comprises 7 euro banknotes of uniform design in all euro-area member states. The coin series consists of 8 euro coins with both a national and a common side, although all coins may be used in all euro-area member states.<sup>1</sup> The production of both euro banknotes and coins commenced several years ago, but actual frontloading started during the 2nd half of 2001. In a large-scale logistics operation euro banknotes and coins were frontloaded to banks and shops. These frontloading activities were accompanied by a comprehensive information campaign to prepare for as smooth a changeover as possible after the turn of the year. The European Commission, the national authorities in the euro area and the European Central Bank conducted parallel information campaigns that involved TV spots, newspaper advertisements, Web sites and brochures to all households (more than 200 million brochures were distributed).

The introduction of euro banknotes and coins marks the full achievement of the Economic and Monetary Union of the 12 euro-area member states.<sup>2</sup> The single currency was introduced on 1 January 1999, but for the first 3 years existed only as a currency of account. Since the euro was introduced in 1999, the euro-area member states have conducted a single monetary policy via the Eurosystem which comprises the European Central Bank, ECB, and the national central banks of the 12 euro-area member states. The structure of the ECB and the Eurosystem are described in Box 7.

## **NON-PARTICIPATING EU MEMBER STATES AND THE CANDIDATE COUNTRIES**

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Three of the 15 EU member states are not part of the euro area. These member states are Denmark, Sweden and the UK. 12 central and eastern European and Mediterranean countries are negotiating accession to the EU. After their inclusion in the European Community these countries will eventually be obliged to join the euro area, but first they must comply with the convergence criteria, cf. below.

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<sup>1</sup> The euro banknotes and coins are presented in more detail on Danmarks Nationalbank's Web site [www.nationalbanken.dk](http://www.nationalbanken.dk)

<sup>2</sup> The development up to the introduction of euro banknotes and coins is discussed in Euro 2002, Danmarks Nationalbank, *Monetary Review*, 1st Quarter 2002.

The European Central Bank is the central bank of the Eurosystem. It is situated in Frankfurt am Main, Germany. The national central banks are a central element of the ECB's work. The national central banks participate in the ECB's decision-making bodies and in the decision-making process. Furthermore, decisions are predominantly implemented via the national central banks. The ECB is owned by the national central banks.

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 monetary-policy decisions. Wim Duisenberg is President of the Executive Board, which consists of six members in total. In February 2002 Wim Duisenberg announced his retirement from the presidency on 9 July 2003.

The Governing Council is the ECB's supreme decision-making body and consists of the central-bank governors of the 12 euro-area member states and the ECB's Executive Board. The Governing Council normally meets every two weeks. Monetary-policy decisions are taken by the Governing Council, including decisions to adjust the Eurosystem's interest rates. Such decisions are normally taken at the first meeting of the month. Should the Governing Council fail to reach agreement the main rule according to the EU Treaty is that the Governing Council's voting procedure shall be by simple majority, whereby each member has one vote. The practical execution of the decisions of the Governing Council is predominantly the responsibility of the national central banks. The weekly allotment of liquidity is a case in point.

For as long as there are non-participating EU member states, the General Council is required as the ECB's third decision-making body. The General Council consists of the President and the Vice President of the Executive Board, as well as the governors of the central banks of all 15 EU member states, including Denmark's Nationalbank. The General Council normally meets briefly every quarter. These meetings may be teleconferences. The General Council discusses such issues as the functioning of ERM II and the monetary development in the non-participating EU member states, as well as the issues allocated by the Treaty to the General Council.

The ECB has 13 committees and subcommittees in which both the national central banks and the ECB participate. The national central banks of the EU member states outside the euro area participate only to a limited extent. The committees contribute expertise to the decision-making process within all relevant central-bank areas, and also contribute to the decision-making basis.

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 three EU central banks which are outside the Eurosystem, the Bank of England, Sveriges Riksbank and Denmark's Nationalbank, have paid up 5 per cent of the amount they would have contributed had they joined the Eurosystem. Denmark's Nationalbank's paid-up contribution thus amounts to 4.2 million euro. The interest on this amount covers the expenses related to the ECB tasks which concern all 15 member states.

### **Denmark, Sweden and the UK**

In September 2000 *Denmark* held a referendum on adoption of the euro. The proposal was rejected, with 53 per cent of the votes against and 47 per cent in favour of adoption of the euro. Krone banknotes and coins are therefore still the only legal tender in Denmark. The euro may be used in Denmark in the same way as any other foreign currency, i.e. if the recipient is willing to receive payment in euro. The euro can be expected to become the most important foreign currency for Danes, since tourism and trade with the euro area are substantial.

In *Sweden*, the Social Democratic government has stated that it is in favour of Swedish participation in the euro, in the fullness of time. This requires the endorsement of the people of Sweden via either an election or by referendum. Opinion polls show a significant shift during 2001 from a predominantly negative to a predominantly positive view of Sweden's adoption of the euro. In January 2002 Sweden's Prime Minister Göran Persson submitted a draft schedule for Sweden's possible adoption of the euro according to which a referendum may be held in the spring of 2003.

The government of the *UK* has set up five economic tests that must be complied with before any decision on EMU participation may be taken. The government has previously stated that the five economic tests would be assessed at the latest two years after the general election. The election was held in June 2001. The government has also stated that if the UK adopts the euro the decision must be endorsed by a referendum of the British people. Opinion polls showed a clear majority against the UK's adoption of the euro throughout 2001.

### **The candidate countries**

12 central and eastern European and Mediterranean countries<sup>1</sup> are currently negotiating EU accession. At the European Council in Gothenburg in June 2001 it was adopted that the negotiations with the first wave of accession countries must be completed by the end of 2002. It was also specified that these countries must be able to participate in the next elections to the European Parliament in 2004. This entails that the actual enlargement process must take place by the beginning of 2004 at the latest. It also means that the accession negotiations with the first wave of countries must be concluded during Denmark's EU presidency in the 2nd half of 2002. This is subject to the countries' compliance at that time with the economic and political criteria for EU membership, i.e. the

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<sup>1</sup> Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia. At the Helsinki European Council in December 1999 Turkey was also accepted as an accession country, although accession negotiations have not yet been initiated.

Copenhagen criteria<sup>1</sup>. A further requirement is for the EU's *acquis communautaire* (the body of EU laws and regulations) to be adopted, implemented and enforced in national legislation.

In the European Commission's Annual Progress Report on the Accession Process in November 2001, the Commission found that all 12 candidate countries comply with the political requirements, and that the economic criteria were met by Cyprus and Malta, and will be met soon by the remaining eight countries in the first wave, which are: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia. The ongoing accession negotiations primarily concern the implementation and enforcement of the EU's *acquis communautaire*. According to the Progress Report, negotiations made good progress in 2001. However, certain major issues such as agricultural and budgetary matters still remain to be negotiated. The European Council in Laeken in December 2001 found that 10 countries can meet the time schedule at the current pace of negotiation and reform in the candidate countries. Bulgaria and Romania will not be able to comply within the required time frame, however.

After inclusion in the EU the new member states will be obliged in the course of time to introduce the euro, subject to prior compliance with the convergence criteria, including the condition of ERM II participation, for at least 2 years prior to the introduction of the euro.<sup>2</sup>

Enlargement of the EU with the aforementioned 10 countries will increase the population of the EU considerably. In 1999 the population of the 10 countries was approximately 20 per cent of the EU's population, while the 10 countries' total gross domestic product is only approximately 4 per cent of the GDP of the EU.

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## THE ECONOMIC POLICY GUIDELINES OF THE EU

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The principal instruments for the EU's surveillance of economic policy are the Stability and Growth Pact and the Broad Economic Policy Guidelines.

### The Stability and Growth Pact

The Stability and Growth Pact entered into force simultaneously with the third stage of EMU in 1999. It imposes an obligation on the 15 EU member states to aim for a budgetary position close to balance or in

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<sup>1</sup> The Copenhagen criteria were adopted by the European Council in Copenhagen in 1993. The political criteria cover areas such as democracy, human rights, the rule of law and respect of minorities. The economic criteria are that the candidate countries must be well-functioning market economies, and that the economies must be able to withstand the pressure of competition and market forces in the EU.

<sup>2</sup> The convergence criteria relate to the government budget deficit, government debt, inflation and long-term interest rates. A further criterion is participation in ERM II. The Ecofin Council has stated that ERM II is a flexible arrangement in which participation in principle can be via e.g. a currency board – see Danmarks Nationalbank, *Report and Accounts 2000*.



surplus in the medium term. This has been interpreted in practice as a budgetary position that gives sufficient scope for the member state to comply with the EU Treaty's provision of a government budget deficit not exceeding 3 per cent of GDP during a normal cyclical downturn. Each member state must prepare an annual national programme that describes how the member state will comply with the requirements set out in the Stability and Growth Pact. The programmes are discussed by the Ecofin Council, followed by the Council's opinion.

In March 2001, the Ecofin Council completed its review of the EU member states' national programmes for 2001. The Ecofin Council's opinions show that virtually every EU member state complied with the Stability and Growth Pact in 2001.<sup>1</sup> However, it was found that Germany and Portugal would not comply until 2002 and 2003 respectively. The Ecofin Council stated that the temporary deterioration in Germany's budget was attributable to the implementation of a tax reform, and Germany was encouraged to maintain strict expenditure control. Portugal was encouraged to increase the safety margin to provide more scope for the automatic stabilisers in the event of a recession<sup>2</sup>. Most member states were encouraged to prepare more ambitious programmes, particularly as regards the budget consequences of the ageing population.

Measured in terms of the results for 2000, for the third consecutive year all 15 EU member states complied with the provision of the EU Treaty that the budget deficit may not exceed 3 per cent of GDP. Most of the EU member states, especially the small euro-area member states and the non-euro-area member states, showed a budget surplus.

Later in 2001 the rate of economic growth proved to be significantly lower than expected when the national programmes were submitted at the beginning of the year. This means that there is prospect of deteriorating public finances, and this situation can be considered a "litmus test" for the Stability and Growth Pact. The slowdown in growth leads to a deterioration in public finances via e.g. lower tax revenue and higher expenditure on unemployment benefit. In general, the member states did not seek to pursue a fiscal policy conducive to growth in 2001, so that fiscal discipline is still a dominant issue. Nevertheless, several member states may still encounter problems. In December 2001, Germany and Portugal submitted their programmes stating that

<sup>1</sup> See also Tina Winther Frandsen, *The Stability and Growth Pact – Status in 2001*, Danmarks Nationalbank, *Monetary Review*, 3rd Quarter 2001.

<sup>2</sup> The development in a country's economic activity directly affects the government budget via the automatic stabilisers. In a boom, the budget balance will be improved automatically via lower expenditure on e.g. unemployment benefit and higher tax revenue. This also contributes to dampening fluctuations in growth. On the other hand, during a recession the budget will deteriorate, which again will dampen growth fluctuations.

a significantly larger budget deficit than before is now expected. Particularly in Germany's case the situation is serious. Germany's budget deficit is estimated at 2.5 per cent and 2.0 per cent of GDP in respectively 2001 and 2002 (this represents an upward adjustment by 1 percentage point in relation to the previous programme). This brings Germany close to the 3 per cent limit stipulated in the EU Treaty<sup>1</sup>. Portugal likewise risks approaching the 3 per cent limit. The European Commission therefore initiated the warning procedure in the Stability and Growth Pact by calling on the Ecofin Council to issue an early warning to Germany and Portugal. After the two countries had undertaken not to exceed the limit, and that the member states aimed to achieve budgetary balance in 2004, the Council of Ministers refrained from giving the early warnings.

### **The Broad Economic Policy Guidelines**

Each year the EU member states must reach agreement on the Broad Economic Policy Guidelines. Under the EU Treaty, the Ecofin Council may make a critical recommendation to a member state if "the member state's economic policy is not consistent with the Broad Economic Policy Guidelines, or if there is a risk that the economic policy will jeopardise the proper functioning of EMU". So far, only one critical recommendation has been made to a member state (Ireland).

The recommendation to Ireland was made in February 2001 despite that member state's sound budget surplus and compliance with the Stability and Growth Pact. At that time, the Irish economy was characterised by very high growth and an inflation rate significantly above the EU average. The budget for 2001 nevertheless included several expansionary measures. The Ecofin Council found that these measures increased the risk of overheating of the economy, which was in conflict with the Broad Economic Policy Guidelines. Ireland's situation was discussed again in November 2001, and the Ecofin Council stated that the recommendation had partly been complied with through the implementation of the budget. It was found that unexpected events (e.g. the global slowdown in growth and the outbreak of foot and mouth disease) dampened the economy and thereby also the inflationary pressure, so that the imbalances in 2001 were more moderate than expected. However, the Ecofin Council emphasised the need for continued monitoring of Ireland's fiscal policy in view of the previously noted overheating of the economy.

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<sup>1</sup> If this limit is exceeded, according to the EU Treaty sanctions may be imposed. The Stability and Growth Pact specifies that such sanctions must always include a deposit which can later be converted to a fine if the deficit is not reduced to less than 3 per cent of GDP within a specific period.

## THE INTERNATIONAL MONETARY FUND, IMF

The slowdown in the global economy also affected the emerging market economies and the developing countries. During 2001 Argentina and Turkey in particular needed substantial IMF credits. Despite the large loans to Argentina and Turkey the IMF's liquidity is still good. This is first

### DENMARK'S IMF REPRESENTATION

Box 8

The Board of Governors is the highest decision-making authority of the IMF. It consists of one representative of each of the 183 IMF member countries, normally the country's minister of finance or the governor of the central bank. The Board of Governors normally meets once a year in connection with the annual meetings of the IMF.

Under the Board of Governors an advisory body has been established, the International Monetary and Financial Committee (IMFC), which is made up of 24 members at minister or central-bank governor level. All IMF member countries are represented in the IMFC as single countries or in constituencies. Denmark is represented in a constituency together with the other Nordic countries and the three Baltic states. The IMFC provides overall guidance for the IMF's work and normally meets twice a year. The views of the Nordic countries and Baltic states are presented by the country serving as coordinator in the Nordic-Baltic constituency. The current coordinator is Iceland (cf. below).

The Executive Board is responsible for conducting the day-to-day business of the IMF. It is composed of 24 Executive Directors who are appointed or elected by member countries or groups of countries according to the same principle as for the IMFC. Ministries of finance and central banks in the Nordic countries and Baltic states appoint one Executive Director. The position of Executive Director for the Nordic and Baltic constituency rotates between the Nordic countries, normally for a two-year term. As from 1 January 2002, the Executive Director is from Iceland. The Nordic-Baltic constituency holds 3.52 per cent of the total votes in the Executive Board. Denmark's share is 0.77 per cent.<sup>1</sup>

The Executive Director heads the Nordic-Baltic Office at the IMF which consists of an alternate director, 3 advisors, 3 technical assistants and 2 secretaries. These positions also alternate between the countries for a 2-year term. The constituencies' views on issues discussed in the IMF's Executive Board are coordinated between the member countries' central banks and ministries of finance. The country appointing the Director is also responsible for coordinating these opinions (Finland 2000-2001, Iceland 2002-2003).

The coordination work in the Nordic-Baltic constituency is based on the consensus principle. The stance taken by the constituency is very rarely the result of a voting procedure. It is also a rare occurrence for a country with a deviating view to submit a minority declaration. A country's votes in the constituency correspond to its share of the total votes in the IMF's Executive Board.

The Nordic-Baltic Monetary and Financial Committee was established in 1999 and consists of representatives of the countries' central banks and ministries of finance. The Committee discusses and determines the position of the constituency on general IMF issues. The Committee is advised by its Committee of Alternates.

<sup>1</sup> The USA has the largest share of votes at 17.16 per cent, followed by Japan at 6.16 per cent, Germany at 6.02 per cent, and the UK and France at 4.97 per cent each.

and foremost related to the increase of the member countries' capital contributions (quotas) in 1999, and to the redemption of loans ahead of schedule by countries such as Russia, Korea and Brazil.

There are two principal IMF facilities for low-income countries. They are the Poverty Reduction and Growth Facility (PRGF), and debt relief for the countries subject to the debt-relief initiative (HIPC), the Heavily Indebted Poor Countries Initiative. In February 2002, 25 countries had received assistance under the debt-relief initiative, and the IMF had granted PRGF loans to a total of 36 countries.

The annual meeting of the IMF is traditionally held at the end of September or beginning of October, but was cancelled in 2001 due to the terrorist attacks on 11 September. Instead, the IMF's consulting body, the International Monetary and Financial Committee (IMFC), held a short meeting in Ottawa on 17 November. The IMFC in particular discussed the global economy, the IMF's role in the fight against money laundering, and measures to prevent financing of terrorist activities.

Immediately after the terrorist attacks on 11 September the IMF's Managing Director Horst Köhler issued a press release emphasising the IMF's willingness and opportunities to alleviate some of the problems that could potentially result from the slowdown in the global economy.

## **Argentina**

Argentina's economy has been in recession for more than three years. The economic situation became further aggravated during 2001. Towards the end of the year, this resulted in a change of president and of government. At the beginning of 2002, Argentina suspended its payments and abandoned its fixed-exchange-rate policy of ten years' standing. The fixed-exchange-rate policy was based on a "currency board" that tied the peso to the US dollar on a 1:1 basis. After the peso was floated it depreciated by around 50 per cent.

The current crisis in Argentina is the result of a number of structural factors in the economy, sustained government-budget and current-account deficits, and the generally more difficult terms of access for the emerging market economies to obtain financing from the international financial markets since the crises in Asia and Russia in 1997-1998<sup>1</sup>.

During 2001, the IMF extended loans to Argentina on two occasions. In January, the IMF extended a credit arrangement of 13.7 billion dollars to Argentina, and in September the IMF increased this credit arrangement by more than 8 billion dollars to 21.5 billion dollars. The planned

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<sup>1</sup> The development in Argentina's economy over a longer period is described in further detail in Morten Roed Sørensen, *Argentina's Crises*, Danmarks Nationalbank, *Monetary Review*, 4th Quarter 2001.

disbursement of 1.2 billion dollars in December 2001 under the credit arrangement was cancelled due to non-compliance with the conditions for the credit facility. The overall objective of the IMF support was to restore confidence in Argentina's economy, but it turned out that the support only "bought time" by postponing the suspension of payments. In January 2002 Argentina's repayment to the IMF of an instalment of more than 1 billion dollars was postponed by 1 year. Since then the IMF has informed Argentina that any new credit arrangements would be subject to the condition of Argentina's presentation of a viable economic-policy programme.

### **Turkey**

At the beginning of 2001 the Turkish authorities could no longer comply with the conditions of the IMF loan at that time. The exchange-rate policy of a "crawling peg" vis-à-vis the D-mark was abandoned in February 2001, after which the Turkish currency depreciated by around 30 per cent, and Turkey experienced severe recession.

In May 2001, the IMF's Executive Board approved an increase of the financing facility from 11 billion dollars, to a total of 19 billion dollars. Most of this loan was disbursed to Turkey during 2001. The crisis in Turkey became exacerbated after 11 September in view of e.g. declining revenue from tourism, while sustained high real interest rates have impeded financing of the government budget. In February 2002 Turkey gained a new loan agreement with the IMF for 16 billion dollars, equivalent to 1,330 per cent of its quota. Like the credit arrangement in 2001 this substantially exceeds the IMF's normal credit limits.

In return for the credit arrangements Turkey agreed to tighten its fiscal policy, privatise certain enterprises in public ownership, reform the banking sector and reduce inflation. The Turkish government has generally complied with the requirements.

In June, foreign banks renewed their agreement with Turkey of December 2000 on maintaining their credits to Turkey. The banks only partly complied with this agreement, and the efforts to involve the private sector in resolving Turkey's financial crises have not made any further progress.

### **Involvement of the private sector in financial crisis resolution**

Subject to the IMF's access limits, crisis-stricken countries may borrow up to 100 per cent of their quota in a single year, and 300 per cent in total. In special circumstances, however, exemptions may be granted from these limits. Since the crisis in Mexico in 1994-1995 there have been more and more cases of urgent balance-of-payments crises requiring exemption

from the normal access limits. In more and more cases crises are intensified because international investors lose confidence in a given country's currency and ability to service its debt. The crises thus involve very large capital outflows, in contrast to the previous unsustainable current-account deficits.

There is a risk that the large IMF loans to crisis-stricken countries may lead to less cautious strategies in the financial markets, because in several cases funds made available to a country by the IMF have been used to bail out private investors. This has led to increasing demands for private investors to become more involved in the resolution of financial crises, enabling the financial markets to assess credit risks more realistically.

Against this background the IMF has initiated discussion of the objectives, conditions and implications of an international scheme for suspension of payments, including more formal rules for the involvement of or allocation of losses to private investors. Such provisions are already included in many countries' legislation on liquidation or suspension of payments. With regard to international legislation applying to sovereign states, the issue is that there is no supranational authority to enforce these rules at international level. The IMF's Management has proposed to give the IMF a more formal role in monitoring compliance with a certain code of conduct when a country can no longer service its international debt commitments. A central aspect is how to create a formal debt-restructuring mechanism that empowers the official sector (i.e. the IMF) to protect a debtor against actions from creditors. However, this model is associated with a number of practical problems. The US Treasury Secretary has put forward similar proposals. The discussion is still at an informal and initial stage.

Europe has previously supported a more formal set of rules to involve the private sector in the resolution of financial crises. These views were last expressed at the IMFC meeting in Ottawa in November 2001. It is emphasised that IMF loans must be subject to maximum limits. This clarifies the conditions for activation of a possible formalised mechanism for suspension of payments compared to the present system. The European view is that exemption from the IMF's access limits should be limited to one of the IMF's credit facilities (SRF, Supplementary Reserve Facility), and require a special open letter from the IMF staff explaining in detail why the exceptionally large loan has been granted. Furthermore, special voting procedures are required.

### **Simplification of the IMF's conditionality**

After the crisis in Asia in 1997-1998 the IMF's conditionality has been subject to internal review as well as external criticism, resulting in a thorough review of the rules. The purpose of the review is not to weak-

en the IMF's conditionality, but to make it more effective and focused, and thereby improve the results of economic reform programmes in member countries receiving IMF assistance. There is agreement within the IMF on finding the right balance between reduction of the number of conditions and ensuring that the required economic and political measures are implemented. Conditionality should not be too detailed, as this would weaken the country's support of the programme and reduce the programme's transparency.

Ownership of a programme is important to achieving good results. A recipient country should be involved at an early stage in the design of the economic programme. The IMF's surveillance can also contribute to increasing ownership in the longer term. The Executive Board of the IMF believes that the IMF should be prepared to postpone or discontinue financing should doubt arise concerning the implementation of the programme as a consequence of insufficient support.

The IMF has conducted external consultations on its conditionality with interested parties and encouraged discussion with the general public by inviting comments on publications at the IMF's Web site. The IMF is also working with the World Bank on a clear division of responsibilities and systematic cooperation on conditionality.

### **Extension of the IMF's supervisory role – surveillance of member countries' compliance with financial standards**

Since the major financial crises in Asia, the IMF has cooperated with the World Bank on extending the IMF's supervisory role. This has resulted in Financial Sector Assessment Programs (FSAP) whereby the IMF and the World Bank assess the member countries' compliance with central financial standards. These reports are very resource-intensive. Financial experts from other member countries accompany experts from the IMF and/or the World Bank on missions to the member countries concerned. So far it is found that approximately 30 member countries per year may be subject to the FSAP programme.

The selection of FSAP countries is based on the country's systemic role and the requirement of an appropriate geographical distribution of the countries. Furthermore, countries at various development stages are to be included.

Besides an overall assessment of the stability and soundness of a member country's financial sector, separate reports are prepared for the IMF's Executive Board concerning the member country's observance of one or more central financial standards. These reports are called Reports on the Observance of Standards and Codes (ROSCs). The most important standards in these surveys are BIS' Basle Core Principles for banking

supervision, the IMF's standards for transparency in money and financial policies, and data preparation and publication standards. In the case of many countries observance of the principles of the standards for payment systems is also assessed.

In general, the reports to the IMF's Executive Board are published, although the authorities may remove market-sensitive information from the reports before publication, subject to agreement with the IMF. Any information which makes it possible to identify individuals or individual institutions may also be omitted from the published versions.

The IMF's role in the fight against financing of terrorist activities will primarily be to monitor via its extended surveillance that countries implement the measures adopted by the Financial Action Task Force. This committee held an extraordinary meeting in Washington on 29 and 30 October when a number of specific rules were adopted concerning the performance of this work in practice.



# Organisation and Tasks of Danmarks Nationalbank

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## DANMARKS NATIONALBANK'S OBJECTIVES AND VALUES

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*Danmarks Nationalbank has a number of objectives and values, which are the guidelines for its day-to-day activities. Both the objectives and the values have been drawn up in close cooperation between management and employees, and they form the basis for the individual departments' work on objectives and action plans. No changes were made to the objectives and values in 2001.*

### **Objectives**

The overall objectives of Danmarks Nationalbank as an independent and credible institution are:

- To ensure a stable krone.
- To ensure efficient and secure production and distribution of banknotes and coins of high quality.
- To contribute to efficiency and stability in the payment and clearing systems and in the financial markets.
- To act as banker to the central government.
- To prepare reliable and relevant financial statistics.
- To prepare and communicate credible standpoints on economic and financial issues with relation to Danmarks Nationalbank's objectives.
- To maintain its financial strength by means of consolidation and risk management.

### **Values**

- While safeguarding its traditions, Danmarks Nationalbank shall actively renew itself and adapt to trends in society and to the requirements of the surrounding world. Danmarks Nationalbank shall protect its credibility by not only displaying professional competence, managerial skills and sound judgement, but also by maintaining an organisation which lives up to the principles Danmarks Nationalbank considers to be significant to society's development: efficiency, cost awareness and readiness for change. Focusing on its primary tasks, on an ongoing basis Danmarks Nationalbank shall set priorities for its work.

- Danmarks Nationalbank shall be an attractive workplace capable of attracting, motivating and retaining well-qualified employees and offering them working conditions which ensure balance between work and leisure. Key qualifications are initiative, commitment, adaptability and a willingness and ability to cooperate across professional barriers, and with other areas of the organisation. All employees must have the necessary training and/or education to handle their tasks. It is a joint responsibility to ensure that everyone is trained and developed in preparation for new tasks.
- Danmarks Nationalbank shall be service-oriented in terms of both the external relations of line functions, and the internal relations of staff functions with the rest of the bank. Teamwork and project work within each unit and between departments is encouraged. In cooperation with the employees, managers shall set priorities for tasks, define targets and ensure the necessary responsibility sharing and communication, thereby limiting the need for detailed supervision. This gives employees the widest possible scope to define their own working methods, solve tasks and take decisions themselves to the greatest extent possible.
- Danmarks Nationalbank's relations with the financial sector are based on market-oriented solutions, and the costs to the sector and Danmarks Nationalbank must be weighed against the value to society of the system or requirement. The underlying principle for systems and requirements relating to the credit institutions shall be equal treatment irrespective of size, geographical location and national affiliation.
- In relations with public authorities and players in the financial system, and in international cooperation, Danmarks Nationalbank shall seek influence and express attitudes which are in line with Danmarks Nationalbank's objectives. In relations with the public Danmarks Nationalbank shall, via the media and otherwise, ensure an understanding of the decisions relating to Danmarks Nationalbank's own tasks. With regard to financial conditions or economic policy in general, Danmarks Nationalbank shall comment on these issues if they are of material importance to its implementation of monetary and foreign-exchange policy, or to the efficiency and stability of the financial markets.

## **DANMARKS NATIONALBANK'S MANAGEMENT**

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### **The Royal Bank Commissioner**

The Royal Bank Commissioner is the formal link between the Government and Danmarks Nationalbank. The Minister for Economic and Business Affairs and for Nordic Cooperation Mr. Bendt Bendtsen is the Royal Bank Commissioner.

THE BOARD OF DIRECTORS OF DANMARKS NATIONALBANK, 1 MARCH 2002		Box 9
Chairman: <i>Hans E. Zeuthen</i> , Professor		
Deputy Chairman: <i>Helle Bechgaard</i> , Regional Manager, Ph.D. (Pharm.)		
Elected by the Folketinget for the period ending 31 March 2006:		
<i>Elisabeth Arnold</i> , MP		
<i>Kristian Thulesen Dahl</i> , MP		
<i>Pia Gjellerup</i> , MP		
<i>Pernille Blach Hansen</i> , MP		
<i>Kristian Jensen</i> , MP		
<i>Holger K. Nielsen</i> , MP		
<i>Jens Rohde</i> , MP		
<i>Gitte Seeberg</i> , MP		
Appointed by the Royal Bank Commissioner for the period ending 31 March 2006:		
<i>Michael Dithmer</i> , Permanent Secretary, Ministry of Economic and Business Affairs		
<i>Michael Lunn</i> , Permanent Secretary, Ministry of Justice		
Elected by the Board of Directors:	For periods ending 31 March	
<i>Jette W. Knudsen</i> , Managing Director		2002
<i>Kjeld Larsen</i> , Farmer		2002
<i>Kirsten Nielsen</i> , President of the Consumer Council		2002
<i>Søren Bjerre-Nielsen</i> , Group President		2003
<i>Knud Koch Jensen</i> , Engineer		2003
<i>Helge Sørensen</i> , Civil Engineer		2003
<i>Bent le Fèvre</i> , General Manager		2004
<i>Jens Rostrup-Nielsen</i> , Director, R&D Division, dr.techn.		2004
<i>Hans E. Zeuthen</i> , Professor		2004
<i>Helle Bechgaard</i> , Regional Manager, Ph.D. (Pharm.)		2005
<i>B. Frank Nielsen</i> , General Manager (retiring 31 March 2002 due to age)		2005
<i>Kirsten Stallknecht</i> , Former Chairman of ICN		2005
<i>Johannes Fløystrup Jensen</i> , Managing Director		2006
<i>Kirsten Nissen</i> , Union President of the National Federation of Social Educators		2006
<i>Finn Thorgrimson</i> , Former President of the Trade Union Federation		2006

### Board of Directors

The Board of Directors has 25 members, of whom 8 are elected by the Folketing (Parliament) from among its members, and 2 are appointed by the Royal Bank Commissioner. The other 15 members, who must have in-depth knowledge of business conditions, are elected by the Board of Directors and should represent different geographical areas and professions, including wage-earners. Meetings are normally held once in each quarter. The Board of Directors has organisational tasks and must approve the annual accounts. The Board of Directors of Danmarks Nationalbank as of 1 March 2002 is shown in Box 9. Changes in the Board of Directors are stated in the press releases on p. 131.

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**THE COMMITTEE OF DIRECTORS OF DANMARKS NATIONALBANK, 1 MARCH 2002** Box 10

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Chairman: *Hans E. Zeuthen*, Professor

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

Elected by the Board of Directors for the period ending 31 March 2002:

*Søren Bjerre-Nielsen*, Group President

*Pernille Blach Hansen*, MP

*Kirsten Nissen*, Union President of the National Federation of Social Educators

*Jens Rohde*, MP

*Hans E. Zeuthen*, Professor

Appointed by the Royal Bank Commissioner for the period ending 31 March 2006:

*Michael Dithmer*, Permanent Secretary, Ministry of Economic and Business Affairs

*Michael Lunn*, Permanent Secretary, Ministry of Justice

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### **The Committee of Directors**

The Committee of Directors has 7 members. The two members of the Board of Directors appointed by the Royal Bank Commissioner are permanent members. On the election of the other 5 members of the Committee of Directors, it is customary for the Board of Directors to elect two MPs representing the government and the opposition parties, respectively. The Committee of Directors usually meets 10 times a year. The Committee of Directors of Danmarks Nationalbank as of 1 March 2002 is shown in Box 10. Changes in the Committee of Directors are stated in the press releases on p. 131.

### **Board of Governors**

The Board of Governors has 3 members. The governors are charged with the day-to-day management of Danmarks Nationalbank and are responsible for the formulation and ongoing adjustment of monetary policy. As Governor by Royal Appointment Ms. Bodil Nyboe Andersen is Chairman of the Board of Governors. The two other members, who are appointed by the Board of Directors on the recommendation of the Committee of Directors, are Mr. Torben Nielsen and Mr. Jens Thomsen.

### **Auditors**

The appointed external auditors of Danmarks Nationalbank are State-Authorised Public Accountant Mr. Bjarne Fabienke and State-Authorised Public Accountant Mr. Svend Ørjan Jensen.

## DEPARTMENTS

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Danmarks Nationalbank has 16 departments, cf. the organisation chart on p. 95. The tasks of the individual departments are as follows:

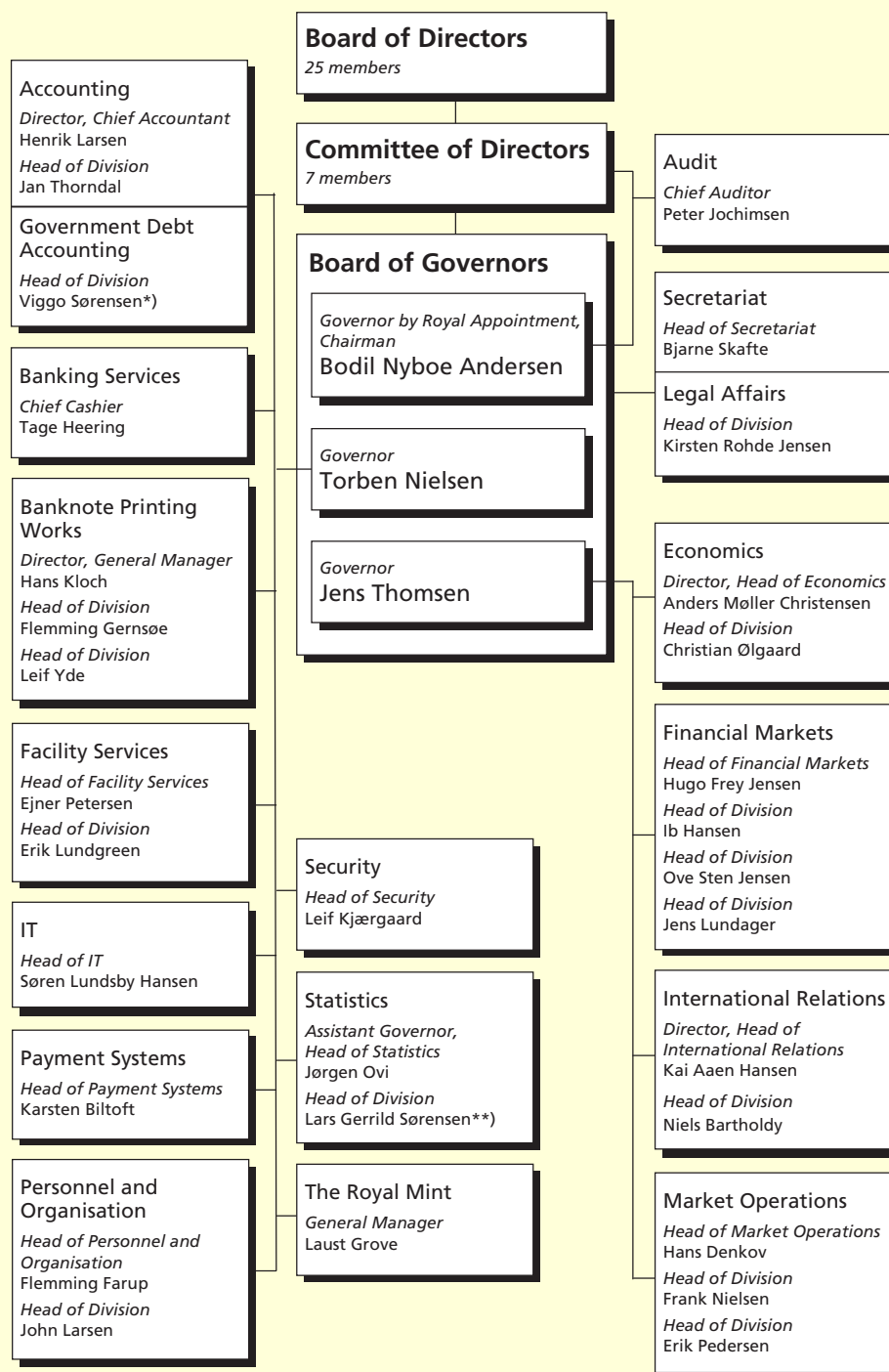
- *Accounting* manages and monitors the accounts of customers (credit institutions, the central government, central banks, etc.) and the settlement of payments in the financial sector. It undertakes settlement and bookkeeping of transactions concerning Danmarks Nationalbank's foreign-exchange and bond portfolios, and the central-government debt. It also undertakes Danmarks Nationalbank's payroll administration and prepares its accounts, budgets and statistical reporting.
- *Audit* undertakes the audit of Danmarks Nationalbank's accounts, procedures, IT systems and internal control, including Danmarks Nationalbank's Pension Fund and various foundations, in cooperation with the appointed external auditors. It also audits the Guarantee Fund for Depositors and Investors, the Social Pension Fund and the government debt management in cooperation with the Auditor General.
- *Banking Services* supplies banknotes to Denmark, the Faroe Islands and Greenland. This takes place via cash depots established by agreement with banks. Worn banknotes are returned to Banking Services for control of authenticity and destruction.
- *The Banknote Printing Works* manufactures Danish and Faroese banknotes, and is thus responsible for the design of the banknotes, the production of printing plates and ink, and the actual printing of the banknotes, as well as quality control, cutting out and packaging. The Banknote Printing Works also participates in international cooperation on improving the security of banknotes.
- *Economics* assesses economic development in Denmark and in the industrialised countries, and analyses monetary and foreign-exchange policy issues. The economic model MONA has been developed by the department for analysis of domestic cyclical trends. Economics edits Danmarks Nationalbank's quarterly *Monetary Review*.
- *Facility Services* is responsible for the administration and maintenance of Danmarks Nationalbank's properties and for messengers, postal services, watchmen, cleaning and canteen services, etc.
- *Financial Markets* is responsible for evaluation and management of Danmarks Nationalbank's positions and the related market analyses. The department prepares outline strategies for the government debt management and analyses trends on the financial markets and in the Danish financial sector. It also assists in the preparation of legislation

in these areas. Financial Markets publishes *Government Borrowing and Debt* and *Financial Stability*.

- *International Relations* is responsible for relations with international economic-policy organisations, including the European Central Bank (ECB) within the European System of Central Banks (ESCB), and with the International Monetary Fund (IMF).
- *IT* is responsible for Danmarks Nationalbank's use of IT. The areas of responsibility are relations with Bankernes EDB Central (BEC), and the operation and development of the bank's local area networks, development tasks on the bank's Lotus Notes platform, operation of certain databases on the local area networks, Danmarks Nationalbank's IT strategy, project planning and follow-up, as well as purchasing and managing Danmarks Nationalbank's hardware and software.
- *Market Operations* undertakes the day-to-day administration of Danmarks Nationalbank's foreign-exchange policy and monetary and liquidity policy, including intervention in the foreign-exchange and money markets. It is responsible for the administration of Danmarks Nationalbank's bond portfolio and foreign-exchange reserve. On behalf of the Ministry of Finance it undertakes domestic and foreign borrowing for the central government.
- *Payment Systems* handles policy issues relating to payment systems. It cooperates with owners and operators of the Danish retail payment and settlement systems and monitors these systems. It also develops and maintains Danmarks Nationalbank's payment system for large krone- and euro-denominated payments.
- *Personnel and Organisation* is responsible for personnel policy and staff development, collective agreements and other contracts, as well as personnel administration. The department also has general organisational duties such as administration of internal training.
- *The Royal Mint* manufactures Danish coins and supplies banks in Denmark, the Faroe Islands and Greenland with coins. In addition to ordinary coins in circulation, commemorative coins, coin sets and medals are also manufactured.
- *Security* is responsible for the bank's security, including IT security.
- *Statistics* prepares statistics for the financial sector, registers and analyses payments to and from abroad for use in the compilation of the balance of payments, and compiles Denmark's foreign debt and direct investments. Statistics edits and publishes the *Nyt* series and other regular statistical publications.
- *The Secretariat* undertakes general secretariat functions for the Board of Governors, the Committee of Directors and the Board of Directors and is responsible for external and internal communication, including

relations with the press, and Danmarks Nationalbank's Web site, intranet and library. The Information Desk responds to general external enquiries. The Secretariat also comprises Danmarks Nationalbank's central archives. Legal Affairs handles general legal issues, including EU law. The Secretariat edits Danmarks Nationalbank's *Report and Accounts*.

## ORGANISATION CHART 1 MARCH 2002



\*) Viggo Sørensen, Head of Division, is also Head of the Secretariat for The Guarantee Fund for Depositors and Investors.

\*\*\*) Banking Services as of 1 April 2002.



STAFF GROUPS		Table 8			
Year-end	2000		2001		
	Number	Per cent	Number	Per cent	
Academic staff .....	125	23	130	23	
Bank staff .....	130	24	128	23	
IT/clerical staff .....	118	21	114	21	
Craftsmen/technicians .....	88	16	94	17	
Service staff .....	91	16	92	16	
<b>Total .....</b>	<b>552</b>	<b>100</b>	<b>558</b>	<b>100</b>	

Note: Number of employees converted to full-time positions.

## STAFF

### Number, staff groups, seniority, age, etc.

At the close of 2001 Danmarks Nationalbank had 611 employees, equivalent to 558 full-time positions. In 2001, 47 new employees joined the bank, and 41 left, 11 of whom retired. This is equivalent to a staff turnover rate of 6.8 per cent.

The bank has fairly equal numbers of academic staff, bank staff and IT/clerical staff, while craftsmen/technicians and service staff each account for a slightly smaller share, cf. Table 8.

46 per cent of the staff are women and 54 per cent men. The proportion of women in managerial positions<sup>1</sup> is 17 per cent, an increase by 3 per cent on 2000. Age and gender distributions are shown in Chart 29.

### Staff development

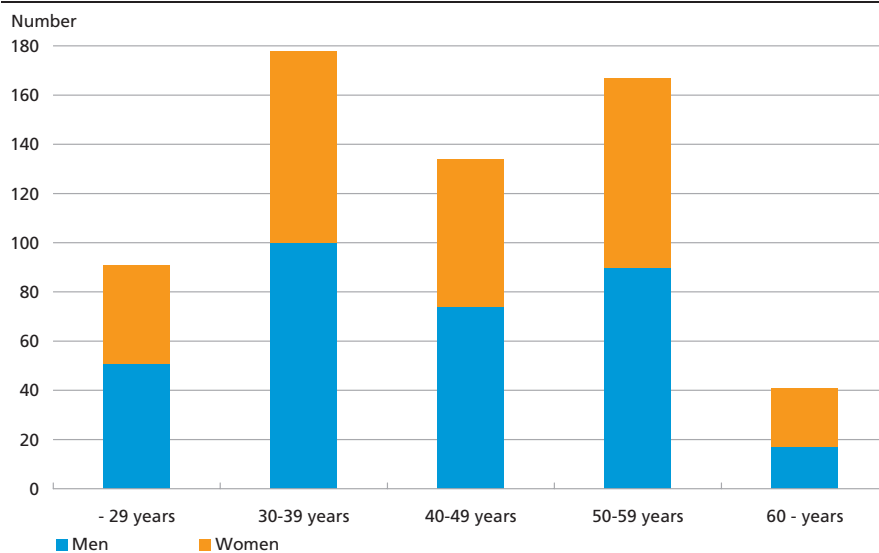
The bank attaches great importance to the ongoing professional and personal development of its staff. This is achieved through competence-enhancing tasks, as well as further and supplementary training. Another key element is annual employee appraisal interviews, while younger economists and bank staff are also subject to a compulsory scheme for rotation to the various departments of the bank. Finally, employees may also take leave to work for international financial institutions for shorter or longer periods. At the close of 2001, 18 employees were on leave in this connection.

The bank's expenditure on courses and supplementary training, which has by and large doubled during the last five years, was kr. 10.7 million in 2001, equivalent to 5 per cent of the total payroll costs. Almost half of this expenditure was for professional courses. Approximately 20 per cent

<sup>1</sup> Defined as at least Assistant Head of Division.

DISTRIBUTION BY AGE AND GENDER, YEAR-END 2001

Chart 29



was for personal development courses, and the rest for IT courses, internal seminars, etc.

The bank increasingly relies on internal instructors in order to better match the supplementary training of its employees to the enhanced requirements made of the staff of central banks. The team of internal instructors to some extent also conducts personal development courses.

Danmarks Nationalbank now covers a larger share of the cost of courses outside working hours for a broader staff group than previously. These courses can typically be graduate diplomas in economics, IT administrator or computer technology courses, or language courses.

### Employee survey

In 2001 Danmarks Nationalbank conducted an employee survey with focus on how staff perceive the bank's human resources policy on a day-to-day basis.

The survey was carried out by an external firm of consultants. Employees gave their support to the survey with a response rate exceeding 85 per cent. Around 80 per cent of respondees expressed full or partial satisfaction with the human resources policy in practice. Although this result was positive, potential for further development was indicated within such areas as information, career opportunities, and mutual respect among the various staff groups.

Since the results of the survey were presented in June 2001, the individual departments have each worked on relevant topics, and the results

of this work were available in February 2002 when the Joint Consultation Committee completed its follow-up on the survey.

### **Absence due to illness**

In 2001 absence due to illness, including long-term absence, was an average of 8.3 days per employee. An effort has been made to pay more attention to absence due to illness, e.g. via interviews with employees who are absent more frequently on grounds of illness.

### **Salary and employment conditions**

All employees of Danmarks Nationalbank – except those employed by the Banknote Printing Works and managers – are subject to a collective agreement between Danmarks Nationalbank and Danmarks Nationalbank's Staff Association. The agreement is based on the terms and conditions applying to the financial sector. The agreement was renegotiated in 2001 for a further 2-year period.

As a result of the negotiations the former rules on compensation in connection with business travel have – for the period covered by the new collective agreement – been replaced by a decentralised compensation pool.

It was also agreed to set up a committee which, in time for the next renegotiation of the collective agreement in 2003, is to prepare a proposal for a new salary system for Danmarks Nationalbank and describe the advantages and drawbacks of such a system compared to the bank's present salary system.

Employees of the Banknote Printing Works are subject to a collective agreement between the bank and the Industry sector of the Union of Commercial and Clerical Employees in Denmark (HK). This agreement runs until 2004.

### **REPRESENTATION ON COMMITTEES, ETC.**

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As of 1 March 2002 the National bank is represented on the following committees, etc.:

- *The Financial Business Council*  
Governor *Jens Thomsen* is a member, and *Kirsten Rohde Jensen*, Head of Division is an alternate member.
- *The Economic Council*  
Governor *Jens Thomsen* is a member.
- *VP AIS – The Danish Securities Centre*  
Governor *Torben Nielsen* is Vice Chairman of the Board of Directors.

- *Bankernes EDB Central (BEC)*  
Governor *Torben Nielsen* is an observer on the Board of Directors.
- *The Danish Securities Council*  
*Jens Lundager*, Head of Division, is a member, and *Suzanne Hyldahl*, Assistant Head of Division, is an alternate member.
- *The Nordic Investment Bank*  
*Hans Denkov*, Head of Market Operations, is an alternate member of the Board of Directors.
- *GrønlandsBANKEN AIS*  
Former Governor *Ole Thomasen* is elected to the Board of Directors.
- *Danish Ship Finance*  
Former Governor *Ole Thomasen* is a member of the Board of Directors and the Board of Representatives. Mr. *Max Bæhring* and Professor *Michael Møller* are members of the Board of Representatives.
- *Managing Committee for the Social Pension Fund*  
*Hans Denkov*, Head of Market Operations, is a member.

## REPRESENTATION IN INTERNATIONAL ORGANISATIONS

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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 *Henrik Fugmann*, Deputy Secretary, Ministry of Finance).  
*Niels Bartholdy*, Head of Division, is an alternate member of the Committee (with *Lise-Lotte Teilmand*, Head of Division, Ministry of Finance).
- *The Economic Policy Committee*  
*Christian Ølgaard*, Head of Division, (with *Per Callesen*, Deputy Secretary, and *Helge Sigurd Næss-Schmidt*, Head of Division, Ministry of Finance, and *Ulrik Nødgaard*, Head of Division, Ministry of Economic and Business Affairs).
- *The Banking Advisory Committee*  
*Hugo Frey Jensen*, Assistant Director, (with *Torben Garne*, Head of Division, Ministry of Economic and Business Affairs, and *Henrik Bjerre-Nielsen*, Director General, Financial Supervisory Authority).
- *The Working Group of Mint Directors*  
*Laust Grove*, General Manager, the Royal Mint, and *Tina Winther Frandsen*, Head of Section.

### **The European Central Bank, ECB**

- *The General Council*  
Governor *Bodil Nyboe Andersen*.

Danmarks Nationalbank participates partly in the following ECB committees:

- *Accounting Committee*  
*Henrik Larsen*, Director, and *Lisbeth Sundin*, Assistant Head of Division.
- *Banking Supervision Committee*  
*Hugo Frey Jensen*, Assistant Director, (with *Henrik Bjerre-Nielsen*, Director General, Financial Supervisory Authority).
- *Banknote Committee*  
*Hans Kloch*, Director, General Manager, and *Tage Heering*, Head of Division.
- *External Communications Committee*  
*Bjarne Skafte*, Head of Secretariat, and *Winnie Jakobsen*, Assistant Head of Division.
- *Information Technology Committee*  
*Søren Lundsby Hansen*, Head of Information Technology, and *Tom Wagener*, Adviser.
- *Internal Auditors Committee*  
*Peter Jochimsen*, Chief Auditor, and *Stephan Green Löwe*, Head of Section.
- *International Relations Committee*  
Governor *Jens Thomsen* and *Kai Aaen Hansen*, Director, Head of International Relations.
- *Legal Committee*  
*Kirsten Rohde Jensen*, Head of Division.
- *Market Operations Committee*  
*Frank Nielsen*, Head of Division.
- *Monetary Policy Committee*  
*Anders Møller Christensen*, Director.
- *Payments Systems Committee*  
*Karsten Bilstoft*, Head of Payment Systems, and *Allan Damm Christensen*, Adviser.
- *Statistics Committee*  
*Jørgen Ovi*, Assistant Governor, Head of Statistics.

### **The International Monetary Fund, IMF**

- *Board of Governors*  
Governor *Bodil Nyboe Andersen* is the Danish member. (*Karsten Dybvad*, Permanent Secretary, Ministry of Finance, is an alternate member).

- *The Nordic/Baltic Monetary and Financial Committee*  
Governor *Jens Thomsen* (with *Henrik Fugmann*, Deputy Secretary, Ministry of Finance).  
*Kai Aaen Hansen*, Director, Head of International Relations, is a member of the Group of Alternate Members (with *Søren Vester Sørensen*, Head of Section, Ministry of Finance).

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

- *The Economic Policy Committee*  
Governor *Jens Thomsen* (with *Michael Dithmer*, Permanent Secretary, Ministry of Economic and Business Affairs, and *Per Callesen*, Deputy Secretary, Ministry of Finance).

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

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The primary purpose of Danmarks Nationalbank's Anniversary Foundation is to extend financial support for decorative art, architecture and design, although applications relating to music and dance are also taken into account. When considering applications, the Board of the Foundation lays weight on quality as well as support to new and future-oriented artistic projects.

Danmarks Nationalbank's Anniversary Foundation was established in connection with the bank's 150th anniversary in 1968, when kr. 15 million was given to the Foundation. This sum has been supplemented several times, and the total capital now amounts to kr. 60 million.

The capital is placed in bonds. As a consequence of falling interest rates in recent years, yields on the Foundation's capital have decreased and grants have therefore been reduced significantly. The Board of Directors of Danmarks Nationalbank has therefore adopted the transfer of kr. 25 million to the Foundation in connection with the allocation of profits in Danmarks Nationalbank's accounts for 2001.

On 1 March 2002 the Board of the Foundation comprised Governor *Bodil Nyboe Andersen* (Chairman), Professor *Hans E. Zeuthen* (Deputy Chairman), the Ceramist *Karen Bennicke*, Director *Bodil Busk Laursen*, Attorney-at-law *Per Magid* and the Architect and Industrial Designer *Teit Weylandt*.

The Board meets four times a year to award grants. In 2001, 1,303 applications were considered and 156 grants totalling kr. 4.9 million were awarded.

In September 2001 the Foundation awarded two honorary grants of kr. 100,000 each to the Ceramist *Ursula Munch-Petersen* and the Hand Bookbinder *Ernst Rasmussen*. In that connection an exhibition of selected works by the two decorative artists opened in the vestibule of the bank.

## **DANMARKS NATIONALBANK'S GUEST APARTMENTS AT NYHAVN 18**

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Danmarks 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 2001 the guest apartments at Nyhavn 18 were allocated to 11 visitors.

The committee formed to advise on the allocation of the apartments consists of Professor Ole Feldbæk (Chairman), Dr. Else Marie Bukdahl, and Professor Søren-Peter Fuchs Olesen.

## **THE ERIK HOFFMEYER TRAVEL GRANT FOUNDATION**

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In 2001 the Erik Hoffmeyer Travel Grant Foundation awarded grants to Mie-Sophia Elisabeth Augier, MSc (economics and business administration) and PhD student, and to the actor Farshad Kholghi. They each received a grant of kr. 40,000 for further studies abroad.

The Erik Hoffmeyer Travel Grant Foundation was established by the Board of Directors of Danmarks Nationalbank in 1995 as a tribute to Mr. Erik Hoffmeyer for 30 years' outstanding service as Chairman of Danmarks Nationalbank's Board of Governors. 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.

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## Report on Danmarks Nationalbank's accounts

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*Danmarks Nationalbank's financial risks mainly comprise market risks. The market risk is related primarily to the interest-rate and foreign-exchange sensitivity. The foreign-exchange sensitivity primarily concerns assets denominated in euro. The credit risk is very small, since Danmarks Nationalbank exclusively holds claims on counterparties with a high credit standing, and to a significant extent requires the pledging of collateral. During 2001 Danmarks Nationalbank's market risk, measured by Value-at-Risk (VaR), increased from kr. 3.2 billion to kr. 5.9 billion. The increase is primarily related to the greater volatility of the financial markets in the 2nd half of 2001, although the augmentation of the foreign-exchange reserve also had an effect.*

*Danmarks Nationalbank's accounts for 2001 show a profit of kr. 4.8 billion, compared to kr. 5.7 billion in 2000. This adjustment is due mainly to the decrease in value adjustments by kr. 1.2 billion to kr. 0.1 billion. Of the profit for the year, kr. 3.3 billion is payable to the central government. Danmarks Nationalbank's net capital has increased by kr. 1.5 billion to 46.7 billion.*

### **DANMARKS NATIONALBANK'S MANAGEMENT OF FINANCIAL RISKS**

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Danmarks Nationalbank holds financial assets and liabilities. This entails that Danmarks Nationalbank is exposed to a number of financial risks that can affect the financial result. The principal assets are foreign deposits and securities, domestic bonds and loans to Danish banks. The principal liabilities are banknotes and coins in circulation, deposits and certificates of deposits, and the deposits of the central government, cf. the balance sheet on pp.112-114. Danmarks Nationalbank is primarily exposed to market risks and to a lesser degree to other types of risk, e.g. credit risks.

#### **Market risk**

The market risk is the risk of Danmarks Nationalbank suffering a loss as a consequence of price fluctuations on the financial markets. Losses may arise primarily as a consequence of fluctuations in interest and exchange rates.



Generally, a distinction is drawn between sensitivity and risk. *Sensitivity* is the extent to which Danmarks Nationalbank will incur losses on a given change in a specific risk factor, such as the interest rate. The compilation of the foreign-exchange sensitivity is based on market values of foreign-exchange outstandings. Interest-rate sensitivity is compiled on the basis of the krone duration which states the capital loss to Danmarks Nationalbank as a consequence of an increase in interest rates by 1 percentage point.

On compiling the *risk*, the probability of loss is evaluated by combining sensitivity with the probability of a change in the risk factor concerned. For example, Value-at-Risk (VaR) is used to compile the total market risk. It indicates the maximum loss that can be expected within a given time frame with a given probability.

#### *Interest-rate risk*

The interest-rate risk indicates the capital loss which Danmarks Nationalbank will suffer as a consequence of a change in interest rates. For Danmarks Nationalbank, which holds significantly more fixed-rate assets than liabilities, an increase in interest rates will impose a loss. Experience shows that in the long term fixed-rate bonds yield higher returns than placements at shorter maturities. Over an extended period, Danmarks Nationalbank will therefore increase its return by assuming a certain interest-rate risk.

At the end of 2001 the interest-rate sensitivity of the foreign portfolio accounted for approximately 60 per cent of the total interest-rate sensitivity. In order to spread the interest-rate risk on the foreign portfolio the sensitivity is diversified into several markets, cf. Table 9.

The sensitivity to changes in Danish interest rates can be related to Danmarks Nationalbank's portfolio of securities, comprising government, mortgage-credit and Danish Ship Finance bonds. Since mortgage-credit bonds are usually callable, and can thus be redeemed prematurely, the compilation of the interest-rate sensitivity of these bonds cannot be

INTEREST-RATE SENSITIVITY OF DANMARKS NATIONALBANK

Table 9

Capital loss in kr. billion on a general 1-per-cent increase in interest rates	End-2000	End-2001
Kroner .....	1.3	1.2
Euro .....	1.1	1.0
Pound sterling .....	0.2	0.2
Dollar .....	0.8	0.8
Yen .....	0.1	0.1
Total .....	3.4	3.3

determined by the same method as for e.g. uncallable government bonds. A model is therefore used which takes the call option into account on compiling the interest-rate sensitivity of mortgage-credit bonds.

### *Foreign-exchange risk*

Foreign-exchange risk is the risk of capital losses as a consequence of fluctuations in exchange rates. Danmarks Nationalbank holds considerable foreign-exchange assets, first and foremost the foreign-exchange reserve which serves as an intervention reserve. Like other central banks, Danmarks Nationalbank therefore cannot avoid exposure to a foreign-exchange risk.

The exchange-rate risk on the foreign-exchange-denominated assets is limited by forward sale of dollars, sterling and yen against euro. This reduces the exchange-rate risk on Danmarks Nationalbank's bond and money-market placements in those currencies. For example, at the close of 2001 Danmarks Nationalbank held sterling assets for kr. 11 billion, but had sold sterling forward for kr. 11 billion. The total net sterling outstandings thereby amounted to zero in net terms. The exchange-rate risk cannot be eliminated completely by forward sale of currency against kroner, since this will affect the krone rate.

Danmarks Nationalbank's foreign-exchange sensitivity almost entirely concerns the euro, cf. Table 10. A change in the krone's rate against the dollar, yen and pound sterling has only a modest effect on Danmarks Nationalbank's result.

Danmarks Nationalbank's foreign-exchange outstandings increased by kr. 27 billion to kr. 161 billion at end-2001. The increase is related to the foreign-exchange reserve. Danmarks Nationalbank's gold stock entails exposure to the gold price. The gold stock is held at a constant level.

In 1992 coordinated management of Danmarks Nationalbank's foreign-exchange risk with the foreign-exchange risk on the central govern-

FOREIGN-EXCHANGE EXPOSURE OF DANMARKS NATIONALBANK Table 10

Market value in kr. billion	End-2000, total	End-2001		
		Placements	Forward contracts	Total
Euro .....	127	96	62	157
Pound sterling .....	2	11	-11	0
Dollar .....	-2	41	-43	-2
Yen .....	1	8	-8	0
Gold .....	5	5	0	5
<b>Total .....</b>	<b>134</b>	<b>161</b>	<b>0</b>	<b>161</b>

Note: Negative amounts indicate that Danmarks Nationalbank holds liability when the foreign currency increases in value. The value of SDR is distributed on the respective currencies.

DANMARKS NATIONALBANK'S VALUE-AT-RISK		Table 11
Value-at-Risk in kr. billion with a 1-year horizon	End-2000	End-2001
Interest-rate risk .....	3.0	5.6
Exchange-rate risk .....	1.2	1.1
Gold .....	1.0	1.0
Reduction due to diversification .....	-1.9	-1.7
Total .....	3.2	5.9

ment's foreign debt began. The net position, i.e. the difference between Danmarks Nationalbank's foreign-exchange-denominated assets and the central government's foreign-exchange-denominated liabilities, has in recent years been primarily in euro. In view of Denmark's fixed-exchange-rate policy the euro is found to be the currency entailing the lowest risk. As the exchange-rate risk on the central government's liabilities and Danmarks Nationalbank's assets is primarily in euro, the coordinated management was discontinued as of 1 January 2001.

#### *Value-at-Risk*

Danmarks Nationalbank uses various risk measures to evaluate the market risk. One of these is Value-at-Risk (VaR), which besides the probability of interest-rate and exchange-rate losses based on historical fluctuations also includes the covariation between them. VaR is supplemented with stress scenarios to calculate the impact of extreme fluctuations in interest and exchange rates on Danmarks Nationalbank's portfolio.

At end-2001 Danmarks Nationalbank's VaR was kr. 5.9 billion<sup>1</sup>, cf. Table 11. During the next year, with a probability of 95 per cent Danmarks Nationalbank will thus have a maximum total capital loss of kr. 5.9 billion. In the long term Danmarks Nationalbank is only expected to have a loss exceeding kr. 5.9 billion in one out of 20 years. VaR at the close of 2000 was kr. 3.2 billion. The increase in VaR is related to the greater volatility of the financial markets in the 2nd half of 2001 compared to the same period of 2000. Moreover, Danmarks Nationalbank's portfolio has increased significantly.

The exchange-rate risk on the euro is not a traditional market risk, since Danmarks Nationalbank not only may, but is also obliged, to influence the krone/euro rate. Moreover, Danmarks Nationalbank will only sustain a loss if the krone strengthens against the euro. It can therefore be of interest to evaluate VaR without the exchange-rate risk related to the euro. VaR excluding the exchange-rate risk on the euro is kr. 4.3

<sup>1</sup> VaR is calculated on the basis of estimated volatilities and correlations between the relevant risk factors for the last 160 days. VaR is determined by combining these estimates with Danmarks Nationalbank's portfolio composition at the end of 2001.

DANMARKS NATIONALBANK'S LOSS IN A STRESS SCENARIO, END-2001			Table 12
Kr. billion	Interest-rate loss	Exchange-rate loss	Total
Scenario 1 .....	5.8	4.9	10.7
Scenario 2 .....	7.2	6.5	13.7
Scenario 3 .....	8.4	7.9	16.3

Note: Danmarks Nationalbank's gold stock is included in foreign-exchange losses.

billion. Elimination of the exchange-rate risk related to the euro thus entails a decrease in VaR by 27 per cent.

Danmarks Nationalbank's net capital totalled kr. 47 billion at the close of 2001, cf. the balance sheet on p. 121. VaR as a ratio of net capital has increased from 7 per cent in 2000 to 13 per cent in 2001.

### *Stress scenario*

The VaR calculations provide information on the general risk of loss, but not on the extent of the losses in the event of extreme market fluctuations. *Stress scenarios* are used for this purpose. The scenarios set out extreme, but realistic, scenarios of market development, and determine how Danmarks Nationalbank's current portfolio is affected by these market fluctuations. It is difficult to set out realistic extreme market fluctuations. Therefore data is selected from sub-periods between 1991 and 2001 in which the development in interest and exchange rates was particularly unfavourable to Danmarks Nationalbank. This data is used to set up three scenarios:

- *Scenario 1:* The one-year period that has given the greatest total interest and exchange-rate losses to Danmarks Nationalbank.
- *Scenario 2:* The one-year period that has given the greatest total interest-rate loss, combined with the term of years that has given the greatest total exchange-rate loss for Danmarks Nationalbank. The terms do not have to be concurrent.
- *Scenario 3:* The one-year period that for each individual one-year interest-rate segment in each currency has given the greatest interest-rate loss, combined with the one-year period that for each currency has given the greatest exchange-rate loss for Danmarks Nationalbank. The terms do not have to be concurrent.

In view of the current portfolio structure the three scenarios give a total capital loss of between approximately kr. 11 and 16 billion, cf. Table 12.

The most pessimistic scenario (scenario 3) will give Danmarks Nationalbank a capital loss of 35 per cent of net capital.

### **Liquidity risk**

The principal purpose of the foreign-exchange reserve is for Danmarks Nationalbank to be able to intervene in the foreign-exchange market. In the management of the foreign-exchange reserve it is therefore very important to ensure that the greater part of the reserve can quickly be converted to liquid funds. Therefore a large proportion of the foreign-exchange reserve is placed in the money market or in bonds with a high degree of security, so that they can easily be realised or used as collateral in various liquid markets.

Danmarks Nationalbank also has access to foreign exchange via the central government's Commercial Paper programme amounting to 12 billion dollars. Moreover, there is an opportunity to borrow at the ECB in accordance with the ERM II agreement.

The placement of the portfolio of domestic securities does not give the same weight to liquidity considerations.

### **Credit risk**

The credit risk is the risk of loss due to a counterparty's default on obligations.

To reduce the credit risk Danmarks Nationalbank seeks to spread its assets among counterparties with a high credit standing. Moreover, to a large extent collateral is required. The credit risk is therefore very small.

The credit risk on the foreign claims, i.e. claims on 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 with government bonds as collateral are used to a great extent. Should a repo counterparty be subject to compulsory liquidation Danmarks Nationalbank's deposit is covered by the collateral provided.

Danmarks Nationalbank's holdings of foreign bonds are issued or guaranteed<sup>1</sup> by states with a high credit rating, or issued by supranational institutions. Danmarks 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 attached to the high credit standing of the issuer. The securities portfolio thus almost exclusively comprises government bonds, mortgage-credit bonds and Danish Ship Finance bonds.

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<sup>1</sup> The government-guaranteed securities include securities with an implicit government guarantee.

**TOTAL CREDIT EXPOSURE ON THE FOREIGN-EXCHANGE RESERVE AND THE DOMESTIC SECURITIES PORTFOLIO ETC., END-2001**

Table 13

Kr. billion	2000 Total	Bonds		Bank claims		Supra-national institutions	Total
		Government	Others	Collateralised	Uncollateralised		
Aaa .....	66.6	57.2	19.9	-	9.2	4.5	90.8
Aa1 .....	11.0	4.6	1.1	9.1	4.3	-	19.1
Aa2 .....	12.4	0.7	7.9	0.7	9.2	-	18.6
Aa3 .....	52.8	12.4	1.9	17.1	15.8	-	47.2
A1 .....	5.1	-	0.4	3.4	1.7	-	5.5
A2 .....	2.2	-	-	3.4	0.4	-	3.8
A3 .....	2.4	-	-	-	-	-	-
No rating .....	15.7	-	3.4 <sup>1</sup>	0.4	0.1	9.7 <sup>2</sup>	13.6
<b>Total .....</b>	<b>168.0</b>	<b>75.0</b>	<b>34.5</b>	<b>34.2</b>	<b>40.7</b>	<b>14.2</b>	<b>198.6</b>

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

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

<sup>2</sup> Exclusively covers BIS and IMF.

Loans related to the monetary-policy operations, the banks' intra-day credits and cash depots are granted solely against bonds as collateral, and are not included in Table 13.

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, the credit risk to Danmarks Nationalbank is very small, cf. Table 13.

## PRESENTATION OF DANMARKS NATIONALBANK'S ACCOUNTS

Danmarks Nationalbank's accounts with notes are shown on pp. 115-127.

The accounts for 2001 have been prepared in accordance with the same accounting policies as the previous year, with the exception that shares and fixed assets are now capitalised, whereas previously they were written down to respectively kr. 1 and kr. 0 in the profit and loss account.

The comparative figures have been adjusted in accordance with the change of accounting policy.

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

The profit from financial items was kr. 5,603 million and thereby kr. 636 million lower than in 2000. The decrease primarily reflects negative value adjustments of kr. 1,186 million from kr. 1,310 million in 2000 to

kr. 124 million. After income from shares, etc., of kr. 29 million, other income from ordinary operations of kr. 4 million, expenses of kr. 514 million, depreciation and amortisation of tangible fixed assets of kr. 28 million, and other expenditure on ordinary operations of kr. 300 million, the profit for the year is kr. 4,794 million, or kr. 904 million less than in 2000.

The balance sheet has increased from kr. 237.8 billion to kr. 295.3 billion. The increase in assets is primarily due to foreign assets and loans to banks and mortgage-credit institutes, while the increase in liabilities is primarily related to an increase in certificates of deposit which is, however, partly offset by a decrease in deposits from banks and mortgage-credit institutes.

### **The profit and loss account**

#### *Net income from interest*

Net income from interest totalled kr. 5,479 million which is kr. 550 million more than in 2000.

Income from interest on foreign assets rose by kr. 638 million to kr. 6,453 million. The increase is a consequence of higher average interest rates than in 2000, while the foreign-exchange reserve on average was kr. 4.6 billion less in 2001 than in 2000.

Net interest to banks and mortgage-credit institutes (interest on deposits and certificates of deposit less interest on lending) was kr. 1,186 million, compared to kr. 983 million in 2000. The rates of interest for certificates of deposit and lending are identical, while the rate of interest for deposits is lower. The increase in the total net interest expenditure of kr. 203 million is related to the higher interest rates in 2001 than the equivalent rates in 2000, and that the average net position vis-à-vis Danmarks Nationalbank of the banks and mortgage-credit institutes was higher in 2001 than in 2000.

Danmarks Nationalbank's interest expenditure on the central government's deposit rose by kr. 17 million to kr. 2,209 million. The deposit was on average lower than in the preceding year, while the discount rate, which is the rate of interest on the deposit, was higher.

Interest on loans to other borrowers of kr. 180 million is generally unchanged.

Interest to other depositors, etc., fell by kr. 27 million to kr. 267 million, primarily because Danmarks Nationalbank's obligations to Danish Ship Finance were reduced during the year due to redemptions, cf. p. 96 of the Annual Report for 1997.

Interest on domestic bonds at kr. 2,568 million is by and large unchanged.

*Value adjustments, etc.*

The value adjustments, etc. resulted in a gain of kr. 124 million.

Value adjustment of Danmarks Nationalbank's gold stock gave a gain of kr. 296 million, which is primarily related to an increase in the dollar, while the price of gold in dollars was almost unchanged.

The value adjustment of foreign-exchange positions comprises the value adjustment of the foreign-exchange reserve, as well as the value adjustment of unsettled foreign-exchange contracts, currency and interest-rate swaps, domestic foreign-exchange balances, and the liability: counterpart of Special Drawing Rights (SDR) allocated by the IMF. The downward value adjustment of kr. 299 million can be attributed to a foreign-exchange loss of kr. 677 million and a market-value gain of kr. 378 million. The foreign-exchange loss is related to a loss in euro and dollars and a gain in yen.

The value adjustment of domestic bonds gave a total gain of kr. 127 million.

The market-value gain on domestic and foreign bonds can be related to the general decrease in international interest rates, which is set off partly by 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.

*Expenses*

Total expenses decreased by kr. 3 million to kr. 514 million, or 0.6 per cent.

Staff expenses rose by kr. 8 million to kr. 301 million. This increase reflects an increase in wages, salaries and fees, and other staff expenses, of kr. 9 million, or 3.4 per cent, and a decrease in the provision carried as expenditure for support and severance schemes of kr. 1 million.

Other expenses fell by kr. 11 million to kr. 213 million, equivalent to a decrease of 5.1 per cent.

*Other expenditure on ordinary operations*

This item concerns a payment to Danmarks Nationalbank's Pension Fund.

*Profit for the year*

The result for the year is a profit of kr. 4,794 million, against a profit of kr. 5,698 million in 2000. Kr. 25 million is transferred to Danmarks Nationalbank's Anniversary Foundation of 1968. In accordance with the practice for allocation of profits the gain on value adjustments of kr.



124 million is allocated to the Value Adjustment Reserve, which hereafter amounts to kr. 1,454 million. An amount of kr. 1,376 million is allocated to the General Reserves, which together with the contribution to Danmarks Nationalbank's Anniversary Foundation of 1968 corresponds to 30 per cent of the profit excluding value adjustments. The General Reserves hereafter total kr. 44,951 million. The remainder of kr. 3,269 million is payable to the central government.

## **The balance sheet**

### *Gold*

The stock of gold amounted to kr. 5.0 billion at the end of the year, compared to kr. 4.7 billion in 2000. The increase is related to the increase in the price of gold calculated in kroner of 6 per cent during 2001.

### *Foreign assets*

Assets amounted to kr. 138.6 billion at the end of the year, compared to kr. 110.9 billion in 2000, equivalent to an increase of 25 per cent. The assets are placed in euro (65 per cent), dollars (22 per cent), pounds sterling (8 per cent) and yen (5 per cent). The positions are held mainly in highly rated government bonds, government-guaranteed bonds, deposits with central banks and commercial banks, or as lending against collateral in government bonds.

Foreign assets are the most significant items 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)*

This balance-sheet item comprises Denmark's IMF quota less the IMF's holdings of Danish kroner at Danmarks Nationalbank, with addition of Danmarks Nationalbank's holdings of Special Drawing Rights (SDR) and loans for the Poverty Reduction and Growth Facility Trust. During the year this asset increased by kr. 3.4 billion to kr. 8.5 billion, which is related to an increase in the drawing by the IMF, as well as a minor increase due to value adjustments.

### *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 mort-

gage-credit institutes with Danmarks Nationalbank increased from kr. 32.0 billion to kr. 51.8 billion during the year. This item includes loans related to cash depots, which decreased from kr. 2.7 billion to kr. 2.1 billion.

#### *Domestic bonds*

The holdings amount to kr. 41.0 billion, which is an increase of kr. 1.2 billion from 2000. The holdings are almost exclusively mortgage-credit bonds (kr. 20.4 billion), government bonds (kr. 15.9 billion) and bonds issued by Danish Ship Finance (kr. 3.5 billion).

#### *Banknotes and coins in circulation*

Banknotes in circulation increased by kr. 2.3 billion to kr. 43.0 billion, while coins in circulation increased by kr. 0.2 billion to kr. 4.3 billion. Banknotes in circulation include Faroese notes at kr. 332 million. The increase in banknotes in circulation generally matches the trend in recent years, cf. pp. 62-63.

#### *Foreign liabilities*

The liabilities increased by kr. 0.6 billion to kr. 3.7 billion and comprise krone deposits with Danmarks Nationalbank from supranational institutions and other central banks.

#### *Counterpart of Special Drawings Rights allocated by the IMF (SDR)*

The allocation was unchanged during the year, and the value adjustment for the year was minor.

#### *Deposits, etc.*

Besides deposits from banks and mortgage-credit institutes of kr. 32.5 billion this item includes other deposits of kr. 5.5 billion, of which the accounts of Danish Ship Finance at kr. 1.9 billion and of VB Finans at kr. 1.9 billion are the largest.

#### *Certificates of deposit*

Certificates of deposit, which are Danmarks Nationalbank's short-term debt securities sold to banks and mortgage-credit institutes, increased by kr. 61.7 billion to kr. 113.6 billion.

#### *Central government*

The central-government deposit increased from kr. 37.7 billion to kr. 43.5 billion. The central government's share of the profit of Danmarks Nationalbank is included in this amount.

*Net capital*

The net capital amounts to kr. 46,705 million, which is the net capital at the beginning of the year of kr. 45,205 million with addition of the allocation to the General Reserve of kr. 1,376 million and positive value adjustments of kr. 124 million.

Copenhagen, end-February 2002.

*Bodil Nyboe Andersen*

*Torben Nielsen*

*Jens Thomsen*

At the meeting of the Board of Directors held on 18 March 2002 the Board of Governors reported on the activities of Danmarks Nationalbank. The report was noted.

Danmarks Nationalbank's accounts for 2001 were submitted by the Board of Governors for adoption on the recommendation of the Committee of Directors. The Board of the Directors and the Royal Bank Commissioner accepted the recommendation.

# Accounts

for the Year 2001

## ACCOUNTING POLICIES

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### General

Danmarks Nationalbank's Accounts for the year 2001 are presented in accordance with the Danmarks Nationalbank Act and are approximated to the sound accounting policies for European central banks. Unrealised gains on foreign exchange and securities are still recognised in the profit and loss account, however.

With the exception of the adjustments described below, the accounting policies are unchanged from the previous year.

The comparative figures adjusted in accordance with the changes of principle show a reduction of the result for 2000 by t.kr. 25,404 and an increase in the net capital at 31 December 2000 by t.kr. 789,231.

### Change of accounting policies

*Shares, etc.*, comprise capital investments and equivalent investments previously stated at kr. 1 per item. Danmarks Nationalbank's capital investments and equivalent investments are now stated at acquisition value or market value at year-end, if assessed to be significantly lower.

The adjustment results in the write-up of shares, etc., at the beginning of the year 2000 by t.kr. 150,581, which is carried to the General Reserves.

*Tangible fixed assets* were previously recognised as expenditure in the year of acquisition. Danmarks Nationalbank's tangible fixed assets are now stated at acquisition value with addition of improvements and deduction of depreciation and amortisation. Assets with an acquisition value of less than kr. 100,000 are recognised as expenditure in the year of acquisition.

This change entails the write-up of tangible fixed assets by t.kr. 664,054 at the beginning of 2000, which is carried to the General Reserves.

### Accounting policies:

*Income and expenses* are recognised in the profit and loss account for the period which they concern. Income and expenses in foreign exchange are converted at the exchange rates prevailing at the time that they are recorded in the accounts.

Premiums and discounts on Treasury bills and certificates of deposit, as well as forward premiums on forward securities and foreign-exchange contracts, are recognised as interest.

Both realised and unrealised gains and losses are recognised in the profit and loss account, with the exception of unrealised gains on fixed assets.

*Gold* is stated at market value on the balance-sheet date.

*Assets and liabilities in foreign exchange*, including forward contracts, are entered at the official exchange rates and securities market prices prevailing on the balance-sheet date. Swaps and futures are stated at market value.

**Bonds**, including forward contracts, are stated at market value at year-end.

**Repurchase agreements, etc.** Securities sold in connection with repurchase agreements, and gold and securities made available in lending facilities, are included in Danmarks Nationalbank's holdings.

**Shares, etc.**, comprise capital investments and equivalent investments stated at acquisition value or market value at year-end, if significantly lower. Write-down to lower than acquisition value is recognised in the profit and loss account if it exceeds previous revaluations of the share. Revaluations are carried directly to net capital.

**Tangible fixed assets** are stated at acquisition price less depreciation and amortisation. Assets with an acquisition value of less than kr. 100,000 are recognised as expenditure in the year of acquisition. Depreciation on a linear pro anno basis is made over the expected useful lives of the assets.

The useful lives are assessed as follows:

Bank properties .....	100 years
Other properties .....	25-50 years
Building improvements .....	25 years
Technical building facilities .....	10-25 years
Technical production facilities .....	5-10 years
Other machinery and equipment .....	3-5 years

**PROFIT AND LOSS ACCOUNT FOR THE YEAR 2001**

Note		2001 kr. '000	2000 kr. '000
	<b>Income from interest, etc.:</b>		
	Interest on foreign assets .....	6,453,276	5,815,210
1	Interest on loans, etc. ....	2,630,610	2,196,500
	Interest on domestic bonds .....	2,568,359	2,535,775
	Commission and other income .....	7,444	6,059
		<u>11,659,689</u>	<u>10,553,544</u>
	<b>Expenditure on interest, etc.</b>		
	Interest on foreign liabilities .....	67,401	133,450
2	Interest on deposits, etc., and certificates of deposit .....	6,113,674	5,491,211
		<u>6,181,075</u>	<u>5,624,661</u>
	<b>Net income from interest</b> .....	<b>5,478,614</b>	<b>4,928,883</b>
	<b>Value adjustments, etc.:</b>		
	Value adjustment of gold .....	296,448	115,818
3	Value adjustment of foreign assets .....	-298,938	1,126,223
	Value adjustment of domestic bonds .....	126,658	67,524
		<u>124,168</u>	<u>1,309,565</u>
	<b>Profit from financial items</b> .....	<b>5,602,782</b>	<b>6,238,448</b>

**PROFIT AND LOSS ACCOUNT FOR THE YEAR 2001**

Note	2001 kr. '000	2000 kr. '000
<b>Profit from financial items .....</b>	<b>5,602,782</b>	<b>6,238,448</b>
<b>Income from shares, etc. ....</b>	<b>28,947</b>	<b>27,283</b>
<b>Other income from ordinary operations .....</b>	<b>4,275</b>	<b>-</b>
<b>Expenses:</b>		
4 Staff expenses.....	301,335	292,818
5 Other expenses .....	212,707	224,068
	<u>514,042</u>	<u>516,886</u>
6 <b>Depreciation and write-down of tangible fixed assets .....</b>	<b>27,817</b>	<b>31,210</b>
7 <b>Other expenditure on ordinary operations.....</b>	<b>300,000</b>	<b>19,532</b>
<b>Profit for the year .....</b>	<b><u>4,794,145</u></b>	<b><u>5,698,103</u></b>
<b>which is allocated as follows:</b>		
Contribution to Danmarks Nationalbank's Anniversary Foundation of 1968 .....	<b>25,000</b>	<b>-</b>
Allocation to the Value Adjustment Reserve.....	<b>124,168</b>	<b>1,309,565</b>
Allocation to the General Reserves .....	<b>1,375,993</b>	<b>1,322,135</b>
Payable to the central government .....	<b>3,268,984</b>	<b>3,066,403</b>
<b>Total allocation .....</b>	<b><u>4,794,145</u></b>	<b><u>5,698,103</u></b>

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



**BALANCE SHEET AS AT 31 DECEMBER 2001**

Note	2001 kr. '000	2000 kr. '000
<b>Assets</b>		
8 Gold .....	<b>4,978,942</b>	4,682,768
9 Foreign assets .....	<b>138,632,978</b>	110,851,284
10 Claims on the International Monetary Fund (IMF), etc. ...	<b>8,548,590</b>	5,126,649
11 Loans, etc. ....	<b>97,015,547</b>	67,634,540
12 Domestic bonds .....	<b>41,036,632</b>	39,847,026
13 Shares, etc. ....	<b>116,221</b>	113,072
14 Tangible fixed assets .....	<b>673,852</b>	672,017
15 Other assets .....	<b>4,260,975</b>	8,847,880
Accruals .....	<b>22,244</b>	20,888
<b>Total assets</b> .....	<b>295,285,981</b>	237,796,124

**BALANCE SHEET AS AT 31 DECEMBER 2001**

Note	2001 kr. '000	2000 kr. '000
<b>Liabilities</b>		
Banknotes .....	<b>42,965,622</b>	40,649,923
Coins .....	<b>4,332,660</b>	4,148,455
Foreign liabilities .....	<b>3,734,002</b>	3,143,427
Counterpart of Special Drawing Rights allocated by the International Monetary Fund (SDR)....	<b>1,884,225</b>	1,868,986
16 Deposits, etc. ....	<b>37,996,257</b>	52,460,337
Certificates of deposit .....	<b>113,620,000</b>	51,874,000
Central government .....	<b>43,509,692</b>	37,717,606
Other liabilities .....	<b>538,555</b>	728,583
<b>Total creditors</b> .....	<b>248,581,013</b>	192,591,317
General Capital Fund .....	<b>50,000</b>	50,000
Statutory Reserves .....	<b>250,000</b>	250,000
Value Adjustment Reserve .....	<b>1,453,697</b>	1,329,529
General Reserves .....	<b>44,951,271</b>	43,575,278
17 <b>Total net capital</b> .....	<b>46,704,968</b>	45,204,807
<b>Total liabilities</b> .....	<b>295,285,981</b>	237,796,124
<b>Off-balance-sheet items:</b>		
18 Guarantees .....	<b>173,658</b>	197,793
19 Other liabilities .....	<b>72,140,181</b>	65,895,427
	<b>72,313,839</b>	66,093,220

## NOTES TO THE ACCOUNTS FOR 2001

Note	2001 kr. '000	2000 kr. '000
<b>1 Interest on loans, etc.</b>		
Interest on loans to domestic banks and mortgage-credit institutes .....	2,450,925	2,021,971
Interest on loans to other borrowers .....	179,685	174,529
	<u>2,630,610</u>	<u>2,196,500</u>
<b>2 Interest on deposits, etc., and certificates of deposit</b>		
Interest on deposits from domestic banks and mortgage-credit institutes .....	262,044	271,340
Interest on certificates of deposit .....	3,375,358	2,733,343
Interest on the central government's deposits .....	2,209,285	2,192,201
Interest to other depositors, etc. ....	266,987	294,327
	<u>6,113,674</u>	<u>5,491,211</u>
<b>3 Value adjustment of foreign assets</b>		
Market-value adjustment .....	377,985	845,588
Exchange-rate adjustment .....	-676,923	280,635
	<u>-298,938</u>	<u>1,126,223</u>
<b>4 Staff expenses</b>		
Salaries and remuneration .....	231,154	221,983
Other staff expenses .....	60,181	59,835
Allocations to support and severance schemes .....	10,000	11,000
	<u>301,335</u>	<u>292,818</u>
Average number of employees on a full-time basis .....	<u>556</u>	<u>556</u>
<b>5 Other expenses</b>		
Materials for note production .....	15,787	17,223
Materials for coin production .....	15,716	14,235
Real property, current expenses .....	74,844	65,396
Data processing, etc. ....	42,765	57,728
Minor acquisitions and maintenance of machinery and equipment .....	10,604	16,899
Other expenses .....	56,427	56,347
Income from sale of coin sets and medals, etc. ....	-3,436	-3,760
	<u>212,707</u>	<u>224,068</u>

## NOTES TO THE ACCOUNTS FOR 2001

Note	2001 kr. '000	2000 kr. '000
<b>6 Depreciation and write-down of tangible fixed assets</b>		
Properties .....	9,615	9,446
Operating equipment .....	18,202	21,764
	<u>27,817</u>	<u>31,210</u>
<b>7 Other expenditure on ordinary operations</b>		
The amount concerns payments to Danmarks Nationalbank's Pension Fund subject to winding-up.		
<b>8 Gold</b>		
The gold stock amounts to 66,601 kg (2000: 66,605 kg), of which 61,502 kg (2000: 62,439 kg) has been lent.		
<b>9 Foreign assets</b>		
Foreign bonds .....	74,969,456	68,924,184
Claims on central banks .....	8,175,705	5,659,838
Claims on foreign commercial banks .....	21,289,245	9,996,066
Repo transactions against collateral in foreign bonds .....	34,197,191	26,268,864
Other foreign assets .....	1,381	2,332
	<u>138,632,978</u>	<u>110,851,284</u>
<b>10 Claims on the International Monetary Fund (IMF), etc.</b>		
Denmark's IMF quota .....	17,305,912	17,165,946
The IMF's holdings of Danish kroner .....	11,334,768	12,567,132
Reserve position with the IMF .....	5,971,144	4,598,814
Holdings of Special Drawing Rights (SDR) .....	2,354,327	527,835
	<u>8,325,471</u>	<u>5,126,649</u>
Loans for the Poverty Reduction and Growth Facility Trust .....	223,119	-
	<u>8,548,590</u>	<u>5,126,649</u>

## NOTES TO THE ACCOUNTS FOR 2001

Note	2001 kr. '000	2000 kr. '000
<b>11 Loans, etc.</b>		
Banks and mortgage-credit institutes:		
- Monetary-policy lending .....	63,353,000	25,165,000
- Settlement accounts .....	28,783,934	37,132,503
- Other .....	<u>2,204,595</u>	<u>2,755,622</u>
	94,341,529	65,053,125
Other .....	<u>2,674,018</u>	<u>2,581,415</u>
	<u>97,015,547</u>	<u>67,634,540</u>
<b>12 Domestic bonds</b>		
Danish government bonds .....	15,903,491	14,773,982
Other domestic bonds .....	<u>25,133,141</u>	<u>25,073,044</u>
	<u>41,036,632</u>	<u>39,847,026</u>
<b>13 Shares, etc.</b>		
<p>Danmarks Nationalbank's holdings of shares and equivalent investments at 31 December 2001 have an estimated market value of kr. 968 million.</p> <p>The holdings comprise shares, etc., in the Bank for International Settlements (BIS), SAS, GrønlandsBANKEN, ECB capital contribution, Bella Center, Danish Securities Centre, Det Danske Stålvalseværk, DLR Kredit, Herning-Hallen and SWIFT.</p>		
<b>14 Tangible fixed assets</b>		
Properties .....	595,281	595,211
Machinery and equipment .....	<u>78,571</u>	<u>76,806</u>
	<u>673,852</u>	<u>672,017</u>

At the most recent official assessment Danmarks Nationalbank's properties were valued at kr. 778 million.

## NOTES TO THE ACCOUNTS FOR 2001

Note			2001 kr. '000	2000 kr. '000
<b>15 Other assets</b>	The amount includes outstanding interest of kr. 2,479 million (2000: kr. 2,488 million)			
<b>16 Deposits, etc.</b>				
Banks and mortgage-credit institutes .....			<b>32,488,596</b>	45,137,725
Other depositors .....			<b>5,507,661</b>	7,322,612
			<b><u>37,996,257</u></b>	<b><u>52,460,337</u></b>
	General Capital Fund and Statutory Fund kr. '000	Value Adjustment Reserve kr. '000	General Reserves kr. '000	Total kr. '000
<b>17 Total net capital</b>				
End-2000 according to Accounts for 2000 .....	300,000	1,362,896	42,752,680	44,415,576
Adjustment of fixed assets, beginning of 2000 .....	-	-	814,635	814,635
Adjustment of share of the result for 2000 .....	-	-33,367	7,963	-25,404
Adjusted year-end balance 2000	<u>300,000</u>	<u>1,329,529</u>	<u>43,575,278</u>	<u>45,204,807</u>
Carried forward from the profit for the year .....	-	124,168	1,375,993	1,500,161
	<b><u>300,000</u></b>	<b><u>1,453,697</u></b>	<b><u>44,951,271</u></b>	<b><u>46,704,968</u></b>

## NOTES TO THE ACCOUNTS FOR 2001

Note	2001 kr. '000	2000 kr. '000
<b>18 Guarantees</b>		
Danish Securities Centre, share of Guarantee Capital .....	<b>73,583</b>	91,348
Danish Securities Centre, guarantee for errors by other account-holding institutions .....	<b>34,045</b>	42,415
Danish Ship Finance, share of Guarantee Capital .....	<b>63,000</b>	63,000
Other guarantees .....	<b>3,030</b>	1,030
	<b>173,658</b>	197,793

Moreover, the Bank has provided the following guarantees that are assessed at kr. 0:

Guarantee for obligations of Danmarks Nationalbank's Pension Fund subject to winding-up, and price guarantee vis-à-vis central banks of other EU member states in the event of realisation of Danish securities pledged as collateral in the TARGET system.

### 19 Other liabilities

Forward purchases of foreign exchange .....	<b>61,858,251</b>	54,735,667
Market value of assets in currency swap agreements .....	<b>6,196,831</b>	6,797,483
Futures .....	<b>176,836</b>	485,624
Unutilised portion of credit facilities made available to the IMF (SDR) .....	<b>3,908,263</b>	3,876,653
	<b>72,140,181</b>	65,895,427

Moreover, the Bank has granted an irrevocable credit undertaking to the Poverty Reduction and Growth Facility Trust (PRGF) with a guarantee from the Danish state, and established intervention agreements with the ECB and with Nordic central banks.

## SIGNATURES AND AUDIT REPORTS

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### Danmarks Nationalbank

*Copenhagen, 12 February 2002*

*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 2001.

#### **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 Danmarks Nationalbank's procedures and internal control systems provide adequate security. We have tested the basis and documentation for the amounts and other information presented in the annual accounts. We have assessed the applied accounting policies and the accounting estimates made. In addition, we have evaluated the overall 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 statutory regulations and give a true and fair view of the assets and liabilities, financial position and result of Danmarks Nationalbank.

*Copenhagen, 12 February 2002*

*Peter Jochimsen, Chief Auditor*

#### **Report of the external auditors**

As auditors appointed by the Royal Bank Commissioner we have audited the annual accounts of Danmarks Nationalbank for the year 2001.

#### **Basis of opinion**

We have planned and conducted our audit in accordance with the auditing standards generally accepted in Denmark to obtain reasonable assurance that the annual accounts and the information on the accounts presented in the annual report 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 statutory regulations and give a true and fair view of the assets and liabilities, financial position and result of Danmarks Nationalbank.

*Copenhagen, 12 February 2002*

*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, 18 March 2002*

*Hans E. Zeuthen Helle Bechgaard Michael Dithmer*

*Elisabeth Arnold Søren Bjerre-Nielsen Kristian Thulesen Dahl Bent le Fèvre Pia Gjellerup Pernille Blach Hansen*

*J. Fløystrup Jensen Knud Koch Jensen Kristian Jensen Jette W. Knudsen Kjeld Larsen*

*Michael Lunn B. Frank Nielsen Holger K. Nielsen Kirsten Nielsen Kirsten Nissen Jens Rohde*

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





# Appendix

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## Press Releases

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### INTEREST-RATE CHANGES

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#### **10 May 2001 on interest rate reduction**

The discount rate is lowered by 0.25 per cent to 4.50 per cent. Likewise the rate of interest on the banks' current accounts with the Nationalbank is lowered by 0.25 per cent to 4.50 per cent. The Nationalbank's lending rate and the rate of interest on certificates of deposit is lowered by 0.30 per cent to 5.00 per cent.

The reduction will have effect from Monday 14 May 2001.

The interest rate reduction is a consequence of the lowering by 0.25 per cent in the European Central Bank's minimum bid rate on the main refinancing operations. The Nationalbank's lending rate and the rate of interest on certificates of deposit is lowered by a further 0.05 per cent as the krone has been very stable during recent months.

#### **30 August 2001 on interest rate reduction**

The discount rate is lowered by 0.25 per cent to 4.25 per cent. Likewise the rate of interest on the banks' current accounts with the Nationalbank is lowered by 0.25 per cent to 4.25 per cent. The Nationalbank's lending rate and the rate of interest on certificates of deposit are lowered by 0.30 per cent to 4.65 per cent.

The reduction will have effect as from 31 August 2001.

The interest rate reduction is a consequence of the lowering by 0.25 per cent in the European Central Bank's minimum bid rate on the main refinancing operations. The Nationalbank's lending rate and the rate of interest on certificates of deposit are lowered by a further 0.05 per cent as the krone has been very stable during recent months.

#### **18 September 2001 on interest rate reduction**

The discount rate and the rate of interest on the banks' current accounts with the Nationalbank are lowered by 0.50 per cent to 3.75 per cent. The Nationalbank's lending rate and the rate of interest on certificates of deposit are lowered by 0.50 per cent to 4.15 per cent.

The reduction takes effect as from 18 September 2001.

Following the terrorist attack on the USA several central banks, including the Federal Reserve and the European Central Bank, have lowered official interest rates by 0.50 per cent to counter the greater uncertainty

concerning the economic development. The Nationalbank's reduction of interest rates is a result of this international development. The interest-rate differential between Denmark and the euro area is thus maintained.

### **8 November 2001 on interest rate reduction**

The discount rate and the rate of interest on the banks' current accounts with the Nationalbank are lowered by 0.50 per cent to 3.25 per cent. The Nationalbank's lending rate and the rate of interest on certificates of deposit are lowered by 0.50 per cent to 3.60 per cent.

The reduction will have effect as from 9 November 2001.

The interest rate reduction is a consequence of the lowering by 0.50 per cent to 3.25 per cent in the European Central Bank's minimum bid rate on the main refinancing operations.

## **ELECTION OF CHAIRMAN AND DEPUTY CHAIRMAN OF THE COMMITTEE OF DIRECTORS OF DANMARKS NATIONALBANK**

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### **29 March 2001**

The Committee of Directors of Danmarks Nationalbank has re-elected Professor Hans E. Zeuthen as Chairman and Permanent Secretary Michael Dithmer as Deputy Chairman for the term running from 1 April 2001 to 31 March 2002.

## **ELECTIONS TO THE BOARD OF DIRECTORS AND TO THE COMMITTEE OF DIRECTORS OF DANMARKS NATIONALBANK**

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### **15 January 2002**

#### *Elections to the Board of Directors of Danmarks Nationalbank*

In accordance with the Danmarks Nationalbank Act 8 of the 25 members of the Board of Directors of Danmarks Nationalbank are elected by the Folketing (Parliament). After the parliamentary elections and the change of government there have been a number of changes regarding the members elected by the Folketing. The 8 members as of 15 January are the following:

- Elisabeth Arnold, MP
- Kristian Thulesen Dahl, MP
- Pia Gjellerup, MP; elected to replace Jan Petersen in December 2001
- Pernille Blach Hansen, MP
- Kristian Jensen, MP, elected to replace Christian Mejdahl in December 2001

- Holger K. Nielsen, MP, elected to replace Jes Lunde in October 2001
- Jens Rohde, MP, elected to replace Anders Fogh Rasmussen in December 2001
- Gitte Seeberg, MP

All have been elected for a term ending on 31 March 2006.

*Election to the Committee of Directors of Danmarks Nationalbank*

Mr. Anders Fogh Rasmussen withdrew from the Committee of Directors on his appointment as Prime Minister. The Board of Directors has elected Mr. Jens Rohde, MP as new member of the Committee of Directors for the remainder of the term ending on 31 March 2002.

## REPORT AND ACCOUNTS FOR THE YEAR 2000

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### 20 March 2001

At the meeting held today of the Board of Directors of Danmarks Nationalbank the Board of Governors presented the Report for 2000. The report was noted.

The Accounts for 2000 were submitted by the Board of Governors with the recommendation of the Committee of Directors that they be adopted. The Board of Directors and the Royal Bank Commissioner, the Minister for Economic Affairs and Nordic Cooperation, Ms. Marianne Jelved, endorsed the recommendation of the approval of the Accounts.

The net profit for the year was DKK 5,724 million, against DKK 1,472 million in 1999.

Net income from interest in 2000 totalled DKK 4,956 million, compared to DKK 5,014 million in 1999. Value adjustments were positive at DKK 1,343 million compared to a negative adjustment at DKK 3,081 million in 1999. These included a positive adjustment of gold at DKK 116 million, a positive adjustment of foreign assets at DKK 1,123 million, and a positive adjustment of bonds and shares, etc. at DKK 101 million. Expenses were DKK 556 million, against DKK 545 million in 1999.

In accordance with the established practice for allocation of profit:

- DKK 1,343 million – equivalent to value adjustments – was transferred to the Value Adjustment Reserve.
- DKK 1,314 million – equivalent to 30 per cent of the profit for the year before value adjustments – was transferred to the General Reserves.
- The remainder of DKK 3,066 million is payable to the central government. DKK 3,188 million was payable to the central government for 1999.

The Report and Accounts of Danmarks Nationalbank are published today. A summary of the Annual Report is enclosed. The Report and Accounts (in Danish) and an English translation of the Summary and the sections "The Danish Economy" and "Monetary and Exchange-Rate Policy" can be found on the Nationalbank's Website at [www.nationalbanken.dk](http://www.nationalbanken.dk) under Publications. The complete English translation is available on the Website on 21 March 2001 and in a printed version on 29 March 2001.

#### *Elections to the Board of Directors*

The 5-year term of 13 of the 25 members of the Board of Directors ends on 31 March 2001. The following elections and appointments were made for a new 5-year term running from 1 April 2001 to 31 March 2006:

*Folketinget* (Parliament), which elects 8 members, has elected Members of Parliament Ms. Elisabeth Arnold, Mr. Kristian Thulesen Dahl, Ms. Pernille Blach Hansen, Mr. Jes Lunde, Mr. Christian Mejdahl, Mr. Jan Petersen, Mr. Anders Fogh Rasmussen and Ms. Gitte Seeberg. Member of Parliament Ms. Pia Christmas Møller resigns from the Board of Directors.

*The Royal Bank Commissioner*, who appoints 2 members, has re-appointed Mr. Michael Dithmer and appointed Mr. Michael Lunn. Mr. Karsten Olsen has taken his retirement.

*The Board of Directors* elects 15 members, of whom 3 are up for election each year. The Board of Directors has re-elected Mr. Johannes Fløystrup Jensen and Mr. Finn Thorgrimson and elected Ms. Kirsten Nissen to succeed Ms. Margit Vognsen, who did not seek re-election.

The Board of Directors elected Mr. Hans E. Zeuthen as Chairman and Ms. Helle Bechgaard as Deputy Chairman for the coming year.

#### *Elections to the Committee of Directors*

The Committee of Directors has 7 members. The Board of Directors, which elects 5 members, has re-elected Mr. Søren Bjerre-Nielsen, Ms. Pernille Blach Hansen, Mr. Anders Fogh Rasmussen and Mr. Hans E. Zeuthen to the Committee of Directors. Ms. Kirsten Nissen was elected as new member of the Committee of Directors to succeed Ms. Margit Vognsen. All elections are for the coming year.

Two members of the Committee of Directors, Mr. Michael Dithmer and Mr. Michael Lunn, are appointed by the Royal Bank Commissioner for a 5-year period.

## APPOINTMENTS

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### 10 September 2001

The Board of Governors of Danmarks Nationalbank have announced the appointment of Hugo Frey Jensen, Head of Division, to Head of Department. Hugo Frey Jensen is aged 43, holds an MSc in economics, and has held positions at Danmarks Nationalbank since 1984. Since 1996 Hugo Frey Jensen has been head of the division of Economics dealing with analysis of monetary and foreign-exchange conditions.

For the period from 1 January 2001 to 31 December 2003 Benny Andersen, Head of Financial Markets, has been appointed Alternate Executive Director at the International Monetary Fund. Benny Andersen is aged 43, holds an MSc in economics, and has held positions at Danmarks Nationalbank since 1984.

Hugo Frey Jensen will serve as Head of Financial Markets during the period of Benny Andersen's stay at the IMF.

### 14 December 2001

The Committee of Directors of Danmarks Nationalbank have announced the appointment of Christian Ølgaard, Assistant Head of Division, to Head of Division. Christian Ølgaard has been head of the section of Economics dealing with the international economy, and he will in the future be deputy head of Economics.

Christian Ølgaard aged 37 holds an MSc in economics, and has held position at Danmarks Nationalbank since 1990, except for 4 years in the Prime Minister's Office.

## NOTES AND COINS

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### 25 September 2001 on new portrait of the Queen on 10- and 20-krone coins

As from 2001 the 10- and 20-krone coins are minted with a new portrait of the Queen. Like the portrait on the commemorative coins to mark Queen Margrethe's 60th birthday, the new portrait is by the sculptor Professor Mogens Møller.

The portrait of the Queen on the 10- and 20-krone coins is replaced in order to ensure a contemporary portrait which is as close a likeness as possible. For the present coin series, which was introduced in 1989, two previous portraits of the Queen have been used. The two portraits were by respectively Hanne Varming (used in 1989-1993) and

Jan Petersen (used in 1994-1999). Coins with these portraits may still be used.

The coins with the new portrait are sent into circulation as from 26 September 2001 and will be included in the year's coin set from The Royal Mint. The coin set can be purchased at banks as from 15 October.

### **3 July 2001 on new Faroese 50-krone banknote**

On 3 July 2001 a new 50-krone banknote is issued in the Faroe Islands. It is the first in a new series of Faroese banknotes to be issued over a period of 3 years. On the five new banknotes in the series the primary motif is fragments of various Faroese animals. The other motifs on the face and reverse of the banknotes are inspired by the Faroese landscape.

- *Why issue new banknotes?*

As set out in the Act on Faroese Banknotes the Faroese banknotes must have the same face value and dimensions as Denmark's banknotes. As Denmark has a new note series with new formats and a new note value, the Faroese banknotes are also being replaced.

- *A ram's horn*

The principal motif on the 50-krone note is a ram's horn printed in intaglio. The main colour of the new 50-krone note is grey-blue.

- *Landscapes from Suðuroy*

The principal motif on the reverse of the 50-krone banknote is a hillside from the village of Sumba on the west side of Suðuroy. The area is a typical habitat for sheep and rams, thereby creating a natural link between the face and the reverse of the 50-krone banknote.

The motif is reproduced from a watercolour by the artist Zacharias Heinesen (b. 1936). Zacharias Heinesen is represented at several museums and has e.g. been commissioned to decorate schools in Tórshavn. He studied art at Myndlistaskóli Íslands in Reykjavik in 1957-58 and at the Royal Academy of Fine Arts in Copenhagen in 1959-63.

- *The notes in the new series are of the same height*

The dimensions of the new 50-krone banknote are 125x72 mm. The other banknotes will be of the same height, but the length increases by 10 mm for each new note denomination.

- *Improved security*

The security features of the new Faroese banknotes have been improved. One element is an embedded security thread with colour change.



- *Old notes are still legal tender*

Old 50-krone notes are still legal tender, but will be gradually withdrawn from circulation.

- *More information*

A folder presenting information on the new 50-krone banknote will be distributed to all households on the Faroe Islands 3 and 4 July 2001. At a press conference held on the Faroe Islands today Danmarks Nationalbank presented the new Faroese banknote series. For more information see: [www.nationalbanken.dk](http://www.nationalbanken.dk) (under "Banknotes and coins").

## **PUBLICATION OF EXCHANGE RATES BY DANMARKS NATIONALBANK**

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### **11 September 2001**

As from 1 January 2002 Danmarks Nationalbank will no longer publish exchange rates for the national currencies in the euro area. Since 1 January 1999 the euro has been the single currency of these 12 countries. After the introduction of euro banknotes and coins as from 1 January 2002, the previous national banknotes and coins will quickly cease to circulate. Danmarks Nationalbank will continue to publish exchange rates for the euro. The locked conversion rates of the 12 national currencies against the euro can be seen on Danmarks Nationalbank's website [www.nationalbanken.dk](http://www.nationalbanken.dk) under Euro.

In view of the expansion of trade with a number of eastern and central European countries, as well as some countries in Asia, as from 1 January 2002 Danmarks Nationalbank will publish exchange rates for 8 new countries.

Danmarks Nationalbank's exchange rates are normally fixed on the basis of information received from other central banks at 2.15 p.m. They are published for information purposes. It is not possible to either purchase currency from Danmarks Nationalbank or sell currency to Danmarks Nationalbank at the published exchange rates.

As from 1 January 2002 the exchange rates will be published at approximately 2.30 p.m.

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AS FROM 1 JANUARY 2002 THE LIST OF EXCHANGE RATES WILL INCLUDE THE FOLLOWING CURRENCIES:

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Euro area .....	Euro	EUR	
USA .....	Dollar	USD	
UK .....	Pound Sterling	GBP	
Sweden .....	Krona	SEK	
Norway .....	Krone	NOK	
Iceland .....	Krona	ISK	
Switzerland .....	Franc	CHF	
Canada .....	Dollar	CAD	
Japan .....	Yen	JPY	
Australia .....	Dollar	AUD	
New Zealand .....	Dollar	NZD	
Estonia .....	Kroon	EEK	new
Latvia .....	Lats	LVL	new
Lithuania .....	Litas	LTL	new
Poland .....	Zloty	PLN	new
Czech Republic .....	Koruna	CZK	new
Hungary .....	Forint	HUF	new
Hong Kong .....	Dollar	HKD	new
Singapore .....	Dollar	SGD	new
	SDR (calculated)	XDR	

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## DANISH SURVEY OF TURNOVER OF FOREIGN EXCHANGE AND DERIVATIVES MARKETS IN APRIL 2001

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### 9 October 2001

A survey conducted by Danmarks Nationalbank has shown an average daily turnover of foreign exchange contracts in Denmark of 23.8 billion dollars in April 2001. This corresponds to a 15 per cent decline relative to an equivalent survey in 1998. Taking the dollar's general strengthening between April 1998 and April 2001 into consideration, the decline in turnover is estimated to be only 7 per cent. The decrease in turnover is assessed to be related primarily to the introduction of the euro, but also to such factors as the global trend towards a consolidation of the banking industry and the growing role of electronic broking.

Unlike turnover of foreign exchange contracts, the turnover of interest rate derivatives has increased considerably over the past three years. This especially concerns the turnover of interest rate swaps, which has more than doubled since 1998. In April 2001, the turnover of interest rate derivatives averaged 5.8 billion dollars per banking day corresponding to an overall increase of 38 per cent since 1998. Adjusted for the strengthening of the dollar, total turnover increased by an estimated 63 per cent since 1998.

The Danish survey is part of a comprehensive international survey conducted triennially since 1989. The international survey is coordinated by the Bank for International Settlements (BIS) and covers the largest market participants in 48 countries in 2001. The results of the survey are given in dollars to ensure comparability across the national surveys.

The Danish part of the 2001 survey comprises 11 banks, which are estimated to cover more than 99 per cent of the activity in the Danish foreign exchange and derivatives markets.

The survey exclusively covers contracts entered into and settled directly between two parties. Exchange-traded contracts are not included in the survey. Thus, the turnover of Danish banks is underestimated as far as interest rate derivatives are concerned.

#### *Turnover of foreign exchange and foreign exchange derivatives*

Table 1 shows turnover of foreign exchange contracts in April 2001 by type of instrument. Turnover is measured in terms of nominal amounts and is defined as the sum of transactions entered into in the month of April. The reported turnover has been adjusted for local interdealer double counting.

As Table 1 shows, spot and outright forward turnover has decreased noticeably since 1998, while the decrease in turnover in foreign exchange swaps has been less pronounced. This represents a continuation of the trend from 1995 to 1998. Thus, spot and outright forward turn-

TURNOVER OF FOREIGN EXCHANGE CONTRACTS BY TYPE OF INSTRUMENT Table 1

	Apr 2001	Apr 1998	Apr 1995	Apr 1992	Apr 1989
Daily averages, billion dollars					
Spot .....	4.3	6.3	8.9	10.5	6.4
Outright forwards .....	0.7	1.1	1.5	2.0	1.3
Foreign exchange swaps .....	18.3	19.9	20.1	14.4	5.5
Currency swaps .....	0.1	0.1	0.9	na	na
Currency options .....	0.4	0.7	0.4	1.2	0.2
Total foreign exchange contracts .....	23.8	28.1	31.8	28.1	13.4
Billion dollars					
Total foreign exchange contracts .....	429	533	540	532	254

Note: A *foreign exchange swap* is a combination of a spot transaction and an offsetting forward contract. A foreign exchange swap is in effect a loan or a placement in one currency against security in another currency. A *currency swap* commits two counterparties to exchange flows of payments in different currencies. A *currency option* is a contract giving the right, but not the obligation, to buy or sell a currency at a specified exchange rate up to a specified future date.

over has declined by 32 and 36 per cent respectively from 1998 to 2001, while foreign exchange swap turnover has decreased by only 8 per cent. As stated above, the appreciation of the dollar since 1998 implies an overestimation of the decline in turnover.

The primary explanation for the decline in spot and forward turnover is presumably the introduction of the euro as a single currency for 12 EU member states. This development has brought about a natural decline in spot turnover and has also reduced the need to hedge foreign exchange risks using outright forwards and foreign exchange swaps.

However, the negative effect on the turnover of foreign exchange swaps is counteracted by the fact that foreign exchange swaps are increasingly used as a money market instrument to obtain liquidity in Danish kroner. Thus, considering the development in the dollar exchange rate, the turnover in foreign exchange swaps is estimated to be almost unchanged from 1998.

In April 2001 the trade between reporting dealers accounted for 75 per cent of total turnover in foreign exchange contracts in the Danish market. The remainder of the turnover is split almost equally between trading with other financial institutions and non-financial customers. The large proportion of turnover among reporting dealers is due especially to the fact that foreign exchange swaps, which in April 2001 accounted for 77 per cent of total turnover in foreign exchange contracts, are traded primarily in the interbank market. Another reason for the dominance of interbank trading is that any customer transaction usually leads to one or more interbank transactions, when the bank hedges its risk.

The decline in turnover between 1998 and 2001 has primarily been observed in the interbank market – especially in cross-border trading. In part, this seems to be a consequence of the trend towards a consolidation of the global banking industry.

Finally, the growing role of electronic broking is assumed to explain part of the decline in especially spot turnover. Compared to the price discovery process through traditional market making, electronic broking improves the efficiency and transparency of price discovery. Through electronic broking, price information is instantly available to traders, who thus need to enter into fewer transactions in order to obtain information on prices available in the market.

Table 2 shows that foreign exchange trading is concentrated in relatively few currencies. The dollar was involved in 83 per cent of all transactions in April 2001 and is thus the most traded currency in the Danish market. It is followed by the Danish krone and the euro, which were involved in 35 per cent and 34 per cent of all transactions, respectively.

TURNOVER OF FOREIGN EXCHANGE CONTRACTS IN APRIL 2001 BY CURRENCY PAIR Table 2

	Turnover, billion dollars	Percentage shares
Dollar v Danish krone .....	108.2	25
Dollar euro .....	90.8	21
Dollar v other currencies .....	156.8	37
Danish krone v euro .....	25.8	6
Danish krone v other currencies .....	8.3	2
Euro v other currencies .....	31.7	7
Other currencies .....	7.0	2
Total .....	428.6	100

Note: A corresponding specification cannot be made for previous surveys, since the euro was introduced in January 1999.

Finally, Swedish kronor and Norwegian kroner are also involved in a substantial share of the transactions.

The dominance of the dollar should be seen in the light of the fact that a transaction between two currencies is often carried out by converting one of the currencies to dollars, which are then used to acquire the other currency.

#### *Turnover in interest rate derivatives*

Turnover in interest rate derivatives has increased substantially relative to 1998, cf. Table 3. Considering the development in the dollar exchange rate, the increase by 38 per cent between 1998 and 2001 is considerably underestimated.

Most noteworthy is the increase in interest rate swaps, where the average daily turnover has more than doubled since April 1998. This continues the trend from 1995 to 1998. The main reason for the rise in swap

TURNOVER OF INTEREST RATE DERIVATIVES BY INSTRUMENT TYPE Table 3

	Apr 2001	Apr 1998	Apr 1995
Daily averages, billion dollars			
Forward rate agreements (FRAs) .....	4.1	3.4	2.2
Interest rate swaps .....	1.5	0.7	0.2
Interest rate options .....	0.2	0.1	0.2
Total interest rate derivatives .....	5.8	4.2	2.6
Billion dollars			
Total interest rate derivatives .....	104	79	45

Note: A *forward rate agreement* is an agreement to fix an interest rate on an agreed sum over an agreed future period. An *interest rate swap* is usually an agreement to exchange fixed against variable interest payments over a certain period. An *interest rate option* is a transaction which gives one party the right, but not the obligation, to receive or pay a certain interest rate over a future period on an agreed principal sum.

TURNOVER OF INTEREST RATE DERIVATIVES IN APRIL 2001 BY CURRENCY		Table 4
	Turnover, billion dollars	Percentage shares
Danish krone .....	54.3	52
Swedish krona .....	22.2	21
Norwegian krone .....	12.2	12
Dollar .....	7.4	7
Euro .....	6.5	6
Other currencies .....	1.5	2
<b>Total .....</b>	<b>104.2</b>	<b>100</b>

Note: A corresponding specification cannot be made for previous surveys, since the euro was introduced in January 1999.

turnover is considered to be the tomorrow/next day interest rate swap – a short-term interest rate swap introduced on the Danish market in 1997.

FRA turnover has increased by 21 per cent since April 1998. Due to the large increase in interest rate swap turnover, however, the FRAs' share of the total turnover in interest rate derivatives declined from approximately 80 per cent in April 1998 to 70 per cent in April 2001.

A large proportion of the turnover of interest rate derivatives takes place via exchanges. As this survey solely concerns contracts not traded via an exchange, the turnover reported here only makes up a subset of the total turnover of Danish banks in interest rate derivatives.

The Danish market for non-exchange-traded interest rate derivatives is dominated by instruments linked to Danish interest rates, cf. Table 4. However, instruments linked to Swedish and Norwegian interest rates also account for a substantial proportion of turnover. If exchange-traded contracts had been covered by the survey, contracts in dollar and euro would account for a considerably larger share.

Like the market for foreign exchange contracts, the market for interest rate derivatives is strongly dominated by trading among reporting dealers. The increase in turnover since 1998 has taken place solely in the trading between reporting dealers, while trading with other financial institutions and non-financial customers has decreased slightly. Turnover between reporting dealers thus accounted for more than 80 per cent of the total turnover in April 2001, compared to 70 per cent in 1998.

#### *Publication of related surveys*

Today, the BIS publishes the main results of the global survey of which the Danish survey forms part. The results can be found on the BIS website at [www.bis.org](http://www.bis.org). Links to equivalent surveys from other countries can also be found here.

Further to the turnover survey, a survey of amounts outstanding at end-June 2001 has been conducted. Once the Danish data on outstanding contracts has been processed – probably in November 2001 – Danmarks Nationalbank will issue a Special Report with a detailed account of both the turnover survey and the survey of amounts outstanding.

The BIS plans to publish a detailed summary of the results of the global survey of both turnover and amounts outstanding in early 2002.

## **NEW "HOME BANKING SYSTEM" FOR THE BANKS AT DANMARKS NATIONALBANK**

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### **19 November 2001**

Danmarks Nationalbank has developed a new RTGS payment system, Kronos, used by the banks to send payments to each other via their accounts at Danmarks Nationalbank. Kronos, the new "home banking system" for the banks, is launched today. It offers 130 financial institutions an advanced well-integrated payment system.

Kronos replaces the 20-year-old DN Inquiry and Transfer System, as well as the system for euro payments, Debes, as the backbone for payment and settlement systems in Denmark. Kronos thus settles payments in both kroner and euro, and is also the Danish interface to the European payment system Target.

Kronos is a state-of-the-art system that has been developed in close cooperation with the participants. Kronos is designed to facilitate the participants' liquidity management and introduces a modern user interface based on the latest information technology. In addition, a number of advanced queuing facilities and liquidity-saving mechanisms are implemented.

Kronos offers a range of modules to the participants. In addition to a mandatory module for payments in kroner, the participants can choose access to payments in euro, and whether to communicate via the international payments network, Swift. This enables participants to fully automate their processing of payments.

The development costs total kr. 20 million. In accordance with international practice, Kronos is financed by its users.

With the introduction of Kronos the Danish payment systems infrastructure is ready for CLS (Continuous Linked Settlement), the coming international currency settlement system.

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# The Statutory Basis for the Financial Sector

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## **DIRECTIVES, ETC.**

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### **Financial Services Action Plan**

In order to strengthen the internal market for financial services the European Commission launched its Financial Services Action Plan in 1999. The Action Plan has three strategic objectives:

- Inexpensive and plentiful capital for enterprises
- Enhanced consumer protection
- Stable financial enterprises

The Action Plan states priorities for the implementation of the internal market. It includes 42 proposals for directives, which must, by decision of the European Council, be finally implemented in the member states by 2005, except as regards the securities market, where the implementation date is 2003. At present 25 of the proposals have been finally adopted. In connection with the Action Plan the European Commission issued a number of proposals for directives in 2001, some of which are described below.

### **NEW DECISION-MAKING PROCEDURE FOR REGULATION OF SECURITIES MARKETS IN THE EU**

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At the EU summit in Stockholm in March 2001 a resolution was adopted to support the recommendations of the Lamfalussy Report. The report recommends amendment of the decision-making procedure for regulation of the EU securities market. The purpose of the amended procedure is to enable more efficient regulation in order to match the rapid development in the securities markets. In future, the EU Council of Ministers and the European Parliament will in principle only be engaged with the central principles in relation to such regulation, whereas the technical implementation measures will be left to a newly-established European Securities Committee. In addition, a Committee of European Securities Regulators has been established which is inter alia to advise the European Commission and the European Securities Committee on supervisory issues in relation to securities, and furthermore to ensure uniform implementation of the rules. In February 2002 a common understanding was achieved between



the European Commission and the European Parliament on the handling of the decision-making process. Initially the new powers of implementation are limited to a period of four years.

**Proposal for a directive on supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate (the Financial Conglomerates Directive)**

In April 2001, the European Commission presented the above proposal for a directive. It has taken around 18 months to prepare the proposal, which is based on a report from an ad-hoc working group set up by the Banking Advisory Committee, the Insurance Committee and the High Level Securities Supervisors Committee, presented in December 2000.

The directive proposal is inspired by a number of recommendations from the Joint Forum on Financial Conglomerates from 1999 regarding the supervision of financial conglomerates

The current financial directives regulate the supervision of individual companies and groups within each area of the financial sector. However, trends in the financial markets have led to the formation of conglomerates whose activities are diversified into various areas of financial sectors.

The directive proposal is a superstructure to the regulation of financial groups within the individual sectors (credit institutions, insurance companies, etc.) and fills a gap in the existing EU legislation. The proposal also calls for harmonisation of the directives relating to the individual sectors which are prerequisite to the objective of the financial conglomerates directive. It should also be ensured that no conglomerate conducts financial activities that are not covered by current EU legislation.

The proposal covers the following areas:

- Definition of a financial conglomerate
- Rules to prevent multiple gearing (i.e. simultaneous use of the same capital in several entities of the conglomerate)
- New methods to calculate the solvency position at the level of the entire conglomerate
- Intra-group transactions
- "Fit and proper" test of the conglomerate's management
- Principles for appointment of a coordinator of supervisory activities
- Regulation of parent entities based outside the EU

The proposal is currently being discussed by a working party under the Council, which has completed its first reading of the proposal. This work will continue in 2002.

### **Proposal for a directive on financial collateral arrangements (the Collateral Directive)**

In March 2001 the European Commission presented its proposal for a directive on financial collateral arrangements. The objective of the proposal is to support the special types of collateral which have emerged in the financial markets in recent years, e.g. by reducing the legal insecurity related to the provision of cross-border collateral.

Under the proposal, financial collateral arrangements must be respected by third parties too, including the estate of the collateral provider. The proposal covers central banks, public authorities and banks subject to supervision and their counterparties, and solely relates to the provision of collateral as certain forms of securities and as cash.

The proposal allows the contracting parties to arrange for the collateral taker to have the right of use of the collateral, and for the collateral provider to have the right to provide equivalent collateral. In addition, the proposal enables the parties to arrange for the provision of additional (top-up) collateral as a result of changes in the mark-to-market value of the collateral. In addition, the proposal allows for speedy realisation of collateral and acknowledgement of close-out netting arrangements. Finally the proposal includes a provision on the *lex rei sitae* rule, which states that all issues relating to book-entry securities covered by a financial collateral arrangement shall be governed by the law of the country in which the relevant account is maintained, regardless of whether that country is a member state.

Political agreement on the proposal was reached at the meeting of the Ecofin Council in December 2001, so that a common position on the proposal may be adopted in the first half of 2002.

### **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 proposals to amend the current directive from 1985.

As regards the "product proposal", political agreement was reached at the meeting of the Ecofin Council in October 2000. The "management company directive" was finally adopted at the meeting of the Ecofin Council in December 2001.

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 sole 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 by extending its scope to include

investment institutions investing wholly or partly in other liquid financial assets than securities.

The objective of the "management company proposal" is to strengthen the internal market in the UCITS field by introducing regulation of management companies in line with the current regulation of other providers of financial services (banks, insurance companies and investment companies). A management 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 management companies are relaxed to allow the management companies to undertake individual portfolio management and other accessory activities. Finally, simplified prospectuses are introduced.

### **Regulation on cross-border payments in euro**

At the Internal Market Council meeting on 26 November 2001 political agreement was reached on the proposal for a regulation on cross-border payments in euro.

The objective of the regulation is to harmonise charges for cross-border payments in euro with charges for domestic transfers. Originally the regulation was to have entered into force and taken effect on 1 January 2002, the same day as euro banknotes and coins were introduced. Officially the regulation entered into force on 1 January 2002, but it does not take effect until 1 July 2002 for debit cards and 1 July 2003 for account-to-account transfers.

The background to the regulation is that surveys made by the European Commission have shown that cross-border payments are still more expensive than domestic payments. In the opinion of the European Commission, the banking sector has failed to comply with requests voluntarily to reduce the costs of cross-border payments in euro, and consequently the European Commission has proposed legal intervention via a regulation. This approach has been chosen to avoid the need for implementation measures in the individual EU member states.

The regulation will apply in all EU member states, including Denmark, Sweden and the UK, even though they are not part of the euro area. In principle transfers in these countries' currencies are not included, but the out-countries may "subscribe to" the regulation with regard to their national currencies, so that the regulation also applies to cross-border payments in those currencies. This opt-in clause for non-participating member states was introduced at the request of Denmark, among others.

The provisions of the regulation apply to cross-border payments of up to euro 12,500. From 1 January 2006 the upper limit will be raised to euro 50,000.

The regulation covers actual transfer charges, but not other charges related to the transfer such as fees for currency conversion.

As from 1 July 2002 member states shall also remove any national reporting obligations relating to the balance-of-payment statistics for cross-border payments up to euro 12,500. This provision has been introduced because one of the reasons for the costly manual handling and resulting high charges has been the obligation imposed on banks, etc. by the member states to report cross-border payments for use in the balance-of-payment statistics. A possible increase of the limit to euro 50,000 will be considered in connection with the amendment of the regulation by 1 July 2004 at the latest.

## **ACTS, ETC.**

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### **Financial Business Act**

On 22 May 2001 the Folketing (Parliament) adopted the Financial Business Act, which is a joint act relating to banks, mortgage-credit institutes, insurance companies and investment companies (financial undertakings).

The Financial Business Act constitutes the first part of the structural reform recommended by the Committee on the Financial Sector after the Year 2000.

On the basis of the greater integration of financial markets, including the formation of financial conglomerates, it has been deemed necessary to implement a new structure for the financial supervisory acts. The aim is to ensure that similar financial products are treated in the same way and to introduce a number of measures to simplify and modernise this area. This has been achieved by compiling related provisions from the Act on Danish Commercial Banks and Savings Banks, the Act on Insurance Companies, the Act on Investment Companies, the Mortgage Credit Act and the Act on Company Pension Funds into the Financial Business Act.

The Act compiles the supervisory provisions and other statutory areas where there is a high degree of concurrence in the financial acts. The provisions have been harmonised in a number of areas, and the individual provisions have been updated.

The Act regulates the following areas:

- Definitions
- Rules on good practice
- Management rules
- Group rules
- Accounting rules
- Rules of supervision

The sector-specific provisions of the various financial acts will remain in force. However, the intention is to implement the second part of the structural reform, where the other elements of the financial acts will be reviewed in order to achieve an even more uniform structure, as well as further simplification of e.g. the provisions on the establishment of financial enterprises, permission to carry on financial activities, solvency, mergers, etc.

In connection with the compilation, the accounting provisions have been amended to take into account the latest developments in the accounting field, including the EU's accounting strategy based on international accounting standards (IAS) issued by the International Accounting Standards Committee (IASC). Moreover, the dual auditor system has been abolished.

During the Folketing (Parliament) hearings in the spring of 2001 the bill was debated intensely and a number of amendments were implemented, notably the establishment of the Financial Business Council. The Financial Business Council is described in further detail on p. 56.

### **Electronic Money Institutions Act**

On 22 May 2001 the Folketing (Parliament) adopted the Electronic Money Institutions Act. The act implements the directive on the taking up and pursuit of business as an electronic money institution. The directive harmonises member states' legislation on the pursuit and supervision of the business of electronic money institutions. This entails that such institutions are subject to financial supervision and to the rules on the "EU passport". Issuers of electronic money are subject to simple, more lenient capital requirements, but also to more restrictive placement rules than credit institutions. The background is the characteristic balance-sheet structure of such institutions whereby the liabilities consist of unredeemed electronic money. Very liquid placement of assets is an equivalent requirement. Unlike the directive, the act operates with a maximum limit of euro 300 for issue of electronic money by electronic money institutions. This should be viewed against the background that electronic money can be seen as an electronic substitute for coins and banknotes. Furthermore, the act applies a lower limit to the amounts to be exempted from the scope of the directive. The Act is based on the previous directive relating to issuers of prepaid charge cards.

### **Act to amend the Act on Danish Commercial Banks and Savings Banks, etc., the Mortgage Credit Act and the Act on Investment Companies**

With the Act to amend the Act on Danish Commercial Banks and Savings Banks, etc., the Act on Investment Companies and the Mortgage Credit

Act adopted by the Folketing on 22 May 2001, it became possible for credit institutions and investment companies to use internal models to calculate the capital adequacy requirement for market risk exposure. Under the CAD II directive of 1998 the authorities may implement legislation allowing financial institutions to use internal models. The background to this amendment is that certain institutions have developed advanced Value-at-Risk (VaR) models for more accurate measurement of market risks in comparison to the standard method previously only available to the institutions. The option to use internal models gives the banks a stronger incentive to develop risk management models.

Another element of the amendment act, which was also adopted on 22 May 2001, was a specification that subordinate capital in a credit institution is not to be included in the solvency assessment of the institution. In other words, even if an institution cannot meet its obligations in terms of subordinate capital, this is not sufficient in itself for the institution to be regarded as insolvent. This amendment was recommended in the report of the Committee on the Financial Sector after the Year 2000.

## **CONSULTATION RESPONSES**

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Concerning the European Commission's proposal for a regulation of cross-border payments in euro.

*On 17 September 2001 Danmarks Nationalbank submitted the following consultation response:*

The Commission's proposal raises the immediate issue that matters relating to the euro-area currency are extended to the entire community.

Danmarks Nationalbank has not conducted an assessment of the application of Article 95 (1) as the legal basis for the regulation.

According to the Commission the objective of the proposal is to reduce banking charges for cross-border payments in euro to a level which is in line with the charges applying at the national level. It is thus the intention to lay down legal provisions to the effect that charges for cross-border payments of up to euro 50,000 will be the same as the charges for domestic payments in euro. In addition, the Commission proposes a number of measures aimed at easing cross-border payments in euro. The retail payments infrastructure is to be improved by enforcing mandatory use of certain standards, and the Commission also wishes to exempt banks from some of the tasks related to reporting information on clients' cross-border payments to the national statistical authorities.

In principle Danmarks Nationalbank finds that price regulation of this area should also be left to the market, and that price regulation via legislation should be avoided whenever possible.

It is a fact that cross-border retail payments are subject to varying and at times considerable charges, which is not expedient. This can be explained partly by the fact that cross-border payments are more expensive for banks to handle than domestic payments, due to the reporting obligations and the lower degree of automation.

At the European level, work is in progress to make cross-border retail payments less expensive and more efficient than is the case today. It might therefore be expedient to wait and see whether this work, which involves dialogue between authorities and market participants, might soon result in a significant improvement in the market for cross-border payments in euro.

One consequence of the Commission's proposal might be that for payments originating in countries with inefficient domestic payment systems it would be possible to levy higher charges on cross-border payments than for payments from countries where domestic payment systems are efficient. This could reduce the incentive to introduce efficient domestic payment systems.

Another consequence of the proposal might be that cross-border payments, in view of the extra costs they entail, would impose losses on the bank, for which reason some players might choose to discontinue this service.

Finally, the Commission's proposal to exempt banks from reporting any information relating to payments below euro 50,000 after 1 January 2004 will lead to an unacceptable deterioration in the data basis for compilation of the external balance of payments.

It is of great importance that a reliable Danish balance of payments can be compiled. The reports filed by the banks to Danmarks Nationalbank about their own and their clients' cross-border payments are a central source of the data on which Statistics Denmark's compilation of the balance of payments is based. Implementation of the proposal therefore requires that the compilation method is changed so that information is instead collected directly from companies with external transactions. It would not be realistic to introduce such a change within the stated time frame.

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# Danmarks Nationalbank's Consultative Document of 29 May 2001

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## **DANMARKS NATIONALBANK'S COMMENTS ON THE JANUARY 2001 CONSULTATIVE DOCUMENT "THE NEW BASEL CAPITAL ACCORD"**

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Danmarks Nationalbank welcomes the opportunity to respond to the Committee's proposal. Danmarks Nationalbank supports the general objectives stated in the Basel Committee's proposal and is in agreement with the general thrust of the proposed three-pillar approach.

### **THE FIRST PILLAR: MINIMUM CAPITAL REQUIREMENTS**

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Danmarks Nationalbank supports the introduction of a menu of approaches providing banks incentives to improve their internal control and risk management systems.

#### **Credit risk**

##### *Standardised approach*

Danmarks Nationalbank welcomes that the standardised approach has been made more risk sensitive compared to the June 1999 proposals. However, as the number of externally rated companies in Denmark is very limited, the recognition of external ratings in general is less useful. It is therefore crucial that level-playing field is ensured in the recognition of external and internal rating systems.

It is proposed that national supervisory authorities are responsible for the recognition of external assessment institutions based on a set of criteria. It is important that this process is transparent and ensures consistency in order to secure level playing field.

##### *Internal ratings-based approach*

The internal ratings-based (IRB) approach should be framed in a way that could potentially be applied by all banks, not just large or sophisticated banks. The development of an evolutionary approach to internal ratings to a certain extent meets this concern. However, in order to ensure level playing field and financial stability we would recommend that further efforts be made to make the requirements for the use of the internal ratings-based approach more clear.



The use of the internal ratings-based approach may significantly increase the risk of pro-cyclical effects in capital requirements. It is therefore important that banks' evaluation of capital adequacy is forward-looking and takes into account the effect from a full economic cycle so that appropriate capital buffers are in place to absorb cyclical risks.

As the range of risk weights is significantly wider in the IRB approach compared to the standardised approach there is a risk that only banks with low-risk borrowers apply the IRB method while banks with high-risk borrowers maintain the standardised approach. Thus, accuracy and consistency with the revised standardised approach should be ensured.

The proposal that a bank using the IRB approach for some of its exposures is required to adopt the IRB approach across all of its exposures within a reasonable short period of time seems inappropriate. For smaller banks that may have one or more exposure classes for which they have developed an IRB approach, the cost of developing an IRB approach for the remaining exposures might be very high in relative terms. Therefore, if the remaining exposures are not material, it should be possible to exempt them from the IRB approach. Furthermore, it may not be relevant for smaller banks to develop internal ratings on exposures such as other banks or sovereigns, but instead use external ratings. However, in general it is important that cherry-picking opportunities are prevented in the adoption of the IRB approach.

### *Operational risk*

In general, attention should be paid to the impact of the capital charge for operational risk on different categories of institutions, especially to smaller banks that are unlikely to benefit from a reduction in their capital charge for credit risk in the new framework.

It is important that the capital charge for operational risk contains incentives to better control this type of risk. Regarding the Standardised Approach the calibration of the beta-values should take differences in operational risk features into account. Business lines where the main risk features have already been covered by capital charges on credit or market risk should be given smaller beta factors.

## **THE SECOND PILLAR: THE SUPERVISORY REVIEW PROCESS**

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With the introduction of the second pillar, the role of supervisors is enhanced markedly. The supervisory review process is based on the assumption that supervisory authorities to a larger extent take qualitative factors into account.

If individual minimum capital requirements above the 8 per cent minimum are introduced, Danmarks Nationalbank is of the opinion that these should be based on clear objective criteria. This is important in a legal context as well as in order to ensure a level playing field.

Danmarks Nationalbank believes that the decision to treat interest rate risk in the banking book under Pillar 2 instead of under pillar 1 is inappropriate. Danmarks Nationalbank believes that capital charges for interest rate risks should cover both the trading book and the banking book, e.g. on an integral basis.

A lack of appreciation of cyclical risks and the possible point-in-time status of banks' internal risk control systems rise the concern of the procyclical nature of the capital regulation. Therefore supervisory authorities should pay attention to the adequate stability and conservatism of banks' internal ratings and should be given the possibility to use methods that ensure cyclical stability.

### **THE THIRD PILLAR: MARKET DISCIPLINE**

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Danmarks Nationalbank supports an increasing role for market discipline and believes that increased transparency will contribute to soundness in the financial system and enhance financial stability. However, it is important that the same rules apply to all banks in order to safeguard equality in terms of international competition. This will furthermore contribute to transparency concerning convergence in supervisory practices.



# Appendix of Tables

## ANNUAL ACCOUNTS AND MONTHLY BALANCE SHEETS OF DANMARKS NATIONALBANK

Table 1

Kr. million	Assets				
	Gold	Foreign assets	Assets deposited with the European Monetary Institute	Net assets with the IMF <sup>1</sup>	Lending <sup>2</sup>
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
2000.....	4,683	110,851	•	5,127	67,635
2001.....	4,979	138,633	•	8,549	97,016
2000 Jan .....	4,567	136,478	•	7,945	51,534
Feb .....	4,567	129,437	•	7,960	44,199
Mar .....	4,567	126,501	•	7,846	57,236
Apr .....	4,567	122,997	•	6,691	81,145
May .....	4,567	121,543	•	7,115	65,919
Jun .....	4,567	111,957	•	7,064	57,203
Jul .....	4,567	109,863	•	6,916	76,047
Aug .....	4,567	109,583	•	6,971	83,896
Sep .....	4,567	110,362	•	6,894	102,244
Oct .....	4,567	119,243	•	5,223	72,024
Nov .....	4,567	116,641	•	5,213	68,456
Dec .....	4,567	116,138	•	4,777	67,642
2001 Jan .....	4,683	106,205	•	5,044	81,476
Feb .....	4,683	105,025	•	6,351	69,396
Mar .....	4,683	105,634	•	6,346	72,246
Apr .....	4,683	104,620	•	5,934	65,907
May .....	4,683	107,077	•	8,203	70,942
Jun .....	4,683	108,784	•	8,189	94,774
Jul .....	4,683	109,159	•	8,237	85,215
Aug .....	4,683	112,567	•	8,175	88,533
Sep .....	4,683	133,099	•	8,119	106,265
Oct .....	4,683	136,295	•	8,088	86,357
Nov .....	4,683	139,005	•	7,593	68,005
Dec .....	4,682	135,751	•	8,306	97,016

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>1</sup> A specification of Denmark's account with the IMF is given in Table 9.

<sup>2</sup> A specification of the account of banks and mortgage-credit institutes with the Nationalbank is given in Table 4.

<sup>3</sup> As from end-2001 the share portfolio has been capitalised, cf. p. 116. In 1991 including bonds acquired in connection with bond-repurchase agreements.

<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>5</sup> As from 1992 guarantees are not included in the balance sheet.

<sup>6</sup> As from end-2001 tangible fixed assets have been capitalised, cf. p. 116.

<sup>7</sup> In 1991 including uncovered forward transactions not entered in the balance sheet as from 1992.

## ANNUAL ACCOUNTS AND MONTHLY BALANCE SHEETS OF DANMARKS NATIONALBANK

Table 1

Assets					Kr. million
Bonds and shares <sup>3</sup>	Government guarantee for coin in circulation <sup>4</sup>	Guarantees <sup>5</sup>	Other assets, etc. <sup>6,7</sup>	Total	
44,361	639	433	<u>12,327</u>	<u>111,531</u>	..... 1991
32,018	539	•	3,327	138,272	..... 1992
41,235	539	•	4,502	203,525	..... 1993
39,505	•	•	2,274	159,159	..... 1994
34,096	•	•	2,348	151,920	..... 1995
35,108	•	•	2,383	174,003	..... 1996
33,766	•	•	2,822	204,271	..... 1997
37,487	•	•	2,402	182,794	..... 1998
37,696	•	•	3,437	281,802	..... 1999
39,847	•	•	8,865	237,007	..... 2000
41,153	•	•	4,957	295,286	..... 2001
38,161	•	•	2,615	241,300	..... Jan 2000
38,694	•	•	2,595	227,452	..... Feb
38,714	•	•	3,025	237,889	..... Mar
38,673	•	•	2,863	256,936	..... Apr
38,946	•	•	3,100	241,191	..... May
39,028	•	•	3,444	223,262	..... Jun
39,108	•	•	3,151	239,652	..... Jul
39,411	•	•	3,328	247,756	..... Aug
39,764	•	•	4,588	268,419	..... Sep
38,652	•	•	4,656	244,365	..... Oct
39,192	•	•	4,561	238,631	..... Nov
39,725	•	•	4,970	237,818	..... Dec
39,509	•	•	8,099	245,016	..... Jan 2001
39,673	•	•	7,683	232,811	..... Feb
40,427	•	•	7,655	236,991	..... Mar
40,639	•	•	7,377	229,161	..... Apr
39,992	•	•	7,537	238,435	..... May
39,811	•	•	7,900	264,141	..... Jun
39,539	•	•	7,646	254,479	..... Jul
40,449	•	•	7,644	262,050	..... Aug
40,483	•	•	8,443	301,092	..... Sep
41,032	•	•	8,287	284,742	..... Oct
41,183	•	•	7,872	268,341	..... Nov
40,838	•	•	8,712	295,304	..... Dec

## ANNUAL ACCOUNTS AND MONTHLY BALANCE SHEETS OF DANMRKS NATIONALBANK

Table 1

Kr. million	Liabilities					
	Notes in circulation	Coin in circulation	Foreign liabilities	Contribution to allocation of SDRs in the IMF <sup>1</sup>	Deposits <sup>2</sup>	Certificates of deposit <sup>2</sup>
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
2000 .....	40,650	4,148	3,143	1,869	52,460	51,874
2001 .....	42,966	4,333	3,734	1,884	37,996	113,620
2000 Jan .....	37,760	3,876	432	1,815	33,685	67,941
Feb .....	37,333	3,855	543	1,815	35,591	61,642
Mar .....	37,404	3,896	71	1,815	28,822	57,503
Apr .....	39,585	3,965	445	1,815	30,072	79,787
May .....	39,182	4,043	465	1,815	38,800	58,812
Jun .....	39,572	4,055	755	1,815	29,281	47,276
Jul .....	39,782	4,050	1,122	1,815	30,289	49,711
Aug .....	39,154	4,047	1,729	1,815	31,659	64,487
Sep .....	38,545	4,072	13,748	1,815	32,879	65,219
Oct .....	38,307	4,055	2,257	1,815	41,119	48,867
Nov .....	38,890	4,074	2,767	1,815	38,170	66,266
Dec .....	40,650	4,148	3,143	1,815	52,453	51,874
2001 Jan .....	38,768	4,070	773	1,869	38,564	67,483
Feb .....	38,534	4,057	335	1,869	37,517	66,298
Mar .....	38,349	4,050	825	1,869	38,105	52,945
Apr .....	39,711	4,080	1,189	1,869	36,452	52,852
May .....	40,267	4,170	1,499	1,869	35,686	57,838
Jun .....	40,904	4,196	2,033	1,869	43,842	65,150
Jul .....	40,933	4,203	2,584	1,869	37,686	53,169
Aug .....	40,443	4,205	2,903	1,869	33,797	62,075
Sep .....	40,166	4,197	2,496	1,869	46,681	73,138
Oct .....	40,257	4,192	2,947	1,869	40,742	63,050
Nov .....	40,570	4,224	3,507	1,869	34,885	71,564
Dec .....	42,966	4,333	3,749	1,869	37,979	113,620

Cf. the Note and notes to the Table of Assets.

## ANNUAL ACCOUNTS AND MONTHLY BALANCE SHEETS OF DANMARKS NATIONALBANK

Table 1

Liabilities							Kr. million
Central Government	Guarantees <sup>5</sup>	Other liabilities <sup>7</sup>	General Capital Fund and Statutory Reserve	Value Adjustment Reserve	General Reserves	Total	
16,010	433	<u>10,698</u>	300	•	32,352	<u>111,531</u>	..... 1991
35,075	•	495	300	•	34,008	138,272	..... 1992
94,548	•	573	300	•	42,727	203,525	..... 1993
56,910	•	1,080	300	•	34,485	159,159	..... 1994
38,808	•	1,523	300	•	35,927	151,920	..... 1995
34,995	•	1,548	300	1,093	37,359	174,003	..... 1996
33,954	•	1,333	300	2,107	38,742	204,271	..... 1997
37,131	•	2,333	300	3,101	40,072	182,794	..... 1998
39,678	•	3,445	300	20	41,439	281,802	..... 1999
37,718	•	729	300	1,363	42,753	237,007	..... 2000
43,510	•	539	300	1,454	44,951	295,286	..... 2001
47,596	•	4,722	300	3,101	40,072	241,300	..... Jan 2000
38,483	•	4,716	300	3,101	40,072	227,452	..... Feb
63,389	•	3,231	300	20	41,439	237,889	..... Mar
55,968	•	3,540	300	20	41,439	256,936	..... Apr
52,234	•	4,082	300	20	41,439	241,191	..... May
54,355	•	4,396	300	20	41,439	223,262	..... Jun
66,018	•	5,107	300	20	41,439	239,652	..... Jul
57,406	•	5,700	300	20	41,439	247,756	..... Aug
64,214	•	6,169	300	20	41,439	268,419	..... Sep
59,766	•	6,419	300	20	41,439	244,365	..... Oct
37,982	•	6,911	300	20	41,439	238,631	..... Nov
34,651	•	7,325	300	20	41,439	237,818	..... Dec
45,055	•	6,676	300	20	41,439	245,016	..... Jan 2001
35,405	•	7,038	300	20	41,439	232,811	..... Feb
54,938	•	1,495	300	1,363	42,753	236,991	..... Mar
46,748	•	1,845	300	1,363	42,753	229,161	..... Apr
50,458	•	2,233	300	1,363	42,753	238,435	..... May
59,350	•	2,381	300	1,363	42,753	264,141	..... Jun
66,774	•	2,845	300	1,363	42,753	254,479	..... Jul
68,738	•	3,605	300	1,363	42,753	262,050	..... Aug
83,614	•	4,516	300	1,363	42,753	301,092	..... Sep
82,137	•	5,131	300	1,363	42,753	284,742	..... Oct
61,058	•	6,249	300	1,363	42,753	268,341	..... Nov
40,241	•	6,132	300	1,363	42,753	295,304	..... Dec



## SPECIFICATION OF BANKNOTES IN CIRCULATION

Table 2a

Kr. million	1,000 kr.	500 kr.	200 kr.	100 kr.	50 kr.	Total <sup>1</sup>	Total, mio.pieces
1991 .....	14,029	3,851	•	6,668	629	25,177	100
1992 .....	14,164	3,806	•	6,402	618	24,990	97
1993 .....	15,386	3,983	•	6,495	655	26,519	101
1994 .....	17,294	4,693	•	6,646	695	29,328	107
1995 .....	18,238	5,307	•	6,759	737	31,041	111
1996 .....	19,280	5,819	•	6,926	778	32,803	116
1997 .....	19,589	6,556	1,618	6,119	799	34,681	118
1998 .....	19,787	8,088	2,182	5,881	851	36,789	123
1999 .....	22,978	9,272	2,534	6,339	904	42,026	136
2000 .....	22,049	8,789	2,688	5,825	917	40,268	130
2001 .....	23,569	9,296	2,890	5,768	931	42,453	133

Note: End of year.

<sup>1</sup> Banknotes in circulation as entered in the Nationalbank's balance sheet furthermore includes the special notes circulation on the Faroe Island (on 31 December 2001 kr. 310 million) and 20-, 10- and 5-krone notes (on 31 December 2000 kr. 203 million).

## ISSUE OF NEW BANKNOTES

Table 2b

Kr. million	1,000 kr.	500 kr.	200 kr.	100 kr.	50 kr.	Total
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
2000 .....	1,216	1,425	883	2,696	506	6,726
2001 .....	2,530	1,114	669	1,317	623	6,251

<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 CIRCULATION

Table 3a

Kr. million	20 kr.	10 kr.	5 kr.	2 kr.	1 kr.	50 øre	25 øre	Total <sup>1</sup>	Total, mio.pieces
1991 .....	845	596	392	•	467	77	131	2,508	1,325
1992 .....	893	599	394	•	471	88	134	2,579	1,268
1993 .....	932	613	399	170	381	94	138	2,727	1,393
1994 .....	1,013	656	421	214	378	105	145	2,932	1,476
1995 .....	1,122	697	442	248	385	112	152	3,158	1,555
1996 .....	1,211	738	462	280	393	121	158	3,363	1,635
1997 .....	1,299	773	483	310	401	126	163	3,555	1,700
1998 .....	1,371	813	504	337	413	134	169	3,741	1,774
1999 .....	1,421	842	523	358	422	139	171	3,876	1,823
2000 .....	1,522	874	540	374	435	141	175	4,060	1,876
2001 .....	1,600	922	562	392	443	148	179	4,245	1,934

Note: End of year.

<sup>1</sup> Coin in circulation as entered in the Nationalbank's balance sheet furthermore includes 200-krone coins (commemorative coins) (on 31 December 2001 kr. 77 million) and 2-krone coins put into circulation up to end-1959 (on 31 December 2001 kr. 11 million).

## PRODUCTION OF COINS (MINTING)

Table 3b

Kr. million	20 kr.	10 kr.	5 kr.	2 kr.	1 kr.	50 øre	25 øre	Total
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
2000 .....	21	0	14	20	21	8	4	88
2001 .....	58	48	28	22	15	6	3	180

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 for a value of kr. 17.9 million, in 1996/97 60,022 coins for a value of kr. 12 million and in 2000 61,000 coins for a value of kr. 12.2 million.

## THE BALANCES OF THE BANKS AND MORTGAGE-CREDIT INSTITUTES WITH THE NATIONALBANK

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>
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	•
2000 .....	51,169	7,822	25,165	33,826	2,677	•
2001 .....	113,620	3,705	63,408	53,917	2,150	•
2000 Jan .....	67,309	6,904	27,409	46,804	2,714	•
Feb .....	61,083	15,948	27,313	49,718	2,793	•
Mar .....	56,819	3,435	34,829	25,425	2,098	•
Apr .....	79,246	4,681	57,635	26,292	3,286	•
May .....	58,135	16,020	45,830	28,325	2,542	•
Jun .....	46,384	5,531	35,647	16,268	2,469	•
Jul .....	49,114	8,424	55,748	1,790	2,885	•
Aug .....	63,794	7,579	61,973	9,400	3,086	•
Sep .....	64,657	5,928	77,652	-7,067	2,707	•
Oct .....	48,281	15,310	48,696	14,895	2,461	•
Nov .....	65,619	11,107	43,776	32,950	2,514	•
Dec .....	51,169	7,817	25,173	33,813	2,677	•
2001 Jan .....	67,483	4,300	48,355	23,428	2,847	•
Feb .....	66,298	8,561	42,807	32,052	2,862	•
Mar .....	52,945	2,978	38,974	16,948	2,200	•
Apr .....	52,852	6,997	38,204	21,644	2,518	•
May .....	57,838	12,211	48,705	21,344	2,588	•
Jun .....	65,150	3,395	55,616	12,929	2,559	•
Jul .....	53,169	14,411	62,737	4,842	2,730	•
Aug .....	62,075	2,808	58,284	6,599	2,710	•
Sep .....	73,138	2,641	62,931	12,848	2,632	•
Oct .....	63,050	11,852	58,325	16,577	2,682	•
Nov .....	71,564	3,433	37,547	37,450	2,116	•
Dec .....	113,620	3,712	63,408	53,925	2,150	•

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>1</sup> Nominal value.

<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).

<sup>3</sup> Proceeds from established bond-repurchase agreements, which were included in line with general deeds of pledge as security for current account drawings.

## MONEY STOCK

Table 5

Kr. billion	Notes and coin <sup>1)</sup>	Demand deposits	Time deposits with a maturity ≤ 2 years	Deposits with a period of notice ≤ 3 months	Repurchase agreements	Debt securities issued with a maturity ≤ 2 years	Money stock M3	Year-on-year increase in money stock, per cent
1993 .....	25.2	268.9	113.5	17.7	0.0	4.0	429.4	...
1994 .....	28.5	251.5	109.7	14.7	2.2	4.7	411.2	-4.2
1995 .....	30.1	260.8	111.5	14.0	2.1	4.3	422.8	2.8
1996 .....	31.1	291.7	117.9	16.2	3.5	7.0	467.4	10.5
1997 .....	32.6	310.9	126.1	15.1	2.5	17.3	504.5	7.9
1998 .....	33.9	333.2	121.9	14.9	1.9	17.4	523.2	3.7
1999 .....	36.1	341.8	111.0	12.9	4.3	17.0	523.2	0.0
2000 .....	37.4	348.6	101.6	6.9	3.3	8.7	506.4	-3.2
2001 .....	39.2	375.4	102.6	9.8	4.0	13.0	544.1	7.4
2000 Jan ....	34.6	358.4	110.7	13.7	6.4	8.9	532.7	3.0
Feb ....	34.1	353.9	110.3	13.4	4.9	10.2	526.9	3.9
Mar ....	35.1	354.1	109.6	12.0	5.3	11.6	527.6	4.8
Apr ....	35.1	361.5	110.3	12.1	3.8	11.6	534.4	0.5
May ....	35.7	364.5	114.4	11.7	6.0	12.5	544.8	1.9
Jun ....	36.0	357.6	123.2	11.7	0.0	12.4	540.9	4.5
Jul ....	36.3	354.4	115.2	8.4	8.9	3.9	527.0	-2.0
Aug ....	35.9	353.8	121.1	10.1	10.5	9.4	540.8	0.3
Sep ....	36.1	355.7	113.0	7.1	9.6	7.4	528.8	1.3
Oct ....	35.5	362.8	118.5	7.2	5.9	8.4	538.2	1.2
Nov ....	36.4	349.1	114.4	6.3	2.9	10.0	519.1	-1.9
Dec ....	37.4	348.6	101.6	6.9	3.3	8.7	506.4	-3.2
2001 Jan ....	35.7	350.2	106.8	6.9	3.6	33.7	536.9	0.8
Feb ....	35.6	344.4	111.0	7.3	4.1	39.5	542.0	2.9
Mar ....	36.4	342.0	109.3	7.6	2.6	41.0	538.9	2.1
Apr ....	37.1	361.2	110.3	7.8	4.4	43.1	563.9	5.5
May ....	37.4	361.8	100.9	8.6	5.3	42.0	556.0	2.1
Jun ....	38.1	364.6	93.4	7.8	5.8	43.4	553.1	2.3
Jul .....	37.6	375.5	96.3	8.1	4.4	44.5	566.4	7.5
Aug ....	38.6	377.2	108.0	9.1	2.3	43.6	578.7	7.0
Sep ....	37.9	370.7	110.1	8.9	5.7	44.2	577.3	9.2
Oct ....	37.6	385.7	112.4	9.2	3.5	38.9	587.2	9.1
Nov ....	38.9	379.0	111.4	9.2	2.1	38.0	578.5	11.4
Dec ....	39.2	375.4	102.6	9.8	4.0	13.0	544.1	7.4

Note: The money stock is calculated in accordance with the ECB's definition of harmonised monetary aggregates: M1, M2, and M3. This includes residents' short-term deposits with MFIs in kroner and foreign currencies. Special deposit schemes are included in the money stock (M2 and M3) to the extent that they are within the short-term band. Debt securities issued with original maturity of up to and including 2 years, money-market fund shares/units and money market papers issued by MFIs are included in M3. The money stock is determined on the basis of the consolidated balance sheet of the MFI sector and represents the MFI sector's liquid liabilities vis-à-vis the money-holding sectors - i.e. citizens and companies, but excluding the central government and non-residents, who are regarded as money-neutral in this connection.

The M1 monetary aggregate is calculated as the sum of "banknotes and coins" and demand deposits, and the M2 monetary aggregate is calculated as the sum of M1, time deposits with a maturity ≤ 2 years and deposits with a period of notice ≤ 3 months.

The MFI sector comprises Danish Monetary Financial Institutions, i.e. banks and mortgage-credit institutes, other credit institutions, money market funds and Danmarks Nationalbank..

<sup>1)</sup> Banknotes and coins in circulation, excluding MFI holdings.

## THE OFFICIAL INTEREST RATES OF DANMARKS NATIONALBANK

Table 6

Per cent per annum	Discount rate	Current account deposits <sup>1</sup>	Lending and certificates of deposit <sup>2</sup>	Per cent per annum	Discount rate	Current account deposits <sup>1</sup>	Lending and certificates of deposit <sup>2</sup>
1991 .....	9.50	9.50	•	1997 10 Oct .....	3.50	3.50	3.75
1992 .....	9.50	9.50	13.00	1998 6 May .....	4.00	4.00	4.25
1993 .....	6.25	6.25	6.75	29 - .....	3.75	3.75	4.00
1994 .....	5.00	5.00	5.50	21 Sep .....	4.25	4.25	5.00
1995 .....	4.25	4.25	4.60	8 Oct .....			4.75
1996 .....	3.25	3.25	3.50	22 - .....			4.65
1997 .....	3.50	3.50	3.75	5 Nov .....	4.00	4.00	4.40
1998 .....	3.50	3.50	3.95	26 - .....			4.25
1994 6 Jan .....	6.00	6.00	6.50	4 Dec .....	3.50	3.50	3.95
19 - .....	5.75	5.75	6.25	1999 7 Jan .....			3.75
18 Feb .....	5.50	5.50	6.00	4 Feb .....	3.25	3.25	3.50
15 Apr .....	5.25	5.25	5.90	1 Mar .....			3.40
2 May .....			5.80	9 Apr .....	2.75	2.75	2.90
11 - .....			5.70	17 Jun .....			2.85
13 - .....	5.00	5.00		5 Nov .....	3.00	3.00	3.30
19 - .....			5.60	2000 4 Feb .....	3.25	3.25	3.60
7 Jul .....			5.50	17 Mar .....	3.50	3.50	3.85
1995 8 Mar .....	6.00	6.00	7.00	28 Apr .....	3.75	3.75	4.10
6 Apr .....			6.75	9 Jun .....	4.25	4.25	4.70
27 - .....			6.50	23 Aug .....			4.90
18 May .....			6.35	30 - .....			5.10
6 Jul .....	5.75	5.75	6.20	1 Sep .....	4.50	4.50	
27 - .....			6.05	6 - .....			5.00
3 Aug .....	5.50	5.50	5.90	27 - .....			5.10
25 - .....	5.00	5.00	5.65	29 - .....			5.60
7 Sep .....			5.50	6 Oct .....	4.75	4.75	
28 - .....			5.40	13 - .....			5.50
5 Oct .....			5.30	27 - .....			5.40
9 Nov .....	4.75	4.75	5.15	2001 9 Feb .....			5.30
23 - .....			5.00	14 May .....	4.50	4.50	5.00
15 Dec .....	4.25	4.25	4.75	6 Jul .....			4.95
28 - .....			4.60	31 Aug .....	4.25	4.25	4.65
1996 11 Jan .....			4.50	18 Sep .....	3.75	3.75	4.15
25 - .....	4.00	4.00	4.35	5 Oct .....			4.10
8 Feb .....			4.25	9 Nov .....	3.25	3.25	3.60
7 Mar .....	3.75	3.75	4.10	2002 1 Feb .....			3.55
21 - .....			4.00				
1 Apr .....	3.75	3.75	3.90				
19 - .....	3.25	3.25	3.80				
6 Jun .....			3.70				
23 Aug .....			3.50				

Note: Interest rates at year-end or as from the date stated.

<sup>1</sup> 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 0,5 to 1 per cent higher.

<sup>2</sup> The Nationalbanken'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 started 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 7a

With effect from <sup>1</sup>	Deposit facility	Main refinancing operations		Marginal lending facility
		Fixed rate tenders	Variable rate tenders	
		Fixed rate	Minimum bid rate	
2000 4 Feb .....	2.25	3.25	-	4.25
17 Mar .....	2.50	3.50	-	4.50
28 Apr .....	2.75	3.75	-	4.75
9 Jun .....	3.25	4.25	-	5.25
28 - <sup>2</sup> .....	3.25	-	4.25	5.25
1 Sep .....	3.50	-	4.50	5.50
6 Oct .....	3.75	-	4.75	5.75
2001 11 May .....	3.50	-	4.50	5.50
31 Aug .....	3.25	-	4.25	5.25
18 Sep .....	2.75	-	3.75	4.75
9 Nov .....	2.25	-	3.25	4.25

Kilde: ECB.

<sup>1</sup> The date refers to the deposit and marginal lending facilities. For main refinancing operations, unless otherwise indicated, changes in the rate are effective from the first operation following the date indicated.

<sup>2</sup> On 8 June 2000 the ECB announced that, starting from the operation to be settled on 28 June 2000, the main refinancing operation of the Eurosystem would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids.

## EUROSYSTEM MONETARY POLICY OPERATIONS ALLOTTED THROUGH TENDERS

Table 7b

Per cent per annum	Variabel rate tenders		Per cent per annum	Variabel rente		Per cent per annum	Variabel rente	
	Minimum-bid rate	Marginal rate		Minimum-bid rate	Marginal rate		Minimum-bid rate	Marginal rate
2001 3 Jan ....	4.75	4.76	2001 30 May ...	4.50	4.55	2001 24 Oct .....	3.75	3.75
10 - ....		4.75	6 Jun ....		4.51	31 - .....		3.75
17 - ....		4.75	13 - ....		4.51	7 Nov.....		3.75
24 - ....		4.75	20 - ....		4.51	14 - .....	3.25	3.37
31 - ....		4.76	27 - ....		4.54	21 - .....		3.26
7 Feb ....		4.75	4 Jul ....		4.50	28 - .....		3.27
14 - ....		4.75	11 - ....		4.51	5 Dec ....		3.27
21 - ....		4.78	18 - ....		4.51	12 - .....		3.27
26 - ....		4.78	25 - ....		4.51	19 - .....		3.43
7 Mar ....		4.76	1 Aug....		4.50	28 - .....		3.45
14 - ....		4.77	8 - ....		4.50	2002 2 Jan .....		3.28
21 - ....		4.77	15 - ....		4.50	9 - .....		3.30
28 - ....		4.75	22 - ....		4.50	16 - .....		3.31
4 Apr ...		4.75	29 - ....		4.50	23 - .....		3.29
11 - ....		4.75	5 Sep ....	4.25	4.27	30 - .....		3.31
19 - ....		4.86	12 - ....		4.26	6 Feb ....		3.30
25 - ....		4.78	19 - ....	3.75	3.76	12 - .....		3.29
30 - ....		4.77	26 - ....		3.76	19 - .....		3.28
7 May ....		4.78	3 Oct ....		3.75			
15 - ....	4.50	4.54	10 - ....		3.75			
23 - ....		4.53	17 - ....		3.78			

Source: ECB.

Anm.: Cf. footnote 2, table 7a. The marginal rate refers to the lowest rate at which funds were allotted.

## THE FOREIGN-EXCHANGE RESERVE

Table 8

Kr. million	Gold	Foreign assets	Assets deposited with the European Monetary Institute	Net assets with the IMF <sup>1</sup>	Total gross	Foreign liabilities	Total net <sup>2</sup>
1991 .....	3,464	38,588	2,814	3,585	48,451	3,888	44,563
1992 .....	3,456	63,540	2,757	3,503	73,256	28,292	44,964
1993 .....	4,339	62,818	4,947	3,456	75,560	790	74,770
1994 .....	3,790	44,658	3,460	3,723	55,631	1,537	54,094
1995 .....	3,531	53,577	4,521	4,177	65,806	2,200	63,606
1996 .....	3,652	73,624	4,979	4,598	86,853	1,634	85,219
1997 .....	3,331	115,844	4,790	6,602	130,567	876	129,691
1998 .....	3,934	89,416	•	9,330	102,680	1,253	101,427
1999 .....	4,567	154,715	•	8,441	167,724	2,425	165,299
2000 .....	4,683	110,851	•	5,127	120,661	3,143	117,517
2001 .....	4,979	138,633	•	8,549	152,161	3,734	148,427
2000 Jan .....	4,567	136,478	•	7,945	148,990	432	148,558
Feb .....	4,567	129,437	•	7,960	141,964	543	141,421
Mar .....	4,567	126,501	•	7,846	138,914	71	138,843
Apr .....	4,567	122,997	•	6,691	134,255	445	133,809
May .....	4,567	121,543	•	7,115	133,225	465	132,761
Jun .....	4,567	111,957	•	7,064	123,587	755	122,832
Jul .....	4,567	109,863	•	6,916	121,346	1,122	120,224
Aug .....	4,567	109,583	•	6,971	121,121	1,729	119,392
Sep .....	4,567	110,362	•	6,894	121,823	13,748	108,075
Oct .....	4,567	119,243	•	5,223	129,033	2,257	126,776
Nov .....	4,567	116,641	•	5,213	126,421	2,767	123,655
Dec .....	4,567	116,138	•	4,777	125,481	3,143	122,338
2001 Jan .....	4,683	106,205	•	5,044	115,932	773	115,159
Feb .....	4,683	105,025	•	6,351	116,059	335	115,724
Mar .....	4,683	105,634	•	6,346	116,663	825	115,837
Apr .....	4,683	104,620	•	5,934	115,237	1,189	114,048
May .....	4,683	107,077	•	8,203	119,963	1,499	118,464
Jun .....	4,683	108,784	•	8,189	121,656	2,033	119,622
Jul .....	4,683	109,159	•	8,237	122,079	2,584	119,495
Aug .....	4,683	112,567	•	8,175	125,424	2,903	122,521
Sep .....	4,683	133,099	•	8,119	145,901	2,496	143,405
Oct .....	4,683	136,295	•	8,088	149,066	2,947	146,119
Nov .....	4,683	139,005	•	7,593	151,281	3,507	147,774
Dec .....	4,682	135,751	•	8,306	148,739	3,749	144,989

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>1</sup> Danmarks Nationalbank's account with the International Monetary Fund is specified in Table 9.

<sup>2</sup> As a result of exchange-rate adjustments the foreign-exchange reserve 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, declined by kr. 366 million in 1999, by kr. 4,821 million in 2000 and increased by kr. 3,437 million in 2001.

DENMARK'S ACCOUNT WITH THE INTERNATIONAL MONETARY FUND

Table 9

	Denmark's quota in the Fund		The Fund's holdings of Danish kroner		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
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
2000 .....	1,643	17,167	1,203	12,568	440	4,599	179	1,869	51	528
2001 .....	1,643	17,306	1,076	11,335	567	5,971	179	1,884	223	2,354

Note: End of period. Conversion from SDR to Danish kroner is made at the year-end SDR-rate. In addition to the above account, kr. 223 million had been lent to the Poverty Reduction and Growth Facility Trust at end-2001.

<sup>1</sup> Denmark's reserve position in the IMF is determined as the difference between the quota and the Fund's holdings of Danish kroner.

CENTRAL RATE AND FLUCTUATION BAND VIS-A-VIS EURO IN ERM2

Table 10

Kr. per 100 euro	Denmark
Upper limit .....	762.824
Central rate .....	746.038
Lower limit .....	729.252

CONVERSION RATE TO EURO

Table 11

	1 euro =
Belgian francs .....	40.3399
Finnish marks .....	5.94573
French francs .....	6.55957
Greek drachmas .....	340.750
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 12

Danish kroner per 100 units	Euro (EUR)	US dollars (USD)	Japanese yen (JPY)	Pounds sterling (GBP)	Swedish kronor (SEK)	Norwegian kroner (NOK)
1991 .....	•	640.34	4.7604	1,128.13	105.72	98.64
1992 .....	•	602.73	4.7606	1,062.91	103.94	97.15
1993 .....	•	649.45	5.8736	974.42	83.33	91.38
1994 .....	•	635.23	6.2171	972.32	82.32	90.07
1995 .....	•	560.53	5.9799	884.61	78.65	88.45
1996 .....	•	579.59	5.3316	905.17	86.47	89.79
1997 .....	•	660.86	5.4761	1,082.32	86.54	93.36
1998 .....	•	669.70	5.1338	1,109.36	84.23	88.70
1999 .....	743.56	698.34	6.1755	1,129.49	84.46	89.47
2000 .....	745.37	809.03	7.5081	1,223.32	88.26	91.89
2001 .....	745.21	831.88	6.8522	1,197.73	80.58	92.60
2000 Jan .....	744.40	733.58	6.9842	1,203.58	86.58	91.60
Feb .....	744.53	756.23	6.9117	1,211.21	87.48	91.92
Mar .....	744.74	771.57	7.2447	1,218.89	88.74	91.77
Apr .....	745.02	785.65	7.4550	1,244.33	90.12	91.36
May .....	745.68	820.97	7.5842	1,240.71	90.50	90.91
Jun .....	746.01	785.11	7.4111	1,184.87	89.74	90.53
Jul .....	745.88	793.22	7.3535	1,196.80	88.71	91.21
Aug .....	745.78	824.04	7.6257	1,227.00	88.85	92.08
Sep .....	746.23	856.51	8.0238	1,227.99	88.70	92.92
Oct .....	744.73	870.72	8.0302	1,264.01	87.37	93.05
Nov .....	745.67	870.68	7.9930	1,241.53	86.42	93.26
Dec .....	745.78	831.13	7.4139	1,214.95	86.11	91.69
2001 Jan .....	746.44	795.06	6.8079	1,175.57	83.88	90.64
Feb .....	746.31	809.49	6.9684	1,176.84	83.17	90.92
Mar .....	746.44	820.68	6.7634	1,186.09	81.77	91.48
Apr .....	746.32	835.92	6.7593	1,199.78	81.89	91.97
May .....	746.16	852.52	6.9977	1,215.66	82.33	93.28
Jun .....	745.37	872.19	7.1227	1,221.51	81.01	93.98
Jul .....	744.49	865.71	6.9481	1,223.29	80.41	93.42
Aug .....	744.52	826.77	6.8053	1,187.89	80.00	92.44
Sep .....	744.14	817.05	6.8768	1,194.54	76.93	93.08
Oct .....	743.67	820.79	6.7668	1,191.44	77.65	93.02
Nov .....	744.53	838.10	6.8467	1,203.92	79.12	93.99
Dec .....	744.33	833.06	6.5543	1,199.59	78.97	93.06

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 currencies included in the basket.

## EXCHANGE RATES

Table 12

Icelandic kroner (ISK)	Swiss francs (CHF)	Canadian dollars (CAD)	Australian dollars (AUD)	New Zealand dollars (NZD)	SDRs (XDR)	Nominal effective kroner rate (1980=100)
10.87	446.30	559.29	...	...	874.70	94.6
10.47	429.85	499.19	443.10	324.29	848.77	96.9
9.59	439.43	503.09	440.77	351.63	906.68	99.9
9.08	465.26	465.51	464.62	377.06	909.23	99.9
8.65	474.22	408.39	415.80	367.64	849.63	103.9
8.69	469.65	425.08	453.67	398.76	841.42	102.9
9.31	455.35	477.44	490.90	437.20	909.13	100.0
9.41	462.37	452.28	421.66	359.66	908.10	101.3
9.64	464.63	470.26	450.86	369.27	954.73	99.6
10.27	478.68	544.49	469.29	367.89	1,065.90	95.6
8.56	493.47	537.54	430.51	349.85	1,058.62	96.9
10.14	462.37	506.55	482.38	377.38	1,005.32	97.3
10.34	463.29	521.04	475.74	371.08	1,017.38	96.9
10.48	464.11	528.42	470.42	378.39	1,036.25	96.2
10.63	473.29	536.03	468.66	389.67	1,052.93	95.5
10.75	478.70	549.31	475.06	386.86	1,076.86	95.0
10.30	478.42	531.63	467.88	369.68	1,045.52	96.1
10.16	481.02	536.50	466.85	365.71	1,049.89	95.9
10.30	480.90	555.91	478.93	367.53	1,078.37	95.1
10.31	487.62	577.16	474.34	358.01	1,108.36	94.4
10.23	492.11	576.17	459.81	348.72	1,120.06	94.3
9.97	490.06	564.86	455.12	347.96	1,117.00	94.5
9.65	492.60	545.28	454.50	356.96	1,075.47	95.6
9.35	488.21	529.10	441.44	353.35	1,034.09	97.1
9.41	485.85	532.10	432.91	352.09	1,046.94	96.9
9.36	486.08	527.12	413.44	343.32	1,048.89	97.0
8.97	488.02	535.87	417.50	339.40	1,059.05	96.7
8.49	486.49	553.34	443.20	359.44	1,076.81	96.1
8.33	489.41	572.29	452.83	361.82	1,091.99	95.8
8.47	491.90	566.35	441.22	353.65	1,083.35	96.3
8.40	491.61	537.41	433.57	356.22	1,053.09	97.2
8.17	499.04	522.03	413.40	342.44	1,049.94	97.6
8.03	502.56	522.60	414.38	340.09	1,048.64	97.6
7.81	507.55	526.06	433.59	349.17	1,062.50	96.8
7.96	504.52	528.46	428.90	346.49	1,051.09	97.2

## EXCHANGE RATES FOR EURO AREA MEMBER STATES

Table 13

Danish kroner per 100 units	Belgian francs (BEF)	Finnish marks (FIM)	French francs (FRF)	Greek drachmas (GRD)	Dutch guilders (NLG)	Irish pounds (IEP)
1991 .....	18.734	158.32	113.41	3.514	342.26	1,030.27
1992 .....	18.775	135.08	114.02	3.167	343.29	1,026.49
1993 .....	18.760	113.54	114.47	2.828	349.23	949.92
1994 .....	19.020	121.96	114.59	2.619	349.50	950.44
1995 .....	19.010	128.39	112.30	2.420	349.17	898.54
1996 .....	18.728	126.31	113.34	2.409	343.95	927.87
1997 .....	18.463	127.27	113.17	2.420	338.51	1,001.55
1998 .....	18.462	125.36	113.60	2.270	337.86	953.82
1999 .....	18.432	125.06	113.36	2.283	337.41	944.13
2000 .....	18.477	125.36	113.63	2.214	338.23	946.42
2001 .....	18.473	125.34	113.61	2.187	338.16	946.22
2000 Jan .....	18.453	125.20	113.48	2.249	337.79	945.19
Feb .....	18.456	125.22	113.50	2.235	337.85	945.35
Mar .....	18.462	125.26	113.54	2.230	337.95	945.63
Apr .....	18.469	125.30	113.58	2.223	338.08	945.99
May .....	18.485	125.41	113.68	2.216	338.38	946.82
Jun .....	18.493	125.47	113.73	2.217	338.53	947.24
Jul .....	18.490	125.45	113.71	2.214	338.46	947.07
Aug .....	18.487	125.43	113.69	2.211	338.42	946.94
Sep .....	18.499	125.51	113.76	2.204	338.63	947.52
Oct .....	18.461	125.25	113.54	2.194	337.95	945.62
Nov .....	18.485	125.41	113.68	2.192	338.37	946.81
Dec .....	18.487	125.43	113.69	2.189	338.42	946.94
2001 Jan .....	18.504	125.54	113.79	2.191	338.72	947.78
Feb .....	18.501	125.52	113.77	2.190	338.66	947.62
Mar .....	18.504	125.54	113.79	2.191	338.72	947.78
Apr .....	18.501	125.52	113.78	2.190	338.67	947.64
May .....	18.497	125.50	113.75	2.190	338.59	947.43
Jun .....	18.477	125.36	113.63	2.188	338.24	946.43
Jul .....	18.455	125.21	113.50	2.185	337.84	945.31
Aug .....	18.456	125.22	113.50	2.185	337.85	945.34
Sep .....	18.447	125.16	113.44	2.184	337.68	944.86
Oct .....	18.435	125.08	113.37	2.182	337.46	944.27
Nov .....	18.456	125.22	113.50	2.185	337.85	945.35
Dec .....	18.451	125.19	113.47	2.185	337.76	945.10

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 11. For the Greek drachma the conversion rate to euro was not fixed until 2001, however. 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.

## EXCHANGE RATES FOR EURO AREA MEMBER STATES

Table 13

Italian lire (ITL)	Portuguese escudos (PTE)	Spanish pesetas (ESP)	German marks (DEM)	Austrian schillings (ATS)	ECU (XEU)
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	•
0.3849	3.718	4.480	381.10	54.168	•
0.3849	3.717	4.479	381.02	54.156	•
0.3844	3.713	4.474	380.61	54.098	•
0.3845	3.714	4.475	380.67	54.107	•
0.3846	3.715	4.476	380.78	54.122	•
0.3848	3.716	4.478	380.93	54.143	•
0.3851	3.720	4.482	381.26	54.191	•
0.3853	3.721	4.484	381.43	54.215	•
0.3852	3.720	4.483	381.36	54.205	•
0.3852	3.720	4.482	381.31	54.198	•
0.3854	3.722	4.485	381.54	54.231	•
0.3846	3.715	4.476	380.78	54.122	•
0.3851	3.719	4.482	381.26	54.190	•
0.3852	3.720	4.482	381.31	54.198	•
0.3855	3.723	4.486	381.65	54.246	•
0.3854	3.723	4.485	381.58	54.237	•
0.3855	3.723	4.486	381.65	54.246	•
0.3855	3.723	4.486	381.59	54.238	•
0.3854	3.722	4.485	381.51	54.226	•
0.3850	3.718	4.480	381.10	54.168	•
0.3845	3.714	4.475	380.65	54.104	•
0.3845	3.714	4.475	380.67	54.106	•
0.3843	3.712	4.472	380.47	54.079	•
0.3841	3.709	4.470	380.23	54.044	•
0.3845	3.714	4.475	380.67	54.107	•
0.3844	3.713	4.474	380.57	54.092	•

**DANMARKS NATIONALBANK'S PUBLICATIONS**

- *Report and Accounts* (March).
- *Monetary Review* (March, June, October, December).
- *Danish Government Borrowing and Debt* (March).
- *Working papers* (periodical – electronic publication only).
- *Financial Statistics – "Nyt" (News)* (Current issues)  
– only in electronic form as from medio 2002.
- *Monthly Financial Statistics* (every month)

## Other publications:

- *Consequences for the Danish bond market if Denmark decides to adopt the euro. Technical considerations* (2000).
- *The Coins and Banknotes of Denmark* (1999).

**DANISH BANK HOLIDAYS OTHER THAN SATURDAYS AND SUNDAYS**

New Year's day  
 Maundy Thursday  
 Good Friday  
 Easter Monday  
 General Prayer Day (in 2002, 26 April)  
 Ascension Day  
 Whit Monday  
 Constitution Day (5 June)  
 24 December  
 Christmas Day  
 Boxing Day  
 31 December (from noon only)

