2003

Annual Report 2003

NORGES BANK

Norges Bank (Central Bank of Norway)
Oslo, Norway 2004

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The illustrations show interiors featuring the various clocks in the Norges Bank building

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1 REPORT OF THE EXECUTIVE BOARD

Report of the Executive Board

In accordance with the Norges Bank Act, executive and advisory authority is vested in the Executive Board. The Board is in charge of the Bank's operations and manages its funds. According to section 30 of the Act, the Executive Board shall each year prepare an annual report and accounts for the year.

The Executive Board held 15 meetings in 2003 and dealt with 142 matters.

The Executive Board focuses on issues relating to the central bank's responsibilities for monetary policy, financial stability and investment management. In 2003, the Executive Board also devoted considerable attention to organisational development and the Bank's overall utilisation of resources. Two employee representatives supplement the Executive Board when administrative matters are discussed. In addition to ordinary Executive Board meetings, a number of seminars dealing with the Bank's core activities were held. The Executive Board visited the Bank of Finland in spring 2003.

By Royal Decree of 28 November 2003, new members were appointed to the Executive Board with effect from 1 January 2004.

For more information about Norges Bank's management and organisation, see Appendix B.

Monetary policy

The operational objective of monetary policy is a rise in consumer prices of 2½% over time, cf. the Monetary Policy Regulation laid down by Royal Decree of 29 March 2001. The Executive Board's decisions regarding the key interest rate (sight deposit rate) are based on an overall assessment of the outlook for inflation.

Normally, the interest rate is set with a view to achieving inflation of 2½% at the two-year horizon. It would in general have been possible to achieve the inflation target at a horizon shorter than two years by changing the interest rate more rapidly and more markedly. This might, however, have a greater impact on output and employment. Norges Bank operates a flexible inflation targeting regime, so that weight is given to variability in inflation as well as to variability in output and employment.

Norges Bank's *Inflation Report* is published three times annually. In these reports, Norges Bank analyses the outlook for the Norwegian economy and developments in cost and price inflation two to three years ahead. The Executive Board assesses the inflation outlook on the basis of preliminary projections at a special meeting three weeks prior to the publication of each *Inflation Report*. On the basis of these analyses, the Executive Board assesses the consequences for the conduct of monetary policy over the next four months. The document that forms the basis for this discussion is referred to as the *Strategy Document*, published at the end of each strategy period.

The Executive Board discusses interest rate setting and other specific changes in the use of monetary policy instruments at the monetary policy meetings, which are normally held every six weeks. The dates of monetary policy meetings are announced in advance. At the monetary policy meetings, the Executive Board assesses developments in a number of different economic indicators, with special emphasis on significant deviations from the assessments in the last inflation report. Most of the material presented to the Executive Board is published, see Chapter 1 in Part II.

The Executive Board's decision is announced at a fixed, predetermined time just after the monetary policy meeting. With effect from 29 October 2003, a detailed account of the background for the interest rate decision is included in the press release. This account replaces the former "Introduction to the press conference". At the press conference, the central bank governor or deputy governor provides an account of the most important reasons behind the Executive Board's interest rate decision. This is also the procedure when the interest rate is left unchanged.

A regional network of contacts in enterprises and public entities was established in autumn 2002. In 2003, information provided by the network was introduced as a regular supplement to official statistics. A summary of the regional reports from the network is published. The Bank has also initiated and financed surveys of expectations among market participants, the social partners, enterprises and households concerning future price inflation. Information from these surveys was first published in its entirety in March 2003.

The inflation outlook changed considerably through 2002 and 2003. From summer 2001 to spring 2002, core inflation remained close to the target of 2½%. The level of activity in the Norwegian economy was high. The cost-push shock in 2002 resulting from negotiated wage increases was expected to push up inflation in the longer term. The appropriate monetary policy response to this kind of disturbance is to tighten monetary policy. It was expected that this would temporarily curb inflation in 2003 via a stronger krone. In 2002, Norges Bank therefore struck a balance between the consideration of stable inflation developments and the consideration of stabilising developments in output and employment. When growth in the Norwegian economy came to a halt in winter 2003, and inflation was considerably lower than expected, this was primarily due to surprisingly weak developments in the global economy. This led to lower interest rates abroad and a wider interest rate differential between Norway and other countries. The planned and intended interest rate differential against other countries was wider than expected and had a stronger impact on the krone exchange rate than expected. In addition, high electricity prices through winter 2003 reduced household purchasing power. This may have curbed domestic demand for some goods and had a negative effect on prices.

Towards the end of 2002, current data indicated that growth in output and employment might be weaker than previously projected by Norges Bank. Inflation was projected to be lower than the target at the two-year horizon. The key rate was reduced by 0.5 percentage point on 11 December 2002 and by 0.5 percentage point at the monetary policy meeting on 22 January.

In his annual address on 20 February, the Governor stated that a stagnating global economy had changed the domestic inflation outlook in the preceding months. It was announced that a gradual easing of monetary policy seemed appropriate in the period ahead.

The international growth outlook deteriorated through the first half of 2003. Interest rates were reduced further in a number of countries. Developments in the Norwegian economy were also weaker than projected earlier. Even though the krone had depreciated somewhat, profitability in the business sector was still weak. At the same time, the wage settlements indicated that wage growth in 2003 would be somewhat lower than projected. Household expectations concerning economic developments had fallen further. The key rate was reduced by 0.5 percentage point at the monetary policy meeting on 5 March and by a further 0.5 percentage point, to 5.0%, at the monetary policy meeting on 30 April.

New information in May reinforced the impression of weaker economic developments in Norway and abroad and showed that the interest rate reductions had not had the effect that might have been expected. There were prospects that inflation could remain more than 1 percentage point below the inflation target for some time ahead, and there were signs that the Norwegian economy was facing a period where the outlook was deteriorating fairly rapidly. In situations where there may be a risk of inflation expectations taking hold at too low a level, it will be appropriate to take larger steps than usual when setting the interest rate. At the monetary policy meeting on 25 June, the Executive Board decided to reduce the sight deposit rate by a further 1.0 percentage point to 4.0%.

Core inflation fell further in the course of the summer. The fall in prices for imported consumer goods was the main source of downward pressure on prices, although price inflation for goods and services produced in Norway also edged down. Global interest rates also fell. This moderated the effect of the monetary policy easing in Norway on the krone exchange rate and thereby inflation. International developments implied that external inflation would remain low. There were no signs of an imminent rise in interest rates in other countries. The key rate was reduced by a further 1.0 percentage point at the monetary policy meeting on 13 August, and by 0.5 percentage point on 17 September.

Towards the end of summer and through autumn, there were signs that the monetary policy easing was beginning to have an effect on demand and on output and employment. Norges Bank's regional network reported that enterprises were beginning to shift focus from workforce reductions and cost cuts to strategies for income growth. The quarterly national accounts showed an accelerating pickup in the mainland economy. The labour market improved somewhat more rapidly than expected. Household consumption rose approximately as projected, and house prices moved up. Household expectations concerning their own financial situation and the Norwegian economy improved from the summer onwards. Global activity had also picked up, spurred by strong growth in the US and parts of Asia, including Japan. There was, however, uncertainty about the sustainability of the global economic recovery.

The 2003 wage settlements and local negotiations through the year indicated that the social partners might have been giving more emphasis to the effects of pay increases on future developments in the interest rate, the exchange rate and employment. The key rate was kept unchanged at the monetary policy meeting on 29 October. The Executive Board indicated, however, it would be particularly vigilant in monetary policy if inflation did not increase as projected.

The year-on-year rise in the consumer price index adjusted for tax changes and excluding energy products (CPI-ATE) fell, however, to 0.4% in December, a considerably lower level than projected. In addition, the import-weighted krone exchange rate (I-44) appreciated by about 1½% from end-October to mid-December. The key rate was reduced by 0.25 percentage point to 2.25% at the monetary policy meeting on 17 December. The krone then depreciated.

A more detailed account of monetary policy in 2003 is presented in Part II, Chapter 1.

Financial stability

The Executive Board places considerable emphasis on Norges Bank's contribution to robust and efficient payment systems and financial markets, i.e. fostering financial stability. Norges Bank monitors developments in the economy and financial institutions in order to identify trends that may weaken stability in the financial system. The results are summarised in the *Financial Stability* report. Two issues of this report were published in 2003. As was the case in 2002, debt growth was higher than economic growth in 2003. Debt growth showed divergent trends, with strong growth in household debt and almost zero growth in the enterprise sector. The interest rate reductions through 2003 eased the interest burden for households and enterprises and strengthened their debt-servicing capacity. Although banks' earnings declined somewhat in 2003, their financial strength is satisfactory. The fall in interest rates has contributed to increased activity in the Norwegian economy, and there are signs that global economic growth is picking up. The outlook for financial stability was considered to be satisfactory on balance, and more favourable at the end of 2003 than a year earlier. However, the low level of interest rates increases the risk that the household debt-income ratio and house prices will continue to rise sharply. In the long term, this may increase households', and in the next round enterprises', vulnerability to economic disturbances. The Executive Board provides its assessment of financial stability, based on the *Financial Stability* reports, in its submissions to the Ministry of Finance.

Financial groups are gaining an increasingly prominent position in the Norwegian financial sector. The merger between DnB and the Union Bank of Norway to form the financial group DnB NOR ASA will increase the level of concentration in the Norwegian financial sector. In connection with the merger application, Norges Bank stated in its submission to Kredittilsynet (Financial Supervisory Authority of Norway) that financial stability considerations did not pose a significant obstacle to the merger. When financial institutions grow in size and complexity as a result of consolidation, sound risk management and close supervision are necessary.

In recent years, cross-border banking groups have contributed to more integrated financial markets in different countries. This provides opportunities for greater risk diversification, but may also provide a channel for the spread of unrest across countries. In June 2003, the Nordic central banks signed an agreement on the exchange of information and the provision of liquidity support in the event of a financial crisis. The agreement concerns situations in which a serious problem arises in a bank that is resident in a Nordic country and has a subsidiary in at least one other Nordic country.

Efficient, robust payment systems are crucial to financial stability. There is a low level of credit risk and liquidity risk in the Norwegian system. In 2003, foreign exchange settlement risk was considerably reduced when the Norwegian krone was included in the international foreign exchange settlement system CLS in September. The focus of attention has increasingly turned to operational risk (the risk of losses due to failures in computer systems, telecommunications, inadequate procedures etc.). Close cooperation has been established between Norges Bank and Kredittilsynet, and in 2003 the two institutions conducted a joint inspection of one of the clearing houses authorised under the Payment Systems Act.

In 2003, the Executive Board decided to outsource the operation of Norges Bank's settlement system (NBO). A contract for the operation and management of NBO has been signed with ErgoIntegration, which took over operational responsibility as of 1 September. The outsourcing is expected to reduce vulnerability and costs since the operation of the settlement system will be integrated into a larger IT environment.

Series VII of Norwegian banknotes, which began with the 200-krone note in 1994, was completed when the new 1000-krone note was issued in 2001. In 2002, the 200-krone note was upgraded to the same security level as the 500-krone and 1000-krone notes in the series. An upgraded 100-krone note was introduced in 2003. The number of forgeries has fallen considerably since the upgraded notes were introduced. An upgraded version of the 50-krone note will be introduced in 2004, although the changes to this note will be less extensive than was the case for the 100- and 200-krone notes.

A more detailed account of financial stability in 2003 is presented in Part II, Chapter 2.

Investment management

Norges Bank manages the Bank's foreign exchange reserves and is responsible for the operational management of the Government Petroleum Fund on behalf of the Ministry of Finance. Norges Bank also manages the Government Petroleum Insurance Fund on behalf of the Ministry of Petroleum and Energy. At end-2003, Norges Bank managed resources worth more than NOK 1000bn in international capital markets. The two largest funds are the Government Petroleum Fund, amounting to NOK 845bn, and Norges Bank's foreign exchange reserves, at NOK 189bn.

In 2003, positive absolute returns were recorded for all the portfolios managed by Norges Bank. Strong advances in equity markets in 2003 contributed to returns of 12.59% and 8.28% respectively for the Petroleum Fund and the investment portfolio in the foreign exchange reserves, measured in terms of the currency basket corresponding to the composition of the funds' benchmark indices. The depreciation of the Norwegian krone against the currency basket resulted in a return of 19.96% and 16.31% respectively measured in NOK. The objective of Petroleum Fund management, and one of the goals for the investment portfolio, is to achieve high international purchasing power in the long term. It must therefore be expected that returns will vary considerably from year to year. Developments in the two funds' international purchasing power are best reflected in the return in terms of international currencies.

In 2003, the actual return on all the portfolios was higher than the return on the various benchmark indices defined by the delegating authorities. The excess return was 0.59% for the Petroleum Fund, 0.58% for the investment portfolio in the foreign exchange reserves and 0.12% for the Petroleum Insurance Fund.

The Executive Board emphasises that investment management in Norges Bank shall be characterised by a high level of professional expertise and integrity, and that adequate control and risk management systems are in place. Development of the organisation for investment management has been approved by the Executive Board.

The Executive Board has determined the strategy and guidelines for the management of the foreign exchange reserves. Benchmark indices have been established to provide a basis for managing risk and measuring the performance of operational management. A number of changes were made in the portfolio structure in 2003 that will enhance management efficiency. The immunisation portfolio has been discontinued because of the considerable reduction in its size after most of the remaining government currency loans had been redeemed. The liquidity portfolio has been replaced by a money market portfolio of approximately NOK 5bn. The remainder was transferred to the long-term portfolio, which has been renamed the investment portfolio. After the transfer, this portfolio amounts to around NOK 140bn. In addition to these two portfolios, the foreign exchange reserves also comprise a buffer portfolio used to accumulate capital for subsequent transfer to the Petroleum Fund. In 2003, the Bank increased the equity portion in the investment portfolio from 18 to 24% and incorporated non-government-guaranteed bonds, based on a decision taken by the Executive Board in 2002.

The Ministry of Finance and the Ministry of Petroleum and Energy have established benchmark indices as a means of managing risk and measuring the performance of Norges Bank's operational management of the Government Petroleum Fund and the Government Petroleum Insurance Fund. The gradual phasing in of non-government-guaranteed bonds into the Petroleum Fund's benchmark index, which began in 2002, was completed in 2003.

In 2003, the Ministry of Finance transferred NOK 103.9bn to the Petroleum Fund. In order to maintain the degree of active management in a larger portfolio, the number of external mandates has been increased. The new mandates are more specialised.

A more detailed account of investment management is provided in Part II, Chapter 3. The management of the Government Petroleum Fund is also described in the Government Petroleum Fund's *Annual Report.*

Use of resources

The Executive Board emphasises that the central bank shall discharge its responsibilities in a professional manner and at low cost. To achieve this goal, the Bank has worked systematically over the past few years to concentrate its activities on its core tasks. Norges Bank has made good progress towards becoming a more specialised organisation, concentrating its activities on core tasks in monetary policy, financial stability and investment management, and closely associated operational and support functions. This has been achieved partly by establishing separate companies for some of the Bank's activities, partly by outsourcing and partly by downscaling.

The Royal Norwegian Mint was established as a separate company with Norges Bank as sole owner in 2001. In

2003, the company was sold to Samlerhuset AS Norge and Mint of Finland, each of which purchased 50% of the shares. Cash handling activities were spun off into a separate company, Norsk Kontantservice AS (NOKAS), in 2001. Norges Bank owns 33.5% of the shares in NOKAS. It has been decided that the production of banknotes in Norges Bank's Printing Works will be discontinued in 2007.

Norges Bank owns 100% of the shares in Bankplassen Parkeringsanlegg AS. The company sold 80% of these parking facilities to City Parking AS in 2003.

The Executive Board has considered a plan for scaling back the Bank's central staff and support functions by 2008. A separate profit centre has been established for the management of the Bank's main premises in Oslo. The objective is to use the premises more efficiently. Vacant space will be rented out to external tenants.

The work on monetary policy has become more resource-intensive. The use of resources for analytical activity has been strengthened in recent years.

Within the area of financial stability, the outsourcing of the settlement system has been accompanied by a gradual scaling back of banking services for the central government. Services available to Norges Bank's employees have been discontinued or outsourced.

The number of staff in investment management has been increased over the past few years as a result of an increase in capital under management and changes in management strategy. At end-2003, there were 119 permanent and temporary employees, against 116 in 2002. This number is expected to rise further over the coming years.

At end-2003, there were 618 permanent and temporary employees at Norges Bank, compared with 670 at end-2002 and 1 165 at end-1998. Roughly 40% of the reduction in the workforce since the end of the 1990s is due to rationalisation. The remainder is partly a result of spin-offs and partly due to outsourcing or the transfer of activities to others.

The Bank's restructuring affects many employees. Norges Bank is using personnel policy programmes to facilitate the restructuring. In 2003, applications for retirement from 24 employees in various parts of the Bank were approved using human resource policy measures. From 1999 to end-2003, voluntary retirement packages were agreed on for 270 employees.

Results and capital

Norges Bank's results for 2003 showed a surplus of NOK 20.8bn. The surplus was mainly the result of the depreciation of the krone, resulting in foreign exchange gains of NOK 12.3bn in 2003. The return on equity holdings in the foreign exchange reserves was very high in 2003, reaching 20.5% measured in terms of the currency basket applied to equity holdings in the foreign exchange reserves. At end-2003, equities in the foreign exchange reserves were worth NOK 34.2bn. The return on interest-bearing investments, which account for a major share of the foreign exchange reserves, also made a positive contribution to the surplus.

Norges Bank's results may vary considerably from one year to the next because of developments in the krone exchange rate and in financial market prices. The results in 2003 as compared with 2002 are an illustration of this. The Bank's capital should be large enough to absorb the deficits that must be expected in years with an appreciating krone and falling securities prices. The Adjustment Fund accounts for most of Norges Bank's capital. In accordance with Royal Decree of 6 December 2002, Norges Bank's surplus shall be utilised by first allocating capital to the Adjustment Fund, so that the Fund as a share of the Bank's international assets with exchange rate exposure is 40%. An amount equivalent to 5% of domestic assets shall also be allocated to the Adjustment Fund. Any remaining surplus is to be allocated for subsequent transfer to the Treasury. In accordance with these provisions, Norges Bank's surplus for the year 2003 was allocated in its entirety to the Adjustment Fund. As a result of the year's allocations, the Adjustment Fund amounts to NOK 41.9bn. If the size of the Adjustment Fund were to be in full accordance with regulations, the Fund would have amounted to NOK 80.7bn.

The monthly transfers to the Petroleum Fund are financed by drawing on an earmarked portion of the foreign exchange reserves, known as the buffer portfolio. Funds have been allocated to the buffer portfolio through transfers of all gross foreign currency revenues from the State's Direct Financial Interest in petroleum activities (SDFI). Forecasts of the need for transfers to the Petroleum Fund have previously shown that these revenues have not been sufficient to finance an expansion of the Fund. Norges Bank has therefore provided supplementary foreign currency by purchasing currency for the buffer portfolio. The buffer portfolio functions as a buffer between currency inflows and transfer requirements, which are under continuous review through the fiscal year. As a result of the downward revision in the Revised National Budget for 2003 of the estimates for the year's allocations to the Petroleum Fund, Norges Bank's purchase of foreign exchange in the market was discontinued on 21 May 2003. In both 2002 and 2003, however, the inflow of foreign currency to the buffer portfolio has been larger than the transfers to the Petroleum Fund. As a result, the foreign exchange reserves have increased by a total of NOK 32.1bn, of which NOK 9.9bn in 2003. The current buffer portfolio is larger than is realistically needed as a buffer against uncertainty in the Petroleum Fund. The Executive Board will consider how the surplus should be invested. With effect from January 2004, the system for foreign currency payments from the State's Direct Financial Interest in petroleum activities (SDFI) to Norges Bank has been changed to ensure that the supply of foreign exchange to the foreign exchange reserves and the build-up of the Petroleum Fund do not deviate over time.

A more detailed account is provided in Part II, Chapter 3 of this report, and in Part III, the "Report of the Executive Board on the financial statements for 2002".

Oslo, March 2004

Svein Gjedrem	Jarle Bergo	Liselott Kilaas
Vivi Lassen	Brit K.S. Rugland	Asbjørn Rødseth
Øystein Thøgersen	Sonja Blichfeldt Myhre (Employees' representative)	Jan Erik Martinsen (Employees' representative)

2 NORGES BANK'S ACTIVITIES

Chapter 1. Monetary policy

The objective of monetary policy

The Government has defined an inflation target for monetary policy in Norway. The operational target is consumer price inflation of 2½% over time.

The legal basis for Norges Bank's activities is the Act on Norges Bank and the Monetary System of 24 May 1985. Section 2 defines the relationship with the central government authorities, while Section 4 relates to decisions concerning changes in the exchange rate regime (see box). Pursuant to Sections 19 and 20, Norges Bank stipulates the conditions for and the interest rates on banks' deposits with and loans from the central bank. The Norges Bank Act was last amended on 20 June 2003 (the amendments entered into force on 1 January 2004). For more information about the amendments to the Norges Bank Act, see box on page 52. A new fourth paragraph in section 3 states that "the Bank shall inform the public of the assessments on which monetary policy decisions are based". In 2003, Norges Bank published an account of the assessments underlying the Executive Board's interest rate decision.

The mandate for the implementation of monetary policy is laid down in the Regulation of 29 March 2001, pursuant to Section 2, third paragraph, and Section 4, second paragraph, of the Norges Bank Act (see box). Norges Bank issued its opinion on the mandate in its submission of 27 March 2001 to the Ministry of Finance. The submission stated the following:

"Monetary policy affects the economy with considerable and variable lags. Consequently, the Bank must

The Norges Bank Act, Chapter I. General provisions.

Section 1. Purposes and functions of Norges Bank

Norges Bank is Norway's central bank. The Bank shall be an executive and advisory body for monetary, credit and foreign exchange policy. It shall issue banknotes and coin, promote an efficient payment system domestically as well as vis-à-vis other countries, and monitor developments in the money, credit and foreign exchange markets.

The Bank may implement any measures customarily or ordinarily taken by a central bank. To carry out its purposes the Bank may engage in any and all types of banking business and banking services.

Section 2. Relationship to the government authorities

The Bank shall conduct its operations in accordance with the economic policy guidelines drawn up by the government authorities and with the country's international commitments.

Before the Bank makes any decision of special importance, the matter shall be submitted to the ministry.

The King in Council may adopt resolutions regarding the operations of the Bank. Such resolutions may take the form of general rules or instructions in individual cases. The Bank shall be given the opportunity to state its opinion before such resolutions are passed. The Storting shall be notified of resolutions as soon as possible.

The Bank is a separate legal entity and is owned by the state. The Office of the Auditor General monitors the way the minister exercises his authority in accordance with the instructions laid down by the Storting.

Section 3. Statements by the Bank

The Bank shall state its opinion on matters that are put before it by the King or the ministry.

The Bank shall inform the ministry when, in the opinion of the Bank, there is a need for measures to be taken by others than the Bank in the field of monetary, credit or foreign exchange policy.

The Bank shall inform the public about the monetary, credit and foreign exchange situation.

The Bank shall inform the public of the assessments on which monetary policy decisions are based.

* Amended by Act No. 44 of 20 June 2003 (in force as from 1 Jan 2004 pursuant to decision No. 1600 of 19 Dec 2003).

Section 4. The monetary unit and its international value

The Norwegian monetary unit is one krone. The krone is divided into 100 øre.

The King makes decisions regarding the exchange rate arrangement for the krone and changes in the exchange rate level of the krone.

Decisions regarding changes in the exchange rate arrangement for the krone and in the exchange rate level of the krone shall be communicated to the Storting.

be forward-looking in its interest-rate setting. The effects of interest rate changes are uncertain and vary over time. Changes in the interest rate will be made gradually so that the Bank can assess the effects of interest rate changes and other new information on economic developments. If price inflation deviates substantially from the target for a period, Norges Bank will set the interest rate with a view to gradually returning consumer price inflation to the target. Norges Bank will seek to avoid unnecessary fluctuations in output and demand."

The mandate means that monetary policy has been given a clear role in stabilising economic developments. The first paragraph of the Regulation states that monetary policy shall be aimed at stability in the krone exchange rate, contribute to stable exchange rate expectations and contribute to stable developments in output and employment. Situations may arise where it is difficult to stabilise all three factors at the same time. The objective of monetary policy reflects that low and stable inflation is the best contribution monetary policy can make to achieving stability in output and employment. Low and stable inflation and stable inflation expectations are also a necessary precondition for achieving stable exchange rate expectations, and are thus also an anchor for developments in the krone exchange rate.

The inflation target is symmetrical - it is just as important to avoid an inflation rate that is too low, as it is to avoid an inflation rate that is too high. The inflation target provides economic agents with an anchor for infla-

Regulation on Monetary Policy

Established by Royal Decree of 29 March 2001 pursuant to Section 2, third paragraph, and Section 4, second paragraph, of the Act of 24 May 1985 no. 28 on Norges Bank and the Monetary System

I

Section 1

Monetary policy shall be aimed at stability in the Norwegian krone's national and international value, contributing to stable expectations concerning exchange rate developments. At the same time, monetary policy shall underpin fiscal policy by contributing to stable developments in output and employment.

Norges Bank is responsible for the implementation of monetary policy.

Norges Bank's implementation of monetary policy shall, in accordance with the first paragraph, be oriented towards low and stable inflation. The operational target of monetary policy shall be annual consumer price inflation of approximately 2.5 per cent over time.

In general, the direct effects on consumer prices resulting from changes in interest rates, taxes, excise duties and extraordinary temporary disturbances shall not be taken into account.

Section 2

Norges Bank shall regularly publish the assessments that form the basis for the implementation of monetary policy.

Section 3

The international value of the Norwegian krone is determined by the exchange rates in the foreign exchange market.

Section 4

On behalf of the State, Norges Bank communicates the information concerning the exchange rate system ensuing from its participation in the International Monetary Fund, cf. Section 25, first paragraph, of the Act on Norges Bank and the Monetary System.

II

This regulation comes into force immediately. Regulation no. 0331 of 6 May 1994 on the exchange rate system for the Norwegian krone is repealed from the same date.

tion expectations. It provides an important basis for choices concerning saving, investment, budgets and wages.

Monetary policy instruments

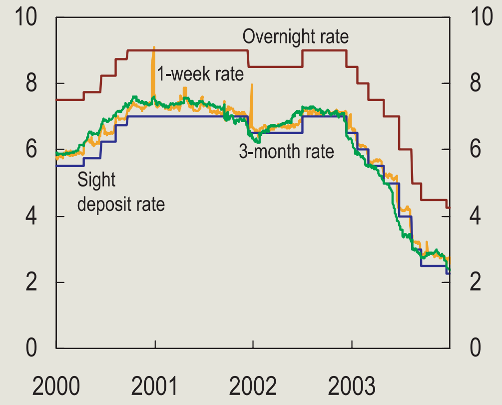
Norges Bank influences economic developments by setting the interest rate on banks' deposits in Norges Bank. In addition, the Bank can buy or sell kroner (intervene) in the foreign exchange market.

The interest rate on banks' overnight deposits in Norges Bank – the sight deposit rate – is the most important monetary policy instrument. Market rates with longer maturities are not directly determined by Norges Bank. These market interest rates, however, are influenced by the sight deposit rate, and by market expectations concerning developments in the sight deposit rate. Market rates have an effect on the exchange rate, securities prices, house prices and demand for loans and investments. Changes in Norges Bank's key interest rate may also shape expectations concerning future inflation and economic developments. The interest rate operates through all these channels to influence total demand, production, prices and wages (see box).

Experience shows that the sight deposit rate has a fairly pronounced impact on the shortest money market rates, i.e. overnight and 1-week rates (see Chart 1). Money market rates for somewhat longer maturities are not affected as directly through this channel. Market expectations of the central bank's response pattern and economic developments also have an impact.

Norges Bank is in a position to intervene in the foreign exchange market at short notice, but will not normally use interventions to influence the krone. Exchange market intervention, whether it be purchases or sales of foreign exchange, is not an appropriate instrument for influencing the krone over a longer period. However, interventions may be appropriate if the exchange rate moves outside a range that the Bank judges to be reasonable in relation to fundamentals, and if exchange rate developments weaken the prospect of achieving the inflation target. Interventions may also be appropriate in response to pronounced short-term fluctuations in the krone when liquidity in the foreign exchange market falls to a very low level. Norges Bank does not wish to act in a way that may give rise to a game situation that may amplify pressures in the foreign exchange market. Foreign exchange intervention rather than a change in the interest rate may give ambiguous signals to foreign exchange operators and a game situation may arise. The Bank will provide an account of any interventions and the background for them. In 2003, Norges Bank did not intervene to influence the krone.

Chart 1: Norges Bank's interest rates and short-term market rates. Nominal rates. Daily figures. 2000-2003



Source: Norges Bank

The conduct of monetary policy

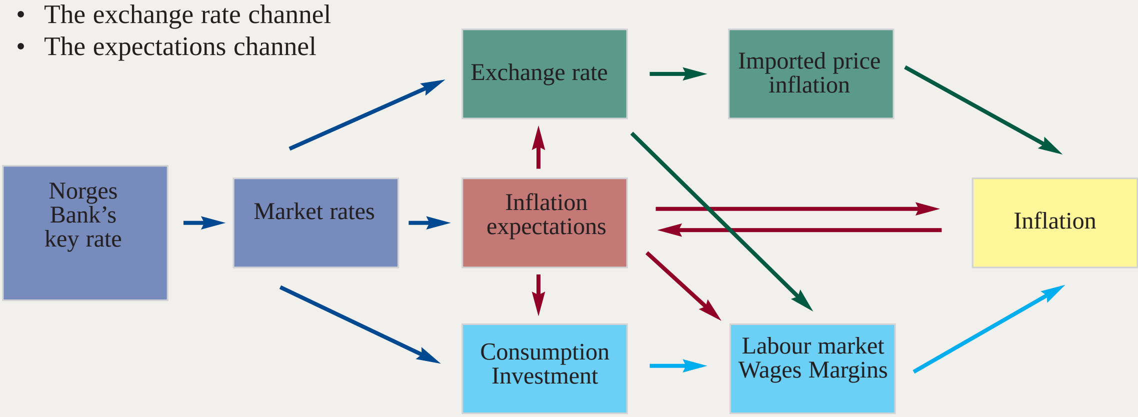
The objective of monetary policy is consumer price inflation of 2½% over time. Norges Bank sets the interest rate so that future inflation will be equal to the inflation target. Monthly variations in consumer price inflation are influenced by random and temporary factors that cannot be affected by monetary policy. Therefore, Norges Bank shall not normally take account of direct effects on consumer prices of changes in interest rates, taxes, excise duties and extraordinary, temporary disturbances. Particular weight is placed on developments in consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE). In the period ahead, Norges Bank will also adjust for changes in day-care rates following the introduction of a maximum rate for day-care places.

Norges Bank normally takes a gradual approach to interest-rate setting. This is because of the uncertainty associated with the economic situation, disturbances to which the economy may be exposed and the timing of the effect of an interest rate change on inflation. In some cases, however, one may proceed more rapidly. The interest rate may be changed rapidly and markedly if there is a risk that inflation might deviate considerably from the target over a longer period so that inflation expectations might be influenced, or when heightened turbulence in financial markets or a cost shock as a result of negotiated wage increases indicates that confidence in monetary policy is in jeopardy.

How do changes in the interest rate affect the economy?

Norges Bank's monetary policy instrument is the key rate. Norges Bank's key rate affects short-term money market rates, and expectations concerning future developments in the key rate are decisive for banks' deposit and lending rates and bond yields. It may be useful to distinguish between three channels through which monetary policy operates:

- The demand channel
- The exchange rate channel
- The expectations channel



The effect of changes in interest rates on inflation occurs with a lag and may vary in intensity. In the time it takes for a change in interest rates to feed through, other factors will also have an impact resulting in changes in inflation and output. The various relationships will not be stable over time.

As interest rates fall, household and local government consumption and investment will tend to increase. This is because they have more money left over after servicing their debt and because borrowing becomes less expensive. Corporate finances are strengthened and investment may become more attractive. Higher demand leads to higher output and employment. Wage growth may pick up. Higher wage growth combined with higher profit margins will result in higher inflation.

The effect of interest rate changes may be amplified because the interest rate also affects the krone exchange rate. When interest rates are lower, more people will borrow money and fewer will invest in NOK. Lower interest rates will thus normally lead to a depreciation of the krone. Imported goods will then become more expensive and inflation will accelerate. A weaker krone also boosts exports and improves profitability in the Norwegian business sector. The effect on the exchange rate of a change in interest rates will vary as themes and sentiments shift in the foreign exchange market.

Norges Bank believes that expectations play an important role when prices and wages are set. Expectations concerning inflation and economic stability are of crucial importance for the foreign exchange market. Inflation expectations also influence wage demands and have an effect when companies adjust their prices. It may be difficult to form an opinion about how expectations are generated. Confidence in the inflation target may provide an anchor. Past inflation rates may also influence what we think inflation will be in the future. There is thus an interaction between inflation expectations and inflation.

If there is confidence in monetary policy, expected inflation will be equal to or close to the inflation target. This contributes to stabilising inflation around the target. The expectations channel thus amplifies the effects of monetary policy. Therefore, Norges Bank places considerable emphasis on ensuring that households, companies, the social partners and financial market participants are confident that inflation will remain low and stable.

The operational target of monetary policy in Norway is inflation of close to 2½% over time. Norges Bank operates a flexible inflation targeting regime, so that weight is given to variability in inflation as well as to variability in output and employment (see box on flexible inflation targeting on p. 42).

Norges Bank has no specific target for the level of the exchange rate. However, changes in the krone exchange rate are nonetheless of central importance in interest-rate setting because they affect inflation and developments in activity. The response to a change in the exchange rate will depend on its expected impact on inflation, output and employment. This requires an evaluation of the reasons for and the duration of the change. Very short-term fluctuations in the krone exchange rate tend to have very limited effects on economic developments, while more long-lasting changes can have an impact. However, it is difficult to determine whether exchange rate changes are permanent or temporary. This is why Norges Bank normally changes interest rates gradually in response to exchange rate movements.

Developments in inflation, adjusted for some temporary factors, provide a basis for assessing the monetary stance. The precision in attaining the inflation target that can reasonably be expected from monetary policy must also be taken into account. Norges Bank expressed its views on the monetary policy mandate in its submission to the Ministry of Finance of 27 March 2001. The submission stated the following:

"If there are significant deviations between actual price inflation and the target, the Bank will provide a thorough assessment in its annual report. Particular emphasis will be placed on any deviations outside the interval of +/- 1 percentage point."

There will always be some measure of uncertainty associated with economic developments and inflation. Professional judgment must therefore be exercised in interest-rate setting. Experience of uncertainty surrounding inflation forecasts would indicate that when monetary policy is oriented towards reaching the target of 2½%, inflation will remain within the interval of +/- 1 percentage point around the target in four out of five years. This is consistent with the experience of other countries with an inflation targeting regime. However, these projections are based on the experience gained in a period that featured low and stable inflation in OECD countries. In periods of very high inflation abroad and periods where inflation is close to zero or negative, there will probably be a higher degree of uncertainty associated with the projections.

Trade-offs in monetary policy

When inflation deviates from 2½%, a number of different monetary policy strategies may be used to bring inflation back to target. When the deviations are substantial, one of the key questions in monetary policy is how quickly to proceed.

The underlying premise is that monetary policy only has a limited effect on consumer price inflation over the first few months. Many prices are subject to price agreements that apply for a period ahead. If the objective of monetary policy were to bring inflation rapidly back to target, for example in the course of six months, the interest rate would probably have to be set to induce a substantial change in the exchange rate. At the same time, such a strategy could have a considerable impact on demand, on the production of goods and services and on employment. This is referred to in the literature as strict inflation targeting (see, for example, Svensson (2002)).[1] A more flexible approach may be to apply a somewhat longer period to bring inflation back to target, so-called flexible inflation targeting. Such a policy will have less impact on demand and output than strict inflation targeting.

In many cases, a change in interest rates will contribute to steering both inflation and total demand in the desired direction. An unexpected fall in total demand for goods and services will, for example, lead to a fall in inflation, output and employment. Lower interest rates will then lead to a renewed rise in both demand and inflation. Other disturbances may, however, create a conflict between price stability and stability in the real economy in the short term. For example, marked wage growth as a result of wage negotiations could simultaneously lead to higher inflation and lower employment. A tighter monetary policy would then contribute to reducing inflation, but might at the same time result in a further fall in output and employment. Various kinds of unexpected events will often occur at the same time. The central bank must then weigh the effects on output and employment against the variability in inflation around the inflation target. If developments in wage growth indicate a lack of confidence in monetary policy or that wage formation is not anchored in the inflation target, the objective of low and stable inflation will be given considerable weight.

The choice of horizon for monetary policy implicitly sheds light on monetary policy trade-offs. A central bank that places considerable emphasis on smoothing variability in inflation, and little emphasis on stability in output and employment, will choose a short horizon. A central bank that places considerable emphasis on developments in the real economy will choose a long horizon.[2]

Normally, Norges Bank sets the interest rate with a view to achieving an inflation rate of 2½% two years ahead. It would in general have been possible to achieve the inflation target at a horizon shorter than two years by changing the interest rate more rapidly and more markedly. This might, however, have a

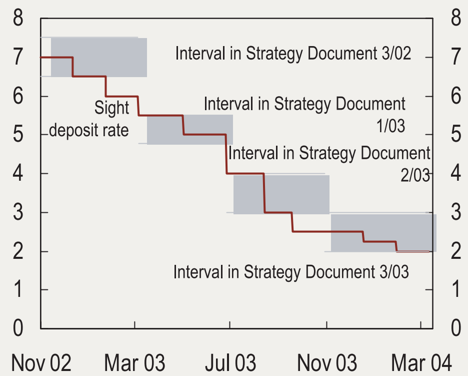
1 Svensson, Lars E. O. (2002): "Monetary Policy and Real Stabilization", in "Rethinking Stabilisation Policy", Federal Reserve Bank of Kansas City.
2 See for example Frank Smets (2000), "What horizon for price stability?", ECB Working Paper No. 24.

Norges Bank's *Inflation Report* and Strategy Document

Norges Bank publishes three Inflation Reports a year (March, June and October). In these reports, Norges Bank analyses the outlook for price and cost inflation two to three years ahead. Underlying the projections is a detailed analysis of real economic developments, with projections for growth in private and public consumption, output growth, employment growth and unemployment, and for international developments. The Central Bank Governor is the editor of the *Inflation Report*, which is available in both Norwegian and English on Norges Bank's website.

The Executive Board uses the analyses in the *Inflation Report* as a basis for discussing the economic outlook and the consequences for the formulation of monetary policy for the next four months (see chart). This discussion takes place at a separate meeting three weeks before the *Inflation Report* is published. The document that forms the basis for this discussion is referred to as the Strategy Document. The document contains an analysis of the outlook for the Norwegian economy under different scenarios based on alternative assumptions regarding interest rate and exchange rate developments. Various risk factors associated with economic developments are also discussed. The Strategy Document is discussed and approved by the Executive Board and applies until the next *Inflation Report* is published. The approved strategy includes an appropriate interval for the interest rate during the strategy period (see chart). The document is published on Norges Bank's website in Norwegian and English at the end of the strategy period. The Strategy Document was first published on 5 March 2003.

Chart Strategy interval for the sight deposit rate and actual developments. November 02–March 04



Source: Norges Bank

greater impact on output and employment. Norges Bank operates a flexible inflation targeting regime, so that weight is given to variability in output and employment and variability in inflation.

Monetary policy affects the economy with a lag. Our analyses indicate that a substantial share of the effects of an interest rate change will occur within two years. The choice of a two-year horizon is thus based on the central bank's approach to striking a balance between variability in inflation and variability in output and employment, and a perception of how interest rates influence these variables.[3]

Consequently, the path of inflation and the real economy in the period ahead will be taken into account when setting interest rates. In situations where the central bank's projections indicate that inflation two years ahead will be equal to the target while there is substantial slack in the economy, it may be appropriate to orient monetary policy in such a way that inflation projections may temporarily overshoot the target somewhat in order to remedy the imbalances in the real economy.

A sharp rise in asset prices and debt accumulation may pose a risk to economic stability. To reduce this risk, there may be situations when it is appropriate to apply a somewhat longer horizon than the normal two-year horizon for achieving the inflation target. A precondition for this is that financial market participants are confident that inflation will be low and stable over time.

If financial and foreign exchange market participants have confidence in the inflation target, Norges Bank will have greater scope for promoting stability in output and employment. This scope will increase also as the inflation target is incorporated as an anchor for wage formation. When there is a risk that inflation may deviate considerably from the target over a longer period, or confidence in monetary policy is in jeopardy, pronounced and rapid interest rate changes may be appropriate.

[3] How the interest rate affects the path of inflation and output is discussed in more detail in a box in *Inflation Report* 4/2000: "Effects of a change in interest rates".

External evaluation of the *Inflation Report* and *Strategy Document*

At the request of Norges Bank, the *Inflation Report* and the *Strategy Document* were evaluated externally in 2003.

The Inflation Report

At the request of Norges Bank, Andrea Fracasso, Hans Genberg and Charles Wyplosz of the Graduate Institute of International Studies in Geneva compared inflation reports from 20 countries.[1] Norges Bank's report ranked no. 8 in the comparison.[2]

Norges Bank's *Inflation Report* was evaluated as succinct, structured, easy to read but containing a large amount of information. The report's explicit assumptions and thorough description of the objectives of monetary policy were also regarded as positive.

According to Fracasso, Genberg and Wyplosz, a good inflation report has a summary, a review of the most recent monetary policy decisions, and the rationale behind these decisions. There should also be an overview of the decision-making system for monetary policy. Norges Bank's *Inflation Report* did not contain such an overview.

Norges Bank saw a preliminary version of the report in January 2003 and made several changes. Since the 1/2003 issue, the *Inflation Report* has had a summary and a section on the conduct of monetary policy since the previous report. A description of the monetary policy objective and decision-making system was also included. The annexes were expanded to provide greater insight into the Bank's choice of assumptions. An overview of previous boxes was also included, with emphasis on boxes that deal in particular with the Bank's assessment of the functioning of monetary policy.

The Strategy Document

Deputy Governor David Longworth of the Bank of Canada and Professor Asbjørn Rødseth of the University of Oslo have evaluated the *Strategy Document* at the request of Norges Bank. The evaluation was presented to the Executive Board in June 2003.

According to Longworth and Rødseth, the *Strategy Document* as a whole complies with international standards and compares well with similar documents from other inflation-targeting central banks.

However, there was room for improvement:

- Broader discussion of the transmission mechanism
- Discussion of indicators that illustrate labour market pressures, unit labour costs, traditional exports, GDP growth and the output gap
- Discussion of indicators for inflation expectations
- Projections for economic developments more than two years ahead, for example three years
- A measure of the equilibrium exchange rate would be useful for identifying pressures on the exchange rate.

They recommend that Norges Bank consider publishing parts of the *Strategy Document* in the *Inflation Report* near the beginning of the period for which it applies. They do not recommend publishing the part of the *Strategy Document* that indicates the interest rate interval.

Several changes have been made in subsequent strategy documents. Among other things, most of the indicators that Longworth and Rødseth missed, are now discussed. For example, the Taylor rate is now used as a simple reference in comparisons of alternative interest rate scenarios ahead.

Broad-based research on exchange rates was conducted in 2003. The work is documented in Norges Bank's *Occasional Papers*, no. 32/2003: "Factors behind developments in the krone exchange rate – an empirical analysis." One of the chapters discusses different targets and levels for real equilibrium exchange rates for Norway.

[1] Hans Genberg and Charles Wyplosz are professors of economics at the Graduate Institute of International Studies in Geneva. Fracasso is a research assistant at the same institute. Genberg and Wyplosz have a number of international publications.

[2] Fracasso, Andrea, Hans Genberg and Charles Wyplosz (2003) "How do Central Banks Write? An Evaluation of Inflation Reports by Inflation Targeting Central Banks". *Geneva Reports on the World Economy. Special Report* no.2. www.norges-bank.no/pengepolitikk/konferanser/2003/fracasso.pdf

Transparency around monetary policy decisions

The interpretation of the mandate for monetary policy and analyses of the outlook for inflation and the real economy provide the basis for monetary policy decisions. In recent years, Norges Band has strived to achieve greater transparency with regard to the basis for monetary policy decisions.

The interpretation of the regulation and the consequences for the conduct of monetary policy are described in the submission of 27 March 2001 to the Ministry of Finance, and more specifically defined in subsequent annual reports and in the submission of 17 September 2003 to the Ministry of Finance.

The table below provides an overview of the background material for the Executive Board's monetary policy meetings. As indicated in the table, measures were taken in 2003 to improve transparency.

The interest rate decision is announced in a press release immediately after the monetary policy meeting (2 pm). Since 29 October 2003, the press release has provided a detailed account of the assessments underlying the interest rate decision. This account replaces the former "Introduction to press conference". The interest rate decision is published at a pre-announced time. Forty-five minutes after the interest rate decision has been published, a press conference is held where the central bank governor or deputy governor provide a more detailed account of the reasons behind the Executive Board's decision. Norges Bank provides a webcast of the press conference.

Table: Material for the monetary policy meetings and for publication

Material	First published	Exceptions	Publication time
Inflation Report	December 1994 (*Inflation Report* 4/94)		2 pm on the same day as the monetary policy meeting
Strategy Document	5 March 2003 (*Strategy Document* 3/02)		At the end of the strategy period, i.e. about 4 months after the strategy decision
Background material concerning Norwegian and international economy (charts)	11 December 2002	Confidential information such as forecasts from the OECD and the IMF which are not published, wage growth estimates for various groups based on confidential information from employers or employee organisations, data from specific enterprises or new, preliminary analyses from Norges Bank.	2 pm on the day after the monetary policy meeting
Report from the regional network	Summary of the reports from the regional network was published from Q1 2003	The entire report is not published since it contains confidential information about individual enterprises.	2 pm on the Monday after the monetary policy meeting
Charts presented by the central bank governor or deputy governor at the monetary policy meeting	29 October 2003	Confidential information	2 pm on the same day as the monetary policy meeting
Press release with an account of the assessments underlying the interest rate decision	5 March 2003		2 pm on the same day as the monetary policy meeting

The basis for decisions and the work on interest-rate setting

According to section 3 of the Norges Bank Act, Norges Bank shall inform the public about the monetary, credit and foreign exchange situation and about the assessments on which monetary policy decisions are based. According to Section 2 of the Regulation on Monetary Policy, Norges Bank shall regularly publish the assessments that form the basis for the conduct of monetary policy.[4] The Annual Report provides an extensive explanation of this. The Bank also presents three inflation reports and three strategy documents per year (see box on p. 19).

The decisions taken at strategy meetings, the analyses in Norges Bank's inflation reports, combined with the ongoing assessment of the outlook for price and cost inflation, output and employment and developments in the money and foreign exchange markets, form the basis for monetary policy decisions. To improve the basis for its decisions, Norges Bank has established a regional network to gather information from the public and private sectors (see box, p. 46). Tables and charts displaying developments in a range of economic variables are also presented to the Executive Board at the monetary policy meetings. Most of this information is published on Norges Bank's website.[5]

The Executive Board discusses monetary policy in depth every six weeks. Any decisions concerning interest rate changes or other important changes in the use of monetary policy instruments will normally be taken at these meetings. In other contexts, when assessments are provided with regard to new economic developments that are of considerable importance for price developments and interest-rate setting, the members of the Executive Board are consulted in advance.[6]

Interest rate decisions are published immediately following the monetary policy meetings at a pre-announced time. This is also the case when the interest rate is left unchanged. A detailed account of the assessments underlying the Executive Board's interest rate decision are published at the same time. A press conference is subsequently held where the central bank governor or deputy governor explains in further detail the reasons behind the Executive Board's decision. The press conference is webcast live via Norges Bank's website.

Norges Bank's assessment of economic developments and the reasons behind the interest rate decisions are also published (see box). The Executive Board's overall assessments and evaluations are expressed in the *Strategy Document* and in the account that is published at the same time as the interest rate decision. These documents, together with the *Inflation Report*, provide the most important basis for monetary policy decisions. In addition, the executive management in Norges Bank gives a series of lecture and speeches for various groups in Norway and abroad every year. The purpose of this is to explain Norges Bank's views on economic developments and to enhance the understanding of economic relationships that are important with regard to implementing monetary policy. With a view to promoting information symmetry, most of the speeches and lectures are published on Norges Bank's website at the same time as they are given. Speeches that include new assessments are always published on Norges Bank's website. In 2003, the central bank governor and deputy governor gave a total of 35 speeches, 21 of which were published on the website.

Monetary policy in 2003

In 2003, the *Inflation Report* provided a broad discussion of current monetary policy in each period. Norges Bank's "Report on Monetary Policy in 2003 – the first eight months" provides an overall assessment of monetary policy in the first eight months of 2003. The presentation below is largely based on this discussion. The discussion of the first five monetary policy meetings is taken directly from the report.

While interest rates in the US and Europe were low in 2002, Norway's economy remained buoyant with a high level of activity. The cyclical divergence fed through to the krone exchange rate (see Chart 2). In isolation, this pointed to lower inflation. However, the main factors behind the appreciation of the krone were the high level of activity and strong wage growth in Norway compared with trading partners.

Towards the end of 2002, current data indicated that growth in output and employment might be weaker than previously projected by Norges Bank. Inflation was projected to be lower than the target at the two-year horizon. There were also signs that the outlook was deteriorating relatively rapidly. On 11 December, the key rate was lowered by 0.5 percentage point to 6.5%. With an interest rate of 6.5%, Norges Bank's assessment was that the probability that inflation two years ahead would be lower than 2½% was greater than the probability that it would be higher. For further details, see Norges Bank's *Annual Report* for 2002.

Norges Bank reduced the key rate by 0.5 percentage point to 6% on 22 January 2003 (see Chart 3). On 5 March and 30 April, the key rate was also lowered by 0.5 percentage point at each meeting. On 25 June and 13 August, the key rate was reduced by 1 percentage point at each meeting. The key rate was further re-

4 The latter point was introduced after the amendments that entered into force on 1 January 2004, see box, in Chapter 6.

5 Charts containing data or assessments that are not publicly available are not published on the website. This applies to forecasts from the OECD and the IMF before they are published, wage growth estimates for various groups based on confidential information from employers or employee organisations, data from specific enterprises or new, preliminary analyses from Norges Bank. These types of charts are not included in the set of charts that is published.

6 This applies, for example, to the 2003 annual address and the Governor's speech at the Centre for Monetary Economics (CME) in June this year.

duced by 0.5 percentage point on 17 September and by 0.25 percentage point on 17 December. At the end of December 2003, the sight deposit rate stood at 2.25%.

The monetary policy meeting on 22 January

At the monetary policy meeting on 22 January, Norges Bank's Executive Board decided to reduce the key rate by 0.5 percentage point to 6.0%. With an interest rate of 6.0%, Norges Bank's assessment was that the probability that inflation two years ahead would be lower than 2½% was greater than the probability that it would be higher.

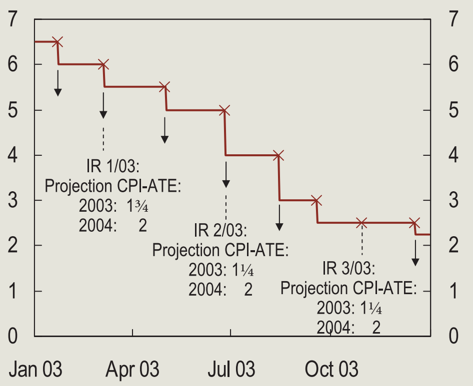
The krone continued to appreciate after the interest rate reduction on 11 December and was about 3% stronger than assumed in the baseline scenario in the October *Inflation Report* (*Inflation Report* 3/02). This was also considerably stronger than the assumption underlying the Executive Board's strategy decision in October (*Strategy Document* 3/02) and in line with a path in the *Inflation Report* presented at the same time, where inflation was below target at the two-year horizon. Against this background, the key rate was set below the interval indicated in *Strategy Document* 3/02.

Chart 2 Developments in the krone exchange rate (I-44)[1]. Index[2]. Daily figures.January 2001–February 2004

[1] The method for calculating I-44 was changed in spring 2002
[2] A rising curve denotes a weaker exchange rate

Sources: Statistics Norway and Norges Bank

Chart 3 Monetary policy in 2003 – sight deposit rate[1]



[1] The times of the Executive Board's monetary policy meetings are marked with a cross. Norges Bank's view of the outlook for inflation two years ahead after the monetary policy decision is indicated by the arrow leading from the cross. A downward-pointing arrow indicates that after the monetary policy decision, Norges Bank's assessment was that, with an unchanged interest rate, the probability that inflation two years ahead would be lower than 2½ per cent was greater than the probability that it would be higher.

Source: Norges Bank

The monetary policy meeting on 5 March

Projections for growth in output and employment were revised downwards in the March *Inflation Report* (*Inflation Report* 1/03) compared with the October report. This partly reflected weaker global growth prospects. Growth was assumed to pick up internationally, but the upturn was expected to come at a later stage than previously anticipated. It could not be ruled out that the world economy was facing a fairly long period of stagnation. Low interest rates in the US and Europe reflected this risk. Developments in the Norwegian economy were weaker than projected earlier. Norwegian industrial leaders had become more pessimistic. Even though the krone had depreciated somewhat, profitability in the business sector was still weak. Unemployment had increased markedly over the preceding three months. According to information from Norges Bank's regional network, manufacturing industry had reduced its demand for goods and services from Norwegian sub-contractors. This reduced demand for goods and services from industries that are sheltered from direct international competition.

Household expectations concerning economic developments fell further in the first quarter, probably reflecting political and economic uncertainty as well as the increase in unemployment in Norway. At the same time, electricity prices rose sharply in December and January. These developments were estimated to have a greater impact on household demand in 2003 than the interest rate cuts in December and January. Household credit growth had edged down, but was still higher than 10% on an annual basis. House prices seemed to be levelling off. As a result of developments in the labour market, the projection for wage growth was revised downwards.

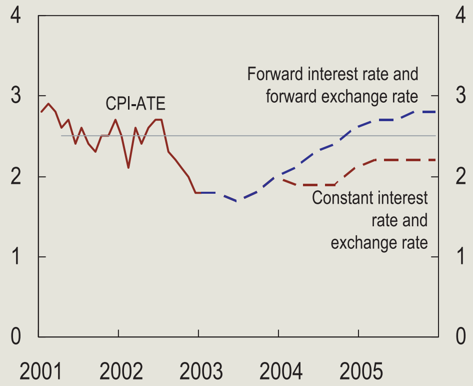
In his annual address on 20 February, the Governor stated that a stagnating global economy had changed the domestic inflation outlook in the preceding months. With a continued tight monetary stance, inflation would probably be lower than the inflation target. It was announced that a gradual easing of monetary policy therefore seemed appropriate.

Inflation Report 1/03 presented two scenarios for the Norwegian economy based on different assumptions concerning the orientation of monetary policy (see Chart 4). In the baseline scenario, the sight deposit rate was held constant at 5.5% and the krone exchange rate was assumed to be equal to the average for February. On the basis of these assumptions, consumer price inflation was projected to remain below 2½% to the end of 2005. If the projections were instead based on a monetary policy easing in line with market expectations, there were prospects that inflation would be somewhat above target at the two-year horizon (see Chart 4).

On the basis of these prospects, the Executive Board deemed that a sight deposit interval of 4¾-5½% would be appropriate at the end of June (*Strategy Document* 1/03).[7]

In line with this strategy, Norges Bank's Executive Board decided on 5 March to reduce the sight deposit rate by 0.5 percentage point, to 5.5%. It was still Norges Bank's assessment that the probability that inflation two years ahead would be lower than 2½% was greater than the probability that it would be higher. It was stressed that there was substantial uncertainty, including the uncertainty associated with exchange rate developments. The uncertainty warranted a gradual approach to interest rate changes.

Chart 4 Projections for CPI-ATE in *Inflation Report* 1/03 with different interest rate and exchange rate assumptions.12-month rise. Per cent



Sources: Statistics Norway and Norges Bank

The monetary policy meeting on 30 April

Information in March and April broadly confirmed the weak growth outlook and prospects of low inflation ahead as projected in the *Inflation Report*. International growth did not pick up. Interest rates were reduced further in the euro area, Denmark, Sweden and New Zealand. There were expectations of additional interest rate cuts in a number of countries. The krone appreciated somewhat during March and April. In Norway, new national accounts figures indicated that economic growth had come to a halt towards the end of 2002. Current statistics showed few signs of improvement in the first months of 2003. Unemployment had risen further. Credit growth slowed somewhat as a result of lower business demand. Growth in household credit demand was still high, however. The wage settlement in the manufacturing sector pointed to lower wage growth in 2003 than in 2002 and somewhat lower than projected in *Inflation Report* 1/03. On balance, this indicated that a further easing of monetary policy was appropriate.

At the meeting on 30 April, Norges Bank's Executive Board decided to reduce the key rate by 0.5 percentage point, to 5.0%. With an interest rate of 5%, Norges Bank still judged that the probability that inflation two years ahead would be lower than 2½% was greater than the probability that it would be higher.

The monetary policy meeting on 25 June

Money market interest rates dropped from 4 June to 25 June. The krone depreciated markedly. Key rates were reduced in several countries, including the US and the euro area. In May 2003, the year-on-year rise in consumer prices, as measured by the CPI-ATE, was 1.2%. This was lower than the projection in *Inflation Report* 1/03 and substantially lower than the inflation target. The fall in inflation primarily reflected the sharper-than-expected fall in prices for imported consumer goods.

The projections for 2003 were revised downwards in *Inflation Report* 2/03, which was presented on 25 June. The analyses in the report indicated that there were prospects of low underlying inflation for a period ahead. The wage projections for 2003 and 2004 were revised down compared with the previous *Inflation Report*. According to the projections, even with a sight deposit rate of 4% (prior to the monetary policy meeting the interest rate was 5%) and a krone exchange rate at approximately the June level, underlying inflation would remain below the inflation target for the next two years. Interest rate cuts totalling 3 percentage points since December 2002 would translate into relatively high growth in private consumption. Business investment would gradually pick up. With an interest rate of 4%, economic growth would nevertheless be so

[7] *Strategy Document* 1/03 was published in Annex II to *Inflation Report* 2/2003 and is also available on Norges Bank's website, www.norges-bank.no

slow that production capacity would probably not be fully utilised in the next few years.

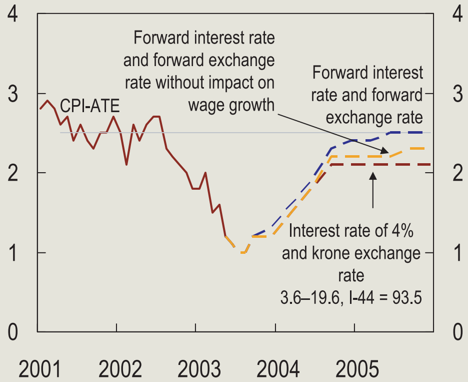
Two scenarios with different interest rate, exchange rate and wage growth assumptions were also presented. Market participants expected that the interest rate would be reduced to 3% fairly rapidly. The scenarios showed that inflation might then reach the target in the course of 2005, depending on developments in wage growth (see Chart 5).

The output gap was projected to remain around zero in 2003 and 2004, and turn slightly positive in 2005, depending on wage growth. Against the background of these two scenarios, a monetary policy strategy was drawn up for the period between June and October. The Executive Board deemed that a sight deposit rate of 3-4% would be appropriate at the end of October 2003. However, the interval was contingent on exchange rate developments and the projections for economic developments. A scenario with a fall in interest rates in other countries and low consumer price inflation might warrant an even lower interest rate. See *Strategy Document* 2/03 for more details.[8]

At its meeting on 25 June, Norges Bank's Executive Board therefore decided to reduce the sight deposit rate by 1 percentage point to 4.0%. With an interest rate of 4.0%, Norges Bank still judged that the probability that inflation two years ahead would be lower than 2½% was greater than the probability that it would be higher.

It was pointed out that in the past an easing of monetary policy had had a substantial effect on demand, output and price inflation. Although the effects of monetary policy occur with considerable and variable lags, the first effects of monetary policy easing were quickly apparent. This had not occurred in 2003.

Chart 5 Projections for CPI-ATE in *Inflation Report* 2/03 for different interest rate and exchange rate assumptions.12-month rise. Per cent



Sources: Statistics Norway and Norges Bank

Households and the business sector remained predominantly pessimistic. The housing and property market had levelled off and fallen. Credit demand had declined.

Moreover, it was emphasised that low inflation could influence inflation expectations. So far, indicators suggested reasonably stable expectations of inflation at 2½%. The fall in inflation abroad, and persistent low inflation in Norway, could change that. The outlook for the Norwegian and international economy therefore implied that the period of monetary policy easing could continue.

It was pointed out that the outcome of this year's wage settlement indicated that wage settlements might be expected to be more moderate in the period ahead than in the years from 1998 to 2002 and be in line with the target that has been set for developments in inflation over time. Given this outlook, there might also be a basis for an easing of monetary policy further than currently implied by expectations in money and foreign exchange markets.

The monetary policy meeting on 13 August

Developments in the Norwegian and international economy since 25 June were broadly in line with the projections in the *Inflation Report*, but consumer price inflation was lower than expected. The year-on-year rise in the CPI-ATE in July was 0.7%. The fall in inflation primarily reflected the marked decline in prices for imported consumer goods coupled with a slower rise in prices for domestically produced consumer goods that are influenced by world market prices. There were indications that underlying inflation in Norway would remain very low for a period ahead. At the same time, inflation was low in other countries.

At end-June, key rates were cut by 0.25 percentage point in the US, Canada, New Zealand, the UK and Sweden. Key rates abroad were expected to remain at a historically low level for a long period. The krone had depreciated more than assumed in the June *Inflation Report*.

At the monetary policy meeting on 13 August, Norges Bank's Executive Board decided to reduce the sight deposit rate by 1 percentage point, to 3.0%. With an interest rate of 3.0%, Norges Bank still judged that the probability that inflation two years ahead would be lower than 2½% was greater than the probability that it would be higher.

It was pointed out that in situations where there may be a risk of inflation expectations taking hold at too low a level, it will be appropriate to take larger steps in interest-rate setting than is customary. It was also stressed that the 2003 wage settlement and information about wage developments at the local level indicated that wage settlements could be expected to be more moderate in the period ahead than in the years from 1998 to 2002. This outlook provided a firmer basis for taking larger steps in the easing of monetary policy.

[8] This text is new in relation to Norges Bank's "Report on Monetary Policy in 2003 – the first eight months". *Strategy Document* 2/03 was first published in *Inflation Report* - 3/03.

New information from 30 April until the Governor's speech on 3 June

New information in May and up to the Governor's speech at BI/Centre for Monetary Economics on 3 June contributed to confirming or reinforcing the impression of weaker economic developments in Norway and abroad, and that the interest rate reductions had not had the effect that might have been expected.

- The international outlook deteriorated further. Developments in US industry were sluggish, and unemployment increased further. Hopes of a rapid recovery following the war in Iraq diminished. The appreciation of the euro had a negative impact on the outlook for the euro-area countries, particularly Germany.

- Expectations of further interest rate cuts in the US, the euro area and Sweden grew stronger (see Charts 1 and 2). This reflected the deterioration in growth prospects in these countries. Interest rate reductions in line with expectations would lead to a wider interest rate differential against NOK.

- Up to 3 June, the krone had not depreciated since the monetary policy meeting on 30 April, but had rather shown a tendency to grow stronger.

- The wage settlements suggested that pay increases would be low. The wage settlements in wholesale and retail trade and the central and local government sector were completed on 30 April and 1 May respectively. These settlements confirmed that annual wage growth would probably be lower than the forecast of 5%. The wage settlement for the financial industry was concluded on 26 May and provided further confirmation that wage growth this year would be lower than projected in *Inflation Report* 1/03. This might imply that during the wage negotiations, substantial emphasis had been placed on weak labour market developments and the situation in the internationally exposed sector.

- The Revised National Budget was presented on 15 May, and fiscal policy appeared to be less expansionary than assumed in *Inflation Report* 1/03. Fiscal policy would have an approximately neutral effect on the economic situation in 2003 and the next two years. In *Inflation Report* 1/03, fiscal policy was assumed to have an expansionary effect for the next few years. Moreover, it appeared that public sector employment growth would be appreciably lower than assumed earlier.

- Employment developments were more sluggish than projected. According to the LFS, employment was 0.6% lower in March this year than the average for 2002. This decline was larger than expected in *Inflation Report* 1/03. Seasonally adjusted LFS unemployment was approximately in line with the projections in the *Inflation Report*, but registered unemployment rose somewhat more than expected.

- Seasonally adjusted goods consumption increased by 2.8% from March to April, following a seasonally adjusted decline of 1.4% in March.[1] The timing of Easter affected the seasonally adjusted time series, however, creating particular uncertainty in the months around Easter. Because of the low figures for March, seasonally adjusted growth was expected to be strong in April. Year-on-year growth in April was 2.5%. Growth in goods consumption was somewhat higher than projected in *Inflation Report* 1/03, but the deviation was within the random variations in the time series. Retail trade increased by 4.0% in the same period (unadjusted figures).

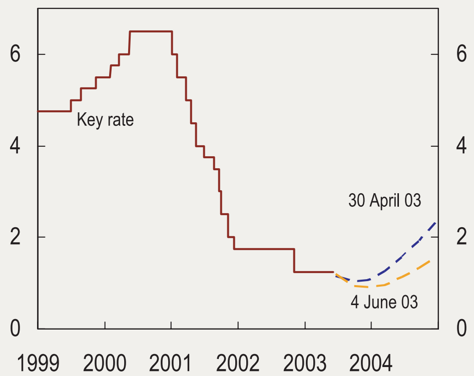
- The investment intentions survey for manufacturing in the second quarter showed that investment fell more than projected in *Inflation Report* 1/03. The production index for manufacturing showed a decline in the period from March to May.

[1] The figures have subsequently been revised somewhat. The figures used here were available at the time the decision was made.

- In Norway, the consumer confidence indicator fell further from the first to the second quarter of 2003. Household pessimism concerning Norway's current economic situation had a particularly negative impact, whereas household expectations regarding their own financial situation next year reflected greater optimism than in the first quarter.
- According to the real estate industry's housing statistics, seasonally adjusted house prices remained unchanged from April to May. House prices dropped by 1.1% from May 2002 to May 2003. Assuming an unchanged seasonally adjusted level for the remainder of the year, house prices would fall by about 1% from 2002 to 2003. The average turnover time increased from April to May.

All in all, the information indicated that in the next two years wage growth and inflation would be lower than projected in *Inflation Report* 1/03. Inflation could remain more than 1 percentage point below the inflation target for some time ahead, and there were signs that the Norwegian economy was facing a period where the outlook was deteriorating fairly rapidly. Nor were there clear indications that interest rate cuts had had the expected short-term effect, and further interest rate reductions could be expected internationally. In his address of 3 June, the Governor therefore signalled that the easing of monetary policy would continue and that Norges Bank's Executive Board would carefully consider changing the interest rate in larger steps. The Governor also stressed that in some situations it may be appropriate to change the interest rate swiftly and markedly. For example, it would be appropriate to change the interest rate in larger steps when there are prospects that inflation will deviate substantially from the inflation target for a long period.

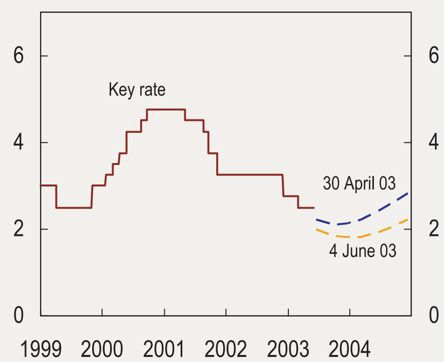
Chart 1 Interest rate expectations in the US. Actual developments and expected key rate[1]



[1] Based on Fed Funds futures and Eurodollar futures adjusted for the estimated spread between 3-month Libor and Fed Funds rates

Sources: Bloomberg and Norges Bank

Chart 2 Interest rate expectations in the euro area. Actual developments and expected key rate[1]



[1] Based on Euribor futures adjusted for the estimated spread between 3-month Euribor and Refi rates.

Sources: Bloomberg and Norges Bank

The monetary policy meeting on 17 September

At its meeting of 17 September, Norges Bank's Executive Board reduced the sight deposit rate by 0.5 percentage point to 2.5%. It was Norges Bank's assessment that with an interest rate of 2.5%, the probability that inflation two years ahead would be higher than 2½% was the same as the probability that it would be lower. In line with the assessment in *Strategy Document* 2/03, developments over the summer, with a reduction in interest rates in other countries and low consumer price inflation, might warrant a somewhat lower interest rate than 3%.

The Executive Board noted that underlying inflation had been considerably lower than the inflation target in the period preceding the interest rate reduction. Without a further easing of monetary policy, inflation might be too low for an extended period. This might in turn lead to expectations of continued very low inflation. The interest rate cuts were important to prevent inflation expectations from becoming entrenched at a level that is too low.

At the same time, interest rates abroad were reduced further during the summer months. This moderated the effects of the monetary policy easing in Norway on the krone and inflation. International developments implied that external inflation would remain low. There were no signs of an imminent rise in interest rates in other countries.

The Executive Board gave emphasis to the outcome of this year's wage settlement, which suggested that wage settlements could be expected to be more moderate ahead than in the period 1998 to 2002 and closer in line with the inflation target. The projections in *Inflation Report* 2/03 showed that a sight deposit rate of around 3%, combined with a somewhat weaker krone, could bring inflation up to target at the two-year horizon. Prospects for more moderate wage growth than assumed in the previous *Inflation Report* might provide a basis for an even lower interest rate without inflation projections exceeding 2.5% during the period.

The feed-through from the monetary policy easing gradually came into evidence. The national accounts for the second quarter showed a slight pick-up in the mainland economy. The consumer confidence indicator showed greater household optimism in the third quarter. House prices showed a small rise. According to Norges Bank's regional network, there were also some signs of improvement in the business sector in August-September. However, many businesses reported investment plans that would contribute to rationalisation. Labour market developments also implied that wage growth would be moderate.

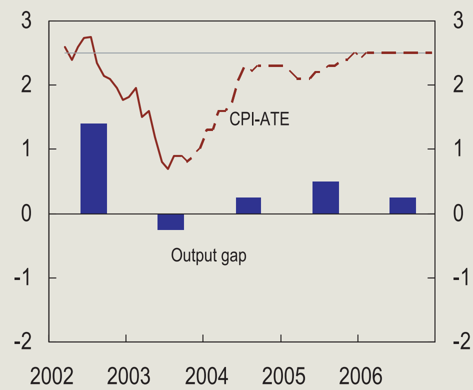
The monetary policy meeting on 29 October

Interest rates were left unchanged at Norges Bank's Executive Board meeting on 29 October. It was also stated that "according to Norges Bank's assessment, with a sight deposit rate of 2.5% at present, the probability that inflation two years ahead will be higher than 2½% is the same as the probability that it will be lower".

The decision was based on the assumption that inflation would accelerate and stabilise around the target in the course of 2005, in line with the analyses in *Inflation Report* 3/03. These projections were conditional on a further depreciation of the krone.

The year-on-year rise in the CPI-ATE increased from 0.7% in July to 0.9% in August and September. It still appeared that inflation would be low for a period. In *Inflation Report* 3/03, presented on 29 October, projections for wage growth and inflation were revised downwards somewhat compared with the June projections. The projections for overall demand and output were revised upwards somewhat for 2004. Mainland GDP growth was projected at between 2½ and 3% for the next three years. This implied that the output gap, as calculated by Norges Bank, would be around zero or slightly higher for these years (see Chart 6). The analyses in the *Inflation Report* were based on a technical assumption that the interest rate will move in line with forward rates in the money market and that the krone will depreciate. This implied that the short-term money market rate would remain around 3% in the first half

Chart 6 Projections for CPI-ATE and the output gap.[1] *Inflation Report* 3/03. Per cent



[1] The output gap is a measure of the difference between actual and trend output. See box in IR 1/03

Sources: Statistics Norway and Norges Bank of 2004 and increase gradually to 4½% towards end-2005. Forward rates indicated a depreciation of the krone of close to 2% through the projection period.

According to the analyses in the *Inflation Report*, with a pick-up in economic activity and a further depreciation of the krone, inflation would accelerate through spring and summer 2004 and stabilise around the inflation target from autumn 2005.

Based on the analyses in *Inflation Report* 3/03, a monetary policy strategy was drawn up for the period November to March. The Executive Board deemed that a sight deposit rate in the interval 2-3% would be appropriate at the end of March 2004. The Executive Board stated, however, that after a period of very low inflation it would be appropriate to be particularly vigilant in monetary policy in the event inflation did not increase as projected. See *Strategy Document* 3/03 for more details.[9]

The Executive Board pointed out that there were now signs that the monetary policy stimulus was beginning to feed through, both via the interest rate reductions and a weaker krone exchange rate. There were some indications that activity in the Norwegian economy was picking up. Activity in the global economy had picked up from the very low level prevailing in winter 2003, primarily reflecting high growth in the US and some Asian economies, including Japan. There was, however, uncertainty about the strength of the global economic recovery. The Executive Board also stressed the uncertainty associated with wage determination in Norway. It could not be ruled out, however, that profitability in internationally exposed industries would again play a more prominent role in wage determination than has been the case in recent years. Overall wage growth might then be lower than projected, laying the basis for an easing of monetary policy. On the other hand, there was a risk that the low level of interest rates would result in a renewed rise in house prices and in the debt burden, which might lead to new imbalances in the economy.

In the assessments underlying the interest rate decision, the Executive Board placed particular emphasis on the objective of monetary policy, which is to bring inflation up towards the target. The Executive Board stated that the projections in the *Inflation Report* might be consistent with the monetary policy objective and would probably also contribute to keeping inflation expectations at around 2½%. It was emphasised that the effects of monetary policy occur with a lag. It would take time for all the effects of the interest rate reductions since December 2002 to feed through. The Executive Board pointed out that our experience of the effects of interest reductions of this magnitude was limited. There was therefore no basis for further changes in the interest rate at that time.

The monetary policy meeting on 17 December

Up to the monetary policy meeting on 17 December, the krone had been stronger and inflation considerably lower than assumed at the October meeting. The year-on-year rise in the CPI-ATE fell to 0.5% in November. The rise in prices for Norwegian imported goods, measured in foreign currency, remained low. The import-weighted krone exchange rate (I-44) had appreciated by about 1½% since the previous monetary policy meeting.

Norges Bank's Executive Board decided to lower the sight deposit rate by 0.25 percentage point to 2.25%. It was also stated that, "with a sight deposit rate of 2.25% at present, the probability that inflation two years ahead will be lower than 2½% is greater than the probability that it will be higher".

The Executive Board referred to the Federal Reserve, which left its key rate unchanged at 1% at the meeting of the Federal Open Market Committee on 9 December, stating that it expected short-term interest rates in the US to remain low for a considerable period as a result of low inflation and slack resource use. The FOMC nonetheless pointed out that the probability of an unwelcome fall in inflation had diminished in recent months and now appeared almost equal to that of a rise in inflation. The European Central Bank had kept its key rate unchanged at 2%, while the central banks in the UK and Australia had raised their key rates.

The Executive Board had also noted that, according to preliminary figures from Statistics Norway, mainland GDP growth was fairly high in the third quarter of 2003, and figures for the first half of the year had been revised upwards slightly. Employment had increased again during the summer and autumn months. The unemployment rate had shown little or no change in the preceding months, and was somewhat lower than projected in *Inflation Report* 3/03. House prices had risen since the summer, and household debt growth had accelerated. On the other hand, excess capacity continued in the non-residential market, and corporate demand for credit remained very low.

The Executive Board highlighted a number of factors that added uncertainty to the inflation outlook. The depreciation of the krone in 2003 had not yet been reflected in consumer prices, but a higher rise in prices for imported consumer goods was expected to push up the rise in the consumer price index over the following six months. The October *Inflation Report* was based on the assumption that wage growth is primarily determined by overall conditions in the labour market. It was conceivable, however, that profitability in inter-

9 *Strategy Document* 3/03 was published in Annex II to *Inflation Report* 1/2004 and is available on Norges Bank's website, www.norges-bank.no

nationally exposed industries would play a more prominent role. Overall wage growth might then be lower than projected by Norges Bank and warrant an easing of monetary policy. Developments later in the autumn, however, might indicate that the labour market would stabilise more quickly than previously expected.

In reducing the interest rate by 0.25 percentage point, the Executive Board reflected that it had weighed the objective of bringing inflation back to target and stabilising inflation expectations against the risk that output growth might eventually become too high.

Assessment of monetary policy

On the basis of Norges Bank's system for the implementation of monetary policy, monetary policy may be assessed by answering the following questions:

- Was inflation in 2003 close to the target of 2½%? What were the reasons for any deviations from the target?
- To what extent has the conduct of monetary policy in 2003 increased the prospects for bringing inflation close to target two years ahead?
- Has the conduct of monetary policy contributed to stability in output and employment?
- Has monetary policy in 2003 underpinned confidence that future inflation will be 2½%?
- Was monetary policy in 2003 predictable for financial market participants?

Because changes in the economy take time to feed through, monetary policy functions with a lag. In order to explain actual inflation in 2003, it is reasonable to assess monetary policy from 2001 onwards. An assessment from this perspective is also reasonable given that Norges Bank weighs price stability against stability in the real economy. Monetary policy is forward-looking and has most impact when the Bank communicates effectively with the public and the markets. The assessment must therefore also include an evaluation of monetary policy's contribution to the inflation outlook, market confidence in monetary policy and monetary policy's predictability.

Consumer price inflation in 2003

In Norges Bank's *Annual Report* for 2002, developments in inflation in 2002 were summarised as follows:

"The rate of increase in consumer prices adjusted for tax changes and excluding energy products, CPI-ATE, exhibited a gentle downward trend through 2002. CPI-ATE inflation averaged 2.3% between 2001 and 2002. Inflation was increasingly marked by an appreciating krone over the year. Prices for imported consumer goods, particularly clothing and footwear, fell markedly towards the end of the year. At the same time, the rise in prices for domestically produced goods and services in the CPI-ATE held up as a result of the high growth in labour costs." (p. 24)

Consumer price inflation, as measured by the CPI-ATE, continued to decline through 2003 from 1.8% in January to 0.4% in December (se Chart 7). CPI-ATE inflation averaged 1.1% between 2002 and 2003. The year-on-year rise in the CPI-ATE fell further to 0.1% in January 2004 and to -0.1% in February.

The rise in prices adjusted for tax changes and excluding energy products was lower in 2003 than projected in the 2001 and 2002 Inflation Reports, and substantially lower than the inflation target.[10] In the period from May to December, inflation was more than 1 percentage point below target.

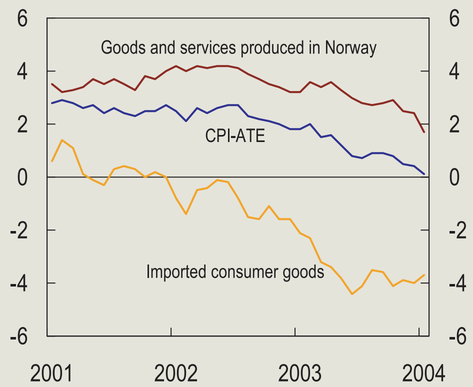
It was particularly the decline in prices for imported consumer goods that pushed down overall price inflation (see Chart 7). In 2003, prices for imported consumer goods were on average 3.5% lower than one year earlier. The fall in prices must be seen in connection with the appreciation of the krone through 2002 and weak external price impulses. It is likely that the fall in prices for imported consumer goods is not only a result of developments in the exchange rate, but also of trade liberalisation. Clothing prices, for example, have been falling since the mid-1990s. In addition to a low rise in prices for these goods, lower tariffs have resulted in lower prices for consumers. At the same time, the removal of quota regulations has resulted in a shift in clothing imports away from high-cost countries to countries where production costs are substantially lower. The effects of this may be evident for some time. The same trend has been observed for the audiovisual industry. In addition, technological advances and intensified international competition have exerted downward pressure on prices. Prices for clothing and footwear fell by 10.6% from 2002 to 2003, while prices for audiovisual equipment fell by 8.4% in the same period (see Chart 8). Car prices have also declined, although far less than implied by the appreciation of the krone.

Prices for domestically produced goods excluding energy products also contributed to pushing down CPI-ATE inflation to below 2.5% in 2003. Services with wages as a dominant factor and rents pushed up inflation somewhat (see Table 1).

The year-on-year rise in the consumer price index including tax changes and energy products (CPI) was considerably higher than the year-on-year rise in the CPI-ATE in 2003. This was due to a sharp rise in electricity prices at the beginning of the year. The year-on-year rise in electricity prices, as measured by the CPI, reached 82.5% in January 2003. Prices then fell sharply and contributed to pushing down the year-on-year rise

10 See Høegh-Omdal, Kristine (2004): "Evaluation of Norges Bank's projections for 2003" forthcoming in *Economic Bulletin* 2004/1 for an evaluation of the projections.

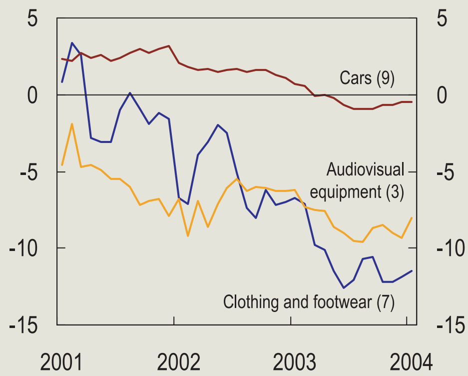
Chart 7 CPI-ATE. Total and by imported and domestically produced goods and services.[1] 12-month rise. Per cent. January 01–January 04



[1] Norges Bank's estimates

Sources: Statistics Norway and Norges Bank

Chart 8 Prices for some imported consumer goods[1] adjusted for tax changes. 12-month rise. Per cent. January 01–January 04



[1] Percentage share of CPI-ATE in brackets

Sources: Statistics Norway and Norges Bank

in the CPI from 5% in January to 0.6% in December. Consumer prices were on average 2.5% higher in 2003 than in 2002.

Reasons for deviations from the target in 2003

Inflation and the inflation outlook are lower than projected in 2001 and 2002, reflecting in particular global economic developments that were considerably weaker than there was reason to expect in summer 2002. At the same time, prices for some imported consumer goods continued to exhibit a falling trend in 2003 (particularly clothing, footwear and audio-visual equipment). We underestimated the impact this would have on consumer prices. Slower growth in the Norwegian economy and structural factors have probably also contributed to reducing margins in distributive trades and other service sectors such as air travel and telecom services.

Norges Bank's inflation projections in spring 2001 indicated that inflation would fall and remain at 2½% in 2003. The inflation outlook changed from autumn 2001. It was now projected that inflation would be below target for a period. These changes were a result of the appreciation of the krone and lower inflation in other countries.

Projections in the *Inflation Report* in 2002 indicated a similar path for inflation in 2003 (see Chart 9). Exchange rate assumptions were gradually revised in the course of the year to take into account a stronger krone (see Chart 10). In *Inflation Report* 2/02 (July), this was reflected in

Table 1. Rise in CPI-ATE (per cent) and contribution to change in 12-month rise 2002–2003 (percentage points)

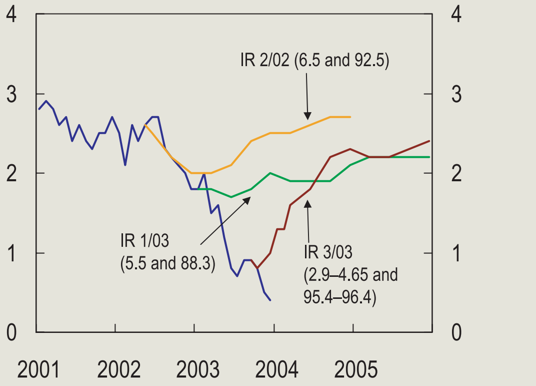
	Annual rise 2002	Annual rise 2003	Contribution to change annual rise 2002 - 2003
CPI-ATE	2.3	1.1	-1.2
Imported consumer goods	-0.9	-3.5	-0.7
Goods and services produced in Norway	3.9	3.0	-0.5
Including			
Agricultural goods	3.9	3.7	0
Internationally sheltered goods produced in Norway	3.7	3.5	0
Internationally exposed goods produced in Norway	1.8	1.0	-0.1
House rental	4.8	4.0	-0.1
Services with wages as dominant price factor	5.1	5.2	0
Other services	3.1	2.1	-0.2

Sources: Statistics Norway and Norges Bank

an expected temporary decline in inflation. The CPI-ATE was expected to remain below the inflation target until late 2003. Without a tightening of monetary policy, it nevertheless seemed likely that wage growth would remain high and push inflation above target two years ahead. To counteract this development, the interest rate was increased by 0.5 percentage point in July 2002.

Up to the publication of *Inflation Report* 3/02 (October), the krone appreciated further. With an unchanged interest rate and a constant exchange rate, inflation was projected to remain below target until autumn 2004, reaching its lowest level at 1¾% in summer 2003. The krone

Chart 9 CPI-ATE and projections for CPI-ATE made at different times. Interest rate and exchange rate assumption (I-44) in brackets.[1] 12-month rise (CPI-ATE) and 4-quarter rise (projections). Per cent



[1] Constant interest rate and exchange rate assumptions in IR 2/02 and 1/03. For IR 3/03, interest and exchange rates are assumed to mirror futures rates

Sources: Statistics Norway and Norges Bank

Chart 10 Effective krone exchange rate index (I-44) and assumption in the inflation reports.[1]

[1] The method for calculating I-44 was changed in spring 2002. The assumptions for IR 2/01, 3/01 and 1/02 on the chart have been adjusted on the basis of the new I-44 and therefore differ somewhat from the information in IR 2/01, 3/01 and 1/02. A rising curve denotes a weaker krone exchange rate.

Source: Norges Bank

continued to appreciate from October 2002. Even though the krone weakened somewhat at the beginning of 2003, the projections in *Inflation Report* 1/03, published in March, were based on the assumption of an even stronger krone than in the *Inflation Report* from October.

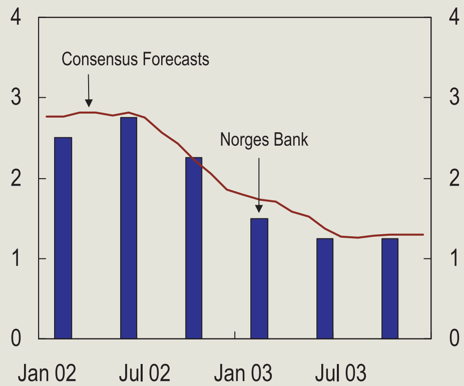
Weak global developments were one important factor behind the appreciation of the krone. Growth in the global economy moved on a different path and was substantially weaker than the IMF, the OECD, other analysts and observers, and Norges Bank expected in summer 2002.

A number of institutions have been overly optimistic with regard to global developments. Developments according to Consensus Forecasts Inc[11] are shown in Chart 11. The Bank for International Settlements' (BIS) annual report for 2002 states the following:

"The last year or so has been marked by economic disappointments. Interrelated developments in the geo-political, economic and financial spheres held back growth and led to great uncertainty about the future. The recovery in the world economy seemed to stall. Indeed, the news got worse rather than better during most of the period under review. This was surprising to many given the high degree of policy stimulus being applied in large parts of the world." (p. 3)

The change in interest rate expectations internationally is a good indication of how far actual developments differed from expectations (see Charts 12a and b). In summer 2002, financial market participants had expected that the interest rate in the US would rise to close to 4% in the course of summer 2003. Expectations were gradually revised downwards through winter and spring 2003. The interest rate was reduced further. Developments did not stabilise until summer 2003, and interest rate expectations increased somewhat again. Economic growth in the US picked up again during autumn, but with low inflation and capacity slack in the economy, it still seemed likely that short-term interest rates would remain low for a considerable period. At the end of 2003, financial market participants expected that the key rate in the US would remain at 1% until March 2004 and then rise again to 2% by the end of the year. There were also expectations in Europe in summer 2002 that interest rates would increased markedly. Instead, interest rates were also reduced in Europe and expectations were revised downwards substantially. There are now also signs of a recovery in Europe, although it may take time for

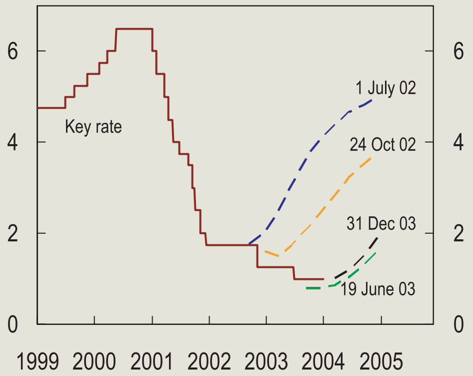
Chart 11 Projections at different times for GDP growth among trading partners in 2003



Sources: Consensus Forecasts and Norges Bank

[11] Consensus Forecasts Inc. collects projections for economic developments from more than 240 institutions in over 20 countries every month. The projections in the chart reflect the average projection for Norway's most important trading partners.

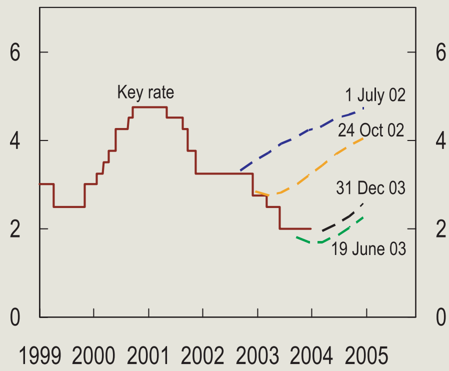
Chart 12a Interest rate expectations in the US. Actual developments and expected key rate.[1] Daily figures



[1] Based on Fed Funds futures and Eurodollar futures adjusted for the estimated spread between 3-month Libor and Fed Funds rates.

Sources: Bloomberg and Norges Bank

Chart 12b Interest rate expectations in the euro area. Actual developments and expected key rate.[1] Daily figures



[1] Based on Euribor futures adjusted for the estimated spread between 3-month Euribor and Refi rates.

Sources: Bloomberg and Norges Bank

growth to gather momentum. The strong appreciation of the euro towards the end of 2003 is a risk factor that may have a dampening impact on the recovery. At the end of 2003, financial market participants expected the ECB's key rate to be left unchanged until March 2004, and then rise by ½ percentage point to 2½% in the course of 2004.

Projections for GDP growth among trading partners in 2003 were revised downwards by a total of 1½ percentage points from summer 2002 to summer 2003 (see Chart 11). This was due in particular to the effects of accounting scandals in large US companies, fears of terror, war in Iraq and the spread of SARS. Furthermore, as a result of an excessive rise in equity prices and overinvestment in the business sector in earlier periods, it may have taken longer than normal for a recovery to take hold.

Weak global developments resulted in lower interest rates abroad. The 2002 wage settlement in Norway indicated that wage growth might remain high in the future. Financial market participants expected a continued tight monetary policy. In the course of 2002, the interest rate differential between Norway and other countries widened also as a result of a number of interest rate reductions among Norway's trading partners. This contributed to the appreciation of the krone. However, analyses conducted by Norges Bank indicate that extraordinary developments in the global economy resulted in a stronger krone than might be expected on the basis of a wider interest rate differential alone:

"About 40% of the appreciation from May 2000 to January 2003 can be explained by the wider interest rate differential. The positive interest rate differential led to an appreciation of the krone as a result of the fall in global stock markets and lower expected fluctuations between the main currencies. More than half of the appreciation of the krone can be explained by this effect. The appreciation in 2002 is also related to the sharp increase in oil prices and to the krone's function as a geopolitical safe-haven currency." (Bjørn Naug (2003): *"Factors behind movements in the krone exchange rate – an empirical analysis"* in Norges Banks *Occasional Papers* no. 32/2003).

Unexpected developments in the global economy, primarily the fall in stock markets and uncertainty with regard to the situation in Iraq, resulted in not only low inflation internationally but also a considerably stronger krone than the assumption underlying the inflation forecasts for 2003. Compared with the assumption in *Inflation Report* 3/02, the krone appreciated further by about 3% before reversing in January 2003.

Even though changes in the exchange rate can be analysed and explained in retrospect, it is difficult to project exchange rate movements in the short and medium term. Norges Bank has mainly based projections in the baseline scenario in its inflation reports on a constant exchange rate equal to the average for the previous three months, and in some cases the average for the previous month (see Chart 10). Using these averages, very short-term variations in the krone exchange rate will have less effect on the exchange rate assumption. A more long-lasting change in the krone exchange rate will, on the other hand, be taken into account over time and will gradually have an effect on the inflation projection and on interest-rate setting.

As a basis for the interest rate decisions, the *Inflation Report* also systematically analyses other assumptions about exchange rate developments. *Inflation Report* 2/02 and 3/02 included calculations based on the effects of an exchange rate assumption in line with forward rates in the market. A more long-lasting change in the krone exchange rate will, on the other hand, be taken into account over time and will gradually have an effect on the inflation projection and on interest-rate setting. Forward rates indicated a depreciation of the krone ahead. A more long-lasting change in the krone exchange rate will, on the other hand, be taken into account over time and will gradually have an effect on the inflation projection and on interest-rate setting. The *Inflation Report* has also analysed the effects of a stronger krone exchange rate.

The pass-through from the krone exchange rate to inflation seems to have been less stable than first assumed. From September 2002 to end-February 2003, prices for imported consumer goods fell less than expected based on relationships quantified on the basis of historical data. This affected the projections in *Inflation Report* 1/03. From spring 2003, the pass-through was proportionately stronger.

Shifts to imports from low-cost countries probably also contributed to the fall in prices for imported consumer goods through 2003. It was therefore difficult to assess to what extent the fall in prices was a result of the past appreciation of the krone as opposed to more structural factors, which can have a more sustained impact on price developments. Norges Bank expected the price effects of the appreciation of the krone to gradually unwind and be offset by the depreciation of the krone through 2003. Prices for imported consumer goods, however, continued to decline towards the end of 2003.

The fall in prices for imported consumer goods was somewhat sharper than historical developments in the exchange rate would imply. However, calculations of the exchange rate pass-through to consumer prices are uncertain. The experience of other countries with an inflation target has been that the exchange rate pass-through has diminished over time. If this is the case, the exchange rate pass-through to prices may be smaller, and the effect on prices of trade liberalisation may be greater than we have assumed.

Growth in the Norwegian economy in 2003 has also been slower than projected. Growth in mainland GDP stalled towards the end of 2002. High wage growth in the public sector in 2002 contributed to low growth in public sector output and employment. Employment in the public sector fell from the first half of 2002 to the first half of 2003.[12] Developments in other service industries have also been weaker than expected. This may be partly related to a high rise in costs and sluggish international developments, for example in sectors such as the airline and travel industries, and ICT. Developments in manufacturing have also been sluggish, due to low international demand for manufactured goods and weak profitability following several years of high wage growth and a strong krone in 2002.[13]

Increased competition in retail trade and expectations of low price inflation in parts of the business sector have probably made it difficult to pass on cost increases to prices. Margins have been under pressure, and many enterprises have reduced their workforce rather than raise prices. High electricity prices through winter 2003 resulted in a reduction in household purchasing power. This may have curbed demand for some goods. According to information from Norges Bank's regional network, parts of the clothing and audiovisual industries experienced a decline in demand from November 2002 to April 2003, followed by increased sales activity in May. This is to some extent confirmed by retail trade statistics. For some brown goods, unfavourable international market conditions may also have led to excess supply and low prices in 2003.

Evaluation of the deviation from the inflation target

In the years 1998-2002, the Norwegian economy was characterised by substantial labour shortages and a considerably higher rise in labour costs than among trading partners. Wage growth in the economy is the result of an interplay between different factors and will vary from year to year. However, 2002 was the fifth consecutive year of very high annual growth. Wage growth was substantially higher than the level that over time is consistent with the inflation target and with normal productivity growth. Pay increases varied widely across the different groups. In Norges Bank's view, there was therefore a substantial risk of new wage-wage spirals. Further rounds of such strong wage increases might have led to a considerable decline in output and employment.

In retrospect, the question might be raised of whether monetary policy should have been tighter in 2000 and 2001 in order to curb the sharp rise in domestic costs at an earlier stage. This could have contributed to lower wage growth in 2002. Norges Bank's *Annual Report* for 2002 states the following:

"However, in the light of international developments in 2001 and a gradual erosion of profitability in internationally exposed industries, it is difficult to explain the developments in labour costs in 2002 on the basis of the empirical evidence we had at that time." (p. 25)

Even though Norges Bank's wage projections were high at the beginning of 2002, the outcome was even higher:

"Norges Bank's analyses were based on expectations that wage growth would be significantly higher than that of our trading partners. This view was itself somewhat controversial. On the basis of available

12 The figures are influenced by the reorganisation of the Norwegian Public Roads Administration through the establishment of MESTA AS from 1 January 2003. This pushes down employment in the public sector and pushes up employment in the construction industry. Underlying growth in employment in the public sector was nonetheless weak compared with previous years.

13 Competitiveness can for example be measured in terms of labour costs in Norway relative to trading partners. This is discussed in more detail on pp. 38-39.

Developments in the krone exchange rate 2000 - 2003

The krone exchange rate affects inflation and developments in economic activity. Norges Bank takes into account the effect of the exchange rate in its analysis of the inflation outlook and in its projections for the real economy. In this way, developments in the krone are of importance in interest rate setting.

The chart shows developments in the import-weighted exchange rate (I-44)[1], Norges Bank's sight deposit rate and the three-month interest rate differential against trading partners from the beginning of 1999.

The difference between Norwegian and foreign market rates - which reflect expectations regarding economic developments in Norway and among trading partners respectively - are particularly important for developments in the krone exchange rate. Prospects of pressures in the Norwegian economy and higher inflation will normally imply higher interest rates and a stronger krone. Therefore, there is a close connection between cyclical developments, the interest rate differential and the exchange rate.

The krone depreciated until the middle of 2000. From May 2000 to January 2003, the krone appreciated by just under 20%, while the interest rate differential widened by a little more than 2.0 percentage points. The appreciation was particularly strong through 2002 when the krone appreciated by around 13%. The widening of the interest rate differential and the appreciation of the krone through 2002 must be seen in the light of the high level of activity and strong wage growth in Norway compared with trading partners (see discussion of the economic situation in the main text).

The effect of this interest rate differential on the exchange rate was amplified by the fall in global stock markets that began in autumn 2000 and was particularly pronounced through 2002.[2] Falling variability between major currencies also contributed to this. Expectations of a further fall in stock markets and low international interest rates induced many investors to look upon Norwegian krone investments as attractive. Norges Bank's analyses indicate that the widening interest rate differential can explain about 40% of the krone appreciation between May 2000 and January 2003 (see Table 1). The stock market decline and falling variability between major currencies can explain about 55% of the krone appreciation in the period. These factors contributed because the interest rate differential was positive.[3] The appreciation in 2002 is also related to the sharp increase in oil prices and the krone's function as a geopolitical safe-haven currency.

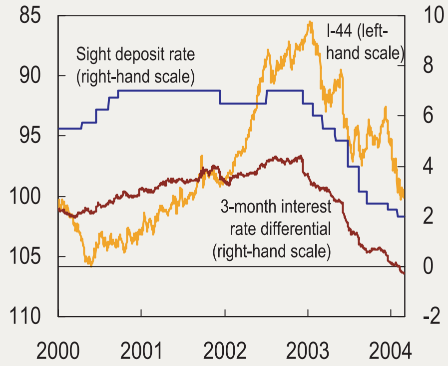
During the autumn of 2002, economic conditions changed and new information suggested that the outlook for the Norwegian and international economy had weakened.[4] Inflation was projected to be lower than 2½ per cent at the two-year horizon. In light of these developments, the key rate was reduced by 0.5 percentage point at the monetary policy meeting on 11 December. Economic developments through 2003 indicated a further reduction in the interest rate and from December 2002 to January 2004, the sight deposit rate was reduced from 7.0 to 2.0%. The interest rate differential against trading partners fell by more than 4.0 percentage points and was close to zero in January 2004. The interest rate cuts contributed to a considerable depreciation of the krone. At the end of January 2004, the krone was approximately 14% weaker than at its strongest level in January 2003.

Table. Contributions to the appreciation of the krone from May 2000 to January 2003 [1]

Effects related to interest rate differential against other countries	95%
Wider interest rate differential	40%
Lower equity prices and less pronounced global exchange rate fluctuations[2]	55%
Effect of higher oil prices	5%

[1] The figures have been rounded off.
[2] Lower equity prices and less pronounced exchange rate fluctuations contributed because the interest rate differential was positive.

Chart Import-weighted krone exchange rate[1], sight deposit rate and 3-month interest rate differential against trading partners. Daily figures. 1 January 2000–27 February 2004



[1] A rising curve denotes a stronger exchange rate

Source: Norges Bank

[1] See www.norges-bank.no for more information about the import-weighted effective krone exchange rate, I-44.
[2] According to Standard & Poor's 500, equity prices began to fall at the beginning of September 2000. The index fell by about 23% in 2002.
[3] According to market participants, expectations of reduced exchange rate fluctuations for major currencies provide less scope for speculative gains in the foreign exchange market. Investors have therefore placed greater emphasis on interest rate differentials than earlier and invested a higher portion of their portfolios in high interest rate currencies, such as the Norwegian krone. See Naug (2003): "Factors behind developments in the krone exchange rate – an empirical analysis", in Norges Bank's *Occasional Papers*, no. 32/2003 and *Inflation Report* 1/2003 for more details.
[4] See Annual Report 2002 from Norges Bank for a more detailed account of new information in the autumn of 2002.

information through 2000 and 2001, we have not found any support for the view that monetary policy should have been based on expectations of even higher wage growth than projected." (Norges Bank's *Annual Report* for 2002, p. 25)

Wage growth in the years 1998-2002 indicated that labour shortages in all segments of the labour market played an important role in wage formation. It appeared that profitability in traditional exposed manufacturing industries played a less significant role for the overall outcome of the wage settlement, both for manufacturing and otherwise.

In the light of these developments, there was reason to expect that wage growth might remain high in 2003 and 2004. Furthermore, it seemed likely in summer 2002 that economic growth would pick up and inflation would accelerate internationally. Growth in household real disposable income in 2002 was at the highest level in several decades. Household borrowing was high, and house prices on the rise. Without monetary policy tightening in 2002, Norges Bank's assessment indicated that it was probable that inflation would accelerate and overshoot the target when the effect of the previous appreciation of the krone waned.

Monetary policy was therefore tightened with an interest rate increase in summer 2002. At the one-year horizon, the strong krone would push down inflation to below 2½%, but the effects of high wage growth would subsequently dominate.

In 2002, Norges Bank's Executive Board struck a balance between the consideration of stable inflation developments in the short term and the consideration of stabilising developments in output and employment. Inflation was thus expected and intended to be low in 2003.

However, price developments are uncertain even 6 months to 1 year ahead (see Chart 13). There was thus a possibility that inflation could fall even lower than projected, and be more than 1 percentage point below target. Nevertheless, the deviation from the forecast is unusually large.

This is an indication that the economy was exposed to sizeable unexpected disturbances. The exchange rate appreciated more than projected. After the publication of *Inflation Report* 3/02 in October 2002, the krone appreciated further. This was related to unexpectedly weak developments in the global economy resulting in lower interest rates abroad and a wider interest rate differential between Norway and other countries. Negative events such as the accounting scandals in large US companies, fears of terror and war in Iraq and the spread of SARS contributed to weak growth and low inflation in other countries. Developments in the international equity markets also contributed to strengthening the krone. Some developments in the Norwegian economy, including lower demand for some goods as a result of higher electricity prices and tighter competition in a number of industries, have probably contributed to reducing margins.

Wage growth has moderated more rapidly than assumed. This has been of considerable importance for the inflation outlook but does not contribute significantly to explaining low inflation in 2003.

The decline in clothing prices was the most important single factor dampening consumer price inflation in 2003. The impact on prices of the shift from high-cost to low-cost countries has been stronger than expected. In the past few years, we had observed that prices for clothing and footwear had followed a downward trend. However, it was not certain that this trend would continue in 2003. This was referred to as an important risk factor in the analyses in the *Inflation Report*.

Inflation projections are always surrounded by uncertainty. When the inflation outlook 6 months to 1½ years ahead deviates considerably from the target, there is a higher risk of the actual inflation rate falling below 1½% or rising above 3½% in the somewhat longer term. However, if monetary policy is oriented towards keeping actual inflation closer to the inflation target even in the short term, this will generally result in wider fluctuations in output and employment (see discussion in the section on trade-offs in monetary policy).

To what extent has the conduct of monetary policy in 2003 increased the prospects of bringing inflation close to target two years ahead?

In the course of 2003, the interest rate was reduced by 4.25 percentage points. The sight deposit rate stood at 2.25% in December. The interest rate was reduced by a further 0.25 percentage point at each of the monetary policy meetings on 27 January and March 2004 and now stands at 1.75%.

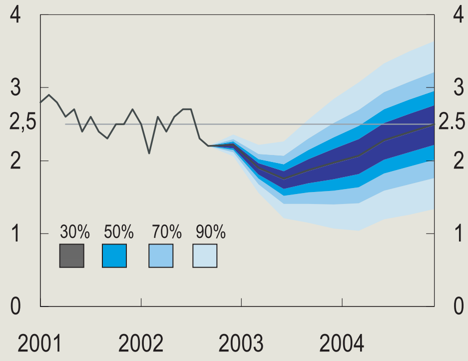
The krone has depreciated. Developments in the krone exchange rate can be measured in various ways. The import-weighted krone exchange rate index (I-44) measures the krone exchange rate against the currencies of Norway's 44 most significant importing countries. This index partly reflects the direct inflationary impulses that result from changes in the krone exchange rate. In the course of 2003, the I-44 depreciated by close to 11% from its strongest level in January of the same year (see Chart 14). At the end of 2003, the I-44 was still somewhat stronger than in 1995 and 1996. In the course of January and February 2004, the I-44 declined by a further 4%.

The trade-weighted krone exchange rate index (TWI) shows the effect of exchange rate fluctuations on export- and import-competing industries. The weights therefore reflect export and import patterns and the competition facing Norwegian enterprises in foreign markets. At the end of 2003, the TWI was over 11% weaker than in January of the same year, and about on a par with the level in 1995 and 1996 (see Chart 14). The TWI depreciated by more than 4% in the course of January and February 2004.

Fluctuations in the krone exchange rate have become more pronounced since 1996 and are now more on a par with fluctuations in the currencies of other small economies with a floating exchange rate. The krone has fluctuated between 7.22 and 9.24 kroner to the euro/ecu since 1997. Fluctuations in the nominal exchange rate will also be expressed in the measurement of real exchange rates and competitiveness. The real krone exchange rate may be measured as the ratio of Norwegian to foreign price levels in a common currency or as the ratio of Norwegian to foreign wage levels in a common currency. If the real krone exchange rate is based on developments in relative prices, this provides an indication of the Norwegian krone's purchasing power. Norway's experience indicates that there is a tendency for the real exchange rate to revert to a historical average.[14] When inflation in Norway is expected to follow approximately the same path as in other countries, the exchange rate will also normally revert to its normal range following periods when the krone has been particularly strong or particularly weak. This relationship is the reason why stability in the exchange rate and in exchange rate expectations over time is dependent on stable inflation expectations, which in turn depend on low and stable inflation.

Based on experience so far, we have no evidence to indicate that an inflation target for monetary policy will weaken the tendency for the krone exchange rate to revert to its normal range. Evidence indicates that an inflation target provides a sound anchor for exchange

Chart 13 Consumer price inflation.[1] Projections and uncertainty. *Inflation Report* 3/02. 12-month rise. Per cent

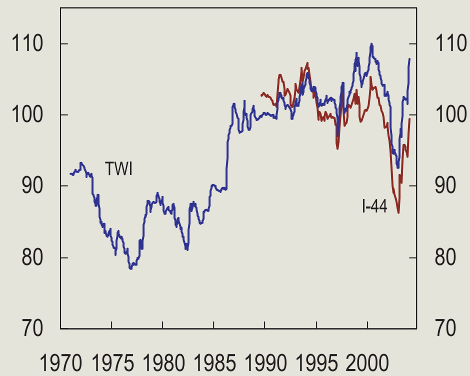


[1] Adjusted for tax changes and excluding energy products (CPI-ATE).

The bands in the fan indicate different probabilities for consumer price inflation.

Sources: Statistics Norway and Norges Bank

Chart 14 Import-weighted exchange rate (I-44) and trade-weighted exchange rate index.(TWI).[1] Monthly figures. January 1971–February 2004



[1] A rising curve denotes a weaker exchange rate

Source: Norges Bank

14 See Akram (2003): "PPP in the medium term despite oil shocks: The case of Norway". *Working Paper* 2002/4, Norges Bank.

rate expectations. However, these expectations will also depend on fundamental conditions such as developments in government expenditure and revenues, productivity growth, oil prices and the terms of trade excluding oil.

In the 1980s, the rise in prices in Norway was considerably higher than among trading partners. Measured in a common currency, prices are high in Norway, but they have over time remained fairly stable in relation to trading partners. Norwegian and foreign prices today, converted to a common currency, are at the same level as in the mid-1990s. Measured as relative consumer prices in a common currency, the real exchange rate has reverted to its normal range and is now 5% weaker than the average for the past 30 years. (See Chart 15).

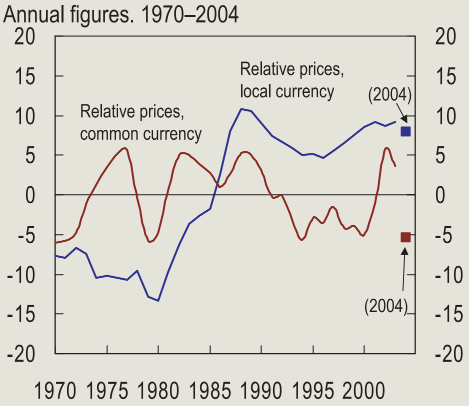
The real exchange rate measured in terms of relative labour costs in a common currency has been strong (see Chart 16) and competitiveness for Norwegian enterprises correspondingly weak over the past two years. Competitiveness in 2003 can be estimated to be about 7% weaker than the average for the past 30 years and about 15% weaker than in the years 1995-1996. The deterioration of competitive strength since the mid-1990s reflects the change in income distribution between wage earners and the business sector and the cost burden borne by the Norwegian business sector as a result of the expensive wage settlements in the period 1998-2002. Competitiveness has improved considerably since the recent depreciation of the krone, and is now on a par with the average for the past 30 years.

Monetary policy easing has been implemented with a view to bringing inflation up towards the target within the two-year horizon. The underlying rise in prices will nevertheless be lower than the inflation target for a period. The period in 2002 and early in 2003 when the krone was strong will continue to contribute to a low rise in prices for imported goods and services. International inflation is still likely to remain low.

The assessments of the inflation outlook at the time of a turning-point in the economy are usually marked by particular uncertainty. According to Norges Bank's assessment, the uncertainty implied that caution should be shown in interest rate setting. In *Strategy Document 1/03*, which was approved by the Executive Board in March, several conditions that provide support for this view were highlighted:

- "The relationships in the foreign exchange market are unstable. The effect of a change in interest rates on the exchange rate may vary.
- There is a risk of continued wage-wage spirals as a result of wage settlements and it takes time to address the problems associated with wage formation. It is still uncertain how quickly the social partners will incorporate the inflation target as an anchor in wage negotiations.
- The effects of changes in the exchange rate on inflation and real economic developments are uncertain. The impact on output and employment may be greater than we have assumed. This would be reflected in the labour market and thereby have implications for interest rate setting.

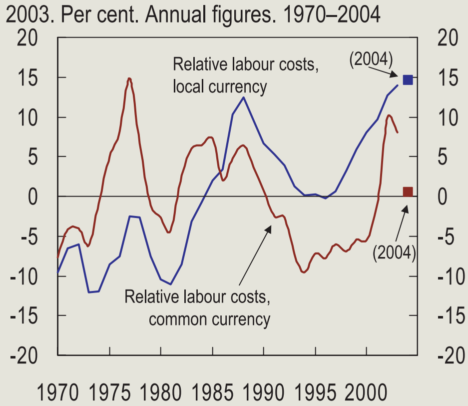
Chart 15 The exchange rate deflated by relative prices in Norway and among trading partners.[1] Deviation from the average 1970–2003. Per cent. Annual figures. 1970–2004



[1] Projections for consumer price inflation in 2004 from IR 1/04. The projection for relative prices in common currency in 2004 is based on the assumption for the krone exchange rate (TWI) in IR 1/04.

Sources: Statistics Norway and Norges Bank

Chart 16 Relative labour costs[1], Norway and trading partners[2]. Deviation from average 1970-2003. Per cent. Annual figures. 1970–2004



[1] Hourly labour costs in manufacturing.
[2] Projections for wage growth in 2004 from IR 1/04. The projection for relative labour costs in common currency in 2004 is based on the assumption for the krone exchange rate (TWI) in IR 1/04.

Sources: TRCIS, Ministry of Finance and Norges Bank

– The long period of expansion in the Norwegian economy has resulted in high house prices and a high debt ratio in large parts of the private sector. The rise in house prices now appears to be levelling off. Developments in the housing market and lower household optimism may reduce credit growth in the period ahead. Further interest rate cuts may, on the other hand, lead to a renewed acceleration in house prices and credit growth. Developments in the housing market and credit market through the spring are therefore important when assessing further monetary policy action."

On 21 January 2003, the Government and the social partners discussed the economic situation prior to the 2003 wage settlement. In the meeting of the Technical Reporting Committee on Income Settlements, the parties stated that they would seek to bring wage growth in Norway "more into line with developments among our trading partners". Wage growth among Norway's trading partners hovers around 3½%. Wage growth in Norway in 2002 was 5¾%. The wording in the Committee's statement did not therefore provide a clear indication of what the result of the wage settlement would be.

The pay increases in the 2003 wage settlement were lower than projected by Norges Bank. This break with the relatively high wage growth in Norway from 1998 to 2002 must be viewed in connection with the monetary policy tightening in 2002 and weak developments in the international economy. It has probably also been of considerable importance that the expensive wage settlement in 2002 had strong negative effects on the economy and activity in the public sector and that this was taken into account in the 2003 wage settlement. In many service industries, the possibility of passing on higher labour costs to prices has probably been more limited than before.

When the monetary policy response pattern is known and consistent over time, the social partners can take into account monetary policy responses when negotiating wages. Monetary policy was tight as long as wage growth was high. When there is confidence that monetary policy will keep inflation at a low and stable level, high wage growth must be expected, in periods, to be accompanied by a strong krone. When pressures in the economy subside and wage growth slows, an easing of monetary policy will follow. Monetary policy provides an anchor for inflation expectations. The social partners can base their wage negotiations on the assumption that inflation over time will be 2½%.

Consumer price inflation was expected to be well below target in 2003, but as mentioned above, the year-on-year rise in inflation was less than 1% in summer 2003 and was as low as 0.4% in December 2003. Without a pronounced easing of monetary policy, inflation might be too low for an extended period. This might lead to expectations of continued very low inflation. In such a situation, it may be more demanding to increase economic activity. The Executive Board decided, therefore, that it was appropriate to reduce the interest rate considerably.

The considerable easing of monetary policy through spring and summer 2003 also reflected that the effects of the interest rate reduction in winter 2003 seemed to be weaker than assumed. The effect on the exchange rate was dampened because interest rates in other countries were also reduced.

When assessing the inflation outlook, it must be taken into account that the low rate of inflation primarily reflects the development in prices for imported consumer goods and domestically produced goods that are sold in competition with goods from abroad. The rise in prices for other domestically produced goods and services has remained at a high level (see Table 1). Since the fall in prices for imported consumer goods can largely be attributed to the strong krone exchange rate in 2002 and early in 2003, it may be assumed that a large portion of the fall in inflation will be temporary. For some imported consumer goods, however, we have observed a falling trend as a result of trade liberalisation. This may continue to contribute to low inflation ahead.

The relaxation of monetary policy will contribute to pushing up inflation. In the near term, it will have a particular impact on the effect of the 2002 krone appreciation, which will gradually unwind. The depreciation of the krone through 2003 will subsequently generate positive inflationary impulses. In the somewhat longer term, interest rate reductions will also have an effect through increased demand in Norway. At the same time, Norges Bank expects international growth to normalise gradually and external inflationary impulses to pick up somewhat.

In *Inflation Report* 1/04, which was published in March 2004, the inflation outlook was assessed on the basis of an assumption that interest rate and exchange rate developments will be in line with forward market expectations as they were at the beginning of March. This implies that the key rate will move down to 1½%, and rise gradually thereafter. The krone exchange rate was assumed to be in line with the forward exchange rate, which indicates that market participants expect a fairly stable exchange rate in the period ahead. The projections in the *Inflation Report* indicated that monetary policy easing of this magnitude would bring inflation up to the target in spring 2006. Wage growth was projected at 4½% in 2003, 3¾% in 2004 and 4¾% in 2005.

All in all, the easing of monetary policy in 2003, including the weakening of the krone, will make a substantial contribution to bringing inflation back to target.

Has the conduct of monetary policy contributed to stability in output and employment?

According to the mandate, one of the aims of monetary policy is to stabilise developments in output and employment. Norges Bank's *Annual Report* for 2002 states the following:

"Through 2002, the interest rate was kept at a high level as long as demand for goods and services was high and the labour market was tight. Towards the end of the year, when the outlook shifted towards weaker demand, rising unemployment and inflation below the inflation target, the interest rate was reduced. Developments in 2002 illustrate that the inflation target is a vehicle for, not an obstacle to, monetary policy's contribution to stabilising output and employment." (p. 26)

It was also pointed out that monetary policy can only to a limited extent contribute to stabilising activity and employment when the functioning of the economy is disrupted by a substantial disturbance on the output or supply side:

"If unemployment rises when price and cost inflation is low or moderate, this may be due to a decline in total demand. An easing of monetary policy may then counter the increase in unemployment. However, when unemployment rises when price and cost inflation is high or accelerating, the reason may be that growth in real wages is higher than productivity growth, so that enterprises and public entities are unable to sustain the increase in labour costs. This results in downscaling and lower employment in enterprises. In this situation, a relaxation of monetary policy may result in even higher price and cost inflation and unstable developments in the economy. Monetary policy can therefore not counter an increase in unemployment that is due to a cost-push shock resulting from wage negotiations." (p. 26)

Stabilising output growth means seeking to maintain actual output near the long-term trend (see box). Evaluating this requires an understanding of how actual economic activity compares with trend output. Norges Bank bases its assessments on a broad set of analyses. These analyses include economic models that use historical data for the Norwegian economy. These model-based analyses, together with updated statistics, assessments of new economic developments and information from Norges Bank's regional network[15] provide the basis for our assessments of the functioning of the economy.[16] Norges Bank also uses a number of indicators that together can indicate whether growth and the level of activity in the economy are high or low compared with the output potential.[17]

The *output gap* is defined as the difference between the actual level of output in the economy and the out-

15 See "Analysis - regional network" on Norges Bank's website, www.norges-bank.no.
16 These assessments are published in Norges Bank's inflation reports. See "Overview of boxes in Inflation Reports 2000-2003" in *Inflation Report* 3/03.
17 See "Monetary Policy in Real Time: The Role of Simple Rules" by Olsen, Qvigstad and Røisland, published in BIS Papers.

put level that is consistent with stable inflation over time. The output gap is not directly observable and must be estimated. A simple method of estimating the output gap is to measure the difference between actual and trend output. It is usually assumed that total output over time grows at trend because the labour force grows and productivity rises. The trend may vary because there are variations in labour force growth. New technology and new organisational forms can also affect productivity growth. Developments in the output gap provide a basis for assessing output stability and can thus also shed light on domestic inflationary pressures in the economy.

We have had pronounced economic cycles in the Norwegian economy. In the past few years, capacity utilisation has declined from a high level and is now on a par with the level prevailing in the years 1995-1997, before the rise in costs accelerated.

The output gap, as calculated by Norges Bank, was marginally negative in 2003 (see Chart 17). Different measures yield different paths for the output gap. Other institutions, for example Statistics Norway, the IMF and the OECD, use other methods to calculate the gap. One of the differences is that Norges Bank has taken account of the influence of permanent changes in working hours on trend growth. The introduction of additional vacation days in 2001 and 2002 reduced trend growth in the economy by an estimated ½ percentage point in each of these years. The various calculations nevertheless provide a fairly uniform picture of the output gap (see box in Annex 1 “Report on Monetary Policy in 2003 – the first eight months”.

Other indicators may also shed light on stability in output and employment:

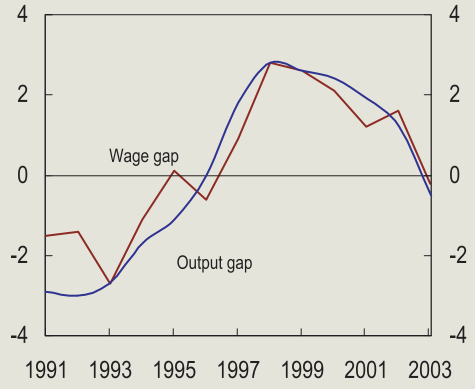
Wage growth is a direct indicator of the social partners’ perception of employment and labour shortages. Real wage growth must match productivity growth over time. If real wage growth is higher than underlying productivity growth, profitability in the business sector will deteriorate. Public entities’ finances will also be weakened, leading to subsequent budgetary tightening and workforce reductions. Wage growth can thus be an indicator of the employment outlook. Productivity growth in mainland Norway in recent years has been about 2%. The inflation target is set at 2½%. This indicates that nominal wage growth of around 4½% will be consistent with stable employment. This path for wage growth will therefore not change the distribution of income between employees and enterprises.

In the period 1998-2002, wage growth was clearly higher than this. As late as in 2002, wage growth was 5¾%. This may indicate that the level of job security was perceived by employees as high and that there were substantial labour shortages. However, high pay increases may also be the result of wage negotiations. If the social partners are not forward-looking and do not evaluate the employment outlook in wage settlements, but place considerable emphasis on the past year, wage growth can to a certain extent be a lagging indicator. Index-based adjustments and wage-wage-spirals may also contribute to high wage growth even after the peak of the upturn has been passed. Norges Bank now estimates that wage growth in 2003 was about 4½%. Wage growth is thus at a level that over time is consistent with the inflation target and more stable developments in the labour market.

In Chart 17, the wage gap is defined as the difference in wage growth between Norway and other countries up to 2000. The wage gap is thereafter defined in relation to wage growth of 4½%. This level of wage growth will be consistent with the inflation target over time. There seems to be a close relationship between this wage gap and resource utilisation in the economy as Norges Bank measures it by the output gap. From 1990 to 1995, when unemployment was relatively high in Norway and actual output was below potential, wage growth in Norway was lower than that of its trading partners. From 1997, however, the wage gap was positive. In this period, resource utilisation increased markedly. Towards the end of the period, the wage gap narrowed as resource utilisation approached a more sustainable level.

Equilibrium unemployment refers to the level of unemployment where wage growth is consistent with stable and sustainable economic developments. The

Chart 17 The output gap and the wage gap.[1]
Annual figures. 1991–2003



[1] Difference between rise in hourly labour costs in manufacturing in Norway and among trading partners up to and including 2000. Thereafter wage growth in manufacturing in excess of 4.5 per cent.
Sources: Statistics Norway, TRCIS, IMF and Norges Bank

Flexible inflation targeting[1]

Low and stable inflation is the overriding objective of monetary policy in most countries. Historical experience from Norway has shown that the absence of price stability has resulted in low and unstable output and employment. High inflation or deflation is both a cause and a symptom of systematic imbalances in the economy.

There were wide fluctuations in the Norwegian economy in the 1970s and 1980s. Economic developments were marked by high and variable inflation. The fixed exchange rate regime in the 1980s gradually led to lower inflation. Inflation slowed gradually from the end of the 1980s and has been around 2.5% on average since then (see Chart 1).

The fluctuations in the Norwegian economy have gradually diminished, but business cycles have nevertheless been pronounced in the last 10 years (see Chart 2). The downturn at the beginning of the 1990s was followed by an upturn from 1993. After a period of stable and solid growth in the mid-1990s, labour cost growth rose. The rise in prices for goods and services produced for the domestic market accelerated. This upturn peaked in 1998. The economy then shifted from an upturn with high growth rates to an expansion with lower growth but low unemployment, labour shortages in many sectors and strong growth in labour costs.

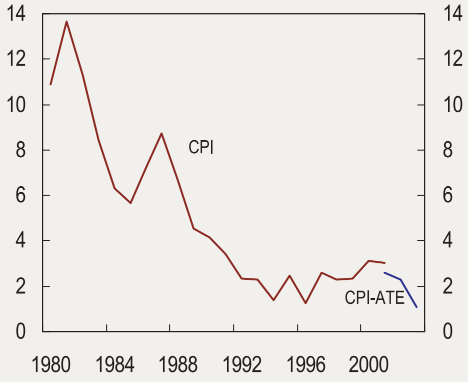
Since 1998, output growth has been low. The difference between actual GDP growth and long-term trend GDP growth has narrowed. Economic growth came to a halt last winter and was appreciably lower than trend in 2003. GDP growth is projected to remain near trend in the next few years.[2]

The operational target of monetary policy in Norway is inflation of 2½ per cent over time. The mandate also states that one of the aims of monetary policy is to stabilise developments in output and employment. Norges Bank operates a flexible inflation targeting regime, so that weight is given to variability in inflation as well as to variability in output and employment.

Inflation is a monetary phenomenon over time. This means that the authorities may choose the level of the inflation target. A target for output and employment cannot be chosen in the same way.

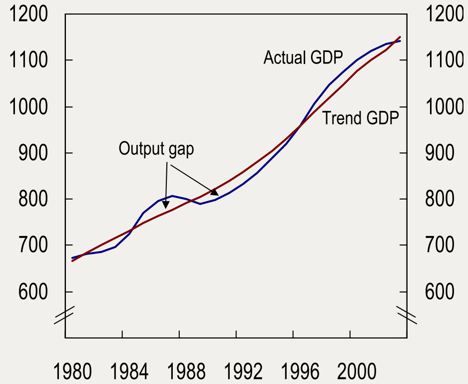
The economy grows over time. This is a result of positive productivity growth and growth in the labour force. Output moves in waves and will in some periods lie above trend growth and in others below trend (see Chart 2). Output growth in pace with the long-term trend would be consistent with stable inflation over time. When the economy grows more rapidly than this level, inflationary pressures will build up in the economy. When the inflation rate becomes high and unstable, various mechanisms will contribute to curbing economic growth. Experience shows that periods of high inflation are followed by periods of contraction. Long-term trend GDP cannot be influenced by monetary policy. Monetary policy's contribution to stabilising output and employment will therefore be to curb fluctuations around the long-term trend.

Chart 1 Consumer price inflation. Total (CPI) and adjusted for tax changes and excluding energy products (CPI-ATE). Annual rise. Per cent. 1980–2003



Source: Statistics Norway

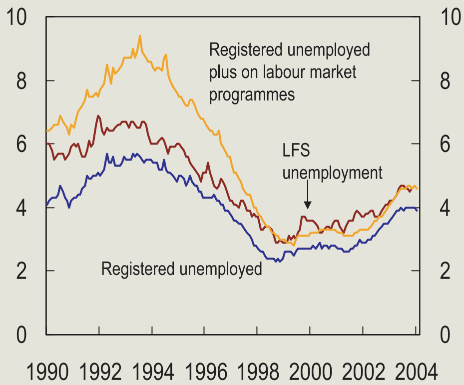
Chart 2 Actual GDP and trend GDP for mainland Norway. In billions of NOK. Constant 2000 prices. 1980–2003



Sources: Statistics Norway and Norges Bank

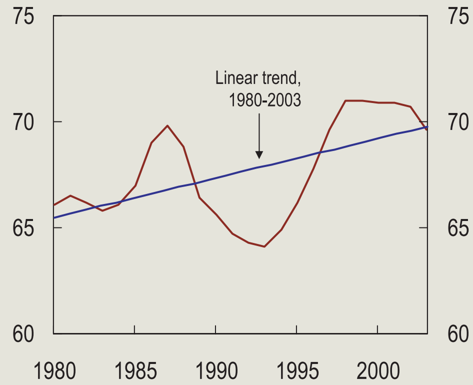
[1] For a more detailed discussion of flexible inflation targeting, see "Trade-offs in monetary policy" at www.norges-bank.no/english/monetary_policy
[2] See analyses in *Inflation Report* 1/2004.

Chart 18 Unemployment as a share of the labour force. Monthly figures. January 1990–January 2004



Sources: Statistics Norway, the Directorate of Labour and Norges Bank

Chart 19 Employment as a percentage of population aged 16–74. Annual figures. 1980–2003



Sources: Statistics Norway and Norges Bank

level of equilibrium unemployment is by no means a norm for unemployment. On the contrary, equilibrium unemployment is an expression of how wage formation functions. Equilibrium unemployment will also reflect, in addition to institutional conditions in the labour market, the extent to which qualifications and motivation in the labour force match enterprises' demand for labour. The demographic composition of the labour force can also influence equilibrium unemployment. Consequently, equilibrium unemployment may change over time.

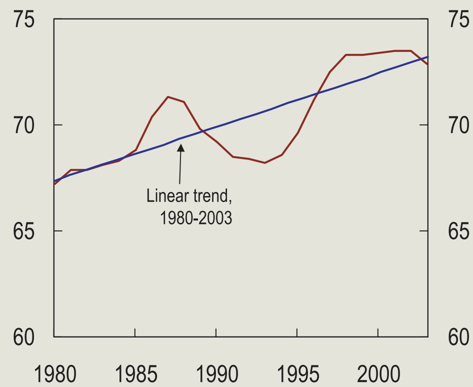
Norges Bank has no fixed perception of the level of equilibrium unemployment at all points in time. In line with the section on wage growth, equilibrium unemployment can be said to be the level of unemployment consistent with nominal wage growth of about 4½%.

The 1992 Employment Commission[18] estimated that with an unemployment rate of 3-3.5% (as measured by the LFS[19]) in 1990 and 1991, the competitiveness of the Norwegian business sector would remain unchanged since wage growth would be in line with wage growth abroad. In the 1996 National Budget, the Ministry of Finance referred to research indicating that the level of equilibrium unemployment was higher than this. Reference was also made to calculations from the OECD indicating a level of about 5%. The OECD estimated equilibrium unemployment (NAIRU[20]) at 3.6% in 2001. The IMF has estimated the level (NAWRU[21]) at 4.5% in 1999.

Unemployment edged up in 2002 and 2003, measured either by the LFS, as the number of registered unemployed, or as the number of registered unemployed plus participants in labour market programmes. Unemployment is nonetheless considerably lower than at the beginning of the 1990s and is now approximately on a par with the average for the 1990s measured by the number of registered unemployed and by the LFS. The number of registered unemployed and participants in labour market programmes is lower than the average for the 1990s (see Chart 18). Wage growth in the 1990s averaged 4½%, while consumer price inflation averaged 2½%, in line with the inflation target.

Both the *labour force participation* rate and the

Chart 20 Labour force as a percentage of population aged 16-74 (labour force participation rate). Annual figures. 1980–2003



Sources: Statistics Norway and Norges Bank

18 NOU 1992:26 National strategy for increased employment in the 1990s.
19 Statistics Norway's labour force survey
20 NAIRU: non-accelerating inflation rate of unemployment (the OECD's calculations are based on LFS figures)
21 NAWRU: non-accelerating wage rate of unemployment (the IMF's calculations are based on LFS figures)

employment rate, that is the labour force and employment as a share of the working age population, have exhibited a rising trend since the early 1970s. This is primarily the result of an increase in the participation rate for women. These rates usually vary with the business cycle and are higher than normal during a cyclical expansion. Since 1996, these rates have been above trend (see Charts 19 and 20). In 2003 labour force participation and the employment rate were approximately at trend level. The mechanical linear trend used here probably exaggerates the trend increase in these rates towards the end of the period. Both rates are thus relatively high. The labour force participation rate and employment rate for women are closing in on the level for men and growth in the overall trend will probably slow.

Credit growth is an indicator of private sector demand, which over time is assumed to grow approximately in pace with nominal GDP in equilibrium. If it is assumed that mainland GDP at constant prices grows at a trend rate of close to 2½% and inflation is on target, credit growth may be around 5%.

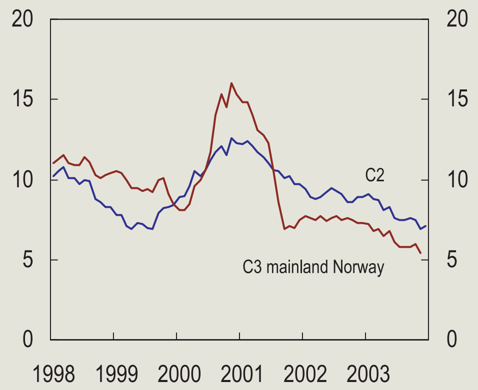
Underlying growth in private sector credit from domestic sources (C2) has fallen steadily from 9% at the beginning of 2003 to 7.1% at year-end (see Chart 21). Year-on-year growth in total private sector gross debt excluding petroleum activities and shipping (C3 Mainland Norway) fell from 7.3% in December 2002 to 5.4% at end-November. Developments thus suggest more sustainable and stable credit growth in the period ahead. The signals given by credit developments vary, however. Growth in household borrowing has been high, while enterprises have reduced debt.

According to the indicators above, capacity utilisation has decreased from a high level and is now on a par with the level in the years 1995-97, before cost inflation accelerated.

Growth in the Norwegian economy slowed somewhat more rapidly than Norges Bank had projected and came to a halt in winter 2003, partly reflecting unexpected developments in the international economy in the second half of 2002. The international decline in the ICT and telecommunications sectors continued to spill over to the Norwegian economy. Demand for goods and services from export industries declined. Fears of war and terror adversely affected the travel industry. Electricity prices increased unexpectedly. Many companies, including those in sheltered sectors and the public sector, faced a heavy cost burden after yet another expensive wage settlement in 2002. Unemployment increased in many occupations (see Chart 22).

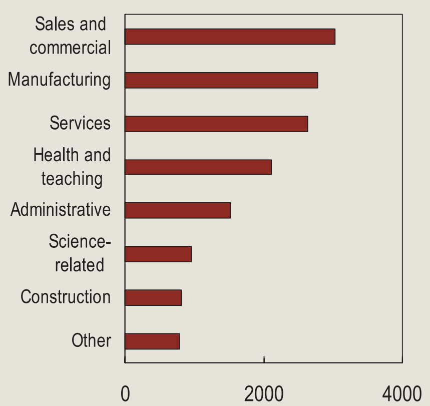
The monetary policy easing from December 2002 must also be seen in the context of the weak or negative growth in the Norwegian economy towards the end of 2002 and at the beginning of 2003. There are now signs that the monetary policy easing has begun to feed through. The quarterly national accounts for the second and third quarters showed a strengthening recovery in the mainland economy. The labour market is showing signs of improvement with growth in employment. Goods consumption has exhibited positive developments, but was somewhat lower than expected towards the end of 2003. Household expectations concerning the domestic economy improved from summer.[22] House prices increased in the second half of

Chart 21 Domestic credit (C2) and total credit to mainland Norway (C3 mainland Norway). 12-month rise. Per cent. 1998–2003



Source: Norges Bank

Chart 22 Change in number unemployed, by occupational group. December 2002–December 2003



Sources: Directorate of Labour and Norges Bank

2003 after stagnating earlier in the year. Statistics Norway's business tendency survey for manufacturing indicated that expectations concerning short-term developments improved somewhat in 2003. Information from the regional network also indicates that the outlook for businesses improved through the autumn (see box). On the other hand, there is substantial idle capacity in commercial property and corporate competitiveness is marked by the wage settlements in the years from 1998 to 2002.

Due to the past few years' wage settlements, households have strengthened their financial position at the expense of private and public enterprises. Against this background, growth in private consumption is expected to be fairly high. At the same time, enterprises' financial position is still marked by the sharp rise in labour costs from 1998 to 2002 (see Chart 16). Corporate demand for loans and investment are low. Business sector activity is stimulated most effectively by low interest rates and a weak krone.

The depreciation of the krone will gradually contribute to increased profitability in the exposed sector (see Chart 17). Demand for goods and services from subcontractors is expected to pick up. In conjunction with lower interest rates and higher consumer demand, this may stimulate business investment. Demand for labour may gradually pick up further.

In Norges Bank's assessment, the outlook for the internationally exposed sector is brighter today than a year and a half ago because the rise in costs has slowed markedly.

In Norges Bank's assessment, monetary policy easing in 2002 contributed to low growth last year, but it also caused a break in Norway's strong wage and cost inflation. Prospects of lower wage growth and considerable monetary policy easing through 2003 may contribute to above-trend growth in the Norwegian economy in 2004 and 2005. The output gap is projected to shift from marginally negative in 2003 and 2004 to positive in 2005 and 2006. Unemployment is expected to stabilise in 2004 and be somewhat reduced in 2005.

Has monetary policy in 2003 underpinned market confidence that inflation will be 2½%?

With confidence in the inflation target, monetary policy can make a greater contribution to smoothing fluctuations in the economy. Inflation expectations in Norway provide an indication of whether there is confidence that the inflation target will be achieved.

The TNS Gallup survey for the first quarter of 2004 shows that inflation two years ahead is generally expected to be below the inflation target of 2½% (see box). Over the past year, the panel of analysts, researchers and employer organisations have lowered their inflation expectations somewhat two years ahead. These groups' inflation expectations five years ahead have, however, remained fairly stable around the inflation target. Inflation expectations among employer organisations seem to vary relatively widely from one survey to the next.

Consensus Forecasts Inc. provides a monthly summary of various institutions' forecasts for consumer price inflation in Norway. Projections are provided for up to two years ahead. In the February survey, the average forecasts for 2004 and 2005 were 1.2% and 2.3% respectively. The low projection for 2004 must be viewed in connection with developments in electricity prices. Projections with a longer time horizon are published twice a year, in October and April. The projections published in October 2003 showed that inflation was expected to edge up. At both the 5-year and 10-year horizon, inflation was projected at 2.4%. This was 0.1% lower than in October 2002.

The forward rate differential between Norway and Germany may also provide an indication of inflation expectations in Norway. However, it must be taken into account that the inflation target in Norway is higher than in Germany. In the euro area, long-term inflation expectations are just below 2%.[23] Even with confidence in the inflation target, forward rates in Norway will thus be somewhat higher than in Germany. The forward rate differential also reflects premia for differences in liquidity in the Norwegian and German markets. In the short term, there will also be market noise. The level of the differential should therefore be assessed over a period of time. The long-term forward rate differential between Norway and Germany was around 1 percentage point through 2002 and narrowed to around ½ percentage point in December the same year (see Chart 23). The interest rate differential fell further from December to April 2003, but increased thereafter to over ¾ percentage point in the summer months. The interest rate differential narrowed again in autumn, remaining at around ½ percentage point from October 2003 to January 2004. Pricing in the capital market therefore indicates that there has been market confidence that the inflation target will be achieved over time.

Based on information from expectations surveys and long-term interest rates, there are signs that the market expects inflation to be lower than 2½% over the next year. Looking further ahead, inflation expectations do not seem to deviate substantially from the inflation target. It appears that monetary policy easing has contributed to relatively stable expectations of an inflation rate close to the inflation target.

22 The consumer confidence indicator is a joint project involving TNS Gallup, the Savings Bank Association and the business magazine *Økonomisk Rapport.*

23 See the ECB's *Monthly Bulletin,* January 2004.

Regional network

In autumn 2002, Norges Bank established a regional network of enterprises, organisations and local authorities throughout Norway. In six rounds of talks in 2003, representatives for Norges Bank have engaged in discussions with business and community leaders on financial developments in their enterprises and industries. Each of the six rounds has comprised roughly 230 visits. Approximately 1000 individuals have been contacted. These individuals reflect the production side of the economy, both in terms of industry sector and geographic area. Six regional research institutions have been responsible for the network in their respective regions and have conducted the contact meetings on behalf of Norges Bank. The research institutions are Kunnskapsparken Bodø, Allforsk in Trondheim, Møreforskning Molde, Rogaland Research, Agder Research and Eastern Norway Research Institute. In addition, Norges Bank has covered a region consisting of four counties in Eastern Norway.

Here are some of the main impressions from the network in 2003:
- At the beginning of 2003, the network's contacts in the export industry reported a sharp decline in demand in some sectors. This continued until the summer. Exchange rate movements and companies' cost reductions contributed to improving competitiveness through the year, and in the autumn, there were signs that demand had picked up somewhat again.
- A weak order book position in the construction industry underpinned expectations of a sharp decline in activity towards the autumn of 2003, especially in the building sector. The situation improved somewhat, however, through the spring and summer so that the decline in activity was less pronounced than expected.
- Domestically-oriented manufacturing and the corporate service sector reported falling demand in the first half of 2003. In the second half of the year, the contours of a turnaround became steadily more apparent.
- Growth has been relatively high in wholesale and retail trade and the household service sector in 2003. However, due to uncertainty associated with developments in the labour market and the international situation as well as high electricity prices, demand growth was relatively moderate in the first part of the year. Growth picked up considerably through the summer and autumn, partly reflecting the extensive interest rate cuts.
- Many companies reduced their investment plans for 2003 as a result of considerable excess capacity. Investment aimed at rationalising operations predominated, especially in manufacturing. Despite nascent optimism through the autumn, companies' investment plans indicated no substantial increases in investment in 2004.
- Wage and cost growth slowed from 2002 to 2003 for most enterprises, including the public sector. Most businesses also reported that selling prices fell or were virtually unchanged until last autumn.
- Business sector profitability was under strong pressure as a result of falling demand and high cost growth. Companies adapted to the lower demand by cutting costs, including employment costs. The public sector also reported a reduction in employment in 2003. The fall in employment came to a halt towards year-end and some sectors reported increasing confidence in employment growth in the period ahead.

The network is also used to examine a number of relevant issues. For example, in 2003 the network examined the effects of high electricity prices at the beginning of 2003 and the impact of interest rate reductions through 2003.

Was monetary policy in 2003 predictable for financial market participants?

The central bank's interest rate decisions should be predictable. The central bank sets the interest rate for banks' overnight deposits in Norges Bank. This key rate largely determines interest rates at the shortest end. For longer maturities, the effects depend on market expectations. If these rates and other prices for financial variables are adapted to the economic outlook, this will contribute to stabilising economic developments.

One indicator of predictability in interest-rate setting is the change in market rates around the Executive Board's monetary policy meetings.[24] Substantial changes in market rates may indicate that the decision was unexpected.

The effects on the three-month money market rate around the monetary policy meetings were less pronounced in 2003 compared with the effects in 2002 (see Chart 24). In 2003, Norges Bank reduced the sight deposit rate on seven occasions. The change in the sight deposit rate on 13 August and on 17 December appears to have been somewhat greater than expected. All of the other interest rate decisions in 2003 appear to have been expected.

This method of measuring predictability may have certain limitations, however. For example, interest rate expectations were adjusted after the central bank governor's speech on 3 June last year where he stressed that the Executive Board would carefully consider reducing the interest rate in larger steps.

Although market participants are relatively familiar with monetary policy responses, the use of policy instruments may be unexpected if new information becomes available. The economic situation, developments or the outlook may differ from our projections. Disturbances of this kind may lead to changes in the interest rate. In that case, however, it would not be the central bank's behaviour, but events that surprise the market. There may be uncertainty as to how such disturbances will affect the economic outlook. In such cases, it will not always be entirely clear what the appropriate monetary policy response should be.

Expectations survey

Since the beginning of 2002, TNS Gallup has conducted quarterly surveys of expectations regarding inflation and a number of other economic variables on behalf of Norges Bank. The surveys are conducted among experts in the financial industry and academia, representatives of employee and employer organisations, business leaders and households.

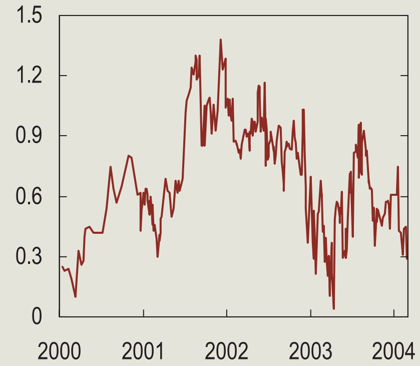
The panel of experts, about 50 in number, consists of operators in the foreign exchange market and academics. They are asked about their expectations regarding inflation and annual wage growth one, two and five years ahead, as well as expectations regarding developments in the krone exchange rate. Representatives of the employer and employee organisations are asked the same questions about inflation and annual wage growth. The business leaders are also asked about their expectations regarding inflation one and two years ahead. In addition, they are asked about their expectations regarding interest rates, annual wages, purchase prices, selling prices, profitability and employment in their own firms. Households are asked about their expectations regarding inflation and their own wages, as well as their expectations regarding interest rates in the coming year. The results of the surveys are published on TNS Gallup's website (Norwegian only).

The results of the survey in the first quarter of 2004 show that experts and employee and employer organisations expect consumer price inflation both 12 months and 2 years ahead to be somewhat below the inflation target of 2½%. Experts expected consumer price inflation of 1.7% 12 months ahead and 2.2% at the two-year horizon. The expectations of the social partners are somewhat lower. Expectations among experts and employer representatives concerning consumer price inflation five years ahead remained stable at around 2½% through 2003. Inflation expectations among employee organisations seem to vary from one survey to the next. In general, household inflation expectations are relatively high both one and two years ahead.

In the first quarter of 2004, experts expected average wage growth of 3.6% in 2004 and 3.9% in five years. During the year, both experts and social partners revised downwards their projections for annual wage growth in 2003. In the fourth quarter, employer representatives estimated that annual wage growth for 2003 would be 3.8%, while employee representatives estimated 4.1%. The social partners expect that annual wage growth will be 3½% both this year and five years from now.

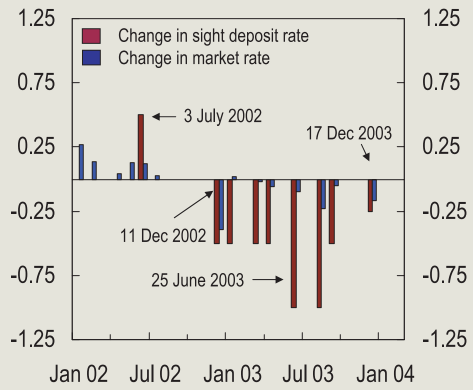
24 Such an indicator was used in the report "How Do Central Banks Write" by Fracasso, Genberg and Wyplosz, CEPR 2003.

Chart 23 Differential between Norwegian and German forward rates 10 years ahead. January 2000–February 2004



Source: Norges Bank

Chart 24 Changes in 3-month money market rates following monetary policy meetings.



Source: Norges Bank

Therefore, market participants cannot always be expected to anticipate the central bank's interest rate decisions with a high degree of accuracy.

Compared with the impact in other inflation-targeting countries, the average impact on Norwegian money market rates was fairly pronounced around the monetary policy meetings in 2002. The impact was considerably less pronounced relative to the same countries in 2003. Monetary policy in 2003 has thus been relatively predictable.

Liquidity management

Norges Bank sets the interest rate on banks' overnight deposits with and loans from Norges Bank (the sight deposit rate and the overnight lending rate). Norges Bank's liquidity policy shall ensure that the Executive Board's interest rate decisions have a broad impact on short-term money market rates. Norges Bank uses its liquidity policy instruments, (fixed-rate loans or fixed-rate deposits) to supply or withdraw liquidity from the banking system so that the shortest money market rates remain close to the interest rate on banks' sight deposits with Norges Bank. Thus, the sight deposit rate is the key rate in monetary policy.

With effect from April 2003, Norges Bank decided to discontinue the use of fixed-rate deposits until further notice. It was decided that it would have little or no significance for monetary policy whether surplus liquidity in the banking system was deposited as sight deposits or fixed-rate deposits with Norges Bank.

In periods when the demand for liquidity is unusually high (as for example when large tax payments fall due) and in situations where the impact on money market rates is substantial, Norges Bank may use currency swaps as a supplement to fixed-rate loans in order to supply liquidity. Currency swaps were not used in 2003.

Banks' structural liquidity is what banks' sight deposits with Norges Bank would have been without central bank supplying or withdrawal of liquidity by means of liquidity policy instruments. Banks' structural liquidity is influenced by government incoming and outgoing payments, government loan transactions, Norges Bank's transactions in the foreign exchange and government securities markets and changes in notes and coins in circulation.

Structural liquidity has declined substantially in 2003, by about NOK 40bn. Structural surplus liquidity in the banking system was nonetheless high through most of 2003 as a result of a high liquidity level at the beginning of the year. As in 2002, structural liquidity varied widely through the year (see Chart 25).

There are a number of reasons why structural liquidity was reduced through 2003. The supply of liquidity through Norges Bank's purchases of foreign currency for the Government Petroleum Fund was considerably lower in 2003 than in 2002. Foreign exchange purchases were discontinued with effect from 21 May, as a result of a downward revision of the estimate for the transfer to the Petroleum Fund in 2003 in the Revised National Budget. At the same time, there was a higher withdrawal of liquidity through net issues of government paper in 2003 than was the case in 2002. This is largely because no government bonds matured in 2003. Banks as a whole were in a borrowing position for a short period in May and most of the fourth quarter of 2003.

Chart 1 shows that the shortest money market rates in 2003 were generally close to the sight deposit rate, with somewhat more pronounced variations at the beginning of October and towards the end of December. Before petroleum tax payments fell due on 1 October, there had been high surplus liquidity in the banking system for a considerable period. As petroleum tax payments fell due, liquidity in the banking system became considerably tighter, even when liquidity was supplied through fixed rate loans from Norges Bank. The change in level of liquidity resulted in higher volatility in the shortest money market rates.

Towards the end of December, the shortest money market rates rose somewhat even though banks had sight deposits with Norges Bank of about NOK 25bn. Interest rates usually rise in the last few days of the year because of heightened uncertainty around the redistribution of liquidity in the interbank market at the turn of the year. In addition, some banks use sight deposits to a greater extent at this time of the year to cover the liquidity reserve requirement, which reduces available liquidity in the system. The effects on the money market were limited, however, as ample liquidity in the banking system contributed to reducing uncertainty.

Research

Research and research-based analysis concerning monetary policy are developed along two approaches. One is empirically oriented and is particularly focused on the functioning of the Norwegian economy. The other is more theoretical and focuses on issues relating to the formulation of monetary policy strategy and properties of the monetary policy regime. Research in Norges Bank is thus directly and indirectly oriented towards improving the basis for monetary policy decisions.

Norges Bank's research work is documented as it is completed in the Bank's series of publications. Eight papers were published in the series *Working Papers*, while six articles were published in national and international journals. Over the past three years, staff members in Norges Bank's research department have on average published 9 articles annually in journals and books with a referee arrangement. These articles are reproduced in the series *Reprints* to make them more accessible. A number of researchers have also published their contributions to explaining developments in the krone exchange rate in Norges Banks' *Occasional Papers*. The contributions have also been translated into English for an international readership.[25]

On the basis of the Bank's research activities, contact is developed with academic research circles, both nationally and internationally, as well as with research departments in other countries' central banks. The Bank's own research activities play a key role in the further development of this contact, which in this connection may be seen as an "admission ticket" that provides access to other research communities. The contact is developed through various types of cooperation that ranges from long-term cooperation with foreign researchers concerning joint research projects to participation in international conferences, workshops and research seminars. Though this contact the Bank gains access to important international circles and references that are useful for the performance of the Bank's tasks in the work on monetary policy, financial stability and investment management.

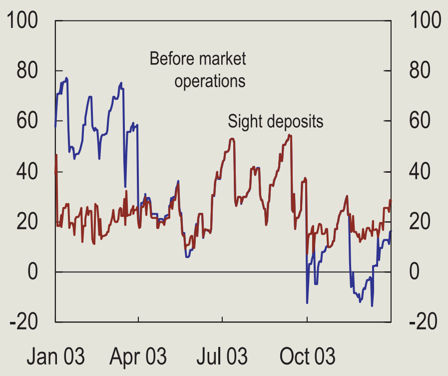
In 2003, altogether ten academics from various institutes in Norway and abroad worked at the Research Department in Norges Bank on part-time, temporary contracts. One of the purposes of this arrangement is to involve these researchers in joint projects with the Bank's own staff and contribute to strengthening the research environment at the Bank.

Norges Bank also intends to allocate funds to finance a professorship in macroeconomics with particular emphasis on monetary policy issues at the Institute of Economics at the University of Oslo. The University of Oslo had advertised this post in Norway and abroad and was in the closing stages of appointing a candidate at the end of 2003.

Work on economic models

Economic models are useful aids in the conduct of monetary policy. The development of economic models is an ongoing process based on knowledge

Chart 25 Banks' liquidity in 2003. Daily figures. In billions of NOK



Source: Norges Bank

25 See Norges Bank's *Occasional Papers*.

about the economy and the functioning of monetary policy, and the relationships we wish to examine using the models. Like other central banks, Norges Bank uses a number of models with varying degrees of theoretical and empirical content. The macroeconometric model RIMINI has functioned as the main tool over the past ten years in drawing up the economic forecasts that are published in the Inflation Report.[26]

Norges Bank conducted an evaluation of its models in the light of the experience gained in improving the basis for monetary policy decisions under an inflation targeting regime. An inflation target for monetary policy and a fixed exchange rate target pose different challenges. An inflation targeting regime requires an analysis to show which interest rate path is necessary in order to achieve the inflation target. Models for inflation targeting must therefore give some indication of the monetary policy response pattern and exchange rate formation.

Work was begun last autumn at Norges Bank to develop a new model system for analysis and forecasting. Emphasis will be given to recent international research and the experience of other inflation-targeting central banks.

Production of statistics

In 2003, Norges Bank continued its production of statistics on money, credit and foreign exchange markets along much the same lines as in the previous year. In accordance with the Bank's agreement with Statistics Norway concerning a change in responsibilities from 2005, Norges Bank is preparing to discontinue the balance-of-payments statistics and to incorporate data relating to economic relationships between Norway and other countries in other data on financial and securities statistics.

Financial statistics

Norges Bank cooperates with Kredittilsynet (Financial Supervisory Authority of Norway), Statistics Norway and the Central Securities Depository on the collection and preparation of data on the credit and securities market. The data are used as a basis for the Bank's interest rate decisions, work to promote financial stability, official statistics, regular analyses of developments in credit and securities markets and research.

The primary statistics on banks and other financial undertakings form the main basis for monthly money supply and credit indicators and quarterly financial balances.

In 2003, the Bank began discussions with Kredittilsynet and Statistics Norway on a framework for future collaboration on the collection and processing of data from banks and other financial institutions. These discussions will continue in 2004.

Statistics on foreign payments

Norges Bank produces statistics on payments between Norway and other countries. These statistics serve as the most important basis for balance of payments statistics published each month by Statistics Norway. Statistics on payments between Norway and other countries are based on reports from Norwegian banks and from enterprises that have accounts with foreign banks or have settlement arrangements with foreign companies.

Foreign payment statistics will be discontinued as from 2005. Statistics Norway is therefore developing a new system for the collection of data for the balance of payments. Norges Bank is contributing expertise and personnel to this work.

The tax authorities, customs authorities and the National Authority for Investigation and Prosecution of Economic and Environmental Crime have access to information from Norges Bank concerning payments between residents and non-residents. Norges Bank is providing expertise to assist in the establishment of a new system for banks' reporting of foreign payments when the current arrangement for reporting to Norges Bank is discontinued.

Financial sector balances

Norges Bank's database for quarterly reconciled financial sector balances, FINDATR, was reorganised in 2003 and renamed FINSE. Some changes were made to the sector and instrument categories, and new primary statistics were incorporated. FINSE contains data from the end of 1995 and is used in the Bank's work on macroeconomic models, in monetary policy analyses and in the work on financial stability. The statistics product households' financial accounts, which is based on FINSE, shows, for example, developments in household assets, debt and net financial investment.

International reporting and cooperation

Norges Bank's reporting of statistics to international organisations is extensive. The Bank reports to the BIS, the ECB, Eurostat, the IMF and the OECD.

Norges Bank participates in fora that discuss the development of international standards and international reporting. This includes Eurostat's Committee on Monetary, Financial and Balance of Payments Statistics and in subordinate working groups in which Norway participates pursuant to the EEA Agreement.

26 The article "The role of assessments and judgement in the macroeconomic model RIMINI" by Kjetil Olsen and Fredrik Wulfsberg, published in *Economic Bulletin* 2/01, describes how the RIMINI model is used in forecasting.

A delegation from the International Monetary Fund (IMF) visited Norway and had meetings with the Norwegian authorities, represented by the Ministry of Finance, Norges Bank and Statistics Norway in November 2002. The delegation made a quality assessment of the following six important areas of statistics: National Accounts, consumer price indices, producer price indices, government finances, monetary statistics and balance of payments statistics. Norges Bank had responsibility for coordinating between Norway and the IMF and was responsible for monetary statistics.

The IMF's conclusions were published on the IMF website in July 203 in an extensive report comprising three main parts: *Report on the Observance of Standards and Codes* (ROSC), *Data Quality Assessment Framework* (DQAF) and *Response by the Authorities*. The first part comprises more general observations relating to the production of statistics in Norway, while the assessments and grading in the second part are based on a standardised framework, the Data Quality Assessment Framework (DQAF), so that the findings can be compared with similar assessments made in other countries. The Norwegian authorities were also given the opportunity to comment on the report. These comments have also been published along with the report.

Most areas of monetary statistics received a very high score in the IMF's assessment. There is, however, room for improvement with regard to the valuation of some financial instruments (gold and financial fixed assets), and the IMF recommended that the processing of loans, financial derivatives and interest accrued should be changed. The valuation of gold has already been changed in line with the recommendations, and the other recommendations will be considered in connection with the future development of the statistics systems.

Legal basis for Norges Bank revised in 2003

The amendments to the Norges Bank Act that were adopted in June 2003 are the most extensive since the Act was passed in 1985. Other new elements in the legal setting for the central bank are the decisions taken by the Storting (Norwegian parliament) to revise the procedure for the appointment of Executive Board members and to conduct open hearings on monetary policy. In addition, outmoded Acts concerning money and foreign exchange markets – the 1950 Currency Control Act and the 1965 Act authorizing the regulation of monetary and credit conditions – have been repealed. The amendments entered into force 1 January 2004.

Appointment of Executive Board members
For the appointment of external Executive Board members and deputy members, candidates are no longer nominated by the party groups in the Storting. Members of the Executive Board are now appointed by the Government on the basis of advice from the Ministry of Finance, without any formal recommendation from a public body.

The list of persons who may not be appointed as members or deputy members of the Executive Board or the Supervisory Council has been extended to include the following: ministry officials, staff employed by the Ministry of Finance or the Office of the Prime Minister, political staff at the Storting, committee secretaries at the Storting and staff at Norges Bank. Nor may persons be appointed that are closely associated with the above persons or persons already listed as disqualified. This does not, however, apply to persons closely associated with ministry officials

Amendments in the area of monetary policy
A new fourth paragraph in section 3 of the Norges Bank Act requires the central bank to inform the public of the assessments on which decisions concerning the conduct of monetary policy, particularly interest rate decisions, are based. This is a rule of principle, and it is Norges Bank's responsibility to exercise its discretion in developing measures to fulfil the duty to provide information.

An open hearing on the conduct of monetary policy will be held annually in connection with the Storting's deliberations on the Credit Report from the Ministry of Finance, in which the governor of Norges Bank will appear before the Standing Committee on Finance and Economic Affairs. The first hearing was held on 1 December 2003.

In line with developments in other countries, Norges Bank may no longer extend credit directly to the government. It is clearly stated in the Act, however, that the Bank's purchases of Treasury bills, government bonds and other government debt instruments do not fall within this provision. This amendment (section 18 of the Norges Bank Act) will enter into force on 1 January 2005, when the restructuring of Norges Bank's role as market-maker in government securities has been completed in consultation with the Ministry of Finance.

Repeal of the Currency Control Act and the Act on the regulation of monetary and credit conditions – legal basis for statistics and new financial contingency measures section
In connection with the amendments to the Norges Bank Act, the 1950 Currency Control Act and the 1965 Act authorizing the regulation of monetary and credit were repealed . Elements in these Acts that are still relevant have been included in new provisions in the Norges Bank Act. The legal authority for specific regulations provided in some provisions of the Currency Control Act and the Act authorizing the regulation of monetary and credit conditions will, however, continue to apply in a transitional period.

Norges Bank is authorised to obtain information from enterprises in the financial sector, broadly defined, to enable supervision of financial stability and for statistical purposes (section 27 of the Norges Bank Act). New provisions in section 31 concerning coercive fines and section 32 concerning penalties provide Norges Bank with instruments for the enforcement of the duty to provide information. Implementation of the enterprises' duty to provide information is regulated in more detail in a separate regulation.

A new section 28 concerning protective measures shall ensure that the authorities have a legal basis for regulating capital flows to or from other countries if there is a risk of substantial balance of payments problems or major disturbances in capital markets. The Government may then introduce monetary, credit or currency regulation. Section 32 of the Norges Bank Act provides the legal authority to penalise violations of these contingency measures.

Changes in the organisation of the Bank
It has now been made clear that the Supervisory Council supervises the Bank's activities. The Supervisory Council is required by law to issue an annual statement regarding the supervision of the Bank. The Supervisory Council hires the central bank auditor, but may delegate the task of hiring other staff in the Central Bank Audit to the central bank auditor.

The Supervisory Council may, under special circumstances, delegate decision-making authority to the chairperson. As a result of the amendments to the Act, statutory rules concerning various departments of Norges Bank have also been repealed, cf. Norges Bank's regional branches have been closed and NOKAS (Norsk Kontantservice AS) was established in 2001.

Chapter 2. Financial stability

Responsibility for the stability of the financial system

Norges Bank's mandate and responsibility in the area of financial stability are defined in Section 1 of the Norges Bank Act, which states that the Bank shall: "(…) promote an efficient payment system domestically as well as vis-à-vis other countries and monitor developments in the money, credit and foreign exchange markets" and in Section 3: "The Bank shall inform the ministry when, in the opinion of the Bank, there is a need for measures to be taken by others than the Bank in the field of monetary, credit or foreign exchange policy. The Bank shall inform the public about the monetary, credit and foreign exchange situation." The Payment Systems Act, which entered into force in 2000, assigns to Norges Bank the responsibility of authorising banks' clearing and settlement systems (the interbank systems).

The development of financial imbalances may involve considerable real economic costs. Should a situation arise in which financial stability is at risk, Norges Bank, in consultation with other authorities, will consider the need for and, if necessary, initiate measures that may help to boost confidence in the financial system. The semi-annual report Financial Stability, which presents developments in the financial sector, provides an important basis for Norges Bank's assessments. Responsibility for financial stability is shared between Norges Bank, Kredittilsynet (Financial Supervisory Authority of Norway) and the Ministry of Finance, which will all be involved in handling problems in the financial system. The Ministry of Finance is primarily responsible for the work on the regulatory framework. Kredittilsynet supervises the financial sector, while Norges Bank has the responsibility for promoting efficient and robust payment systems and financial markets. Norges Bank has regular meetings with Kredittilsynet and with the Ministry of Finance to discuss issues relating to financial stability. In accordance with the Storting's decision, cooperation between Norges Bank and Kredittilsynet has been established at several levels. The managements of the two institutions hold quarterly meetings to discuss the economic situation and developments in financial institutions. Norges Bank is represented by an observer on the board of Kredittilsynet.

Norges Bank's operational target for monetary policy is 2½% inflation over time. The time horizon for achieving the inflation target is two years. Monetary policy influences the outlook for financial stability, since the interest rate influences developments in household and enterprise debt growth and prices for important assets such as housing and equities. Stability in the financial sector is a necessary precondition for low and stable inflation. A sharp rise in asset prices and debt build-up may pose a risk to economic stability. To minimise this risk, there may be situations when it is appropriate to apply a somewhat longer horizon than the normal two-year horizon for achieving the inflation target. Norges Bank is therefore considering whether, and to what extent, financial stability considerations should influence the formulation of monetary policy.

Norges Bank's efforts to bolster financial stability consist primarily of:

- contributing to limiting risk associated with clearing and settlement systems in order to prevent liquidity and solvency problems from spreading among financial market participants.
- monitoring the economy in general and the financial industry in particular in order to identify developments that may lead to a decline in earnings and higher losses in the financial sector

- providing input for assessment of the regulation of financial markets, in order to ensure an appropriate balance between the interests of efficiency and financial soundness.
- developing contingency routines that can help to solve problems of systemic importance when they arise.

Financial markets and financial institutions

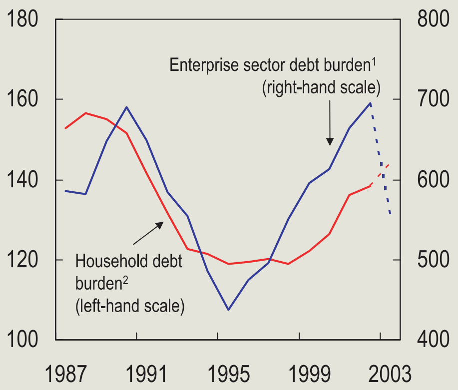
Surveillance

The impact of economic disturbances on financial stability will depend on the following:

- the level of and movements in debt and asset prices, and factors that affect debt servicing capacity,
- banks' exposure to different types of risk,
- banks' earnings and financial strength, i.e. how well equipped banks are to deal with any losses,
- whether problems that arise in one part of the financial system are amplified and/or spread to other parts of the system

The main credit risk indicator for households and enterprises is the debt burden for these two sectors. Household debt has risen in recent years and accounted for about 150% of household disposable income at end-2003. However, experience indicates that banks incur larger losses on loans to enterprises than on loans to households. It is nevertheless important to monitor households' financial position, because changes in household behaviour have financial consequences for enterprises. Similarly, developments in corporate earnings and employment will have an impact on households. Credit risk analyses therefore consider both the household and enterprise sector.

Chart 26 Debt burden of households and non-financial enterprises excl. petroleum and shipping. Per cent



[1] Loan debt in per cent of cash surplus excl. interest expenses
[2] Loan debt in per cent of disposable income

Sources: Statistics Norway and Norges Bank

Norges Bank uses accounts data for all Norwegian limited companies to analyse credit risk (risk of loan losses) associated with bank loans to enterprises. A credit risk model that predicts individual bankruptcy probabilities for enterprises is based on these accounts data. The bankruptcy probabilities in this model depend on enterprises' earnings, liquidity and financial strength.

Norges Bank also monitors banks' liquidity risk and the market risk associated with their securities portfolios. A bank is liquid if it is able to meet its commitments as they fall due. Banks accept short-term deposits and provide long-term loans, which makes them vulnerable to liquidity problems. Banks' lending is mainly financed by customer deposits, the issue of bonds and short-term financing in the money market. Liquidity risk analysis is of central importance as banks can incur substantial losses as a result of liquidity problems, for example if assets have to be realised at low prices in markets where liquidity is low.

Market risk is often used as a collective term for several different types of risk and includes the risk of losses on balance sheet and off-balance sheet items as a result of changes in market prices such as interest rates, exchange rates and equity values. In this context, the insurance sector is exposed, and banks to a lesser extent. Insurance companies' investments in the equity market affect the supply of risk capital.

An annual survey of Norwegian banks' counterparty exposures is conducted by Norges Bank in collaboration with Kredittilsynet. The survey shows the level of exposure of the nine largest banks to their fifteen largest counterparties. The exposures are in the form of derivatives, securities, unsecured deposits, loans, guarantees and foreign exchange transactions for which settlement has not been confirmed. One of the aims of the survey is to assess the liquidity and credit risk associated with banks' unsecured, short-term exposures. The results of the last survey show that there is limited risk of liquidity and solvency problems spreading across Norwegian banks.

Financial markets in various countries have become more integrated, and examples show that unrest can spread rapidly across countries. In recent years, cross-border banking groups have contributed to linking the financial markets of different countries. This makes risk diversification possible, but may also be a channel for contagion. In the Nordic countries, there are constellations where branches and subsidiaries are important in relation to both the parent bank and the financial markets of host countries. Nordea, which is a major bank in all the Nordic countries except Iceland, have given notice that they intend to convert their subsidiaries in Denmark, Finland and Norway into branches. In 2003 the parent bank in the Nordea group was located in Sweden. In June 2003 the Nordic central banks signed an agreement on the handling of financial crises. The agreement contains provisions on the gathering and dissemination of information, and coordination of the actual handling of the crisis. The agreement concerns situations in which a serious problem arises in a bank that is resident in a Nordic country and has a subsidiary in at least one other Nordic country.

Norges Bank regularly carries out in-depth analyses of the functioning of financial markets and the adaptation of financial institutions. The analyses are documented as they are conducted, mainly in the form of articles in the journal *Penger og Kreditt* (and in English translation in the *Economic Bulletin*), but there are also boxes containing in-depth information in *Financial Stability*. In 2003, long-term developments in the housing market, market risk in life insurance companies and the effects on banks' losses of a sharp fall in consumption were analysed, among other things. At the same time, the work on analysing banks' ability to absorb losses due to negative macroeconomic shocks continued. In addition, credit risk is analysed on a regular basis. Cooperation with Kredittilsynet on analysis of banks' credit risk in the enterprise sector is being developed steadily. The accounts-based model developed by Norges Bank is being used by the Kredittilsynet in its monitoring of the loan portfolios of individual institutions. In order to be able to use more updated information than the accounts provide, Norges Bank and the Kredittilsynet have started using Moody's KMV model, which is based on information from securities markets, to estimate the credit risk associated with loans to enterprises.

The regular analyses of financial stability are underpinned by a long-term accumulation of knowledge through Norges Bank's research activities. Several projects concerned with analysing the behaviour of financial institutions have shed light on the adaptation to risk among Norwegian banks. For example, an analysis has been conducted to shed light on the emphasis placed by banks on credit risk when they determine the capital adequacy level they want in excess of the statutory minimum requirements. Also being studied are the weight attached by borrowers to banks' risk, and how the competitive situation in the credit market influences the risk margin banks incorporate in their lending rates. The potential economies of scale resulting from bank mergers have also been analysed. Analyses of house and share price movements have also commenced, and the interaction with credit markets is being studied in more detail. The results of this research will be documented in Norges Bank's *Working Papers* series and in various journals.

Report on financial stability

Norges Bank's surveillance of financial markets is presented in the semi-annual report *Financial Stability*. The purpose of the report is to provide a comprehensive assessment of the situation in the financial sector and the outlook ahead, with particular emphasis on banks and their ability to cope with any major disturbances to the economy. The main conclusions of the report are summarised in a submission to the Ministry of Finance. The report is also intended to contribute to dialogue with the financial industry, and to increase awareness of and contribute to debate on the importance of financial stability. In the report, Norges Bank looks in particular at developments in debt, asset prices and debt servicing capacity. Credit, liquidity and market risk are discussed in each report. Other types of risk, such as counterparty risk, settlement risk and operational risk, are examined at regular intervals. Developments in mortgage companies, finance companies and life insurance companies are also assessed. Many of these institutions are linked to banks through financial conglomerates.

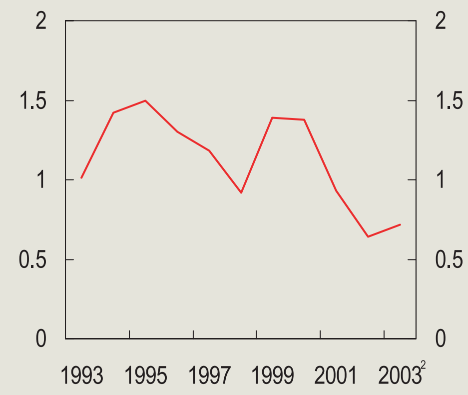
The discussion of the various types of risk culminates in a qualitative assessment of risk. The designations low, relatively low, moderate, relatively high and high risk are used. The direction risk has moved in since the previous report is also indicated. Our assessments are based on a broad range of data. In our overall assessment of the financial stability outlook, we weigh up the different types of risk in a discretionary manner. Because of the structure of banks' exposures, great emphasis is placed on credit risk. The risk assessment may be different for the short and the long term. For example, there may be situations where credit risk is low in the short term because of low interest rates and/or favourable economic developments. However, the same factors may lead to accelerating debt accumulation and asset price inflation, which may increase risk in the long term.

Assessment of the structure and regulation of the financial market

One important event in 2003 which had an effect on the structure of the financial sector was the merger between DnB and Gjensidige Nor to form the financial conglomerate DnB NOR ASA. On 27 August 2003, Norges Bank informed the Kredittilsynet that financial stability considerations were not a major obstacle to the merger. However, the merger means that a larger share of the overall risk associated with the provision of credit and other financial services to Norwegian businesses and households will be concentrated in one financial conglomerate. At the same time, increased size can contribute to stable earnings and satisfactory financial strength. Whether the merger will improve the stability of the financial system will depend on whether potential improvements are realised, and in general on the new group's strategic decisions. The merger necessitates close supervision of DnB NOR's operations, in particular their choice of risk profile and risk management systems.

For banks and other financial institutions, the most important preventive measure is that they are efficient and have the financial strength that allows them to deal with new types of risk. The current proposal for new capital adequacy regulations (Basel 2) entails greater focus on banks' risk management systems and capital allocation. The Kredittilsynet and Norges Bank issued a joint consultative statement in support of the main points in the draft. However, the consultative statement points out that the new draft regulations may have major consequences for the level of capital, and that this should be taken into account in the work on the regulations.

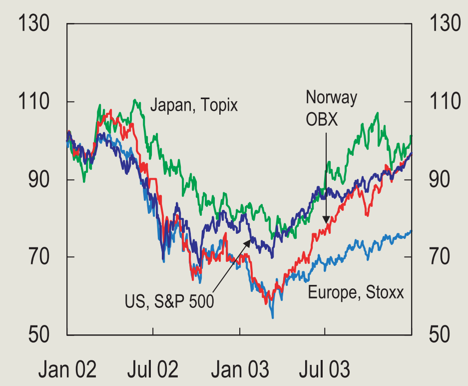
Chart 27 Banks'[1] pre-tax operating profit/loss on ordinary activities as a percentage of ATA



[1] Parent bank, excluding foreign branches.
[2] Annualised figures for 2003 based on first three quarters.

Source: Norges Bank

Chart 28 International equity indices. Indexed. 2 January 2002 = 100



Source: EcoWin

Financial stability in 2003

Satisfactory financial strength in banks

Banks' profits have been reduced in recent years. However, preliminary figures show an improvement in banks' after-tax profits from 2002 to 2003, largely as a result of increased securities income and lower expenses as a percentage of average total assets. Sluggish developments in the Norwegian economy led to an increase in banks' loan losses in the first half of 2003. Preliminary figures show a fall in loan losses in the second half of 2003, and indicate that overall loan losses were at approximately the same level in 2003 as in 2002. The fall in interest rates through 2003 resulted in a fall in banks' net interest income. Most banks have maintained a core capital adequacy ratio that is substantially higher than the minimum statutory requirement. Banks' financial position is therefore regarded as satisfactory.

Increased optimism in securities markets

Developments in international financial markets in 2003 reflect expectations of stronger economic growth. Following the trough in March 2003, equity prices in the largest markets rose sharply through the remainder of 2003. Bond yields increased somewhat in the second half of the year, following a pronounced decline in the first six months. However, there is uncertainty associated with the sharp rise in debt and house prices in a number of countries and with movements in bond prices. There is also uncertainty as to how the US current account deficit will affect the dollar exchange rate, and its effects on the global economy and the financial system.

The international upturn in equity markets, a historically low Norwegian interest rate level and the recent krone depreciation has led to a sharper rise in equity prices in Norway than in comparable countries. In isolation, the upswing in securities markets has boosted banks' income through earnings from securities holdings, trading in securities and ownership interests in life insurance companies.

Imbalance in debt accumulation in the Norwegian economy

The rate of household debt accumulation accelerated somewhat towards the end of 2003, to about 11% on an annualised basis, while growth in enterprise sector debt came to a standstill. Overall credit growth declined in 2003, but remained higher than growth in the economy. Mainland credit has increased to a historically high level in relation to GDP. Over time, growth in debt that is higher than growth in income increases the risk of financial instability.

The sharp rise in house prices in recent years is one of the main factors behind the sustained growth in household debt. A past rise in house prices may increase household debt even after house prices have levelled off, if house sales remain high and the loan-to-asset value ratio increases when a house changes hands. Turnover in the housing market was higher in 2003 than in 2002. Since only a share of the housing stock changes is sold each year, dwellings will be sold at higher prices than when they were last sold for a long period. After falling slightly through spring 2003, house prices rose relatively sharply in the second half of the year. House price deflated by annual salary is approaching the historical peak of 1987. A low interest rate level fuelling household demand for loans. The low interest rate level, and expectations of rising house prices, may both bring more buyers into the housing market and contribute to an increase in housing consumption. This may in turn push up house price inflation and thereby further increase household debt and housing wealth. This would make households more vulnerable to negative economic disturbances and a possible fall in house prices. Since most households borrow against collateral in their own dwelling, banks would also be more vulnerable in the event of a fall in house prices.

The household debt burden (gross debt relative to disposable income) rose further in 2003 from an already high level. If debt growth continues at the same pace, the debt burden will pass the level in the previous banking crisis in the course of 2005. The sharp decline in interest rates since December 2002 led to a fall in the interest burden, despite strong growth in debt. The interest burden is defined as interest expenses after tax in relation to disposable income plus interest expenses.

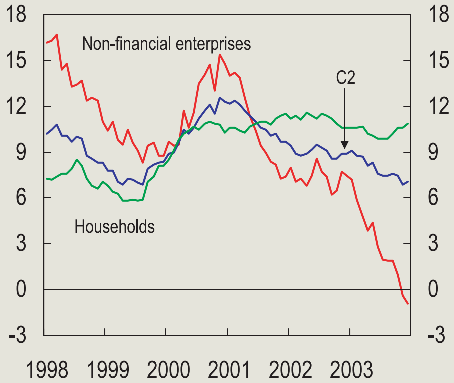
There are substantial differences between the interest burdens of different groups of households. Figures for 2001 from Statistics Norway show that a steadily larger share of household debt is held by households with a high interest burden. In 1998, 24% of household debt was held by households with an interest burden of over 20%. In 2001, this share had increased to 40%. There was also a substantial increase in the debt of households with a high interest burden and low or moderate income.

Increased bank deposits and high values for equities and insurance claims resulted in increased gross financial wealth for households in the first half of 2003. The rise in household gross financial assets was roughly the same as growth in gross debt. As a result, household net financial assets remained virtually unchanged. Because of the increase in the value of dwellings since 1993, total household assets are substantial. Household debt as a share of housing wealth was therefore markedly lower in 2003 than 10 years earlier.

The fall in interest rates improved households' debt servicing capacity. Banks' credit risk in connection with loans to households was somewhat reduced at end-2003 compared with the previous year, and is assessed as relatively low.

Enterprises reduced their debt in 2003. This reflects low corporate investment. Sluggish developments in the Norwegian and global economy through 2002 and into 2003 resulted in an increase in the number of bankruptcies in 2003 compared with 2002. However, the rise in

Chart 29 Credit from domestic sources to households and non-financial enterprises (C2). 12-month rise. Per cent



Source: Norges Bank

the number of bankruptcies slowed through the year. The fall in interest rates strengthened enterprises' financial position. Developments in enterprise sector debt and interest burden (defined as debt and interest expenses in relation to the cash surplus) show that enterprises improved their debt-servicing capacity through 2003.

Norges Bank uses an empirical model to calculate the bankruptcy probability of an enterprise within three years. In 2003, the calculations were carried out using accounts data for 2002. Bankruptcy probabilities at end-2002 were at about the same level as in 2001. However, the calculations did not take into account the fall in interest rates in 2003, which had a positive impact on enterprises. Projections of bankruptcy probabilities based on Norges Bank's projections for economic developments showed falling bankruptcy probabilities in 2003 and the next two years. According to Moody's KMV model, the probability that large, unlisted enterprises would default on their debt obligations was somewhat reduced in the course of 2003. The main reason is that the rise in equity prices is assumed to increase the value of enterprises' assets.

Accounts figures for limited companies in 2002 showed an improvement in profitability on 2001. Pre-tax returns on both total assets and equity increased, but were still at a low level compared with the last ten years. The 2003 results for a selection of listed companies indicate a continued improvement in overall profitability of enterprises. The profitability of some industries in the internationally exposed sector showed a weaker trend than the previous year. The commercial property sector is the largest recipient of bank loans. Weak profitability among property enterprises, coupled with high debt in this industry, is cause for concern.

The credit risk associated with loans to enterprises is regarded as moderate, and is somewhat lower at the end of 2003 than the previous year, if we disregard the property industry. Credit risk associated with loans to property enterprises increased in 2003. Credit risk associated with loans to companies that rent out office premises is considered to be particularly high.

Reduced liquidity risk

Because bank lending is long term, while their funding is largely short term, they are exposed to liquidity risk. Customer deposits are regarded as a stable funding

External evaluation of *Financial Stability* report

Alex Bowen of the Bank of England, Mark O'Brien of the IMF and Erling Steigum of the Norwegian School of Management were commissioned by Norges Bank to evaluate the Bank's Financial Stability report. The group's report was presented to the Executive Board on 19 March 2003 and published in Financial Stability 1/2003.

In its report, the group first discusses what a report on financial stability should contain. It then evaluates Norges Bank's report in the light of these criteria and against similar reports from other countries. The group concludes that Norges Bank performs well according to both evaluations. Among other things, the group stresses that Norges Bank is an international leader in the use of quantitative models, particularly for assessing credit risk. The group regards the report as clearly written, readable and accessible.

At the same time, the group feels that changes can be made to strengthen Norges Bank's report. Among other things:

- the purpose of the report could be clearer,
- currency risk could be discussed more,
- the consequences of a fall in oil prices could be discussed,
- channels for contagion from international financial markets could be discussed,
- a general overview of the exposures in the banking system could be presented
- the discussion of banks' counterparty risk could be made clearer
- stress test assumptions and scenarios could be developed further.

A number of these issues were taken up in the two reports in 2003. The report will be further developed in 2004 in accordance with the group's recommendations.

source, thanks in particular to the deposit guarantee. The deposit-to-loan ratio declined in 2003, but the decline was generally compensated for by increased bond debt. On balance, banks increased their share of stable financing compared with lending. Short-term domestic financing in the money market was more or less unchanged, measured as a percentage of gross lending. Foreign short-term funding is regarded as less stable than domestic short-term financing. Banks reduced their short-term foreign funding in 2003. Banks' liquidity risk declined in 2003, and is assessed as relatively low. However, the liquidity risk for some small banks rose.

Some improvement in the outlook for financial stability in 2003

In 2003, credit growth was higher than growth in the economy. Debt growth is imbalanced, however, with strong growth in household debt and almost zero growth in enterprise sector debt. However, rapid debt consolidation in the household sector could reduce earnings and debt servicing capacity among non-financial enterprises.

Although banks' earnings declined somewhat, financial soundness remained satisfactory. The decline in interest rates since December 2002 reduced the interest burden of the household and enterprise sectors and strengthened their debt servicing capacity. The fall in interest rates is fuelling activity in the Norwegian economy, and there are also signs that global economic growth is picking up. On balance, the outlook for financial stability is considered to be satisfactory, and slightly more favourable at the end of 2003 than a year earlier.

Payment systems and means of payment

Norges Bank's tasks and responsibilities

Norges Bank's responsibility for the payment system was expanded when the Payment Systems Act came into force in April 2000. The Act assigns Norges Bank responsibility for authorisation and supervision of systems for clearing and settlement of interbank payment transactions. Thus, Norges Bank has both general supervisory responsibility for the payment system as a

whole, as stipulated in the Norges Bank Act, and specific responsibility for authorising those parts of the payment system that carry out interbank clearing and settlement. One of Norges Bank's main tasks is to reduce the level of risk in the Norwegian settlement system to prevent solvency or liquidity problems from spreading among banks participating in the payment system, thereby posing a risk to financial stability.

In recent years, central banks have increased their focus on payment systems, both because of the central role these systems play in the financial infrastructure, and because they are a channel for the conduct of monetary policy. Norges Bank's efforts to promote more efficient and robust payment systems consist of:

- oversight of the financial infrastructure through its responsibility for authorisation and supervision pursuant to the Payment Systems Act, through the agreements and rules regulating banks' participation in Norges Bank's Settlement System (NBO), through ongoing work to reduce NBO's technological and operational vulnerability, and close ties to international financial systems.
- contingency systems and routines that can solve problems when they arise
- monitoring of banks' exposures in connection with their participation in the Norwegian and cross-border payment systems.
- publication of annual reports that identify developments in the use of payment instruments in Norway. The reports also evaluate the efficiency and security of the Norwegian payment system in relation to internationally accepted standards and actual developments in other countries.

Risk in payment systems

Banks' fundamental risks in connection with their participation in the payment system are credit risk and liquidity risk. Credit risk depends primarily on whether banks credit customers before they themselves have received settlement for a payment transaction. Since banks have switched in recent years to crediting customer accounts after they themselves have received settlement, this type of risk is no longer of any importance in the Norwegian system. Liquidity risk is connected with a shortage of liquidity if settlement is not executed at the expected time. Liquidity for carrying out settlements was sufficient in 2003. As a result, liquidity risk in the Norwegian system was generally low in 2003.

Other types of risk that may be reflected in credit or liquidity risk are legal risk, operational risk and foreign exchange settlement risk. Legal risk arises in the event of legal uncertainties in connection with rights and commitments of participants in the system, for example in connection with a participant's insolvency. Since the entry into force of the Payment Systems Act and the adjustments made to satisfy the authorisation requirements, Norges Bank regards the legal risk associated with the Norwegian payment system as very limited.

Operational risk may be the result of inadequate procedures, malfunctions in computer and telecommunications systems, breach of rules, fraud, fire etc. which may entail costs for participants. A number of operational disruptions in banks' operations centres have demonstrated a substantial operational vulnerability in the Norwegian payment system. It is the responsibility of the system operators to ensure that routines, back-up solutions, expertise and contingency plans are in place to effectively deal with operational risk. The banking industry has introduced several measures to reduce this risk. Norges Bank continuously assesses the need for measures in relation to systems that do not have sufficient focus on operational risk, and works closely with Kredittilsynet to this end.

Foreign exchange settlement risk arises when foreign exchange transactions are settled in different settlement systems (in different countries) at different times. There is thus a risk of a participant delivering sold foreign exchange without receiving the agreed matching amount because the counterparty is not able to deliver at the agreed time or at all. If one party does not meet his obligations, the counterparty may at worst incur a loss equivalent to the principal in the trade. In recent years Norges Bank and other central banks have focused on the risk associated with banks' participation in global foreign exchange trading. The establishment of an international multi-currency settlement system, CLS, which is owned by the largest international banks, has considerably reduced the credit risk associated with such transactions. Since September 2003 NOK has been included among the currencies (11 in all) which are now settled in CLS. Foreign exchange settlement risk is therefore substantially reduced. (CLS is discussed in more detail on page 63)

The Act relating to Payment Systems

Act no. 95 of 17 December 1999 relating to Payment Systems, etc., entered into force on 14 April 2000. The act is based on international recommendations and supplements the regulation which the banking industry has exercised in this area, normally in close consultation with Norges Bank. The Payment Systems Act assigns Norges Bank the responsibility for authorising and supervising systems for clearing and settlement of interbank payment transactions. The purpose of the Act is to ensure that clearing and settlement systems are

organised in such a way that they preserve financial stability. Norges Bank may grant exemptions from the authorisation requirement for systems whose operations are so limited in scope that they are assumed to have no significant effect on financial stability.

The decision as to whether a system should be subject to authorisation will be based primarily on an assessment of system aspects which are important to risk as a result of liquidity and solvency problems. Other factors may also be considered, such as system turnover and participants, whether the system is considered to be important to the efficiency of and confidence in the payment system as a whole, and the system's need for legal protection for clearing agreements (legal protection is only given to systems that have been authorised). The application for authorisation shall provide information about measures to safeguard technical operations, including a contingency plan in the event of any operational disruption should the ordinary system fail to function.

The Norwegian Interbank Clearing System (NICS), Den norske Bank and Gjensidige NOR Sparebank were granted authorisation in 2001. The approved interbank systems are subject to supervision. Licensees shall report on changes having a bearing on ownership, organisation operations and to participation, turnover and exposures in the interbank system. The results of tests of contingency systems shall also be reported.

Following an operational failure at one of the main clearing systems in autumn 2001, the authorised systems were required to report operational disruptions on a quarterly basis. They must be graded on the basis of scope and consequences, and measures to improve the situation must be described.

The Payment Systems Act has divided the responsibility for payment systems between Norges Bank and Kredittilsynet. Payment systems, for example payment cards or electronic giros, shall be notified to Kredittilsynet. These legal provisions have given Kredittilsynet a clearer responsibility for the security, efficiency and coordination of systems for payment services. Kredittilsynet also has supervisory responsibility for the financial services industry's IT systems. A separate document describes routines for cooperation, reporting and notification between Norges Bank and Kredittilsynet in this area. In line with the increased focus on operational risk, Kredittilsynet and Norges Bank performed joint supervision in 2003 of the Banks' Payment and Central Clearing House, the site of the NICS Operations Office. The two authorities will continue cooperating in the area of operational risk.

In connection with the merger between Den norske Bank ASA (DnB) and Gjensidige NOR Sparebank ASA (GNS), Norges Bank has received a notification of change pursuant to the requirement in Section 2-6 of the Payment Systems Act. The two holding companies merged on 4 December 2003, while the bank merger took place in January 2004. Norges Bank has approved the notification of change concerning the merger of the banks. If the technical systems are integrated, and arrangements are made that may be of significance for the clearing and settlement authorisations, a new

notification of change, or possibly a new application for authorisation, will have to be sent to Norges Bank.

Norges Bank's Settlement System

By means of entries in banks' accounts, Norges Bank carries out the final settlement of assets and liabilities arising between banks as a result of their financial transactions and participation in payment systems. In order for settlement to take place efficiently, banks can borrow through the day against collateral. Banks receive settlement in the form of claims on the central bank, to which there is no credit or liquidity risk attached. At the same time, the settlement system provides the central bank with an effective channel for interest rate signals. Norges Bank is also responsible for the cash settlement of trading in equities, fixed income instruments and derivatives.

Transactions over the central government's consolidated account with Norges Bank form an integral part of clearing and settlement in the Norwegian payments system. A general principle of the consolidated account system is that all government liquidity must be collected in the central government's consolidated account in Norges Bank at the end of the day. In 2003, all incoming and outgoing payments under the government consolidated account arrangement were executed by Den norske Bank (DnB), Nordea Bank Norge and Gjensidige NOR Sparebank.

In autumn 2002 Norges Bank decided to start preparations with a view to outsourcing the operation and administration of the settlement system. At end-2002, potential partners were invited to offer operating services for this system. In connection with the choice of which suppliers should receive requests for offers, emphasis was placed on expertise in operation of critical systems on mainframes, infrastructure and manning, knowledge of and experience of the Norwegian payments system as well as ability to carry out upgrading work in terms of replacing systems and system architecture.

In negotiations with potential suppliers, Norges Bank placed great emphasis on designing a solution to ensure prudent handling of risk elements in connection with the transition. Firm control of the transfer of systems was therefore an important prerequisite, in addition to the programme for takeover of personnel. Norges Bank also placed great emphasis on the agreements with the potential suppliers containing provisions for handling factors that were identified as critical for succeeding with outsourcing, particularly contingency planning and handling of deviations, safety regulations, commitments in connection with termination of the agreement, and rules in connection with infringements.

ErgoIntegration AS was chosen as supplier of IT operations and administration of Norges Bank's settlement and central banking system and on 1 September 2003 assumed responsibility for them. The contract is based on the assumption that outsourcing implies a transfer of activities, which means that ErgoIntegration AS will take over key employees with expertise in IT operations and systems development as well as software and hardware from Norges Bank. The agreement is initially for a period of 3 years, with an option for a further 3 years. However, the outsourcing of the operations and administration of the IT systems that are used in settlement does not involve any change in Norges Bank's responsibilities or services to banks or other users of the systems. Vulnerability in the operation and management of the settlement system is expected to be reduced as a result of integration in a large IT environment.

Norges Bank has priced the services of Norges Bank's settlement system (NBO) since 1 July 2001. The price structure consists of three parts, with an access fee for new participants, various fixed annual charges for participation in the system and in the individual net settlements, and a fixed price per settlement transaction that is sent to Norges Bank. Prices differ for transactions associated with net settlements, gross transactions (electronic or manual) and cheques. The price structure is normally adjusted on 1 January each year, and the objective is that the prices paid by participants in NBO will in due course reach at a level corresponding to full cost coverage. From January 2003 prices were raised by 25%. Prices were raised by about 15% on 1 January 2004.

Reduced risk and improved efficiency

Act no. 64 of 5 July 2002 concerning the registration of financial instruments entered into force on 1 January 2003. According to the new act, rights in VPS are legally binding immediately upon registration. The systems for both settlement and collateralisation of securities were therefore upgraded in the spring of 2003. Changes in securities settlement include a change from one to two securities settlements every day and a requirement that banks earmark liquidity for each settlement. Since the introduction of two daily settlements, more transactions can be settled on the agreed date, since transactions for which cash or security cover is lacking at the time of the first settlement will automatically be transferred to the second and settled then, provided there is cover. Final settlement of both securities and cash legs can now take place on trading day (T+0 settlement).

The establishment of Continuous Linked Settlement (CLS) is an important means of reducing the credit risk associated with foreign exchange trading. CLS implies a closer link-up between national settlement systems through a common system for foreign exchange settlement, based on the principle of simultaneous delivery of bought and sold currency. Most of the banks' credit risk associated with foreign exchange settlement is thereby eliminated. CLS commenced regular operations in October 2002 with seven currencies (AUD, CAD, CHF, EUR, GBP, JPY and USD). The Norwegian, Swedish and Danish currencies were included in CLS from 8 September 2003, and the Singapore dollar from 10 September.

CLS uses reported transactions to calculate the net payments to be made in each currency by each bank. Norges Bank and the banking industry have together prepared the way for CLS settlement in NOK to take place without delays. The daily operating schedule of NBO has been altered, so that CLS has priority between 7 a.m. and noon, which is the time window for incoming and outgoing payments for settlement of foreign exchange transactions.

Since banks' liquidity in NBO can vary substantially and obligations for payments to CLS may increase, situations in which there is a scarcity of liquidity may arise. As a result, the central banks of Norway, Sweden and Denmark have developed a solution for the efficient transfer of liquidity between the three currencies – the Scandinavian Cash Pool. Through this scheme, banks can use deposits in one of the central banks as collateral for loans in one of the other central banks. The Scandinavian Cash Pool was implemented on 31 March 2003, and can only be used to cover liquidity requirements through the day. Positions must be settled before the end of the day.

Oversight of payment service systems

Norges Bank publishes an *Annual Report on Payment Systems* each year. The report provides an account of national and international regulatory work and developments in payment system infrastructures as well as developments in the use of various payment instruments in Norway. The principle operators in the Norwegian payment system supply the data on which the report is based. Because of the large quantities of statistics that have to be gathered and processed, the report is not ready until April or May. The information below therefore comes from the *Annual Report* for 2002.

The transition to electronic payment instruments continued in 2002. The increase in electronic services results in reduced use of paper-based services. The number of agreements for Internet-based bank services and the number of giros paid over the net is increasing steadily, and new payment terminals contribute to a continuing increase in the use of payment cards. In 2002, for the first time, giros paid via PC/Internet outnumbered mail giros.

The price for using the various payment instruments largely reflects the differences in production costs. The general trend in price developments in recent years has been a fairly sharp increase in prices for paper-based services, while prices for electronic services have remained stable at a far lower level. This contributes to more efficient payment services. However, certain ten-

dencies are countering this general trend. For example, customer programmes and non-priced services can disturb price signals.

Payment cards and various giro transactions accounted for the great majority of the 915 million transactions with different types of non-cash payment instruments that were made in 2002. Giro payments accounted for 43% of all transactions, and 74% of these, in turn, were electronic transactions. The electronic giro services consist of payments from terminals, payments over the Internet and telephone, and payments under direct debiting agreements. A total of 293 million electronic giro transactions were carried out, which was an increase of 9% on the previous year. At the same time, the use of paper-based services dropped by 20% in 2002, to 104 million transactions. Paper-based giro services consist of payments such as mail giros and paper-based payments at bank branches.

In 2002, 517 million transactions were also carried out by means of payment cards. This was an increase of 16% on the previous year. 98% of all card payments were electronic. A large share of card payments in Norway are made with debit cards.

Contingency in the financial sector

Norges Bank's work with contingency plans for the financial sector is connected with its responsibility for promoting an efficient payment system, contributing to financial stability and monitoring the Civil Defence and Emergency Planning System in the financial sector. This applies internally to the Bank's own systems, including NBO, and externally to the infrastructure of the financial sector and the discharging of Norges Bank's responsibilities under the Bank Guarantee Act.

Ongoing efforts are being made to reduce the operational risk associated with the operation of NBO and to improve contingency solutions and procedures for dealing with crisis situations. The outsourcing of NBO to ErgoIntegration AS entails moving IT equipment and personnel to ErgoIntegration's premises. Experience has shown that the actual moving can involve increased operational risk. As part of the preparations for transferring IT operations in the first quarter of 2004, great emphasis has accordingly been placed on contingency measures. Once the move has been completed, the vulnerability associated with NBO's operations is expected to be lower than it would have been with continued operations in Norges Bank.

The Contingency Committee for Financial Infrastructure (BFI), a joint coordination body, was established to make contingency work in the financial sector more effective and better adapted to a modern infrastructure. This committee was established by a decision by Norges Bank's Executive Board in October 2000, after consultation with the Ministry of Finance and key participants in the financial sector. The following institutions/organisations are represented on the committee: Kredittilsynet, the Norwegian Financial Services Association, the Norwegian Association of Savings Banks, the Banks' Payment and Central Clearing House (BBS), EDB Business Partners AS and Verdipapirsentralen ASA (the Norwegian Central Securities Depository). The Ministry of Finance attends meetings as an observer. Norges Bank chairs

Table 2: Notes and coins in circulation

	1997	1999	2001	2002	2003*	Change 1997-2003
Notes in circulation (NOK bn)	38.3	40.5	39.2	37.8	37.4	-2 %
Coins in circulation (NOK bn)	2.9	3.3	3.7	4.0	4.1	42 %
Total cash in circulation (NOK bn)	41.2	43.8	42.9	41.8	41.6	1 %
Cash in circulation in % of private consumption	8.2	7.8	6.8	6.4	6.0	

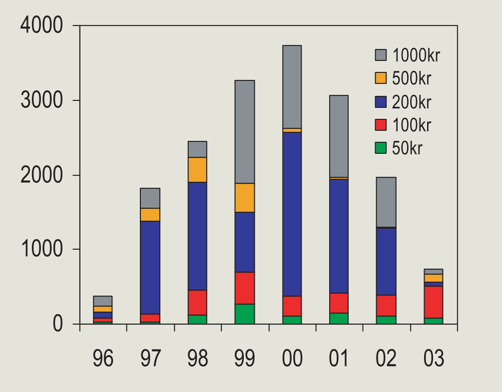
* Preliminary figures for 2003.

the committee and provides secretariat functions. The Committee's primary tasks are i) to establish and coordinate measures to prevent and resolve crises that may result in major disruptions in the financial infrastructure and ii) to coordinate contingency work in the financial sector, including the Civil Defence and Emergency Planning System. The emphasis of the committee's work is thus on coordinating information and measures between key participants, whereas the individual institution is responsible for implementing contingency measures internally.

In 2003 the committee discussed questions associated with operational stability and financial infrastructure vulnerability. Previous crisis situations and contingency exercises in the financial sector have been reviewed, and the consequences of a possible labour conflict in the financial industry in May were discussed in particular. The committee has also reviewed the contingency preparedness aspects of banks' IT operations taking place in other countries. Furthermore, new rules and regulations concerning contingency plans for the power supply and telecommunications have been presented in the Committee, and some contingency cases in the Civil Defence and Emergency Planning System have been coordinated in the Committee.

In recent years, a number of financial institutions in the Nordic countries have expanded their cross-border services, established branches in other Nordic countries and made acquisitions and formed financial conglomerates consisting of institutions in several countries. As a result, closer cooperation has been developed between the central banks and supervisory authorities of the Nordic countries, among other things to enable them to deal with contingency issues.

Chart 30 Number of counterfeit Norwegian banknotes 1996 - 2003



Source: The National Criminal Investigation Service in Norway

Notes and coins

Notes and coins in circulation

The Norges Bank Act assigns Norges Bank the responsibility of issuing notes and coins. This involves responsibility for the properties of the money, such as the denominations used and the design, and for ensuring that a sufficient quantity is produced to meet requirements. The responsibility of issuer also involves making cash available. Norges Bank takes orders from banks for cash, and takes delivery of their excess stocks. The banks are responsible for further distribution to the public.

The value of cash in circulation increased in the 1990s, but has fallen somewhat since 2000. In 2003 the average value of notes and coins in circulation was NOK 41.6 billion, which is approximately the same as in 2002. Viewed in relation to private consumption, the value of notes and coins in circulation declined in the period 1997-2003 (see Table 2).

The average value of notes in circulation was NOK 37.4 billion in 2003, which is 1.0% less than the average for 2002. The 1000-krone note accounted for the largest share of notes in circulation, with 59%, but its importance has declined in recent years. The number of 200-krone and 500-krone notes continues to rise, owing to their increased use in ATMs. The use of the 100-krone note has declined most in recent years, but less in 2003 and 2002 than in previous years.

The yearly average for the value of coins in circulation was NOK 4.1 billion in 2003, an increase of 2.5% compared with 2002. The 20-krone coin continued to increase its share of coins in circulation. In 2003 it accounted for 38% of coins in circulation, and for the past 3 years it has had a larger share than the 10-krone coin.

Upgrading of the banknote series

The current series of banknotes (Series VII) was completed with the issue of the 1000-krone note in 2001.

Table 3: Norges Bank's cash handling costs

(In millions of NOK)	2001	2002	2003
Total costs for production of notes NB Printing Works	57.9	61.6	57.3
Total costs for production of coins Royal Mint	38.6	42.3	38.1
Total production costs	96.5	103.9	95.4
Costs regional branches [1]	148.4	-	-
Revenues regional branches [1]	-86.3	-	-
Net costs regional branches [1]	62.1	-	-
Costs of central administration and transport [2]	15.2	15.4	15.3
Purchase of external depot and processing services	32.2	50.9	51.5
Total distribution costs	109.5	66.3	66.8
Total costs for production and distribution of notes and coins	206.0	170.2	162.2[2]

[1] In order to make the figures comparable with those of subsequent years, imputed rent and share of central overheads have been set at the same level as remuneration to NOKAS. These items were not included in previous annual reports.

The introduction of this new note series started in 1994 with the issue of the 200-krone note. New 50-krone and 100-krone notes were issued in 1997, and a new 500-krone note came out in 1999. The notes of this series have a design and features that should make it easy to recognise genuine notes under different conditions, visually, by touch and by machine.

Although counterfeiting in Norway is limited compared with many other countries, the number of counterfeits was rising up to the year 2000. This was one of the reasons why Norges Bank decided to upgrade low denominations in the banknote series. The 200-krone note was upgraded in 2002, and on 25 March 2003 an upgraded 100-krone note was issued. An upgraded 50-krone note followed on 1 February 2004.

The 200- and 100-krone notes have been upgraded to the same security level as the 1000- and 500-krone notes, among other things by equipping them with metallic features that are easy for the public to see and difficult to counterfeit. The 50-krone note has been upgraded with a security thread like the other Series VII notes, but will not have other metallic features.

Counterfeiting

The proliferation of colour copying machines, PC scanners and printers in the late 1990s led to an increase in the number of counterfeit notes seized. In 2001, however, there was a 22% reduction on the previous year, and the volume of counterfeits has been substantially reduced subsequently. (See Chart 30). The number of counterfeit notes is now one fifth the level in 2000.

A minimal number of counterfeits of the latest versions of the 1000-, 500-, 200- and 100-krone notes are being registered. This shows that the metallic features have been effective.

Organisation of cash handling

The actual issue of notes and coins, i.e. acting as the debtor for the notes and coins issued, is a task that Norges Bank alone can perform. The other tasks associated with production and distribution of notes and coins may be performed by others, but Norges Bank must ensure that they are performed, and that their performance is in line with central bank requirements.

A limited company was established on 1 July 2001 to handle cash – Norsk Kontantservice AS (NOKAS). Norges Bank's regional branches and cash-handling activities were incorporated into this company. Today Norges Bank owns 33.5% of the company, while the remainder is owned by private banks. The company performs services associated with cash for Norges Bank and private banks. Norges Bank buys handling services associated with central bank responsibilities, and services associated with the management of central bank depots. Through its agreement with NOKAS, Norges Bank maintains depots in Bergen, Bodø, Kristiansand, Larvik, Lillehammer, Oslo, Stavanger, Tromsø and Trondheim. In addition, Norges Bank has depots in Hammerfest and Vardø which are managed according to an agreement with Sparebanken Nord-Norge.

The destruction of notes makes special demands in terms of security and control. A system that enables Norges Bank to monitor NOKAS' destruction activities was implemented in 2002 to satisfy these requirements. Norges Bank itself destroys notes that do not fulfil the requirements for mechanical destruction by NOKAS. Among these are notes from old series. Norges Bank also destroys coins that are damaged or no longer valid.

In June 2003, Den Kongelige Mynt AS (the Royal Mint) was sold to Samlerhuset AS Norge and Mint of Finland. Norges Bank has entered into an agreement concerning the purchase of Norwegian circulation and commemorative coins from the company. The agreement lasts until the end of 2009. Norges Bank's Printing Works will continue to produce Norwegian banknotes until 1 July 2007, after which the Bank will meet its needs by buying banknotes from other printing works.

Expenses

The costs to Norges Bank of discharging its responsibilities as issuer consist of production costs for new notes and coins and the costs associated with distribution to banks. Distribution involves transport to Norges Bank's depots, storage, providing services in connection with delivery to and receipt from banks, and destruction of damaged or worn and no longer valid notes and coins.

Table 3 shows developments in Norges Bank's cash-handling costs from 2001 to 2003. Production costs will vary from year to year, due in part to fluctuations in production volume and to variations in the denominations produced. Replacements in note and coin series may lead to substantial variations in volumes. The more sophisticated security features in the newest note series also make the unit costs of these notes higher than those of earlier series. Up to 1 July 2001, when NOKAS was established, Norges Bank's regional branches also performed other services for banks (counting, verification, sorting and packing). These services, which are included in the table, were not among Norges Bank's statutory responsibilities for supplying cash and were invoiced to banks on a commercial basis. The table shows both total and net costs after deducting the income from these services.

Since the second half of 2001, banks have been buying these services from NOKAS, and Norges Bank buys the depot and handling services that are necessary to discharge its responsibility for supplying cash to banks. The table shows that the costs associated with note and coin production were NOK 8.5 million lower in 2003 than in 2002. Distribution costs were NOK 0.5 million higher than in 2002, but NOK 42.7 million lower than in 2001. Because of the changes that have taken place, the figures concerning this area will not be entirely comparable from year to year.

Chapter 3. Investment management

At end-2003, Norges Bank managed assets worth more than NOK 1000bn in international capital markets. The bulk of this was the Government Petroleum Fund, which is managed on behalf of the Ministry of Finance, and the Bank's international reserves. The Bank also manages the Government Petroleum Insurance Fund on behalf of the Ministry of Petroleum and Energy. Norges Bank's international reserves comprise foreign exchange reserves, gold and claims on the International Monetary Fund (IMF). The foreign exchange reserves comprise more than 90% of the total international reserves. Guidelines for management and performance reports for the foreign exchange reserves and various funds managed by the Bank are published on Norges Bank's website.

Foreign exchange reserves

The market value of the foreign exchange reserves at the end of 2003 was NOK 189.1bn. The foreign exchange reserves may be used for interventions in the foreign exchange market as part of the conduct of monetary policy or to pay due regard to financial stability considerations. Norges Bank's Executive Board stipulates guidelines for the management of the foreign exchange reserves and has delegated responsibility to the Governor for providing supplementary rules. In 2003, the portfolio structure was changed somewhat. The foreign exchange reserves are now divided into a money market portfolio and an investment portfolio. In addition, a buffer portfolio for foreign exchange purchases for subsequent transfer to the Petroleum Fund constitutes a part of the foreign exchange reserves.

Until the end of the first quarter, the foreign exchange reserves also included an immunisation portfolio which was intended to hedge interest rate risk and exchange rate risk associated with the central government's foreign currency debt. After redeeming the largest remaining foreign currency loans, however, the immunisation portfolio had become so small that it was appropriate to terminate it, and the securities worth NOK 0.5bn that remained in the portfolio were transferred to the long-term portfolio (investment portfolio).

Until the end of the third quarter, the portion of the foreign exchange reserves with the shortest investment horizon was managed in a liquidity portfolio that amounted to a little more than NOK 35bn. The liquidity portfolio was then replaced by a money market portfolio of approximately NOK 5bn. The excess amount was transferred to the long-term portfolio which was renamed the investment portfolio.

To ensure that the overall risk profile did not change, the equity portion of the investment portfolio was set at 30%. In 2002, the Executive Board decided to increase the equity portion and reduce the portion invested in European markets. They also decided that the portfolio should be invested in securities from other borrowing sectors. Equities are still being phased in gradually to bring the equity portion up to 30%. Non-government-guaranteed bonds have been phased in since January 2003, and at year-end, this change in the portfolio was nearly completed.

Holdings in any one company are limited to 3% of the share capital, and ownership rights associated with equities may not be exercised unless this is necessary to safeguard the financial interests of the foreign exchange reserves. If the Ministry of Finance excludes individual equities from the Petroleum Fund's investment universe for ethical or environmental reasons, this exclusion will also apply for the foreign exchange reserves. Approximately 35% of the equities and 10% of the fixed income instruments in the investment portfolio are being managed externally.

The buffer portfolio is primarily invested in money market instruments. The portfolio may also be invested in fixed income and equity instruments, but the exposure is limited to the few days each month that it takes to build up the portfolio that will be transferred to the Petroleum Fund at the end of the month.

The money market portfolio is invested in short-term money market instruments. The portfolio is to be used for current transactions and may vary in size from NOK 2bn to NOK 7bn. The money market portfolio amounted to NOK 6.2bn at end-2003.

The investment portfolio constitutes the largest portion of the foreign exchange reserves, and at end-2003 amounted to NOK 142.3bn, including NOK 0.9 bn in claims on Norwegian counterparties. The portfolio has a wide geographical spread, and the duration (interest rate risk) on the fixed income portion is the same as the duration in the bond market. The management objective is a high return in the long term, but the portfolio may also be used for monetary policy purposes.

The strategy for both the money market portfolio and the investment portfolio is defined by means of benchmark portfolios. These are constructed portfolios with a given country or currency distribution and with specific securities or fixed income indices from various submarkets or currencies. The benchmark portfolio provides the basis for managing and monitoring risk and for evaluating the performance of the management of the reserves.

An upper limit has been set for the actual portfolio's deviation from the benchmark. A measure of overall risk (tracking error) is the limit set for the investment portfolio. In practice, this means that the difference between the return on the actual portfolio and the return on the benchmark portfolio will normally be small. The upper limit for expected tracking error is 1.5 percentage points. In simplified terms, an expected tracking error of 1.5 percentage points means that the actual difference between the return on the benchmark and the return on the actual portfolio can be expected to be between -1.5 and +1.5 percentage points in 2 out of 3 years on average.

The return on the investment portfolio for 2003 was 8.28% measured in terms of the currency basket that corresponds to the composition of the benchmark portfolio. Measured in NOK, the return was 16.31%. The difference is due to the depreciation of the Norwegian krone in relation to the benchmark's currency basket. The portfolio outperformed the benchmark by 0.58 percentage point. The excess return has been adjusted for tax paid on dividends and transaction and tax costs connected with the phasing in of a larger portion of equities and non-government-guaranteed bonds.

The return on the money market portfolio was 0.40% in the fourth quarter (and for 2003 as a whole) measured in terms of the benchmark's currency basket, and -1.43% measured in NOK. This was 0.04 percentage point higher than the return on the benchmark portfolio.

Until it was discontinued at the end of the third quarter, the liquidity portfolio's 2003 return was 2.36%, measured in terms of the benchmark portfolio's currency basket. Measured in NOK, the return was 10.97%. The portfolio outperformed the benchmark by 0.06 percentage point. The composition of the liquidity portfolio has closely mirrored the composition of the benchmark portfolio.

Management of the immunisation portfolio was determined by the composition of government foreign currency debt. Until the portfolio was discontinued at the end of the first quarter, the return on the portfolio was 0.72 percentage point lower than the costs of servicing the government's foreign debt.

The buffer portfolio receives capital when the State's Direct Financial Interest in petroleum activities (SDFI) transfers gross income in foreign currency to Norges Bank. Norges Bank also purchases foreign currency directly in the market to bring the total amount up to the estimated allocation to the Government Petroleum Fund. As a result of the downward revision in the Revised National Budget of the estimates for the year's allocations to the Petroleum Fund, Norges Bank's purchase of foreign exchange in the market was discontinued on 21 May 2003. In both 2002 and 2003, the inflow of foreign currency to the buffer portfolio has been larger than the transfers to the Petroleum Fund. This has resulted in an increase in the size of the petroleum buffer portfolio and thus in the foreign exchange reserves. From 2004, the system for foreign exchange payments from the State's Direct Financial Interest in petroleum activities (SDFI) to Norges Bank has been changed to ensure that the supply of foreign exchange to the foreign exchange reserves and the build-up of the Petroleum Fund do not deviate from one another over time.

The return on the Petroleum Fund buffer portfolio, measured in NOK, was 8.31% in 2003. The size of the portfolio varied through the year from NOK 20.7bn (after the transfer) to NOK 43.7bn (before the transfer). At end-2003, the buffer portfolio was NOK 43.7bn, including NOK 2.4bn in foreign exchange purchased forward against the Norwegian krone.

Government Petroleum Fund

Norges Bank is responsible for the operational management of the Government Petroleum Fund on behalf of the Ministry of Finance. The mandate is stipulated in a regulation and a separate management agreement between Norges Bank and the Ministry of Finance. The agreement stipulates that the Ministry of Finance covers the Bank's management costs.

In 2003, the consulting company Mercer Investment Consulting was appointed by the Ministry of Finance to evaluate Norges Bank's operational management of the Petroleum Fund. Mercer writes in its report that the main impression of the management of the Petroleum Fund is very positive. Solid results have been achieved in a period when market conditions were extremely demanding. Mercer's report was published in connection with the Revised National Budget for 2003 and is available on the Ministry's website.

At the end of 2003, the market value of the Petroleum Fund's foreign exchange portfolio was NOK 845.3bn, before deduction of Norges Bank's management fees. In 2003, the Ministry of Finance transferred a total of NOK 103.9bn to the Petroleum Fund. The transfers are usually made at the end of each month. The equivalent value of this capital was immediately transferred to the foreign exchange portfolio.

The Petroleum Fund comprises both an ordinary portfolio and a separate Environmental Fund. The Environmental Fund may also be invested in equities issued by companies that have been evaluated on the basis of special environmental criteria. The Environmental Fund did not receive any new capital allocations in 2003.

The Ministry of Finance has established a strategic benchmark portfolio of equities and fixed income instruments. The benchmark portfolio is composed of equity indices for companies in 27 countries and of fixed income indices in the currencies of 22 countries. This portfolio reflects the delegating authority's investment strategy for the Petroleum Fund. The benchmark portfolio provides the basis for managing the risk associated with operational management and for evaluating Norges Bank's management performance. The Environmental Fund has its own benchmark portfolio. The Ministry of Finance has defined an upper limit for the actual portfolio's deviation from the benchmark portfolio.

In February 2002, the fixed income benchmark was expanded to include non-government-guaranteed bonds. These bonds were phased in through 2002 and 2003, a process that was completed in December 2003. In May, the Ministry of Finance changed the benchmark portfolio for fixed income instruments, and now the benchmark for Asia/Oceania only consists of government bonds. The reason for is that markets for non-government-guaranteed bonds are very limited and fairly illiquid in this region. Operational management can thus be achieved without substantially influencing expected return and risk.

With effect from 1 January 2003, the rules concerning the regional distribution of equities were changed, as the two regions "the Americas" and "Asia/Oceania" were pooled into one region. After this change, equities listed on stock exchanges in Europe and equities listed on stock exchanges in the Americas, Asia and Oceania shall each constitute between 40 and 60 per cent of the ordinary equity portfolio. The strategic benchmark portfolio for equities was also changed so that all companies in the new region outside Europe are now weighted according to market capitalisation. This change is being implemented in several steps. The end result will be that the Petroleum Fund's benchmark portfolio contains equal weights in companies listed on stock exchanges in the Americas and in Asia and Oceania. The Fund's ownership stake will still be somewhat higher in European companies than in companies listed on stock exchanges outside of Europe.

With effect from 19 September, the Ministry of Finance changed the benchmark portfolio for equities. On this date, the index supplier FTSE introduced new main indices and the Ministry decided that the Petroleum Fund's benchmark index should be based on the FTSE's sub-indices which contain large and medium-sized companies. The new benchmark index for the ordinary portfolio contains roughly 2200 companies compared with about 1800 in the former benchmark portfolio.

In 2003, the return on the Government Petroleum Fund, including the Environmental Fund, was 12.59% measured in terms of the benchmark's basket of currencies. It is this measure of return that best describes developments in the Fund's international purchasing power. The return on the Petroleum Fund's equity portfolio (excluding the Environmental Fund) was 22.84%, whereas the return on the fixed income portfolio was 5.26%. The return on the Environmental Fund was 22.89% measured in terms of the benchmark's currency basket.

Measured in NOK the return was 19.96%. This figure reflects an overall appreciation of the currencies in which the Petroleum Fund is invested of nearly 6.54% against the krone during the year. The depreciation of the krone has no effect, however, on the Fund's international purchasing power.

Measured over the seven calendar years since capital was first transferred to the Petroleum Fund's international portfolio, the annual nominal return has been 5.3% measured in terms of the Fund's basket of currencies. The net real return after deductions for management costs has been 3.7% per year.

The return in 2003 was 0.59 percentage point higher than the corrected return on the benchmark portfolio. The estimated costs of adjusting the actual portfolio of fixed income instruments to the changes in the benchmark portfolio have then been deducted in the benchmark return. Taxes on dividends have also been deducted.

Norges Bank's value added through management may be calculated by comparing the actual return with the return that could have been achieved by simply copying the benchmark portfolio. Both costs and return have been higher than would have been the case with passive management. In 2003, net value added calculated in this way was 0.54 percentage point, or NOK 3.2bn. For further details, refer to the Annual Report for the Government Petroleum Fund for 2003, page 14, Table 6. Overall for the last six years, the value added has been NOK 8.2bn.

A more detailed presentation of the management of the Government Petroleum Fund in 2003 is available in the Annual Report of the Government Petroleum Fund.

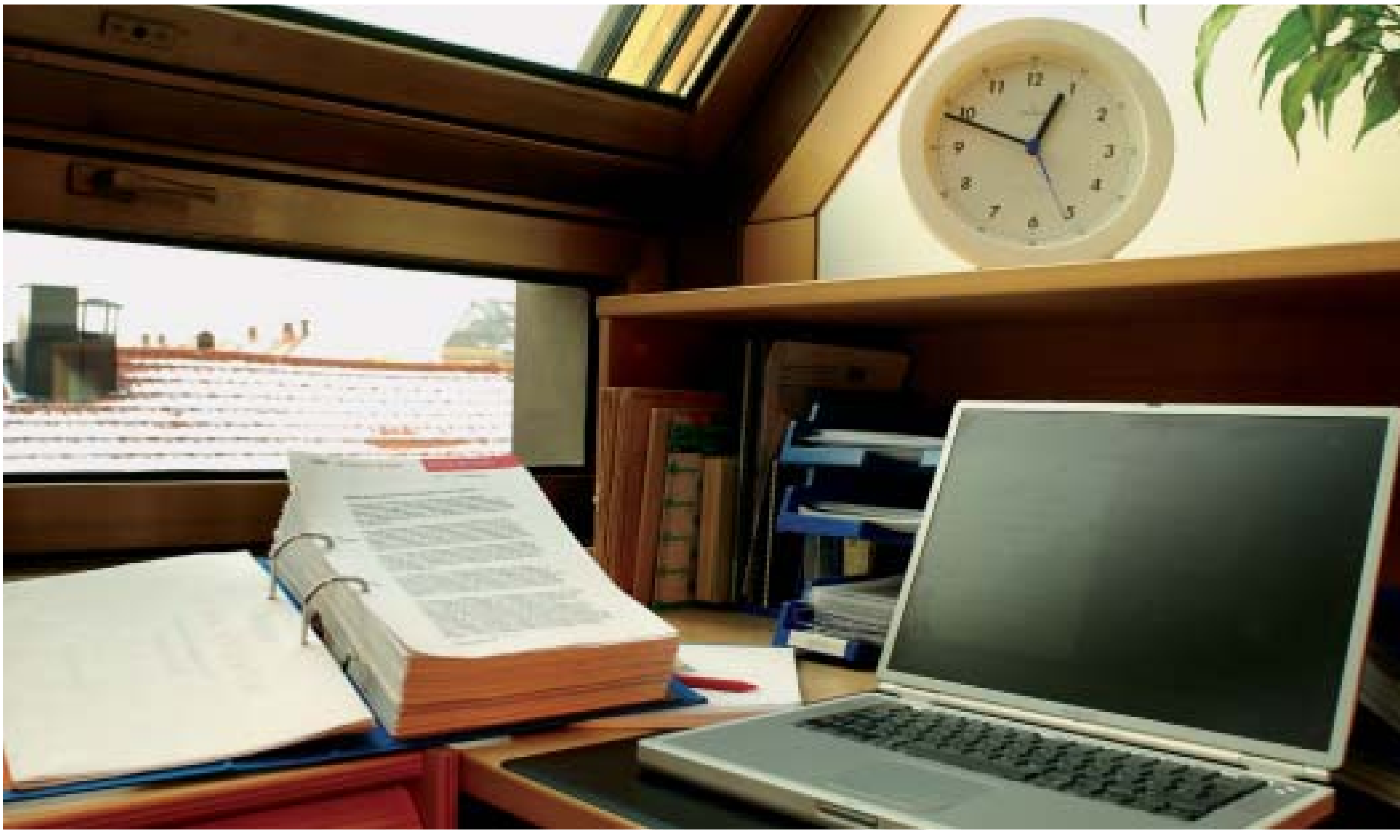
Government Petroleum Insurance Fund

The market value of the Government Petroleum Insurance Fund at year-end 2003 was NOK 12.9bn. The Fund is owned by the Ministry of Petroleum and Energy and its purpose is to provide support for the government's role as self-insurer of holdings in petroleum activities. The Fund is managed by Norges Bank. In 2003, the return was 3.56% measured in terms of the currency basket corresponding to the composition of the Fund's benchmark portfolio. Measured in NOK, the return was 17.74%. This was 0.12 percentage point higher than the return on the benchmark portfolio.

Gold and claims on the IMF

International reserves also include Norges Bank's gold reserves and claims on the IMF.

At end-2003, Norges Bank's total gold reserves



amounted to just under 37 tonnes, of which 33.5 tonnes consisted of gold bars deposited in the Bank of England. In addition, Norges Bank has a collection of gold coins of historical value and seven gold bars used for exhibitions. The gold bars deposited in the Bank of England have generally been on loan to other financial institutions for periods of up to six months. In 2003, the Executive Board decided that the gold bars deposited in the Bank of England should be sold but that the gold coins and bars for exhibitions should be retained. In the light of this, the Bank made no new agreements to lend out gold bars towards year-end. At end-2003, none of the gold bars had been sold and a little more than half of the gold bars were on loan. The market value of the gold reserves was NOK 3 277m at the end of 2003.

Claims on the IMF comprise SDR accounts (Special Drawing Rights), reserve positions in the IMF and loans to the IMF (Poverty Reduction and Growth Facility-PRGF). Norges Bank's aim is to keep the SDR reserves at between SDR 200m and SDR 300m. At end-2003, holdings amounted to SDR 228m, equivalent to NOK 2 266m. Reserve positions in the IMF amounted to the equivalent of NOK 6 641m. Norway's share of the IMF's Poverty Reduction and Growth Facility (PRGF) accounted for almost SDR 68m, equivalent to NOK 674m.

Research

In addition to managing the portfolios, Norges Bank also conducts studies and research in the area of investment management. The purpose of the research work is to provide the Executive Board with a sound basis for decision-making when setting the framework conditions for management of the foreign exchange reserves. Thorough analyses are also an important precondition for providing sound advice to the Ministry of Finance and the Ministry of Petroleum and Energy concerning investment strategies and management regimes for the Government Petroleum Fund and the Government Petroleum Insurance Fund.

Through its research, Norges Bank has sought to acquire knowledge about behaviour in securities markets and about optimal investment strategies. For example, the Bank has conducted empirical studies of the costs and gains associated with crossing of equities compared with trading directly on the stock exchange. Current projects include analysing (i) the relationship between volume and volatility in the equity market and (ii) the relationship between risk and the investment horizon. Norges Bank's Working Paper series provides documentation of the research. In 2003, a paper on a research project was published in a leading international professional journal.

Chapter 4. International cooperation

The International Monetary Fund (IMF)

Pursuant to Section 25 of the Norges Bank Act, Norges Bank shall administer Norway's financial rights and fulfil the obligations ensuing from participation in the International Monetary Fund (IMF). Norges Bank is also the secretariat for IMF-related work in Norway. Norges Bank performs this task on behalf of the Ministry of Finance. In consultation with the Ministry of Finance, the Bank formulates Norwegian standpoints on issues to be decided by the IMF Executive Board. The Norwegian standpoints are then discussed with the other countries in the constituency in order to reach a unified view.

Storting Report no. 7 (2003-2004) (the 'Credit Report' 2002) provides a detailed account of the IMF's activities.

The primary task of the IMF is to promote international monetary and financial stability. The Fund advises member countries on economic policy and provides interim financing in the event of balance of payment problems and serious balance of payments crises. At the end of 2003, 184 countries were members of the IMF.

The highest decision-making body of the IMF is the Board of Governors. Norway is represented by the Governor of Norges Bank, Svein Gjedrem, and the Secretary General of the Ministry of Finance, Tore Eriksen, is the alternate. The Board of Governors has delegated its decision-making powers on issues relating to the day-to-day operation of the Fund to a 24-member Executive Board. The five Nordic and three Baltic countries comprise one constituency with a joint representative on the board. Jon A. Solheim from Norway is the representative on the board for a two-year period starting 10 January 2004.

Each country's voting power, both in the Board of Governors and the Executive Board, depends on the country's quota in the IMF. The quotas reflect the countries' importance in the global economy. Norway holds 0.78% of the total votes and the Nordic-Baltic constituency 3.52%. A member's quota determines its financial contribution to the IMF and is the basis for determining the amount of financing the member can obtain from the IMF in the event of balance of payments difficulties.

The Nordic and Baltic countries also have a joint representative on the International Monetary and Financial Committee (IMFC), which is an advisory body for the Executive Board. The Committee meets twice a year. The Norwegian Minister of Finance is the constituency's representative in the period 2004-2005.

The Nordic-Baltic Monetary and Financial Committee (NBMFC) is the constituency's supreme coordinating body.

It has been agreed that the country with a representative on the IMF Executive Board is also responsible for coordinating the Nordic and Baltic countries' stance on issues discussed by the Board. Norway has this responsibility in the period 2004-2005.

Monitoring economic developments in member countries is an important part of the IMF's activities. The primary emphasis is on bilateral surveillance through the so-called Article IV consultations, which normally take place annually. The most important areas of surveillance are macroeconomic conditions and financial sector developments.

As part of its policy of greater transparency, the IMF has encouraged voluntary publication of the IMF's reports on member countries.

The annual Article IV consultation with Norway was held 1 – 9 December 2003. The IMF delegation's preliminary evaluations were published on 9 December.

The IMF provides loans to member countries with balance of payment problems. The largest loans in 2003 were extended to Argentina, Brazil and Turkey. Based on experience from the financial crises in recent years, the IMF is placing greater emphasis on preventing crises and uncovering problems at an early stage. The IMF is working on finding ways to involve the private sector in both preventing and dealing with crises. Refer to the Credit Report for a more extensive discussion of the IMF's lending policy and its role in countries in crisis.

The IMF has a special lending facility for combating poverty and promoting growth – the Poverty Reduction and Growth Facility (PRGF). The PRGF is not financed by the IMF's ordinary resources, but by funding from member countries. This funding is either capital that is used for loans or subsidies which allow the IMF to lend capital at a very low rate of interest.

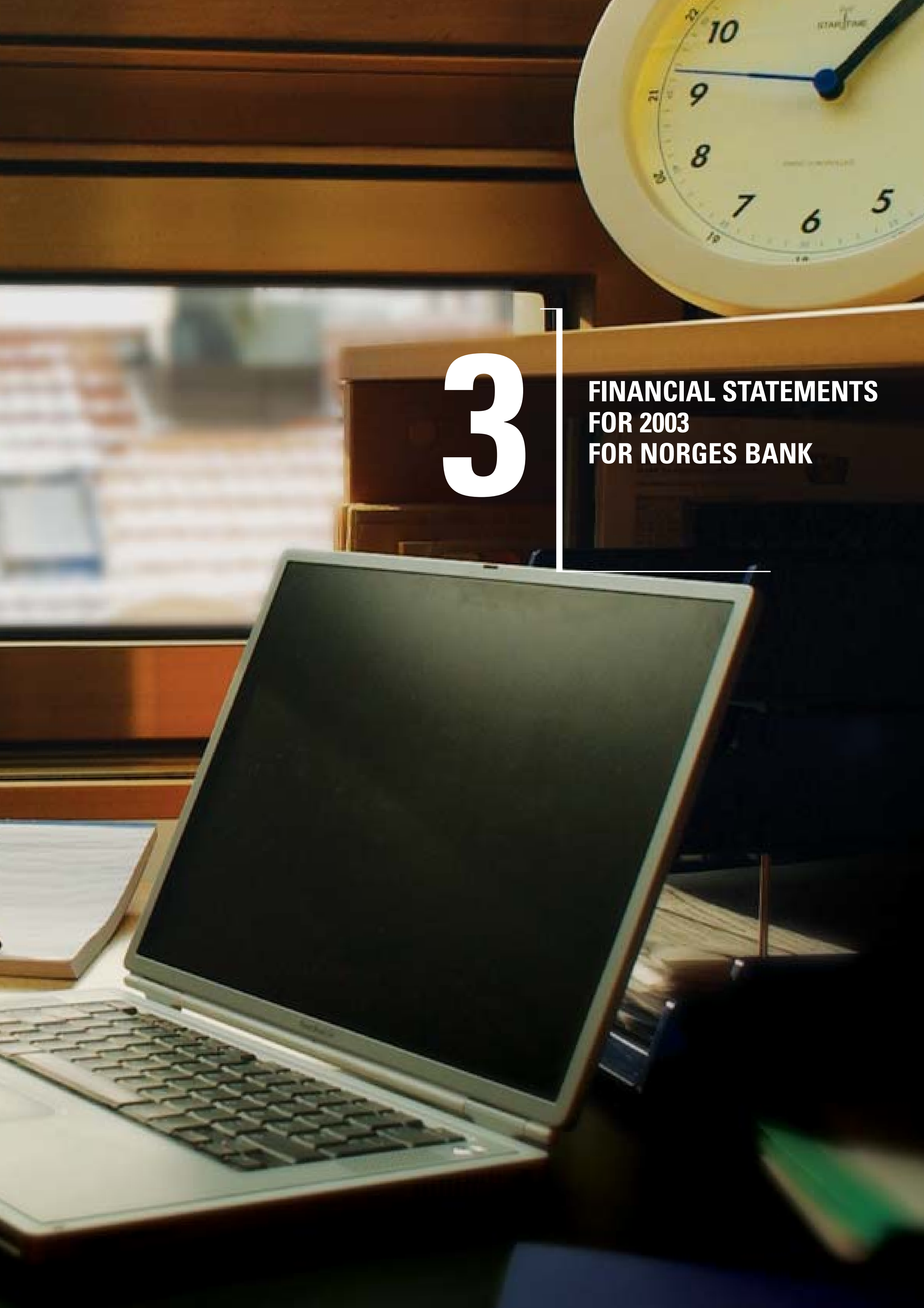
Norges Bank has made capital totalling SDR 150m available to this facility. In addition, the Ministry of Foreign Affairs has allocated about NOK 380 million over the development assistance budget to subsidise interest payments. The loan agreement between the IMF and Norges Bank is formulated in such a way that this amount must be drawn by the Fund by a given date. At the end of 2003, all the capital had been drawn. The capital will be repaid to Norges Bank in pace with loan repayments to the IMF. The amount outstanding at the end of January 2004 was SDR 70m. Norges Bank receives interest on these loans based on short-term market rates.

The Bank for International Settlements (BIS)

The Bank for International Settlements (BIS) is responsible for promoting cooperation between central banks. Norges Bank has been a shareholder in the BIS since 1931. The BIS is a centre for research and a discussion forum for member banks. In recent years, the BIS has increasingly focused on financial stability.

The Governor of Norges Bank regularly attends meetings at the BIS in order to discuss international central banking issues.


NORGES BANK
PRESSEMELDING



3 FINANCIAL STATEMENTS FOR 2003 FOR NORGES BANK

Report of the Executive Board on the financial statements for 2003

Norges Bank's main assets, apart from the Petroleum Fund, which does not affect the Bank's results, are the net international reserves. Norges Bank has liabilities in the form of notes and coins in circulation, and domestic deposits from the central government and banks. With a balance sheet of this nature, a positive return can be expected in the long term, because:

- The issue of notes and coins is one of Norges Bank's main responsibilities. This means that the Bank will always have a liability that is not interest-bearing. The offset will be the Bank's interest-bearing claims on other parties. Because of the Bank's monopoly on banknotes, the accounts will normally show a profit (seigniorage).
- Interest is paid on government and bank deposits in Norges Bank. The foreign exchange reserves are invested in bonds and equities. Returns on bonds are expected to be higher than interest on deposits over time. Equities, in turn, are expected to earn higher long-term returns than bonds.

Norges Bank's income consists primarily of interest and any net exchange gains on the foreign exchange reserves. Exchange and capital gains are the result of changes in exchange rates and equity prices and of interest rate changes which affect bond prices. Norges Bank's results will depend on developments in these variables, which may cause wide annual fluctuations in the Bank's results.

Norges Bank's accounts for 2003 show a surplus of NOK 20.8 billion, compared with a deficit of NOK 24.1 billion in 2002. The main reason for this is the depreciation of NOK against most of the main currencies in the foreign exchange reserves. As a result, foreign exchange reserves translated into NOK showed total exchange gains of NOK 12.3 billion in 2003, compared with losses of NOK 24.3 billion in 2002. Exchange gains due to the depreciation of the krone have no effect on the international purchasing power of the foreign exchange reserves.

The rise in prices in the international securities markets in 2003 resulted in a capital gain of NOK 4.2 billion, compared with a loss of NOK 2.6 billion in 2002.

Interest payments to the Treasury amounted to NOK 1.7 billion. Total interest payments to the Treasury came to NOK 2.5 billion in 2002.

The Adjustment Fund contained NOK 21.5 billion at end-2002. Following the year's allocations for 2003, the Adjustment Fund amounts to NOK 41.9 billion.

Notes and coins in circulation amount to NOK 46.2 billion. These are as mentioned interest-free liabilities in Norges Bank's accounts.

The Government Petroleum Fund is integrated into Norges Bank's accounts, and constitutes about 75 per cent of the Bank's balance sheet. The krone deposits in the Government Petroleum Fund are a liability item for Norges Bank. The countervalue of the krone deposits is invested by Norges Bank in an earmarked portfolio abroad. The return achieved on the international portfolio is transferred to the Fund's krone account. Norges Bank's results are therefore not affected by the results achieved for this portfolio. The costs to Norges Bank of managing the Government Petroleum Fund are covered by the Ministry of Finance according to the principle of full coverage of expenses, but only up to a certain limit.

Norges Bank's foreign investments and foreign assets

Norges Bank's foreign assets consist mainly of international reserves and the Government Petroleum Fund's investments.

International reserves

Norges Bank's international reserves comprise foreign exchange reserves, gold and claims on the International Monetary Fund (IMF). The foreign exchange reserves consist of investments in equities, interest-bearing securities, repurchase agreements and reverse-repurchase agreements for securities in foreign currency, and deposits in international banks with high credit ratings. The investments are made in accordance with the guidelines adopted by the Executive Board. These guidelines place limits on credit exposure, interest rate risk, equity risk and exchange rate risk.

Norges Bank's foreign exchange reserves shall be available for interventions in the foreign exchange market in connection with the implementation of monetary policy or in the interest of promoting financial stability. The reserves are divided into separate portfolios according to purpose. The money market portfolio is composed in such a way that it may be used for any exchange market interventions and for influencing liquidity and interest rates in the Norwegian money market. The long-term portfolio shall also be available for interventions, but shall in addition be invested with a view to achieving the highest possible return within the limits set out in the guidelines. The buffer portfolio for the Petroleum Fund is built up with a view to minimising transaction costs in connection with transfers to the Government Petroleum Fund. Funds are transferred monthly from the buffer portfolio to the Petroleum Fund. All the sub-portfolios shall be available for monetary policy purposes if necessary.

Table 1. The composition of net international reserves at 31 December 2003 by main portfolio. Market values in billions of NOK

	Money market portfolio etc.	Investment portfolio	Buffer-portfolio	Total foreign exchange reserves	Gold reserves and IMF	Total
Securities and deposits	0.6	150.4	1.2	152.2	-	152.2
Other international reserves	5.8	39.9	40.1	85.8	-	85.8
Gold and claims on the IMF	-	-	-	-	12.9	12.9
Total international reserves	**6.4**	**190.3**	**41.3**	**238.0**	**12.9**	**250.9**
Borrowing	-	-48.9	-	-48.9	-	-48.9
Net international reserves by portfolio	**6.4**	**141.4**	**41.3**	**189.1**	**12.9**	**202.0**
Domestic foreign exchange assets. foreign exchange (foreign exchange deposits)	-	0.9	-		-	0.9
Investment by portfolio	**6.4**	**142.3**	**41.3**		**12.9**	**202.9**

Table 2. Distribution of foreign exchange reserves by currency. Per cent

Currency	**2003**	**2002**
USD	36.6	27.1
CAD	1.3	1.2
JPY	5.2	5.8
BRP	9.0	14.4
EUR	44.8	47.4
Other currencies	3.1	4.1
Total	**100.0**	**100.0**

Size and composition of the international reserves
Gross international reserves stand at NOK 250.9 billion on the balance sheet. After account was taken of repurchase agreements and borrowing abroad, which amount to NOK 48.9 billion, net international reserves came to NOK 202.0 billion at end-2003, of which foreign exchange reserves amounted to NOK 189.1 billion. Table 1 shows the distribution of international reserves in the main portfolios.

Risk exposure
The absolute market risk of the foreign exchange reserves is determined largely by the benchmark portfolios defined by the Executive Board for the portfolios. At end-2003, the investment portfolio amounted to NOK 142.3 billion and the absolute market risk was 8.3 per cent, measured as the expected tracking error of the return. This market risk means that assuming normally distributed return, and given the volatility of the markets at year-end, there is a 68 per cent probability that the value of the portfolio one year ahead will lie in the interval between NOK 130 billion and NOK 154 billion.

The Executive Board has also stipulated a limit for relative market risk in the investment portfolio. Relative market risk (volatility) is calculated as the expected annual standard deviation of the difference between the the return on actual investments and the return on the benchmark portfolio. A maximum limit of 1.5 percentage points has been stipulated for the expected tracking error of the investment portfolio. This means that in two out of three years, the actual return on a portfolio that remains unchanged over time will deviate by less than 1.5 per cent from the benchmark return. At end-2003, the expected tracking error of the investment portfolio was 0.21 per cent.

The Executive Board has set limits for the credit risk of the foreign exchange reserve portfolios. No securities

Table 3. Changes in foreign exchange reserves in 2003. In billions of NOK

	Change 2003	Holdings
Foreign exchange reserves at market value 31.12.2002		**157.8**
Foreign exchange purchases for the Government Petroleum Fund	14.6	
Foreign exchange purchases State's Direct Financial Interest in petroleum activities (SDFI)	100.1	
Transfers to the Government Petroleum Fund	-103.9	
Transfers from the Government Petroleum Insurance Fund	0.4	
Interest payments on central government foreign debt	-0.1	
Repayment of central government foreign debt	-3.2	
Change IMF	0.6	
Return	22.8	
Total change		**+ 31.3**
Foreign exchange reserves at market value at 31.12.2003		**189.1**

in the investment portfolio may have a lower rating than the highest credit rating category (investment grade) from at least one of the three rating agencies Fitch, Moody's or Standard & Poor's.

The percentage distribution of Norges Bank's foreign exchange reserves broken down by currency at end-2003 and end-2002 is shown in Table 2.

Changes in the value of foreign exchange reserves
Foreign exchange reserves[1] amounted to NOK 157.8 billion at end-2002. In the course of 2003, foreign exchange reserves increased by NOK 31.3 billion, to NOK 189.1 billion. The increase is largely due to a positive return of NOK 22.8 billion in 2003. Moreover, the total foreign exchange transfers from the SDFI, the State's Direct Financial Interest in petroleum activities, and purchases of foreign exchange in the market to build up the Government Petroleum Fund, were larger than the total amount transferred to the Petroleum Fund for 2003.

Return on the international reserves
A positive return of NOK 24.5 billion was recorded for the international reserves in 2003 (see Table 4). Measured in NOK, the total return on reserves comprises current interest income, capital gains/losses on securities and gains/losses resulting from changes in exchange rates against NOK. Returns on gold holdings and the IMF are also included.

The exchange rate gain of NOK 12.3 billion is due to the depreciation of NOK against most of the currencies in the international reserves. The exchange gain has no effect on the international purchasing power of the reserves.

Capital gains on securities amounting to NOK 4.2 billion in 2003 were due primarily to a rise in prices in international stock markets. By way of comparison, there was a loss of NOK 2.6 billion in 2002.

Interest income and dividend on shares in the foreign exchange reserves, taking account of interest expenditure on borrowings, was NOK 6.8 billion in 2003, against NOK 7.2 billion in 2002. One reason for the

Table 4. Return on international reserves by portfolio, in 2003. In billions of NOK

	Money market portfolio etc.	Investment portfolio	Buffer-portfolio	Immuni-sation portfolio	Foreign exchange reserves	Gold reserves and IMF	Total 2003
Interest income and dividends	1.8	6.1	0.1	-	8.0	-	8.0
Exchange rate gains, financial instruments	-0.2	3.6	0.3	-	3.7	0.5	4.2
Exchange rate adjustments	2.9	6.9	2.6	-0.1	12.3	-	12.3
Total return 2003 international reserves	**4.5**	**16.6**	**3.0**	**-0.1**	**24.0**	**0.5**	**24.5**
Interest on borrowing	-0.3	-0.9	-		-1.2		-1.2
Net return	**4.2**	**15.7**	**3.0**	**-0.1**	**22.8**	**0.5**	**23.3**

[1] International reserves less gold reserves and claims on the IMF.

Table 5. Changes in the Government Petroleum Fund's krone account in 2003. In billions of NOK

	Supply	Government Petroleum Fund's krone account
The Petroleum Fund's portfolio at 31.12.2002		608.5
Added in 2003	104.5	
Net return in 2003:		
Valuation adjustments on foreign exchange	46.0	
Other items	86.4	
Remuneration for management 2003	-0.8	
Total changes krone account		**236.1**
The Petroleum Fund's portfolio at 31.12.03		**844.6**

Table 6. Composition of the Government Petroleum Fund in each quarter. taking account of accrued management remuneration. Market value in billions of NOK

	31.12.02	**31.03.03**	**30.06.03**	**30.09.03**	**31.12.03**
Equity portfolio	231.0	265.5	320.2	330.8	361.3
Fixed income portfolio	378.0	416.5	455.3	472.5	484.1
Accrued management remuneration	-0.5	-0.2	-0.3	-0.5	-0.8
Total	**608.5**	**681.8**	**775.2**	**802.8**	**844.6**

reduction is that some bondholdings in the long-term portfolio were replaced with equities as an adaptation to a new investment strategy.

The Government Petroleum Fund
Norges Bank is responsible for the operational management of the Government Petroleum Fund on behalf of the Ministry of Finance. The Government Petroleum Fund is placed in a separate account in the form of NOK deposits in Norges Bank. Norges Bank invests this capital separately in the Bank's name in assets denominated in foreign currency. Management in 2003 took place in accordance with the Regulation on the Management of the Government Petroleum Fund laid down pursuant to Section 7 of Act no. 36 of 22 June 1990 on the Government Petroleum Fund.

The Government Petroleum Fund's krone account in 2003
The Government Petroleum Fund's krone account amounted to NOK 844.6 billion at end-2003. Table 5 shows developments in the krone account.

Table 6 shows changes in the composition of the Government Petroleum Fund in 2003 with figures for end-2002 for purposes of comparison.

Measured by market value, the return on the Government Petroleum Fund in 2003 was a positive NOK 132.4 billion, of which NOK 46.0 billion is attributable to exchange rate gains due to the appreciation of the krone against most investment currencies in 2003. Exchange rate gains have no effect on the international purchasing power of the Fund. The Petroleum Fund's gains on securities in 2003 amounted to NOK 59.9 billion, which included unrealised gains of NOK 55.8 billion at end-2003.

Table 7. Currency distribution of the Government Petroleum Fund. Per cent

Currency	**2003**	**2002**
USD	33.6	30.3
CAD	1.6	2.3
Asian currencies	11.2	12.4
GBP	11.4	10.7
EUR	37.8	39.6
Other European currencies	4.4	4.7
Total	**100.0**	**100.0**

Norwegian Treasury bills and government bonds

Norges Bank's holdings of Norwegian securities consist of Treasury bills and bonds issued by the Norwegian government.

Market-making in government bonds and Treasury bills is undertaken by primary dealers who, according to agreement with Norges Bank, quote binding bid and offer prices for the most extensively traded government bonds. Primary dealers have the right to borrow bonds and Treasury bills from Norges Bank, contingent upon an agreement to sell them back within five days (repurchase agreement). Norges Bank's holdings of government paper form the basis for the loan arrangement.

Commitments to Norwegian banks

Sight deposits
Banks can make deposits in sight deposit accounts in Norges Bank. The interest rate on the sight deposits is Norges Bank's key rate, and determinative for the shortest money market rates. Norges Bank uses its liquidity policy instruments (F-deposits, F-loans and currency swaps) in such a way that the banking system as a whole will normally have substantial sight deposits in Norges Bank. In 2003, banks had an average of NOK 24.6 billion in sight deposits.

Fixed-rate deposits (F-deposits)
Norges Bank issues F-deposits during periods when there is substantial excess liquidity in the banking system. The interest rate is determined through standard auction. Norges Bank decided, with effect from April 2003, to stop using F-deposits as a liquidity instrument until further notice. During the period that F-deposits were used, maturities ranged from 3 to 12 days. The daily average for F-deposits during the period was NOK 38.5 billion, compared with NOK 23.1 billion in 2002.

Fixed rate loans (F-loans) and currency swaps
Norges Bank issues F-loans when the banking system has liquidity shortfalls. The scale of F-loans is set so that the banking system as a whole has sight deposits in Norges Bank each day. F-loans are extended against equivalent collateral in the same way as D-loans (see next paragraph). The interest rate on F-loans is determined through standard auction. The maturity of F-loans ranged from 1 to 13 days in 2003. The daily average for F-loans was NOK 3.0 billion in 2003, compared with NOK 0.5 billion in 2002. No liquidity was supplied through currency swap agreements or repurchase agreements for securities in 2003.

Intraday loans/overnight loans (D-loans)
Banks' D-loans are divided into loans during the day (intraday loans) and overnight loans. Banks raise D-loans through the day to cover short-term liquidity requirements in connection with payment settlements. The maturity of the loans can range from several minutes to several hours, and they are interest-free. Overnight loans are used by banks to cover liquidity needs from one day to the next. The interest on these loans was 2 percentage points higher than the sight deposit rate in 2003. The scale of overnight loans is normally limited.

Banks are required to furnish collateral for D-loans from Norges Bank. The collateral shall be equivalent to at least 100 per cent of the loan amount. Bonds and short-term paper issued by governments or enterprises in the OECD area, assets in securities funds, F-deposits and deposits in other central banks are accepted as collateral. At end-2003, 140 banks furnished collateral for loans in Norges Bank.

E-loans
An E-loan is an extraordinary, intraday borrowing facility in excess of collateral furnished for banks and branches of foreign banks. The arrangement was introduced to assure the execution of high priority payment settlements. E-loans must be repayed to Norges Bank on the same day they are provided. E-loans without an upper limit may be granted to enable the discharge of commitments to Norges Bank due to market operations. E-loans within limits may also be granted to allow settlement of a bank's total withdrawal of cash from Norges Bank.

Five E-loans were issued to four banks in 2003. All the E-loans were issued in connection with cash withdrawals. The total amount was NOK 4.8 million.

Other commitments

Poverty reduction and growth facility (PRGF)
The IMF has established a special loan facility for low-income countries - the Poverty Reduction and Growth Facility. The programme is not funded over the IMF's ordinary budget, but by capital borrowed from individual member countries. On two occasions, in 1988 and 1994, Norges Bank has made a total of SDR 150 million available to this facility. The loan agreement between the IMF and Norges Bank is formulated to the effect that the Fund must have drawn this amount by a given date. Once the IMF draws on the capital, it is tied for up to 10 years as far as Norges Bank is concerned.

Norges Bank's Printing Works
The primary task of the printing works is to develop and produce Norwegian banknotes. In 2003, the printing works also produced Norwegian passports on a commercial basis for the Directorate of Police. The printing works' passport production has been discontinued.

A new, upgraded 100-krone note was put into circulation on 25 March 2003. The note was upgraded to the same level of security against counterfeits as the 1000-, 500- and 200-krone notes by equipping it with metallic features which are easily seen by the public and difficult to reproduce.

Cash handling

Norsk Kontantservice AS (NOKAS), of which Norges Bank is part-owner, provides services associated with the management of depots and destruction of banknotes for Norges Bank. In addition, Norges Bank has depots in Hammerfest and Vardø, where a management agreement has been entered into with Sparebanken Nord-Norge. The total costs of external cash handling amount to NOK 51.5 million.

Den Kongelige Mynt AS (DKM AS - the Royal Mint), which was established in 2001, provides services associated with the production of circulation coins for Norges Bank. Total costs for the production of coins at DKM AS came to NOK 38.1 million in 2003. Norges Bank owned all the shares in DKM AS. These were sold on 1 July 2003. In connection with the sale, Norges Bank has undertaken to buy circulation and commemorative coins from DKM AS up to and including 2009. The Bank will continue to take all decisions associated with the issue of coins.

The Bank's working environment

Personnel

At end-2003, Norges Bank had a total of 618 permanent and temporary employees, including employees at the offices in London and New York. This is 52 less than at end-2002.

Health, environment and safety

The employees participate in the Executive Board, the Administration Committee, the central Working Environment Committee and in local works councils. In some cases that the employees' representatives have considered to be of great importance to the employees, agreement has not been reached and decisions have been taken against the vote of these representatives. Health, environment and safety surveys are made of the Bank's units every second year. Norges Bank has no evident impact on the external environment.

Equal opportunities

Women account for 42 per cent of Norges Bank's employees. Target figures have been developed for the share of women in various job categories. The target is 40 per cent women in the higher paid job categories. At end-2003, the share of women in this group was 28 per cent, which is 4 per cent higher than at end-2002. Women are actively encouraged to apply for management positions. In the category adviser/economist there are almost as many women as men. In the 2003 wage settlement, special emphasis was placed on attending to the interests of women academics.

In 2003, Norges Bank conducted an extensive survey of about 250 employees with a view to determining why it is difficult to recruit women to management positions. The survey was conducted in collaboration with the Women's University, and there was broad participation. The results are to be presented in the first quarter of 2004. An analysis of the material will form the basis for further measures aimed at achieving equal opportunity targets.

Absenteeism due to illness

Norges Bank has entered into an agreement to be an 'inclusive workplace enterprise' and is striving to comply with the intentions of this agreement. In 2003, absenteeism due to illness was 4.1 per cent of the total number of working days, compared with a total of 3.9 per cent i 2002. Long-term absence (16 days or more) accounted for 2.9 per cent of total absence in 2003 and 2.4 per cent in 2002.

Working conditions

Over time, Norges Bank has emphasised the importance of providing good working conditions.

Norges Bank offers loans to its employees, and in 2003 the interest rate was linked to the norm rate[2]. The interest rate is equal to the norm rate plus 0.5 percentage point.

The employee insurance programme covers personal guarantees (including compulsory occupational injury and health insurance), group life insurance, group accident and illness insurance, business travel insurance and accident insurance for especially exposed occupations. These expenses account for 1.6 per cent of total personnel costs.

Norges Bank has its own pension fund for its employees. Benefits are equal to 2/3 of the employee's salary at the time of retirement. Benefits from the pension fund are coordinated with the National Insurance Scheme. Employees contribute 2 per cent of their gross annual salary to the Pension Fund.

The bank owns two course and holiday facilities: Venastul, which is located in Ringebufjellet, is in operation all year round. In 2003, a total of 8585 guest-nights were recorded. Vindåsen, which is located in Tjøme, is only open during the summer. In 2003, it recorded 3091 guest-nights. Net operating subsidies in 2003 amounted to NOK 3.0 million. Capital costs are not taken into account.

The Bank has also issued interest- and instalment-free loans for the purchase of nine cabins for use by employees,

2 The norm rate for loans on favourable terms from an employer, which in accordance with the Storting's tax resolution for the fiscal year 2003 was set at 5 per cent up to 1 September 2003 and reduced to 3.5 per cent with effect from the same date.

three of which were sold in 2003. The sale of a further five cabins is being considered. Loans associated with the six unsold cabins amounted to NOK 2.2 million at end-2003.

Restructuring

In 2003, the Bank continued its restructuring with a view to utilising resources more efficiently and increasing concentration on core activities. Staff cuts have been decided upon for various departments at Head Office. Measures previously approved by the Supervisory Council are used in connection with staff cutbacks. These measures may take the form of redundancy pay, early retirement schemes or a combination of study grants and severance pay. A total of 270 agreements for redundancy pay or early retirement were concluded in the period 1999-2003. Of these, 73 agreements had terminated by end-2003, and 44 will only take effect in the period 2004-2007. Restructuring has not yet been completed, and additional agreements are expected.

Distribution of the profit

In accordance with the Norges Bank Act of 24 May 1985, the guidelines for the allocation and distribution of Norges Bank's profit were originally adopted by the Council of State on 7 February 1986. The guidelines have since been revised several times, most recently by Royal Decree of 6 December 2002, and now read as follows:

1. Allocations shall be made from Norges Bank's profit to the Adjustment Fund until the Fund contains 5 per cent of the Bank's holdings of Norwegian securities and 40 per cent of the Bank's net foreign exchange reserves, excluding the immunisation portfolio and capital managed for the Government Petroleum Fund, other claims/commitments abroad or any other commitments which the Executive Board considers to involve a not insignificant currency risk.

   The immunisation portfolio shall correspond to that part of Norges Bank's foreign exchange reserves which is allocated to a separate portfolio. The return on this portfolio will be credited/debited to the Treasury in the accounts of the same year. The same applies to the Government Petroleum Fund portfolio.

   If the size of the Adjustment Fund exceeds the corresponding figures mentioned under point 1, first paragraph, the surplus shall be reversed to the profit and loss account.

2. If the Adjustment Fund falls below 25 per cent of the Bank's net foreign exchange reserves excluding the Immunisation Portfolio and the capital managed by the Government Petroleum Fund, and other claims/commitments abroad at the end of the year, available capital shall be reversed from the Transfer Fund to Norges Bank's accounts until the Adjustment Fund is at its full size according to Point 1.

3. Any surplus after provisions for or transfers from the Adjustment Fund shall be allocated to the Transfer Fund.

4. Any deficits in Norges Bank's accounts following the allocations described in point 2 shall be covered by transfers from the Adjustment Fund.

5. Every year in connection with the closing of the books, an amount corresponding to a third of the capital in the Transfer Fund shall be transferred to the Treasury.

In accordance with a statement from the Ministry of Finance, the net sum of NOK 364 million is to be transferred to 'Other capital', which consists of write-up of gold reserves and write-down of previously written-up assets.

In accordance with the guidelines, the Executive Board proposes the following transfers and allocations:

In accordance with point 1, the surplus for the year after other allocations, NOK 20.4 billion, will be allocated to the Adjustment Fund. After the transfer, the Adjustment Fund will amount to NOK 41.9 billion. If the Adjustment Fund were to reflect the ratios in point 1 of the regulation, it would amount to NOK 80.7 billion.

As there is no capital in the Transfer Fund, no transfer will be made to the Treasury.

Norges Bank's Executive Board
Oslo, 4 February 2004

Svein Gjedrem	Jarle Bergo	Brit K.S. Rugland
Øystein Thøgersen	Liselott Kilaas	Asbjørn Rødseth
Sonja Blichfeldt Myhre (Employees' representative)	Vivi Lassen	Jan Erik Martinsen (Employees' representative)

Profit and loss account

All figures in thousands of NOK

	Note	2003	2002
Interest income and dividends	1	7 987 299	8 326 820
Gains/losses on financial instruments	2	4 182 922	-2 557 912
Valuation changes on foreign exchange		12 336 634	-24 315 794
Return on international reserves		**24 506 855**	**-18 546 886**
Share dividend, BIS		17 057	15 221
Interest expense other foreign financial instruments	3	-1 194 372	-1 167 200
Net domestic financial instruments	4	1 496 823	738 473
Interest expenses domestic deposits	5	-3 180 538	-4 267 358
Net other financial activities		**-2 861 030**	**-4 680 864**
Return on investments for Government Petroleum Fund	6	**132 413 815**	**-130 010 197**
Transferred to Government Petroleum Fund's deposit account	6	**-132 413 815**	**130 010 197**
Operating income		928 204	671 950
Operating expenses		-1 799 434	-1 533 160
Net operating expenses	7	**-871 230**	**-861 210**
Profit/loss for the year		**20 774 595**	**-24 088 960**
Transferred from Adjustment Fund		0	23 691 494
Transferred from 'Other capital'		107 109	397 466
Reserves		**20 881 704**	**0**
Allocated to Adjustment Fund		-20 410 606	0
Allocated to Transfer Fund		0	0
Allocated to 'Other capital'		-471 098	0
Total allocations		**-20 881 704**	**0**

Balance sheet at 31.12.2003

All figures in thousands of NOK

ASSETS	Note	2003	2002
FOREIGN ASSETS			
Securities and deposits	**8**	152 287 297	128 166 807
Lending	**9**	85 779 127	83 207 437
Claims on the IMF	**10**	9 598 113	9 940 939
Gold	**11**	3 276 949	2 808 093
Total international reserves		**250 941 485**	**224 123 276**
Other foreign assets	**12**	**33 186**	**25 912**
Total foreign assets excl. Government Petroleum Fund		**250 974 671**	**224 149 188**
DOMESTIC ASSETS AND OTHER FIXED ASSETS			
Securities	**13**	23 281 206	13 443 492
Utlån	**14**	12 551 794	664 441
Other domestic assets	**15**	1 900 825	2 033 849
Tangible fixed assets	**16**	1 461 023	1 574 619
Total domestic assets and other fixed assets		**39 194 848**	**17 716 401**
Total assets excl. Government Petroleum Fund		**290 169 519**	**241 865 589**
Investments for Government Petroleum Fund	**17**	**844 586 771**	**608 474 539**
TOTAL ASSETS		**1 134 756 290**	**850 340 128**

All figures in thousands of NOK

LIABILITIES AND CAPITAL	Note	2003	2002
FOREIGN LIABILITIES			
Deposits	18	256 061	216 954
Borrowing	19	49 776 077	53 542 751
Other liabilities	20	266 797	26 151
Countervalue of allocated special drawing rights	10	1 664 085	1 583 011
Total foreign liabilities		**51 963 021**	**55 368 867**
DOMESTIC LIABILITIES			
Notes and coins in circulation	21	46 249 242	44 954 570
Treasury deposits		108 586 173	52 491 753
Other deposits	22	28 343 206	59 500 038
Borrowing	23	8 228 559	3 500 336
Other liabilities	24	586 129	611 431
Total domestic liabilities		**191 993 309**	**161 058 128**
Total liabilities excl. Government Petroleum Fund		**243 956 330**	**216 426 995**
Deposits Government Petroleum Fund krone account	25	**844 586 771**	**608 474 539**
Total liabilities		**1 088 543 101**	**824 901 534**
Adjustment Fund	26	41 923 579	21 512 972
Other capital	27	4 289 611	3 925 622
Total capital		**46 213 189**	**25 438 594**
TOTAL LIABILITIES AND CAPITAL		**1 134 756 290**	**850 340 128**
Obligations	28		
Derivatives and forward contracts sold, international reserves		53 003 778	30 878 975
Derivatives and forward contracts purchased, international reserves		55 485 044	34 262 286
Derivatives and forward contracts sold, Government Petroleum Fund		236 919 657	143 088 489
Derivatives and forward contracts purchased, Government Petroleum Fund		248 582 360	149 548 891
Allocated, not yet paid for shares in BIS		-274 655	-309 557
Rights	29		
Options sold, international reserves		646 077	27
Options purchased, international reserves		647 222	42
Options sold, Government Petroleum Fund		4 323 667	182
Options purchased, Government Petroleum Fund		4 331 315	272

Norges Bank's Executive Board
Oslo, 4 February 2004

Svein Gjedrem	Jarle Bergo	Brit K.S. Rugland
Øystein Thøgersen	Liselott Kilaas	Asbjørn Rødseth
Sonja Blichfeldt Myhre	Vivi Lassen	Jan Erik Martinsen

Notes to the financial statements

Accounting policies

General
Norges Bank's activities are not taxable, nor is Norges Bank subject to the Accounting Act. The accounts are presented in accordance with laws and regulations and generally accepted accounting principles in Norway, taking into consideration the special conditions applying to a central bank. Norges Bank departs from the rules in the Accounting Act if these differ from the recommendations of the International Monetary Fund (IMF) or practice in other central banks. The profit and loss account and balance sheet are set up in a manner appropriate to the Bank's activities. Cash flow analyses are not prepared.

Norges Bank's accounts are adjusted to incorporate value-dating corrections. Securities trades are registered on the trade date. Revenues and costs are recognised as they are earned or accrued, according to the accruals principle.

According to agreement with the Ministry of Finance, Norges Bank's valuation principles are applied to the Petroleum Fund's portfolio.

Foreign exchange
Assets and liabilities in foreign currency are converted to NOK at market rates at 31 December 2003 quoted on WM Reuters London at 4 pm. Income and expenses in foreign currency are converted to NOK at the exchange rate prevailing on the transaction date.

Securities
The portfolio of foreign and Norwegian securities is valued at market value at 31 December 2003. The securities are classified as short-term, since they are to be available for intervention purposes.

Accrued interest is included in the securities holdings. .

Gold
Gold reserves are marked to market.

Off-balance sheet financial instruments
Off-balance sheet financial instruments are contracts for future delivery of currency or securities at a predetermined price. In the case of Norges Bank, these comprise forward exchange contracts, financial futures, interest rate swaps, equity swaps and options.

Forward contracts are recorded at forward rates. Forward premiums/discounts, futures contracts, interest rate swap agreements, equity swap agreements and options are carried at market value at 31 December 2003. Fluctuations in the market value are recorded in the profit and loss account under 'Valuation changes'.

Valuation of stocks
Stocks of raw materials at the Printing Works are valued at the lower of average purchase price and fair value. Goods in progress and finished goods are valued at full production cost, which includes direct and indirect variable and fixed production costs. Obsolescence is taken into account.

Loan losses/bad debts
Actual loan losses/bad debts are charged as expenses. Estimated losses are charged as an expense after a concrete assessment of each loan/debt. On the balance sheet, estimated losses are entered as a reduction of loans outstanding.

Fixed assets
On the balance sheet, fixed assets are entered at original cost plus write-ups and less write-downs and linear depreciation. The Bank has a substantial collection of art, gifts and museum pieces such as medals, banknotes and coins. These have not been valued or recorded on the balance sheet.

Subsidiaries
Shares in subsidiaries are accounted for using the cost accounting method. Group accounts are not prepared.

Note 1. Interest income and return on international reserves

Figures in thousands of NOK

	2003	2002
Interest income on deposits	199 928	126 907
Share dividends	556 531	402 293
Interest income on securities	6 032 511	6 292 869
Interest income on lending	1 704 312	1 507 434
Interest income, IMF and SDR	45 266	168 852
Interest income from derivatives	-551 248	-171 535
Interest income and return on international reserves	**7 987 299**	**8 326 820**

Note 2. Gains/losses financial instruments

Figures in thousands of NOK

	2003	2002
Realised gains/losses equities	-128 827	-2 622 375
Unrealised gains/losses equities	5 116 567	-2 426 207
Realised gains/losses fixed income instruments	1 005 892	263 843
Unrealised gains/losses fixed income instruments	-3 058 292	2 800 908
Gains/losses gold	474 059	-124 595
Gains/losses derivatives	773 522	-449 486
Gains/losses financial instruments	**4 182 922**	**-2 557 912**

Note 3. Interest expense other foreign financial instruments

Figures in thousands of NOK

	2003	2002
Interest on borrowing	-1 179 129	-1 136 842
Other interest	-15 244	-30 358
Interest expenses other foreign financial instruments	-1 194 372	-1 167 200

Note 4. Domestic financial instruments

Figures in thousands of NOK

	2003	2002
Interest income on securities	623 125	635 993
Interest on borrowing	-217 694	-187 455
Realised gains/losses fixed income instruments	159 118	15 808
Unrealised gains/losses fixed income instruments	796 810	402 358
Exchange rate adjustment, domestic	135 464	-128 231
Net domestic financial instruments	**1 496 823**	**738 473**

Note 5. Interest expenses domestic deposits

Figures in thousands of NOK

	2003	2002
Interest income on bank deposits	86	219
Interest expenses on deposits	-1 610 230	-2 699 294
Interest income on lending	116 569	77 366
Interest expenses to Treasury	-1 693 119	-1 654 300
Other interest income	6 157	8 651
Interest expenses domestic deposits	**-3 180 538**	**-4 267 358**

In 2003, interest of 2.25 per cent per annum was paid in the first quarter, 2.0 per cent per annum in the second quarter, 1.75 per cent per annum in the third quarter and 1.75 per cent per annum in the fourth quarter on deposits from the Treasury, resulting in total interest income of NOK 1 693.1 million. The same interest rates apply to deposits from public account-holders who receive interest on their deposits.

Note 6. Return on investments for Government Petroleum Fund

Figures in thousands of NOK

	2003	2002
Interest income	19 560 414	18 705 159
Dividends	6 996 199	4 428 514
Exchange rate adjustments	45 985 725	-104 109 677
Unrealised securities loss/gain	55 786 976	-25 803 150
Realised securities gains/losses	633 103	-19 934 100
Brokers' commissions	-16 458	-877
Net forward trading foreign exchange	-976	4 681
Gains/losses futures	2 039 765	-2 039 610
Gains options	135 947	7 240
Gains/losses equity swap agreements	257	0
Gains/losses interest rate swap agreements	1 292 862	-1 268 377
Book return on investments	**132 413 815**	**-130 010 197**
Accrued management remuneration	-772 595	-559 835
Net return	**131 641 219**	**-130 570 032**

Note 7. Net operating expenses

Figures in thousands of NOK

	2003	2002
Operating income		
Remuneration for portfolio management for Petroleum Fund	772 595	559 835
Remuneration for management, others	13 606	14 041
Income relating to IT, accounting and security services	9 769	22 790
Charges and commissions	22 018	18 561
Rental income	12 331	20 964
Sales income Norges Bank's Printing Works	19 199	17 537
Gain on sale of fixed assets	19 771	12 491
Other income	58 914	5 731
Total operating income	**928 204**	**671 950**
Operating expenses		
Management and settlement services	-377 093	-248 543
Consulting and IT services	-205 947	-213 366
Central bank services and cash depots	-50 904	-50 394
Information systems financial markets	-56 362	-40 275
Fees and transaction charges	-6 298	-6 522
Property management	-55 317	-54 711
Software, hardware, fittings and fixtures, offices and telecommunications	-96 278	-98 811
Materials, Norges Bank's Printing Works	-26 680	-29 623
Loss on sale of properties and operating assets	-484	-72 103
Wages, fees and other personnel expenses	-481 204	-445 625
Premiums to pension fund (see below)	-195 712	0
Restructuring expenses (see below)	-43 126	-70 877
Depreciation and write-down (cf. Note 16)	-110 278	-123 668
Other expenses	-93 751	-78 642
Total operating expenses	**-1 799 434**	**-1 533 160**
Net operating expenses	**-871 230**	**-861 210**

Salaries and pensions

The salaries of the Central Bank Governor and Deputy Governor are set by the Ministry of Finance, and in 2003 were NOK 1 146 900 and NOK 952 200 respectively. In addition, they have a company car at their disposal (benefits estimated at NOK 91 600 and NOK 118 900 respectively), a free telephone and insurance.

A full old-age pension for the Central Bank Governor and the Deputy Governor is 2/3 of the prevailing salary for the position in question. Old-age pensions are payable from the date of retirement, albeit not before the age of 65. The earning period for a full pension is 12 years. The pension is subject to coordination with other public pension schemes. At end-2003, these commitments were determined by actuarial assessment as being NOK 2.2 million and NOK 4.3 million, respectively, when coordination with the National Insurance Scheme is taken into account. Coordination with other public pension schemes is not taken into account in the calculations. For the Deputy Governor, the obligation is distributed over his total period of employment in the Bank, including the time before he was appointed Deputy Governor. Changes in 2003, which are NOK 0.5 million and NOK 0.2 million respectively (incl. employer's contribution) are charged to Norges Bank's operations.

Remuneration to the Supervisory Council and the Executive Board totalled NOK 1.2 million in 2003.

Norges Bank's pension schemes

Norges Bank has secured pension schemes associated with membership in Norges Bank's pension fund. In addition, the Bank has unsecured schemes that are funded directly over operations. These are special pensions, current pensions and agreed early retirement pensions and redundancy pay agreements associated with restructuring.

The Pension Fund

Norges Bank's ordinary pension obligations are covered by the Bank's own pension fund, which is organised as a foundation. Norges Bank's contribution for 2003 is covered partly by capital from the pension premium fund and partly by cash deposits.

Premiums to pension fund

Figures in thousands of NOK

	2003	2002
Total annual premiums, determined by actuarial assessment	110 970	93 862
Covered by members	(7 246)	(6 974)
Norges Bank's contribution	**103 724**	**86 888**
Effect of change in discount rate from 4% to 3% from 2003:		
One-time premium in connection with changed discount rate for Norges Bank and DKM AS	81 190	-
Increase in NOKAS pension obligations accrued before establishment	20 500	-
Total premiums to pension fund	**205 414**	**86 888**
Covered from Bank's premium fund in the pension fund	(34 172)	(86 888)
Covered through cash deposits	**171 242**	**-**
Employer's national insurance contributions	24 470	-
Total premiums to pension fund incl. employer's contributions	**195 712**	**-**

Pension obligations as at 31 December 2003 amounted to NOK 1 783.0 million, according to an actuarial assessment based on the same principles as the assessment in 2002. The increase in the premium reserve in 2003 amounted to NOK 301 million, of which NOK 238.2 million relates to an increase as a result of the reduction of the discount rate from 4 to 3 per cent and a higher disability scale of rates in connection with the change from the standard K 1963 basis in the collective pension insurance to the new IR 73 scale of rates. The assumptions concerning mortality and other demographic factors are based on the standard K 1963 basis for collective pension insurance. A 3 per cent supplement for future administration costs is priced into the pension obligations. The basis for calculating individual pension obligations is the pension benefit the individual has earned or is receiving at 31 December 2003. Pension obligations are equivalent to the calculated cash value of earned benefits.

The Bank's pension scheme covers 2156 persons, of whom 983 are drawing pensions, 755 are active members contributing to the fund and 418 are former members with deferred rights. The pension scheme includes 310 persons at Den Kongelige Mynt AS and Norsk Kontantservice AS.

Pension obligations calculated according to accounting standards for pensions amount to NOK 1 423.3 million. The calculations are based on a 6.5 per cent discount rate, 2.5 per cent basic pension adjustment, 2.5 per cent adjustment of the basic amount in the national insurance system, 3 per cent future wage growth and standard turnover. Pension fund assets valued at fair value exceed the calculated obligation by NOK 13.25 million. The amount has been assessed according to accounting standards for pensions, and has not been entered in Norges Bank's balance sheet.

Norges Bank's unsecured pension obligations (payment obligations)

Obligations not covered by the pension fund (relating to special pensions, early retirement schemes, current pensions and redundancy pay) are included on Norges Bank's balance sheet under the item 'Other liabilities' in the amount of NOK 284.8 million. The pension obligation consists of an actuarially assessed obligation and discounted value of agreements regarding restructuring packages which take effect in 2004 or later. The actuarial assessment has been made in accordance with Norwegian accounting standards for pension expenses and is based on the the assumptions of a 6.5 per cent discount rate, 2.5 per cent basic pension adjustment, 2.5 per cent adjustment of the basic amount in the national insurance system, 3 per cent future wage growth and standard turnover.

Unsecured pension obligations/payment obligations:

Figures in thousands of NOK

	2003	2002
Unsecured pension obligations determined by actuarial assessment	212 235	216 412
Obligations associated with agreed, not yet active restructuring packages	72 600	67 100
Total payment obligation	**284 835**	**283 512**
Distributed as follows:		
Obligations associated with special and current pensions	**44 562**	**42 674**
Payment obligations associated with restructuring	**240 273**	**240 838**

Restructuring expenses

Restructuring expenses are associated with study packages, redundancy pay and early retirement pensions, and consist of changes in payment obligations and disbursements through 2003. The costs are distributed as follows:

Figures in thousands of NOK

	2003	2002
Change in payment obligation	-566	27 384
Direct disbursements	43 692	43 493
Total restructuring costs	**43 126**	**70 877**

Note 8. Securities and deposits

Figures in thousands of NOK

	2003	2002
Deposits abroad	6 738 355	4 673 807
Foreign Treasury bills	744 108	566 644
Foreign notes and short-term paper	1 422 966	0
Foreign bonds	111 432 629	106 748 008
Foreign equities	33 605 012	16 376 453
Initiated, not yet settled trades	-1 655 774	-198 105
Securities and deposits	**152 287 297**	**128 166 807**

Note 9. Lending

Figures in thousands of NOK

	2003	2002
Lending associated with repurchase agreements	29 681 319	39 899 616
Secured lending (triparty)	56 162 649	43 567 020
Valuations forward exchange contracts and derivatives	-64 841	-259 199
Lending	**85 779 127**	**83 207 437**

Note 10. Claims on the IMF

Figures in thousands of NOK

	2003	2002
Quota in the IMF	16 581 342	15 773 493
The Funds holding of NOK	-9 940 483	-8 887 588
Reserve position in the IMF	6 640 858	6 885 905
Special drawing rights	2 236 633	2 189 732
Loan to IMF	703 460	834 145
Earned interest	17 162	31 157
Claims on the IMF	**9 598 113**	**9 940 939**
Countervalue of allocated special drawings rights	-1 664 085	-1 583 011

The IMF has the responsibility of working for international monetary and financial stability. The Fund gives advice to member countries and provides temporary funding in the event of balance of payment problems. A member's quota determines its financial contribution to the IMF and is the basis for determining the amount of financing the member can obtain from the IMF in the event of balance of payments problems.

Loans to the IMF take the form of capital contributions to the Poverty Reduction and Growth Facility, which was established to promote economic growth and reduce poverty in the poorest countries.

The IMF can use special drawing rights (SDR) as an instrument for supplying international liquidity. The value of SDRs is calculated as a basket consisting of US dollars, euros, sterling and Japanese yen.

The countervalue of allocated special drawing rights in the IMF shows total allocations of SDRs since the scheme entered into force in 1970. No SDR allocations have been made since 1990. The SDR balance is 167 770 000. The change from 2002 is due to exchange rate adjustments.

Note 11. Gold

The market price (LME) at 31.12.2003 was USD 417.25 per ounce of pure gold, which is equivalent to NOK 89 246.6 per kg of gold.

Gold reserves consist of:	**Weight in kg 31.12.03**	**Market value at 31.12.03 (NOK m)**	**Weight in kg 31.12.02**	**Market value at 31.12.02 (NOK m)**
Bars	33 543.4	2 993.9	33 582.7	2 566.0
Coins*	3 171.4	283.0	3 171.4	242.1
	36 714.8	**3 276.9**	**36 754.1**	**2 808.1**

* The weight of the coins is the weight of pure gold in the coins. The market price for the weight in pure gold of the coins is the same as that used for gold bars.

At end-2003, 33 455.4 kg of the gold bars were invested in international banks as short-term loans. The market value of the gold on loan was NOK 2 985.8 million. Interest earned on gold lending is included in the market value of the gold in the amount of NOK 0.3 million.

The gold bar reserves have been reduced by 39.3 kg since end-2002. The reason for this change is that the weight of the gold bars that are returned is not identical to the weight of the gold bars lent out. The weight difference is calculated at the market value of gold on the return date.

Interest on gold lending in 2003 amounted to NOK 3.7 million.

Norges Bank sold 16 tonnes of gold bars in January 2004 and is planning to sell most of the remainder of the bars at a later date. The background to the decision to sell is that gold only accounted for just over one per cent of the Bank's international reserves, and thus contributed little towards spreading the risk associated with the reserves. Gold has historically yielded low returns.

Note 12. Other foreign assets

Figures in thousands of NOK

	2003	**2002**
BIS shares	24 700	24 700
Other assets	8 486	1 212
Other foreign assets	**33 186**	**25 912**

Norges Bank has been allocated a total of 8000 shares at SDR 5000 in the Bank for International Settlements (BIS). 4000 shares were allocated in 1931, of which 25 per cent were paid for in the same year. In 1970, Norges Bank was allotted an additional 4000 shares, of which 1000 were bonus shares. The shares have been entered on the balance sheet at a value of NOK 24.7 million. This amount corresponds to the value of the 4000 shares in 1931 (NOK 7.2 million) plus the value of 3000 shares in 1970 (NOK 17.5 million).

Norges Bank has a conditional obligation to pay for the remaining 75 percent of the shares in SDRs. The conditional obligation amounts to NOK 297.6 million. The portion of the conditional liability corresponding to the value of the shares at the time of allotment, i.e. NOK 22.9 million, is recorded under the item 'Other foreign liabilities'. The remainder of the conditional liability, NOK 274.7 million, is recorded as an off-balance sheet item. In 2003, dividends on BIS shares amounted to NOK 17.1 million.

Note 13. Securities

Figures in thousands of NOK

	2003	**2002**
Treasury bills	11 852 700	2 087 695
Government bonds	11 428 542	11 145 905
Valuation forward exchange contracts	-36	0
Initiated, not yet settled trades	0	209 892
Securities	**23 281 206**	**13 443 492**

Note 14. Lending

Figures in thousands of NOK

	2003	2002
Lending to banks	12 006 939	2 869
Lending to own employees	544 855	661 572
Lending	**12 551 794**	**664 441**

Note 15. Other domestic assets

Figures in thousands of NOK

	2003	2002
Assets relating to the Government Petroleum Fund	772 595	566 512
Domestic deposits	917 951	1 063 518
Other domestic assets	142 064	216 123
Materials, banknote production	17 520	21 755
Shares in subsidiaries	100	25 050
Shares in associated companies	17 169	16 773
Other current and fixed assets	33 426	124 118
Other domestic assets	**1 900 825**	**2 033 849**

Shares in Bankplassen Parkeringsanlegg A/S
Norges Bank owns 100 per cent of the shares in Bankplassen Parkeringsanlegg A/S. The shares are recorded at cost, NOK 100 000, i.e. the nominal value of the shares. Norges Bank has paid NOK 33 million for its own parking places. In 2003, the company sold 4/5 of the facility, and repaid a subordinated loan from Norges Bank.

Shares in Norsk Kontantservice AS (NOKAS)
Norges Bank owns 33.5 per cent of the shares in NOKAS. The company was formed and started operations on 1 July 2001 with share capital of NOK 50 million. In 2003 the share capital was increased to NOK 51.1 million. Norges Bank's relative ownership interest is unchanged, and after paying NOK 0.42 million in 2003, the Bank owns shares with a cost price of NOK 17.7 million. In 2003, NOKAS recorded a profit after taxes of NOK 9.0 million.

Note 16. Fixed assets

Figures in thousands of NOK

	Vehicles, machinery, IT equipment	Security system	Machinery, fixtures	Buildings with installations	Bank building	Plant under construction	Dwellings	Land	Total
Original cost at 1.1.	167 693	44 115	49 401	430 310	1 606 581	25 039	2 950	66 470	2 392 560
+ Transfers from plant under construction	17 455	880	141	792	0	-19 268	0	0	0
+ New orders	16 858	2 307	1 167	151	0	17 315	0	1 751	39 548
-Disposals	7 576	5 224	7 024	3 489	56 560	0	0	5 905	85 778
Adjustments	-698	0	698	0	0	0	0	0	0
Original cost at 31.12.	193 731	42 078	44 383	427 765	1 550 021	23 086	2 950	62 316	2 346 329
- Accum. depreciation and write-down	118 105	22 990	14 683	338 091	391 438	0	0	0	885 306
Book value at 31.12	75 627	19 088	29 700	89 674	1 158 583	23 086	2 950	62 316	1 461 023
Non-written-off remainder of previously revalued assets	0	0	0	76 275	1 158 583	0	2 950	59 015	1 296 823
Ordinary depreciation for the year	27 151	5 805	4 753	35 876	36 692	0	0	0	110 278
Of which write-off of revalued assets	0	0	0	35 002	36 680	0	0	0	71 682
Depreciation rate	20	15	10	5	2	0	0	0	

Norges Bank's properties at 31 December 2003 are specified below.

Location	Address:	Year built/- purchased	Other information	Gross area
Stavanger	Domkirkepl. 3	1964	Restoration1991	3 254 sq.m.
Oslo: Head Office	Bankpl. 2, gnr 207, bnr 198	1978-86	New building / restoration	65 000 sq.m.
	Bankpl. 4, gnr 207, bnr 392	1899	Previous headquarters. Leased to the government for 80 years.	2 725 sq.m.
	Bankplassen park gnr 207/28		Expires in 2066 (Museum of Contemporary Art) Park in front of the Museum of Contemporary Art	
Course and holiday centres:				
Venastul	Venabygd	1963	Restoration 1993	2 000 sq.m.*)
Vindåsen	Sundane, Tjøme	1948/56	Annex, restoration1960/1993 Lease runs for 99 years from 18 June 1991	1 067 sq.m.
Utlandet:				
New York	275, West 96th Street	1984	Staff apartment	140 sq.m.

*) Including manager's residence and parking facility

Rented properties

In 2003, the Bank had rental contracts on the following properties:

Address	Lease term	Area	Rent 2003
Bergen	01.02.2009	101.5 sq.m.	59 208
Bodø	30.06.2007	774 sq.m.	848 600
Hammerfest	03.03.2008	328 sq.m.	353 041
Kristiansund	15.05.2008	486 sq.m.	459 938
Larvik	31.03.2007	38.4 sq.m.	78 000
Lillehammer	25 years from 1990	3 588 sq.m.	5 077 631
Trondheim		32 sq.m.	22 400
Vardø	30.06.2007	1 570 sq.m.	1 301 500
New York:			
17 State St.1	31.08.2007	330 sq.m.	822 000
London:			
14 Ryder Court [1]	08.06.2005	170 sq.m.	1 486 000

[1] In addition, Norges Bank rents apartments in London and New York which are made available to personnel employed at these offices.

Note 17. Investments for Government Petroleum Fund

Figures in thousands of NOK

	2003	2002
Short-term assets, incl. deposits in foreign banks	20 159 575	9 601 368
Money market investments in foreign financial institutions against collateral in the form of securities	287 041 828	188 229 945
Borrowing from foreign financial institutions against collateral in the form of securities	-298 603 119	-209 803 763
Foreign fixed income paper	482 341 421	395 800 784
Foreign equities	354 346 887	226 368 144
Adjustment of forward contracts and derivatives	72 774	-1 162 104
Total portfolio before remuneration for management	**845 359 367**	**609 034 374**
Accrued management remuneration	-772 595	-559 835
Total portfolio	**844 586 771**	**608 474 539**

At 31 December 2003, the Government Petroleum Fund had krone deposits in Norges Bank amounting to NOK 844.6 billion. The equivalent of the amount in NOK is managed by Norges Bank and has been invested in foreign currency in an earmarked portfolio. The return on the portfolio is added to the Petroleum Fund's krone account as return on this account. The investments, which account for about 75 per cent of Norges Bank's balance, therefore represent no financial risk to Norges Bank.

Note 18. Deposits

Figures in thousands of NOK

	2003	2002
Banks	111 213	94 980
Other customers	144 848	121 974
Deposits	**256 061**	**216 954**

Note 19. Borrowing

Figures in thousands of NOK

	2003	2002
Funding related to repurchase agreements	49 690 004	53 542 751
Other borrowing	86 074	0
Borrowing	**49 776 077**	**53 542 751**

Note 20. Other liabilities

Figures in thousands of NOK

	2003	2002
Share capital in BIS not paid up	22 900	22 900
Other foreign debt	243 897	3 251
Other liabilities	**266 797**	**26 151**

Note 21. Notes and coins in circulation

The Bank's cash holdings have been deducted from the item 'Notes and coins in circulation'. Notes and coins in circulation are recorded at NOK 46 249.2 million, consisting of NOK 41 962.6 million in notes and NOK 4 286.6 million in coins.

Norges Bank is obliged to redeem notes and coins for 10 years following the decision that they are no longer legal tender. Norges Bank has been flexible about redeeming expired notes after the expiry of the 10-year deadline. In 2003, redeemed/invalidated banknotes and coins were charged to the accounts in the amount of NOK 2.5 million.

At 31 December 2003 there were a total of 5.2 million commemorative coins in circulation with a nominal value of some NOK 423.1 million. This amount is not included in the item 'Notes and coins in circulation'. Norges Bank is obligated to redeem the coins at their nominal value.

Note 22. Other deposits

Figures in thousands of NOK

	2003	2002
Banks and lending institutions	28 116 504	59 152 622
Deposits employees and pensioners	39 551	56 231
Other deposits	187 151	291 185
Other deposits	**28 343 206**	**59 500 038**

Note 23. Borrowing

Figures in thousands of NOK

	2003	2002
Borrowing associated with repurchase agreements	8 228 559	3 500 336
Other borrowing	0	0
Borrowing	**8 228 559**	**3 500 336**

Note 24. Other liabilities

Figures in thousands of NOK

	2003	2002
Liabilities relating to the Government Petroleum Fund	0	130 882
Pension obligations	285 588	283 512
Other domestic liabilities	300 541	197 037
Other liabilities	**586 129**	**611 431**

Note 25. Deposits Government Petroleum Fund krone account

The Government Petroleum Fund's krone account in Norges Bank is composed of deposits and returns earned from the time the Fund was established in 1996 to the end of 2003.

Figures in billions of NOK

	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
Krone account 01.01	0.0	47.5	113.3	167.6	222.3	386.1	613.3	608.5	0.0
Total krone deposits	47.5	60.9	32.8	24.5	150.0	251.5	125.8	104.5	797.5
Appreciation. return	0.05	4.9	21.5	30.1	13.8	-24.3	-130.5	131.6	47.1
Krone account 31.12.	**47.5**	**113.3**	**167.6**	**222.3**	**386.1**	**613.3**	**608.5**	**844.6**	
Petroleum Fund's portfolio at 31.12.	**47.6**	**113.5**	**171.8**	**222.3**	**386.1**	**613.3**	**608.5**	**844.6**	**844.6**

Note 26. Adjustment Fund

Figures in thousands of NOK

Adjustment Fund at 31.12.2002	**21 512 972**
Changes in 2003:	
Surplus transferred to the Adjustment Fund	20 410 606
Adjustment Fund at 31.12.2003	**41 923 578**

Note 27. Other capital

In accordance with a letter from the Ministry of Finance, an item ‘Other capital’, which includes the former Revaluation Fund, may be used. In addition to non-written down components of capitalised fixed assets expensed before 1994, the effect of the changes in the valuation principle established for gold in 1999 is added to ‘Other capital’. Changes in the valuation of gold reserves and changes in the Revaluation Fund are included in ‘Other capital’.

Changes in ‘Other capital’ in 2003 were as follows

Figures in thousands of NOK

Other capital at 01.01.2003		**3 925 622**
Write-down of previously revalued assets in 2003	- 107 109	
Increase in real value of gold in 2003	471 098	363 989
Other capital at 31.12.2003		**4 289 611**

Note 28. Obligations

Figures in thousands of NOK

	2003	2002
International reserves		
Forward exchange contracts sold	18 092 993	3 127 516
Futures sold	9 206 911	5 170 016
Equity swaps sold	19 362	0
Interest rate swaps sold	25 684 511	22 581 443
Obligations sold international reserves	**53 003 778**	**30 878 975**
Forward exchange contracts purchased	20 517 529	4 383 481
Futures purchased	9 273 867	7 560 500
Equity swaps purchased	19 383	0
Interest rate swaps purchased	25 674 265	22 318 305
Obligations purchased international reserves	**55 485 044**	**34 262 286**
The Government Petroleum Fund		
Forward exchange contracts sold	25 395 459	11 422 981
Futures sold	35 942 356	22 829 453
Equity swaps sold	13 340	0
Interest rate swaps sold	175 568 502	108 836 055
Obligations sold, Government Petroleum Fund	**236 919 657**	**143 088 489**
Forward exchange contracts purchased	25 395 459	11 422 981
Futures purchased	47 628 021	30 574 744
Equity swaps purchased	13 526	0
Interest rate swaps purchased	175 545 354	107 551 166
Obligations purchased, Government Petroleum Fund	**248 582 360**	**149 548 891**

Norges Bank uses forward exchange transactions, listed futures contracts, interest rate swaps, equity swaps and options as part of its management of interest rate and exchange rate risk for the foreign exchange reserves.

Forward exchange contracts
Forward exchange transactions are agreements for the purchase or sale of foreign exchange at an agreed future time at a predetermined rate.

Financial futures
Financial futures contracts (futures) are agreements to purchase or sell a standard quantity of a financial instrument, the value of an equity index or foreign currency at a future date at a price set when the contract is concluded. Securities with a market value of NOK 82.4 million at end-2003 had been pledged as collateral for the initial margin.

Interest rate swaps
A swap is an agreement between two parties to exchange payments at a number of given future times in accordance with a set of rules specified in the agreement. An interest rate swap is an agreement in which the payment obligations of both parties are determined by interest rates which are fixed or given movements in a specified reference rate, multiplied by a given principal. Net market value is calculated by discounting the future cash flows in the interest rate swap agreements.

Equity swap agreements (equity swaps)
An equity swap is a non-listed agreement between two counterparties to exchange payment flows on the basis of changes in the underlying securities. In addition, payments are received in connection with dividends and corporate events.

The underlying security may be a stock, a group of stocks or an index.

Collateral requirements in the form of bank deposits.

Note 29. Rights

Options
An option is an agreement to buy or sell a right to buy or sell a standard quantity of a financial instrument on a future date at a price established at the time of closing the contract. Options may be listed or non-listed.

To the Supervisory Council of Norges Bank

Auditors' report for 2003

We have audited the annual financial statements of Norges Bank for 2003, which show a profit of NOK 20 774 595 thousand. We have also audited the information in the Executive Board's report on the financial statements and the proposal for allocation of the profit. The financial statements comprise the profit and loss account, balance sheet and notes to the accounts. The financial statements and the report on the financial statements are the responsibility of the central bank's Executive Board. Our responsibility is to express an opinion on the financial statements and other information, in accordance with the requirements of the Norwegian Act on Auditing and Auditors.

We have conducted our audit in accordance with the Norwegian Act on Auditing and Auditors, instructions issued by the Supervisory Council and good auditing practice in Norway. Good auditing practice requires that we plan and perform the audit so as to obtain reasonable assurance that the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles applied and significant estimates made by management, and evaluating the overall financial statement presentation. To the extent required by good auditing practice and our auditing instructions our audit also includes a review of Norges Bank's accounting and internal control systems. We believe that our audit provides a reasonable basis for our opinion.

The central bank's accounting principles are based on the Norwegian Accounting Act and good accounting practice in Norway, and take into account the special considerations that apply to a central bank. A more detailed presentation of these principles may be found in the notes to the accounts.

In our opinion

- the financial statements have been presented in accordance with laws and regulations, and present the financial position of the Bank as of 31 December 2003 and the results of its operations for the financial year in accordance with the accounting principles outlined in the previous paragraph.
- the management has fulfilled its duty of producing a proper and clearly set out registration and documentation of accounting information in accordance with the law and good accounting practice in Norway.
- the information in the Executive Board's report on the financial statements and the Executive Board's proposal for allocation of the profit are consistent with the financial statements, and comply with the Norges Bank Act and guidelines adopted in the Council of State.

Oslo, 4 February 2004

Svenn Erik Forsstrøm
State Authorised Public Accountant (Norway)

Note: This translation from Norwegian has been prepared for information purposes only.

Resolution of the Supervisory Council concerning the financial statements for 2003

Pursuant to Section 5, third paragraph of the Act relating to Norges Bank and the Monetary System, the Supervisory Council adopted at its meeting on 19 February 2004 the following resolution, which, with reference to Section 30, second paragraph, is to be sent to the Ministry of Finance for submission to the King and communication to the Storting.

1 The Supervisory Council has examined the Executive Board's proposal for the financial statements for 2003 for Norges Bank and the Auditors' Report dated 4 February 2004.

2 The Supervisory Council approves Norges Bank's financial statements for 2003 as presented by the Executive Board, with the following allocations:

2.1 In accordance with a statement from the Ministry of Finance, the net sum of NOK 364 million is to be transferred to 'Other capital'.

2.2 In accordance with point 1 of the guidelines, the surplus for the year after other allocations, NOK 20.4 billion, is to be allocated to the Adjustment Fund.

3 The Supervisory Council will forward the financial statements, the auditors' report and the Supervisory Council's statement concerning the minutes of the meetings of the Executive Board to the Ministry of Finance, for submission to the King and communication to the Storting.

The Supervisory Council's statement concerning its supervision of Norges Bank

Pursuant to Section 5, third paragraph of the Act relating to Norges Bank and the Monetary System, the Supervisory Council adopted at its meeting on 19 February 2004 the following resolution, which, with reference to Section 30, second paragraph, is to be forwarded to the Ministry of Finance for submission to the King and communication to the Storting:

The Supervisory Council supervises the Bank's operations and ensures that the rules governing the Bank's activities are observed. It organises the auditing of the Bank, including the appointment of a central bank auditor, and draws up instructions for Central Bank Audit. The Supervisory Council adopts the annual accounts of the Bank and, on the proposal of the Executive Board, approves the budget. It supervises companies owned wholly or partially by Norges Bank. In accordance with the Norges Bank Act, the Executive Board has executive and advisory authority in Norges Bank. The Board is in charge of the Bank's operations and manages its resources. The Executive Board has the overriding responsibility for internal control in the Bank.

The Supervisory Council supervises the Executive Board's exercise of its responsibility for management and control. This supervision does not include the Executive Board's exercise of its discretionary authority pursuant to the Act.

In 2003, the Supervisory Council supervised the Bank in accordance with the Norges Bank Act. As a basis for its supervision, the Supervisory Council has examined:

- the minutes of the Executive Board's meetings
- matters submitted by the Executive Board
- the Bank's budget and accounts
- the instructions, audit plan and budget of Central Bank Audit
- audit reports and matters submitted by Central Bank Audit
- matters taken up by the Supervisory Council itself

The Supervisory Council has received all the information it has requested.

In 2003, the Supervisory Council has had no comments concerning the minutes of Executive Board meetings, nor has its supervision of the Bank's operations revealed circumstances that constitute grounds for special remarks to the Ministry pursuant to Section 30, second paragraph of the Norges Bank Act.

Oslo, 19 February 2004

Mary Kvidal	Solveig Nordkvist
Chairman of the Supervisory Council	Deputy Chairman of the Supervisory Council

APPENDICES

Appendix A. Tables

Table 1. Norges Bank's balance sheet at 31.12.2002 and each month of 2003, by sector. In millions of NOK

	2002/12	2003/01	2003/02	2003/03	2003/04
ASSETS					
FOREIGN ASSETS	**224 149**	**225 940**	**222 075**	**241 792**	**231 211**
International reserves	224 123	225 926	222 062	241 766	231 186
Other assets	26	14	13	26	25
INVESTMENTS FOR THE GOVERNMENT PETROLEUM FUND	**608 475**	**629 691**	**663 211**	**681 873**	**698 053**
DOMESTIC ASSETS AND OTHER FIXED ASSETS	**17 716**	**17 919**	**17 762**	**16 909**	**17 223**
Securities	13 443	14 245	14 300	13 141	13 831
Lending	664	662	670	807	646
Other assets	2 034	1 483	1 272	1 442	1 235
Fixed assets	1 575	1 529	1 520	1 520	1 511
EXPENSES	**0**	**3 760**	**23 927**	**34 831**	**42 575**
TOTAL ASSETS	**850 340**	**877 310**	**926 975**	**975 405**	**989 062**
LIABILITIES AND CAPITAL					
FOREIGN LIABILITIES	**55 369**	**66 185**	**58 003**	**64 058**	**62 044**
Deposits	217	518	323	385	428
Borrowing	53 543	64 050	56 001	61 979	59 983
Other liabilities	26	26	32	23	-2
Countervalue of special drawing rights, IMF	1 583	1 591	1 647	1 671	1 635
DEPOSITS GOVERNMENT PETROLEUM FUND KRONE ACCOUNT	**608 475**	**629 691**	**663 211**	**681 873**	**698 053**
DOMESTIC LIABILITIES	**161 057**	**149 994**	**148 022**	**158 258**	**152 475**
Notes and coins in circulation	44 954	41 138	40 236	39 718	40 151
Treasury deposits	52 492	44 161	38 328	45 737	85 451
Other deposits	59 500	59 709	65 188	59 914	22 242
Borrowing	3 500	4 455	3 710	3 920	3 623
Other liabilities	611	531	560	8 969	1 008
CAPITAL	**25 439**	**25 439**	**25 439**	**25 439**	**25 439**
VALUATION CHANGES	**0**	**2 171**	**24 683**	**33 638**	**34 739**
IINCOME	**0**	**3 830**	**7 617**	**12 139**	**16 313**
TOTAL LIABILITIES AND CAPITAL	**850 340**	**877 310**	**926 975**	**975 405**	**989 062**
Obligations					
Derivatives and forward contracts sold, international reserves	30 879	40 556	32 507	42 219	32 464
Derivatives and forward contracts purchased, international reserves	34 262	47 381	47 497	50 127	41 009
Derivatives and forward contracts sold, Government Petroleum Fund	143 088	127 670	188 909	155 435	122 731
Derivatives and forward contracts purchased, Government Petroleum Fund	149 549	142 412	181 513	185 683	143 770
Allocated, not yet paid for shares in BIS	310	310	310	310	310
Rights					
Options sold, international reserves	27	0	0	0	0
Options purchased, international reserves	42	0	0	0	1
Options sold, Government Petroleum Fund	182	0	0	0	0
Options purchased, Government Petroleum Fund	272	3	1	1	5

2003/05	2003/06	2003/07	2003/08	2003/09	2003/10	2003/11	2003/12
244 805	**248 013**	**258 001**	**255 729**	**247 365**	**245 482**	**237 362**	**250 975**
244 775	247 981	258 367	255 698	247 336	245 450	237 331	250 941
30	32	-366	31	29	32	31	33
713 809	**775 144**	**777 845**	**816 365**	**802 919**	**828 934**	**824 354**	**844 587**
18 139	**18 678**	**18 296**	**29 961**	**30 384**	**30 691**	**50 557**	**39 195**
14 620	14 750	14 725	25 983	26 125	26 115	23 174	23 281
641	624	621	611	582	552	24 563	12 552
1 372	1 804	1 459	1 884	2 200	2 557	1 362	1 901
1 507	1 499	1 491	1 483	1 477	1 468	1 458	1 461
52 875	**110 396**	**109 503**	**141 589**	**121 733**	**141 818**	**130 740**	**0**
1 029 629	**1 152 232**	**1 163 644**	**1 243 644**	**1 202 400**	**1 246 925**	**1 243 013**	**1 134 756**
71 569	**61 128**	**71 248**	**62 802**	**56 797**	**55 709**	**50 883**	**51 963**
219	209	539	386	381	380	261	256
69 739	59 176	68 985	60 640	54 698	53 605	48 938	49 776
23	37	40	33	33	27	30	267
1 588	1 706	1 684	1 744	1 685	1 697	1 654	1 664
713 809	**775 144**	**777 845**	**816 365**	**802 919**	**828 934**	**824 354**	**844 587**
156 793	**158 735**	**161 251**	**173 379**	**175 648**	**174 056**	**193 942**	**191 993**
41 244	41 253	41 101	40 724	40 262	40 816	41 806	46 249
100 231	67 269	80 309	87 754	88 841	109 987	132 138	108 586
10 693	42 328	33 833	40 653	36 687	17 469	13 082	28 343
3 727	7 168	4 540	3 220	7 041	4 693	5 824	8 229
897	716	1 469	1 028	2 816	1 092	1 094	586
25 439	**25 439**	**25 439**	**25 439**	**25 439**	**25 439**	**25 439**	**46 213**
41 435	**106 117**	**98 054**	**131 302**	**102 673**	**120 183**	**102 179**	**0**
20 585	**25 669**	**29 807**	**34 357**	**38 925**	**42 603**	**46 216**	**0**
1 029 629	**1 152 232**	**1 163 644**	**1 243 644**	**1 202 400**	**1 246 925**	**1 243 013**	**1 134 756**
36 354	40 218	32 898	28 046	63 363	60 727	56 849	53 004
41 472	45 967	34 823	28 907	64 876	61 048	59 802	55 485
136 622	162 430	148 804	154 587	192 244	211 081	234 525	236 920
151 825	176 964	157 788	158 873	198 820	211 375	248 329	248 582
310	310	310	310	310	310	310	275
0	0	0	0	1	-1	1	646
1	8	-1	-23	1	1	2	647
0	0	0	0	8	-8	5	4 324
6	55	-6	-151	9	10	12	4 331

Table 2. Norges Bank's profit and loss account at 31 December. 2002–2003. **In thousands of NOK**

	2003	2002
Interest income and dividends	7 987 299	8 326 820
Gains/losses on financial instruments	4 182 922	-2 557 912
Valuation changes on foreign exchange	12 336 634	-24 315 794
Return on international reserves	**24 506 855**	**-18 546 886**
Share dividend. BIS	17 057	15 221
Interest expense other foreign financial instruments	-1 194 372	-1 167 200
Net domestic financial instruments	1 496 823	738 473
Interest expenses domestic deposits	-3 180 538	-4 267 358
Net other financial activities	**-2 861 030**	**-4 680 864**
Return on investments for Government Petroleum Fund	**132 413 815**	**-130 010 197**
Transferred to Government Petroleum Fund's deposit account	**-132 413 815**	**130 010 197**
Operating income	928 204	671 950
Operating expenses	-1 799 434	-1 533 160
Net operating expenses	**-871 230**	**-861 210**
Profit/loss for the year	**20 774 595**	**-24 088 960**
Transferred from Adjustment Fund	0	23 691 494
Transferred from 'Other capital'	107 109	397 466
Reserves	**20 881 704**	**0**
Allocated to Adjustment Fund	-20 410 606	
Allocated to Transfer Fund	0	
Allocated to 'Other capital'	-471 098	0
Total allocations	**-20 881 704**	**0**

Table 3. Norges Bank's loans to and deposits from banks in 2003

		D-loans	Fixed-rate loans		Fixed-rate deposits		Sight deposits
Period		Actual drawings, NOK bn	Daily average NOK bn	Nominal rate	Daily average NOK bn	Nominal rate	Daily average NOK bn
January	1-15	-	-	-	45.70	6.59	25.30
	16-31	-	-	-	29.10	6.31	19.80
February	1-15	-	-	-	40.30	6.07	21.20
	1-28	-	-	-	37.70	6.06	17.00
March	1-15	-	-	-	47.70	5.74	21.60
	16-31	-	-	-	30.50	5.56	24.50
April	1-15	-	-	-	-	-	24.90
	16-30	-	-	-	-	-	20.20
May	1-15	-	-	-	-	-	26.60
	16-31	-	2.50	5.07	-	-	14.00
June	1-15	-	-	-	-	-	17.90
	16-30	-	-	-	-	-	30.90
July	1-15	-	-	-	-	-	47.60
	16-31	-	-	-	-	-	29.80
August	1-15	-	-	-	-	-	34.70
	16-31	-	-	-	-	-	32.30
September	1-15	-	-	-	-	-	48.50
	16-30	-	-	-	-	-	27.60
October	1-15	0.10	12.40	2.60	-	-	14.80
	16-31	0.00	4.00	2.62	-	-	13.80
November	1-15	0.00	-	-	-	-	23.20
	16-30	0.10	21.70	2.56	-	-	16.10
December	1-15	-	19.80	2.53	-	-	16.40
	16-31	-	10.40	2.33	-	-	22.10

Table 4. Norges Bank's D-loan and sight deposit rates

	Overnight lending (D-loan) rate		Sight deposit rate	
Period	Nominal	Effective	Nominal	Effective
28.01.99-02.03.99	9.50 %	9.9 %	7.50 %	7.8 %
03.03.99-25.04.99	9.00 %	9.4 %	7.00 %	7.2 %
26.04.99-16.06.99	8.50 %	8.9 %	6.50 %	6.7 %
17.06.99-22.09.99	8.00 %	8.3 %	6.00 %	6.2 %
23.09.99-12.04.00	7.50 %	7.8 %	5.50 %	5.6 %
13.04.00-14.06.00	7.75 %	8.0 %	5.75 %	5.9 %
15.06.00-09.08.00	8.25 %	8.6 %	6.25 %	6.4 %
10.08.00-20.09.00	8.75 %	9.1 %	6.75 %	7.0 %
21.09.00-12.12.01	9.00 %	9.4 %	7.00 %	7.2 %
13.12.01-03.07.02	8.50 %	8.9 %	6.50 %	6.7 %
04.07.02-11.12.02	9.00 %	9.4 %	7.00 %	7.2 %
12.12.02-22.01.03	8.50 %	8.9 %	6.50 %	6.7 %
23.01.03-05.03.03	8.00 %	8.3 %	6.00 %	6.2 %
06.03.03-30.04.03	7.50 %	7.8 %	5.50 %	5.6 %
01.05.03-25.06.03	7.00 %	7.2 %	5.00 %	5.1 %
26.06.03-13.08.03	6.00 %	6.2 %	4.00 %	4.1 %
14.08.03-17.09.03	5.00 %	5.1 %	3.00 %	3.0 %
18.09.03-17.12.03	4.50 %	4.6 %	2.50 %	2.5 %
18.12.03-	4.25 %	4.3 %	2.25 %	2.3 %

Table 5. Denominations of coins in circulation 1999-2003, annual average and at the end of each month in 2003. In millions of NOK. Figures are based on physical holdings at month- and year-end

	20-krone	10-krone[3]	5-kroner[6]	1-krone [5]	50-øre [4]	10-øre [2]	Total [1]
1999	873.4	1 046.3	473.9	590.2	157.2	130.0	3 271.0
2000	966.3	1 086.8	486.8	617.2	165.2	129.7	3 452.0
2001	1 124.0	1 110.9	496.8	640.8	174.0	129.5	3 676.0
2002	1 387.0	1 085.0	505.3	666.1	182.4	129.5	3 955.3
2003	1 560.9	1 051.3	514.6	686.3	190.5	128.6	4 132.3
2003							
January	1 494.3	1 054.7	506.3	675.5	187.2	129.2	4 047.2
February	1 514.7	1 050.8	506.3	675.3	187.4	129.0	4 063.3
March	1 509.5	1 044.0	505.1	675.2	187.3	128.6	4 049.8
April	1 531.3	1 050.5	509.6	679.6	188.5	128.6	4 088.1
May	1 540.5	1 053.7	513.1	681.5	189.1	128.5	4 106.5
June	1 553.2	1 051.8	515.1	685.0	190.0	128.5	4 123.6
July	1 574.6	1 063.7	521.9	689.6	190.9	128.5	4 169.3
August	1 575.7	1 057.4	520.8	691.3	191.7	128.5	4 165.3
September	1 580.3	1 041.6	516.8	692.0	192.3	128.5	4 151.6
October	1 587.0	1 042.0	517.2	693.1	193.0	128.5	4 160.8
November	1 604.5	1 043.4	517.6	694.0	193.6	128.5	4 181.6
December	1 665.4	1 062.2	525.3	703.5	194.9	128.5	4 279.8

1) Excluding silver coins, NOK 6 743 000, and commemorative coins issued by Norges Bank 1964-2003, which are discussed in the note on notes and coins.
2) As of 1 March 1993, the 10-øre coin is no longer legal tender, but was redeemed by Norges Bank until 1 March 2003.
3) A new 10-krone coin was put into circulation on 15 September 1995. At the same time it was announced that the old 10-krone coin would cease to be legal tender from 15 September 1996, but will be redeemed by Norges Bank until 15 September 2006.
4) A new 50-øre coin was put into circulation on 16 September 1996. At the same time it was announced that the old 50-øre coin would cease to be legal tender from 16 September 1997, but will be redeemed by Norges Bank until 16 September 2007.
5) A new 1-krone coin was put into circulation on 15 September 1997. At the same time it was announced that the old 1-krone coin would cease to be legal tender from 5 Setember 1998, but will be redeemed by Norges Bank until 5 September 2008.
6) A new 5-krone coin was put into circulation on 15 September 1998. On 9 July 1999 it was announced that the old 5-krone coin would cease to be legal tender from 9 July 2000, but will be redeemed by Norges Bank until 9 July 2010.

Table 6. Denominations of notes in circulation 1999-2003, annual average and at the end of each month of 2003. In millions of NOK. Figures are based on physical holdings at month- and year-end.

	1000-krone 4)	500-kroner 3)	200-krone 2)	100-krone 1)	50-krone	Total
1999	27 290.5	5 588.1	3 949.2	3 026.7	711.9	40 566.2
2000	26 336.4	6 106.5	4 274.7	2 684.4	717.3	40 119.3
2001	24 713.2	6 920.6	4 446.4	2 463.6	727.1	39 270.9
2002	22 598.8	7 626.1	4 572.7	2 270.2	743.5	37 811.3
2003	22 166.6	7 732.3	4 674.5	2 091.5	764.6	37 429.4
2003						
January	22 633.8	7 515.2	4 374.1	2 086.9	729.5	37 339.5
February	22 037.0	7 324.3	4 329.9	2 060.5	738.9	36 490.5
March	21 715.4	7 281.8	4 336.8	2 069.0	735.6	36 138.6
April	21 600.6	7 445.3	4 563.5	2 084.4	746.6	36 440.4
May	21 723.7	7 866.2	4 978.1	2 183.7	769.4	37 521.1
June	21 869.7	7 892.5	4 906.5	2 220.5	792.1	37 681.2
July	21 645.7	7 869.8	4 819.4	2 189.9	798.3	37 323.2
August	21 562.9	7 716.5	4 745.9	2 091.5	776.9	36 893.7
September	21 614.0	7 576.4	4 587.2	2 023.5	767.2	36 568.3
October	21 928.5	7 633.3	4 586.4	1 983.5	759.4	36 891.2
November	22 561.5	7 855.1	4 711.2	2 007.5	767.1	37 902.5
December	25 106.1	8 811.6	5 154.5	2 096.6	793.9	41 962.7

1) An upgraded 100-krone note was put into circulation on 25 March 2003.
2) An upgraded 200-krone note was put into circulation on 16 April 2002.
3) A new 500-krone note, Series 7, was put into circulation on 7 June 1999. On 17 April 2000 it was announced that the Series 6 500-krone note would cease to be legal tender from 17 April 2001, but will be redeemed by Norges Bank until 17 April 2011.
4) A new 1000-krone note, Series 7, was put into circulation on 19 June 2001. At the same time it was announced that the Series 6 1000-krone note would cease to be legal tender from 26 June 2002, but will be redeemed by Norges Bank until 26 June 2012.

Table 7. Banknotes destroyed 1999-2003. In millions of notes

	1000-krone 2)	500-krone 1)	200-krone 3)	100-krone 4)	50-krone	Total
1999	0.7	2.0	4.1	6.7	11.2	24.7
2000	3.4	15.6	20.4	17.6	13.6	70.6
2001	22.7	13.8	19.6	16.2	12.4	84.8
2002	12.7	5.8	62.6	33.2	11.8	126.2
2003	3.8	5.8	10.9	53.1	14.0	87.5

The table shows the total number of banknotes destroyed apart from notes from older series (50- and 100-krone notes of Series 3. 4 and 5. and 500- and 1000-krone notes of Series 3 and 4). The notes are destroyed when they are worn or damaged, or when a series is to be replaced by another. The figures in the table are influenced by the following issues:
1) A new 500-krone note, Series VII, was put into circulation on 7 June 1999.
2) A new 1000-krone note, Series VII, was put into circulation on 19 June 2001.
3) An upgraded 200-krone note, Series VII, was put into circulation on 16 April 2002.
4) An upgraded 100-krone note, Series VII, was put into circulation on 25 March 2003.

The figures have also been influenced by the decision to store notes instead of destroying them in 1998 and 1999 to provide a reserve supply for the millennium. These notes were destroyed in 2000/2001, increasing the figures for these years.

Table 8. Average life of banknotes 1999-2003. In years

	1000-krone	500-krone	200-krone	100-krone	50-krone
1999	39.4	5.6	4.8	4.5	1.3
2000	7.8	0.8	1.0	1.5	1.1
2001	1.1	1.0	1.1	1.5	1.2
2002	1.8	2.6	0.4	0.7	1.3
2003	5.8	2.7	2.2	0.4	1.1

The figures show the volume of notes in circulation compared to the number destroyed in the year in question.
For an explanation of the changes in banknote life, see footnote to Table 7.

Table 9. Inflow of banknotes to Norges Bank, 1999-2003. In millions of notes

	1000-krone	500-krone	200-krone	100-krone	50-krone	Total
1999	35.6	97.6	214.3	147.6	29.8	524.9
2000	36.4	96.0	228.8	126.6	29.6	517.4
2001	39.5	99.8	221.0	110.9	30.0	501.3
2002	38.6	107.1	225.7	109.5	31.3	512.3
2003	33.4	103.6	234.7	96.0	32.0	499.7

The table shows numbers of banknotes delivered to Norges Bank.

Table 10. Velocity of banknote circulation, 1999-2003

	1000-krone	500-krone	200-krone	100-krone	50-krone	Total
1999	1.30	8.73	10.85	4.88	2.09	5.28
2000	1.38	7.86	10.70	4.72	2.06	5.31
2001	1.60	7.21	9.94	4.50	2.07	5.28
2002	1.71	7.02	9.87	4.82	2.11	5.21
2003	1.51	6.69	10.03	4.59	2.09	5.14

The table shows the average number of times notes pass through Norges Bank per year.

Table 11. Inflow of coins to Norges Bank. 1999-2003. In millions of coins

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
1999	86.9	161.6	96.4	422.0	64.7	831.6
2000	86.5	159.7	88.2	383.7	58.3	776.4
2001	94.7	140.0	81.2	339.9	52.6	708.4
2002	149.0	120.1	80.2	348.2	54.5	752.1
2003	216.5	119.8	84.5	353.9	60.6	835.2

The table shows the number of coins delivered to Norges Bank.

Table 12. Velocity of coin circulation, 1999-2003

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
1999	1.99	1.54	1.02	0.71	0.21	0.72
2000	1.79	1.47	0.91	0.62	0.18	0.65
2001	1.69	1.26	0.82	0.53	0.15	0.56
2002	2.15	1.11	0.79	0.52	0.15	0.57
2003	2.77	1.14	0.82	0.52	0.16	0.61

The table shows the average number of times coins pass through Norges Bank per year.

Table 13. Production of circulation coins at the Royal Norwegian Mint. 1999-2003. In thousands of coins[1)]

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
1999	6 171	1 059	21 970	75 174	25 314	129 688
2000	12 145	1 119	14 408	51 035	20 175	98 884
2001	4 188	9 838	460	50 484	30 140	95 110
2002	20 459	1 125	3 618	21 298	23 958	70 458
2003	30 061	957	827	24 093	19 853	75 790

1) The table shows figures for coins produced and delivered to Norges Bank, and cannot be used to indicate the number of coins minted with different years. Coin sets are included.

Table 14. Banknote production at Norges Bank's Printing Works. 1999-2003.
Number of packets, each containing 500 notes

	1000-krone	500-krone	200-krone	100-krone	50-krone
1999	12 950	43 699 [1)]	44 340	33 800	38 400
2000	0	52 400	35 600	44 170	2 600
2001	72 131 [1)]	0	31 814 [2)]	0	36 075
2002	0	34 776	79 309	20 014 [3)]	0
2003	0	0	30 304	60 400	50 366 [4)]

1) New series (Series VII)
2) Upgraded Series VII, put into circulation 16 April 2002
3) Upgraded Series VII, put into circulation 25 March 2003
4) Upgraded Series VII, to be put into circulation in 2004

Table 15. Norges Bank's banknote series 1877-2003. Period of production

	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6	Series 7
1000-krone notes	1877-98	1901-45	1945-47	1949-74	1975-89	1990-99	2001-
500-krone notes	1877-96	1901-44	-	1948-76	1978-85	1991-98	1999-
200-krone notes	-	-	-	-	-	-	1994-
100-krone notes	1877-98	1901-45	1945-49	1949-62	1962-77	1977-95	1995-
50-krone notes	1877-99	1901-45	1945-50	1950-65	1966-84	1984-96	1996-
10-krone notes	1877-99	1901-45	1945-53	1954-74	1972-85	-	-
5-krone notes	1877-99	1901-44	1945-54	1955-63	-	-	-
Low denomination banknotes							
1-krone notes	1917	1940-50					
2-krone notes	1918	1940-50					

Series 1 ceased to be legal tender on 13 July 1988. Series II notes were invalidated in connection with the monetary reform in 1945 and are no longer redeemable in Norges Bank. Notes in Series III and IV and 10-krone, 50-krone and 100-krone notes in Series V ceased to be legal tender on 13 July 1989. The 1000-krone note in Series V ceased to be legal tender on 1 August 1991, as did the 500-krone note in Series V on 21 June 1992. 1-krone and 2-krone notes from the period 1917-1918 are no longer legal tender and are not redeemed by the Bank. 1-krone and 2-krone notes from the period 1940-1950 ceased to be legal tender on 13 July 1989.

Appendix B
B. Norges Bank's management and organisation

The Bank's governing bodies

The supreme bodies of the Bank are the Executive Board and the Supervisory Council.

Pursuant to the Act on Norges Bank and the Monetary System of 24 May 1985, executive and advisory authority is vested in the Executive Board. The Board administers the Bank's operations and manages its resources. The Executive Board consists of seven members, appointed by the King. The Governor and Deputy Governor are chairman and deputy chairman respectively of the Executive Board. They are appointed to full-time positions for a term of six years. The other five members are appointed for four-year terms. Two employee representatives supplement the Executive Board when administrative matters are discussed. The Executive Board normally meets every three weeks. Every second meeting is a monetary policy meeting.

The Supervisory Council ensures that the rules governing the Bank's activities are observed. It organises the auditing of the Bank, adopts the annual accounts and approves the budget on the recommendation of the Executive Board. The Supervisory Council consists of fifteen members chosen by the Storting for four-year terms. From among the members. the Storting selects the chairman and deputy chairman for terms of two years. The Supervisory Council usually meets four times a year.

The composition of the Executive Board and Supervisory Council as at January 2004 is as follows*:

Executive Board

Central Bank Governor Svein Gjedrem, Chairman (01.01.1999-31.12.2004)
Deputy Central Bank Governor Jarle Bergo, Deputy Chairman (08.02.2002- 08.02.2008)
Vivi Lassen (01.01.2002 – 31.12.2005) (reappointed)
  Alternate: Kari Broberg (01.01.2004 - 31.12.2005)
Brit K.S. Rugland (01.01.2004-31.12.2005)
  Alternate: Inger Johanne Pettersen (01.01.2004-31.12.2005)
Øystein Thøgersen (01.01.2004- 31.12.2005)
  Alternate: Ingunn Myrtveit (01.01.2004-31.12.2005)
Liselott Kilaas (01.01.2004-31.12.2007)
  Alternate: Per Christiansen (01.01.2004-31.12.2007)
Asbjørn Rødseth (01.01.2004-31.12.2007)
  Alternate: Einar Forsbak (01.01.2004-31.12.2007)

Employee representatives:

(From 01.01.2004 -)
Permanent representatives:
Sonja Blichfeldt Myhre
Jan Erik Martinsen
Alternates:
Einar Alnæs
Nina Fagereng

Supervisory Council

Mary Kvidal, 2002-2005 (Chairman 2004-2005)
  Alternate: Anne Strifeldt, 2004-2005
Solveig Nordkvist, 2004-2007 (Deputy Chairman 2004-2005)
  Alternate: Liv Stave, 2004-2007
Jens Marcussen, 2002-2005
  Alternate: Liv Røssland, 2004-2005
Pål Julius Skogholt, 2002-2005
  Alternate: Karin Westhrin, 2004-2005
Hakon Lunde, 2002-2005
  Alternate: Dag Sandstå, 2002-2005
Siri Frost Sterri, 2002-2005
  Alternate: Finn Egil Holm, 2004-2005
Oddleif Olavsen, 2002-2005
  Alternate: Kjellaug Nakkim, 2002-2005
Trude Brosvik, 2002-2005
  Alternate: Steinar Løsnesløkken, 2002-2005
Terje Ohnstad, 2004-2007
  Alternate: Ragnhild Weiseth, 2004-2007
Eva Karin Gråberg, 2004-2007
  Alternate: Jan Elvheim, 2004-2007
Tom Thoresen, 2004-2007
  Alternate: Hans Kolstad, 2004-2007
Runbjørg Bremset Hansen, 2004-2007
  Alternate: Camilla Bakken Øvald, 2004-2007
Hans Petter Kvaal, 2004-2007
  Alternate: Arent Kragh, 2004-2007
Anne Tingelstad Wøien, 2004-2007
  Alternate: Steinulf Tungesvik, 2004-2007
Kåre Harila, 2004-2007
  Alternate: Torun Elise Kvisberg, 2004-2007

* The following members left the Executive Board as at 31.12.2003, after new appointments which followed the introduction of a new appointment procedure (see box at end of Chapter 1): Elisabeth Hunter, Sigbjørn Johnsen, Trond R. Reinertsen and Sylvi Røssland Sørfonn. The original appointment period and alternates for these members are shown in Appendix B in Norges Bank's *Annual Report* for 2002.

Audit
Svenn Erik Forsstrøm
State Authorised Public Accountant

The Bank's administration and organisation

Administration
In accordance with the Norges Bank Act, the Central Bank Governor is in charge of the Bank's administration and the implementation of Executive Board decisions. The Executive Board has appointed a committee, the Administration Committee, which has decision-making authority in administrative matters (the Bank's own management). The committee consists of:

From management:
Svein Gjedrem, Central Bank Governor
Jarle Bergo, Deputy Governor
Harald Bøhn, Executive Director

Employee representatives:
Sonja Blichfeldt Myhre, Chairperson of Norges Bank's Employees' Union
Jan Erik Martinsen, Deputy Chairperson of Norges Bank's Employees' Union

Organisation

Norges Bank Monetary Policy
Jan F. Qvigstad, Executive Director

Research Department
Øyvind Eitrheim, Research Director

Department for Market Operations and Analysis
Asbjørn Fidjestøl, Director

Monetary Policy Department
Amund Holmsen, Director

Statistics Department
Audun Grønn, Director

Economics Department
Anne Berit Christiansen, Director

Norges Bank Financial Stability
Birger Vikøren, Executive Director

Financial Analysis and Structure Department (FIAS)
Kjersti-Gro Lindquist, acting Director

Financial Infrastructure and Payment Systems Department
Inger-Johanne Sletner, Director

Banking Department
Helge Strømme, Director

Chief Cashier's Department
Trond Eklund, Director

Securities Markets and International Finance Department
Arild Lund, Director

Norges Bank Investment Management
Knut N. Kjær, Executive Director

Equities and Tactical Asset Allocation
Yngve Slyngstad, Chief Investment Officer

Fixed Income
Dag Løtveit, Chief Investment Officer

Investment Support
John D. Fahs, Director

IT
Ilse Bache, Chief Technical Officer

Staff and Legal
Marius Nygaard Haug, Chief of Staff and General Counsel

Norges Bank Staff and Group Services
Harald Bøhn, Executive Director
Kari Gjesteby, Director

Staff services
Anne-Britt Nilsen, Director

Norges Bank's Printing Works
Jan Erik Johansen, Director

Property Management Department
Marit Kristine Liverud, Director

Security Department
Arne Haugen, Head of Security

Shared services
Kjetil Heltne, Director

Corporate Communications
Poul Henrik Poulsson, Director

Legal Department
Bernt Nyhagen, Director

Governor's Staff – Investment Strategy
Sigbjørn Atle Berg, Director

Appendix C

Submissions by Norges Bank to the Ministry of Finance in 2003

(The complete text of all the submissions is available in Norwegian on the Norges Bank website: http://www.norges-bank.no)

The following submissions are available in English:

Response to the proposed treatment of expected and unexpected losses
(Joint submission of 30 December 2003 from the Financial Supervisory Authority and Norges Bank to the EU Commission with a copy to the Basel Committee on Banking Supervision)

Response to the Commission Services' third consultative paper. Review of capital requirements for banks and investment firms
(Joint submission of 22 October 2003 from the Financial Supervisory Authority and Norges Bank to the Basel Committee on Banking Supervision)

Report on Monetary Policy 2003 - the first eight months
(Norges Bank's submission of 17 September 2003 to the Ministry of Finance)

Strategic allocation in the Petroleum Fund: an analysis of the basis for decisions. August 2003
(Enclosed in Norges Bank's submission of 28 August 2003 to the Ministry of Finance)

Expansion of the benchmark index for the Government Petroleum Fund's equity investments
(Norges Bank's submission of 1 April 2003 to the Ministry of Finance)

Exercise of ownership rights in the management of the Government Petroleum Fund
(Norges Bank's submission of 12 February 2003 to the Ministry of Finance)

New evaluation of emerging equity and bond markets
(Norges Bank's submission of 6 February 2003 to the Ministry of Finance)