

DANMARKS NATIONALBANK

Monetary Review – August 1993

Explanation of Symbols

- Magnitude nil
- 0 Less than one half of unit employed
- Category not applicable
- ... Data not available
- * Provisional or estimated figures
- ___ Break in series

In tables including the banks the figures do not include Faroese and Greenland banks, but branches in Denmark of foreign banks are included.

With the exception of tables which are based on Danmarks Nationalbank's balance sheets, the figures for the banks are based on reports from all banks and major savings banks—as from 1988 savings banks with a balance (deposits and capital) exceeding kr.100 million.

With effect from June 1, 1991 the National Post Giro has been restructured as a commercial bank under the name of GiroBank. As from July 1991 GiroBank is included in the tables under "The banks".

Details may not add because of rounding-off.

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Recent Trends in External Finance and Domestic Credit

This review covers the period from May to the beginning of August 1993.

Foreign-exchange markets

After fluctuating at around 1.60 D-mark per dollar during the first part of the year, from the beginning of June until the end of July the dollar strengthened by just over 6 per cent against the D-mark and most other European currencies.

From mid-June factors such as political unrest in Japan interrupted the strengthening of the Japanese yen of the spring. After this stabilization of the dollar/yen rate, at the end of July the yen was 15 per cent higher against the dollar than at the turn of the year, and 20 per cent higher against the D-mark.

In recent months the US and Japanese 3-month interest rates have been at the same level, whereas the interest-rate differential to Germany has narrowed by approximately 2 per cent since the turn of the year to just over 3 per cent, due to falling interest rates in Germany.

The long-term interest-rate differential is considerably narrower, the short-term interest rates determined by monetary policy continuing to lie below long-term rates in the USA and Japan, while the reverse is the case for Germany.

The European Monetary System (EMS)

After the unrest at the beginning of the year the ERM was relatively stable during the spring and early summer.

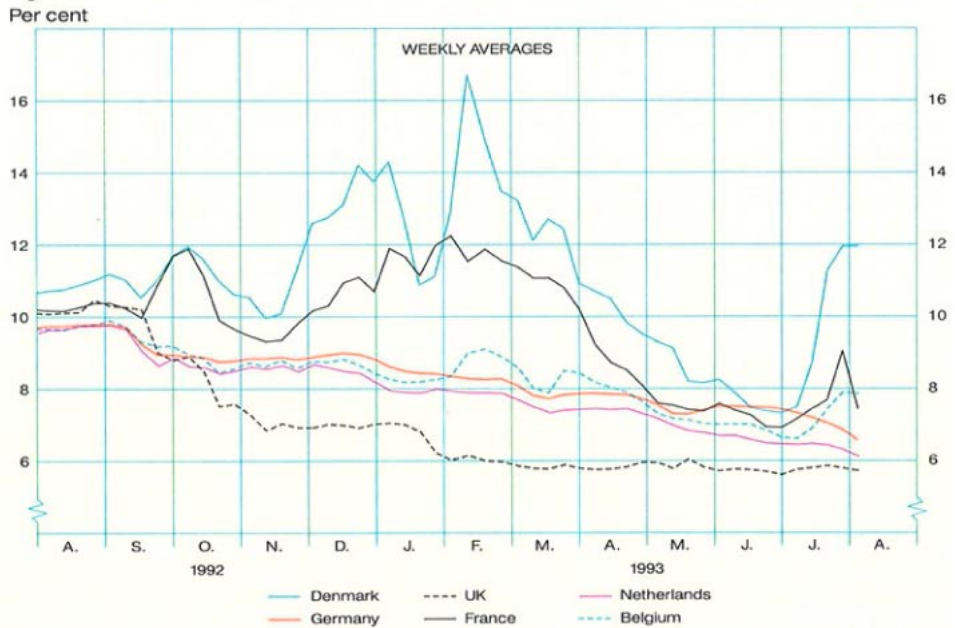
In Germany the drop in interest rates which commenced in the autumn of 1992 continued through the spring and summer. This decline was supported by repeated lowering of the German central-bank-controlled interest rates, most recently the Lombard rate by 0.5 per cent to 7.75 per cent with effect from July 30, while the discount rate remained unchanged at 6.75 per cent. At the beginning of August the rate of interest for repurchase agreements was 3 per cent below the level a year before.

The D-mark saw a relative weakening in step with the lowering of interest rates during the spring and early summer. The D-mark fell from the top to a position in the middle of the ERM band, and the other ERM countries were able to lower their interest rates by more than Germany. The unprecedented result was that short-term rates in Denmark, France and Belgium for a short period fell to a level marginally below the German rate, cf. Figure 1. The rate of interest in the Netherlands has been lower than the German rate for some time.

The Spanish peseta and the Portuguese escudo came under pressure in certain periods. On May 13 the peseta was devalued by 8 per cent and the escudo by 6 per cent. This was the third devaluation of the peseta in less than nine months, and overall its central rate against the krone has been written down by 18 per cent.

In mid-July the market turned against the French franc in the light of more and more gloomy forecasts for the French economy. The background to this

Figure 1 *3-month inter-bank interest rates*



Note: For Denmark, repurchase agreements in Treasury bills.

crisis was the foreign-exchange markets' doubts concerning the authorities' willingness to pursue the degree of common policy on interest rates required by a fixed-exchange-rate system. Rising unemployment levels called for a quick reduction of interest rates, particularly in the countries with the lowest inflation rates such as France and Denmark. In Germany, on the other hand, continuing high inflation by German standards and growth in the money stock above the declared target zone caused the German Bundesbank to pursue a prudent policy on lowering interest rates, even though Germany has also been affected by the recession.

This created a very speculative atmosphere, with the focus on German interest-rate policy.

The Danish krone was also affected by the foreign-exchange unrest. In mid-July the krone fell to a position at the bottom of the band, with the Dutch guilder as the strongest currency. Intervention on the margin took place on July 14 and 15, followed by coordinated intervention by the ERM central banks on July 16 as the pressure continued. At the same time the discount rate was raised by 2 per cent to 9.25 per cent. The Dutch central bank lowered its lending rate slightly. All in all intervention in the middle of July totalled kr.25 billion.

In July the Bundesbank continued its policy of gradually lowering the rate of interest vis-à-vis the banks via repurchase agreements, but when the Bundesbank Council refrained from lowering the discount rate at its meeting on July 29 strong speculative pressure arose against first the French franc and the krone and soon after also the Belgian franc, the peseta and the escudo.

In accordance with the ERM rules the currencies were defended by considerable intervention sales and by raising short-term interest rates. Intervention sales in support of the krone on July 29 and 30 amounted to kr.25 billion. The French franc was also defended with considerable amounts. At Germany's request a meeting of the EC Monetary Committee was called for Saturday, July 31. A subsequent ECOFIN meeting failed to achieve agreement on relieving the tension within the current fluctuation margins of 2.25 per cent. Instead it was decided to widen the ERM band temporarily to plus/minus 15 per cent. The central rates remained unchanged, as they were found to be in accordance with the economic fundamentals.

This has given rise to a new and for Denmark unwanted situation in the ERM. Negotiations on re-establishment of the system can be expected once the markets have stabilized.

Since the end of February the pound sterling has risen by just over 10 per cent against the D-mark and the krone. At the end of July short-term UK interest rates were just under 1 per cent below the German rate, whereas the long-term rate was approximately 1½ per cent above the corresponding German rate. After the longest recession in post-war years the UK economy is showing the first signs of recovery, thus breaking the pattern seen in the rest of Europe.

In 1993 so far the Swedish krona has fluctuated at around kr.0.80-0.85 per Swedish krona.

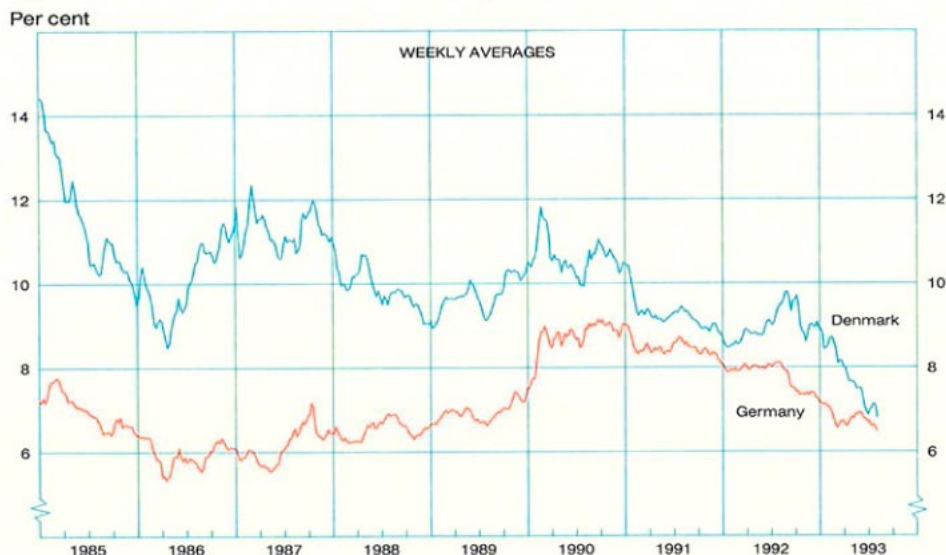
The effective krone rate peaked in February and fell by 4 per cent up to the end of July, when it was nevertheless 2.1 per cent above the average for 1992. The effective krone rate has fallen by a further 5 per cent during the first two weeks of August with the wider fluctuation margin of 15 per cent in effect.

Interest-rate developments in Denmark

On the day after the May 18 referendum on the Maastricht Treaty and the Edinburgh Agreement the Nationalbank lowered the discount rate by 1 per cent to 8.25 per cent. Up to the beginning of July the discount rate was lowered further on two occasions to 7.25 per cent. In the same period the Nationalbank gradually lowered the rate of interest for repurchase agreements and certificates of deposit from 9.75 to 7.80 per cent, and there was a corresponding drop in inter-bank rates.

While the krone was under pressure in mid-July the rate of interest for repurchase agreements and certificates of deposit was raised in two stages to 11 per cent, and the discount rate to 9.25 per cent with effect from July 19. A proportion of the liquidity requirement due to the intervention in the foreign-exchange market was covered by money-market transactions at maturities of 17 and 18 days at a rate of interest of 20 per cent. In connection with the settlement of the considerable intervention amounts at the end of July, on August 3 the Nationalbank supplied liquidity via the money market at a rate of interest of 25 per cent for transactions with a maturity of 29 days. As in previous periods of pressure against the krone the Nationalbank kept tight control of liquidity, and interest rates showed more fluctuation, while the differential between inter-bank lending and borrowing rates widened. On August 6 the rate of interest for repur-

Figure 2

Bond yields

Note: 10-year government bonds.

chase agreements and certificates of deposit was fixed at 11 per cent as an element of the normalization of interest-rate conditions after the foreign-exchange crisis, but liquidity continued to be tight as a consequence of foreign-exchange speculation.

Since the turn of the year long-term Danish interest rates have fallen by 2 per cent and are now just below 7 per cent, cf. Figure 2. In the same period the interest-rate differential to Germany narrowed considerably. Viewed in a long-term perspective both the interest-rate differential to Germany and nominal Danish interest rates are at an historic low.

As a consequence of the drop in interest rates the minimum coupon rate was lowered by 1 per cent to 7 per cent with effect from May 18, and by a further 1 per cent with effect from July 1. The minimum coupon rate is the lowest permitted coupon rate on new securities issues available to private taxpayers without entailing liability to capital-gains tax.

The banks' liquidity

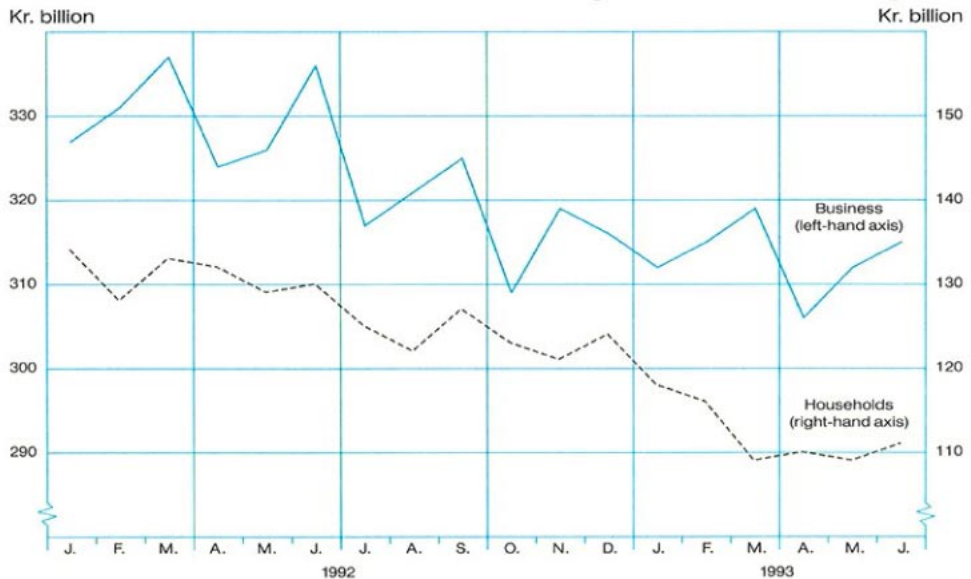
From the turn of the year until the end of July the banks' net debt to the Nationalbank increased by just over kr.16 billion, mainly attributable to the fact that the impact on liquidity of the Nationalbank's net sales of foreign exchange in July exceeded the effect on liquidity of the bank's net foreign-exchange purchases in the first half-year.

During the year so far the impact of central-government finance on liquidity has by and large been neutral.

In order to facilitate the formation of interest rates in the money market and thus achieve greater consistency between the money-market rates the limits for

The banks' lending

Figure 3



Note: Lending to residents including loans from branches and subsidiary banks abroad. Amounts for 1993 adjusted for losses and provisions.

the banks' access to borrow from the Nationalbank were removed with effect from June 8. After that date the banks in normal circumstances have unrestricted access to enter into repurchase agreements in all types of government paper. Furthermore, the access to interest-bearing current-account deposits was by and large doubled for the banks taken as one, in order to ease liquidity settlement between the banks. Each bank's access to interest-bearing current-account deposits has been determined according to the bank's role in liquidity settlement. The rules are described in further detail in the Nationalbank's Rules of June 30, 1993, reprinted on pp. 39-41.

The banks' balance sheets

In the 2nd quarter there were indications that the reduction of the banks' balance sheets, which commenced last spring as a result of the weak domestic economy and high real-interest rates, had come to an end, cf. Figure 3.

Lending to both businesses and households thus appears to have stabilized in recent months.

The decrease in business lending since the beginning of 1992 must be attributed primarily to the weak development in the economy, whereas the decline in lending to households appears in particular to reflect the removal in June 1992 of the tax exemption for private individuals' capital gains on securities acquired for borrowed funds. It can be assessed that lending under such schemes has fallen by slightly more than total lending to households.

At the end of June the banks' total lending was just under kr.45 billion below

the level at the same time last year, and bond holdings were kr.13 billion lower. Concurrently with the reduction of these assets the banks cut their net debt to credit institutions abroad by just under kr.75 billion to kr.50 billion.

There was a small increase in domestic deposits and thereby the money stock in the first half-year to just under 3 per cent above the level at the same time in 1992.

Balance of payments

A higher margin for error continues to apply to the statistics for total foreign trade, due to difficulties with the introduction of new trade statistics, cf. the Monetary Review—May 1993, p. 6.

The value of both imports and exports fell in the first four months of the year compared to the same period of last year, reflecting the slowdown in both Danish and foreign economies. The decline in imports, excluding ships, etc. was just over 13 per cent. There was a significant drop in fuel imports in particular as a result of the increase in output of oil and gas from the Danish section of the North Sea. The value of imports by the business sector also fell strongly, while the decline was somewhat less for consumer goods and passenger cars.

Exports excluding ships, etc. fell by just over 8 per cent during the period in question, with a particularly strong decrease for agricultural products, due amongst other things to the devaluation of the currencies of some of Denmark's most important markets. Manufactured exports were also affected by the economic slowdown in most European countries and by lower exchange rates for a number of key currencies. Manufactured exports for the first four months of the year were 6 per cent below the level a year before.

The trade balance excluding ships, etc. improved by 30 per cent to a surplus of just under kr.12 billion in the first four months of the year.

No index of foreign trade has yet been published, but the national accounts for the 1st quarter show that both import and export prices have eased, measured on a year-on-year basis, so that the decrease in imports as well as exports by volume is less than the decline in value terms. Import prices fell more than export prices, due to such factors as the appreciation of the krone, thus improving the terms of trade with abroad.

It is not yet possible to evaluate the development in market shares due to statistical difficulties in Denmark and the other EC countries. A small decrease after the very positive development in preceding years cannot be ruled out.

Of the remaining items of the current account net interest expenditure to abroad continued to decrease.

Capital flows and the banks' balance sheets

In the 2nd quarter of 1993 the foreign-exchange reserves increased by kr.3.3 billion and the central government repaid loans to abroad for just over kr.5 billion during the same period.

Sales of krone paper, primarily government bonds, to abroad amounted to just under kr.19 billion in the 2nd quarter. On the other hand business enterprises and private individuals repaid debt to abroad for just under kr.9 billion,

and the banks increased their net foreign assets (capital exports) by a further kr.15½ billion.

In July the foreign-exchange reserves decreased by kr.0.1 billion. Net central-government borrowing abroad amounted to kr.25.5 billion, which by and large corresponded to the intervention in support of the krone in mid-July. The intervention on the last two days of July will affect the foreign-exchange position in August.

In July net resales of krone bonds from abroad amounted to just under kr.9 billion. A certain level of net resales is typical in periods of foreign-exchange unrest, but generally to a limited extent. In such periods foreign investors can instead hedge the foreign-exchange risk by selling kroner forward to Danish banks, which in turn will hedge the forward contracts by increasing their holdings of foreign exchange, thus increasing the external position. In other cases purchases of krone bonds might be financed by krone borrowing from Danish banks, thus also hedging foreign investors' exchange-rate risk. Such loans are also included in the external position, and approximately half of the increase in the banks' external position in the first six months is due to higher krone lending to non-residents.

New measures in the owner-occupied housing market

In the spring the Folketing (Parliament) introduced a number of initiatives to promote turnover on the owner-occupied housing market and to ensure that homeowners with cash loans can also benefit from the drop in interest rates.

An amendment of the Capital Gains Act provides for financing with cash loans based on "gilt-edged" bonds, i.e. bonds with a nominal yield at or above the minimum coupon rate at the time of issue. All other things being equal, a cash loan implies lower loan costs for the homeowner since the capital loss on the bond loan is converted into a tax-deductible interest expense. In addition, the lower conversion risk for the underlying bonds also implies a lower pre-tax interest rate.

However, the access to grant fixed-interest 30-year cash loans will lapse at the end of 1995, whereas access to financing with non-callable cash loans with regular interest-rate adjustment has been made permanent. Finally, access has been given to re-mortgage old high-interest cash loans as new loans at lower interest rates, while retaining the opportunity to deduct the built-in capital loss on the cash loan. This is achieved by carrying forward the difference between the outstanding mortgage debt and the outstanding bond debt—the so-called amortization account—as a new deduction over the duration of the new loan.

The aforementioned initiatives will all serve to stimulate the owner-occupied housing market. Together with the effects of the general decrease in interest rates, the re-introduction of access to financing with 30-year annuity bonds, the reduction of the general imputed rent value from 2.5 to 2 per cent and the prospect of an increase in households' disposable incomes as a consequence of the tax reform, the impact on cash prices is evaluated to be positive, despite the lower tax deductibility of interest payments as from 1994. Owner-occupiers thus have prospect of moderate capital gains after a period of considerable losses.

Against the background of the drop in interest rates and the amended tax

arrangements for conversion of older cash loans it is estimated that almost half of the mortgage-credit loans outstanding can be converted into lower-coupon-rate loans on advantageous terms. The total loan conversions could thus easily exceed the most recent major conversion waves in 1934-35 and the 1940s, when respectively 20 and 50 per cent of the outstanding volume of mortgage-credit bonds were converted. Owner-occupiers benefit from converting their loans, whereas the holders of high-interest mortgage-credit bonds have to re-invest their funds at a lower interest rate. The central government's real-interest tax revenues may as a result of conversions fluctuate considerably in coming years.

The real-economic impact of the drop in interest rates and the wave of loan conversions depends primarily on whether the net saving, and thereby the increase in the households' disposable incomes, is used to expand consumption or to further increase the households' savings. The continuing high level of real interest rates and the high unemployment level indicate further consolidation, whereas the historically low consumption quota points at higher consumption. Furthermore, the likely effect of free access to supplementary borrowing will be some replacement of relatively high-interest bank loans by mortgage-credit loans.

Development in prices

The rate of inflation dampened further in the 2nd quarter from an already low level. In June consumer prices were 0.9 per cent higher than last year, indicating unchanged or slightly receding goods prices, while price increases on services have decelerated.

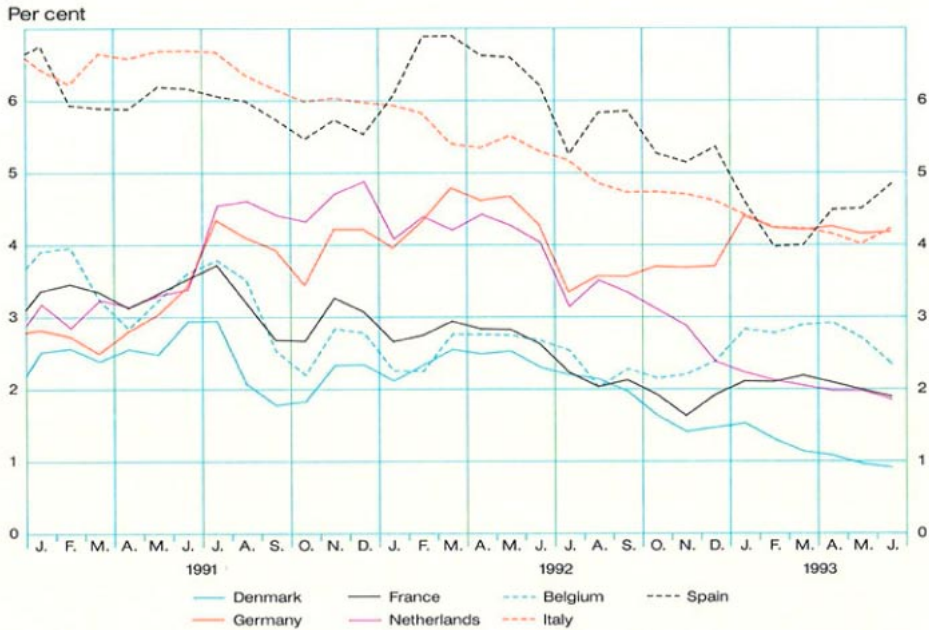
Prices excluding indirect taxes rose by 1.3 per cent in the year up to the 2nd quarter of 1993, cf. the Table. Adjusted for price development on goods and services which are either imported or subject to special price formation, e.g. rent,

Development in net prices

	Index of net retail prices	Energy	Imports ¹⁾	Domestic inflation				
				Total	Food-stuffs	Housing	Public services	Other factors
				Weighting				
	1.000	0.088	0.137	0.775	0.165	0.228	0.069	0.312
Year-on-year growth, per cent								
1988.....	5.0	2.8	5.0	5.2	3.6	5.0	8.7	5.6
1989.....	5.3	13.5	4.7	4.6	4.2	5.0	5.8	4.2
1990.....	3.1	4.8	2.6	3.0	1.0	4.0	2.5	3.8
1991.....	2.6	1.6	2.7	2.7	0.5	3.4	4.4	3.1
1992.....	2.1	- 3.8	2.5	2.5	1.8	2.0	2.9	3.2
1992 1st qtr.	2.5	- 4.6	3.0	3.1	3.7	2.4	3.2	3.2
2nd „	2.5	- 1.7	2.9	2.7	2.5	2.0	2.9	3.4
3rd „	1.8	- 4.9	2.3	2.3	1.1	1.7	2.9	3.1
4th „	1.6	- 3.9	1.8	2.1	- 0.2	1.9	2.7	3.1
1993 1st qtr.	1.5	- 1.7	0.6	1.9	- 0.8	2.0	1.7	3.2
2nd „	1.3	- 2.4	- 0.6	1.9	- 0.4	2.2	1.7	2.8

¹⁾ In addition to the imported goods included in the items energy and foodstuffs.

Consumer prices, year-on-year percentage increase Figure 4



the statistics show a further slowdown in the rate of underlying inflation. This is shown in the Table by a rate of growth in "Other factors" of almost $\frac{1}{2}$ per cent less than in the 1st quarter, at 2.8 per cent. The growth in "Other factors" should not be regarded as a true expression of the rate of underlying inflation, since relatively many services are included, but variation in growth will normally reflect the variation in the rate of underlying inflation.

Wage development in Denmark is extremely low, with a year-on-year rate of increase in hourly wages of just over 2.1 per cent in May. Based on the weights of the krone-rate index the rate of increase in Danish hourly wages in the 1st quarter was 1 per cent below the rate of increase in other countries with which Denmark competes.

Denmark's rate of inflation continues to be below that of our neighbouring countries, cf. Figure 4.

The Faroe Islands

On May 28 an agreement was concluded between the Danish government and the Faroese Home Rule on the granting of a central-government loan from Denmark within a limit of kr.1 billion, of which just over half will be used as a contingency fund for the Faroese banks should further capital be required in order to meet the solvency requirements set down in banking legislation. The remainder will be used to cover the Home Rule's immediate financing requirement.

In addition, the Danish central government declared its willingness to grant the Home Rule a central-government loan to repay debt to abroad and to Denmark as it falls due.

Foreign-Exchange-Policy Issues

Statement by
Governor Erik Hoffmeyer on August 13, 1993

As a result of the lack of political willingness to defend the Exchange Rate Mechanism of the EMS, France and Germany in reality suspended the ERM temporarily, leaving Denmark's exchange-rate policy without a safety net to support us in times of crisis for the first time in 21 years.

This gives rise to greater uncertainty in the market, thereby influencing expectations.

Fortunately we derive some strength from the economic policies pursued in recent years. As mentioned on many occasions, our economy is one of the most stable in Europe.

Against this background the following issues are important.

1. The government and the Nationalbank agree that the present circumstances provide no grounds for changing the krone's central rate against the present core ERM countries.
2. An agreement on a considerable narrowing of the wide fluctuation margin temporarily fixed at +/- 15 per cent will be sought under the auspices of the EC.
3. The uncertainty influencing expectations will entail considerably wider fluctuation in exchange rates during a transition period.
As a result residents with foreign-currency-denominated debt, and non-residents holding krone assets, may wish to eliminate their foreign-exchange risk. This may gradually be offset by increased public borrowing abroad. This conversion will have no impact on Denmark's net debt.
4. These transition problems might for a short period weaken the krone more than the economic fundamentals would justify, but after this a strengthening can be expected.
Under these circumstances monetary conditions will be normalized, resulting in a drop in the high inter-bank interest rates, but the possibility of lowering short-term interest rates will be limited for some time.

The Yield Differential Between Mortgage-Credit and Government Bonds

by Bjarne Graven Larsen, Monetary Policy Department

In recent years the yield differential between mortgage-credit and government bonds has widened substantially.

Figure 1 compares the yield on the most liquid 10-year government bond with the yield on the simultaneously most liquid 20-year mortgage-credit bond. The Figure also shows the yield differential. From July 1, 1990 to August 1, 1993 the yield differential increased from approximately 0.4 to approximately 1.4 per cent.

However, there are a number of differences between mortgage-credit bonds and government bonds, the concept “mortgage-credit bond” by no means covering a homogeneous group of products. So it is difficult to evaluate the widening of the yield differential, unless it is specified which bonds are involved. As

Benchmark mortgage-credit and government bonds Figure 1
(Yield and yield differential)



Figure 2 *Yield differential due to different payment profiles*

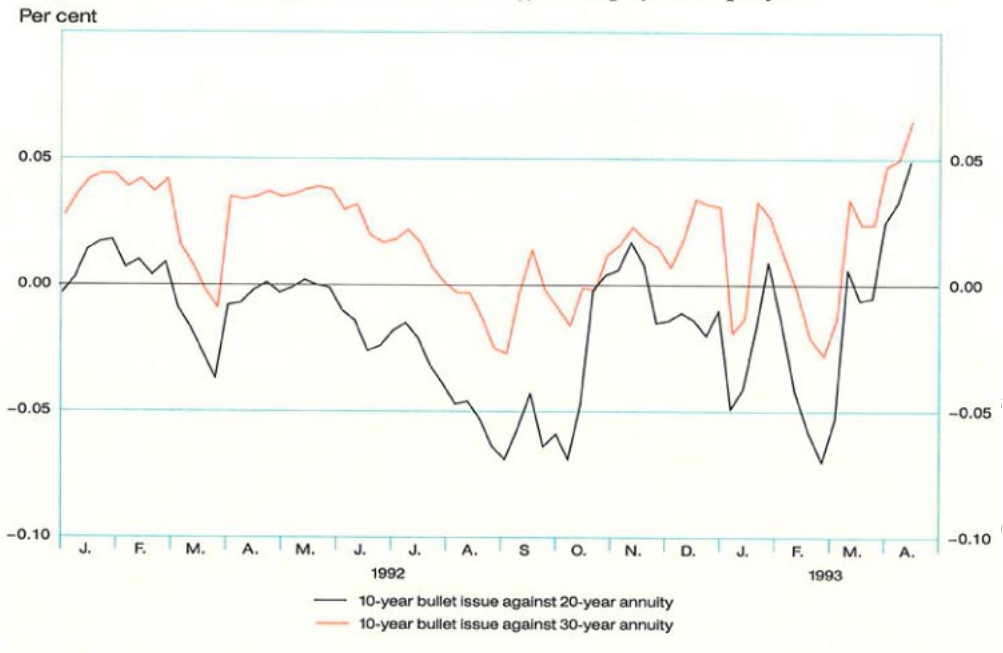


Figure 1 shows the yield on the most liquid mortgage-credit bond at any time, different mortgage-credit bonds are involved over the period.

The yield on mortgage-credit bonds must be expected to deviate from that on government bonds for several reasons, of which the most important are the following in random order:

- Variations in payment profiles
- Liquidity differences
- Differences in investor preferences
- Credit-risk differences
- Conversion-risk differences

The purpose of this article is to examine the significance of the above factors¹⁾. The conclusion is that the dominant factor influencing the yield differential has been the conversion risk, and that the widening yield differential is due to an increase in the value of the call option as a consequence of the general drop in interest rates. Disregarding the significance of the conversion risk, the yield differential has been around 0.5 per cent. A further conclusion is that maintaining this low yield differential may in the future make it necessary for the

¹⁾ The significance of these factors to the yield differential between mortgage-credit and government bonds has been described in "The Reasons for Interest-Rate Differentials between Mortgage-Credit and Government Bonds" by Tonny Lybek in the Monetary Review—May 1992.

mortgage-credit institutes to issue bonds which are attractive to a larger group of investors.

Variations in payment profiles

A possible source in principle of differences in yields is a curving term structure of interest rates, together with variations in payment profiles for government and mortgage-credit bonds.

However, the value of payments falling due on different dates can be estimated using a so-called zero-coupon term structure calculated for government bonds. This makes it possible to calculate a theoretical yield for annuity loans or serial loans with any maturity, and to examine whether the particular payment profile affects the yield when compared to the yield on a 10-year bullet issue. Figure 2 shows the result of such a calculation, i.e. the yield differential between on the one hand the bullet issue and on the other a 20-year annuity loan and a 30-year annuity loan, respectively. As will appear, the yield differentials are very narrow, with maximum positive and negative deviations of 0.07 per cent.

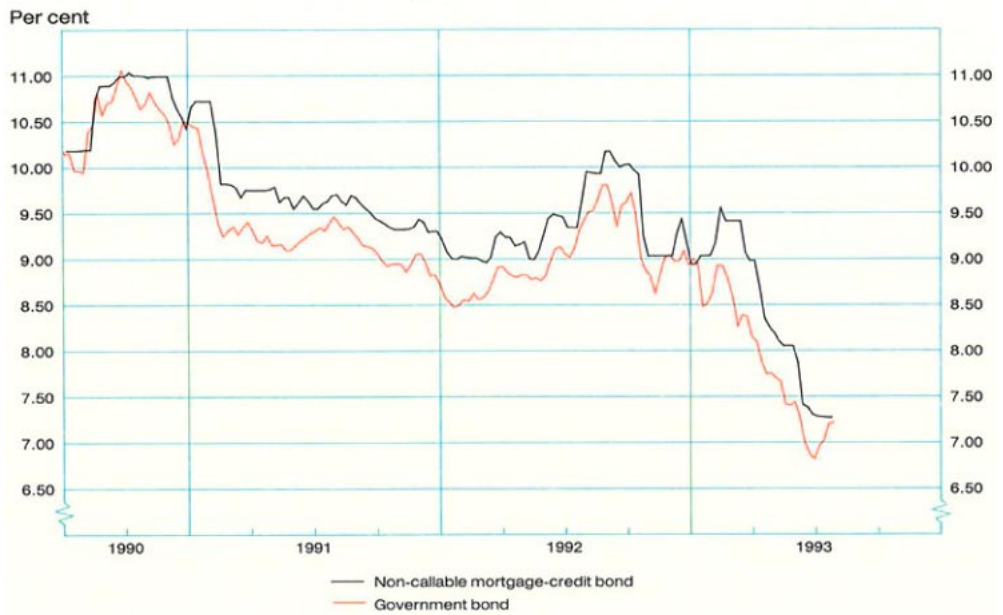
Although a number of assumptions have been made in connection with the calculation of the zero-coupon rates, including that the term structure is flat after 12 years, *it can be concluded that variations in payment profiles are not a significant reason for different yields on 10-year government bonds and 20-30-year mortgage-credit bonds.* In the following the significance of this difference will therefore be disregarded.

Differences in liquidity, investor preferences and credit risk

The considerable number of mortgage-credit series makes it difficult to achieve sufficient volume and liquidity in the individual series. Insufficient liquidity implies higher costs of turnover of mortgage-credit bonds, usually causing investors to require a premium for holding mortgage-credit bonds in preference to the more liquid government bonds. Different investors attach different value to liquidity, which should be regarded as a significant reason for domestic institutional investors interested in building up a portfolio mostly buying mortgage-credit bonds, whereas foreign investors have almost exclusively been interested in government bonds. In any case, the inferior liquidity of mortgage-credit bonds contributes to widening the yield differential vis-à-vis government bonds.

Government bonds are bullet issues, whereas mortgage-credit bonds are mainly annuity or serial loans. Foreign investors in particular prefer bullet issues, among other reasons because they are standard products on the international capital markets. If in the future the market for mortgage-credit bonds is to include bond series with sufficient volume and liquidity, the interest shown by non-residents will depend on whether these bonds are bullet issues or serial and annuity loans. In the present situation in which mortgage-credit bonds are mostly the prerogative of the domestic institutional sector the impact of the repayment profile on the yield differential would appear to be negligible. Since it would be difficult for non-residents to gain the same insight as domestic investors regarding the characteristics and conversion risks of each series, convertibility

Figure 3 *Yield on non-callable mortgage-credit and government bonds*



should be regarded as a further impediment to non-residents' interest in mortgage-credit bonds.

The yield differential might also be influenced by variations in market participants' assessment of the creditworthiness of mortgage-credit institutes and the central government, including the different capital adequacy rules pertaining to mortgage-credit and government bonds. However, it should be noted that mortgage-credit loans are subject to mortgageable limits and that furthermore the borrower is personally and in many cases also jointly and severally liable, which implies a high credit rating for mortgage-credit bonds. Furthermore, the so-called balance principle applying to the mortgage-credit institutes implies that the scope for losses due to interest-rate fluctuations is relatively limited. Domestic bond investors probably pay most attention to these factors. The absence of any credit rating of mortgage-credit institutes' long-term debt, together with inadequate insight into the security arrangements described above, must be regarded as an important reason for foreign investors in general refraining from purchasing Danish mortgage-credit bonds.

The significance of each of the above three factors to price formation on mortgage-credit bonds is difficult to estimate. However, a comparison of the yield on a non-callable mortgage-credit bond amortized as a serial or annuity loan with the yield on a corresponding government bond can provide the basis for an estimate of the total impact of differences in liquidity, investor preferences

and credit risk. Figure 3 compares the yield on a 9-per-cent bullet issue 2000 government bond and the yield on a Nykredit 9-per-cent bullet issue 2001 INK, the latter because no non-callable mortgage-credit bond issued as a serial or annuity loan and traded regularly on the Copenhagen Stock Exchange could be found. The outstanding amount of the non-callable mortgage-credit bond used is limited—just over kr.600 million—but the bond has been traded regularly, as the series is open for new issues.

The yields on the two bonds were practically identical until the end of 1990 when the 9-per-cent bullet issue 2000 took over as the benchmark bond on the Copenhagen Stock Exchange. This entailed a widening of the yield differential because the yield on the benchmark bond is lower than on other bonds due to its greater liquidity. The average yield differential was approximately 0.2 per cent in the second half of 1990, before the bullet issue 2000 became the benchmark bond. The differential has been relatively constant at approximately 0.5 per cent since the beginning of 1991.

A provisional conclusion is therefore that the combination of differences in liquidity, credit risk and investor preferences is the historical background to a yield differential between mortgage-credit and government bonds of around 0.5 per cent.

Conversion-risk differences

The explanation most frequently given for the yield differential between mortgage-credit and government bonds is the conversion risk on mortgage-credit bonds. The borrower's option to redeem the remainder of the bond debt at par before the due date sets a limit to the bondholder's capital gains in periods of a general decrease in interest rates.

Two of the factors normally considered significant to the value of the conversion option are the coupon rate on the callable bond and the yield on a corresponding non-callable bond. The higher the coupon rate and the lower the non-callable-bond yield, the higher the value of the conversion option, since utilizing the option will give the maximum return in such cases.

Figure 4a shows the yields on a number of callable mortgage-credit bonds with different coupon rates¹⁾, a non-callable mortgage-credit bond and a non-callable government bond, while Figure 4b shows the yield differential between the mortgage-credit bonds and the government bond. *Firstly*, the figures divide the bonds into a clear hierarchy throughout the period. The government bond bears the lowest yield, the non-callable mortgage-credit bond the next-lowest, and the higher the coupon rate for the callable mortgage-credit bonds, the higher the yield. *Secondly*, the size of the yield differentials between the government bond and the callable mortgage-credit bonds depends considerably on the yield level for the government bond. Periods of high interest rates, such as in the second half of 1990, reduce the value of the conversion option, which explains the narrow yield differential between the government bond and callable mortgage-credit bonds at that time. On the other hand, falling interest rates since October

¹⁾ The most liquid mortgage-credit bond has been selected for each coupon rate.

Figure 4a *Yield on 20-year mortgage-credit and 10-year government bonds*

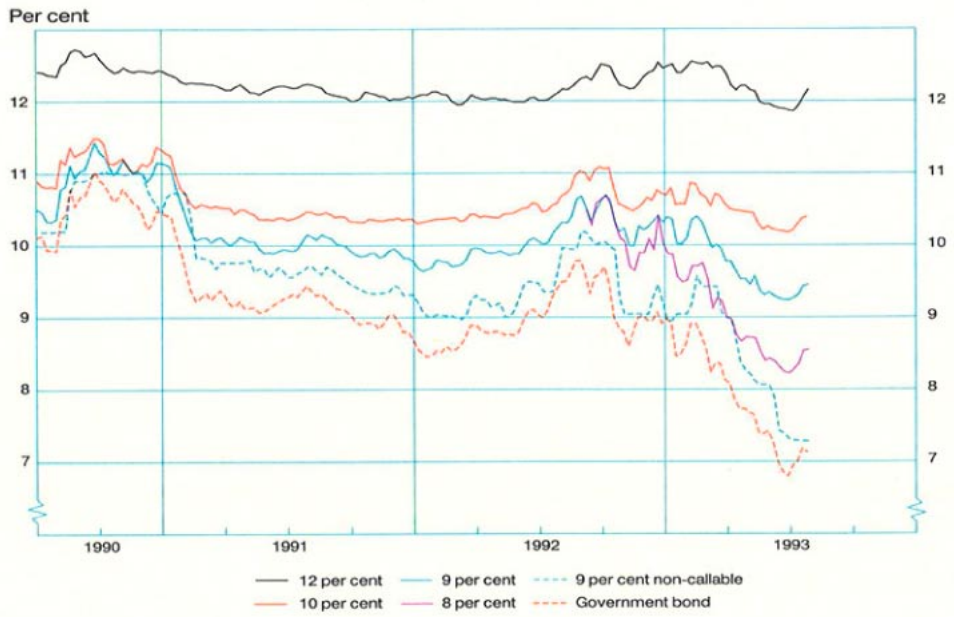
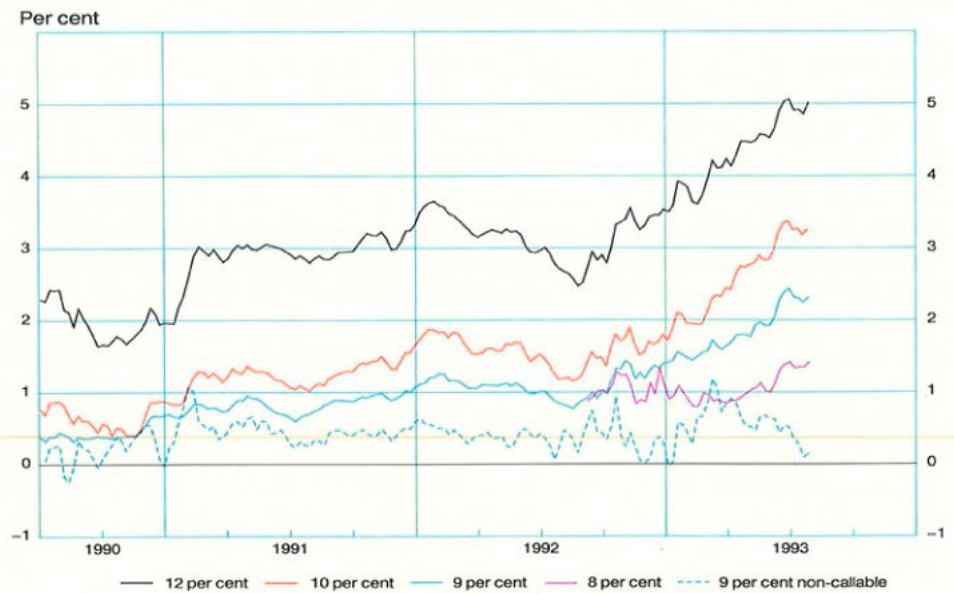


Figure 4b *Yield differential between 20-year mortgage-credit and 10-year government bonds*



*Average yield differential between
mortgage-credit and government bonds*

Table 1

	1/7-90-7/1-91	8/1-91-19/10-92	20/10-92-17/5-93	1/7-90-17/5-93
Yield differential, 12-per-cent bond ..	2.0	3.0	3.9	3.0
of which premium for:				
Liquidity, etc.	0.2	0.5	0.5	0.4
Convertibility	1.8	2.6	3.4	2.8
Yield differential, 10-per-cent bond ..	0.7	1.4	2.1	1.4
of which premium for:				
Liquidity, etc.	0.2	0.5	0.5	0.4
Convertibility	0.5	1.0	1.6	1.0
Yield differential, 9-per-cent bond ...	0.5	0.9	1.5	1.0
of which premium for:				
Liquidity, etc.	0.2	0.5	0.5	0.4
Convertibility	0.3	0.5	1.0	0.5
Average yield on 10-year government bond	10.5	9.1	8.5	9.3

1992 have increased the value of the conversion option, which is also reflected by the widening yield differential shown in Figure 4b.

To achieve an overall quantitative evaluation of the significance of the above factor for the yield differential, the yield on a callable mortgage-credit bond should be regarded as the yield on a government bond plus a premium which reflects the extra yield required by the investor in return for accepting the mortgage-credit bond's characteristics as regards liquidity, credit risk and repayment profile on the one hand, and convertibility on the other.

Table 1 shows this division for certain periods. In the three periods the average yield on the government bond is 10.5 per cent, 9.1 per cent and 8.5 per cent, respectively.

As expected, in all periods the yield differential is widest for the mortgage-credit bonds with the highest coupon rates, and the differential for all coupon rates is widest in the most recent periods when the yield on government bonds was lowest. The yield differential for the 12-per-cent bond widened by 1.9 per cent during the periods taken as one, while the 10-per-cent bond's differential increased by 1.4 per cent and the 9-per-cent bond's by 1 per cent.

The premium for liquidity, credit risk and repayment profile has been calculated as the difference in yield between the non-callable mortgage-credit bond and the government bond, and is assumed to be the same for all callable bonds over a given period. Based on Figure 3 and the analysis thereof the premium has been estimated at 0.2 per cent in the period up to January 1991 and 0.5 per cent after that date.

The premium for convertibility has been calculated residually and varies strongly over time and between bonds with different coupon rates. The premium

on the 12-per-cent bond thus increases from 1.8 per cent to 3.4 per cent during the three periods, while the premium on the 9-per-cent bond rises from 0.3 to 1.0 per cent. *Therefore the convertibility premium on mortgage-credit bonds cannot be regarded as a strictly defined constant value.*

A simple estimated model for definition of the convertibility premium is given in the Appendix. The results are in line with the *a priori* expectations based on option-price theory and thus confirm the reasonableness of the aforementioned division of the yield differential.

Against this background the conclusion is that the yield differentials between mortgage-credit and government bonds for all coupon rates can mainly be attributed to the conversion risk, and that the widening of the yield differential over the last 2-3 years is primarily due to the higher value of the conversion option as a consequence of the drop in interest rates, and to a minor extent due to other factors.

Future yield differentials

The yield differential vis-à-vis the government bonds is approximately 0.5 per cent, after the convertibility premium has been eliminated from the yields on the mortgage-credit bonds. This differential would appear to be low, particularly in an international context, considering the mortgage-credit bonds' characteristics regarding liquidity, repayment profile and credit risk (including the lack of any credit rating). A particular reason for this is the domestic institutional investors' willingness to purchase mortgage-credit bonds at a limited marginal yield in relation to government bonds. This has made it possible to maintain a low mortgage-credit yield even without foreign investor participation.

The internationalization of securities trading has provided new trading opportunities for mortgage-credit bonds. Danish institutional investors must expect a sudden strong increase in their liquidity due to the very large number of conversions of mortgage-credit bonds which can be anticipated. This requires new decisions to be made concerning the composition of future portfolios. This may accelerate the trend for greater diversification regarding types of bond and issuer, thereby reducing these investors' net demand for mortgage-credit bonds.

A precondition for a continuing favourable yield differential between mortgage-credit and government bonds, and thereby inexpensive financing for owner-occupiers, is therefore that the mortgage-credit institutes match their bonds to the requirements entailed by internationalization. In the first instance this requires mortgage-credit bonds with sufficient volume and liquidity and characteristics familiar to foreign investors, i.e. non-callable fixed-rate bullet issues. This "product development" would also help to retain the interest of those domestic investors who wish to reduce the proportion of callable bonds in their portfolios.

Since 1990 the mortgage-credit institutes have been authorized by the Ministry of Housing to issue cash loans on the basis of "blue-stamped" bonds, i.e. bonds with the minimum coupon rate to achieve non-liability to capital gains tax

for private taxpayers. The tax reform of June 1993 allows the mortgage-credit institutes to utilize this access without suffering a tax loss as a consequence. However, for cash loans as from January 1, 1996 a condition for this symmetrical taxation treatment of the mortgage-credit institutes is that the underlying bonds have a maximum maturity of 11 years. On the transition to cash loans the different taxation treatment of interest expenditure and capital losses for private owner-occupiers is no longer important. This diminishes the need to always spread bond issues on many different coupon rates and to change the coupon rate in step with market interest rates. This makes it possible to build up volume in the individual mortgage-credit series and thereby a more effective mortgage-credit-bond market. An appropriate measure would be to quickly extend the permanent access to "blue-stamped" cash loans to include loans with a maturity of more than 11 years, to enable the mortgage-credit institutes to develop bond categories with an extended lifetime.

The mortgage-credit institutes will still have access to grant annuity, serial or mixed loans to owner-occupiers, at the same time funding the borrowing requirement with a number of bullet issues, thus ensuring identical overall payment profiles on both credit and debit sides, complying with the balance principle. If the bullet issues are not to be convertible, they must be matched by non-callable loans to owner-occupiers. A suitable measure would be to fix the interest rate for non-callable loans for a shorter period than the 30 years typical for callable loans. This provides for the mortgage-credit institutes' security position in periods of falling interest rates, as well as the risk of owner-occupiers for many years being obliged to pay an interest rate higher than the market rate. This will not prevent the mortgage-credit institutes from offering loans extending beyond the fixed-interest period. Owner-occupiers could thus be offered 30-year loans with interest-rate adjustment, for example every 10 years, and the mortgage-credit institute could issue a range of non-callable bullet issues with maturities of up to 10 years. Such loans would have to be granted as cash loans to comply with the title-registration rules.

The tax reform thus eliminates the statutory barriers to mortgage-credit institutes' offering non-callable bullet issues. This expansion of the product range is necessary to attract foreign investors to Danish mortgage-credit bonds.

Appendix. Calculation of the price for the call option

Since the conversion right or the call-option element appears to be the primary reason for the yield differential between mortgage-credit and government bonds this Appendix analyses whether the price for the call option is fixed according to the same basic model for different bond series and periods.

In the following a model will be calculated for the call-option element of each of the four different callable bonds, based on a *preliminary* approach. Reference is made to the calculation for the whole period, but calculations have also been made for individual sub-periods. These calculations show similar results¹⁾.

¹⁾ As the correlations can be expected to be non-linear, a calculation for a long period with strong fluctuation in interest rates could prove difficult.

It is normally assumed that the price of a call option depends on five factors:

- The exercise price, i.e. the price at which the option holder can buy the underlying asset on a future date
- The price of the underlying asset, i.e. the price of the non-callable bond
- The price volatility of the underlying asset
- The expiry date of the option
- The risk-free interest rate, i.e. a money-market rate, $r(M)$

The value of the option will rise in step with the increase in the last four factors, whereas the value will drop as the exercise price increases.

For callable mortgage-credit bonds the costs of utilizing the option will affect the option's price, but this is disregarded here. In historical terms the volatility of long-term bonds is relatively constant, so a constant volatility is assumed in the calculation equation. Finally, the remaining maturity of all the bonds considered is approximately 20 years, so the period to expiry is also regarded as a constant.

This leaves the exercise price, the price for the underlying asset and the short-term interest rate. Since the equation is specified in interest rates, these factors have been approximated to the coupon rate for the mortgage-credit bond, the yield on a non-callable government bond and a 3-month money-market rate, respectively.

The equation is specified as follows:

$$r(K) - r(S) = a_0 + a_1 \times (\text{coupon rate} - r(S)) + a_2 \times r(M)$$

$r(K)$ is the yield on a callable mortgage-credit bond and $r(S)$ is the yield on a non-callable government bond. *The left-hand side* corresponds to the sum of the premium required by investors for them to hold mortgage-credit bonds in their portfolios despite the bonds' convertibility and lower liquidity, etc. However, as the premium for liquidity, etc. is relatively constant, the interpretation of the coefficients a_1 and a_2 can be related immediately to the call option. In addition to the liquidity premium, etc., *the constant* must cover several different factors, so that no separate interpretation can be given. *The second element* is crucial. The difference between the coupon rate and the yield on the government bond indicates whether the option is "in-the-money" (positive) or "out-of-the-money" (negative). If the coupon rate for the callable bond exceeds the non-callable-bond rate, utilizing the option would give a capital gain. The higher the second element, the higher the value of the option, implying a_1 to be positive. Finally, *the third element* shows the impact of the short-term interest rate on the option price.

The element a_1 cannot be expected to be constant for bonds with different coupon rates. In theory we expect a_1 to lie between 0 and 1. A coefficient close to 1 will be expected for options "deep-in-the-money", whereas a coefficient close to 0 will be expected for options "deep-out-of-the-money". The explanation is as follows: an option for a callable mortgage-credit bond with a coupon rate of e.g. 20 per cent and a government bond with a yield of e.g. 5 per cent will be almost certain to remain "in-the-money" even if interest rates rise strongly. This probab-

Calculation results

Table 2

	a_0	a_1	a_2	R^2	Period	Average yield differential	Average coupon-yield differential
12-per-cent bonds .	-0.13	0.85 ¹⁾	0.07 ¹⁾	0.97	} 1/7-91- 17/5-93	3.31	3.12
10-per-cent bonds .	0.15	0.65 ¹⁾	0.07 ¹⁾	0.92		1.65	1.12
9-per-cent bonds ..	0.16	0.44 ¹⁾	0.09 ¹⁾	0.89		1.14	0.12
8-per-cent bonds ..	1.28 ¹⁾	-0.06	-0.03	0.13	17/5-93	1.00	-0.88

Note: Calculation equation: Yield differential = $a_0 + a_1 \times$ coupon-yield differential + $a_2 \times$ short-term interest rate.

¹⁾ The coefficient is significant on a 99-per-cent level.

ility will not be affected by a one-krone rise in the price of the non-callable bond. The gain on utilizing a conversion option will increase by kr.1, and the option price will rise by kr.1, i.e. a one-to-one correlation. An example at the other end of the scale is a scenario with a coupon rate for the callable bond of 4 per cent and a yield on the non-callable bond of 16 per cent. The probability of the option ever getting "into-the-money" is close to nil, leaving the option almost worthless. A one-krone rise in the price for the non-callable bond will hardly affect the probability of getting "into-the-money", the value of the option and thereby the price remaining unchanged. In less extreme cases the shift in the probability of getting "into-the-money" will affect the option price, so the impact will be between 0 and 1.

After this introduction we can proceed to the results shown in Table 2.

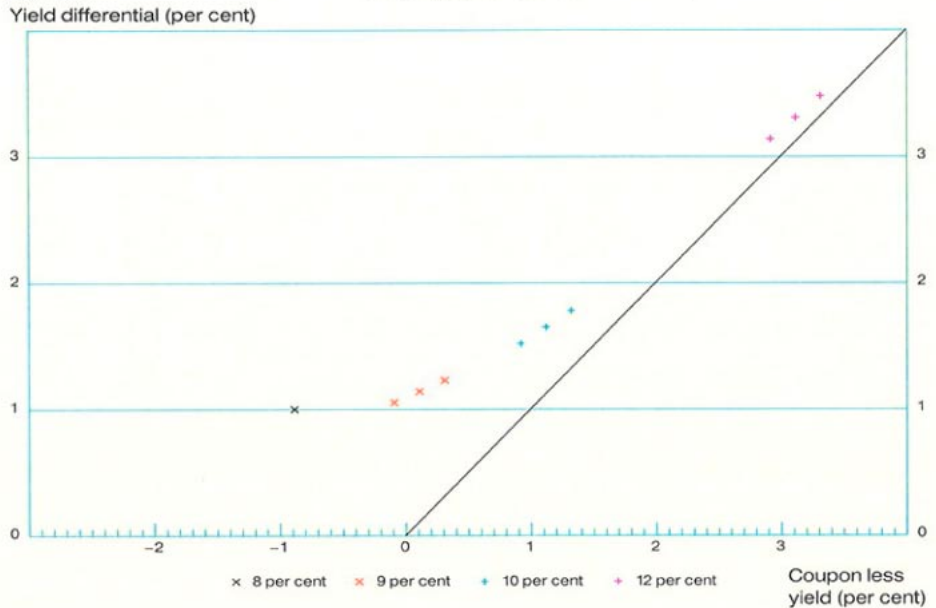
The results for the 9, 10 and 12-per-cent bonds correspond to expectations. All three relations show a very high degree of explanation, a_1 and a_2 are very significant with the expected signs, and as expected a_1 increases in step with the coupon rate. It should also be noted that the coefficient of the short-term interest rate, a_2 , is almost constant in the three relations.

The 8-per-cent bond shows a low degree of explanation, with insignificant coefficients and incorrect signs. This indicates that the yield differential between the 8-per-cent mortgage-credit bond and the government bond cannot in the calculation period be explained by the same basic model as for the other bonds. However, it should be noted that observations for this bond only cover around six months. The bond was introduced during the calculation period, which may explain the somewhat inefficient price formation. A graphical inspection of Figures 4a and 4b thus indicates that the initial yield on this bond was too high, and that it was adjusted during the period, which could undermine the model's explanation ability.

Figure 5 gives a slightly different representation of the results of Table 2.

The difference between the coupon rate and the yield on the government bond has been plotted on the x-axis. Zero on the x-axis indicates where the option changes from being "out-of-the-money" to "in-the-money". The differ-

Figure 5

Call-option curve

ence between $r(K)$ and $r(S)$ as an expression of the option premium¹⁾ has been plotted along the y-axis.

The centre point, plotted for all bonds, indicates the average values for the entire period, while the extremes are included to illustrate the estimated slope of the curve for this point—corresponding to a_1 ²⁾. The Figure confirms the impression from Table 2 above; *the factors to explain the option theory also appear to be applicable to explaining the price of mortgage-credit bonds even when the debtor composition and conversion costs are disregarded.* This naturally does not mean that including these factors will not improve clarification.

¹⁾ For the sake of accuracy the premium for liquidity, etc. is included in this value.

²⁾ The slope of the curve is often called "delta" in financial literature.

THE NATIONALBANK'S 175TH ANNIVERSARY

July 4, 1993

Speeches at the Anniversary Celebration

Speech of Welcome

*Hans E. Zeuthen, Chairman of the Committee of Directors
and the Board of Directors*

On behalf of the Nationalbank I would like to welcome you to this celebration of the Nationalbank's 175th anniversary.

It is well-known that it is often very difficult to determine the exact age of people claiming to be more than 115 to 120 years old. This also applies to today's 175-year-old. This is not due to a lack of documentation such as in Georgia, a country reputed for a high number of extremely old people. There is not a shadow of a doubt that the charter for Nationalbanken i Kiøbenhavn was given on July 4, 1818.

However, it can be questioned whether this is the bank's date of birth or solely its name date.

As early as 1736, 82 years before, a charter was given for the Kurantbank, whose full name was "Den Kiøbenhavnske Assignation- Vexel- og Laane-Banqve". It was the first note-issuing bank in Denmark, and actually the first bank. This sets 1736 as the earliest date, so it can be argued with some justification that our birthday bank is not 175 years old today, but actually almost 257.

It is true that the Kurantbank came to a dramatic and abrupt end in 1813, and during the Napoleonic Wars was not the only note-issuing authority. At times the Kurantbank's role was hard to define. Nevertheless, the Rigsbank, established in 1813, was to a large extent a reconstruction of the original concept of the Kurantbank. The establishment of the limited liability company Nationalbanken i Kiøbenhavn five years later was essentially the privatization of the state-owned Rigsbank. The privatization in 1818 was merely the fulfilment of a promise given in 1813, on the establishment of the Rigsbank.

Were it not for the name it could be argued that the date of the Nationalbank's birth was in 1813 at the time of the fundamental reconstruction, so that the bank is really 180 years old. For the sake of accuracy it should be added that from 1786 to 1870 the Kurantbank, and then the Rigsbank and finally the Nationalbank, occupied the same building, and many of the staff were the same.

On the other hand, 175 years could be said to be an exaggeration of the bank's age. Nationalbanken i Kiøbenhavn of 1818 was a limited liability company, but was "de-privatized" in 1936 by act of parliament. As from 1936 the Nationalbank has been an independent institution with no shareholders.

The Nationalbank's 175th Anniversary

Its name was changed from Kiøbenhavn to Danmarks Nationalbank, which Danes living outside Copenhagen found very sensible.

All in all it could thus be argued that the birthday bank is only 57 years old.

The bank has naturally seen major changes, some in connection with legislative amendments and name changes. However, an interesting feature is that in as early as 1736 it was stated that the bank "could be extremely useful with a view to promoting commerce and manufacturing as well as for the safe and steady maintenance of an equitable credit system". These have been cornerstone objectives of the bank over the years.

Article 107 of the Maastricht Treaty stipulates that the central banks and the members of their decision-making bodies may not request or receive instructions from the European Communities, their own governments or any other parties.

In the charter of 1818 celebrated here today the absolute monarch promised that no command from him or his successors in the government should "ever have any direct or indirect effect on the bank's management whose competence is set out solely by its charter and rules".

The concept of an independent central bank is by no means new.

Today, just as after the Napoleonic Wars, the philosophy is that the State should not be given the opportunity to cover a larger or smaller share of its expenditure by, to put it bluntly, starting up the printing press.

No more about the birthday bank.

In connection with the bank's 150th anniversary in 1968, Danmarks Nationalbank published "Dansk Pengehistorie 1700-1960" (Monetary History of Denmark) in three volumes. This work has now been continued as "Dansk Pengehistorie 1960-1990" (Monetary History of Denmark) by former Governor Richard Mikkelsen. A new fifth volume in this series is "Pengepolitiske problemstillinger" (Monetary-Policy Issues) by Governor Erik Hoffmeyer.

Furthermore, Danmarks Nationalbank is commemorating its 175th anniversary by increasing its Anniversary Foundation by kr.25 million to a total of kr.60 million. So far the Foundation has primarily supported handicrafts and design, but it can now widen its scope to other fields, including music.

In addition, a grant of kr.2 million has been made for the preparation of national environmental accounts. This will improve the basis for the co-evaluation of the economy and the environment.

This concludes my speech of welcome.

The Nationalbank's 175th Anniversary

*Marianne Jelved, Royal Bank Commissioner,
Minister of Economic Affairs*

The object of Danmarks Nationalbank is “to maintain a safe and secure currency system in this country, and to facilitate and regulate the traffic in money and the extension of credit”.

The Nationalbank must guard the krone.

“The value of the krone” is not an unequivocal concept. Nevertheless, in Denmark it has become synonymous with the fixed-exchange-rate policy. This policy is the instrument to achieve low inflation and low interest rates. A large share of the acclaim for the credibility of Denmark’s commitment to the fixed-exchange-rate policy since 1982 must go to the Nationalbank. The Nationalbank handles this central-bank task excellently, as shown by the bank’s stance during the foreign-exchange crisis in February.

However, this has not always been the case. The history of the Danish central bank is no different from other countries: periods of rampant inflation and destruction of the monetary system, undermining the market economy, since inflation distorts price signals.

The Danish central bank has been as good or bad as other countries’ central banks at guarding the value of its currency *at all times*.

This poses the interesting question of *what determines the quality of a central bank’s policy*.

On our celebration today of the 175th anniversary of King Frederik VI’s signing of the charter of the new “Nationalbanken i Kjøbenhavn”, the bank’s original name, it is appropriate to look back at the history of the Danish monetary system.

The Nationalbank was not the first bank in Denmark. The *Kurantbank* was established in as early as 1736 and it can be claimed as the first *central* bank in Denmark, but of course banking activities were carried out before central banks were established, in the same way as *money* existed before governments.

The Kurantbank met with an unhappy fate, with unfortunate repercussions for the national economy. The original objective of the bank was to support the business community by developing a credit system, but instead it became a generator of inflation.

The same was the case for its successor, the *Speciesbank*, which commenced its activities in 1791. The government insisted on monetary financing of public expenditure, which in connection with the Napoleonic Wars resulted in rampant inflation, tearing the monetary system to pieces.

The Danish philosopher Søren Kierkegaard referred ironically to the year of his birth, 1813, as the year when “so much other dubious tender was put into circulation”. He was thinking of the “Statsbankerot”, the drastic writing-down of the value of money in Denmark.

This brings me to the reasons for having a central bank in the first place. Even

without Søren Kierkegaard's sense of irony it is easy to see the conflict between on the *one* hand the good intentions of the early central banks, the Kurantbank and the Speciesbank, and the actual events on the *other*.

The advantage of having a central bank—a bank with the sole right to issue notes and coins, as a means of payment which the population is obliged to accept—is related to the advantage of a *common* currency. A common currency *may* improve the functioning of the market economy: it can so to speak create a common language for price signals, thus facilitating trade.

Oddly enough only a limited amount of the Nationalbank's notes were in circulation in large parts of the Duchies (Schleswig & Holstein) prior to 1864. Despite the “Rigsfællesskab”, the united kingdom, no monetary union existed.

However, a monetary union is only an advantage if the policy behind the common currency is of such a calibre that the citizens really prefer the currency of this monopoly. If the general public prefers a foreign currency, or cigarettes, as a means of payment, something is evidently wrong. However, the quality of the monetary system might be inadequate even before things got *that* far.

The establishment of a central bank therefore does not in itself guarantee a well-functioning monetary and credit system.

A successful monetary system requires a certain *framework* for monetary policy. This is achieved via the *institutional structure*.

One of the most important features of the institutional structure is the position of the central bank in relation to the central government. Today this means vis-à-vis *the government and the Folketing (Parliament)*; previously it was the central bank's position vis-à-vis *the Crown*.

The central issue is *political independence*, which is difficult to define but has an almost mythical status in the history and self-perception of the central banks. It is not too much to say that certain central banks in the world overestimate their own independence. There are perhaps also some who believe that the justification for independence is the central banks' monopoly on monetary-policy wisdom. However, despite these misunderstandings of the concept of independence there is no doubt that it is a relevant criterion for a central bank's opportunities to pursue a monetary policy of a high quality. A high degree of *real* political independence is a *precondition* for quality.

In certain periods there has been a tendency to forget the political independence of the central banks, but it has become an important issue during the last decade, not least as a result of the treaty on the formation of a European system of central banks.

In fact, the issue of the central bank's position in relation to the central government was also high on the agenda around the time of the establishment of the Nationalbank.

The Rigsbank was established and the monetary system reorganized after the collapse of the Speciesbank. A first-priority mortgage right was imposed on all real property, and the mortgage was payable to the new bank. This radical idea of

taxing real property formed the basis for a new healthy monetary system. The Rigsbank acted as central bank for five years until the birth of the Nationalbank in 1818.

At that time the motive behind the wish for independence was quite clear to the public, probably clearer than the motives for a politically independent European system of central banks today.

Naturally and justifiably the high rate of inflation influenced the debate on the monetary system in Denmark. In 1813 the government committed itself to converting the Rigsbank into a private company. The purpose was to safeguard and signal the independence of the bank in relation to the central government.

The bank's charter was for 90 years, also serving to signal that the system was safeguarded against political abuse.

In connection with establishment of the Nationalbank a special supervisory body was created: a *Royal Bank Commissioner*. I am here today in that capacity.

The Royal Bank Commissioner's special task was to supervise compliance with the charter. The institution of bank commissioner is thus an attempt to provide for public insight into the Nationalbank's activities, although at that time one could not say that representatives of the people were given this insight on behalf of the people: it was a royal appointment, as the name still reflects.

The Nationalbank's independence should not induce it to move into an ivory tower. The general public, the Folketing (Parliament) and the government require an insight into the bank's activities. This is the only way for the bank to achieve the credibility which is necessary for it to carry out its tasks.

How is this insight provided in practice? It is given at meetings with the government and different organizations, but also through the bank's participation in the public debate, as well as via its publications, although not all of the latter are comprehensible to the layperson. Compared to previous times the bank's contact with the general public has increased substantially.

The Danmarks Nationalbank Act sets a very wide framework for the Nationalbank. We do not need rules stipulating every detail of the central bank's behaviour.

One of the Nationalbank's information brochures contains a photograph of the *empty* conference room of the Board of Directors. The caption reads: "The Management of the Nationalbank"! Perhaps some believe it would be best if they stayed at home. I do not agree: a suitable framework is important, but individuals also play a significant role.

This is meant as a compliment to the present Governors and Boards of the Nationalbank. It is important that politicians refrain from imposing their views on the Nationalbank, but it is just as important that the central bank refrains from interfering in that part of the economic-policy debate which is not relevant to the bank's activities.

Similarly statements in which the Nationalbank appears to take sides in party-political controversies would undermine its status.

The Nationalbank's 175th Anniversary

Of course, the Nationalbank should comment on the relevant aspects of the development of the national economy, even when such comments could be interpreted as critical of the government in office. I not only accept this; *I expect it, as I believe it is a part of the Nationalbank's role.*

The Nationalbank's independence gives it a special opportunity to issue consistent signals over time.

However, it is important that the bank does not regard it as an objective *per se* to signal its independence via comments which differ from those of the government. Disagreement should not become an objective in itself.

As I mentioned previously, independence is a difficult concept to handle and analyze, particularly if the country's exchange-rate policy is involved. The latter is determined by the government, so that in practice the government has the deciding influence on monetary policy. This could give rise to a conflict between the central bank and the government of a country. However, in Denmark it poses no problems.

This has been the situation for many years.

It will not become a problem in the future either.

The present government is at least as committed to the fixed-exchange-rate policy as its predecessor, and we know that this policy can only be safeguarded by responsible policies in other economic areas. I believe that we meet this obligation. The government's "New course towards better times" is a continuation of the economic results achieved. Efforts to combat unemployment will ensure that we continue to maintain these results in the future.

My hope is that the governors and Royal Bank Commissioner who celebrate the Nationalbank's 200th anniversary in 25 years' time will be able to look back on more than three decades of low inflation.

This is not unrealistic, as the fixed-exchange-rate policy is a cornerstone of Danish economic policy. It has successfully ousted its predecessor. The exchange-rate policy has reversed *Gresham's Law*: a good policy has put a bad policy out of action. The same applies to the history of the Danish central banks: since 1818 a better central bank, the Nationalbank, has ousted its weaker predecessors. Congratulations on the 175th anniversary!

Governor Erik Hoffmeyer

Our 175th anniversary was not intended to be a day of great festivities, nor was it to go by completely unnoticed.

We will mark the occasion in the following ways:

In addition to increasing our support for various cultural activities via Denmark's Nationalbank's Anniversary Foundation of 1968, we wish to contribute to greater consideration of the role of the environment in the assessment and evaluation of economic development.

For more than one hundred years a central macro-economic issue has been how to evaluate the level of economic welfare. It was recognized at an early stage that the harmful effects of competition on the environment had to somehow be balanced by public intervention.

This presupposes that impacts on the environment can be measured with reasonable accuracy. This is being studied internationally and the Nationalbank would like to support Danish efforts.

The climate of discussion of environmental issues often becomes overheated because many find it difficult for their viewpoints to be heard, but this should not cloud the fact that over the last 40 years we have built a society far superior in terms of welfare, including the environment, to any predecessor.

Fundamentally, economics is a question of room for manoeuvre, and the limitations to which it is subject.

According to inclination one can choose to concentrate on the limitations when they are encountered, or to consider how far the boundaries have been expanded over a period.

Development in the post-war years has seen a unique widening of these boundaries.

To mark the anniversary, the Nationalbank has furthermore published two books describing the role of monetary policy during the past decades.

I would like to make a few brief remarks on the fundamental issues.

Monetary policy cannot be evaluated on a one-dimensional basis. There are in fact three significant aspects.

The first is that monetary policy is but one of several interacting factors in economic policy.

Many or few factors can be considered here, but fiscal policy and wage and income performance are indispensable counterparts of monetary policy.

I deliberately use the term counterpart instead of opponent, although we are often regarded as an opposing party in the public debate, particularly in periods of strong tension in the economy.

Counterpart implies that we are participating in efforts to meet the general economic and social objectives and that our reactions to the development in other fields of the economy must reflect this role.

Some policy areas are more directly responsible for unemployment, which

is now a central issue, and others for economic stability, which is closer to the Nationalbank's task.

The distribution of roles can always be discussed, but it is important that the rules for cooperation are respected. I have no reason for complaint in this area.

The second aspect is the assessment of how the various monetary-policy instruments function.

What are the consequences of raising or lowering interest rates? What are the effects of various rules on liquidity? And so on.

Great efforts have been made to measure the impact of monetary policy on the overall economy.

Clear results have certainly not been obtained, and it is doubtful whether it is at all possible.

In fact this is related to the interaction of economic policies mentioned earlier.

In certain cases monetary-policy measures are immersed in the strong tensions which have arisen in other areas of the economy. A case in point is the recent repercussions of the German unification.

In other cases even minor changes can affect expectations, and thus have considerable influence.

This mutual dependence cannot be delineated by even the most complicated calculations.

Although there is no exact answer to the question of the effects of monetary policy there is widespread agreement that monetary policy plays an important role in general economic policy.

The third aspect concerns objectives and credibility.

Students of history will—without any major effort—soon discover that confidence in the determination of authorities to stick to their declared objectives plays a significant role in economic policy.

This applies not the least to the markets closest to monetary policy: the money, capital and foreign-exchange markets, where expectations play an important role.

It can be necessary to take, often unpopular, decisions to avoid compromising the chosen objectives.

Attitudes are therefore of great significance to the formulation of economic policy.

In describing economic policy a former French colleague once quoted Cardinal de Retz who said about Mazarin that he neither predicted nor managed to prevent situations where mistakes were unavoidable.

I am not so pessimistic.

The unexpected often happens.

And mistakes cannot be avoided.

Nevertheless, I believe that in accordance with the basic purpose of the Danmarks Nationalbank Act the Bank has contributed to economic stability.

Governor Bengt Dennis of Sveriges Riksbank

Former Governor Richard Mikkelsen's monetary history covers a period of 30 years up to 1990. There is nothing I can add. Instead, I would like to reflect on the developments on the financial markets in Europe during the last twelve months. This was a very dramatic period involving all of the Nordic countries, and Denmark's Nationalbank played a central role which can serve as a model to us all.

The events of last autumn and later during the winter have been analyzed in many fora and in some excellent studies and reports. Cases in point are the G10 study and the reports by the EC central-bank governors and the EC Monetary Committee.

The analyses show that many factors contributed to triggering the crisis on the European foreign-exchange markets. The fundamental cause, however, was the lack of convergence in economic development and the imbalances resulting from the unification of the two Germanies. Strong imbalances in the policies of the anchor country gave rise to tensions throughout the ERM and also in associated countries.

Now that we have an overview of the effects we can see that a new foreign-exchange-policy structure has emerged: five countries which a year ago based their exchange-rate policies on the pegging of their currencies to the ERM or the ECU have now let their currencies float, and three countries have devalued.

During last autumn's turmoil a hard core of countries soon formed which were by and large unaffected by the unrest. They were countries which for a long time had made an effort to balance their domestic and external economies, countries which pursued responsible economic policies directed at price stability and competitiveness.

But we also learned another lesson: countries with sound economic fundamentals could also get into trouble.

The question is, what can we learn from these events?

First of all the obvious: exchange-rate commitments can only be fulfilled if the domestic economy is in good shape and enjoys firm confidence.

The second lesson is that cooperation with other countries, particularly at central-bank level, can be effective when the exchange-rate policy is stretched to the limit. This is not always, but often, the case. There would appear to be three preconditions for a successful defence of a country's exchange rate by cooperating with others:

- sound economic fundamentals;
- a good track record;
- a credible economic policy, also in the long term.

If these preconditions are not met even the closest cooperation between central banks would have little chance of succeeding in defending the exchange rate.

Denmark is a fine example of how a fixed exchange rate can be safeguarded

within the ERM by meeting these preconditions and cooperating with others. Like many other countries Denmark had to make a great effort, which well reflects the situation prevailing in Europe at that time.

The events of last autumn and winter brought the central banks back into the limelight. Monetary and foreign-exchange policies—actual events, as well as the effects thereof—were scrutinized carefully in many countries, particularly those forced to devalue or to let their currencies float.

This reflects the general and significant shift of interest towards monetary policy which has characterized economic policy for some time. In many countries this dates back to OPEC I 1973/74 and the ensuing major financial imbalances. Other factors have also contributed to this greater interest in the central banks and their policies: the collapse of the Bretton Woods System, the European Monetary System and the debate on the Maastricht Treaty, and the concept of a European system of central banks, are cases in point. Another factor is of course the shift in economic theory described in Governor Erik Hoffmeyer's new book.

It seems that the challenges to the central banks will be just as great in the future. In many countries the deep recession is making tough demands of monetary policy since the extent to which fiscal policy can be used to stimulate demand is diminishing. In the OECD countries the public deficit is becoming a bigger and bigger problem. The scope for error in economic policy is narrowing due to the sensitiveness of the financial markets and their capacity to act as a conductor for destabilizing capital flows. Attention will continue to focus on the central banks, in the light of the increasing cross-border integration of financial services.

This perspective makes cooperation between the central banks of paramount importance.

The Nordic financial markets depend on each other to a considerable degree. Events in Denmark affect the other Nordic countries, and what we do affects Denmark. This was documented by the events of last autumn and winter.

With Danmarks Nationalbank as our southern gateway we feel safe and secure. The Nationalbank has an outstanding track record. It has persistently and consistently maintained its monetary and foreign-exchange policy stance and furthermore has had the power and the ability to enforce these policies. It has also demonstrated impressive professional competence, led by a management of outstanding integrity. All of these attributes played a central role last autumn when Denmark was required to hold its ground.

It gives me great pleasure to pay tribute to Danmarks Nationalbank on behalf of the Nordic central banks, and to congratulate the Nationalbank on a job well done.

We look forward to continuing close cooperation, in the spirit of friendship and confidence on which our relationship is based.

Presentation of "Dansk Pengehistorie 1960-1990"

Former Governor Richard Mikkelsen

I have been asked to comment on the sequel to "Dansk Pengehistorie" (Monetary History of Denmark), the publication for which I am responsible, and I will do so with great pleasure.

I would like to thank the Governors and the Committee of Directors for assigning this task to me. Ploughing my way through these 30 years was an arduous process, but it was also exciting because it gave me the opportunity to relive a period I know so well both personally and professionally.

The book has now been published, in a very attractive edition, another fine piece of work by the Nationalbank's Note Printing Works. The bookbinding was handled by the company that took care of the new translation of the Bible into Danish, which is also a hallmark of quality. Whether the contents live up to the appearance is a different matter.

It is customary at a handing-over ceremony, which is how this occasion might be described, to inspect the work for compliance with the contract. Any defects must then be pointed out immediately.

Since this is not possible here I will myself draw attention to three problems in writing the book.

The first concerns the book's framework, which proved more difficult than I had anticipated. The problem was finding a structure which respected the chronology of the subject matter and at the same time gave scope for a coherent presentation of important topics. I hope I have found a compromise which avoids too much confusion to the reader.

The second problem concerns the degree of detail: how detailed should it be? This was also a challenging balancing act. Usually I am in favour of limiting the degree of detail, but in certain areas I found a rather full account to be necessary.

This applied in particular to the many instruments that have been used in monetary and credit policy over the years. Many of these were quite elaborately structured. I had a hand in preparing most of them, and since some at least were important monetary-policy instruments at the time, I found that the details should be preserved for posterity in the book. This would also give an overall view of the structure and effects of the instruments.

I have also described the regulative measures taken in special areas, e.g. mortgage credit, in some detail. Mortgage credit is also susceptible to market forces—the effects of interest-rate adjustments—but in contrast to other types of financing mortgage credit was often used to make economic adjustments via statutory amendments, etc. to borrowing limits, maturities and access to various loan categories. In this way development can be influenced in a particular direction, but not very much in comparison to the impact of interest rates. In my view such

measures should be weighed against the fact that they make the mortgage-credit rules extremely complicated.

Financing schemes for agriculture are also described, even though agricultural loans are only a small part of the overall financial picture. However, experience has shown that the agricultural sector's indebtedness is a recurring problem, and most of the remedies are well-known, or variations on the same theme.

A selective credit policy, including lending at a rate of interest below the market rate, was a much debated issue for a while. Many ideas were put forward. This was of little consequence: what did matter was that some were put into practice.

Index-linked loans were introduced as a giant leap forward. I prefer to see them as an innovation which can supplement or replace traditional loans in certain circumstances. As you will know, these loans have not been widely used, except when compulsory or in combination with subsidy schemes.

The description of tax relief on interest expenditure also includes a lot of detail. At the end of the 1970s and the beginning of the 1980s these rules were the subject of much heated political discussion, which at one point had developed into a real drama.

So much for the framework and degree of detail.

The third problem was the form of my presentation. I had been told to write a descriptive account, but it was soon clear that a description without consideration of the underlying issues would be of little interest. It was necessary to include the background to the development as far as this was possible, and to look at the reasons for the many decisions. This means that in some places my book is at slight variance with Erik Hoffmeyer's views in his sequel "Pengepolitiske problemstillinger" (Monetary-Policy Issues).

Of course the most important thing was to select the central topics of the presentation. I found an important issue to be the relationship between monetary policy and real-economic development. For this reason each chapter starts with an introduction presenting the real-economic situation as the background to the monetary-policy measures in that particular period.

For obvious reasons foreign-exchange conditions are also a key issue. Foreign-exchange problems were in the limelight for most of the period up to 1990 and they also played a more and more important role in determining monetary policy.

For a while a main topic of foreign-exchange-policy discussion was the extent and rate at which to lift payment restrictions. The result was full liberalization, in line with our EC commitments. Today we regard this freedom as a matter of course. Unrestricted capital markets have become part of everyday life, but abolishing these restrictions was by no means without conflict.

The interaction between monetary and fiscal policy is naturally also an important topic. A characteristic feature of this period has been that usually tightening

fiscal policy entailed a relaxation of monetary conditions, and vice versa that a relaxation of fiscal policy led to higher interest rates. In other words, if certain fiscal-policy-relaxation boundaries are crossed the financial system will react, and the result will be a tighter monetary policy than would otherwise have been the case, naturally depending on the level of confidence in the exchange-rate policy.

One of the more volatile factors here was the propensity to save or to consume. These are back in fashion again, but for completely different reasons. It will be interesting to see what happens should there be a revival of private consumption.

The period has also seen cases of what could be called fiscal-policy experimentation, particularly in the years when the autonomy to "go solo" was taken for granted. It soon emerged that this was not the case.

For a long time the central-government surplus was used as a yardstick for fiscal policy. A system of defined concepts and a structure which made it possible to express more accurate views on the strength or weakness of fiscal policy were not established until the 1970s, but without improving fiscal policy, not in the first instance at least. Experience from that time shows how quickly budgetary conditions can get out of hand.

Another main topic is the banks' reaction to the signals from the Nationalbank. The book makes no secret of the at times serious difficulties in handling monetary policy vis-à-vis the banks.

The economic-policy objectives are also considered. A recurring aspect for the Nationalbank has been to support a stability-oriented economic policy, with special emphasis on stable foreign-exchange conditions.

Exchange-rate and price-stability considerations and the unemployment situation are often presented as opposites, or as a matter of either/or, although it is more a question of how far you can go in one direction without jeopardizing the other consideration, all depending on the requirements made of price stability or employment levels.

The political discussion tends to focus on one of the two, depending on the situation. It used to be a question of restoring order to the foreign-exchange situation and reducing inflation. The task at hand now is, quite understandably, unemployment. This reminds me of the drunkard whose wife asked him who he loved the most, her or the bottle. His answer was: "There is a time and a place for everything."

The book concludes with special chapters on the institutions in the financial sector.

In this connection suffice it to say that in the mid-1980s the Nationalbank observed in wonder the elaborate measures taken by leading forces in the financial sector to expand into as many areas as possible. The catchword was financial supermarkets. Need I say that all this has cost a bundle since then, and that many heads have rolled.

There could also be reason to recall that not so many years ago it was left to the Nationalbank to ensure that solvency rules for the banks were not made too

lenient. This was the way development was heading, since it was believed that otherwise the banks might lose out in competition with banks abroad. There can be many views on this. I myself am in no doubt—but that is my private opinion.

Looking back over the more than 30 years since 1960 a striking feature is the major fluctuations we have seen in the central economic fundamentals, something we were barely aware of at the time, but seen from the rear-view mirror the trail is so erratic that the driver would be in danger of losing his licence.

Economic growth has varied considerably. The same applies to unemployment, but with a strong rising trend. Prices have also fluctuated considerably.

The long-term interest rate started out at around 6½ per cent. It reached more than 20 per cent, but now it is almost back to 6½ per cent, if the present development is maintained.

The dollar rate has fluctuated strongly between just under kr.5 and just over kr.12 to a dollar.

At the beginning of the 1980s public finances were in a poor state, but this was put right. Now the deficits are on the rise again.

To put it bluntly, the only stable element was the balance of payments, which year after year showed a deficit, but this has now also changed, at least for the time being.

All this has required many measures to be taken, with several reforms and so-called package solutions. Indirect taxation rates have been raised, but rarely lowered. Tax rates have been increased and even more rarely reduced, but with recent years an exception.

The Nationalbank has also been busy. Interest rates were raised and lowered many times, sometimes in series, such as the recent repeated lowerings. It leaves one quite out of breath, but I can reveal to the uninitiated that it is very easy to change the discount rate. All it takes is a decision.

Of course, these circumstances are not particular to Denmark and as far as electorate reaction is concerned, the electorate being a kind of highway patrol, I would like to quote from an article from March 1986 in the *International Herald Tribune* on the recent French election.

The election had brought the non-socialist wing to office. President Mitterand was therefore forced to “cohabit” with his political opponents. The concept of “cohabitation” was widely agreeable to the French people at the time.

Against the background of the preceding very ideologically-oriented election campaign the *Herald Tribune* interpreted the message sent by the voters to the politicians as follows: “We don’t want sweeping changes in any direction. What we want is for you to calm down and do your job of running the country competently, create jobs and modernize the economy.”

This means no sweeping changes, not even based on ideological principles. This view also appears to influence the policy on Europe.

The Nationalbank's 175th Anniversary

In addition, politicians should calm down, which means that clashes are frowned on, even though politics are based on attitudes and values which unavoidably lead to conflict.

In more basic terms, politicians must provide for the creation of more jobs and ensure that the wheels of the economy are running smoothly.

Politicians must also be competent. This demand is not unreasonable, but some politicians find it hard to meet.

Although the Herald Tribune is not necessarily the apostle of truth, these comments do capture the spirit of their time, and they are probably even more true today than seven years ago.

In other words, voters are critical, which is a good thing. They may not say much from day to day, but come an election and they can give a resounding roar.

After this detour into politics I would like to return to the book and conclude by thanking the many Nationalbank employees, at least 50, who provided invaluable assistance with typing, different printing stages, tables and charts, or proofreading the subject matter of the many chapters. My work was made so much easier by the fact that the Nationalbank has given extensive information on its measures and their background over the years. Also a great help were the archives of the Nationalbank, which are not only extensive but also systematic and user-friendly. The same applies to the bank's excellent library.

I also appreciate the good advice I received from former colleagues and collaborators, including Mr. Svend Andersen and Mr. Niels Ussing.

And finally: happy 175th anniversary!

Commemoration of the Anniversary

The Nationalbank's Press Release of July 4, 1993

Danmarks Nationalbank was established in 1818. Its 175th anniversary on July 4, 1993 will be commemorated by the following:

“Dansk Pengehistorie 1700-1960” (Monetary History of Denmark), published on the occasion of the 150th anniversary in 1968, has been continued with the sequel “Dansk Pengehistorie 1960-1990” (Monetary History of Denmark) by former Governor Richard Mikkelsen. It gives a detailed account of the development over the period. Furthermore, “Pengepolitiske problemstillinger 1965-1990” (Monetary-Policy Issues), has been written by Governor Erik Hoffmeyer.

The scope of Danmarks Nationalbank's Anniversary Foundation of 1968 has been extended. The Foundation's capital has been increased by kr.25 million to kr.60 million to enable the Foundation to widen its support from handicrafts and design to other areas, including music.

A grant of kr.2 million will be given for the preparation of national environmental accounts, amongst other purposes to delineate opportunities for sustainable production.

Rules of June 30, 1993 for the Banks' Current-Account Deposits and the Use of Certificates of Deposit and Repurchase Agreements

After the most recent amendments the following rules apply to the banks' accounts with the Nationalbank. The rules apply only to banks, including foreign banks' branches in Denmark which have acceded to the credit-policy agreements with the Nationalbank.

1. Current-account deposits

A bank's current-account deposits accrue interest within limits fixed by the Nationalbank. The present limits for current-account deposits are shown in Appendix 1¹⁾. The limit for each bank states the maximum average deposit per day within a single month. Interest accrues at a rate announced daily via on-line DN News and the automatic answering service connected to telephone no. +45 33 11 72 14. Deposits exceeding these limits earn no interest. During each month each bank can contact DN Enquiry Service for details of the accumulated utilization of its current-account-deposit limit.

2. Certificates of deposit

On the last banking day of each week the Nationalbank opens a series of certificates of deposit falling due on the last banking day of the next week but one, i.e. usually 14 days later. Each series is identified by the year and week of the due date (e.g. series 93/26 for the series falling due on July 2, 1993).

The certificates of deposit are zero-coupon paper sold below par and redeemed at par on the due date. The unit size is kr.1 million.

The certificates of deposit are not listed on the Copenhagen Stock Exchange. They are sold only to the banks mentioned in the introduction and may only be traded between those banks and with the Nationalbank. The certificates cannot be pledged as collateral.

No physical certificates are issued, the sale and subsequent trading being registered to the bank's certificate-of-deposit account with the Nationalbank. A statement of account is issued if transactions are made to an account.

As a general rule the Nationalbank sells certificates of deposit in a series only on its opening day, but the series may be re-opened at the Nationalbank's discretion. When considered necessary the Nationalbank will purchase certificates of deposit and/or transact purchase and resale agreements in certificates of deposit (certificate-of-deposit swaps).

In connection with the monthly issue of a forecast of the impact on a daily basis of central-government payments on the banks' liquidity the Nationalbank states the dates set for purchase of certificates of deposit, extraordinary sales of certificates of deposit and transaction of certificate-of-deposit swaps.

¹⁾ Appendices are not included in this edition of the rules.

Access to sale, purchase or swaps, the prices offered and the corresponding interest rate (calculated in accordance with the money-market convention) are announced as from 10.00 a.m. on the trading day via on-line DN News and the automatic answering service connected to telephone no. +45 33 11 72 14.

Purchases from and sales to the Nationalbank take place by contacting the Nationalbank's DN Enquiry Service between 10.00 a.m. and 3.30 p.m. on the relevant day, or by telefax using Appendix 2 (sale) or 3 (purchase)¹⁾.

Trades with the Nationalbank are settled immediately after the transaction. On trading with the Nationalbank the market value is debited/credited to the bank's current account. Settlement of the forward leg of a certificate-of-deposit swap takes place at 10.00 a.m. on the agreed settlement day.

The certificates of deposit are redeemed on the due date by crediting the nominal value to the current accounts of the relevant banks before opening hours.

Certificates of deposit can be traded between the banks for settlement on the trading date and with simultaneous transfer of payment via the banks' current accounts. This requires notification between 10.00 a.m. and 3.30 p.m. by both seller and purchaser via the on-line DN Enquiry Service or by telefax using Appendix 2 (sale) and Appendix 3 (purchase)¹⁾. Should notification of a transaction not be offset by a corresponding notification from the other party, the transaction will lapse. A bank can contact DN Enquiry Service for details of its non-matched transactions.

Furthermore, the banks may notify inter-bank trading in certificates of deposit for later settlement, by which is meant any banking day in the period from the banking day after notification to the banking day prior to the due date.

The settlement date must also be stated on Appendices 2 and 3¹⁾ on trading with settlement on the notification date and on trading with the Nationalbank.

Notification of a transaction for later settlement will lapse if it is not matched by a corresponding notification from the other party on the same date. A bank can contact DN Enquiry Service for details of its non-matched transactions for later settlement.

Transactions for later settlement are settled at 10.00 a.m. on the notified settlement date. Each transaction is checked in connection with settlement to ensure that there are enough certificates of deposit for the transaction on the seller's certificate-of-deposit account. This requires the seller to have acquired the traded certificates by the day before settlement at the latest. In addition it will be ascertained whether the balance on the purchaser's current account at the time of settlement is below the limit for current-account drawings during the day. If both conditions are not fulfilled settlement of the transaction will lapse. Immediately after settlement each bank can contact DN Enquiry Service for details of its unsettled transactions.

No fees are charged for purchase of certificates of deposit from the Nationalbank, transaction of certificate-of-deposit swaps with the Nationalbank or registration of inter-bank trading. An interest premium is usually charged on sale of certificates of deposit to the Nationalbank.

3. Repurchase agreements in government paper

On the penultimate banking day of each week the banks have access to enter into repurchase agreements (sale and repurchase agreements) in government paper with the Nationalbank. The repurchase agreement can include any domestic government paper denominated in kroner issued as from 1975 and listed on the Copenhagen Stock Exchange, apart from government paper falling due before settlement of the repurchase agreement.

The sale transactions are settled one banking day after the transaction day and the repurchase agreements on the last banking day of the next week but one, i.e. usually 14 days later.

Sale agreements are settled at market-based prices fixed by the Nationalbank. The price for repurchase agreements is the sum of the price at the time of sale and the interest in the repurchase agreement's maturity period (calculated on the basis of the money-market convention) after any necessary coupon adjustments.

The notification procedure for access to repurchase agreements and their rate of interest corresponds to the procedure for trading of certificates of deposit.

Repurchase agreements with the Nationalbank can be entered into by contacting the Nationalbank's Securities Department, telephone no. +45 33 14 14 11, ext. nos. 3405 and 3413 between 10.00 a.m. and 1.00 p.m. on the relevant day. Sale and repurchase agreements are settled via the Danish Securities Centre's settlement system.

Banks may swap government paper sold to the Nationalbank as an element of a repurchase agreement with other government paper meeting the conditions for use in repurchase agreements. The swap implies a reverse repurchase agreement in the original government paper and a repurchase agreement in the new government paper. The maturity of both transactions corresponds to the remaining maturity of the original repurchase agreement. There is a fee of kr.300 for each securities code involved in the swap. Swaps are made by contacting the Nationalbank's Securities Department.

4. Deviation from normal practice

The Nationalbank reserves the right to deviate from the aforementioned rules in special circumstances.

The Nationalbank's Press Release of May 14, 1993

The intervention rates for the Spanish peseta and the Portuguese escudo have been amended as a consequence of the realignment within the Exchange Rate Mechanism of the European Monetary System (EMS).

The following intervention rates for the peseta and the escudo shall apply between Danmarks Nationalbank and foreign-exchange dealers:

	Danish kroner per 100 units	
	Lower limit	Upper limit
Spanish peseta	4.5407	5.1193
Portuguese escudo	3.6317	4.0945

The intervention rates for the D-mark, the French franc, the Belgian franc, the Dutch guilder and the Irish pound will remain unchanged, and the following intervention rates will continue to apply:

	Danish kroner per 100 units	
	Lower limit	Upper limit
D-mark	373.00	390.16
French franc	111.20	116.32
Belgian franc	18.0831	18.9143
Dutch guilder	331.02	346.24
Irish pound	899.22	940.60

The realignment implies the adjustment of the central rates of all ERM currencies vis-à-vis the ECU. The new central rates are as follows:

Denmark	1 ECU =	7.43679	DKK
Germany	1 ECU =	1.94964	DEM
France	1 ECU =	6.53883	FRF
Belgium	1 ECU =	40.2123	BEF
The Netherlands	1 ECU =	2.19672	NLG
Ireland	1 ECU =	0.808628	IEP
Spain	1 ECU =	154.250	ESP
Portugal	1 ECU =	192.854	PTE

The theoretical central rates for the pound sterling, the Italian lira and the Greek drachma, which do not participate in the Exchange Rate Mechanism, are as follows:

UK	1 ECU =	0.786749	GBP
Italy	1 ECU =	1,793.19	ITL
Greece	1 ECU =	264.513	GRD

The Nationalbank's Press Release of May 19, 1993

The Nationalbank's discount rate is lowered by 1 per cent to $8\frac{1}{4}$ per cent with effect from May 19, 1993.

The background is the recent lowering of interest rates in a number of European countries as well as that the uncertainty so far preventing a narrowing of the interest-rate differential to the other countries in the narrow ERM-band no longer exists.

Likewise, the rate of interest on the banks' current accounts with the Nationalbank is lowered by 1 per cent to $8\frac{1}{4}$ per cent.

The Nationalbank's Press Release of June 7, 1993

In view of the satisfactory development on the foreign exchange market and the fall in market interest rates, the Nationalbank's discount rate will be lowered by $\frac{1}{2}$ per cent to $7\frac{3}{4}$ per cent with effect from June 8, 1993.

Likewise, the rate of interest on the banks' current accounts with the Nationalbank will be lowered by $\frac{1}{2}$ per cent to $7\frac{3}{4}$ per cent.

The Nationalbank's Press Release of July 1, 1993

In view of the development in European interest rates, with effect from July 2, 1993 the Nationalbank's discount rate will be lowered by $\frac{1}{2}$ per cent to $7\frac{1}{4}$ per cent.

Likewise, the rate of interest on the banks' current accounts with the Nationalbank is lowered by $\frac{1}{2}$ per cent to $7\frac{1}{4}$ per cent.

The Nationalbank's Press Release of July 16, 1993

The discount rate will be raised by 2 per cent to $9\frac{1}{4}$ per cent with effect from Monday July 19, 1993.

The rise should be seen in view of a speculative pressure against the krone, notwithstanding all the ERM central banks' support of the krone.

The rate of interest on the banks' current accounts with the Nationalbank will also be raised by 2 per cent to $9\frac{1}{4}$ per cent.

The Nationalbank's Press Release of August 2, 1993

The margins of fluctuation for all currencies within the Exchange Rate Mechanism of the European Monetary System (EMS) have been adjusted to +/- 15 per cent. (However, the German and Dutch authorities have announced a bilateral agreement under which the prevailing intervention rates between the D-mark and the Dutch guilder will remain in force.)

Hereafter the following intervention rates shall apply between Danmarks Nationalbank and foreign-exchange dealers:

	Danish kroner per 100 units	
	Lower limit	Upper limit
D-mark	328.461	442.968
French franc	97.943	132.066
Belgian franc	15.9266	21.4747
Dutch guilder	291.544	393.105
Irish pound	792.014	1,067.92
Spanish peseta	4.1519	5.5985
Portuguese escudo	3.3209	4.4777

The central rates vis-à-vis the ECU are unchanged, so that the following central rates continue to apply:

Denmark	1 ECU =	7.43679	DKK
Germany	1 ECU =	1.94964	DEM
France	1 ECU =	6.53883	FRF
Belgium	1 ECU =	40.2123	BEF
The Netherlands	1 ECU =	2.19672	NLG
Ireland	1 ECU =	0.808628	IEP
Spain	1 ECU =	154.250	ESP
Portugal	1 ECU =	192.854	PTE

The theoretical central rates for the pound sterling, the Italian lira and the Greek drachma, which do not participate in the Exchange Rate Mechanism, are likewise unchanged, as follows:

UK	1 ECU =	0.786749	GBP
Italy	1 ECU =	1,793.19	ITL
Greece	1 ECU =	264.513	GRD

Tables and graphs

Principal assets and liabilities of Danmarks Nationalbank

1

End of period ¹⁾	Assets				Liabilities			
	Denmark's international liquidity ²⁾		Lending ³⁾ ⁴⁾	Holdings of securities ³⁾	Notes and coin in circulation	Deposits ³⁾ ⁵⁾	Certificates of deposit	The Government
	Stock of gold	Net foreign assets, etc.						
Kr. million								
1982.....	5 663	18 687	8 255	10 707	15 939	930	•	9 268
1983.....	6 137	35 133	8 049	14 657	17 045	571	•	22 496
1984.....	5 661	33 969	11 692	11 521	18 716	2 507	•	16 675
1985.....	4 772	48 716	26 196	13 760	20 155	2 562	23 816	21 349
1986.....	4 675	31 189	42 875	23 880	21 339	767	7 907	50 990
1987.....	4 858	59 511	18 319	24 189	22 809	1 403	—	59 971
1988.....	4 595	71 644	1 712	26 911	23 870	7 865	•	44 138
1989.....	4 340	40 564	19 536	32 431	25 045	8 977	•	34 504
1990.....	3 720	59 599	6 246	37 717	26 983	13 114	•	38 405
1991.....	3 464	41 099	5 320	44 361	28 211	18 125	•	16 010
1992.....	3 456	41 508	29 132	32 018	28 020	4 800	5 743	35 075
1990 March.....	4 377	54 938	6 399	33 077	24 046	9 677	•	35 765
June.....	4 463	57 719	5 721	35 489	26 460	11 528	•	34 714
Sept.....	4 542	60 758	2 392	39 713	24 933	15 873	•	35 333
Dec.....	4 505	61 961	6 290	38 133	26 983	13 170	•	38 405
1991 Jan.....	3 758	56 266	6 391	36 610	25 255	12 064	•	35 795
Feb.....	3 764	54 254	6 337	36 496	25 277	10 270	•	34 932
March.....	3 769	54 292	4 449	37 989	26 736	11 524	•	32 724
April.....	3 790	54 608	3 125	30 977	28 092	6 721	•	27 268
May.....	3 795	53 933	3 291	31 977	26 796	11 242	•	24 015
June.....	3 796	51 566	3 802	33 425	27 486	20 910	•	13 117
July.....	3 866	48 218	4 482	32 248	27 173	15 561	•	14 347
Aug.....	3 856	46 937	4 467	32 266	26 678	11 948	•	16 959
Sept.....	3 858	47 278	4 030	34 900	26 186	16 306	•	15 782
Oct.....	3 773	44 541	4 583	28 783	26 188	16 946	•	6 179
Nov.....	3 772	43 281	5 119	31 616	26 624	14 166	•	10 318
Dec.....	3 772	38 709	5 302	42 699	28 208	18 122	•	11 425
1992 Jan.....	3 539	40 473	23 345	32 896	26 339	14 400	•	21 797
Feb.....	3 540	40 083	11 213	31 793	25 887	2 289	•	20 594
March.....	3 543	38 373	4 644	33 761	25 780	11 426	•	10 033
April.....	3 493	41 807	10 674	29 954	27 362	3 533	22 414	- 1 401
May.....	3 494	42 823	16 644	30 921	27 203	4 954	15 135	12 785
June.....	3 495	40 162	26 291	33 430	27 610	2 687	22 980	16 097
July.....	3 577	41 340	26 052	31 326	27 313	2 169	29 143	8 954
Aug.....	3 578	41 483	25 379	31 662	26 524	2 797	29 679	8 297
Sept.....	3 580	33 851	18 052	32 497	26 545	6 207	1 328	19 088
Oct.....	3 627	54 642	26 946	32 506	26 590	8 964	17 749	27 946
Nov.....	3 628	43 792	28 663	32 778	26 718	2 375	25 683	19 098
Dec.....	3 630	39 805	29 131	32 280	28 020	4 802	5 743	31 269
1993 Jan.....	3 419	47 959	37 741	31 335	26 765	5 888	18 138	32 334
Feb.....	3 419	46 022	49 374	31 435	26 264	2 561	12 939	50 475
March.....	3 422	53 715	54 816	32 613	26 312	12 053	15 505	57 225
April.....	3 393	50 724	43 499	32 461	27 118	2 818	22 444	42 710
May.....	3 324	55 087	48 809	33 287	27 644	3 359	17 486	56 879
June.....	3 331	57 064	54 356	34 637	28 414	15 667	30 697	39 751

¹⁾ The year-end figures are from the annual statements, while monthly figures are from the monthly balance sheets.

²⁾ Denmark's international liquidity is specified on p. 6.

³⁾ The banks' balances with the Nationalbank are specified on p. 20.

⁴⁾ Including lending concerning decentralized bank-note holdings.

⁵⁾ In the period as from 1989 until end-1991 including bonds acquired in connection with bond-repurchase agreements.

⁶⁾ In the period as from 1989 until end-1991 including bond-repurchase accounts.

Exchange rates

	Average	High	Low	Average	High	Low	Average	High	Low
Danish kroner per 100 units									
	<i>ECUs (XEU)</i>			<i>SDRs (XDR)</i>			<i>US dollars (USD)</i>		
1988.....	795.25	804.00	787.30	904.56	940.47	863.19	674.19	732.40	609.40
1989.....	804.55	812.90	784.30	936.69	971.06	864.95	731.51	793.25	653.25
1990.....	787.37	798.00	778.15	838.80	873.45	817.14	618.53	667.60	563.60
1991.....	791.55	797.40	785.15	874.70	929.13	814.57	640.34	711.75	560.20
1992.....	779.97	794.81	750.66	848.77	884.57	799.77	602.73	651.40	539.10
1992 2nd qtr..	792.25	794.81	787.09	866.75	880.82	839.29	623.29	645.00	585.75
3rd " "	780.54	787.91	752.72	820.41	839.81	801.45	565.03	586.05	539.10
4th " "	755.91	763.11	750.66	838.72	861.53	799.77	597.59	625.55	544.35
1993 1st qtr..	749.14	760.01	740.73	865.98	879.72	843.23	629.08	640.75	606.45
2nd " "	749.29	754.78	745.01	877.69	916.73	858.80	621.44	657.20	602.00
April....	748.23	753.26	745.01	865.84	872.87	858.80	612.64	621.00	602.00
May....	751.01	754.78	746.62	873.96	880.93	861.62	617.58	626.45	603.75
June....	748.81	752.83	746.46	890.98	916.73	870.27	632.20	657.20	609.30
	<i>Pounds sterling (GBP)</i>			<i>D-marks (DEM)</i>			<i>Swedish kronor (SEK)</i>		
1988.....	1197.70	1247.00	1135.70	383.34	386.88	379.35	109.84	112.65	105.27
1989.....	1197.53	1275.45	1060.25	388.84	390.16	385.94	113.40	116.10	105.96
1990.....	1102.04	1160.70	1039.50	382.89	389.70	379.75	104.50	106.91	101.96
1991.....	1128.13	1148.00	1103.84	385.67	389.68	381.84	105.72	107.57	102.41
1992.....	1062.91	1139.57	920.34	386.53	390.04	383.13	103.94	107.46	86.28
1992 2nd qtr..	1126.26	1139.57	1100.21	386.30	388.22	383.97	106.99	107.46	106.33
3rd " "	1076.01	1115.52	971.41	385.94	390.04	384.34	105.60	106.47	103.05
4th " "	943.34	977.69	920.34	386.00	389.52	383.13	96.63	103.06	86.28
1993 1st qtr..	928.37	979.10	890.31	384.70	389.04	382.19	83.75	88.85	79.55
2nd " "	953.05	979.88	933.44	383.68	385.81	382.14	83.96	86.25	79.90
April....	947.69	964.47	933.44	384.16	385.20	383.37	82.40	84.09	79.90
May....	955.96	965.10	947.80	384.15	385.81	382.45	84.23	85.59	82.72
June....	955.30	979.88	942.76	382.88	384.34	382.14	85.10	86.25	83.41
	<i>Norwegian kroner (NOK)</i>			<i>French francs (FRF)</i>			<i>Belgian francs (BEF)</i>		
1988.....	103.29	105.45	98.33	113.02	113.93	112.22	18.315	18.480	18.125
1989.....	105.87	108.34	99.83	114.61	115.48	113.05	18.559	18.640	18.410
1990.....	98.85	100.80	97.60	113.65	114.33	113.00	18.523	18.715	18.398
1991.....	98.64	99.27	98.10	113.41	114.15	112.61	18.734	18.914	18.565
1992.....	97.15	99.12	89.23	114.02	115.14	112.75	18.775	18.913	18.631
1992 2nd qtr..	98.80	99.12	98.14	114.62	115.14	114.13	18.772	18.866	18.656
3rd " "	97.53	98.19	95.40	113.86	114.57	113.29	18.729	18.888	18.672
4th " "	93.56	95.26	89.23	113.69	114.76	112.75	18.755	18.913	18.631
1993 1st qtr..	90.44	91.51	89.78	113.40	114.96	112.80	18.674	18.875	18.532
2nd " "	90.63	91.27	90.19	113.76	114.49	113.20	18.660	18.758	18.589
April....	90.57	91.17	90.19	113.59	114.19	113.20	18.662	18.727	18.627
May....	90.78	91.27	90.27	113.96	114.49	113.53	18.686	18.758	18.623
June....	90.55	90.96	90.24	113.74	114.08	113.48	18.630	18.700	18.589
	<i>Swiss francs (CHF)</i>			<i>Dutch guilders (NLG)</i>			<i>Italian lire (ITL)</i>		
1988.....	460.23	475.25	452.06	340.61	344.05	336.20	0.5173	0.5258	0.5110
1989.....	447.24	458.48	426.70	344.71	345.88	341.94	0.5330	0.5421	0.5193
1990.....	446.16	472.20	424.20	339.84	345.17	337.39	0.5163	0.5214	0.5086
1991.....	446.30	462.80	436.49	342.26	345.72	339.00	0.5158	0.5202	0.5113
1992.....	429.85	449.14	416.42	343.29	346.21	340.58	0.4911	0.5176	0.4054
1992 2nd qtr..	422.26	428.93	416.42	343.07	344.82	340.77	0.5123	0.5158	0.5078
3rd " "	433.34	449.14	424.45	342.41	346.19	340.96	0.4990	0.5095	0.4440
4th " "	431.20	445.63	419.87	343.14	346.21	340.58	0.4391	0.4497	0.4054
1993 1st qtr..	417.70	430.44	411.95	342.06	345.70	339.64	0.4069	0.4268	0.3851
2nd " "	425.27	433.02	414.55	341.85	343.85	340.72	0.4130	0.4255	0.3830
April....	420.28	427.54	414.55	341.83	342.82	341.18	0.3991	0.4135	0.3830
May....	425.82	429.26	421.84	342.44	343.85	341.33	0.4180	0.4221	0.4115
June....	429.14	433.02	425.59	341.38	342.72	340.72	0.4209	0.4255	0.4148

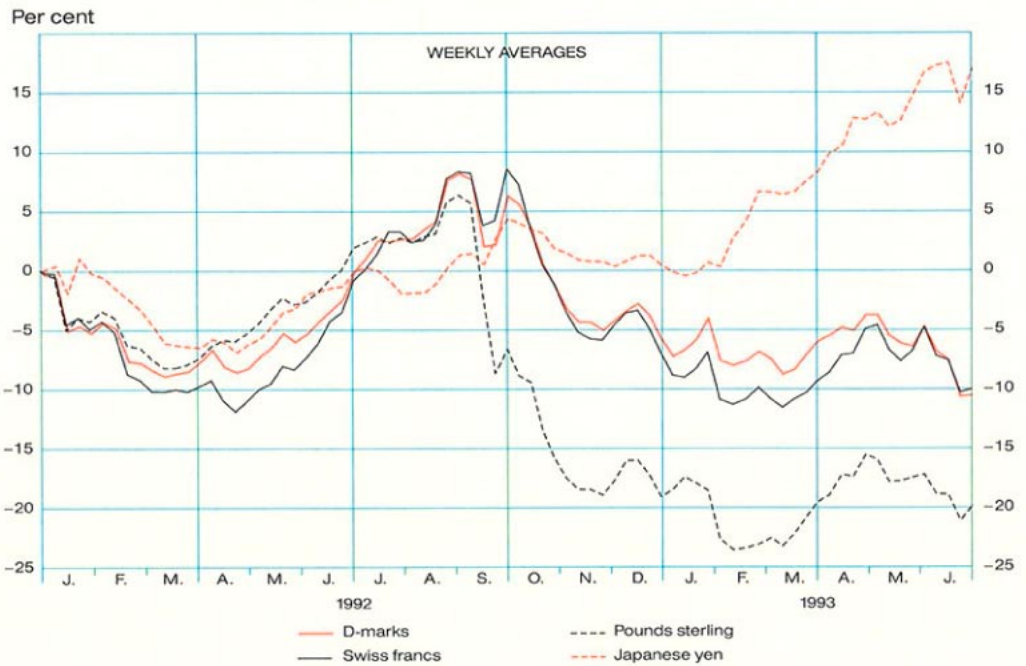
Note: Apart from SDRs, the exchange rates listed are until end-3rd quarter of 1991 middle rates listed in Copenhagen, and thereafter fixed on the basis of market rates. The SDR rate is calcu-

lated on the basis of the middle/market rates of currencies included in the basket.

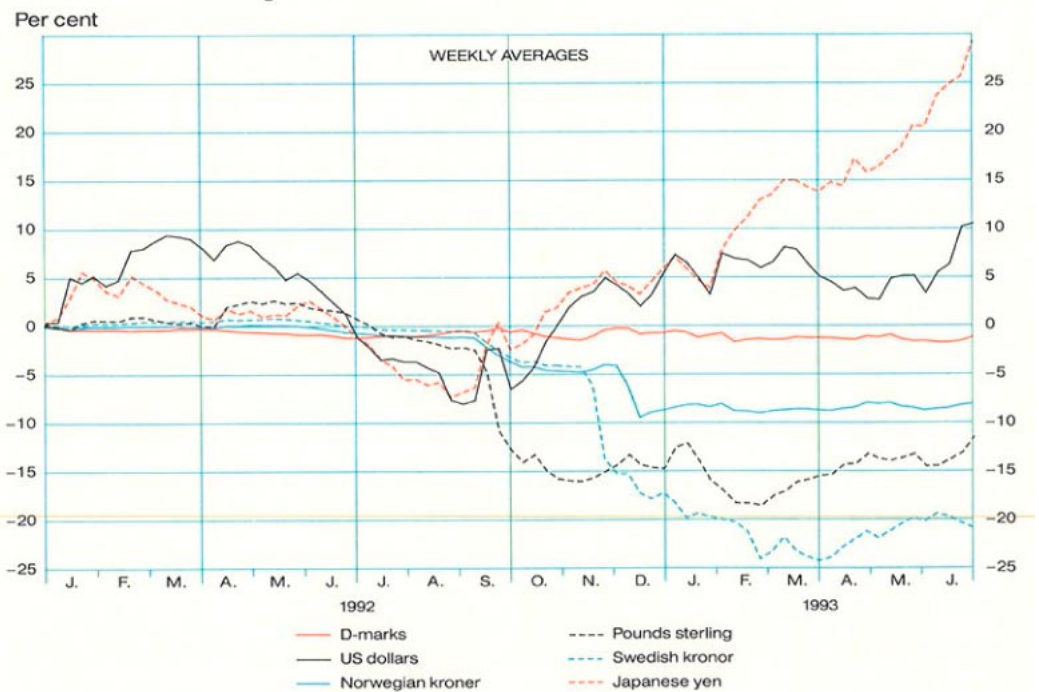
Exchange rates

	Average	High	Low	Average	High	Low	Average	High	Low
Danish kroner per 100 units									
	<i>Finnish marks (FIM)</i>			<i>Iceland kroner (ISK)</i>			<i>Austrian schillings (ATS)</i>		
1988.....	160.88	165.20	155.60	15.76	17.50	14.65	54.526	54.990	53.935
1989.....	170.46	175.38	162.75	12.92	14.95	10.85	55.257	55.470	54.890
1990.....	161.89	164.84	159.28	10.65	10.95	10.45	54.420	55.410	53.980
1991.....	158.32	164.60	139.56	10.87	11.20	10.45	54.811	55.358	54.260
1992.....	135.08	143.49	116.84	10.47	10.85	9.66	54.928	55.430	54.456
1992 2nd qtr..	141.87	142.43	140.56	10.72	10.82	10.54	54.889	55.155	54.551
3rd " "	136.11	141.22	120.58	10.40	10.55	10.12	54.838	55.430	54.591
4th " "	120.67	122.72	116.84	10.04	10.44	9.66	54.864	55.365	54.456
1993 1st qtr..	109.48	118.60	103.84	9.73	9.87	9.63	54.675	55.299	54.323
2nd " "	112.09	115.09	105.65	9.72	9.87	9.17	54.529	54.845	54.304
April...	109.76	113.15	105.65	9.70	9.74	9.66	54.596	54.755	54.482
May.....	112.50	113.41	111.73	9.76	9.82	9.70	54.606	54.845	54.362
June.....	113.76	115.09	112.46	9.70	9.87	9.17	54.409	54.613	54.304
	<i>Spanish pesetas (ESP)</i>			<i>Portuguese escudos (PTE)</i>			<i>Canadian dollars (CAD)</i>		
1988.....	5.782	6.060	5.640	4.677	4.725	4.625	548.54	602.00	469.50
1989.....	6.177	6.285	6.000	4.645	4.760	4.400	617.96	659.55	563.80
1990.....	6.074	6.226	5.930	4.341	4.415	4.292	530.19	574.30	484.35
1991.....	6.157	6.220	6.043	4.429	4.521	4.290	559.29	622.45	483.90
1992.....	5.905	6.190	5.335	4.471	4.652	4.260	499.19	547.65	434.37
1992 2nd qtr..	6.150	6.189	6.082	4.604	4.652	4.496	521.91	546.56	489.93
3rd " "	5.942	6.088	5.511	4.476	4.608	4.335	470.64	487.81	436.20
4th " "	5.403	5.503	5.335	4.321	4.381	4.260	473.52	494.42	434.37
1993 1st qtr..	5.393	5.473	5.289	4.216	4.320	4.132	498.91	514.58	476.58
2nd " "	5.121	5.376	4.807	4.076	4.166	3.970	489.06	511.20	473.67
April...	5.303	5.376	5.198	4.143	4.158	4.125	485.43	493.70	478.41
May.....	5.100	5.272	4.807	4.073	4.166	3.970	486.63	496.12	473.67
June.....	4.981	5.030	4.847	4.021	4.046	3.975	494.19	511.20	478.62
	<i>Japanese yen (JPY)</i>			<i>Irish pounds (IEP)</i>			<i>Greek drachmas (GRD)</i>		
1988.....	5.2567	5.5225	4.9080	1025.41	1035.00	1016.10	4.752	4.840	4.620
1989.....	5.3079	5.6915	4.5960	1036.38	1043.10	1023.00	4.506	4.690	4.185
1990.....	4.2846	4.6155	3.9820	1023.56	1032.25	1019.00	3.907	4.175	3.680
1991.....	4.7604	5.1285	4.2700	1030.27	1038.91	1021.65	3.514	3.675	3.371
1992.....	4.7606	5.0294	4.3516	1026.49	1036.16	1011.31	3.167	3.373	2.902
1992 2nd qtr..	4.7827	4.8749	4.6579	1031.10	1034.60	1023.97	3.251	3.340	3.156
3rd " "	4.5259	4.8213	4.3516	1023.91	1031.56	1014.21	3.113	3.160	3.013
4th " "	4.8580	5.0294	4.5572	1017.30	1027.12	1011.31	2.956	3.011	2.902
1993 1st qtr..	5.2130	5.4673	4.8943	960.99	1022.78	928.54	2.859	2.916	2.812
2nd " "	5.6612	6.1912	5.3457	935.61	939.81	932.20	2.820	2.845	2.799
April...	5.4579	5.5713	5.3457	936.56	939.81	934.33	2.818	2.838	2.810
May.....	5.5941	5.7535	5.4809	936.42	938.93	934.70	2.832	2.845	2.824
June.....	5.8915	6.1912	5.6806	934.11	937.73	932.20	2.812	2.822	2.799
	<i>Australian dollars (AUD)</i>			<i>New Zealand dollars (NZD)</i>					
1988.....	•	•	•	•	•	•			
1989.....	•	•	•	•	•	•			
1990.....	•	•	•	•	•	•			
1991.....	•	•	•	•	•	•			
1992.....	443.10	494.95	385.46	324.29	357.72	290.22			
1992 2nd qtr..	472.44	493.03	437.89	336.52	350.15	319.13			
3rd " "	413.36	435.12	385.46	306.64	318.93	290.22			
4th " "	417.29	430.97	389.65	313.99	323.12	295.27			
1993 1st qtr..	433.00	457.05	409.08	327.21	342.89	313.37			
2nd " "	431.32	444.19	412.99	335.95	353.25	324.73			
April...	436.21	444.19	428.03	330.42	333.84	324.73			
May.....	431.73	437.33	422.51	335.35	341.89	326.55			
June.....	426.77	442.76	412.99	341.23	353.25	330.05			

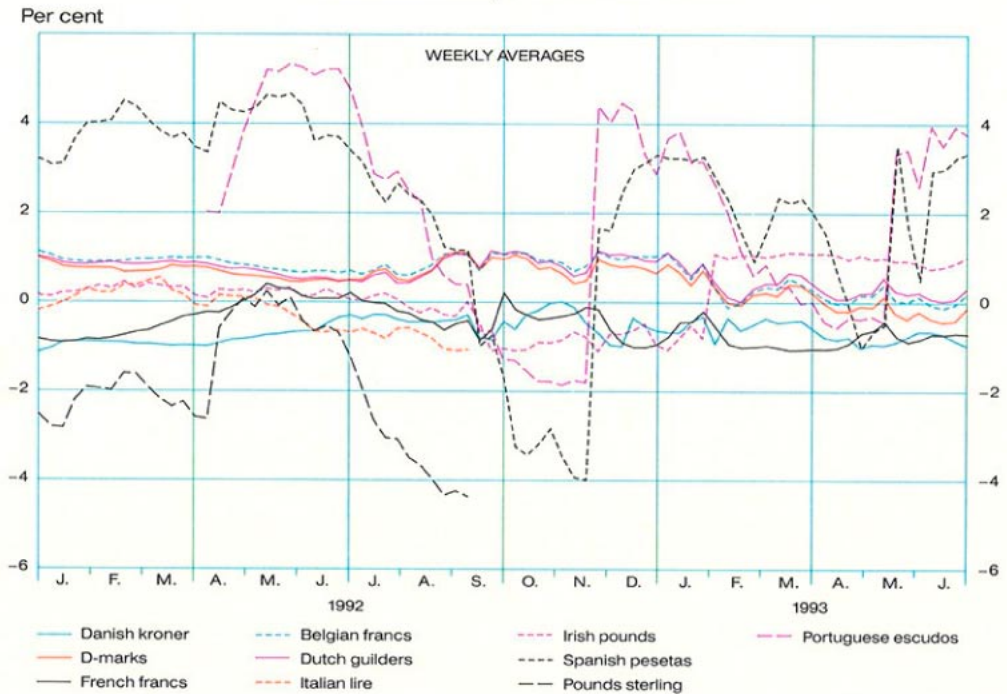
Exchange-rate movements in relation to the dollar



Exchange-rate movements in relation to the Danish krone

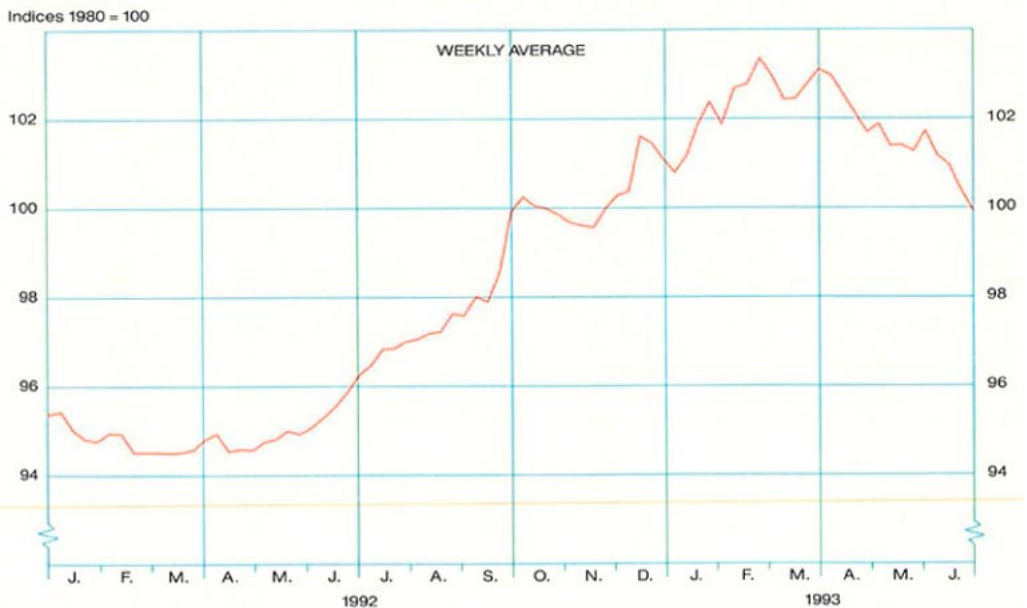


Note: The figures show the percentage change since December 31, 1991 in the rate of the relevant currencies, expressed in dollars and kroner, respectively.



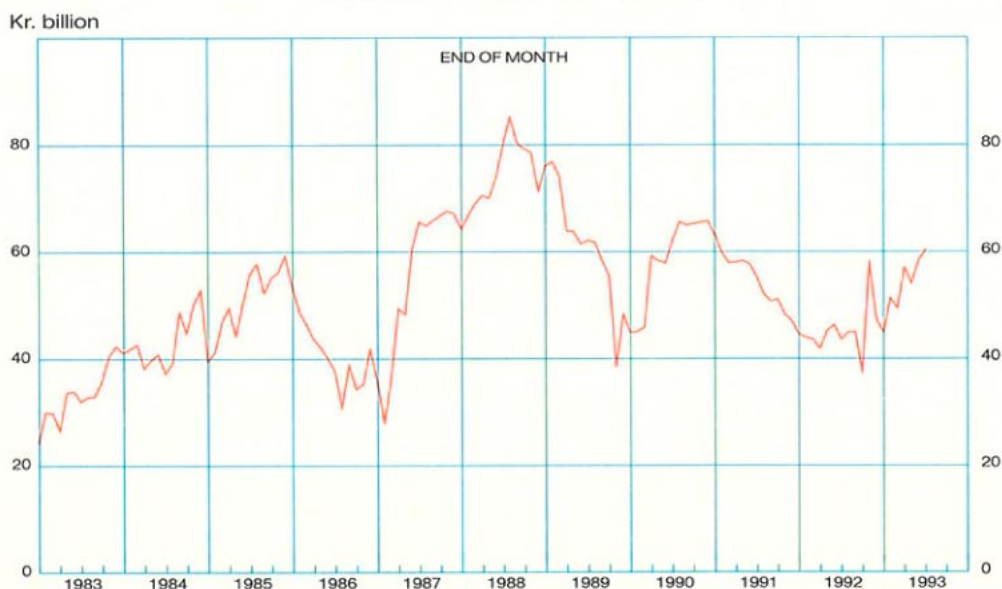
Note: The figure shows the placement of the ERM currencies in relation to the middle of the ERM currencies which have fluctuation limits of 2¼ per cent. The Spanish peseta and the Portuguese escudo, which have participated in the Exchange-Rate Mechanism since June 1989 and April 1992, respectively, have fluctuation limits of 6 per cent. As from September 17, 1992 intervention obligation for the pound sterling and the Italian lira has been suspended.

The effective krone rate



Note: A downward change in the index reflects a fall in the value of the krone. The index is calculated on the basis of international trade in manufactures in 1989. The average index was: 1991 94.6 and 1992 96.9. Particulars on the method of calculation are obtainable on request to Danmarks Nationalbank, Economics and Statistics Department.

Denmark's international liquidity



End of period ¹⁾	Stock of gold	Foreign assets	European Currency Units	Special Drawing Rights	Reserve position in IMF ²⁾	Denmark's international liquidity (gross)	Foreign liabilities	Denmark's international liquidity (net) ³⁾
	Kr. million							
1982.....	5 663	14 796	2 035	1 631	923	25 048	698	24 350
1983.....	6 137	27 569	4 805	1 227	2 120	41 858	588	41 270
1984.....	5 661	27 190	3 234	1 747	2 368	40 200	570	39 630
1985.....	4 772	41 328	4 194	1 759	2 040	54 093	605	53 488
1986.....	4 675	33 562	392	1 862	1 143	41 634	5 770	35 864
1987.....	4 858	54 078	3 777	1 301	1 065	65 079	710	64 369
1988.....	4 595	59 063	10 454	1 542	2 167	77 821	1 582	76 239
1989.....	4 340	33 180	4 625	1 850	2 213	46 208	1 304	44 904
1990.....	3 720	52 707	5 200	1 246	1 807	64 680	1 361	63 319
1991.....	3 464	38 588	2 814	1 430	2 155	48 451	3 888	44 563
1992.....	3 456	63 540	2 757	528	2 975	73 256	28 292	44 964
1992 April ...	3 493	36 585	3 336	1 318	2 267	46 999	1 699	45 300
May	3 494	37 182	3 336	1 340	2 183	47 535	1 218	46 317
June	3 495	34 712	3 337	1 340	2 144	45 028	1 371	43 657
July	3 577	36 187	2 983	1 340	2 163	46 250	1 333	44 917
Aug. ...	3 578	35 941	2 984	1 359	2 229	46 091	1 030	45 061
Sept. ...	3 580	40 674	2 988	1 359	2 210	50 811	13 380	37 431
Oct.	3 627	50 460	2 725	1 359	2 168	60 339	2 070	58 269
Nov. ...	3 628	49 365	2 724	803	2 888	59 408	11 988	47 420
Dec.	3 630	62 416	2 725	557	2 888	72 216	28 781	43 435
1993 Jan.	3 419	38 438	6 857	509	2 908	52 131	753	51 378
Feb.	3 419	65 488	6 859	1 115	2 873	79 754	30 313	49 441
March ..	3 422	67 137	6 858	1 023	2 792	81 232	24 095	57 137
April ...	3 393	52 124	4 194	937	2 792	63 440	9 323	54 117
May	3 324	48 222	4 195	788	2 792	59 321	910	58 411
June	3 331	50 279	4 195	663	2 792	61 260	865	60 395

¹⁾ The year-end figures are from the annual statements, while monthly figures are from the monthly balance sheets.

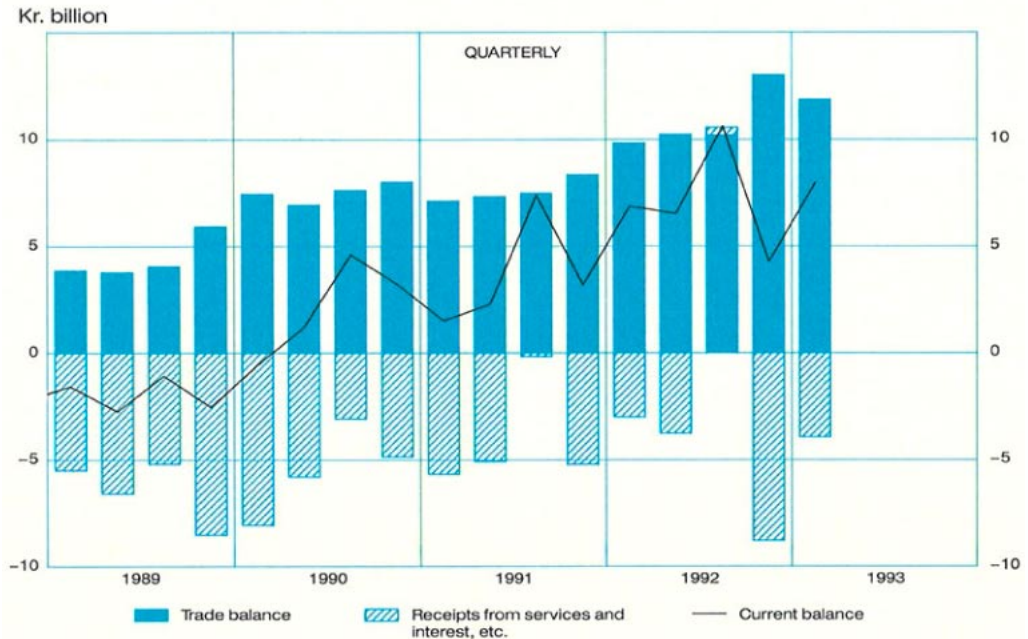
²⁾ Denmark's quota less IMF holdings of Danish kroner.

³⁾ As a result of exchange-rate adjustments Denmark's international liquidity increased by kr.3,436 million in 1982, by kr.4,471 mil-

lion in 1983, by kr.2,214 million in 1984, declined by kr.3,274 million in 1985, by kr.807 million in 1986, by kr.1,501 million in 1987, increased by kr.3,178 million in 1988, declined by kr.3,675 million in 1989, by kr.3,147 million in 1990, increased by kr.2,082 million in 1991 and by kr.1,529 million in December 1992.

Balance of payments

7



	Trade balance ¹⁾	Ship- ping (net)	Foreign travel (net)	Interest, dividends, etc. (net)	Other current trans- actions ²⁾ (net)	Current balance	Recorded capital flows ³⁾	Unrecorded capital flows ⁴⁾	Changes in Denmark's international liquidity
							- = increase in liabilities or decrease in assets		
Kr. billion									
1983.....	2.2	4.4	0.9	- 18.9	- 1.3	- 12.8	- 27.6	2.4	12.4
1984.....	- 2.0	3.4	0.7	- 24.2	4.4	- 17.8	- 19.3	5.4	- 3.9
1985.....	- 7.9	2.5	- 0.9	- 27.0	4.5	- 28.8	- 50.5	4.5	17.1
1986.....	- 8.5	0.7	- 2.9	- 28.0	2.4	- 36.3	- 25.3	5.8	- 16.8
1987.....	5.5	- 0.4	- 4.4	- 28.2	7.1	- 20.3	- 51.6	1.2	30.0
1988.....	12.6	0.2	- 4.8	- 28.2	11.2	- 8.9	- 23.3	5.6	8.7
1989.....	17.6	1.1	- 4.5	- 31.6	9.3	- 8.2	13.6	5.9	- 27.7
1990.....	30.0	2.4	- 2.2	- 34.9	12.9	8.2	- 31.8	18.5	21.6
1991.....	30.3	2.4	0.6	- 35.6	16.4	14.2	25.8	9.2	- 20.8
1992.....	43.3	1.9	0.0	- 34.5	17.4	28.1	17.2	12.0	- 1.1
1991 4th qtr..	8.4	0.7	0.0	- 9.7	3.8	3.1	6.4	5.4	- 8.7
1992 1st qtr..	9.8	0.6	- 1.2	- 7.0	4.7	6.8	3.1	6.3	- 2.6
2nd „ .	10.2	0.1	0.1	- 8.4	4.5	6.5	4.3	0.4	1.7
3rd „ .	10.2	0.5	1.5	- 5.0	3.4	10.6	18.4	- 1.6	- 6.2
4th „ .	13.0	0.8	- 0.4	- 14.0	4.8	4.2	- 8.7	6.9	6.0
1993 1st qtr..	11.9	0.4	- 1.3	- 6.3	3.2	7.9	- 9.9	5.6	12.2

Note: Figures for the most recent quarters are usually subject to revision.

¹⁾ General trade, i.e. inclusive of transit trade. The statistics comprise the Kingdom as a whole, thus also reflecting the foreign trade of the Faroe Islands and Greenland, but excluding trade between Denmark proper, the Faroe Islands and Greenland. Both exports and imports are calculated fob.

²⁾ Including support received from the EC's Agricultural Fund (EAGGF) and Denmark's contributions to the budget of the EC.

³⁾ Recorded capital payments from and to foreign countries are specified on p. 8.

⁴⁾ Including errors and omissions.

Recorded capital payments from and to foreign countries

	Private sector									Recorded capital payments, total
	Public sector ¹⁾	Direct investments ²⁾		Portfolio investments ³⁾	Borrowing		Lending ²⁾	The banks' external position ⁴⁾	Total	
		Inward	Outward		Business enterprises ²⁾	Private individuals				
		Kr. billion								
Income										
1983	51.0	2.1	1.2	15.9	84.8	0.6	5.2	•	109.9	160.9
1984	66.9	2.5	0.4	30.1	161.5	0.5	7.0	•	201.9	268.8
1985	68.3	3.1	0.9	85.9	193.3	0.4	8.0	•	291.6	359.9
1986	106.1	4.9	0.6	111.0	224.9	0.3	9.0	•	350.7	456.7
1987	62.0	4.5	1.4	160.5	227.8	0.3	9.7	•	404.2	466.2
1988	44.1	5.8	0.7	181.7	187.9	1.5	17.4	•	395.0	439.1
1989	43.7	13.6	1.3	136.7	167.8	6.3	25.4	•	351.0	394.7
1990	57.4	11.7	1.8	221.7	199.9	24.9	22.6	•	482.5	539.9
1991	35.9	11.1	2.3	375.1	196.3	31.6	29.7	•	646.0	681.9
1992	106.7	67.2	16.0	667.5	166.0	29.9	25.6	•	972.1	1 078.8
1992 1st qtr.	28.7	32.2	2.9	130.2	45.7	10.1	5.4	•	226.5	255.1
2nd „	20.6	14.0	2.9	168.3	43.1	9.6	5.6	•	243.4	264.1
3rd „	24.6	9.8	3.6	151.5	40.6	5.0	6.7	•	217.2	241.8
4th „	32.8	11.2	6.6	217.4	36.6	5.2	8.0	•	285.0	317.8
1993 1st qtr.	59.5	13.6	10.0	218.7	49.1	2.6	5.0	•	299.0	358.5
2nd „	30.5	11.8	9.7	275.4	36.7	2.1	7.0	•	342.6	373.1
Expenditure										
1983	33.6	1.2	2.1	13.0	79.4	0.7	8.4	•	104.8	138.3
1984	72.6	2.4	3.0	22.7	139.7	0.6	9.7	•	178.1	250.7
1985	64.0	1.8	3.1	71.5	162.6	0.6	11.4	•	251.0	315.1
1986	69.3	3.6	5.0	128.0	213.5	0.9	10.0	•	361.0	430.3
1987	40.9	3.9	5.5	135.7	210.9	0.7	11.9	•	368.6	409.4
1988	50.0	2.4	5.5	174.6	166.2	0.8	21.4	•	370.9	420.9
1989	47.5	5.7	16.1	156.2	156.2	2.1	33.4	•	369.6	417.2
1990	49.0	4.2	11.1	204.4	177.4	22.0	30.1	•	449.2	498.2
1991	63.8	1.8	14.1	362.2	199.1	18.6	38.3	•	634.1	697.9
1992	96.5	61.0	29.4	606.1	183.1	40.7	24.7	•	945.0	1 041.5
1992 1st qtr.	29.5	29.5	6.9	122.6	46.9	4.8	4.5	•	215.3	244.8
2nd „	24.3	12.5	5.3	145.5	51.3	6.2	4.7	•	225.6	249.8
3rd „	17.7	7.2	7.5	143.2	43.3	18.6	6.8	•	226.7	244.3
4th „	25.1	11.8	9.7	194.7	41.6	11.0	8.6	•	277.4	302.5
1993 1st qtr.	47.4	9.0	13.1	203.1	48.4	3.1	5.7	•	282.4	329.8
2nd „	33.4	8.4	10.6	255.1	42.0	4.4	8.2	•	328.8	362.2
Net income										
1983	17.4	0.9	- 0.8	2.9	5.4	- 0.1	- 3.2	5.0	10.2	27.6
1984	- 5.7	0.1	- 2.6	7.4	21.8	- 0.2	- 2.7	1.1	25.0	19.3
1985	4.3	1.3	- 2.2	14.3	30.7	- 0.2	- 3.4	5.6	46.2	50.5
1986	36.8	1.3	- 4.4	- 17.0	11.4	- 0.6	- 1.1	- 1.1	- 11.5	25.3
1987	21.1	0.6	- 4.1	24.8	16.9	- 0.4	- 2.1	- 5.2	30.5	51.6
1988	- 5.9	3.4	- 4.8	7.2	21.7	0.6	- 4.0	5.0	29.1	23.3
1989	- 3.8	7.9	- 14.8	- 19.5	11.5	4.2	- 8.0	8.8	- 9.8	- 13.6
1990	8.4	7.5	- 9.3	17.3	22.5	2.9	- 7.5	- 9.9	23.5	31.8
1991	- 27.9	9.3	- 11.8	12.8	- 2.8	13.0	- 8.6	- 9.8	2.1	- 25.8
1992	10.2	6.1	- 13.4	61.4	- 17.1	- 10.8	1.0	- 54.6	- 27.4	- 17.2
1992 1st qtr.	- 0.8	2.7	- 4.0	7.6	- 1.2	5.2	0.9	- 13.5	- 2.4	- 3.1
2nd „	- 3.6	1.5	- 2.5	22.7	- 8.2	3.4	0.9	- 18.6	- 0.7	- 4.3
3rd „	6.9	2.6	- 3.9	8.3	- 2.7	- 13.6	- 0.1	- 15.8	- 25.3	- 18.4
4th „	7.7	- 0.7	- 3.1	22.8	- 4.9	- 5.8	- 0.7	- 6.6	0.9	8.7
1993 1st qtr.	12.1	4.6	- 3.1	15.6	0.7	- 0.5	- 0.6	- 18.8	- 2.2	9.9
2nd „	- 3.0	3.3	- 0.9	20.3	- 5.3	- 2.3	- 1.2	- 15.5	- 1.6	- 4.6

Note: As reported to the Nationalbank. In addition to the recorded capital payments, the capital payments stated in the balance of payments also include unrecorded loans and credit, cf. p. 7.

¹⁾ Including the Danish Export Finance Corporation's borrowing abroad.

²⁾ Intra-group loans are included as from 1992 under "Direct investments", whereas previously they were included under business enterprises' borrowing and lending.

³⁾ A specification is given on p. 9.

⁴⁾ A positive figure expresses a net borrowing abroad. The external position is specified on p. 17.

	Danish securities						Foreign securities				
	Shares	Bonds, etc.				Total	Shares	Bonds, etc.		Total	
		in kroner						in foreign currency	in kroner		in foreign currency
		Government bonds	Treasury notes	Treasury bills	Other paper						
Kr. billion											
Income											
1983.....	2.1	4.9	0.1	•	5.1	0.8	13.0	0.2	•	2.7	2.9
1984.....	1.5	13.0	0.1	•	7.2	3.8	25.5	2.1	•	2.5	4.6
1985.....	1.8	39.1	0.0	•	24.3	11.2	76.4	5.5	0.0	4.0	9.5
1986.....	3.0	31.6	0.0	•	36.1	6.9	77.7	21.4	0.0	11.9	33.3
1987.....	6.6	52.3	0.1	•	48.1	4.1	111.2	32.0	0.1	17.2	49.3
1988.....	3.7	74.0	2.5	•	69.9	3.2	153.3	16.5	0.5	11.3	28.4
1989.....	10.4	49.0	5.8	•	33.2	4.1	102.5	15.2	1.3	17.7	34.2
1990.....	9.5	91.7	16.4	4.9	31.6	4.7	158.9	15.3	3.1	44.5	62.8
1991.....	8.4	187.9	48.3	16.3	19.5	10.2	290.6	15.6	10.8	58.1	84.5
1992.....	8.2	398.8	60.6	29.8	24.1	30.9	552.5	14.8	22.4	77.8	115.0
1992 1st qtr. ..	2.4	73.8	4.5	13.8	7.1	2.9	104.5	4.1	1.9	19.8	25.8
2nd „ ..	1.9	104.7	5.4	6.3	5.5	19.2	143.0	3.7	3.8	17.8	25.3
3rd „ ..	1.6	88.5	8.0	5.2	6.3	6.2	115.8	3.3	12.5	19.9	35.7
4th „ ..	2.3	131.8	42.7	4.5	5.2	2.7	189.2	3.7	4.3	20.3	28.3
1993 1st qtr. ..	4.8	144.9	38.5	2.3	5.1	2.1	197.8	4.6	0.6	15.7	20.8
2nd „ ..	4.4	180.6	58.6	2.4	7.2	1.1	254.2	4.6	1.2	15.3	21.2
Expenditure											
1983.....	1.2	2.6	0.1	•	4.7	0.9	9.5	0.5	•	3.0	3.5
1984.....	1.7	5.8	0.1	•	5.1	4.0	16.6	3.3	•	2.7	6.1
1985.....	2.3	25.9	0.1	•	19.9	11.1	59.3	7.8	0.0	4.4	12.3
1986.....	2.0	29.7	0.1	•	37.3	7.6	76.7	32.4	0.1	18.8	51.3
1987.....	4.7	37.9	0.0	•	45.2	3.6	91.4	30.0	0.3	14.1	44.3
1988.....	4.8	68.8	0.9	•	63.9	3.3	141.7	18.5	0.5	13.9	32.9
1989.....	9.5	53.3	5.3	•	38.3	4.5	110.9	18.8	1.5	24.9	45.3
1990.....	9.2	70.3	14.1	3.5	28.0	8.1	133.4	17.4	2.8	50.7	70.9
1991.....	8.3	158.4	39.3	12.3	22.4	9.1	249.8	20.1	19.7	72.6	112.4
1992.....	7.8	351.2	60.7	32.6	21.8	24.6	498.6	18.7	15.2	73.6	107.5
1992 1st qtr. ..	2.5	64.7	10.8	5.8	5.5	2.0	91.2	5.5	5.3	20.6	31.4
2nd „ ..	1.8	82.4	6.3	7.8	4.7	14.0	117.1	4.0	6.5	18.0	28.5
3rd „ ..	1.3	85.4	5.7	12.9	5.5	6.3	117.1	4.6	2.6	19.0	26.2
4th „ ..	2.3	118.7	37.8	6.1	6.1	2.3	173.3	4.6	0.8	16.0	21.4
1993 1st qtr. ..	2.8	139.8	33.6	3.6	5.6	1.4	186.8	4.9	0.2	11.3	16.3
2nd „ ..	3.2	173.9	47.8	2.7	5.6	1.4	234.5	4.7	0.4	15.5	20.6
Net income											
1983.....	0.9	2.3	0.0	•	0.3	- 0.1	3.5	- 0.2	•	- 0.4	- 0.6
1984.....	- 0.3	7.2	0.0	•	2.1	- 0.2	8.9	- 1.2	•	- 0.2	- 1.5
1985.....	- 0.5	13.2	0.0	•	4.4	0.1	17.1	- 2.3	0.0	- 0.4	- 2.8
1986.....	1.0	1.9	0.0	•	- 1.2	- 0.6	1.0	- 11.1	- 0.1	- 6.9	- 18.0
1987.....	1.9	14.4	0.1	•	2.9	0.5	19.8	2.0	- 0.2	3.1	5.0
1988.....	- 1.1	5.2	1.6	•	6.0	- 0.1	11.6	- 1.9	0.1	- 2.6	- 4.5
1989.....	1.0	- 4.3	0.4	•	- 5.1	- 0.5	- 8.4	- 3.6	- 0.3	- 7.2	- 11.1
1990.....	0.3	21.4	2.3	1.4	3.5	- 3.5	25.4	- 2.1	0.3	- 6.3	- 8.1
1991.....	0.1	29.5	9.0	4.0	- 3.0	1.2	40.7	- 4.5	- 9.0	- 14.5	- 27.9
1992.....	0.3	47.6	- 0.1	- 2.7	2.4	6.3	53.8	- 3.9	7.2	4.2	7.5
1992 1st qtr. ..	- 0.1	9.1	- 6.3	8.0	1.7	0.9	13.2	- 1.4	- 3.5	- 0.8	- 5.6
2nd „ ..	0.1	22.3	- 1.0	- 1.5	0.7	5.2	25.9	- 0.3	- 2.7	- 0.2	- 3.2
3rd „ ..	0.3	3.1	2.3	- 7.7	0.8	- 0.1	- 1.2	- 1.3	9.9	0.9	9.5
4th „ ..	0.0	13.1	4.9	- 1.6	- 0.9	0.3	15.9	- 0.9	3.5	4.3	6.8
1993 1st qtr. ..	2.0	5.1	4.9	- 1.3	- 0.5	0.8	11.0	- 0.3	0.4	4.4	4.5
2nd „ ..	1.2	6.7	10.8	- 0.4	1.6	- 0.3	19.7	0.0	0.8	- 0.2	0.6

	Imports (cif)				Exports (fob)				Balance of trade
	Total	of which			Total	of which			
		Goods for trade and industry	Energy, etc.	Goods for consumption and private cars		Agricultural goods ¹⁾	Manufactured goods	Energy, etc. ²⁾	
Kr. billion									
1983	148.9	86.0	28.6	29.5	146.8	32.0	91.5	7.2	- 2.1
1984	171.8	99.9	30.4	36.3	165.3	35.6	106.7	8.3	- 6.5
1985	191.6	109.4	32.2	41.5	179.6	37.6	115.2	9.4	- 12.0
1986	184.7	111.7	15.8	48.3	171.8	35.3	115.8	5.1	- 12.9
1987	174.1	105.3	13.2	46.7	175.3	33.3	118.4	4.9	1.2
1988	174.4	107.7	10.9	45.7	182.4	34.0	124.8	4.5	8.0
1989	195.3	117.0	13.7	49.5	205.5	37.9	142.2	6.6	10.2
1990	195.8	116.4	13.2	51.6	216.4	38.8	150.0	7.8	20.7
1991	<u>206.8</u>	<u>118.3</u>	<u>14.2</u>	<u>57.6</u>	<u>229.8</u>	<u>40.3</u>	<u>159.5</u>	<u>9.4</u>	<u>23.0</u>
1992	211.2	122.6	12.6	62.5	246.0	41.0	171.4	9.4	34.9
1992 1st qtr. ...	53.8	31.5	3.0	15.9	61.6	10.7	43.1	2.4	7.8
2nd „ ...	54.6	31.4	3.5	15.2	62.1	10.7	43.2	2.2	7.5
3rd „ ...	50.4	28.9	3.2	15.9	58.9	9.6	42.0	2.3	8.5
4th „ ...	52.3	30.8	2.9	15.6	63.5	10.0	43.2	2.5	11.2
1993 1st qtr. ...	47.0	27.2	2.3	14.6	56.9	9.2	40.7	2.2	9.9

Note: General trade, i.e. inclusive of transit trade. Until end-1991 compiled as net trade.

¹⁾ Including canned meat and milk.

²⁾ As from 1984 including natural gas.

Quantity indices and terms of trade

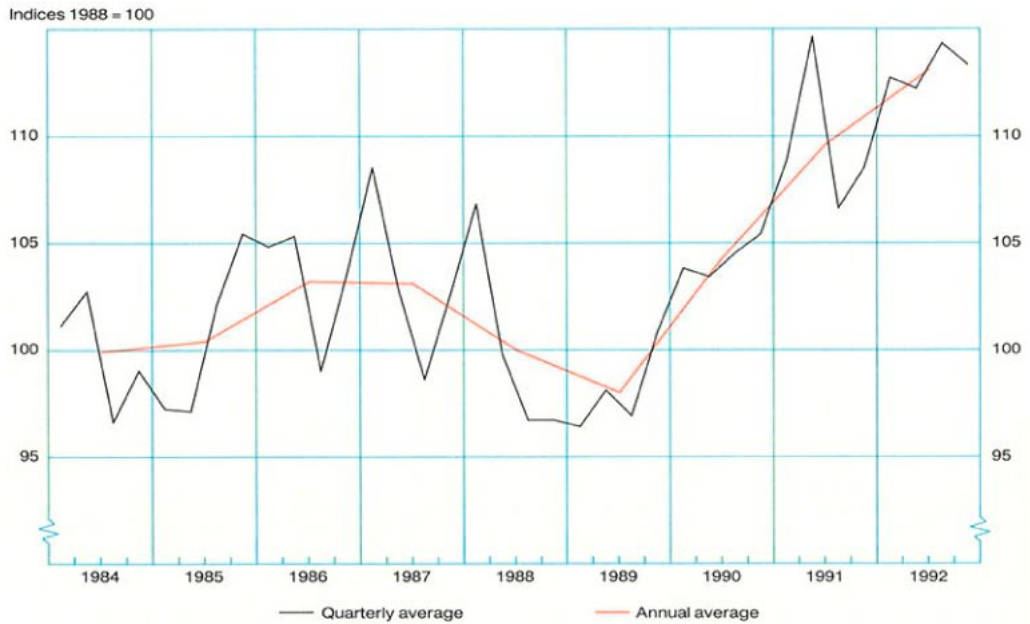
	Quantity indices		Unit value indices		Terms of trade ²⁾
	1985=100 ¹⁾		1985=100 ¹⁾		
	Exports	Imports	Exports	Imports	1985=100 ¹⁾
1983	90	87	90	90	100
1984	96	93	97	98	99
1985	100	100	100	100	100
1986	102	108	95	90	106
1987	104	106	95	86	110
1988	110	104	94	87	108
1989	118	107	100	93	107
1990	125	111	98	90	110
1991	133	116	99	90	110
1992	138	120	97	87	112
1991 1st qtr.	127	112	98	90	109
2nd „	133	116	100	91	110
3rd „	129	112	99	91	109
4th „	139	121	99	91	109
1992 1st qtr.	138	121	99	89	110
2nd „	139	120	99	89	111
3rd „	133	115	98	88	112
4th „	139	121	96	86	112

Note: Net trade (exclusive of transit trade). Excluding ships and aircraft.

¹⁾ Until end-1984 converted by the Nationalbank from original base 1980=100.

²⁾ Export unit value index as a percentage of the import unit value index.

The market shares of manufactured exports
(Current prices)



	Germany	UK	France	Netherlands	Sweden	Norway	USA	13 large markets, total ¹⁾
1988=100								
1984.....	92	104	96	90	101	113	125	100
1985.....	89	104	97	89	102	109	134	100
1986.....	92	106	102	90	106	112	127	103
1987.....	98	105	104	93	104	111	114	103
1988.....	100	100	100	100	100	100	100	100
1989.....	97	100	96	99	100	92	99	98
1990.....	110	97	95	105	112	99	103	104
1991.....	123	100	93	109	120	108	100	110
1992.....	134	103	94	112	120	108	98	113
1990 1st qtr..	102	104	97	106	111	96	101	104
2nd „ .	107	96	101	108	111	93	104	103
3rd „ .	114	93	92	103	115	105	92	105
4th „ .	115	96	89	105	112	104	112	105
1991 1st qtr..	120	98	94	111	116	111	102	109
2nd „ .	130	105	101	117	122	107	108	115
3rd „ .	120	95	90	106	116	107	93	107
4th „ .	123	101	86	102	124	106	97	109
1992 1st qtr..	130	104	92	108	122	110	97	113
2nd „ .	137	101	96	112	117	99	102	112
3rd „ .	134	103	96	116	119	110	93	114
4th „ .	134	104	91	114	123	111	100	113

Note: The market shares show the relation between Danish exports and the importing country's imports. Further details of the calculation method can be found in the Monetary Review - November 1991. Further information can be obtained from Danmarks Nationalbank, Economics and Statistics Department.

¹⁾ The countries stated, as well as Belgium, Italy, Spain, Finland, Austria and Japan, so that 80.6 per cent of exports of manufactured goods in 1991 are included in the calculation.

Government finance
(As per the central government's accounts)

	Surplus on current, investment and lending account	Net expenditure on capital account ¹⁾²⁾	Cash surplus (gross) ²⁾	Financing			
				Domestic borrowing			Foreign borrowing ⁴⁾
				Sales of government securities	Net drawings on the Nationalbank	Other ³⁾	
Kr. billion							
1983	- 54.2	60.6	- 114.9	101.1	- 10.8	1.7	22.9
1984	- 43.6	100.5	- 144.1	103.9	5.1	1.9	33.3
1985	- 26.3	111.4	- 137.7	102.4	- 6.9	7.1	35.2
1986	7.8	113.0	- 105.1	58.1	- 30.5	- 0.2	77.8
1987	3.6	98.5	- 95.0	60.4	- 6.4	- 0.1	41.1
1988	- 13.5	125.5	- 139.0	94.7	22.5	- 4.4	26.2
1989	- 18.7	107.7	- 126.4	108.7	0.6	4.0	13.1
1990	- 23.2	88.8	- 112.0	101.8	- 9.8	- 0.2	20.1
1991	- 38.3	111.8	- 150.1	114.4	33.5	0.1	2.2
1992	- 35.3	108.0	- 143.3	135.0	- 19.7	0.4	27.5
1993 ⁵⁾	- 55.0	74.7	- 129.7	...	...	...	...

1) Comprises redemption of domestic and foreign debt, bonds purchased by the Social Pension Fund, bonds bought for amortization, movements in residual accounts from previous years, and redemption received on government lending, etc.

2) In the period as from 1986 until end-1990 including change in Post Giro accounts with entities other than the Treasury. In 1991 the

financing requirement increased by approx. kr.21 billion after the restructuring of the National Post Giro as GiroBank.

3) Until end-1985 including drawings from Post Giro accounts, cf. note 2.

4) Including foreign loans re-lent to power stations.

5) Estimate, May 1993.

Central-government financing

	Central government's gross financing requirement	Redemption of foreign government loans	Redemption of domestic government loans ¹⁾	Central government's net financing requirement	Met by				
					Net sales of government securities in kroner to		Net foreign borrowing	Sales of ECU bonds	Net drawings on the Nationalbank ⁴⁾
					Business, households, etc. ²⁾	The Nationalbank, the banks, etc. ³⁾			
Kr. billion									
1983	113.4	12.5	48.1	52.8	22.9	30.1	10.5	•	- 10.7
1984	143.8	45.7	58.3	39.8	36.4	9.2	- 12.4	•	6.6
1985	134.7	30.2	77.0	27.5	12.6	13.6	5.2	•	- 3.9
1986	100.6	46.3	68.3	- 13.9	- 1.9	- 8.4	31.7	•	- 35.2
1987	94.2	27.2	67.7	- 0.7	7.8	- 15.1	14.0	•	- 7.4
1988	131.4	36.3	86.8	8.3	- 2.2	10.1	- 10.1	•	10.5
1989	130.1	17.8	89.5	22.7	11.6	7.6	- 4.7	•	8.2
1990	119.7	14.7	79.1	25.9	41.2	- 18.5	5.6	•	- 2.4
1991	136.9	30.6	64.5	41.8	36.5	13.3	- 28.4	•	20.4
1992	142.6	16.3	96.0	30.3	46.2	- 17.4	11.1	10.2	- 19.8
1992 2nd qtr..	36.9	1.7	14.2	21.0	31.0	- 10.2	- 3.9	10.2	- 6.1
3rd „ .	32.6	2.9	28.7	1.0	- 2.7	0.0	6.6	—	- 3.0
4th „ .	26.2	1.0	23.6	1.6	5.6	- 3.2	11.4	—	- 12.2
1993 1st qtr..	20.5	1.7	16.7	2.1	15.6	1.5	11.0	—	- 26.0
2nd „ .	64.5	4.9	30.3	29.3	22.5	- 5.4	- 5.3	—	17.5

Note: The financing requirement has been calculated on the basis of the Nationalbank's balance sheet. Until end-2nd quarter of 1991 in calculation no allowance has been made for fluctuations in Post Giro funds. As from 1989 excluding redemption of foreign short-term government loans (Commercial paper). As from the 3rd quarter of 1990 excluding redemption of domestic short-term government loans (Treasury bills).

1) Including repayment of compulsory savings in the 3rd quarters of 1990, 1991 and 1992.

2) Including net purchases by non-residents as shown in the table on p. 9. Including compulsory savings in 1985.

3) Including the Kingdom of Denmark Mortgage Bank and Post Giro.

4) Until end-2nd quarter of 1991 excluding fluctuations in Post Giro funds.

Government lending and borrowing
(Outstanding amounts)

13

End of period	Lending, total	Domestic debt				Foreign debt, total	Debt, total
		Total	Of which				
			Bonds ¹⁾	Net debt to the Nationalbank ²⁾	Post Giro ³⁾		
Kr. billion							
1982 Dec.	26.6	198.7	204.0	- 7.6	2.3	79.1	277.9
1983 „	29.9	256.6	272.5	- 18.8	2.9	102.5	359.1
1984 „	32.6	322.1	331.3	- 13.6	4.3	98.5	420.6
1985 „	34.6	348.0	361.2	- 18.3	5.1	92.9	441.0
1986 „	35.1	304.1	352.6	- 49.9	1.5	119.9	424.1
1987 „	35.7	290.7	346.5	- 56.9	1.0	127.6	418.3
1988 „	39.2	309.7	355.0	- 39.1	- 6.2	124.3	434.0
1989 „	42.0	340.0	377.1	- 32.2	- 4.9	116.0	456.1
1990 „	48.4	367.0	406.5	- 38.4	- 1.1	119.1	486.1
1991 „	54.2	451.0	462.4	- 11.4	•	92.3	543.3
1992 „	58.8	480.2	511.5	- 31.3	•	104.6	584.9

¹⁾ In the period as from 1985 until end-1991 including compulsory savings.

³⁾ Excluding the Treasury's and the Nationalbank's deposits with Post Giro.

²⁾ Calculated on the basis of the Nationalbank's balance sheet.

*Local governments and public utilities:
Liquid assets and debt*

End of period	Liquid assets			Debt			
	Cash-in-hand and balance with the banks ¹⁾	Investment in bonds	Total	Domestic		Foreign	Total
				Short-term	Long-term		
Kr. billion							
<i>Local government</i>							
1986	10.8	6.9	17.7	0.2	16.5	8.2	24.9
1987	8.0	6.5	14.5	0.1	16.0	10.1	26.2
1988	6.2	5.7	11.9	0.2	15.8	12.0	28.1
1989	7.6	4.9	12.6	0.4	16.6	12.9	29.9
1990	6.9	5.1	12.0	0.6	18.9	13.5	33.0
1991	7.1	5.1	12.2	0.6	20.3	13.8	34.8
1992	6.6	4.9	11.5	0.5	21.8	13.9	36.1
1992 1st qtr.	7.9	5.3	13.1	0.4	21.0	14.6	36.0
2nd „	5.6	5.3	11.0	0.5	20.8	14.6	35.9
3rd „	6.9	5.1	12.0	0.3	21.1	14.3	35.6
4th „	6.5	5.0	11.5	0.5	21.1	13.9	35.5
1993 1st qtr.	9.2	4.9	14.1	0.3	22.6	14.7	37.6
2nd „	6.6	5.2	11.8	0.4	23.3	14.4	38.0
<i>Public utilities²⁾</i>							
1986 December	1.9	2.2	4.1	2.2	15.9	14.2	32.4
1987 „	2.6	1.4	4.0	2.0	16.3	16.2	34.5
1988 „	3.7	1.8	5.5	2.4	15.5	23.0	40.9
1989 „	3.7	1.8	5.5	3.0	17.7	23.5	44.2
1990 „	3.9	1.9	5.9	4.2	17.7	27.9	49.8

¹⁾ Until end-1st quarter of 1991 including balance with Post Giro.

²⁾ Power stations, gasworks, district heating plants, telephone companies and refuse disposal plants owing debts from kr.10 million

upwards, and railways, airports and port authorities owing debts of kr.1 million upwards. Including the national and local natural gas supply system.

The banks' lending

End of period	From domestic units				From foreign units				Total
	To residents		To non-residents		To residents		To non-residents		
	Kroner	Currency	Kroner	Currency	Kroner	Currency	Kroner	Currency	
	Kr. billion								
1986 Dec.	273.2	1.4	1.5	1.0	3.7	73.0	...	30.6	384.4
1987 „	303.5	1.6	1.6	0.9	5.3	85.0	...	44.3	442.2
1988 „	297.5	2.6	2.6	2.6	9.4	104.0	1.4	57.7	477.8
1989 „	317.5	4.0	3.0	5.4	10.4	113.2	2.0	70.3	525.8
1990 „	<u>334.4</u>	15.5	5.3	13.6	14.7	121.9	3.2	77.4	<u>586.1</u>
1991 „	334.8	16.5	5.5	19.6	29.8	110.7	2.5	71.5	591.0
1992 „	319.2	17.5	11.4	18.9	15.1	97.9	3.2	66.7	549.8
1992 June	330.2	14.8	5.3	19.8	33.4	96.5	2.8	72.6	575.4
July	311.5	13.8	4.6	19.0	31.8	93.7	2.2	71.0	547.5
Aug.	311.5	15.3	4.8	17.9	29.9	93.4	2.6	69.1	544.5
Sept.	322.0	14.6	5.5	20.2	25.8	97.4	2.6	64.4	552.5
Oct.	310.4	15.3	7.5	21.9	23.3	96.0	2.4	65.3	542.1
Nov.	313.4	15.7	6.5	21.3	21.7	97.0	2.8	64.8	543.1
Dec.	319.2	17.5	11.4	18.9	15.1	97.9	3.2	66.7	549.8
1993 Jan.	304.0	16.5	8.7	16.8	15.4	93.6	2.3	62.7	519.9
Feb.	300.2	18.2	8.4	17.6	12.3	96.8	2.1	63.6	519.2
March	301.2	17.9	8.4	16.7	11.9	94.5	3.0	64.0	517.4
April	289.9	16.7	9.0	16.6	13.6	94.1	2.8	61.0	503.7
May	293.7	16.3	9.1	16.1	13.9	93.6	2.5	61.5	506.8
June	298.9	18.0	18.8	18.1	15.4	91.2	7.2	63.1	530.7

Note: Until end-December 1990 including lending to mortgage-credit institutes, etc., and excluding private mortgage-term loans. Subsidiaries in Ireland which are not credit institutions are

included in line with other foreign units (branches and subsidiary banks).

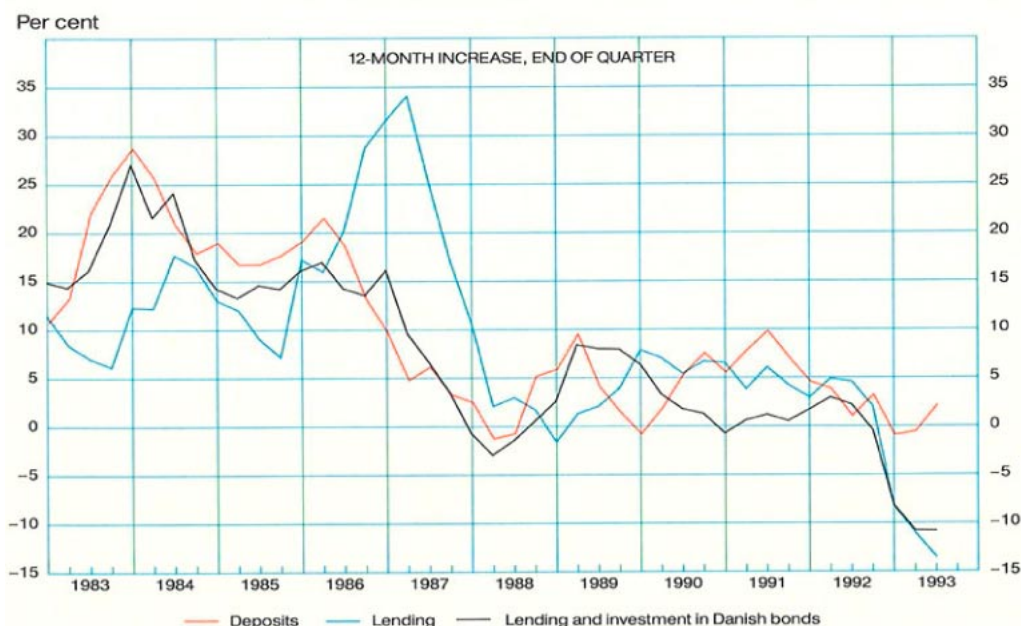
The banks' investment in bonds and shares

End of period	Domestic units				Foreign units ¹⁾		Total
	Bonds		Shares		Danish bonds in kroner	Other bonds and shares	
	Danish	Foreign	Danish	Foreign			
	Kr. billion						
1986 Dec.	176.6	5.6	17.5	5.5	2.2	7.3	214.7
1987 „	133.3	4.2	15.9	5.5	2.3	7.6	168.8
1988 „	<u>149.7</u>	6.1	17.3	6.4	2.0	10.0	<u>191.6</u>
1989 „	159.5	16.9	22.3	10.2	3.4	14.6	226.9
1990 „	<u>127.5</u>	26.1	<u>24.4</u>	<u>10.6</u>	2.7	18.4	<u>209.7</u>
1991 „	150.5	29.4	14.4	4.3	3.1	25.7	227.3
1992 „	145.1	31.0	14.8	3.5	1.4	17.9	213.7
1992 June	147.3	31.0	14.7	3.8	3.3	20.8	220.9
July	148.3	30.8	15.5	3.7	2.0	19.5	219.8
Aug.	141.7	28.3	15.3	3.6	2.0	17.7	208.5
Sept.	145.3	24.4	15.0	3.6	1.8	19.3	209.4
Oct.	138.0	25.5	15.0	3.7	1.8	20.4	204.4
Nov.	138.7	30.5	15.0	3.6	1.2	19.7	208.7
Dec.	145.1	31.0	14.8	3.5	1.4	17.9	213.7
1993 Jan.	131.5	28.9	10.8	3.3	1.4	17.8	193.7
Feb.	136.1	29.8	10.2	3.5	1.3	18.0	198.9
March	142.2	29.2	10.0	3.4	1.6	18.7	205.1
April	136.8	31.3	9.6	3.2	0.8	17.7	199.4
May	137.6	24.5	9.9	3.3	1.2	17.0	193.5
June	143.9	26.2	10.1	3.3	1.2	18.0	202.8

Note: In 1989 and 1990 the bond portfolios of the banks were influenced by repurchase agreements with the Nationalbank. As from 1991 excluding shares in subsidiary banks, etc.

¹⁾ Branches and subsidiaries abroad.

Increase in the banks' deposits, lending and investment in bonds



Note: Until end-1989 domestic lending and deposits (excluding tax-privileged deposits) with the Danish parent company. Thereafter deposits from and lending to residents in kroner from both domestic and foreign units. In the same way, investment in Danish krone bonds by foreign units is included as from 1990.

Deposits with the banks

End of period	With domestic units				With foreign units				Total
	From residents		From non-residents		From residents		From non-residents		
	Kroner	Currency	Kroner	Currency	Kroner	Currency	Kroner	Currency	
	Kr. billion								
1986 Dec.	376.9	1.9	7.7	15.0	...	0.7	0.2	10.2	412.6
1987 "	390.0	2.1	7.4	15.1	...	1.4	0.3	17.5	433.8
1988 "	413.5	4.9	8.3	35.0	0.1	1.9	2.5	24.7	490.8
1989 "	412.4	8.8	8.2	44.9	0.2	2.5	2.4	36.4	515.7
1990 "	435.2	10.6	8.2	45.5	0.1	2.9	3.2	41.2	546.8
1991 "	447.7	10.1	10.2	11.9	0.1	2.5	3.5	29.9	515.9
1992 "	443.3	13.0	9.6	16.0	0.2	1.8	5.0	24.8	513.6
1992 June	456.6	8.8	11.1	13.8	0.1	2.8	4.0	32.4	529.6
July	461.0	9.6	11.9	14.3	0.2	2.8	3.6	29.2	532.5
Aug.	461.4	10.5	9.7	14.3	0.2	2.8	4.3	27.7	530.8
Sept.	453.3	11.0	10.0	13.8	0.1	3.2	5.1	27.4	523.9
Oct.	466.3	11.8	10.5	14.1	0.1	2.8	5.4	24.4	535.4
Nov.	458.8	12.9	11.1	15.0	0.2	2.7	5.9	23.9	530.4
Dec.	443.3	13.0	9.6	16.0	0.2	1.8	5.0	24.8	513.6
1993 Jan.	452.0	12.5	11.5	16.3	0.1	1.2	5.4	25.9	525.0
Feb.	443.0	18.9	11.6	16.6	0.2	1.5	5.7	26.8	524.3
March	446.5	16.1	12.3	22.9	0.1	1.4	5.4	29.2	533.9
April	467.1	15.9	13.3	20.7	0.2	1.7	4.9	26.0	549.9
May	465.5	14.8	13.1	20.1	0.2	1.4	4.6	25.9	545.7
June	466.1	14.4	12.9	20.3	0.2	1.5	5.4	28.1	548.9

Note: Until end-December 1990 including bonds issued by banks, and deposits from mortgage-credit institutes, etc. Subsidiaries

in Ireland which are not credit institutions are included in line with other foreign units (branches and subsidiary banks).

Distribution by sector of domestic lending and deposits with the banks

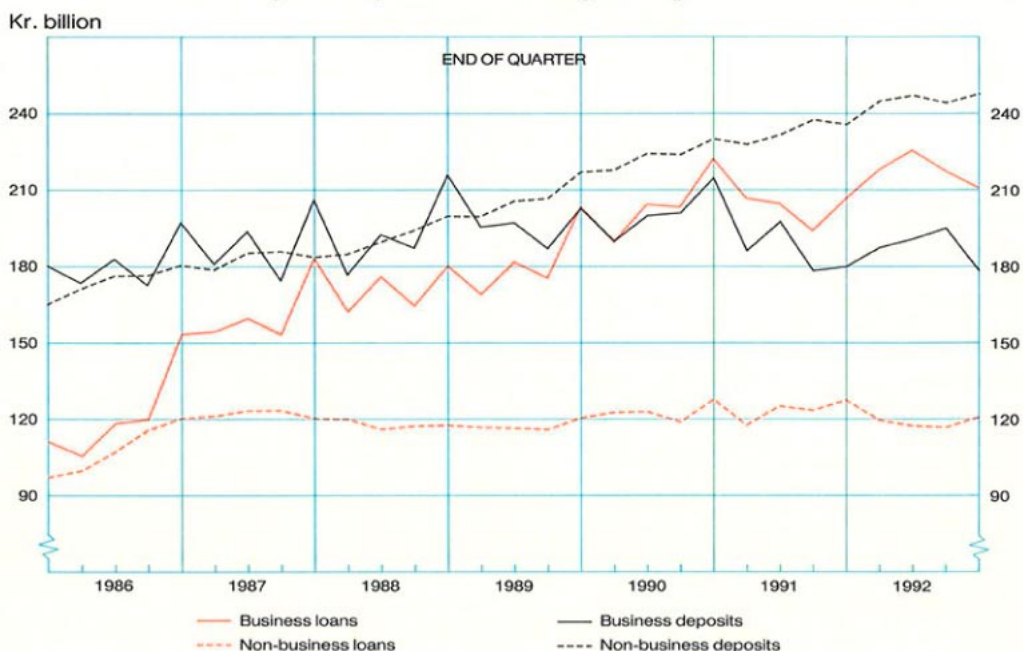
End of period	Business								Non-business		Total
	Farming, etc.	Manufacturing industries, etc. ¹⁾	Building and construction	Trading, transport, etc.	Finance, insurance, real property, etc. ²⁾	Public administration and other services	Other sectors	Total	Students	Other	
	Kr. billion										
<i>Lending</i>											
1983 Dec.....	12.7	15.0	6.2	24.0	17.5	5.9	7.9	89.2	8.1	60.7	158.0
1984 „	13.7	16.5	7.4	26.9	19.0	6.2	10.6	100.2	8.2	70.5	178.9
1985 „	15.1	19.1	6.8	30.1	27.8	7.0	5.2	111.2	8.4	88.8	208.4
1986 „	16.7	25.3	9.2	38.9	40.0	8.5	14.9	153.4	8.2	112.2	273.9
1987 „	19.0	28.0	10.9	49.4	49.0	10.1	16.9	183.3	7.4	112.9	303.5
1988 „	17.6	24.4	11.0	40.9	54.5	10.7	21.2	180.2	7.0	110.7	297.9
1989 „	17.0	31.9	11.6	49.0	66.6	10.9	16.5	203.4	6.4	114.0	323.9
1990 „	18.3	34.7	12.6	47.5	<u>65.8</u>	10.8	32.5	<u>222.3</u>	5.9	121.7	<u>349.9</u>
1991 „	17.8	31.1	14.1	46.6	65.9	14.4	16.8	206.6	5.6	121.8	334.0
1992 „	20.5	27.3	16.2	45.2	70.7	13.7	17.4	210.9	4.7	115.9	331.4
1990 March	16.5	31.5	12.6	47.0	56.8	10.9	14.6	189.7	6.3	116.3	312.3
June	18.8	31.7	12.3	46.2	63.5	11.3	20.8	204.5	6.1	116.8	327.4
Sept.	18.3	30.0	12.2	44.9	58.8	10.8	28.4	203.4	6.0	112.8	322.2
Dec.....	18.3	34.7	12.6	47.5	<u>65.8</u>	10.8	32.5	<u>222.3</u>	5.9	121.7	<u>349.9</u>
1991 March	17.6	33.3	13.7	47.0	63.5	11.7	19.9	206.8	5.8	111.8	324.4
June	19.3	30.8	12.0	47.4	63.6	12.9	18.8	204.7	5.9	119.2	329.8
Sept.	18.1	26.6	11.5	43.7	56.6	13.5	24.0	194.0	5.6	117.8	317.4
Dec.....	17.8	31.1	14.1	46.6	65.9	14.4	16.8	206.6	5.6	121.8	334.0
1992 March	19.5	29.9	16.4	49.3	69.0	13.0	20.8	217.9	5.3	114.2	337.4
June	20.6	28.0	16.8	47.5	71.7	12.9	28.0	225.6	5.0	112.3	342.9
Sept.	20.3	26.2	16.2	45.9	69.2	12.2	27.6	217.5	4.9	111.7	334.1
Dec.....	20.5	27.3	16.2	45.2	70.7	13.7	17.4	210.9	4.7	115.9	331.4
<i>Deposits</i>											
1983 Dec.....	11.1	16.0	5.0	24.7	33.5	25.2	9.6	125.2	•	123.6	248.7
1984 „	12.6	20.5	6.1	31.8	42.6	26.6	12.4	152.6	•	138.7	291.3
1985 „	14.9	23.9	7.6	37.9	57.0	31.0	8.1	180.5	•	165.1	345.6
1986 „	14.7	24.0	8.8	37.4	64.5	31.7	16.3	197.4	•	180.7	378.2
1987 „	14.8	27.2	8.9	41.0	69.7	25.8	19.2	206.5	•	184.0	390.5
1988 „	14.5	26.6	10.1	33.7	80.4	25.4	25.5	216.2	•	200.1	416.4
1989 „	16.1	26.5	8.7	33.7	71.4	26.1	20.8	203.3	•	217.5	420.8
1990 „	15.2	28.4	8.3	34.5	<u>71.3</u>	25.8	31.8	<u>215.2</u>	•	230.6	<u>445.8</u>
1991 „	16.0	25.6	7.8	34.3	51.0	29.5	16.3	180.5	•	236.2	416.7
1992 „	16.3	25.5	7.8	31.8	56.2	24.5	16.9	179.0	•	248.2	427.2
1990 March	15.9	24.9	7.9	29.9	62.5	26.9	22.5	190.4	•	218.4	408.8
June	15.9	26.4	7.8	31.4	70.0	26.9	22.0	200.4	•	224.9	425.3
Sept.	14.8	26.9	7.7	31.9	63.5	27.2	29.4	201.5	•	224.4	425.9
Dec.....	15.2	28.4	8.3	34.5	<u>71.3</u>	25.8	31.8	<u>215.2</u>	•	230.6	<u>445.8</u>
1991 March	15.7	25.9	8.5	32.4	60.1	25.3	18.9	186.7	•	228.4	415.1
June	16.6	27.4	7.7	35.1	59.3	28.8	23.2	198.1	•	232.2	430.3
Sept.	16.0	25.8	7.2	32.7	50.5	28.2	18.4	178.9	•	238.1	417.0
Dec.....	16.0	25.6	7.8	34.3	51.0	29.5	16.3	180.5	•	236.2	416.7
1992 March	16.2	28.3	8.3	33.4	57.8	26.1	18.0	188.0	•	245.5	433.5
June	16.8	27.9	7.5	35.9	59.5	25.0	18.8	191.4	•	247.6	439.0
Sept.	17.7	27.8	7.9	35.6	61.2	27.8	17.6	195.6	•	244.7	440.3
Dec.....	16.3	25.5	7.8	31.8	56.2	24.5	16.9	179.0	•	248.2	427.2

Source: Danmarks Statistik.

Note: In 1991 and 1992 excluding newly-established banks.

¹⁾ Including power, gas, water and heating supplies and extraction of raw materials.²⁾ Until end-December 1990 including lending to and deposits from mortgage-credit institutes, etc.

Distribution by sector of domestic lending and deposits with the banks



The external position of the banks

End of period	Assets				Liabilities				Net assets
	Lending	Credit institutions, etc.	Other accounts	Total	Deposits ¹⁾	Credit institutions, etc.	Other accounts	Total	
Kr. billion									
1982 Dec.	10.4	43.4	2.9	56.7	9.6	43.9	6.0	59.5	- 2.8
1983 "	1.0	63.7	3.1	67.7	10.5	58.4	5.9	74.8	- 7.0
1984 "	1.4	86.9	3.8	92.1	12.9	79.4	7.2	99.5	- 7.4
1985 "	1.6	122.4	6.9	130.8	20.2	111.6	11.2	143.0	- 12.1
1986 "	2.5	108.8	12.2	123.4	22.6	96.8	14.0	133.5	- 10.1
1987 "	2.6	139.1	10.9	152.5	22.3	119.4	15.1	156.9	- 4.3
1988 "	5.2	185.3	13.7	204.2	43.3	147.6	21.3	212.2	- 8.0
1989 "	8.4	202.1	28.5	239.0	53.1	178.8	20.5	252.4	- 13.4
1990 "	18.9	216.0	38.5	273.5	53.7	202.2	19.1	275.0	- 1.5
1991 "	41.7	206.6	41.9	290.1	22.4	208.5	51.4	282.3	7.8
1992 "	51.1	195.4	45.1	291.6	25.9	165.9	35.7	227.5	64.1
1992 April	43.6	224.6	53.0	321.2	24.1	224.0	55.3	303.4	17.8
May	43.0	234.1	48.0	325.1	24.4	210.7	53.0	288.1	37.0
June	43.2	234.0	44.8	322.1	25.1	206.9	48.5	280.5	41.6
July	42.3	224.1	44.9	311.2	26.6	196.9	44.6	268.1	43.1
Aug.	42.0	220.6	40.8	303.4	24.3	191.4	42.8	258.4	44.9
Sept.	45.8	209.4	36.4	291.7	24.0	170.9	39.3	234.2	57.4
Oct.	50.6	215.6	37.6	303.9	24.8	172.4	41.7	238.9	65.0
Nov.	49.2	213.9	43.9	307.0	26.3	179.7	37.9	243.9	63.1
Dec.	51.1	195.4	45.1	291.6	25.9	165.9	35.7	227.5	64.1
1993 Jan.	46.2	211.5	39.9	297.6	28.1	165.9	36.7	230.7	66.9
Feb.	46.7	192.9	39.8	279.5	28.5	139.8	37.5	205.8	73.7
March	46.1	198.8	39.7	284.6	35.4	135.9	34.7	206.0	78.6
April	47.1	204.0	41.4	292.5	34.3	133.5	35.4	203.3	89.2
May	46.2	205.5	34.7	286.3	33.5	133.4	34.5	201.5	84.8
June	56.8	207.2	37.1	301.2	33.5	135.3	38.3	207.0	94.1

Note: The external position is the difference between assets and liabilities vis-à-vis non-residents recorded in the balance sheet. The statistics are compiled on the basis of activities in Denmark, thus including accounts with the banks' foreign

units. Exclusive of guarantees included in the balance sheet until end-December 1990.

¹⁾ Until end-December 1990 including bonds issued by banks, which are thereafter included under "Other accounts".

*Distribution by currency and country
of the banks' external accounts*

End of period	Assets			Liabilities		
	September 1992	December 1992	March 1993	September 1992	December 1992	March 1993
	Kr. billion					
Distribution by currency						
<i>In kroner</i>						
with own units	20.4	17.2	21.5	1.7	3.2	5.2
with other banks, etc.	16.4	17.6	17.8	12.7	10.2	7.7
with non-banks	7.1	6.5	8.3	8.6	8.8	10.8
In kroner, total	43.9	41.4	47.5	23.0	22.2	23.7
<i>In foreign currency</i>						
with own units	89.2	113.6	97.4	12.7	26.0	22.5
with other banks, etc.	57.1	57.1	57.0	147.1	152.0	128.2
with non-banks	42.3	45.6	50.7	16.1	17.7	20.5
In foreign currency, total	188.6	216.3	205.1	175.9	195.7	171.1
Total	232.5	257.6	252.7	198.9	217.9	194.9
Distribution by country						
Belgium	3.7	3.8	7.4	14.2	15.5	14.9
Germany	14.3	13.9	11.5	16.4	19.0	17.4
France	5.0	4.0	8.5	6.8	9.3	7.9
Greece	0.4	0.4	0.2	0.2	0.2	0.2
Netherlands	2.2	3.8	5.4	9.8	8.5	12.3
Ireland	16.8	19.2	19.3	0.7	0.6	0.8
Italy	2.5	2.8	3.3	4.3	4.5	3.0
Luxembourg	17.2	21.4	17.6	19.9	18.2	18.6
Portugal	0.8	0.3	0.2	0.3	0.3	0.5
Spain	2.6	1.6	1.5	1.7	3.5	1.3
UK	29.1	28.9	46.6	31.2	35.4	32.5
<i>EC countries, total</i>	<i>94.5</i>	<i>100.1</i>	<i>121.5</i>	<i>105.5</i>	<i>114.8</i>	<i>109.3</i>
Finland	4.1	3.4	3.4	1.8	0.6	1.2
Norway	5.7	5.2	4.9	2.0	1.1	2.1
Sweden	21.1	24.6	20.6	3.7	3.4	2.1
<i>Nordic countries, total¹⁾</i>	<i>30.9</i>	<i>33.4</i>	<i>29.1</i>	<i>7.6</i>	<i>5.1</i>	<i>5.5</i>
Canada	1.8	0.9	3.8	1.1	1.1	1.0
Japan	3.8	2.7	4.9	0.1	0.3	0.7
Switzerland	5.6	6.7	4.6	10.5	12.8	7.6
USA	20.6	34.4	13.8	14.2	17.4	11.3
Austria	0.9	0.5	0.5	4.9	4.2	4.3
Australia/New Zealand	0.3	0.4	0.1	0.2	0.1	0.1
OECD countries, total	158.3	179.1	178.2	144.0	155.8	139.7
Cayman Islands	18.1	15.8	12.5	3.4	3.2	2.7
Hong Kong	2.9	2.8	4.0	0.9	1.5	2.2
Singapore	38.8	38.1	40.8	2.0	3.2	2.7
Other Offshore Banking Centres	0.2	0.1	0.1	0.9	0.8	0.6
Gibraltar	9.2	12.5	10.9	1.8	1.9	2.0
Other European countries	1.5	1.2	1.3	3.0	2.7	3.3
Other Latin American countries	0.2	0.3	0.3	0.2	0.1	0.2
Other Middle East countries	1.3	1.3	1.4	2.0	2.0	2.2
Other African countries	0.3	0.3	0.2	0.6	0.4	0.4
Other Asian countries	0.9	0.6	1.1	2.0	1.5	0.7
Unallocated, etc.	1.0	5.6	1.9	4.3	9.8	6.2
International securities issues	•	•	•	34.1	34.7	32.0
Total	232.5	257.6	252.7	198.9	217.9	194.9

Note: As reported to the Nationalbank by banks with the largest external accounts. Until end-September 1992 on the basis of 7 banks and thereafter on the basis of 12 banks, including 2 branches of foreign banks. Compiled on the basis of the accounts of the resident banking units. The statistics thus

include the parent company's accounts with branches and subsidiary banks abroad, and for the foreign owned branches accounts with the parent company and sister companies abroad. Excluding guarantees and shares.

¹⁾ Including Iceland.

Distribution by country of the banks' external assets

19

(Consolidated statement)

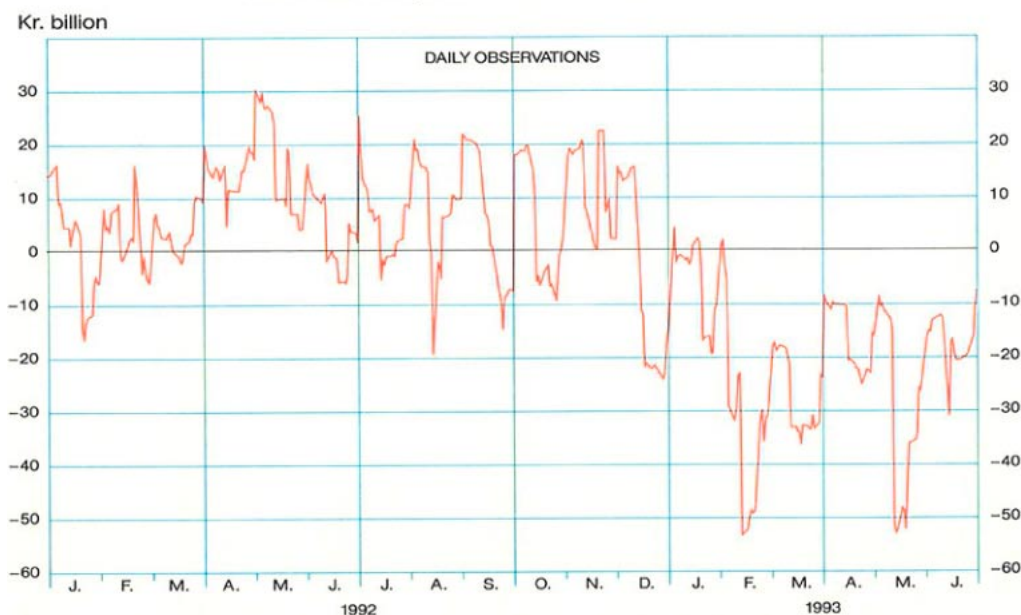
End of period	June 1991	December 1991	June 1992	December 1992
	Kr. billion			
Belgium	7.3	6.5	8.2	4.5
Germany	19.6	14.1	20.8	17.9
France	5.9	4.2	5.1	4.6
Greece	2.1	2.3	1.9	1.6
Netherlands	3.7	3.7	5.8	6.2
Ireland	1.7	0.8	1.8	3.1
Italy	4.7	4.4	4.4	2.0
Luxembourg	9.2	8.2	9.0	8.7
Portugal	0.9	1.2	1.7	0.8
Spain	3.4	2.9	3.2	2.2
UK	53.7	44.4	55.4	53.3
<i>EC countries, total</i>	<i>112.2</i>	<i>92.7</i>	<i>117.2</i>	<i>105.0</i>
Finland	7.8	7.7	6.5	5.2
Norway	10.8	9.8	10.6	8.7
Sweden	28.0	29.3	26.8	30.5
<i>Nordic countries, total¹⁾</i>	<i>47.2</i>	<i>47.5</i>	<i>44.8</i>	<i>45.2</i>
Canada	1.9	2.5	4.9	1.6
Japan	7.7	6.3	6.7	4.9
Switzerland	7.9	6.2	8.5	6.7
USA	40.8	22.6	26.9	30.8
Austria	1.4	0.7	1.2	0.5
Australia/New Zealand	1.2	1.1	1.0	0.9
OECD countries, total	220.4	179.6	211.2	195.6
Cayman Islands	1.1	2.1	0.6	6.8
Hong Kong	5.3	3.3	5.2	2.7
Singapore	3.7	2.5	3.3	8.6
Other Offshore Banking Centres	1.5	1.4	1.1	1.1
Gibraltar	1.3	1.3	1.4	2.5
Other European countries	4.1	3.7	4.1	3.2
Other Latin American countries	1.4	1.4	1.4	1.1
Other Middle East countries	0.9	0.9	1.8	1.4
Other African countries	0.7	0.5	0.4	0.3
Other Asian countries	2.8	2.9	3.1	1.7
Unallocated	0.1	0.0	0.0	0.0
Total	243.3	199.6	233.7	224.9

Note: As reported to the Nationalbank by Danish banks with the largest external accounts. Until end-June 1992 on the basis of 6 banks, thereafter on the basis of 9 banks. Calculated on a consolidated basis, i.e. including branches and subsidiary banks abroad. Accounts between parent companies in Den-

mark and their foreign units, as well as external intra-group accounts, are thus excluded. Furthermore, accounts with residents and the claims of foreign units on local customers in local currency have been excluded. Excluding guarantees and shares.

¹⁾ Including Iceland.

The banks' net position with the Nationalbank



The banks' balances with the Nationalbank

End of period ¹⁾	Claims		Debt			Total net position	Lending concerning decentralized bank-note holdings	Special deposits ⁴⁾	Bond-repurchase accounts ⁵⁾
	Certificates of deposit ²⁾	Deposits	Drawings on current account ³⁾	Repurchase agreements in government securities	Other lending				
Kr. million									
1982.....	•	18	3 464	•	2 810	- 6 256	•	•	•
1983.....	•	57	2 886	•	2 567	- 5 396	•	•	•
1984.....	•	124	9 776	•	—	- 9 652	•	•	•
1985.....	23 777	9	14 521	•	8 231	1 034	•	3 263	•
1986.....	7 811	33	6 929	•	35 514	- 34 599	•	2 036	•
1987.....	—	160	17 116	•	700	- 17 656	•	754	•
1988.....	•	5 884	612	•	700	4 572	•	•	•
1989.....	•	351	17 913	•	475	- 18 037	20	•	6 376
1990.....	•	1 748	3 055	•	—	- 1 307	1 013	•	8 764
1991.....	•	14 369	5	•	—	14 364	1 085	•	2 016
1992.....	5 741	3 338	0	23 781	—	- 14 702	1 073	•	•
1992 June....	22 978	522	34	21 510	—	1 956	805	•	•
July....	29 141	524	56	21 439	—	8 170	859	•	•
Aug....	29 677	947	30	20 612	—	9 982	804	•	•
Sept....	1 328	4 464	10	13 069	—	- 7 287	1 080	•	•
Oct....	17 746	6 998	10	22 103	—	2 631	915	•	•
Nov....	25 683	600	11	14 513	9 224	2 535	843	•	•
Dec....	5 741	3 340	8	23 781	—	- 14 708	1 073	•	•
1993 Jan....	18 135	4 338	11	32 479	—	- 10 017	994	•	•
Feb....	12 936	483	1	44 026	—	- 30 608	852	•	•
March..	15 502	10 715	10	45 172	4 550	- 23 515	855	•	•
April...	22 440	460	0	38 507	—	- 15 607	813	•	•
May....	17 482	1 042	0	43 442	1 100	- 26 018	1 058	•	•
June....	30 693	12 458	2	50 309	—	- 7 160	1 178	•	•

¹⁾ The year-end figures are from the annual statements, while monthly figures are from the monthly balance sheets.

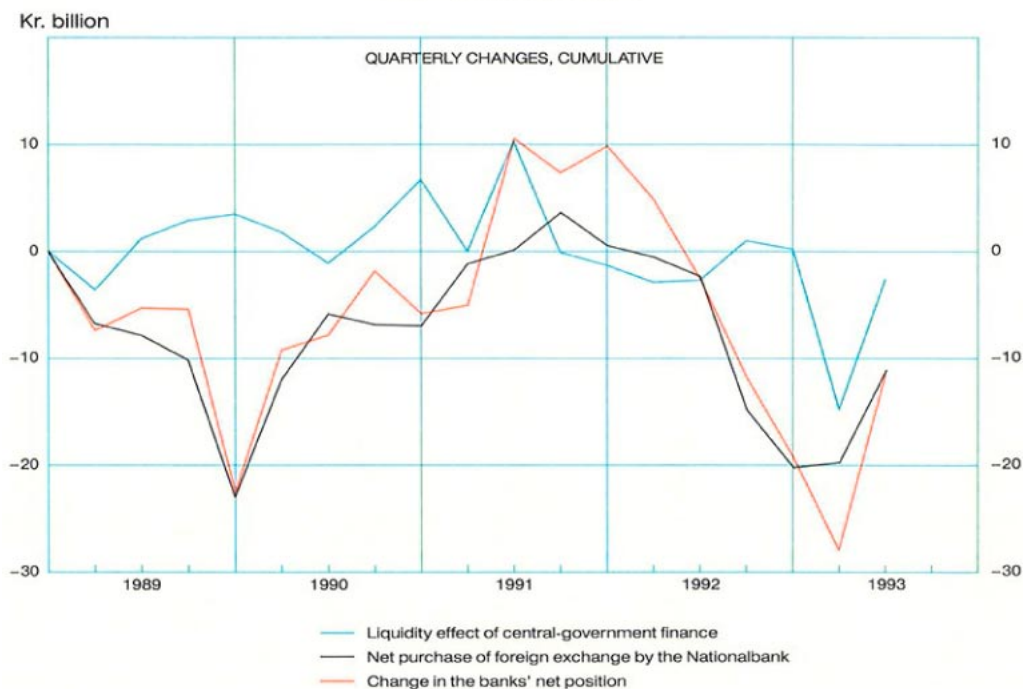
²⁾ Nominal value.

³⁾ Comprises loans within borrowing limits (until end-July 1985), borrowing on certificates of deposit (in the period as from August 1985 until end-July 1987), drawings on current account (in the period as from August 1987 until end-March 1992) and balances in connection with sales of securities denominated in foreign currency.

⁴⁾ As a consequence of amounts exceeding the basic rate of increase fixed for individual banks' domestic deposits, pursuant to the deposit monitoring system. The deposit monitoring system was suspended as from January 1988 and was discontinued on March 1, 1991.

⁵⁾ Proceeds from established bond-repurchase agreements, which were included in the same way as general deeds of pledge as security for current-account drawings.

Factors affecting the banks' net position
with the Nationalbank



	Central-government finance			Net purchase of foreign exchange by the Nationalbank ⁴⁾	The Nationalbank's bond purchases ⁵⁾	Other factors ⁶⁾	The banks' net position with the Nationalbank	
	Gross financing requirement ¹⁾	Gross sales of government securities (-) ²⁾	Liquidity effect ³⁾				Change	End of period
Kr. billion								
1983.....	100.9	- 101.1	- 0.2	2.0	1.4	- 2.3	0.9	- 5.4
1984.....	98.1	- 103.9	- 5.7	8.5	- 1.5	- 5.5	- 4.3	- 9.7
1985.....	104.5	- 103.2	- 1.3	11.9	- 0.3	- 2.2	10.7	1.0
1986.....	54.3	- 57.9	- 3.6	- 48.5	12.1	4.3	- 35.6	- 34.6
1987.....	67.0	- 60.4	6.6	16.0	- 0.1	- 5.6	16.9	- 17.7
1988.....	95.1	- 94.7	0.4	18.8	- 0.1	3.1	22.2	4.6
1989.....	112.2	- 108.7	3.6	- 23.0	- 0.3	- 2.9	- 22.6	- 18.0
1990.....	105.0	- 101.8	3.2	16.0	2.0	- 4.4	16.7	- 1.3
1991.....	106.3	- 114.4	- 8.0	7.5	12.0	4.2	15.7	14.4
1992.....	126.3	- 124.8	1.5	- 20.7	- 11.8	2.0	- 29.1	- 14.7
1991 1st qtr..	25.8	- 32.5	- 6.7	5.8	1.3	0.4	0.8	- 0.5
2nd „ .	47.9	- 37.6	10.3	1.3	0.5	3.5	15.6	15.1
3rd „ .	16.9	- 27.3	- 10.4	3.5	2.2	1.5	- 3.2	11.9
4th „ .	15.7	- 16.9	- 1.2	- 3.1	8.0	- 1.2	2.5	14.4
1992 1st qtr..	36.2	- 37.8	- 1.6	- 1.1	- 7.2	4.8	- 5.0	9.4
2nd „ .	35.2	- 35.0	0.2	- 1.8	- 3.0	- 2.8	- 7.4	2.0
3rd „ .	29.7	- 26.0	3.7	- 12.5	- 1.4	0.9	- 9.2	- 7.3
4th „ .	25.2	- 26.0	- 0.8	- 5.4	- 0.2	- 1.0	- 7.4	- 14.7
1993 1st qtr..	18.8	- 33.8	- 15.0	0.5	1.3	4.4	- 8.8	- 23.5
2nd „ .	59.6	- 47.4	12.2	8.6	2.0	- 6.4	16.4	- 7.2

¹⁾ Excluding redemption of foreign government loans. See also the note on the bottom of p. 12.

²⁾ Gross sales of government bonds and Treasury notes and net sales of Treasury bills.

³⁾ Central government's drawings on the Nationalbank adjusted for central government's net borrowing abroad and sales of ECU bonds.

⁴⁾ Increase in Denmark's international liquidity adjusted for central government's net borrowing abroad and sales of ECU bonds.

⁵⁾ Adjusted for the Nationalbank's trading in ECU bonds.

⁶⁾ Including *inter alia* changes in note and coin circulation, changes in the Nationalbank's accounts with the Danish Export Finance Corporation and the Kingdom of Denmark Mortgage Bank and until end-2nd quarter of 1991 fluctuations in Post Giro funds.

End of period	Notes and coin ¹⁾	Deposits with the banks ²⁾			Money stock	Year-on-year increase in money stock
		On demand	At notice	Time deposits ³⁾		
Kr. billion						Per cent
1986	18.8	140.6	58.1	115.9	333.4	8.8
1987	20.4	149.2	45.5	128.7	343.8	3.1
1988	21.9	184.9	42.0	107.7	356.5	3.7
1989	23.1	187.8	37.1	120.0	367.9	1.0
1990	23.6	202.8	42.4	122.2	391.0	6.3
1991	24.2	224.7	36.9	93.1	379.0	4.2
1992	25.0	218.5	33.6	97.6	374.6	- 1.2
1992 June	24.6	227.2	34.4	101.9	388.1	- 0.4
July	24.4	233.3	33.9	101.5	393.2	1.2
Aug.	23.5	229.2	35.3	105.9	393.8	4.1
Sept.	23.5	223.8	35.3	104.1	386.8	1.7
Oct.	24.2	227.4	33.8	116.5	401.8	2.8
Nov.	24.2	225.2	34.0	112.1	395.5	2.5
Dec.	25.0	218.3	33.5	97.3	374.0	- 1.4
1993 Jan.	24.0	223.6	31.6	102.9	382.0	1.0
Feb.	23.6	217.7	30.8	107.6	379.7	0.7
March ...	23.3	221.9	30.2	105.5	380.9	0.2
April	24.6	232.8	30.4	114.7	402.5	1.7
May	24.6	237.7	30.5	106.9	399.6	1.3
June	24.8	231.4	30.6	112.2	399.0	2.8

Note: In the calculation of the rates of increase adjustment has been made for breaks in series. Until end-1990 including mortgage-credit institutes' deposits with the banks.

1) Notes and coin in circulation, excluding the banks' holdings.

2) Including deposits with Post Giro. Accounts with residents in

domestic units in kroner and foreign exchange. Excluding tax-privileged deposits, apart from premium-savings accounts.

3) Including bonds, etc. with an original maturity of up to 2 years issued by banks.

Factors affecting the money stock

	Central government's drawings on the Nationalbank ¹⁾	Increase in bank lending ²⁾	Bond purchases ³⁾	Increase (-) in tax-privileged deposits, etc. ⁴⁾	Increase (-) in deposits from mortgage-credit institutes, etc.	Change in the external position of the banks	Change in Denmark's international liquidity, etc. ⁴⁾⁶⁾	Other factors ⁷⁾	Total change in money stock
Kr. billion									
1986	- 3.6	69.7	8.2	- 5.2	•	- 1.2	- 51.8	11.0	27.0
1987	6.6	30.0	- 30.2	- 5.7	•	4.1	14.6	- 9.1	10.4
1988	0.4	- 4.0	17.5	- 8.2	•	- 2.0	22.4	- 13.5	12.7
1989	3.6	30.0	11.6	- 5.9	•	- 6.9	- 19.3	- 9.4	3.7
1990	3.2	31.8	- 25.6	- 5.4	•	9.5	22.2	- 12.6	23.0
1991	- 8.0	1.7	7.0	- 6.1	- 6.5	11.4	13.7	- 25.2	- 12.0
1992	1.5	- 6.5	- 29.1	- 4.3	5.0	50.3	- 15.5	- 5.8	- 4.4
1992 2nd qtr..	0.2	6.2	- 14.5	- 0.6	- 1.8	18.6	0.4	- 0.7	7.9
3rd „ .	3.7	- 8.4	- 5.4	0.6	7.1	15.8	- 11.9	- 2.8	- 1.3
4th „ .	- 0.8	0.1	- 1.1	- 6.1	- 7.2	2.4	- 3.8	4.2	- 12.2
1993 1st qtr..	- 15.0	- 10.0	- 5.2	2.5	4.4	18.8	2.0	8.8	6.3
2nd „ .	12.2	- 2.1	2.2	- 1.0	- 18.0	15.5	7.4	1.9	18.1

1) Adjusted for central government's net borrowing abroad and sales of ECU bonds, i.e. equivalent to the sum of the last three columns in the bottom half of p. 12.

2) Until end-1990 including lending to mortgage-credit institutes, etc.

3) The Nationalbank, the banks, the Kingdom of Denmark Mortgage Bank and Post Giro.

4) Adjusted for the Nationalbank's trading in ECU bonds.

5) Excluding premium-savings accounts, and with the addition of bonds with an original maturity of more than 2 years issued by banks.

6) Corrected for exchange-rate adjustment, etc. of the international liquidity as well as net borrowing abroad by the central government, the Kingdom of Denmark Mortgage Bank and the Danish Export Finance Corporation. Furthermore adjusted for the proceeds of central government's sales of ECU bonds.

7) Residual amounts, including *inter alia* increases in lending by the Kingdom of Denmark Mortgage Bank and the Danish Export Finance Corporation, increases in bank holdings of uncleared cheques, additions (-) to the banks' net capital and subordinate capital investments from residents.

End of period	Lending in kroner ¹⁾	Krone bonds ²⁾	Tax-privileged deposits (-) ³⁾	Total	Change in relation to the previous year ⁴⁾
1986 Dec.....	284.4	178.5	74.1	388.8	•
1987 „	315.5	135.6	79.4	371.7	- 8.1
1988 „	313.4	151.7	87.2	377.9	5.5
1989 „	334.5	169.2	92.3	411.5	28.8
1990 „	356.3	138.9	98.1	397.1	- 10.1
1991 „	364.6	153.0	102.6	415.0	3.0
1992 „	334.3	145.3	107.2	372.5	- 47.7
1991 1st qtr..	335.6	137.1	97.5	375.2	- 4.5
2nd „ .	347.8	133.3	97.4	383.6	0.9
3rd „ .	340.8	150.8	96.4	395.2	- 2.9
4th „ .	364.6	153.0	102.6	415.0	3.0
1992 1st qtr..	351.9	158.0	101.3	408.6	9.4
2nd „ .	363.6	149.3	101.9	411.0	5.3
3rd „ .	347.8	146.1	101.0	392.8	- 7.6
4th „ .	334.3	145.3	107.2	372.5	- 47.7
1993 1st qtr..	313.1	143.4	105.0	351.5	- 59.4
2nd „ .	314.3	144.6	106.4	352.6	- 60.7

Note: Accounts with residents in the banks' domestic and foreign units.

1) Until end-December 1990 including lending to mortgage-credit institutes, etc.

2) Including bond-repurchase agreements between the Nationalbank and the banks.

3) Excluding premium-savings accounts.

4) Excluding value adjustment of krone bonds. Adjustment has been made for breaks in series.

Central government's net financing requirement and expansion of credit to the private sector, local governments, etc. through main sources of finance

	Net sales of domestic government paper	Drawings on the Nationalbank ¹⁾	Central government's net financing requirement ²⁾	Net lending from the banks ³⁾		Net lending from mortgage-credit institutes, etc. ⁴⁾	Foreign sources		Credit expansion to the private sector and local governments, etc. total
				Kroner	Foreign exchange		Recorded borrowing ⁵⁾	Supplier credits, etc.	
Kr. billion									
1987.....	- 7.3	6.6	- 0.7	31.1	12.2	54.0	9.1	- 1.3	105.1
1988.....	7.9	0.4	8.3	- 2.1	20.0	52.0	7.6	- 2.1	75.4
1989.....	19.2	3.6	22.7	21.1	10.6	11.9	10.1	- 3.4	50.3
1990.....	22.8	3.2	25.9	21.8	20.2	21.0	21.3	- 4.9	79.3
1991.....	49.8	- 8.0	41.8	8.2	- 10.2	26.8	12.3	5.1	42.3
1992.....	28.8	1.5	30.3	- 30.3	- 11.9	12.4	3.9	- 10.2	- 35.9
1991 1st qtr..	19.3	- 6.7	12.6	- 20.7	6.4	9.8	- 3.0	0.0	- 7.6
2nd „ .	9.1	10.3	19.4	12.1	1.0	12.5	2.0	2.4	30.2
3rd „ .	15.7	- 10.4	5.2	- 7.0	- 7.2	2.3	5.7	0.6	- 5.5
4th „ .	5.9	- 1.2	4.7	23.8	- 10.4	2.2	7.6	2.2	25.3
1992 1st qtr..	8.3	- 1.6	6.8	- 12.7	- 2.9	2.6	10.1	- 3.7	- 6.6
2nd „ .	20.8	0.2	21.0	11.7	- 13.1	6.1	5.5	- 2.3	7.8
3rd „ .	- 2.7	3.7	1.0	- 15.8	0.7	2.8	- 8.9	- 2.1	- 23.4
4th „ .	2.4	- 0.8	1.6	- 13.5	3.4	1.0	- 2.7	- 2.0	- 13.7
1993 1st qtr..	17.1	- 15.0	2.1	- 21.2	- 3.0	- 0.7	8.5	- 4.6	- 21.1
2nd „ .	17.1	12.2	29.3	1.2	- 3.1	11.7	- 7.0	...	...

1) Central government's drawings on the Nationalbank adjusted for central government's net borrowing abroad and sales of ECU bonds.

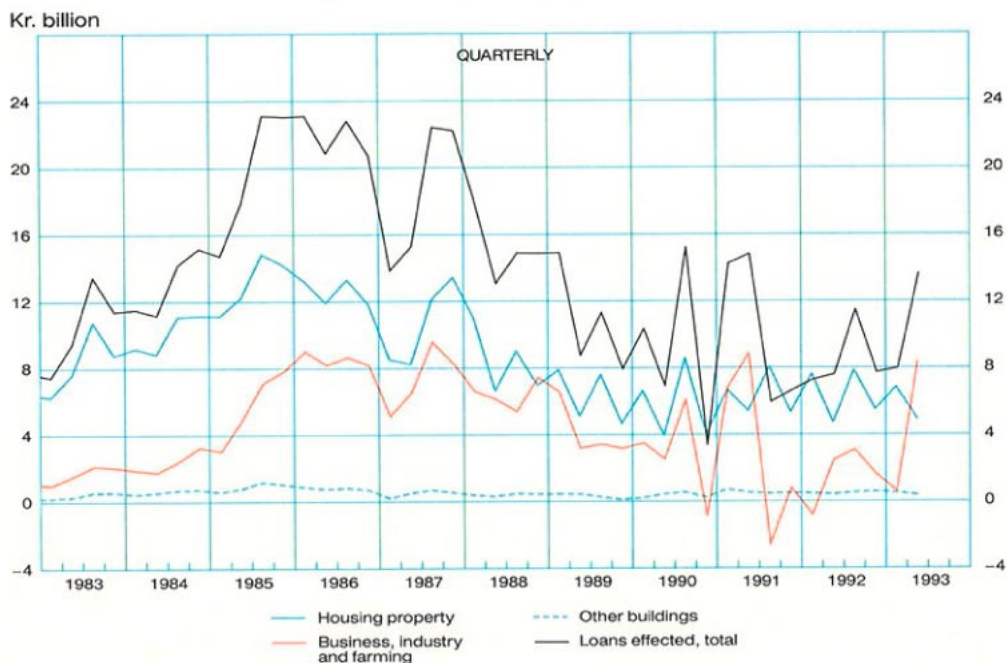
2) See p. 12, bottom.

3) Including Danish banks' foreign units. Until end-1990 including lending to mortgage-credit institutes, etc.

4) Net supply of quoted krone bonds, excluding government paper.

5) Borrowing abroad by companies and private individuals, as well as by local governments and public utilities, with deduction of borrowing from Danish banks' foreign units.

Lending activities of mortgage-credit institutes



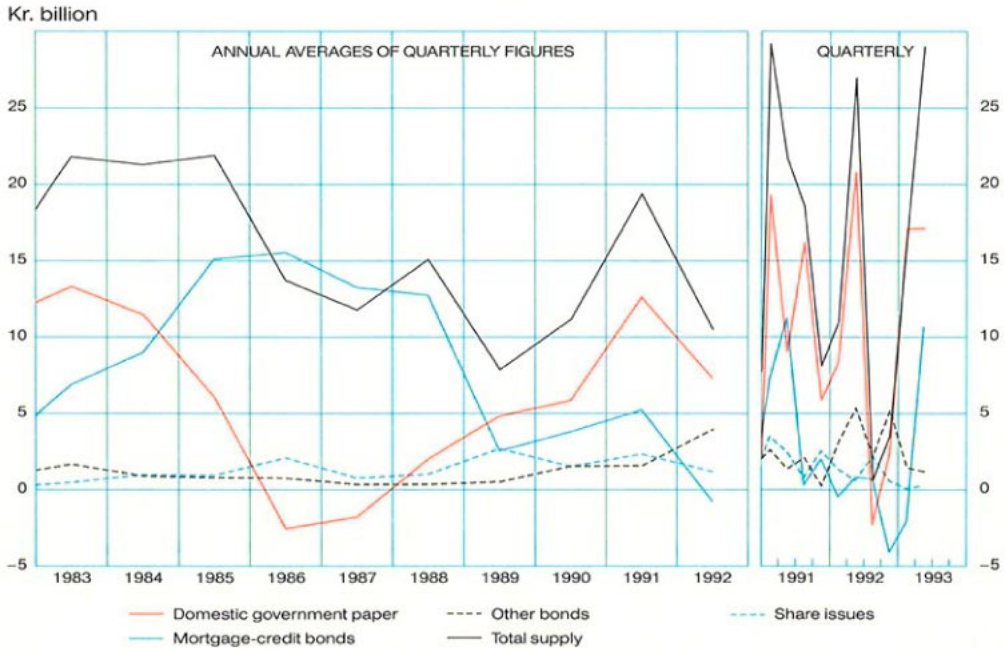
	Loans offered ¹⁾	Loans effected ²⁾									Total
		Housing property					Business, industry and farming		Other buildings		
		Owner-occupied				Rental houses	Total	Farm buildings		Business and industry	
		New building	Rebuilding and extension	Change of ownership	Other						
Kr. billion											
1983	49.3	4.2	5.5	15.6	0.6	7.4	33.3	2.9	3.9	1.6	41.8
1984	62.9	5.5	8.8	17.6	0.5	7.8	40.2	3.6	5.8	2.4	52.1
1985	116.6	9.6	12.7	19.6	1.6	9.0	52.3	7.4	15.5	3.6	78.8
1986	112.8	12.1	7.9	19.3	0.8	10.2	50.2	12.7	21.5	3.2	87.6
1987	85.9	15.5	3.4	15.0	0.0	10.8	42.3	8.1	21.5	2.0	73.8
1988	56.0	8.6	2.5	13.1	0.1	12.1	33.5	6.2	19.5	1.6	60.9
1989	61.4	5.3	1.6	11.4	0.1	12.0	25.2	5.2	11.3	1.3	43.0
1990	59.1	2.6	1.1	11.8	0.1	13.6	23.1	4.3	7.1	1.4	36.0
1991	53.8	1.7	0.9	18.5	0.3	14.1	25.5	4.4	9.7	2.2	41.8
1992	63.6	1.0	1.2	19.7	3.9	12.7	25.7	2.9	3.7	2.0	34.2
1991 1st qtr.	14.6	0.4	0.2	3.3	0.0	4.8	6.7	1.5	5.4	0.7	14.3
2nd „	11.0	0.4	0.2	4.1	0.1	2.7	5.4	2.2	6.7	0.5	14.8
3rd „	11.7	0.4	0.2	5.6	0.1	4.8	8.1	0.0	- 2.6	0.5	6.0
4th „	16.5	0.5	0.3	5.5	0.1	1.8	5.3	0.7	0.2	0.5	6.7
1992 1st qtr.	20.5	0.3	0.3	5.2	0.1	4.6	7.6	0.7	- 1.4	0.5	7.3
2nd „	19.3	0.2	0.2	5.3	0.0	1.9	4.7	0.6	2.0	0.4	7.6
3rd „	10.0	0.3	0.4	5.1	2.1	3.7	7.8	0.8	2.3	0.5	11.5
4th „	13.7	0.2	0.4	4.0	1.7	2.4	5.5	0.8	0.9	0.6	7.8
1993 1st qtr.	11.4	0.2	0.3	3.1	1.4	4.3	6.8	0.7	0.0	0.5	8.0
2nd „	29.0	0.2	0.2	3.3	2.2	2.0	4.9	2.0	6.4	0.4	13.7

¹⁾ Cash value. New binding offers less offsets of any outstanding mortgage debt to the institute to be redeemed out of the proceeds from new loans. Deductions have also been made for refused loan applications as well as for unutilized and reduced offers.

²⁾ Market value on the date the loan was effected. Gross loan pro-

ceeds less offsets, as well as extraordinary redemptions as from 1987. The latter does not, however, apply to the distribution of owner-occupied property according to purpose. The total for housing property therefore deviates from the sum of the figures for owner-occupied and rental properties.

Net supply of quoted krone bonds at market value
and issues of shares



	Net supply of quoted krone bonds at market value				Taken up by:					Share issues
	Domestic government paper ¹⁾	Mortgage-credit bonds	Other quoted krone bonds	Total	The National-bank ²⁾	The banks ²⁾	Social funds ³⁾ and the Kingdom of Denmark Mortgage Bank ⁴⁾	Insurance companies and pension funds	Business and private investors ⁵⁾	
	Kr. billion									
1983	53.0	27.5	6.3	86.9	1.4	39.0	13.6	18.6	14.4	1.9
1984	45.6	35.9	3.2	84.7	- 1.5	17.3	15.1	18.3	35.6	3.9
1985	24.0	60.4	2.8	87.2	- 0.3	20.7	12.4	19.9	34.6	3.7
1986	- 10.4	62.2	2.7	54.4	12.1	- 7.4	16.7	16.4	16.7	8.3
1987	- 7.3	53.0	1.0	46.7	- 0.1	- 33.6	12.7	13.2	54.6	3.0
1988	7.9	50.9	1.1	59.9	- 0.1	15.7	12.3	14.1	17.9	4.0
1989	19.2	10.2	1.7	31.1	- 0.3	10.5	11.5	8.3	1.0	10.7
1990	23.3	15.2	5.8	44.3	2.0	- 25.5	10.2	5.8	51.7	6.1
1991	50.3	20.9	5.9	77.1	12.0	- 0.3	9.2	1.8	54.4	9.3
1992	29.2	- 3.0	15.4	41.7	- 11.8	- 11.0	1.9	62.5		4.7
1991 1st qtr. ...	19.3	7.3	2.5	29.1	1.3	- 0.7	6.4	7.2	14.9	3.5
2nd „ ...	9.1	11.3	1.3	21.6	0.5	- 3.6	0.4	0.5	23.8	2.5
3rd „ ...	16.1	0.3	2.0	18.5	2.2	- 0.4	3.1	2.8	10.7	0.8
4th „ ...	5.9	2.0	0.2	8.0	8.0	4.4	- 0.8	- 8.6	5.0	2.6
1992 1st qtr. ...	8.3	- 0.5	3.0	10.9	- 7.2	- 0.4	5.3	- 0.5	13.8	1.3
2nd „ ...	20.8	0.8	5.2	26.8	- 3.0	- 8.5	- 0.6	3.1	35.9	0.6
3rd „ ...	- 2.3	0.7	2.1	0.5	- 1.4	- 1.7	- 2.7	6.3		2.2
4th „ ...	2.4	- 4.1	5.1	3.4	- 0.2	- 0.3	0.0	4.0		0.6
1993 1st qtr. ...	17.1	- 2.1	1.3	16.4	1.3	- 4.5	5.3	14.2		0.1
2nd „ ...	17.1	10.7	1.1	28.9	2.0	1.6	3.8	21.5		0.3

¹⁾ Including Treasury notes and bills.

²⁾ Adjusted for bond-repurchase agreements between the National-bank and the banks.

³⁾ Social Pension Fund, Supplementary (Labour Market) Pension Fund and Employees' Capital Pension Fund.

⁴⁾ Including Post Giro.

⁵⁾ Calculated as residual amounts. Including net sale to abroad, see p. 9.

Circulating krone bonds quoted on the Stock Exchange

(Nominal values)

End of period	Domestic government securities				Mortgage-credit bonds	Other krone bonds	Total
	Krone bonds	Treasury notes ¹⁾	Treasury bills	Total			
	Kr. billion						
1982	167.8	36.2	•	204.0	379.0	27.9	610.8
1983	231.8	40.7	•	272.5	417.6	34.4	724.4
1984	293.5	37.8	•	331.3	468.3	38.0	837.6
1985	331.1	28.8	•	359.8	540.4	40.9	941.2
1986	323.6	27.5	•	351.1	608.7	43.7	1 003.5
1987	301.3	43.7	•	345.0	668.8	44.8	1 058.6
1988	299.5	54.1	•	353.6	724.0	46.0	1 123.6
1989	311.2	64.6	•	375.8	739.3	48.5	1 163.6
1990	315.4	68.9	21.4	405.6	762.8	55.7	1 224.1
1991	338.7	74.1	49.3	462.0	790.3	63.1	1 315.4
1992	375.0	71.2	55.5	501.7	795.0	80.1	1 376.8
1992 April	340.8	66.5	68.8	476.1	785.2	70.4	1 331.7
May	351.4	61.5	68.8	481.6	788.9	71.0	1 341.5
June	364.4	62.9	68.8	496.1	793.8	71.8	1 361.7
July	371.3	64.7	61.1	497.0	786.2	72.2	1 355.5
Aug.	362.5	57.2	61.1	480.8	794.1	73.0	1 348.0
Sept.	373.5	62.6	61.1	497.2	797.2	74.3	1 368.7
Oct.	383.4	76.8	55.5	515.7	790.0	76.3	1 382.0
Nov.	376.6	70.1	55.5	502.1	792.9	82.3	1 377.3
Dec.	375.0	71.2	55.5	501.7	795.0	80.1	1 376.8
1993 Jan.	378.9	77.5	44.4	500.8	789.0	80.5	1 370.3
Feb.	381.1	70.0	48.0	499.0	791.6	80.9	1 371.6
March	391.3	79.8	49.2	520.3	795.2	81.7	1 397.2
April	395.3	89.1	44.5	528.8	791.3	82.8	1 402.9
May	400.2	84.7	50.5	535.4	795.4	83.4	1 414.1
June	399.4	85.4	53.6	538.4	807.3	83.1	1 428.7

Note: For index-linked bonds the nominal value includes indexation.

1) Bonds with an original maturity of 1 and 2 years.

Registrations of mortgage deeds on real property

	Mortgage deeds registered to						Mortgagor ²⁾	Buyers' mortgages to sellers	Total registrations
	Mortgage-credit institutes	The banks	Insurance companies and pension funds	Central government and local authorities	Housing Corporations' National Building Fund, etc. ¹⁾	Other mortgages			
	Kr. billion								
1983	50.6	0.7	0.3	2.3	1.3	0.2	20.0	4.1	79.4
1984	60.7	0.8	0.3	1.9	1.0	0.3	26.2	3.7	94.9
1985	86.7	2.6	0.8	1.8	1.0	0.7	34.5	5.2	133.4
1986	105.8	4.9	2.1	1.8	0.8	1.2	44.5	6.8	167.9
1987	86.9	3.9	0.2	1.8	1.3	0.3	33.4	3.7	131.4
1988	81.4	7.5	0.6	2.1	1.0	2.5	30.7	2.7	128.5
1989	80.2	9.1	0.8	1.8	1.0	2.3	25.8	2.3	123.3
1990	75.8	11.6	2.1	2.0	0.7	2.4	20.2	2.3	117.1
1991	89.7	12.5	2.8	1.3	0.5	3.1	17.8	2.2	129.8
1992	84.7	10.5	1.5	1.6	0.3	1.6	34.9	1.9	137.0
1992 1st qtr.	22.3	3.0	0.4	0.4	0.1	0.6	6.9	0.5	34.1
2nd „	21.3	2.3	0.6	0.3	0.1	0.4	5.5	0.5	31.0
3rd „	23.4	2.8	0.3	0.3	0.1	0.3	5.3	0.5	32.9
4th „	17.7	2.4	0.2	0.7	0.1	0.3	17.2	0.4	39.0
1993 1st qtr.	13.8	1.9	0.3	0.4	0.1	0.4	5.0	0.4	22.2

1) Including the Rental Houseowners' Investment Fund and the Hotel Finance Institute.

2) Mortgagor and mortgagee are identical. These mortgage deeds are

widely used as security for bank loans. In the 4th quarter of 1992 the increase is due solely to special technical factors.

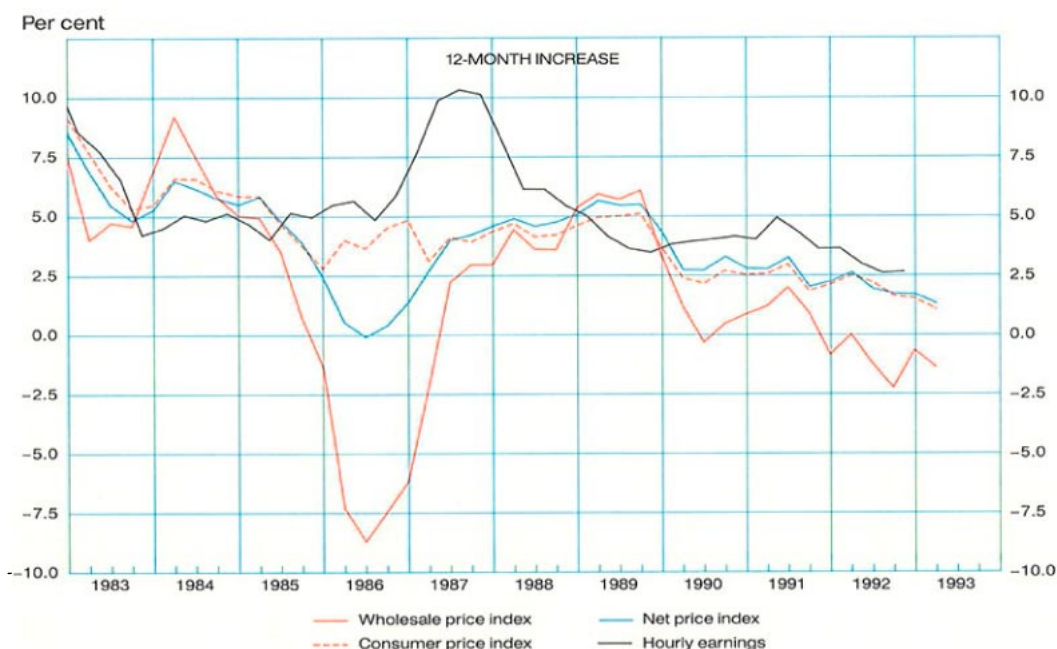
End of period	Assets							Total
	Cash in hand	Securities	Lending		Guarantees, as per contra	Real property, machinery, equipment, etc. ²⁾	Other assets	
			Business loans	Non-business loans ¹⁾				
	Kr. billion							
1984	0.7	0.4	2.0	1.1	0.1	1.0	0.2	5.5
1985	1.7	0.1	2.8	1.9	0.1	1.4	0.3	8.4
1986	2.3	0.3	4.5	3.9	0.1	1.8	0.6	13.4
1987	0.9	0.2	5.6	5.1	0.3	2.1	1.1	15.2
1988	1.3	0.0	5.3	4.8	2.0	1.8	1.7	16.8
1989	0.2	0.1	5.4	5.2	3.2	2.0	1.9	17.9
1990	0.2	0.2	6.1	5.8	4.8	1.0	2.3	20.5
1991	0.2	0.0	6.2	5.6	0.0	0.9	0.4	13.3
1992	0.2	0.1	7.3	5.6	0.4	0.7	0.3	14.7
1990 Sept.	0.2	0.1	6.1	5.9	4.5	1.1	1.9	19.8
Dec.	0.2	0.2	6.1	5.8	4.8	1.0	2.3	20.5
1991 March ..	0.1	0.1	6.2	5.8	0.0	1.0	0.2	13.4
June	0.1	0.1	6.2	5.7	0.0	1.0	0.4	13.5
Sept.	0.1	0.1	6.0	5.8	0.0	1.0	0.4	13.4
Dec.	0.2	0.0	6.2	5.6	0.0	0.9	0.4	13.3
1992 March ..	0.2	0.1	7.4	5.5	0.0	0.8	0.3	14.3
June	0.4	0.1	7.5	5.6	0.0	0.7	0.3	14.6
Sept.	0.3	0.1	7.9	5.2	0.0	0.8	0.3	14.6
Dec.	0.2	0.1	7.3	5.6	0.4	0.7	0.3	14.7
1993 March ..	0.3	0.1	7.3	5.4	0.0	0.8	0.4	14.3
June	0.1	0.1	7.2	6.2	0.3	0.6	0.3	14.8

End of period	Liabilities						Total
	Debt to the banks		Guarantees, as per contra	Other liabilities		Net capital and subordinate loan capital	
	Domestic	Foreign		Domestic	Foreign		
	Kr. billion						
1984	1.9	0.8	0.1	1.4	0.7	0.8	5.5
1985	2.7	2.2	0.1	1.7	0.6	1.1	8.4
1986	6.9	2.6	0.1	1.2	1.2	1.4	13.4
1987	7.2	2.1	0.3	1.8	2.0	1.9	15.2
1988	7.2	2.2	2.0	2.6	1.0	1.9	16.8
1989	8.0	1.7	3.2	1.7	1.1	2.1	17.9
1990	9.3	0.6	4.8	1.8	1.0	3.0	20.5
1991	9.6	0.5	0.0	0.7	0.9	1.5	13.3
1992	10.8	—	0.4	1.3	0.6	1.6	14.7
1990 Sept.	9.5	0.4	4.5	1.3	1.0	3.2	19.8
Dec.	9.3	0.6	4.8	1.8	1.0	3.0	20.5
1991 March ...	9.6	0.4	0.0	1.0	1.0	1.4	13.4
June	9.6	0.4	0.0	1.1	1.0	1.4	13.5
Sept.	9.6	0.4	0.0	1.0	0.9	1.5	13.4
Dec.	9.6	0.5	0.0	0.7	0.9	1.5	13.3
1992 March ...	10.5	—	0.0	1.3	1.3	1.2	14.3
June	11.0	—	0.0	1.0	1.1	1.5	14.6
Sept.	10.7	—	0.0	1.1	1.4	1.5	14.6
Dec.	10.8	—	0.4	1.3	0.6	1.6	14.7
1993 March ...	11.0	—	0.0	1.4	0.4	1.5	14.3
June	11.2	—	0.3	1.2	0.2	1.9	14.8

Note: Includes approx. 15 finance companies. The statistics are influenced over time by the new establishment, merger and winding up of companies.

¹⁾ Including loans to self-employed persons for purchase of cars and consumer durables.

²⁾ Predominantly leasing assets. Leasing assets in bank-owned finance companies are partly covered by "Business loans".



	Wholesale price index ¹⁾	Consumer price index ²⁾	Net price index ²⁾	Hourly earnings ³⁾	Wholesale price index ¹⁾	Consumer price index ²⁾	Hourly earnings ³⁾	
	Year-on-year percentage increase				1980=100	1980=100	Index 1980=100	Kroner
1983.....	5.2	6.9	6.2	6.6	133.7	131.5	128	75.98
1984.....	7.6	6.3	6.0	4.8	143.9	139.8	134	79.66
1985.....	2.9	4.7	4.6	4.7	148.1	146.4	141	83.42
1986.....	- 6.8	3.6	0.7	5.4	138.1	151.7	148	87.89
1987.....	- 0.2	4.0	3.1	9.5	137.8	157.8	162	96.25
1988.....	3.9	4.6	5.0	6.3	143.2	165.0	173	102.34
1989.....	5.8	4.8	5.2	4.0	151.5	172.9	180	106.45
1990.....	1.0	2.6	3.1	3.9	153.0	177.4	187	110.65
1991.....	1.0	2.4	2.6	4.2	154.5	181.7	194	115.27
1992.....	- 1.1	2.1	2.1	...	152.8	185.5	...	...
1990 1st qtr..	2.4	3.3	3.9	3.8	152.2	175.4	183	108.20
2nd „ .	0.4	2.4	2.7	3.9	152.0	176.7	186	110.47
3rd „ .	0.6	2.6	3.2	4.0	153.7	178.0	187	111.11
4th „ .	0.6	2.2	2.8	4.1	154.3	179.7	190	112.74
1991 1st qtr..	0.7	2.5	2.7	4.0	153.3	179.7	190	112.50
2nd „ .	1.7	2.7	2.9	4.9	154.6	181.4	195	115.87
3rd „ .	0.8	2.3	2.6	4.3	154.9	182.0	195	115.88
4th „ .	0.6	2.2	2.4	3.6	155.3	183.6	197	116.77
1992 1st qtr..	- 0.3	2.3	2.5	3.6	152.7	183.9	197	116.54
2nd „ .	- 0.3	2.4	2.5	2.9	154.1	185.9	201	119.28
3rd „ .	- 1.9	2.1	1.8	2.6	152.0	185.9	200	118.84
4th „ .	- 2.0	1.5	1.6	2.6	152.1	186.3	202	119.81
1993 1st qtr..	- 0.8	1.3	1.5	...	151.5	186.4	...	...
2nd „ .	- 1.4	1.0	1.3	...	152.0	187.7	...	...

Note: The annual and quarterly figures of the indices are averages of monthly indices.

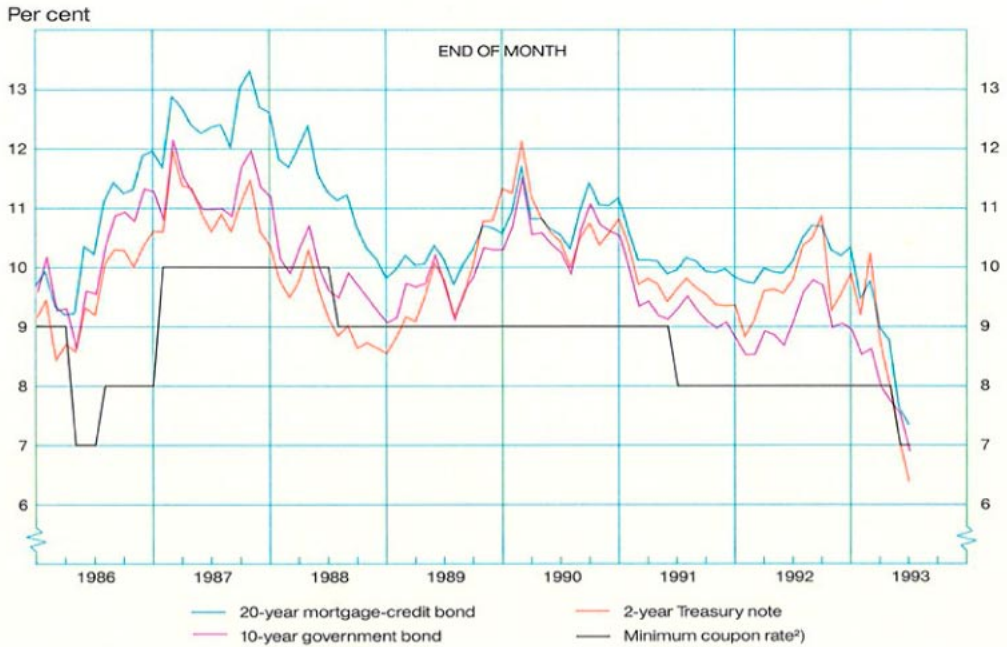
1) Excluding all indirect taxes except customs and other import duties. The weights are based on the value of domestic sales in wholesale trade in 1980.

2) The consumer price index concerns actual retail prices paid by the consumers, while the net price index is compiled excluding indi-

rect taxes and subsidies. Since February 1991 the weights in both indices have been based on the pattern of private consumption in 1987.

3) Average hourly earnings of workers in manufacturing industries, building and construction. The 3rd and 4th quarters of 1992 have been calculated on the basis of just over 50 per cent of employment in the aforementioned sectors.

*Yields on selected bonds quoted on the Stock Exchange,
and minimum coupon rate*



End of period	Government paper (bullet issues) ¹⁾			Mortgage-credit bonds (annuity loans) ¹⁾			Average bond yield	Minimum coupon rate ²⁾
	Maturity, years							
	10	5	2	30	20	10		
Per cent per annum								
1983.....	12.80	12.54	12.16	12.83	12.61	12.65	12.64	•
1984.....	14.33	13.95	13.30	14.75	14.77	14.18	14.02	•
1985.....	9.53	9.32	9.13	10.31	10.32	9.65	9.86	9
1986.....	11.24	10.90	10.59	12.48	11.96	11.60	11.61	8
1987.....	11.15	10.58	10.34	12.79	12.61	11.67	11.73	10
1988.....	9.03	8.98	8.53	9.92	9.82	9.32	9.78	9
1989.....	10.26	10.56	11.30	10.49	10.57	10.38	10.79	9
1990.....	10.50	10.71	10.79	11.15	11.17	10.62	11.01	9
1991.....	8.76	9.14	9.34	9.80	9.83	9.63	9.90	8
1992.....	8.91	9.67	9.87	10.17	10.34	10.55	10.25	8
1992 April	8.82	9.28	9.61	9.89	9.92	9.64	9.94	8
May	8.65	9.16	9.54	9.83	9.90	9.56	9.88	8
June	9.07	9.62	9.77	10.06	10.10	9.77	10.08	8
July	9.55	10.18	10.34	10.42	10.49	9.83	10.34	8
Aug.	9.75	10.41	10.47	10.61	10.70	10.91	10.57	8
Sept.	9.66	10.39	10.84	10.60	10.70	10.02	10.66	8
Oct.	8.95	9.22	9.25	10.21	10.29	10.68	10.09	8
Nov.	9.02	9.44	9.53	10.20	10.19	10.23	10.11	8
Dec.	8.91	9.67	9.87	10.17	10.34	10.55	10.25	8
1993 Jan.	8.50	8.62	9.18	9.30	9.46	9.46	9.94	8
Feb.	8.59	8.96	10.21	9.63	9.77	9.73	10.25	8
March ...	7.77	8.09	8.77	8.88	8.98	8.98	9.63	8
April	7.71	7.69	8.01	8.66	8.77	8.55	9.26	8
May	7.50	7.19	7.08	8.38	8.42	8.34	8.82	7
June	6.87	6.50	6.38	7.36	8.24	8.05	8.43	7

Note: The effective bond yield calculated for a full year by the Copenhagen Stock Exchange.

¹⁾ If no open series with the relevant maturities exist for a given

period, series (closed if necessary) with approx. corresponding residual maturities are used.

²⁾ In accordance with the Danish Capital-Gains Act.

Interest rates in a number of countries

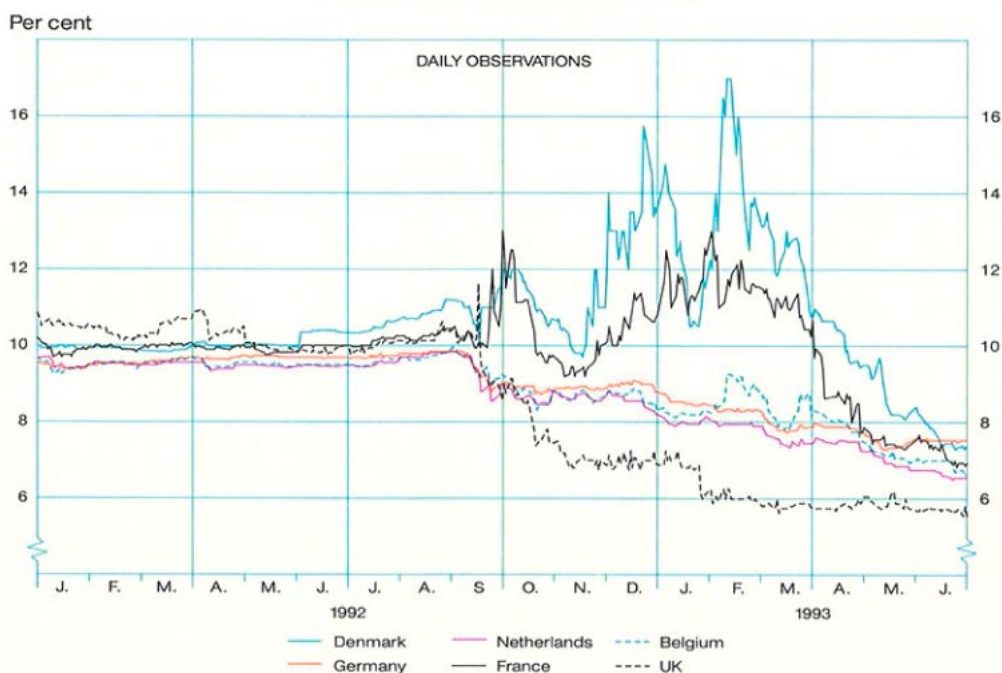
End of period	3-month Euro-deposit interest rate					
	Denmark ¹⁾	UK	Japan	Sweden	Germany	USA
	Per cent per annum					
1991 July	9.5	11.1	7.3	10.5	9.2	5.9
August	9.8	10.8	7.2	10.4	9.1	5.6
September	9.7	10.2	6.5	10.3	9.2	5.6
October	9.3	10.3	6.1	10.4	9.3	5.1
November	9.6	10.6	6.0	11.5	9.3	4.9
December	9.9	10.9	5.3	13.1	9.5	4.1
1992 January	10.1	10.5	5.1	12.1	9.5	4.1
February	10.1	10.2	5.1	11.8	9.5	4.1
March	10.2	10.8	4.7	11.4	9.7	4.2
April	10.3	10.5	4.6	11.7	9.8	3.9
May	10.1	10.0	4.6	11.1	9.7	3.9
June	10.6	10.0	4.4	11.2	9.7	3.9
July	10.9	10.3	3.9	12.1	9.8	3.3
August	11.5	10.5	3.8	13.8	9.8	3.4
September	12.8	8.9	3.9	17.0	9.0	3.1
October	11.8	7.6	3.6	12.2	8.9	3.5
November	15.0	7.3	3.7	11.4	8.8	3.9
December	15.1	6.9	3.8	9.4	8.6	3.3
1993 January	12.0	6.2	3.5	9.9	8.4	3.1
February	14.3	6.1	3.1	9.3	8.3	3.1
March	10.8	5.8	3.3	9.7	7.8	3.1
April	9.6	6.0	3.1	8.6	7.6	3.1
May	8.3	5.8	3.3	8.0	7.5	3.3
June	7.4	5.9	3.1	8.1	7.4	3.2
End of period	Effective rates of interest on 10-year government bonds ²⁾					
	Denmark	UK	Japan	Sweden	Germany	USA
	Per cent per annum					
1991 July	9.5	10.4	6.7	10.9	8.7	8.3
August	9.2	10.2	6.4	10.6	8.5	8.0
September	9.1	9.8	6.2	10.0	8.4	7.6
October	8.9	9.9	6.1	10.0	8.4	7.6
November	9.0	10.1	6.1	10.0	8.3	7.5
December	8.8	10.0	5.7	9.9	8.0	6.8
1992 January	8.5	9.6	5.7	9.4	7.9	7.4
February	8.5	9.5	5.7	9.4	7.9	7.4
March	8.9	10.1	5.6	9.5	8.0	7.7
April	8.8	9.4	5.9	9.6	8.0	7.7
May	8.7	9.2	5.7	9.5	7.9	7.5
June	9.1	9.4	5.6	9.7	8.0	7.3
July	9.6	9.5	5.3	10.1	8.2	6.8
August	9.8	9.9	5.1	11.1	7.9	6.7
September	9.7	9.2	5.1	11.3	7.5	6.5
October	9.0	8.3	5.0	10.6	7.3	6.9
November	9.0	8.8	5.0	10.0	7.4	7.1
December	8.9	8.4	4.9	9.9	7.2	6.8
1993 January	8.5	8.4	4.7	10.2	7.1	6.5
February	8.6	8.1	4.2	9.6	6.7	6.1
March	8.0	8.1	4.7	9.7	6.7	6.1
April	7.7	8.5	4.8	9.3	6.8	6.1
May	7.5	8.5	4.9	9.0	6.9	6.2
June	6.9	8.0	4.7	8.4	6.6	5.9

¹⁾ 3-month inter-bank interest rate. See also p. 31, note 1.

²⁾ Bullet issue loans.

3-month inter-bank interest rates

31



Note: For Denmark, repurchase agreements in Treasury bills.

Inter-bank interest rates

	Overnight			1 month ¹⁾			3 months ¹⁾		
	Average	High	Low	Average	High	Low	Average	High	Low
	Per cent per annum								
1991 July	9.14	9.38	9.06	9.29	9.44	9.19	9.41	9.53	9.31
Aug. . . .	9.35	9.69	9.00	9.50	9.81	9.19	9.62	9.81	9.41
Sept. . . .	9.60	9.63	9.56	9.70	9.88	9.63	9.74	9.85	9.63
Oct.	9.43	9.63	9.06	9.49	9.69	9.19	9.58	9.78	9.31
Nov.	9.07	9.13	9.00	9.26	9.49	9.13	9.41	9.69	9.28
Dec.	9.29	9.81	9.00	9.72	10.06	9.50	9.79	10.13	9.63
1992 Jan.	9.78	10.75	9.63	10.07	10.23	9.88	10.07	10.20	9.94
Feb.	9.80	10.13	9.56	10.06	10.16	9.89	10.09	10.20	9.95
March	9.77	10.00	9.63	10.07	10.15	9.86	10.09	10.30	9.95
April	9.86	10.19	9.56	10.23	10.40	10.08	10.22	10.35	10.08
May	9.95	10.38	9.69	10.15	10.30	10.00	10.14	10.23	10.06
June	10.59	11.44	9.38	10.88	11.20	10.08	10.59	11.00	10.10
July	10.56	11.31	9.63	10.96	11.25	10.75	10.84	11.12	10.63
Aug.	10.47	12.81	9.00	11.12	11.39	10.41	11.25	11.50	10.98
Sept.	11.67	20.63	9.63	14.54	27.20	10.56	12.34	19.25	10.82
Oct.	11.46	15.13	9.25	13.22	16.25	11.50	12.67	14.19	11.50
Nov.	12.15	18.25	9.69	13.65	20.00	11.02	12.76	17.00	10.75
Dec.	15.59	33.00	10.56	20.89	29.25	15.72	16.73	21.50	14.50
1993 Jan.	12.04	14.25	10.19	14.75	20.20	11.25	13.65	17.50	11.00
Feb.	25.84	93.19	9.38	17.99	28.75	13.19	15.35	19.66	12.33
March	11.91	13.31	9.56	12.88	14.29	10.78	12.69	13.75	10.83
April	10.46	11.69	9.13	10.32	11.00	9.70	10.23	11.04	9.53
May	9.98	11.75	8.38	9.16	10.25	8.43	8.78	9.70	8.16
June	8.98	10.81	7.94	8.21	8.83	7.89	7.77	8.50	7.38

Note: Based on daily average weighted by transaction volume. For banking days with no transactions the simple average of closing purchase and sale prices.

¹⁾ Until end-January 1993 uncollateralized rates of interest, thereafter the rate of interest for repurchase agreements in Treasury bills.

	1 måned			2 måneder			3 måneder			
	Gennem-snit	Højest	Lavest	Gennem-snit	Højest	Lavest	Gennem-snit	Højest	Lavest	
	Procent p.a.									
1991	Juli	9,36	9,44	9,27	9,43	9,55	9,33	9,48	9,59	9,33
	Aug. . . .	9,58	9,84	9,31	9,64	9,86	9,41	9,70	9,88	9,50
	Sept. . . .	9,77	9,81	9,73	9,79	9,84	9,75	9,83	9,88	9,80
	Okt. . . .	9,56	9,80	9,25	9,62	9,81	9,30	9,68	9,88	9,42
	Nov. . . .	9,33	9,55	9,25	9,45	9,69	9,38	9,49	9,69	9,39
	Dec.	9,79	10,13	9,55	9,85	10,16	9,67	9,89	10,23	9,72
1992	Jan.	10,17	10,34	10,00	10,17	10,28	10,03	10,17	10,25	10,06
	Feb.	10,17	10,25	10,08	10,21	10,25	10,16	10,21	10,25	10,16
	Marts . . .	10,16	10,23	10,09	10,17	10,25	10,11	10,18	10,25	10,11
	April . . .	10,16	10,22	10,13	10,20	10,23	10,17	10,20	10,25	10,17
	Maj	10,18	10,20	10,17	10,21	10,23	10,19	10,24	10,25	10,22
	Juni	10,66	10,78	10,11	10,59	10,72	10,13	10,54	10,63	10,14
	Juli	10,68	10,88	10,53	10,67	10,88	10,52	10,65	10,88	10,48
	Aug. . . .	11,17	11,38	10,94	11,19	11,52	10,94	11,19	11,58	10,94
	Sept. . . .	16,83	35,00	10,83	14,08	21,25	10,83	12,76	16,25	10,83
	Okt. . . .	13,95	17,63	12,25	13,34	16,06	12,06	13,01	14,31	11,91
	Nov. . . .	15,66	27,75	11,45	14,03	21,25	11,25	12,99	17,25	11,16
	Dec.	23,53	34,00	19,00	20,05	28,00	17,06	18,15	23,50	15,50
1993	Jan.	16,01	21,75	12,56	15,15	19,75	12,19	14,45	17,69	12,00
	Feb.	21,61	32,75	14,33	18,91	24,08	13,54	17,32	20,83	13,08
	Marts . . .	13,70	16,06	11,68	13,53	15,59	11,55	13,37	15,00	11,42
	April . . .	10,75	11,55	10,11	10,71	11,52	10,04	10,65	11,50	9,93
	Maj	9,54	10,38	8,84	9,38	10,22	8,72	9,19	9,97	8,58
	Juni	8,58	9,13	8,31	8,41	8,91	8,15	8,15	8,76	7,77

	4 måneder			5 måneder			6 måneder			
	Gennem-snit	Højest	Lavest	Gennem-snit	Højest	Lavest	Gennem-snit	Højest	Lavest	
	Procent p.a.									
1991	Juli	9,54	9,69	9,39	9,59	9,80	9,45	9,64	9,84	9,52
	Aug. . . .	9,75	9,92	9,58	9,83	9,98	9,69	9,88	9,98	9,75
	Sept. . . .	9,87	9,91	9,83	9,90	9,94	9,86	9,92	9,95	9,88
	Okt. . . .	9,70	9,88	9,42	9,73	9,91	9,50	9,76	9,94	9,50
	Nov. . . .	9,55	9,75	9,44	9,57	9,80	9,50	9,62	9,84	9,55
	Dec.	9,91	10,25	9,75	9,93	10,27	9,81	9,95	10,27	9,83
1992	Jan.	10,15	10,19	10,11	10,14	10,19	10,06	10,13	10,20	10,06
	Feb.	10,21	10,25	10,16	10,20	10,25	10,16	10,19	10,23	10,16
	Marts . . .	10,18	10,25	10,11	10,18	10,25	10,11	10,18	10,25	10,11
	April . . .	10,21	10,25	10,19	10,21	10,25	10,19	10,21	10,25	10,19
	Maj	10,24	10,25	10,23	10,25	10,25	10,23	10,25	10,25	10,23
	Juni	10,54	10,61	10,14	10,53	10,61	10,14	10,51	10,61	10,14
	Juli	10,62	10,86	10,45	10,62	10,86	10,45	10,62	10,86	10,45
	Aug. . . .	11,14	11,55	10,92	11,13	11,52	10,92	11,13	11,50	10,91
	Sept. . . .	12,34	14,88	10,84	12,01	13,75	10,84	11,81	13,50	10,83
	Okt. . . .	12,69	13,81	11,56	12,49	13,25	11,38	12,26	13,00	11,28
	Nov. . . .	12,41	15,25	11,00	11,97	14,25	10,84	11,66	13,63	10,75
	Dec.	16,43	20,00	14,75	15,32	17,50	14,13	14,45	15,94	13,50
1993	Jan.	13,82	16,00	11,81	13,28	15,00	11,66	12,80	14,38	11,59
	Feb.	16,37	18,88	12,47	15,57	17,21	12,14	14,88	16,26	11,92
	Marts . . .	13,06	14,69	11,19	12,75	14,33	11,08	12,46	14,00	10,92
	April . . .	10,53	11,28	9,85	10,41	11,11	9,76	10,26	10,94	9,65
	Maj	8,96	9,87	8,33	8,76	9,79	8,11	8,54	9,69	7,89
	Juni	7,99	8,54	7,67	7,86	8,33	7,57	7,72	8,13	7,48

Anm.: Gennemsnit af indberetninger fra 8 større pengeinstitutter.
De 2 højeste og laveste satser indgår ikke.

The Nationalbank's interest rates					The banks' effective interest rates ⁵⁾		
Effective year-end/ from	Official discount rate	Current account		Repurchase agreements and certificates of deposit ³⁾ 1)	Average	Lending	Deposits
		Deposits ¹⁾	Drawings ²⁾				
Per cent per annum					Per cent per annum		
1987	7.00	8.25	9.00	•	1987	13.4	7.5
1988	7.00	7.75	8.50	•	1988	13.2	7.0
1989	7.00	11.00	12.00	•	1989	13.3	7.0
1990	8.50	9.50	10.50	•	1990	14.1	7.9
1991	9.50	9.50	10.00	•	1991	11.4	7.2
1992	9.50	9.50	•	13.00	1992	11.6	7.5
1990 March 23 ..	8.00	10.50	11.50	•	1987 1st qtr. ..	13.1	7.4
April 27 ..	8.00	10.00	11.00	•	2nd „ ..	13.6	7.5
June 22 ..	8.50	9.50	10.50	•	3rd „ ..	13.5	7.4
1991 Jan. 2 ..	9.50	9.50	10.50	•	4th „ ..	13.5	7.5
March 20 ..	9.50	9.50	10.00	•	1988 1st qtr. ..	13.3	7.2
May 22 ..	9.00	9.00	9.50	•	2nd „ ..	13.4	7.2
Aug. 16 ..	9.50	9.50	10.00	•	3rd „ ..	13.2	6.9
Oct. 21 ..	9.00	9.00	9.50	•	4th „ ..	13.0	6.8
Dec. 20 ..	9.50	9.50	10.00	•	1989 1st qtr. ..	12.4	6.4
1992 April 1 ..	9.50	9.50	•	9.90	2nd „ ..	12.9	6.5
„ 21 ..				9.85	3rd „ ..	13.3	6.8
June 3 ..				10.50	4th „ ..	14.6	8.1
„ 24 ..				10.40	1990 1st qtr. ..	14.9	8.5
„ 30 ..				10.30	2nd „ ..	14.2	8.0
Sept. 15 ..				10.15	3rd „ ..	13.9	7.7
Oct. 1 ..				12.00	4th „ ..	13.4	7.5
„ 8 ..				11.80	1991 1st qtr. ..	11.7	7.7
„ 13 ..				11.60	2nd „ ..	11.5	7.2
„ 20 ..				11.40	3rd „ ..	11.2	6.8
„ 26 ..				10.90	4th „ ..	11.1	6.9
Nov. 2 ..				10.60	1992 1st qtr. ..	11.2	7.2
„ 10 ..				10.20	2nd „ ..	11.3	7.2
„ 17 ..				9.90	3rd „ ..	11.6	7.5
„ 20 ..				15.00	4th „ ..	12.3	8.1
Dec. 14 ..				14.00			
„ 28 ..				13.00			
1993 Jan. 19 ..				12.00			
„ 26 ..				11.50			
Feb. 3 ..				13.00			
„ 4 ..	11.50	11.50		13.00			
„ 22 ..	10.50	10.50		12.50			
March 3 ..				12.00			
„ 10 ..				11.50			
„ 19 ..	10.00	10.00		11.00			
„ 29 ..	9.50	9.50		10.50			
April 5 ..				10.25			
„ 21 ..				10.00			
„ 23 ..	9.25	9.25		9.75			
May 19 ..	8.25	8.25		8.75			
June 8 ..	7.75	7.75		8.75			
„ 10 ..				8.25			
„ 17 ..				8.10			
„ 24 ..				7.95			
(June 30) .	7.75	7.75		7.95			

1) As from April 1, 1992 interest-earning deposits are subject to maximum limits.

2) Access to drawings on current account lapsed on April 1, 1992.

3) 14-day zero-coupon certificates of deposit issued by and registered with the Nationalbank.

4) The Nationalbank's interest rate for repurchase agreements and on sale and purchase of the Nationalbank's certificates of

deposit. On purchase the Nationalbank normally adds a small premium. The rates stated exclude this premium.

5) Compiled as the ratio between accrued interest expenditure and income in the quarter and the average volume of deposits and lending in the quarter. In 1991 based only on krone accounts with Danish customers. Lending adjusted for provisions as from 1991.