2002

Annual Report 2002

NORGES BANK

Norges Bank (Central Bank of Norway)
Oslo, Norway 2003

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Table of contents

PART I: 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. It administers the Bank's activities and manages its resources. Pursuant to Section 28 of the Act, the Executive Board shall prepare an annual report and annual accounts each year.

In 2002, the Executive Board held 17 meetings and dealt with 136 matters. Two employee representatives supplement the Executive Board when administrative matters are discussed.

The Executive Board focuses on issues relating to the central bank's responsibilities for monetary policy, financial stability and investment management. In 2002, the Executive Board also devoted considerable attention to organisational development and the Bank's overall utilisation of resources.

In addition to ordinary Executive Board meetings, a number of seminars dealing with the Bank's core activities have been held. In autumn 2002, the Executive Board visited the Bank's New York office, the Federal Reserve Bank of New York and financial institutions which perform various tasks for Norges Bank Investment Management.

Monetary policy

The operational objective of monetary policy is annual consumer price inflation of approximately 2½ per cent over time (cf. Regulation on monetary policy established 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 an inflation rate of 2½ per cent two years ahead.

Three times a year, the Bank publishes the *Inflation Report* which provides an analysis of the outlook for the Norwegian economy and of developments in price and cost inflation two years ahead. The Executive Board asses-ses the inflation outlook on the basis of preliminary projections at a special meeting three weeks prior to publication of the *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. In October 2002, the Executive Board decided to publish the key documents used at these strategy meetings. The strategy document is published at the end of the strategy period. The first strategy document was published on 5 March 2003.

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*. Tables and charts illustrating developments emphasised by the Executive Board were first published on Norges Bank's website following the monetary policy meeting of 11 December 2002.

The Executive Board's decision is announced at a fixed, predetermined time just after the monetary policy meeting. At a 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 not changed. The introduction to the press conference thus reflects the Executive Board's deliberations.

In 2002, a number of measures were initiated to improve the supply of up-to-date and relevant information as a basis for monetary policy decisions. The Bank's analytical capacity has been strengthened and will be increased further in 2003. In the autumn of 2002, the Bank established a network of regional contacts to supplement official statistical data. The Bank has also initiated and financed surveys of expectations among market participants, enterprises and households concerning future price inflation. Information from these surveys was first published in its entirety in March 2003.

At the beginning of 2002, Norges Bank's key rate, the sight deposit rate, was 6.5 per cent. The Norwegian economy was marked by high capacity utilisation. In the global economy, there was a risk of a deep, more prolonged downturn. The interest rate remained unchanged at the monetary policy meetings in February, April and May.

Later in the winter and spring, there were more positive signals concerning the world economy, while developments in the Norwegian economy were approximately as expected. The labour market was tight. Developments in wage settlements made it clear that annual wage growth would be markedly higher than Norges Bank had projected in February. The settlement entailed substantial pay increases for 2003 as well. This weakened the prospect of a rapid decline in wage growth. It also became clear that high wage growth could lead to higher private consumption than previously projected, in particular from the autumn. House prices and household borrowing also rose at a rapid pace.

After the wage settlement in spring 2002, the Bank adjusted the projections for wage growth for the following years as well, contingent upon an unchanged key rate and a krone exchange rate equivalent to the rate prevailing in the second quarter of 2002. The analyses in *Inflation Report* 2/02 indicated that inflation two years ahead would be higher than the target if the key rate was left unchanged. While interest rates in the US and Europe were low, Norway’s economy remained buoyant with a high level of activity. The cyclical divergence fed through to the krone exchange rate. In isolation, this exerted downward pressure on 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. According to the assessment of the inflation outlook, the appreciation of the krone would not fully offset higher wage growth and stronger growth in domestic demand. At the one year horizon, the krone exchange rate would dominate and push down inflation to below 2½ per cent, but in the longer term it was assumed that the effects of a stronger krone would diminish, and the effect of strong wage growth would dominate. On the basis of the analyses in the *Inflation Report*, the sight deposit rate was increased by 0.5 percentage point to 7 per cent at the monetary policy meeting on 3 July.

Inflation Report 3/02 was published on 30 October. The international financial market had been marked by unrest and instability throughout the summer and autumn. Equity prices had fallen sharply. There was growing uncertainty as to the outlook for the world economy, and key rates were lowered in a number of countries. The upturn in the global economy – which had only just begun at the outset of 2002 – appeared now to be weaker and to come later than expected. Growth forecasts for the Norwegian economy were revised downwards somewhat, primarily as a result of the interest rate increase in July, weaker international developments and a stronger krone. However, domestic demand continued to grow at a brisk pace. Inflation and developments in overall demand, output and employment were approximately as expected.

Through the autumn, there was growing evidence that the outlook for the Norwegian and world economy had weakened further. The krone exchange rate continued to appreciate, key rates were reduced further in many countries, households were less optimistic, electricity prices rose sharply, growth in household credit began to fall, the rise in house prices levelled off, unemployment rose somewhat more than expected, industrial confidence indicators fell sharply and Norges Bank's regional network contacts reported that demand and profitability were falling in many business sectors. At the same time, there was increasing international unrest and uncertainty connected with the risk of war in Iraq. Overall, these developments pointed to lower inflation in the period ahead, at the same time as pressures in the economy eased. In the light of these developments, the sight deposit rate was lowered by 0.5 percentage point to 6.5 per cent on 11 December.

A more detailed account of monetary policy in 2002 is presented in Part II, Chapter 1.

Financial stability

The Executive Board places considerable emphasis on stability in the financial sector. In 2002, Norges Bank prepared two reports containing an overview of trends in financial institutions, securities markets and systemically important payment systems. The analyses in these reports indicate that banks are generally well equipped to deal with weaker economic developments. However, the combination of continued high growth in household borrowing with an increased concentration of debt among households with high interest burdens and low incomes represents a new factor of uncertainty compared with earlier periods. Developments in the business sector also contribute to increasing the probability of loan losses. Therefore, banks must continue to focus on maintaining underlying earnings. On balance, the outlook for financial stability is considered to be satisfactory, but somewhat less favourable at the end of 2002 than a year earlier. The Executive Board provides its assessment of financial stability, based in part on these bi-annual reports, in a letter to the Ministry of Finance.

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 with branches and subsidiaries in several countries. The Nordic countries are marked by constellations with substantial branches and subsidiaries in relation to the parent company and in relation to the host country’s financial markets.

To enable central banks to fulfil their responsibility to promote financial stability in a situation where countries’ financial markets are closely integrated, the Nordic central banks have developed closer cooperation to deal with issues such as ensuring adequate preparedness.

Effective, robust payment systems are a key aspect of financial stability. Norwegian banks’ foreign exchange settlement risk was reduced when the international clearing and settlement bank, CLS Bank, commenced operations in the autumn of 2002. So far, the seven largest international currencies are settled in CLS, whereas the Norwegian krone will be included in summer 2003.

In 2002, Norges Bank conducted a survey of costs in the Norwegian payment system similar to the surveys conducted in 1988 and 1994. The number of payment transactions has more than tripled from 1988 to 2001, while costs related to producing these services have increased by only 9 per cent. The transition to cheap electronic payment instruments with fees that reflect production costs has resulted in an efficient and inexpensive payment system.

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 level as the 500-krone and 1000-krone notes in the series. The same upgrade will be made for the 100-krone note in 2003. After these upgrades, the security features on Norwegian notes are in line with the most advanced features in other countries.

A more detailed account of financial stability in 2002 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-2002, Norges Bank managed assets worth more than NOK 790 billion in international capital markets.

The Executive Board emphasises that investment management in Norges Bank is 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 stipulated the strategy and guidelines for management of the foreign exchange reserves. Benchmark indices have been established to provide a basis for managing risk and measuring performance of the operational management. In 2002, the Executive Board decided to change the investment strategy for the foreign exchange reserve's long-term portfolio. This involved increasing the equity share from 20 to 40 per cent, reducing the share invested in European markets and including non-government guaranteed bonds in the investment universe. In 2002, the return on the foreign exchange reserves was positive, measured in international currency, but the appreciation of the Norwegian krone through the year contributed to a negative return in NOK.

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. In 2002, the Petroleum Fund's benchmark index was gradually changed to include non-government guaranteed bonds. The establishment of these new portfolios has been one of the main tasks this year.

In 2002, the Ministry of Finance transferred approximately NOK 125 billion to the Petroleum Fund. This large transfer of capital poses considerable challenges to Norges Bank. In order to maintain the degree of active management in a large portfolio, the number of external mandates has been increased.

The actual return on the Petroleum Fund was -4.7 per cent measured in local currency, due in part to weak developments in the stock market in 2002. The appreciation of the Norwegian krone resulted in a return of -19.0 per cent measured in NOK. The purpose of management is to achieve high international purchasing power in the long term, and extensive fluctuations in return must be expected for individual years. The return measured in international currencies best describes developments in the Fund's international purchasing power.

In 2002, the actual return on all the portfolios was higher than the return on the various benchmark indices defined by the owners. Norges Bank's contribution to the return was considerably higher than the management costs charged by the Bank.

In 2002, Norges Bank Investment Management has also expanded its operations. At the end of 2002, Norges Bank Investment Management had 116 employees, an increase of 9 per cent compared with 2001.

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 a separate 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, the Bank has worked systematically in recent years to restrict its activities to its core areas: monetary policy, financial stability and investment management. This has resulted in substantial restructuring of the Bank's organisation, partly through the spinning off of activities into separate companies, partly through outsourcing of activities, and partly through downsizing.

A few years ago, cash handling and the production of notes and coins accounted for a substantial part of the Bank's activities and use of resources. Substantial parts of these activities have now been spun off into separate companies. The Royal Norwegian Mint (DKM AS), which is owned by Norges Bank, and the cash-handling company

Norsk Kontanthåndtering AS (NOKAS), of which Norges Bank owns 33.5 per cent, were both established in 2001. In autumn 2002, the Supervisory Council supported a proposal from the Executive Board to make preparations for the sale of DKM AS.

In 2002, the Executive Board assessed the activities of Norges Bank's Printing Works. After the discontinuation of postage stamp production in 2000 and passport production in 2003, banknotes will be the Printing Works' only product. These operations will gradually require substantial investment in equipment and labour. The Executive Board has concluded that the production of banknotes can only be maintained until 2007.

At end-2002, there were a total of 663 permanent and temporary employees at Norges Bank compared with 662 at end-2001 and 1 086 at end-2000. Almost half of the reduction since 2000 is attributable to rationalisation. The remainder is due to the spinning off of activities into separate companies and, to a certain degree, to outsourcing of activities. At the same time, the number of employees in Norges Bank Investment Management increased further in 2002, from 105 to 116.

The Bank's restructuring affects many employees. Norges Bank is using personnel policy programmes to facilitate the restructuring. In 2002, applications for retirement from 40 employees in various parts of the Bank were approved using human resource policy measures. By the end of 2002, a total of 240 retirement agreements had been concluded.

The employees and their unions have made a positive contribution to these restructuring processes. The Executive Board is of the opinion that the human resource policy measures initiated have safeguarded the employees' interests. The concentration on core responsibilities and the discontinuation of activities also make it necessary to consider the use of resources in the Bank's other activities. The Bank's staff and support functions will be assessed. As of 1 January 2003, a profit centre was established to administer the Bank's premises. Efforts will be made to achieve more efficient use of space. Vacant space will be rented out to external tenants.

A more detailed account of the organisation and use of resources is presented in Part II, Chapter 6.

Results and capital

Norges Bank's results for 2002 showed a loss of NOK 24.1 billion. The main cause of the loss was the appreciation of the Norwegian krone, as a result of which foreign exchange reserves measured in NOK showed exchange losses of NOK 24.3 billion in 2002. The fall in international equity markets was also a contributing factor.

In the light of the decline in the Bank's capital through the year, the Executive Board submitted proposals in autumn 2002 to the Ministry of Finance to change the system for transferring capital between Norges Bank and the Treasury. Norges Bank proposed changes in allocations to enable the Bank to build up more solid reserves over time. These rules were amended by the Royal Decree of 6 December 2002, when the requirement regarding the Adjustment Fund as a share of the Bank's international assets with exchange rate exposure was increased from 25 to 40 per cent.

Norges Bank's most effective instrument for improving its results in the short term is the interest rate on central government deposits. In view of these circumstances, Norges Bank therefore decided in autumn 2002 that the interest rate on central government deposits could be set at zero if the Bank's capital fell below a specific limit. Rather than an interest rate reduction as proposed by the Bank, the Ministry of Finance advocated reversing the transfer to the Treasury from year-end allocations for 2001, as an extraordinary contribution. Following deliberation on Proposition no. 40 to the Storting (2002-2003), the Storting resolved to transfer NOK 8.9 billion to Norges Bank. A more detailed account is provided in Part II, Chapter 6 of this report, and in Part III, the "Report of the Executive Board on the financial statements for 2002".

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PART II: OVERVIEW OF NORGES BANK'S ACTIVITIES

Chapter 1 Monetary policy

The objective of monetary policy

The operational objective of monetary policy is low and stable inflation. The inflation target is set at 2½ per cent.

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 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 states the following:

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

[…]

Norges Bank places emphasis on the transparency and communication of monetary policy. Norges Bank's analyses and the background for the Bank's interest

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 Council of State 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.

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 level of the krone.

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

rate decisions are published regularly. The Bank reports on the implementation of monetary policy in its *Annual Report.* 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 +/- 1 percentage point."

The objective of monetary policy reflects that low and stable inflation is the best contribution monetary policy can make to the overriding objective of stable output and employment. The mandate means that monetary policy has been given a clear role in stabilising economic developments. Low and stable inflation is also a precondition for achieving stable exchange rate expectations. The inflation target of 2½ per cent is broadly in line with the inflation targets of our trading partners. It is also an anchor for developments in the krone exchange rate.

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. However, these market interest rates 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

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

§ 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. Monetary policy shall also 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.

§ 2

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

§ 3

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

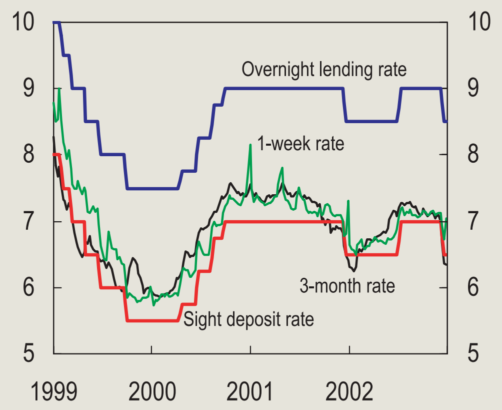
§ 4

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.

Chart 1 Norges Bank's interest rates and short-term market rates. Nominal rates. Weekly figures. 1999-2002



Source: Norges Bank

operates through all these channels to influence total demand, production, prices and wages.

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. Normally, the overnight lending rate does not have an impact on short-term money market interest rates.

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. 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 interventions, either through sales or purchases of foreign exchange, are not an appropriate instrument for influencing the krone over a longer period. The Bank will provide an account of any interventions and the background for them. In 2002, Norges Bank did not intervene to influence the krone.

Implementation of monetary policy

Norges Bank's key interest rate is set on the basis of an overall assessment of the inflation outlook. Since interest rate changes do not have an immediate impact on inflation, Norges Bank must be forward-looking in its interest-rate setting. Normally, the interest rate is set with a view to achieving an inflation rate of 2½ per cent two years ahead. Norges Bank's assessments of the inflation outlook are presented three times annually in the *Inflation Report*.

Consumer price inflation normally varies from month to month. Substantial changes in the inflation rate may at times occur as a result of extraordinary fluctuations in certain product markets or changes in direct and indirect taxes. In its analyses of different measures of underlying inflation, Norges Bank will assess the effects of changes in the interest rate level, taxes, excise duties and extraordinary temporary disturbances. Deviations between actual and projected underlying inflation will normally be in the interval +/- 1 percentage point.

Since October 2001, Statistics Norway has published figures for the rise in consumer prices adjusted for tax changes and excluding energy products (CPI-ATE). Norges Bank judges that this measure of inflation provides a basis for evaluating monetary policy in retrospect.

The inflation target is a vehicle for allowing monetary policy to stabilise developments in output and employment, as expressed in the Monetary Policy Regulation. High demand for goods and services and labour shortages normally point to higher inflation. When interest rates are increased, demand falls and inflation is kept at bay.

Norges Bank's foreign exchange reserves

The foreign exchange reserves are Norges Bank's holdings of financial assets in foreign currency which may be used in the conduct of monetary policy. The foreign exchange reserves consist largely of easily negotiable liquid paper issued in foreign currencies and deposits in foreign banks. At the end of the fourth quarter, the total value of the foreign exchange reserves was NOK 159.0 billion. See also the account of the foreign exchange reserves and their management in Chapter 4.

When demand is low and unemployment rises, inflation will tend to slow. Interest rates will then be reduced.

When Norges Bank concludes that the key rate should be changed, the change will in most cases be made gradually. This is because there is normally uncertainty as to the situation in the economy, potential disturbances and the pass-through of interest rate changes to price inflation. But Norges Bank will not always take a gradualist approach. A rapid and pronounced change in the interest rate is appropriate if, for example, heightening turbulence in financial markets or a cost-push shock resulting from wage negotiations indicates that confidence in monetary policy is in jeopardy.

Low and stable inflation is a necessary precondition for stability in the foreign exchange and financial market and the property market. However, there have also been episodes where bubbles have accumulated in these markets, in the form of sharp increases in asset prices, while inflation has been low. The rise in property and financial asset prices may feed through to price and cost inflation. When the bubbles burst, the result may be an economic downturn. In this way, developments in financial and property markets may be a source of a more unstable inflation environment. In principle, it might be appropriate to use the interest rate to counter this. In practice, however, it is difficult to assess whether price developments for property and financial assets are sustainable.

Norges Bank no longer targets a specific level for the krone exchange rate. Developments in the krone are nevertheless of considerable importance for Norges Bank's interest rate setting. This is due to a number of factors:

- Changes in the krone exchange rate affect prices measured in NOK for imported consumer goods and services. The effect of prices for imported goods on Norwegian production costs must also be taken into account.
- Developments in the krone influence earnings, wages, activity and employment in internationally exposed industries and their suppliers in Norway.
- As the Norwegian money and capital markets become evermore integrated with international markets, exchange rate changes may have a greater impact. Changes in the exchange rate are associated with capital gains and losses for Norwegian households and enterprises, and can influence corporate decisions concerning investments and location.

The value of Norwegian krone will vary, as will the value of other countries' currencies. Norges Bank's response to a change in the exchange rate will depend on how the change influences inflation. This requires an evaluation of the reasons for and the duration of the change. It would appear that short-term fluctuations in the krone have little effect on economic developments. In response to a sustained change, Norges Bank will set the interest rate with view to keeping inflation low and stable. However, it is difficult to establish whether exchange rate fluctuations are permanent or temporary. Normally, Norges Bank will therefore take a gradual approach to the conduct of monetary policy in response to movements in the exchange rate. A special situation arises if strong turbulence in the foreign exchange market indicates that confidence in monetary policy is in jeopardy. A rapid and pronounced change in the interest rate may then be appropriate.

If Norges Bank counters an appreciation of the krone when there are pressures in the economy, the scope for keeping inflation at bay is reduced, and the risk of economic fluctuations increases. Conversely, unnecessary swings in output and employment may occur if Norges Bank counters a depreciation of the krone when there is considerable idle capacity in the economy. Any reactions to change in the exchange rate will be based on an analysis of the reasons behind changes in the exchange rate so that the overall tightness of monetary policy is consistent with the objective of low and stable inflation.

The basis for decisions and the work on interest rate setting

According to Section 3 of the Norges Bank Act, the Bank shall inform the public of developments in monetary, credit and foreign exchange conditions. According to Section 2 of the Regulation on Monetary Policy, Norges Bank shall regularly publish the assessments that form the basis for the implementation of monetary policy. The *Annual Report* provides an extensive explanation of this. Moreover, the Bank publishes the *Inflation Report* 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 central bank governor is the editor of the *Inflation Report*. The reports are published on the Bank's website.

On the basis of the analyses in the *Inflation Report*, the Executive Board discusses the economic outlook and the consequences for the conduct of monetary policy over the subsequent four months at a meeting that is held three weeks prior to the publication of the report. The document that forms the basis for this discussion is referred to as the Strategy Document. The Document is discussed and approved by the Executive Board and 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.

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. The decisions taken at the strategy meetings and the analyses in the *Inflation Report* form the basis for the discussions of the Executive Board. Further assessments of the inflation outlook and conditions in the money and foreign exchange markets are presented and discussed in connection with the monetary policy meetings.

A set of tables and charts, displaying developments in a range of economic variables, is also presented to the Executive Board at the monetary policy meeting, and forms part of their information basis. As from the monetary policy meeting of 11 December 2002, these tables and charts are published on Norges Bank's website.[1]

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 press conference is held where the central bank governor or deputy governor explain in further detail the reasons behind the Executive Board's decision. The introduction to the press conference is published on Norges Bank's website when the press conference starts. The introduction explains the assessments of the Executive Board and the background for the interest rate decision. The press conference is webcast on our website.

Norges Bank's assessment of economic developments and the reasons behind the interest rate decisions are also published. This makes it possible to gain insight into the assumptions and analyses underlying interest rate decisions. The most important sources are the *Inflation Report*, the Strategy Document and the introduction to the press conference. 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, the speeches and lectures are published on Norges Bank's website at the same time as they are given. In 2002, the Governor and Deputy Governor gave 31 speeches.

Monetary policy in 2002

Norges Bank raised its key rate (sight deposit rate) by 0.5 percentage point to 7.0 per cent on 3 July 2002. On 11 December 2002, the sight deposit rate was reduced by 0.5 percentage point. At the end of the year, the sight deposit rate stood at 6.5 per cent.

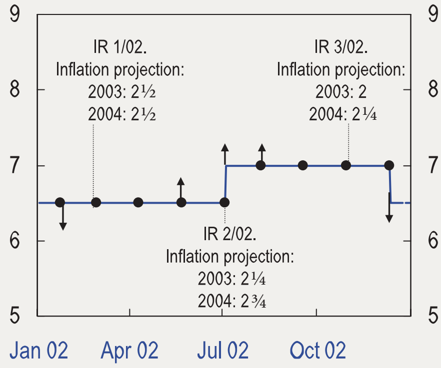
At the beginning of 2002, Norges Bank's sight deposit rate was 6.5 per cent. The Norwegian economy was marked by high capacity utilisation. Expectations of high real wage growth, partly reflecting tax reductions, pointed to higher growth in private consumption. Household borrowing was high. Investment demand was being supported by a few large manufacturing investments, but investment in services was declining. Oil prices ranged between USD 18-20 per barrel.

Wage growth was high in Norway in 2001, but the feed-through to consumer price inflation was restrained by a low or negative rise in prices for imported consumer goods. At the meeting of the Executive Board of 23 January, the sight deposit rate was left unchanged. At the same time, the Bank judged that the probability that inflation would be lower than 2½ per cent two years ahead was greater than the probability that it would be higher.

The growth forecasts for the Norwegian economy were revised upwards in *Inflation Report* 1/02, which was published on 27 February, compared with the forecasts in the October *Inflation Report*. This was partly due to

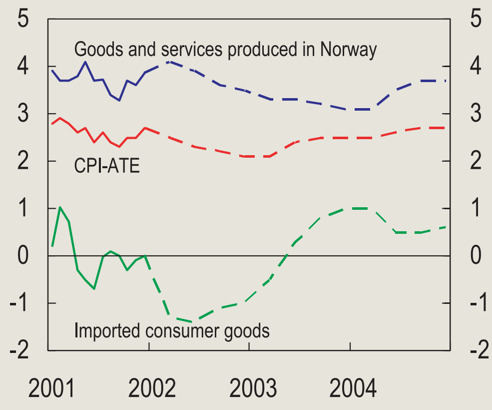
The deposit rate and monetary policy decisions through 2002[1]

The times of the Executive Board's monetary policy meetings are marked with a point. Norges Bank's view of the outlook for inflation two years ahead after the meeting and monetary policy decision is indicated by the arrow leading from the point. An upward-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 higher than 2½ per cent was greater than the probability that it would be lower. A downward-pointing arrow indicates the opposite. The absence of an arrow indicates that Norges Bank found both developments equally likely.



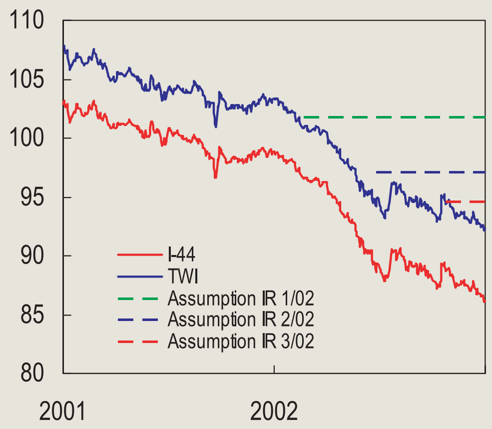
[1] Some of the charts include data or assessments that are not published. This applies to forecasts from the OECD and the IMF before they are published, wage growth estimates for various groups based on confidential information from employers or employee organisations, data from specific enterprises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

Chart 2 Inflation projections in IR 1/2002. 12-month rise. Per cent



Source: Norges Bank

Chart 3 Effective krone exchange rate (TWI) and import-weighted nominal exchange rate (I-44). Daily figures. 2001-2002



Source: Norges Bank

the sharp increase in the estimates for petroleum investment. New estimates from the Petroleum Directorate indicated that petroleum investment would pick up again after having contracted gradually since the peak in 1998. There were also prospects of an international upturn in 2002, following sluggish growth through 2001. The projections for household income growth and private consumption in Norway were also revised upwards. The change in the projection for total demand was also due to a higher level of tax reductions in the central government budget than assumed earlier. In terms of accrued value, tax reductions for companies and households for 2002 corresponded to about 1 per cent of mainland GDP. Combined with high wage growth and employment growth, this was expected to result in more than 4 per cent growth in household real disposable income in 2002.

There was little change in the inflation projections compared with the October Report. Both CPI inflation and CPI-ATE inflation were projected at 2½ per cent in 2004. For the period to July 2003, price inflation was expected to be somewhat lower than target as a result of the subdued rise in prices for imported goods and services. The uncertainty surrounding the global economy meant that it might take longer for imported price inflation to rise. At the same time, there was a risk that wage growth might be higher than estimated. On balance, Norges Bank judged in February that the probability that inflation two years ahead would be higher than 2½ per cent was the same as the probability that it would be lower. On 27 February, the Executive Board decided to leave the sight deposit rate unchanged.

Later in the winter and spring, there were more positive signals concerning the world economy. For example, it appeared that economic growth in the US would pick up faster than assumed in the October *Inflation Report*. There were few signs of stronger growth in Europe, but past experience suggested that growth would pick up in Europe once the upturn took hold in the US.

The domestic economy moved broadly in line with the path projected in the February *Inflation Report*. However, oil prices had risen sharply. The krone continued to appreciate. The effective krone exchange rate was 2 per cent stronger on 10 April than assumed in the *Inflation Report*. At the meeting of the Executive Board on 10 April, the sight deposit rate was left unchanged. At the same time, Norges Bank judged that with a constant interest rate, the probability that inflation two years ahead would be higher than 2½ per cent was the same as the probability that it would be lower.

Data were published directly thereafter indicating that growth in the US in the fourth quarter of 2001 and the first quarter of 2002 had been stronger than assumed in the February *Inflation Report*. Higher defence expenditure, tax cuts and lower interest rates had contributed, but it was still uncertain whether the upturn had gained a

CPI: Price index for consumption in an average Norwegian household. (Consumer price index)
CPI-ATE: CPI adjusted for tax changes and excluding energy products.

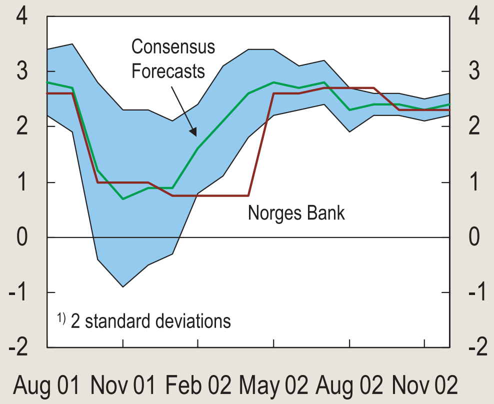
firm foothold. High oil prices could have a dampening impact on the international upturn and lead to higher inflation. Prices had increased at faster pace than projected in the euro area. On the whole, the rise in prices among our trading partners gradually appeared to be somewhat higher than estimated in the February *Inflation Report*.

The labour market was tight in Norway. Developments in wage settlements made it clear that annual wage growth would be markedly higher than Norges Bank had projected in February. The first settlement for manufacturing industry resulted in estimated annual wage growth of 5 per cent. A particular feature of the settlements in 2002 was a tendency for each subsequent settlement to be higher. The settlement for central government employees was higher than for manufacturing industry, while the settlement for the local government sector resulted in wage growth of around 6 per cent. Many smaller groups in the private sector were awarded pay increases that were even higher than the above.

Interest rates were left unchanged at Norges Bank's Executive Board meeting on 22 May. It had then become clear that high wage growth would lead to stronger growth in household disposable income and higher private consumption than previously projected, in particular from the autumn. Statistics showed that consumption growth was high. Household borrowing was also high and house prices continued to rise. While interest rates in the US and Europe were low, Norway's economy remained buoyant with a high level of activity. The cyclical divergence fed through to the krone exchange rate. In the latter half of May, the effective krone exchange was 4½ per cent stronger than the assumption underlying the projections in the February *Inflation Report*. In isolation, this exerted downward pressure on 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. It also appeared that the rise in the value of the krone would not over time be able to offset the effects on price inflation of higher wage growth, rising consumption growth, higher oil prices and improved growth prospects for the global economy. After the meeting on 22 May, Norges Bank stated that, with a constant interest rate, the probability that inflation would be higher than 2½ per cent was greater than the probability that it would be lower.

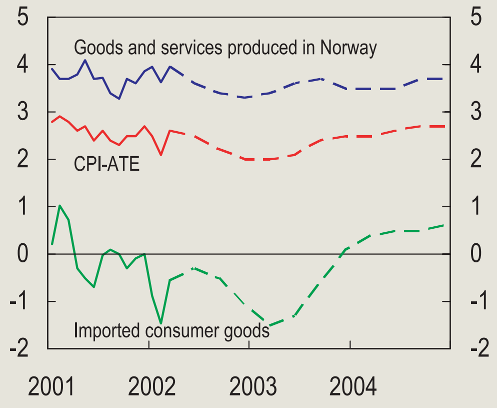
In *Inflation Report* 2/02, which was published on 3 July, the forecast for growth in the US in 2002 was revised upwards (see Chart 4). For our trading partners combined, the growth forecst was raised marginally. The projections for growth in the Norwegian economy were revised up slightly for 2002 and 2004, primarily reflecting prospects for stronger growth in private consumption as a result of higher wage growth estimates. Domestic demand was expected to expand by close to 3 per cent on average in the period 2002-2004. In the Revised National Budget for 2002, the Government revised up substantially its estimate for tax receipts in 2002. Central government spending was increased. The Revised National Budget for 2002 implied an increase in real underlying expenditure growth from 1¼ per cent

Chart 4 Projected US GDP 2002. Percentage change on previous year. Spread in CF forecasts shaded[1)]



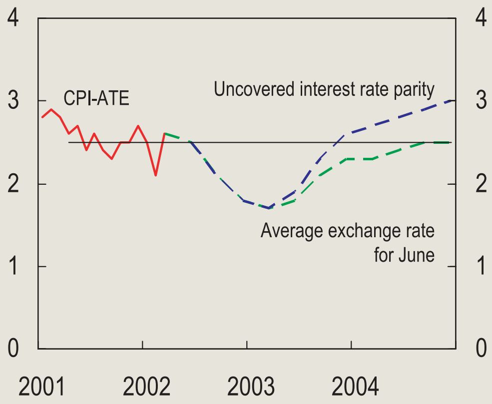
Sources: Consensus Economics and Norges Bank

Chart 5 Inflation projections in IR 2/2002. 12-month rise. Per cent



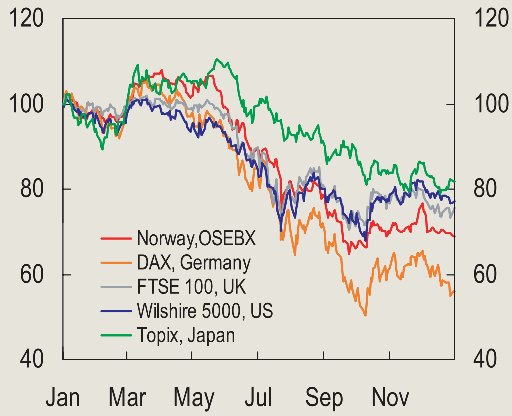
Source: Norges Bank

Chart 6 Projected rise in the CPI-ATE in IR 2/2002 assuming that the interest rate follows market expectations, and different assumptions regarding the krone exchange rate. 12-month rise. Per cent



Sources: Statistics Norway and Norges Bank

Chart 7 Developments on international stock exchanges. Daily figures. Indexed, 01.01.02 = 100



Source: EcoWin

to 2½ per cent compared with the budget that was taken into account when preparing the previous *Inflation Report*.

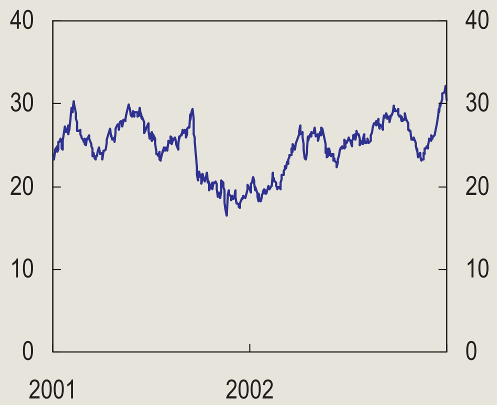
Wage growth in 2002 was projected at 5¾ per cent, or ¾ percentage point higher than in the previous *Inflation Report*. In spite of some increase in unemployment, it appeared that pay increases for 2002 would range between 5 and 6 per cent, as in previous years. Wage growth was again higher than projected. There were few clear indications that the social partners had adopted the inflation target as an anchor for wage growth and price inflation. Moreover, the settlement entailed substantial pay increases for 2003 as well, with to some extent considerable differences between various groups of wage earners. This weakened the prospect of a rapid decline in wage growth. Against this background, wage projections were also revised upwards by ½ percentage point for 2003 and 2004 to 5¾ per cent for both years. In isolation, excluding any effects on the krone, such a shift in wage growth will after a period push up consumer price inflation by an estimated ½ percentage point.

The projections in the *Inflation Report* were based on the technical assumption that the import-weighted krone exchange rate would remain constant at a level equal to the average for the preceding three months. Compared with the assumption underlying the previous Report, this implied a 5 per cent appreciation of the krone. Excluding the possible dampening impact of a stronger krone on wage growth, this would in isolation push down CPI inflation by a little less than ¼ percentage point in 2002, close to ½ percentage point in 2003 and ¼ percentage point in 2004. In the assessment of the inflation outlook, the appreciation of the krone would not fully offset higher wage growth and stronger growth in domestic demand. At the one year horizon, the krone exchange rate would dominate and push down inflation to below 2½ per cent, but in the longer term it was assumed that the effects of a stronger krone would diminish, and the effect of strong wage growth would dominate. Overall, this implied a downward adjustment of the inflation projections for 2002 and 2003, and an upward adjustment for 2004. CPI-ATE inflation was expected to remain below target in the period to late autumn 2003 and thereafter hover slightly above target in 2004.

The projections in the July *Inflation Report* were based on the technical assumption of an unchanged sight deposit rate of 6.5 per cent. In addition, the Report included an analysis of the impact on inflation of a rise in the interest rates in pace with market expectations. In June, the market had priced in an increase of about ½ percentage point in three-month rates by the end of 2002. Norges Bank's calculations showed that a half percentage point increase in interest rates would reduce mainland GDP growth by about ¼ percentage point in 2003 and 2004 compared with the baseline scenario. Demand for labour would fall. This might push down wage growth, and thereby inflation, to some extent.

Price developments also depend on exchange rate developments. In the scenario with higher interest rates, two alternative paths were applied for the krone. In one alternative the krone remained at the average

Chart 8 Oil price, Brent Blend. USD per barrel. Daily figures. 2001-2002



Source: Norges Bank

Table 1: Developments in some key variables through 2002

	Q1	Q2	Q3	Q4	Year 2002
Growth in mainland GDP. (quarterly change in volume)	0.6	-0.2	0.8		
Inflation (average 12-month rise)					
CPI	1.0	0.4	1.5	2.2	1.3
CPI-ATE	2.4	2.6	2.4	2.0	2.3
Registered unemployment as a percentage of the labour force (seasonally adjusted)	2.9	3.1	3.3	3.5	3.2
3-month rate	6.5	6.9	7.2	7.0	6.9
10-year rate	6.4	6.7	6.3	6.1	6.4

Source: Statistisk sentralbyrå og Norges Bank.

from June. This implied that the krone would be a good 2 per cent stronger than assumed in the baseline scenario. This meant that the rise in prices for imported goods would be somewhat stronger than projected. The combination of higher interest rates and a stronger krone would results in inflation of about 2½ per cent at the end of 2004. In the other scenario, the krone would weaken in line with the theory of uncovered interest parity. The effects of a stronger krone on inflation two years ahead would then be more than offset by the depreciation of the krone ahead. Despite higher interest rates and lower wage growth than assumed in the baseline scenario, such changes in the krone exchange rate could, under this scenario, push up price inflation to 3 per cent from mid-2004.

On 3 July, Norges Bank's Executive Board decided to increase the sight deposit rate by 0.5 percentage point with effect from 4 July. This was in line with market expectations and the scenario with higher interest rates in the *Inflation Report*. The sight deposit rate was then 7.0 per cent. On the basis of an assessment of the balance of risks, Norges Bank judged that the probability that inflation would be higher than 2½ per cent was greater than the probability that it would be lower.

In July, international currency, financial and stock markets were marked by turbulence and volatility. Equity prices fell sharply. The unrest on stock markets stemmed from the situation in the US where there was uncertainty as to the actual profit and financial situation of US companies. There was growing uncertainty as to the outlook for the world economy. The upturn in the global economy then appeared to be weaker and was expected to occur at a later stage than assumed in the July *Inflation Report*.

However, domestic demand growth in Norway was still brisk. Oil prices were high. Sustained high wage growth kept the rise in prices for domestically produced goods and services at a high level and held up the strong growth in household demand. Labour market developments were in line with the projections in the July Report.

Interest rates were left unchanged at Norges Bank's Executive Board meeting on 7 August. With an unchanged interest rate, Norges Bank still judged that the probability that inflation two years ahead would be higher than 2½ per cent was greater than the probability that it would lower.

In mid-September, the krone was about 3 per cent stronger than the exchange rate assumption underlying the baseline scenario in the July Report. The strong krone, in conjunction with the prospect of low external inflation, was the main factor countering the sharp rise in domestic costs. At the same time, there were signs that the upturn in the global economy might be weaker and occur at a later stage than expected. Export markets stagnated, but high oil prices were providing stimulus to some sectors of the Norwegian economy. On 18 September, Norges Bank's Executive Board decided to leave the sight deposit rate unchanged at 7 per cent. With and unchanged interest rate, Norges Bank now judged, however, that the probability that inflation two years ahead would be higher than 2½ per cent was the same as the probability that it would be lower.

On 30 October, Norges Bank published *Inflation Report* 3/02 with new projections for economic developments in the years ahead. In both the US and Europe economic growth had stagnated following strong growth at the beginning of the year. There were still prospects of a pick-up in global growth, but at a weaker pace than assumed in the previous Report. The growth projections for the Norwegian economy were revised down somewhat in relation to the previous Report, primarily as a result of the interest rate increase in July, weaker global

Regional network

In autumn 2001 Norges Bank established a regional network of enterprises, organisations and local authorities throughout Norway. Representatives of Norges Bank will have six rounds of talks each year with business and community leaders concerning financial developments in their enterprises and industries, with about 200 visits in each round. The selection of contacts reflects the production side of the economy, both industry-wise and geographically. In the course of 2003, the number of contacts associated with the network will rise to about 1000 persons, who will be contacted once or twice a year.

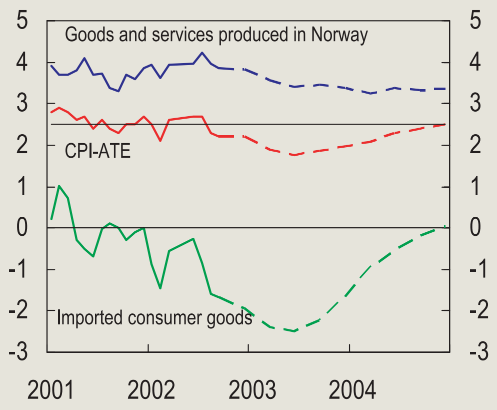
Regular communication with local contacts in Norway's business and community life will provide the Bank with information earlier and more frequently than available government statistics. It will also provide supplementary information on areas not covered by other statistical sources, and inform Norges Bank of issues that are of particular concern to enterprises. In addition, the regional network will provide insight into the effects of specific events and enable us to study relevant issues. The information gathered by the bank through this network will be less systematic than the regular government statistics, but will provide structured anecdotal information.

The information obtained from the regional network, along with other available information on economic developments, will form a basis for Norges Bank's projections as presented in the *Inflation Report* and elsewhere.

Six regional research institutes are responsible for the network in 6 regions. They hold contact meetings on behalf of Norges Bank. Region East (Buskerud, Akershus, Oslo and Østfold) is covered by Norges Bank. The following institutes have been selected:

Region North (Nordland, Troms, Finnmark)	Kunnskapsparken Bodø
Region Central Norway (Nord- and Sør-Trøndelag)	Allforsk i Trondheim
Region North-West (Møre- og Romsdal, Sogn og Fjordane)	Møreforskning Molde
Region South-West (Rogaland and Hordaland)	Rogalandsforskning
Region South (Aust- and Vest-Agder, Telemark, Vestfold)	Agderforskning
Region Inland (Hedmark and Oppland)	Østlandsforskning

Chart 9 Inflation projections in IR 3/2002. 12-month rise. Per cent



Source: Norges Bank

growth and a stronger krone. Mainland GDP was projected to expand by a little less than its growth potential. This implied a downward adjustment of ½ percentage point for 2003 and ¼ percentage point for 2004. Unemployment was projected to edge up. For the first time, information from Norges Bank's regional network (see box) was used in the work on the *Inflation Report*.

The inflation projections for the next two years were revised down in relation to the previous Report. The projections were based on the assumptions of an unchanged sight deposit rate of 7 per cent and an unchanged krone exchange rate equal to the average for the period August to mid-October. On the cut-off date for the Report, the krone was on a par with this average. In relation to the previous Report, the assumptions implied a 4 per cent appreciation of the import-weighted krone exchange rate and a 0.5 percentage point increase in the sight deposit rate. The inflation outlook was still marked by two opposing forces. On the one hand, high wage and cost inflation would sustain the rise in prices for domestically produced goods and services. On the

New information 30 October – 11 December 2002

Most of the new information that came to light in November and early December 2002 contributed to confirming or amplifying the prospect of weaker developments both globally and in Norway.

- The krone continued to appreciate. At the beginning of December, the krone was nearly 2 per cent stronger than assumed in the baseline scenario in *Inflation Report* 3/02.
- Key rates were reduced further in many countries. The Federal Reserve lowered its key rate by 0.5 percentage point to 1.25 per cent on 6 November. At the beginning of December, the ECB decided to reduce its key rate by 0.5 percentage point to 2.75 per cent. Key rates were also reduced in Sweden and Denmark. The interest rate cuts and the historically low interest rates in many countries reflected weak prospects for the global economy. At the same time, the interest rate cuts pointed to a further strengthening of the krone exchange rate.
- UN Security Council Resolution 1441 was adopted on 8 November. Capital markets were marked by uncertainty. Prices for gold and oil rose.
- On 22 November, a compromise was reached in the Storting on the government budget for 2003. The estimate for the structural non-oil deficit was the same as the Government's original budget proposal. The budget compromise was in accordance with the fiscal rule.
- Norsk Gallup's consumer confidence indicator for the fourth quarter showed that households were less optimistic. The indicator reached its lowest level since the first quarter of 1999. All sub-indicators fell, but the decline from the previous quarter was particularly pronounced with regard to confidence in the domestic economic situation and the assessment of whether it was a good time to purchase major household articles.
- Electricity prices rose sharply. In isolation, the increase contributed to a substantial reduction in household real disposable income.
- The rise in house prices levelled off. According to the industry's housing statistics, house prices fell on a seasonally adjusted basis from October to November. The year-on-year rise in house prices dropped from 7 per cent in October to 4.8 per cent in November. Unadjusted figures from OBOS (Oslo Housing and Savings Society) showed a 3 per cent fall in prices for dwellings from October to November. In November, the price level for OBOS dwellings was only 2.1 per cent higher than in November 2001.
- At end-October, registered unemployment was slightly higher than expected in *Inflation Report* 3/02. Seasonally adjusted unemployment rose to 3.5 per cent of the labour force. The number of long-term unemployed rose further. The number of advertised positions in the media continued to decline.
- Statistics Norway's business tendency survey for the third quarter showed that manufacturing leaders' expectations regarding future developments were negative. Companies reported a decline in output, employment and new orders for both export and domestic markets. There were expectations of falling output and capacity utilisation. Manufacturing leaders had scaled back their plans for employment and investment. Norges Bank's industrial confidence indicator fell sharply on the previous quarter to its lowest level since 1991.
- Information from the regional network indicated that many enterprises were seeking to reduce costs following the costly wage settlement. The strong krone was expected to reduce profitability in the export industry. It was also reported that demand and profitability were falling in many industries, even though the picture was more positive for retail trade and some private services.

On the other hand, growth in credit to households remained high through the autumn, even though growth was moving on a downward trend. In addition, private consumption was expected to expand sharply as a result of high growth in household income. This was confirmed by statistics on household consumption of goods. It was likely, however, that consumption growth would gradually be influenced by the steep rise in electricity prices later in the winter.

other hand, the appreciation of the krone would temporarily exert downward pressure on prices for imported goods. If the krone remained at the level prevailing over the preceding months, the effect of the appreciation on inflation was assumed to be strongest towards mid-2003 and diminish thereafter. The fall in inflation was expected to be greater and occur somewhat later than in the previous Report. Inflation was projected to move down to 1¾ per cent in the summer of 2003. In 2004, inflation was projected at 2¼ per cent on average, but inflation was expected to move up through the year and reach 2½ per cent at the end of 2004.

Interest rates were left unchanged at Norges Bank's Executive Board meeting on 30 October. According to Norges Bank's assessment, with an unchanged interest rate, the probability that inflation two years ahead would be higher than 2½ per cent was the same as the probability that it would be lower.

Through the autumn, there was growing evidence that the outlook for the Norwegian and world economy had weakened further (see box). There was uncertainty as to the when global investment would recover, and at the same time there were growing concerns about a war in Iraq. The German economy was stagnating. In November and the first half of December, key rates were lowered in the US, the euro area, Denmark and Sweden. Oil prices were still high, but lower than assumed in the *Inflation Report*.

In Norway, there were also signs of somewhat weaker developments than previously anticipated. Manufacturing industry and the household sector were more pessimistic than earlier. A sharp increase in electricity prices was expected to curb growth in household real income. But households continued to borrow heavily, and the debt burden continued to rise. Although growth in credit to households had edged down, there was still double-digit growth. The rise in house prices appeared to be moderating somewhat. Rents for commercial property were declining. Developments in the property market and lower optimism among households could reduce credit growth in the period ahead.

Norges Bank's regional network reported that many enterprises were seeking to reduce costs following the costly wage settlement. The strong krone would reduce profitability in the export industry. Wage developments were also creating problems for sheltered industries. It was reported that demand and profitability were falling in many industries, even though the picture was more positive for retail trade and some private services.

Statistics indicated weaker labour market developments. Unemployment rose in all counties and for most occupational groups, particularly in some service industries. However, there were no clear signs of a significant increase in unemployment in typical manufacturing counties. The full effects of weak competitiveness on employment in industries and regions that are heavily exposed to international competition had not come into evidence, while unemployment in service industries continued to rise at a faster pace than expected.

In the baseline scenario in the October *Inflation Report*, the krone was assumed to remain unchanged at the average for the preceding three months. Inflation was projected at 2½ per cent at the end of 2004. In the same report, analyses based on alternative exchange rate assumptions showed that with a 3 per cent appreciation of the krone, inflation two years ahead would fall to 2¼ per cent. From November to mid-December, the krone was on average 1½-2 per cent stronger than the exchange rate assumption in the baseline scenario.

Overall, the data through the autumn indicated that growth in output and employment might be considerable weaker than projected. There were also signs that the outlook might deteriorate relatively rapidly.

On 11 December, Norges Bank's Executive Board decided to lower the sight deposit rate by 0.5 percentage point with effect from 12 December. This brought the sight deposit rate down to 6.5 per cent. With an interest rate of 6.5 per cent, Norges Bank judged that the probability that inflation two years would be lower than 2½ per cent was greater than the probability that it would higher.

Evaluation of monetary policy

With Norges Bank's monetary policy regime, monetary policy can be evaluated in several ways. In the following, monetary policy is evaluated using the following criteria:

- Was consumer price inflation close to the target of 2½ per cent in 2002?
- To what extent did the interest rate in 2002 improve the prospect of bringing inflation close to target two years ahead?
- Has the conduct of monetary policy contributed to stability in output and employment?
- Did the conduct of monetary policy in 2002 contribute to confirming economic agents' expectations that future inflation will be 2½ per cent?
- Was monetary policy in 2002 predictable for financial market participants?

Consumer price inflation in 2002 and the factors behind any deviations from the target

Interest rates influence consumer price inflation. The sight deposit rate is set on the basis of the inflation projections two years ahead. The accuracy of the projections is thus important for achieving the target. The effects of interest rates changes will vary over time, partly as a result of developments in international capital markets. This represents a considerable element of uncertainty. In order to limit this uncertainty, Norges Bank will normally take a gradual approach to the conduct of monetary policy.

Inflation that can be observed at a given point in time is a result of economic developments in the preceding years. However, the interest rate is set with the aim of bringing inflation close to target two years ahead. Norges Bank's inflation projections at a given time in the future may be changed in response to new data. The projections are associated with uncertainty due to a number of factors.

The inflation projections are based on assumptions about a number of economic variables such as government budgets, oil prices and developments in the global economy. The assumptions are based on our best judgement of developments in these variables. In retrospect, actual developments in these variables may prove to be different from our assumptions.

The inflation projections are conditional on the technical assumption concerning the krone exchange rate. Empirical research indicates that the best short-term forecast for the exchange rate is today's exchange rate. Norges Bank has normally applied the average for the preceding three months as the assumption underlying monetary policy decisions. However, following pronounced and rapid movements in the krone, the average for the preceding month has also been applied.

There is uncertainty associated with the functioning of the economy. Economic relationships may change over time. Normally, this occurs gradually, but in some cases changes may occur quickly.

Moreover, there is considerable uncertainty associated with the actual state of the economy at the time the projections are published. This is because it takes time for statistics to be published and many types of data are subject to substantial revision. An erroneous basis for analyses of future developments may lead to forecast errors.

The uncertainty means that it is difficult to be exactly on target at all times. The deviation between actual and projected underlying inflation will normally be within the interval +/-1 percentage point. Norges Bank will place particular emphasis on explaining the reasons behind any deviations outside the interval of +/- 1 percentage point.

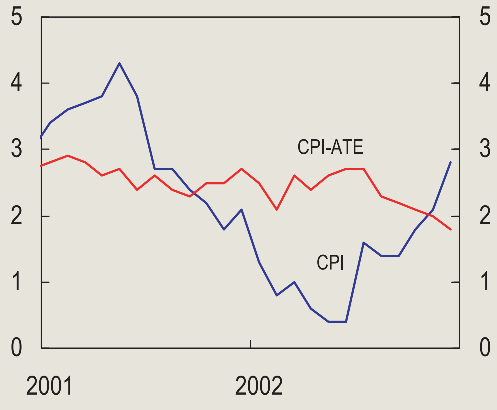
Prior to the introduction of the new monetary policy mandate on 29 March 2001, monetary policy was oriented towards a stable krone exchange rate against European currencies. The concept "European currencies" was defined as the euro as from 1 January 1999. An important precondition for stability in the krone exchange rate against the euro was that price and cost inflation was at the level aimed at by euro area countries. Up to March 2001, monetary policy was therefore aimed at bringing down price and cost inflation towards the level aimed at by the euro area. The European Central Bank (ECB) defines its price stability objective as an annual rise in the Harmonised Index of Consumer Prices (HICP) of less than 2 per cent.

Chart 10 shows that inflation was near target in 2002. The rate of increase in consumer prices adjusted for changes in tax changes and excluding energy products, CPI-ATE, exhibited a gentle downward trend through 2002. CPI-ATE inflation averaged 2.3 per cent 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.

Through 2002, CPI-ATE inflation remained within the interval +/- 1 percentage point around the monetary policy objective, both before and after 29 March 2001. The year-on-year rise in the CPI-ATE slowed from 2.7 per cent at its highest level in June and July to 1.8 per cent in December.

CPI inflation averaged 1.3 per cent between 2001 and 2002. CPI inflation fell markedly in the first six months of the year. The year-on-year rise in the CPI fell from 2.1 per cent in December 2001 to 0.4 per cent in June 2002. Thereafter, CPI inflation picked up and was 2.8 per cent in December. In addition to the factors

Chart 10 Consumer prices. Total and adjusted for tax changes and excluding energy products. 12-month rise. Per cent



Source: Norges Bank

that influenced the CPI-ATE, developments in the CPI in 2002 were heavily influenced by reductions in excise duties and fluctuating energy prices. VAT on food was halved as from July 2001. This pushed down CPI inflation in the first half of 2002. In addition, taxes on electricity and alcoholic beverages were reduced from 1 January and air passenger taxes eliminated from April 2002. Petrol prices pushed down the year-on-year rise in the CPI in 2002. Towards the end of the year, the rise in the CPI was heavily influenced by the sharp rise in electricity prices. Low levels of rainfall over the summer and into autumn led to lower electricity production and exerted upward pressure on electricity prices in the autumn. In the latter half of the year, electricity prices rose by a total of 47.1 per cent compared with the same period one year earlier.

Actual developments proved to be different from developments anticipated in 2000, which formed the basis for the inflation projection for 2002. First, wage formation differed from what we expected. This implied that wage growth in 2001, and particularly in 2002, was underestimated. In the same period, unemployment was higher than projected, partly because of the high rise in labour costs in the private and public sectors. Moreover, weaker international developments had an impact. In isolation, high domestic wage growth implied that inflation might be higher than the projections on which monetary policy decisions were based in 2000.

Second, the krone exchange rate deviated from the path underlying the projections from 2000. The krone had appreciated steadily since the summer of 2000. At end-2001, the krone exchange rate was about 5 per cent stronger than assumed in *Inflation Report* 3/00 and in *Inflation Report* 4/00. For 2002, the appreciation had a considerable dampening impact on inflation. This countered the effect of higher wage growth on price inflation.

In 2001 and 2002, developments in the global economy proved to be markedly weaker than assumed in 2000. Both Norges Bank and other economic forecasters underestimated the global downturn, which primarily reflected the sharp contraction in the US.

Developments in the krone exchange rate reflected the cyclical divergence between Norway and many other countries. Interest rates were reduced abroad. In 2001, the Norwegian economy continued to be characterised by low unemployment, labour shortages in many sectors and high growth in labour costs. Against this background, Norwegian interest rates remained higher than the level prevailing abroad. The wide interest rate differential against other countries appears to have been an important explanatory factor behind the appreciation of the krone. The decline in equity prices probably amplified the effect of the interest rate differential on the exchange rate.

In retrospect, one may raise the question of whether monetary policy should have been tighter in 2000 and 2001 in order to curb the sharp rise in domestic costs. 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. 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 information through 2000 and 2001, we have not found any support that monetary policy should have been based on expectations of even higher wage growth than projected.

Did monetary policy in 2002 improve the prospect of bringing inflation close to target two years ahead?

Changes in the key rate in 2002 are partly the result of the fact that the horizon for monetary policy is set at two years. At the beginning of 2002, the interest rate level was set at a level that was appropriate in relation to the inflation projection for the beginning of 2004. In late 2002, the sight deposit rate was set in relation to the inflation projection for end-2004. In addition, new data that became available over the year had consequences for Norges Bank's view of future inflation developments. In the above section on monetary policy in 2002, a more detailed explanation is provided for the most important changes in the information basis and the attendant consequences for the conduct of monetary policy.

The inflation projections, based on our information set and analyses, warranted an increase in the key rate in July. The outlook for the US economy had improved. The outcome of the spring 2002 wage settlement entailed an upward adjustment of our wage growth projections and hence the inflation projection. Strong growth household disposable income, high growth in credit to households and a continued sharp rise in house prices also implied a relatively tight monetary stance. The appreciation of the krone could not fully counter the sharp rise in wages and higher growth in domestic demand. Within the one-year horizon, the exchange rate was expected to dominate and push inflation to below 2½ per cent. However, over a longer horizon, the effects of the krone were expected to unwind, and the effects of high wage growth to dominate.

Through the summer and autumn, it had become clear that the global economic recovery would take place at a later stage than assumed earlier. When the interest rate was left unchanged in October, the assessment was influenced by uncertainty surrounding labour market tightness and cost developments. Earlier in the year, the wage settlement resulted in surprisingly high pay increases. There were no signs of lower wage growth later in the autumn. There was also substantial uncertainty associated with future movements in the krone exchange rate, the effects of the appreciation of the krone on inflation and production, and developments in the global economy. The uncertain environment warranted a cautious approach in interest rate setting. A pronounced change in the krone exchange rate might have implied that the interest rate should be reduced. If international developments proved to be weaker than assumed, and interest rates abroad were reduced, the interest rate differential against trading partners would widen further. This could have resulted in a further appreciation of the krone at about the same pace witnessed during the autumn. Market expectations pointed to higher interest rates in the US and in the euro area towards the end of 2002, but the expected increases in interest rates were considerably lower than in July (see Charts 11 and 12).

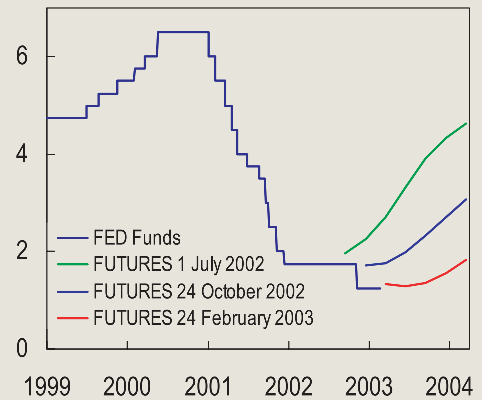
In November and in early December, official rates were reduced in both the US and the euro area. In the US, a lower interest rate had not been recorded since the 1960s. The outlook for global developments had weakened. The krone had continued to appreciate at about the same pace as witnessed during the autumn. At the same time, the outlook for the Norwegian economy had deteriorated. An analysis of different paths for the krone exchange rate in *Inflation Report* 3/02 indicated that a continued strengthening of the krone would bring inflation below the target of 2½ per cent at the end of 2004. This was the background for the decision to reduce the sight deposit rate to 6.5 per cent on 11 December.

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

In the period from 2000 to 2001, capacity utilisation in Norway was high. A tight labour market resulted in high wage growth. Wage growth was substantially higher than the level consistent with stable developments in the exchange rate, output and employment. In such situations, the objective of low and stable inflation is compatible with the aim of stabilising output and employment. Both considerations implied a fairly tight monetary policy. Monetary policy was relatively tight throughout this period. The real interest rate was somewhat higher than its historical average, while the krone appreciated substantially. The output gap as measured by Norges Bank (see box) narrowed, but was nevertheless positive in 2000 and 2001. Unemployment was approximately unchanged from January 2000 to December 2001.[2] Growth in the Norwegian economy was stable.

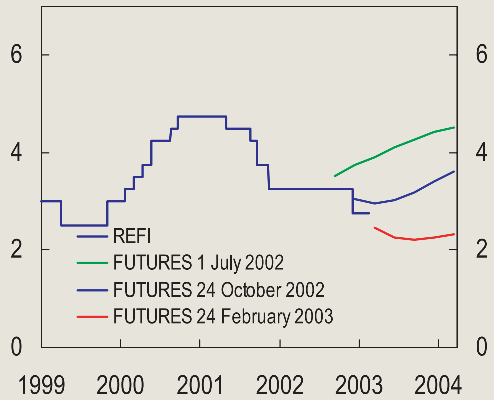
High capacity utilisation, accelerating wage growth, strong growth in credit to households and a sharp rise in house prices indicated that a tight monetary stance was necessary in order to stabilise developments in the Norwegian economy. In the absence of a tight monetary policy, there would have been a risk of unstable developments in output and employment. This may also have

Chart 11 Interest rate expectations in the US



Source: Bloomberg

Chart 12 Interest rate expectations in the euro area



Source: Bloomberg

2 Registered unemployment (3.0 per cent in January 2000, 2.8 per cent in December 2001).

The output gap

The output gap is defined as the difference between the actual level of output in the economy and the output level that is consistent with stable inflation over time. This level is often referred to as trend output or, somewhat misleadingly, as potential output.

During the business cycle, actual output will be both above and below trend output. An increase in demand can translate into higher output in the short term so that actual output rises more than trend output, resulting in a positive output gap. A positive output gap implies an activity level that generates pressure on economic resources and accelerating price and cost inflation. The output gap is zero if total output corresponds to the activity level that can be achieved over time without an increase in price and cost inflation.

In reality, trend output depends on a number of factors. Normally, it is assumed that trend growth in total output moves in line with demographic developments and productivity, but with short-term variations around this trend. Over time, there are changes in technology and the supply of resources, which in turn lead to changes in trend output. For example, an increase in sickness absence and an increase in vacation days will reduce the supply of labour and have a dampening impact on trend output.

It is important to exercise caution when interpreting the output gap. The estimates for growth potential are uncertain. A positive output gap may occur in parallel with falling inflation for a period if import prices fall. This may be the case if there are prospects of falling import prices as a result of a considerable appreciation of the exchange rate. The indicator then provides a starting point for summing up domestic inflationary pressures in the economy.

The output gap – as assessed by Norges Bank – declined from a relatively high level in 1998. This indicates that domestic inflationary pressures have subsided in recent years. The estimates indicate that the output gap was about 1% in 2002. As a result of the uncertainty, however, caution should be exercised in drawing conclusions on the basis of figures for a single year. In practice, it is important to look at the output gap together with cyclical indicators that are less influenced by revisions, such as wage growth, unemployment, credit growth, etc.

Inflation Report 1/03 contains a more detailed account of the output gap.

entailed a risk of persistently high pay increases. Towards the end of the year, weaker global developments, lower interest rates abroad and a continued appreciation of the krone implied that the interest rate should be reduced. Without a relaxation of monetary policy, inflation was likely to fall below target two years ahead, and there would be a risk of an unnecessary abrupt shift in the economy.

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.

If monetary policy had attempted to reach the inflation target in the very short term, the interest rate could have been reduced in the summer of 2002. However, this would have contributed to unstable developments in output and employment. Households and enterprises could then have continued to increase their borrowing. Confidence in financial markets might have been reduced, with a depreciation of the krone as a result. When the effects of high wage growth gradually fed through to prices and led to higher inflation, it would have been necessary to increase the interest rate, perhaps to an even higher level than would otherwise have been the case. The end result of such a policy would have been wider fluctuations in aggregate demand, output and employment.

If unemployment rises when price and cost inflation is low or moderate, it 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.

Has monetary policy in 2002 underpinned market confidence that inflation will be 2½ per cent?

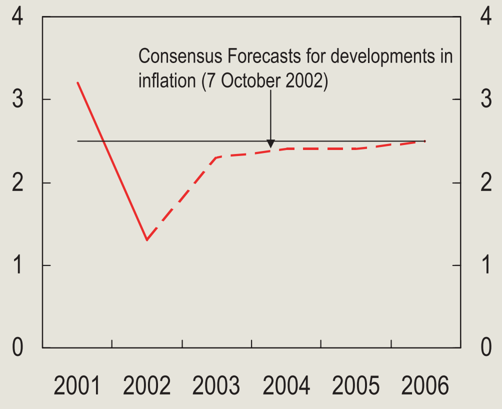
The most important criterion for assessing monetary policy retrospectively is whether inflation have moved in line with the inflation target of 2½ per cent and whether the target was achieved without unnecessary real economic costs. A precondition for monetary policy to function as intended is that there is confidence that inflation will be close to the inflation target of 2½ per cent over time.

Market participants' expectations concerning future inflation in Norway provide an indication of whether such confidence exists. Chart 13 shows an average of various institutions' forecasts for inflation in Norway according to a survey conducted by the US company Consensus Economics Inc. These forecasts are published monthly with a time horizon of up to two years ahead. Twice a year, in April and October, inflation forecasts with a longer horizon are published. With a proviso regarding the accuracy of such measures, the projections indicate that inflation is expected to move up in the years ahead. The forecasts published in October 2002 showed that inflation in the long term is expected to equal to the inflation target of 2½ per cent.

Movements in long-term interest rates may also provide information about market participants' inflation expectations. Implied forward rates, which may reflect market expectations concerning future short-term rates, can be derived from observed interest rates with various maturities. These implied forward rates can be used to derive a measure of inflation expectations in Norway relative to other countries. The long-term forward rate differential between Norway and Germany should reflect the expected inflation differential between Norway and Germany. If Norwegian long-term forward rates are substantially higher than corresponding German rates, this may indicate that market participants expect a wider inflation differential over time than the level implied by the objectives of monetary policy in Norway and the euro area. However, such comparisons must take account of some uncertainty associated with the method for calculating forward rates, and the results should be interpreted with caution.

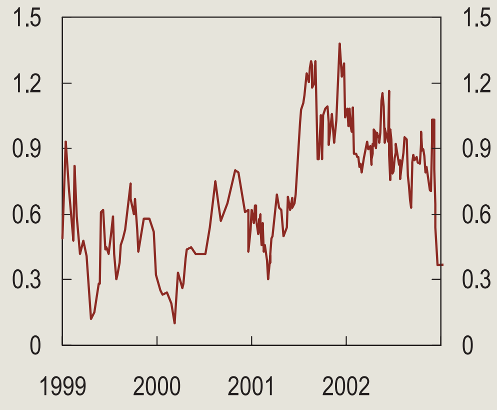
Chart 14 shows changes in the long-term forward rate differential between Norway and Germany. To some extent a positive differential reflects the small – by international standards - size of the Norwegian government bond market. The yield on Norwegian government bonds is normally somewhat higher than the yield on corresponding German bonds in order to compensate for lower liquidity. The long-term forward rate differential between Norway and Germany widened markedly in the spring and summer of 2001. This must be seen in connection with the introduction of the inflation target of 2½ per cent on 29 March 2001. The inflation target is somewhat higher than the ECB's definition of price stability. The new guidelines for monetary policy probably contributed to increasing

Chart 13 Consumer price inflation. Historical rise and market participants' projections for future consumer price inflation according to a survey by Consensus Forecasts. Per cent



Sources: Consensus Economics and Statistics Norway

Chart 14 Differential between Norwegian and German forward rates 10 years ahead

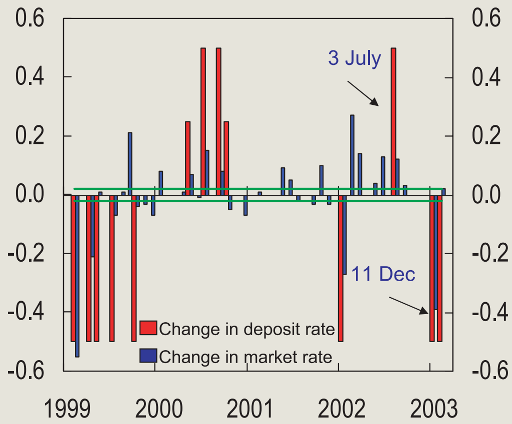


Source: Norges Bank

long-term inflation expectations in Norway. However, the long-term forward rate differential between Norway and Germany varied considerably, both prior to and following the introduction of the inflation target. These short-term fluctuations may to some extent reflect random factors, indicating that the level of the differential should not be evaluated on the basis of a single observation, but be considered over some time.

The long-term forward rate differential between Norway and Germany was about 1 percentage point after widening in 2001. In December 2002, the forward rate differential against Germany narrowed to about ½ percentage point. The interest rate differential indicates that there is confidence in Norway's monetary policy.

Chart 15 Changes in 3-month money market rates following monetary policy meetings



Source: Norges Bank

Was monetary policy in 2002 predictable for financial market participants?

It is desirable for interest rate decisions to be predictable. When monetary policy is predictable for financial market participants, it may contribute to a more effective policy. This occurs when market rates with longer maturities, which the central bank does not control directly, and other prices for financial variables are adapted to the economic outlook, thereby contributing to stabilising the economy. Predictability in interest rate setting may also indicate that market participants understand the conduct of monetary policy. A high degree of predictability may therefore reflect successful communication by the central bank.

One indicator of predictability is the change in market rates following the Executive Board's monetary policy meetings. A considerable change in market rates may indicate that the decision was surprising. Small or no effects indicate that the decision was expected. Chart 15 shows the changes in three-month money market rates from just before and until just after the Executive Board's monetary policy meetings since January 1999. The impact is measured as the change in the interest rate from the day before to the day after the interest rate decision was announced. At those meetings where it was decided to change the sight deposit rate, the change is shown in the same way. The green lines show the average absolute variation in the money market rate over all two-day periods since January 1999. If the impact on money market rates is within this interval, it is an indication that market participants were not surprised.

The effect on interest rates after the Executive Board's monetary policy meetings in 2002 was generally somewhat greater than in 2001. Short-term market rates tended to increase following the monetary policy meetings in the early months of 2002. This may indicate that market participants had priced in some probability of reductions in the sight deposit rate at these monetary policy meetings. However, the decision to increase the sight deposit rate by 0.5 percentage point on 3 July had little impact on market rates and it appears to have been expected. On the other hand, the decision to reduce the sight deposit rate by 0.5 percentage point on 11 December had a fairly strong impact on money market rates. The effect must probably be seen in connection with Norges Bank's neutral bias signalled at the previous meeting. The background for the decision on 11 December last year is discussed further in the section on monetary policy in 2002.

In 2002, Norges Bank commissioned two foreign researchers[3] to evaluate the *Inflation Report* as a decision-making basis and communication tool. Their report will be published in the spring of 2003.

Liquidity management

Norges Bank sets the interest rate on banks' overnight deposits with and loans from Norges Bank. Norges Bank's liquidity policy shall ensure that the Bank'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 so that the banking system has considerable sight deposits with Norges Bank at the end of each day. Thus, the sight deposit rate is the key rate in monetary policy.

Banks' structural liquidity is what their sight deposits with Norges Bank would have been without the central bank supplying or withdrawing liquidity by means of monetary policy instruments. This structural liquidity

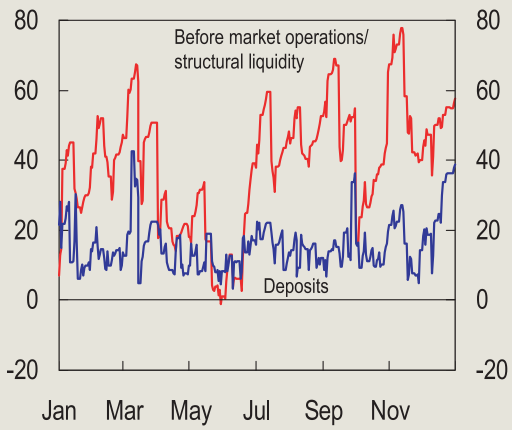
[3] Hans Genberg and Charles Wyplosz with the Graduate Institute of International Studies in Geneva.

is influenced by government incoming and outgoing payments, government loan transactions, Norges Bank's transactions in the foreign exchange and government securities market and changes in notes and coins in circulation. If Norges Bank did not offset these liquidity fluctuations by using its instruments, variations in the shortest money market rates would have been more pronounced. However, temporary changes may occur in the shortest money market rates if the redistribution of liquidity in the interbank market does not function satisfactorily, but this generally has a limited impact on other interest rates.

Structural liquidity fluctuates considerably in the course of a year as a result of the pattern of government payments. 2002 was marked by high structural surplus liquidity in the banking system (see Chart 16). In the National Budget for 2003, the estimated allocation to the Petroleum Fund was revised downwards substantially. The supply of liquidity through the year as a result of Norges Bank's foreign exchange purchases for the Petroleum Fund was therefore considerably greater than the withdrawal of liquidity over the government budget. The need to purchase foreign exchange in 2003 was reduced to the same extent. The maturity of a large government bond in October also contributed to increasing structural liquidity in 2002. Overall, banks were in a borrowing position for only a brief period in May-June.

Chart 1 shows that the shortest money market rates in 2002 were generally close to the sight deposit rate. The shortest money market rates were considerably higher than the sight deposit rate in mid-January and the end of December. In January, this was due to shifts

Chart 16 Banks' liquidity in 2002. Daily figures. In billions of NOK



Source: Norges Bank

in dates for large government payments (tax payments due, excise duties and pensions), which resulted in uncertainty concerning the liquidity situation. Towards the end of December, the shortest money market rates rose even though banks had sight deposits with Norges Bank of about NOK 35 billion. Banks often increase interest rates in order to reduce their exposure to the interbank market at the end of the year.

Research and work on economic models

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. The macroeconometric model RIMINI is used – along with other models – as a tool in drawing up forecasts concerning economic developments that are published in the *Inflation Report*.[4] In 2002, the Bank expanded its more theoretical monetary policy research.

Norges Bank's research work is documented as it is completed in the Bank's series of publications. In 2002, 12 papers were published in the series *Working Papers*, while 6 articles from international journals were published in the series *Reprints*. Over the past three years, members of Norges Bank's staff have on average published 8 articles annually in journals and books with a referee arrangement.

In 2002, altogether nine academicians from various institutes worked part-time at the Research Department in Norges Bank on temporary contracts. One of the purposes of this arrangement is to have academicians engage in research with the Bank's own employees. In 2002, the Executive Board allocated 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 professorship will be maintained for up to 14 years.

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,

[4] See the article "The role of assessments and judgement in the macroeconomic model RIMINI" by Kjetil Olsen and Fredrik Wulfsberg that was published in Economic Bulletin 2/2001 for a further description of how the RIMINI model is used in the work on forecasting.

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.

Production of statistics

In 2002, Norges Bank continued its production of statistics on money, credit and foreign exchange markets along much the same lines as in the previous year. Norges Bank publishes these statistics on the Bank's website. In 2002, the work on improving and automating the collection of data and improving Internet publication was continued.

Financial statistics

Norges Bank cooperates with the Banking, Insurance and Securities Commission, 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, official statistics, regular analyses of developments in credit and securities markets and the work on financial stability.

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

In 2002, the publication of statistics on banks' average interest rates for customer deposits and loans was expanded to include interest rates for each sector.

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.

Statistics Norway is drawing up a new system for the collection of data for the balance of payments. The current reporting of foreign payments to Norges Bank will be discontinued from 2005.

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 participating in efforts to find other solutions to satisfy the supervisory authorities' need for such information when the current reporting system is discontinued.

Financial sector balances

Norges Bank's database for quarterly reconciled financial sector balances (Findatr) 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 Findatr, shows for example developments in household assets and debt.

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.

Norway subscribed to the IMF's Special Data Dissemination Standard, SDDS, in 1996. The standard places extensive demands on the statistics production of participating countries with respect to coverage, methods, quality, periodicity, timeliness and availability. At the end of 2002, Norway satisfied these requirements.

In the autumn of 2002, the IMF evaluated to what extent Norway complies with international standards, recommendations and good practice in various statistical areas, including money supply statistics compiled by Norges Bank. The IMF's report will be available in 2003.

Chapter 2 Financial stability

Responsibility for the stability of the financial system

Norges Bank's mandate and responsibility for the stability of the financial system 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 took effect 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. Central banks have traditionally been responsible for contributing to the stability of the financial system. 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 summarises developments in the financial sphere, provides an important basis for Norges Bank's assessments.

Responsibility for financial stability is divided among Norges Bank, the Norwegian Banking, Insurance and Securities Commission and the Ministry of Finance, all of which will be involved in dealing with problems in the financial system. The division of responsibilities that has been established means that supervision of financial systems is generally carried out by the Ministry of Finance and Norges Bank, while supervision of institutions is primarily the responsibility of the Banking, Insurance and Securities Commission.

Norges Bank orients monetary policy towards an objective of price stability. 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 real property and equities. Financial sector stability is a necessary precondition for low and stable inflation in that it facilitates the conduct of monetary policy. On the other hand, global economic developments in recent years show that even with low and stable inflation, financial imbalances may arise which in the long-term may present monetary policy with considerable challenges. Norges Bank has therefore established fixed routines for evaluating whether and to what extent financial stability should be taken into account in the formulation of monetary policy. This also contributes to a continuous focus on factors that influence financial stability.

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 participants in financial markets.
- monitoring the financial services industry in order to reveal developments that may lead to deteriorating earnings and increased losses in the financial sector and the build-up of financial imbalances that may pose a threat to financial stability.
- 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

The monitoring of financial markets is summarised in the report *Financial Stability*, which is published twice a year. 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 in the economy. The main conclusions of the report are summarised in a submission to the Ministry of Finance. The report shall also contribute to a dialogue with the financial industry on developments that may create imbalances in the financial system, and provide the general public with information on this type of issue.

The report contains analyses of the relationship between the macroeconomic outlook and developments in the financial sector, as well as Norges Bank's assessment of the outlook for financial stability. The focus is on the different types of risk to which financial institutions are exposed, with particular emphasis on credit, liquidity, market and settlement risk. The report is based on analyses of macroeconomic trends, the financial situation of households and enterprises, conditions in credit and securities markets and settlement systems and the financial situation of banks.

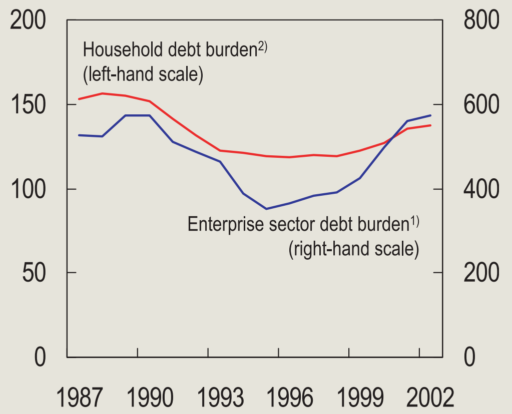
The macroeconomic projections presented in Norges Bank's *Inflation Report* form the basis for the analysis. The overall assessment of the financial stability outlook is based on this macroeconomic picture. In such a report, emphasis is naturally placed on factors that imply a special risk for financial stability a few years ahead.

Norges Bank places special emphasis on analysing banks' credit risk, i.e. the risk that borrowers do not fulfil future obligations. Credit risk constitutes a substantial part of banks' overall risk. It has a tendency to increase during periods of expansion, when banks and financial institutions extend loans to a relatively larger number of enterprises and projects whose underlying profitability and debt-servicing capacity may deteriorate sharply in the subsequent downturn. This makes it important to assess risk developments in the light of general economic developments.

The main indicators of developments in the credit risk associated with lending to households and enterprises are the debt-servicing burdens in these sectors (see Chart 17). Households account for a larger share of aggregate borrowing than enterprises. 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 real economic consequences for the enterprise sector. Similarly, enterprises' earnings and employment trends will have a direct impact on households. It is therefore important to consider the two sectors together when analysing credit risk.

Norges Bank uses accounts data on all Norwegian enterprises from the Brønnøysund Register Centre to analyse credit risk associated with loans to enterprises. These accounts figures form the basis for a credit risk model that predicts individual bankruptcy probabilities for enterprises. The bankruptcy probabilities in this model depend on enterprises' earnings, liquidity and financial strength. The model is supplemented by other assessments of credit risk based on aggregate figures and regular valuation of the enterprises' holdings in equity markets.

Chart 17 Debt burden of households and non-financial enterprises excl. petroleum and shipping. Per cent. 1987-2002 [1)]



1) Third quarter 2002
2) Debt as a percentage of disposable income
3) Debt as a percentage of cash surplus excl. interest expenses

Sources: Statistics Norway and Norges Bank

Norges Bank also monitors the liquidity risk of banks 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 financed largely by customer deposits, the issue of bonds and short-term financing in the money market. Liquidity risk analysis is of central importance, since liquidity problems can cause banks substantial losses, for example if assets have to be realised at low prices in illiquid markets.

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. The insurance sector, and to a lesser extent banks, are exposed in this respect. These risk problems concern long-term developments in capital markets rather than financial stability. The decline in value in equity markets in recent years has led to insurance companies selling equities, which has influenced the supply of risk capital.

Financial markets in various countries have become more integrated, and examples show that unrest can spread rapidly across countries. International economic developments have an impact on the Norwegian economy, either directly through exports and imports and changes in prices, for example for oil, or indirectly, via securities markets. In recent years, cross-border banking groups have also contributed to linking the financial markets of different countries. This enhances the ability of the financial system to channel risk towards those best placed to bear it, but may also be a channel for contagion from abroad. In many countries characterised by this type of development in their financial markets, branches and subsidiaries are often substantially smaller than the parent banks. In the Nordic countries, however, we now have constellations in which branches and subsidiaries are of a substantial size, in relation both to the parent bank and to the host country's financial markets, and the integration of financial markets has become correspondingly stronger. Analysing the international situation is an important aspect of monitoring financial stability in Norway.

The rules and regulations for financial institutions have been drawn up with a view to limiting contagion effects between the different types of activity within a financial group, from banking to insurance, and vice versa. Financial conglomerates increasingly dominate the Norwegian financial sector, however, and the five largest conglomerates currently have a total market share of about 63 per cent, measured by total assets, varying from around 70 per cent for banking, securities funds and life insurance to about 40 per cent for non-life insurance and 25 per cent for finance companies. The increased pressures, especially on insurance companies, as a result of the developments of recent years in securities markets have made it necessary to increase the focus on these conglomerates in Norges Bank's monitoring of the financial sector.

The *Financial Stability* reports are based on in-depth analyses of the functioning of financial markets and the adaptation of financial institutions. In 2002, banks' pricing of risk was studied, and their ability to withstand economic shocks was investigated with the aid of stress tests. Stress tests link analyses at sector and/or institutional level to the macroeconomic responses to shocks. In addition, credit risk is analysed continuously. 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 the reports.

The regular analyses of financial stability are underpinned by a long-term accumulation of knowledge through Norges Bank's research activities. Several projects analysing the behaviour of financial institutions have shed light on competitive and structural conditions in the Norwegian banking sector. For example, the effect of the transition to electronic payment instruments on economies of scale in Norwegian banks has been analysed. Models for analysing potential economies of scale through bank mergers are also being considered. The emphasis placed by banks on the credit risk to which they are exposed, when they determine the capital adequacy level they want over and above statutory minimum requirements, is also being studied. Analyses of house price developments have also commenced, and the interaction with credit markets is being studied in more detail.

Norges Bank has regular meetings with both the Banking, Insurance and Securities Commission and the Ministry of Finance to discuss issues relating to financial stability. Cooperation on several levels has been established with the Commission. 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 the Commission. Documentation of the cooperation on areas such as financial institutions, securities markets and payment systems was prepared in 2001. In 2002, an agreement on cooperation in connection with IT supervision of financial institutions was added. Cooperation on analysis of banks' credit risk in the enterprise sector is being developed. The accounts-based model developed in Norges Bank is used by the Banking, Insurance and Securities Commission in its monitoring of the loan portfolios of individual institutions, and the two institutions are considering Moody's KMV model, which seeks to extract similar information from equity prices. In principle, a model base of this kind provides more updated information than accounts data.

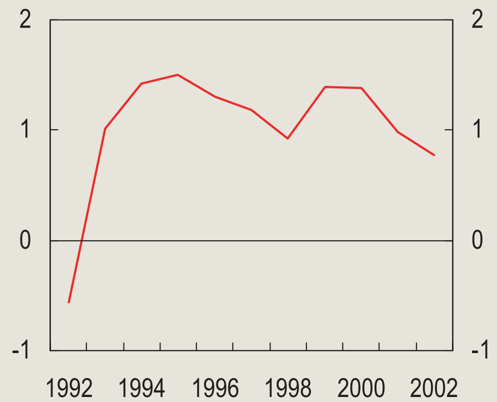
In 2002, Norges Bank collaborated with the Commission on a survey of the scale of unsecured counterparty exposure, for example in the form of unsecured loans, derivatives and securities, in some major banks. Counterparty exposure may give rise to liquidity problems if an expected incoming payment does not materialise. In some cases this may have consequences for the financial strength of banks, and these surveys form part of the efforts to reveal systemic risk. It is therefore intended that this type of survey will continue.

Financial stability in 2002

Satisfactory financial strength in banks

Banks' results deteriorated in 2002 (see Chart 18). This is mainly due to lower commission income and lower income from securities markets. Loan losses and the

Chart 18 Banks' ordinary pre-tax operating profit as a percentage of ATA[1)]



[1)] Average total assets. Parent bank

Source: Norges Bank

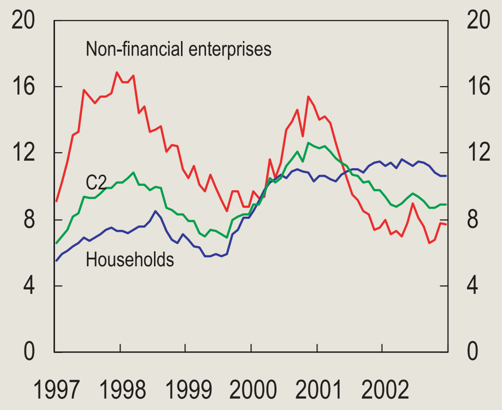
proportion of non-performing loans increased somewhat, and also contributed to weaker earnings. The weaker results have resulted in reduced return on equity in banks. Nevertheless, banks' core capital ratios have increased somewhat. Moody's rates the three largest Norwegian banks as financially sound and with a good or very good ability to service debt. The medium-sized banks are rated lower, but with satisfactory financial strength and solid debt-servicing capacity. Norges Bank's calculations indicate that banks' loan losses can increase appreciably before their financial strength reaches a critical level. On balance, the situation of banks is regarded as favourable, but loan losses are expected to increase in 2003.

Continued price fall in securities markets

The fall in prices in equity markets worldwide during the second half of 2002 must be viewed in the light of a deterioration in the global economic outlook and increased uncertainty concerning the information in the accounts of listed companies. There has been a substantial reduction in overall wealth. Equity prices fell by a good 30 per cent through 2002 in Europe, somewhat more than in the US, where the fall was about 25 per cent (see Chart 19). The Norwegian equity market fell roughly as much as the European market. It is uncertain how the fall in equity prices will influence cyclical developments. However, a fall in equity prices indicates that market operators expect more sluggish growth.

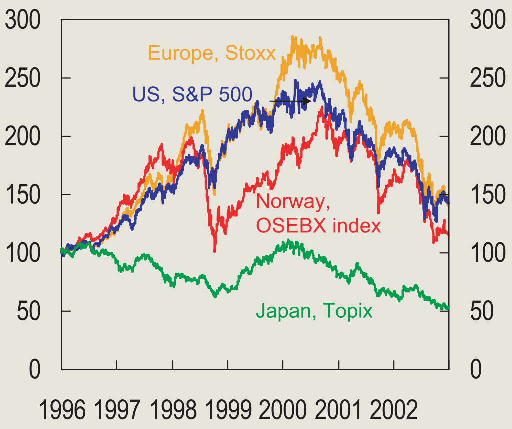
Norwegian banks are only directly affected to a minor degree by the fall in equity prices, and less than banks in most other countries. Banks' credit risk increases indirectly through loans to enterprises if the fall in equity prices reflects weaker corporate earnings. In the financial sector, it is primarily life insurance companies and pension funds that have had large shareholdings. These companies' unwinding of equity positions to reduce risk has probably pushed equity prices down further. The buffer capital of life insurance companies, i.e. capital over and above the minimum requirement, supplementary provisions and unrealised capital gains, has been substantially reduced, and companies are therefore less able to cope with future losses and to take on new risk. The risk of major spillover effects from the life insurance to the banking sections of financial conglomerates is regarded as limited.

Chart 20 Credit from domestic sources to households and enterprises. 12-month growth. Per cent



Source: Norges Bank

Chart 19 International equity indices.Indexed, 01.01.1996 = 100



Source: EcoWin

Continued high debt growth in the Norwegian economy

The fall in equity prices, weaker growth prospects and a high interest rate level have not contributed to dampening debt growth in the Norwegian economy. The rise in total mainland debt remained more or less unchanged through 2002 (see Chart 20). Year-on-year growth in total credit to the public (municipalities, non-financial enterprises and households) (C3) was around 8 per cent in 2002. Total credit growth was higher than GDP growth. Over time, growth in debt that is higher than growth in income increases the risk of financial instability.

Household debt continues to rise sharply. High income growth and considerable optimism about the future increased household willingness to take on debt and bid up house prices. In 2002, real house prices were 25 per cent higher than the previous peak level recorded in 1987. However, house prices are still somewhat lower than in 1987 when wage growth is taken into account. The rise in house prices slowed somewhat towards the end of 2002, and after a while growth in debt also showed signs of abating. Figures from the Banking, Insurance and Securities Commission show that the average loan-to-asset value ratio in connection with house purchases rose in 2002. The share of new loans that are larger than the collateral value of the dwelling is still rising. This suggests that households are increasingly using high property values as collateral when borrowing for purposes other than house purchases.

Although the overall household debt burden is lower than at the end of the 1980s, the debt burden for low and medium income households is higher than ever before. Many households have raised loans that are large in relation to their disposable income. The interest burden for households as a whole is still lower than it was a decade ago, and remained more or less unchanged in the second half of 2002. However, figures from Statistics Norway indicate that an increasing share of total household debt is attributable to households with a high interest burden.

The fall in equity prices has reduced households' financial wealth. However, equities account for a small portion of net financial assets and moreover are unequally distributed among households. Households with high incomes and considerable wealth are most strongly affected by the fall in equity prices. If households' total wealth is adjusted for insurance claims, which are not very liquid and not very suitable for servicing debt, their financial wealth is significantly negative. In particular, households with lower and medium incomes and limited financial wealth could have problems in servicing debt in the event of loss of income or of interest rate increases. The credit risk associated with loans to households is regarded as moderate, but increased somewhat in 2002 compared with the end of 2001.

Growth in enterprise sector debt was moderate through 2002. Year-on-year growth in credit to non-financial enterprises was between 7 and 9 per cent. Industries differed considerably in their borrowing. Enterprises in internationally exposed industries sharply reduced the growth in their debt, while debt growth in enterprises in sheltered industries was relatively high. Growth in the debt of non-financial enterprises was higher than growth in value added. Their debt burden is now as high as it was during the banking crisis. The interest burden has also grown. Corporate earnings have been solid through the last ten years, however, and their equity capital has been substantially strengthened.

Enterprise accounts figures in 2001 show that profitability measured in terms of the return on total assets and equity deteriorated. Enterprises' results and equity ratios declined in 2001 viewed as a whole. This was largely due to developments in the enterprises that are least exposed to risk. Norges Bank's calculations indicate that the probability of bankruptcy for a typical enterprise (median enterprise) remained virtually unchanged in 2001 compared with the level in 2000. A key figure in Norges Bank's credit risk analysis is risk-weighted debt, which provides an indiciation of banks' expected loan losses in the absence of security. Risk-weighted debt declined in several sectors in 2001, but increased in the sectors IT, commercial services, property management, manufacturing and fish farming. Calculations using Moody's KMV model, which takes account of the information in equity prices, showed an increase in the probability of bankruptcy for large Norwegian unlisted companies in 2002.

Gross non-performing bank loans to enterprises increased in 2002, but remained at a low level compared with the first half of the 1990s. The number of petitions for bankruptcy increased substantially through the year. The steep fall in equity prices indicates that market participants expect a continued deterioration in corporate earnings. If debt growth continues at the same rate as in 2002, projections indicate that the probability of bankruptcy for the weakest enterprises will increase appreciably from 2003. An increase must be expected in banks' losses on loans to enterprises in the most exposed industries. The credit risk associated with loans to enterprises was higher at end-2002 than a year earlier. It is viewed as relatively high on loans to internationally exposed enterprises, and moderate on loans to sheltered sector enterprises.

Approximately unchanged liquidity risk

A high level of short-term funding will constitute a liquidity risk for banks if their liquid assets are not adequate. Short-term foreign funding is normally considered somewhat more unstable than short-term domestic funding. Gross foreign debt was reduced somewhat in 2002, and cover in the form of traditional customer deposits increased slightly. Banks' short-term financing declined in the first half of the year, but remained stable in the second half. The three largest banks reduced their long-term bond financing in the latter half of the year, while small and medium-sized banks increased theirs. Liquidity risk is regarded as relatively low, and has changed little compared with the end of 2001.

Satisfactory stability, but somewhat weaker outlook

The household and enterprise sector debt burden increased further through 2002. The strong growth in household borrowing cannot continue over time, and the increased concentration of debt and high interest burden in households with low incomes is a new uncertainty factor compared with the period prior to the banking crisis. The weakening of the internationally exposed sector is also contributing to increased credit risk. Banks' loan losses must be expected to increase. Owing to their financial strength, Norwegian banks are well equipped to face less favourable economic developments. In order to maintain their financial strength, however, banks' underlying earnings must increase. On balance, the outlook for financial stability is considered to be satisfactory, but less favourable at the end of 2002 than a year earlier.

Payment systems and means of payment

Norges Bank's responsibility for the payment system was expanded when the Payment Systems Act entered 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. The possibility of solvency or liquidity problems spreading between banks participating in the payment system, and thereby constituting a risk to financial stability, figures prominently in Norges Bank's commitment to reducing the level of risk in the Norwegian settlement system.

In the last few years, the payment systems have received increased attention in the work of central banks, both because they play a key role in the financial infrastructure and because they provide a channel for monetary policy instruments. In recent years, a number of central banks, including the European Central Bank and the Bank of England, have published documents which describe their policies for contributing to the stability and efficiency of these systems. Similarly, in spring 2002, Norges Bank published "Norges Bank's oversight and supervision of the payment system", both on its website and in Economic Bulletin 1/02.

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 by facilitating close ties to international payment systems.
- contingency planning in the form of a system and routines that can solve problems when they arise
- continuous monitoring of banks' exposures in connection with their participation in the Norwegian and international payment systems.
- publication of annual reports which 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.

Banks' fundamental risks in connection with their participation in the payment system may be classified as credit risk and liquidity risk. Credit risk depends primarily on the extent to which banks credit customers' accounts before the banks themselves have received settlement for a payment transaction. Liquidity risk is connected with a shortage of liquidity if settlement is not executed as expected. 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 the event of a participant's insolvency. 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. Foreign exchange settlement risk arises because foreign exchange transactions are settled in different settlement systems (in different countries) at different times. There is thus a risk that one participant may meet his commitments but find that the counterparty cannot meet his commitments by 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.

After the Payment Systems Act entered into force and adjustments were made to satisfy the authorisation requirements, Norges Bank regards the legal risk associated with the Norwegian payment system as very limited. Norges Bank's analyses show that overall credit and liquidity risk is relatively limited after several years of cooperation between banks on various measures to reduce risk. Recently, therefore, Norges Bank has focused on the risk associated with Norwegian banks' participation in international foreign exchange trading (foreign exchange settlement risk) and operational risk.

The establishment of an international multi-currency settlement system, CLS, which is owned by the largest international banks, is expected to considerably reduce the credit risk associated with such transactions. The above-mentioned survey of banks' counterparty exposures shows that the largest exposures arise in connection with foreign exchange settlements and not with instruments such as derivatives, unsecured loans/deposits, guarantees etc. The largest exposure a single bank had to a single counterparty in this survey was 120, 41 and 71 per cent of core capital at three reporting dates in the period 2001-2002. Exposures of this size are regarded as unfavourable, even though they are short-term and to sound foreign counterparties.

A number of operational disruptions in banks' operations centres have demonstrated 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 initiated a number of measures to reduce this risk, including issuing their own certification arrangement. 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 the Banking, Insurance and Securities Commission to this end.

In addition to its statutory responsibility for interbank systems, Norges Bank monitors developments in the payment system. This surveillance is part of the Bank's work aimed at promoting an efficient payment system (see Section 1 of the Norges Bank Act). When evaluating the efficiency of the payment system, Norges Bank emphasises that settlements are executed quickly, securely and at reasonable cost.

The Payment Systems Act

The Act 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 self-regulation that 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 aspects of the system of importance to risk as a result of liquidity and solvency problems. Other factors may also be considered, such as system turnover and participation, 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 Norwegian Interbank Clearing System (NICS), Den norske Bank and Union Bank of Norway were granted authorisation in 2001. The approved interbank systems are subject to supervision. The licensees shall report any significant changes in ownership, organisation or operations, as well as participation, turnover and exposures in the interbank system and the results of annual tests of contingency plans. Following operational disruptions at one of the key clearing houses in autumn 2001, quarterly reports on operational disturbances from the systems that were in operation at this time have been required. The operational disturbances must be graded on the basis of scope and consequences, and measures to improve the situation must be described.

The application shall contain information concerning measures to safeguard technical operations, including a contingency plan in the event of any operational disruption if the ordinary system fails to function. This requirement is related to the operator's responsibility for ensuring the operational reliability of the clearing system, both for ongoing operations and in the form of a contingency plan in the event of operational disruptions, so that clearing and settlement can be executed even if the ordinary system is not working. In particular, downtime in the event of disruptions shall be tested to determine whether it is within the agreed limits.

The Payment Systems Act has divided the responsibility for payment systems between Norges Bank and the Banking, Insurance and Securities Commission, so that systems for payment services, such as payment cards and electronic giros, report to the Commission. These legal provisions have given the Commission a more clearly defined responsibility for the security, efficiency and coordination of such payment systems. The Commission also has supervisory responsibility for the financial industry's IT systems. A separate co-operation document describes routines for cooperation, reporting and notification between Norges Bank and the Commission in this area. The Commission and Norges Bank have established a programme for coordinated local supervision of approved systems in 2003.

Norges Bank's settlement system – preparations for outsourcing

By means of entries in banks' accounts in Norges Bank, the central bank carries out the final settlement of interbank claims arising as a result of banks' financial transactions and participation in the payment system. In connection with settlement, Norges Bank offers banks liquidity against collateral, so that settlement can take place effectively and banks can receive settlement in the form of claims on the central bank, which have no credit or liquidity risk associated with them. The settlement system also provides Norges Bank with an effective channel for communicating interest rate signals in monetary policy. Norges Bank is also responsible for the cash leg of trades in equities, bonds and derivatives.

Previously, Norges Bank has largely exercised its responsibility for promoting a robust and efficient payment system through its role as ultimate settlement bank. The authorisation and oversight arrangements in the Payment Systems Act provided an additional instrument in the work on increasing efficiency and limiting risk, also in the bank-operated segment of the clearing and settlement system.

Norges Bank's responsibility in the payment system is to offer a risk-free settlement instrument and possibilities for efficient liquidity management through short-term loans against collateral in the central bank. In 2001, Norges Bank initiated a project, which included the participation of the banking industry, to assess the services offered by the clearing and settlement system to banks and to evaluate the division of responsibility between the banking sector and Norges Bank. On this basis, Norges Bank has come to the conclusion that the division of responsibility between banks and the central bank for of roles in the settlement system should be approximately the same as earlier. The banking industry has stated that banks are generally satisfied with regard to the functionality of the system. However, Norges Bank's responsibility for settlements does not imply that the Bank itself must be responsible for the technical operation of the system.

Norges Bank is now making preparations for possible outsourcing of the operation and development of its settlement system (NBO). At the end of 2002, potential operating partners were invited to offer operating services for the settlement system. According to plan, the question of outsourcing will be clarified in autumn 2003. Over a longer time horizon, the intention of outsourcing is to reduce costs in settlement activities in order to counter banks' cost disadvantages when operating in a small currency area with low turnover. At the same time, the operation and development of the system will be more robust in a larger organisation

with a strong focus on technological developments. Outsourcing is dependent on Norges Bank's success in finding an appropriate agreement partner and drawing up a satisfactory agreement.

Norges Bank's measures to increase efficiency and reduce risk

Norges Bank introduced prices for its settlement services on 1 July 2001. There is a tripartite price structure, which consists of an access fee for new participants, an annual charge for maintaining an account in Norges Bank (infrastructure charge) and for participation in each of the net settlements, and a transaction fee for each transaction. The transaction fee is differentiated according to whether it is a net settlement, electronic or manual gross transactions, or cheques. The price structure was adjusted with effect from 1 January 2003.This price system places Norges Bank on a par with other central banks both with regard to price structure and price level. With the introduction of prices, however, cost coverage was lower than in other central banks. In connection with the most recent adjustment of prices, prices were therefore increased in excess of the general rise in prices and costs with the aim of increasing cost coverage from 30 to 40 per cent.

For many years, Norges Bank has cooperated closely with the Norwegian Central Securities Depository on developing the settlement of securities trades. A new Securities Registry Act (Act relating to the registration of financial instruments) entered into force on 5 July 2002, with the last sections of the Act entering into force when the Norwegian Central Securities Depository is converted into a limited company. According to the Act, the right of disposal over financial instruments can be transferred with immediate effect. With effect from 7 March, the number of securities settlements each business day was increased. The Act also abolishes the Depository's monopoly on the registration of securities, which in the long term may lead to an increase in the number of operators in this area and increased competition.

Transactions over the central government's consolidated account are included as an integrated part of clearing and settlement in the Norwegian payment system. A fundamental principle of the consolidated account system is that all government liquidity shall be transferred daily to government accounts in Norges Bank at the end of the day. In 2002, all incoming and outgoing payments under the central government consolidated account arrangement were executed by Den norske Bank, Nordea Bank Norway and Union Bank of Norway.

Norges Bank's role in the central government's consolidated account system is defined in an agreement with the Ministry of Finance. The agreement contains requirements with regard to account maintenance, supervision, information exchange and improving the efficiency of central government payment transactions. There are now about 1500 accounts under the central government's consolidation account system in Norges Bank.

The banking industry's measures to limit risk in payment systems

The bulk of ordinary customer payments (giros, card payments, cheques) are netted in the Norwegian Interbank Clearing System (NICS), and the resulting interbank positions are settled in Norges Bank's Settlement System (NBO). These interbank exposures are generally small, but may occasionally be large since there are no limits on the size of interbank exposures or on the size of transactions that may be involved in the clearing process. To avoid credit exposure and thus credit risk, the banking industry has introduced routines for giro payments, which means that the bank of a beneficiary does not credit the customer's account before settlement has taken place in NBO.

To further reduce risk in the payment system, the banking industry started early in 2002 to provide crediting after settlement also for larger customer payments and interbank transactions that are sent in SWIFT format. This means that most of the credit risk associated with domestic payment transactions has been eliminated. However, banks may still incur substantial liquidity and credit risk through their foreign exchange trading.

An important measure for limiting the credit risk of foreign exchange trading is the establishment of CLS (Continuous Linked Settlement). CLS is a settlement system for foreign exchange transactions between banks in a number of countries and is based on the principle of simultaneous delivery of bought and sold foreign exchange. CLS became operational in autumn 2002. Initially, only the largest currencies were covered, but the system will gradually be expanded to include more currencies. The plan is that the Norwegian krone will be included in summer 2003. Norges Bank is working with the banking industry and the other Scandinavian central banks to prepare for this.

Monitoring of payment systems and banks' costs in the payment system

Norges Bank publishes an Annual Report on Payment Systems every year. The report discusses national and international regulatory work and developments in payment system infrastructure as well as developments in the use of different payment instruments in Norway. In 2002, a survey of banks' costs and revenues related to payment services in 2001 was also conducted. Norges Bank has previously conducted such surveys for 1988 and 1994.

The efficiency of payment transactions depends on both the payment instruments available to users and the ratio of prices to costs for the payment instruments used. The survey of costs shows that electronic payment instruments provide better opportunities for taking advantage of economies of scale than paper-based services. It also shows that relative price differences reflect the relative cost differences for the various payment instruments in that prices for the use of electronic instruments are generally lower than the prices for paper-based services. Pricing provides banks' customers with signals as to which instruments banks want to promote, and inasmuch as pricing is generally in line with cost differences and customers tend to react to these differences, payment instruments that are reasonable to produce become popular. As a result, banks can use their resources in an efficient manner, while the cost for customers when using the payment system is low.

Banks accounted for 968 million transactions in the payment system in 2001, an increase of 254 per cent since 1988. At the same time, total costs rose by a moderate 9 per cent from 1988, to NOK 5.8 billion in 2001. The average unit cost per transaction was then NOK 5.30 in 2001, a decline from NOK 10.70 in 1994 and NOK 14.10 in 1988. Revenues from direct pricing covered 70 per cent of banks' costs for payments transactions in 2001. The coverage was 39 per cent in 1994 and 26 per cent in 1988, which means that banks' cost coverage from other sources, such as the interest rate margin and float (discontinued as a result of the Financial Agreement Act from 2000), was reduced from 1994 and 1988. The survey showed that the payment system is characterised by a decline in costs both for banks and customers, which means that the use of resources and efficiency have improved in the Norwegian payment system.

Use of cost-effective electronic payment instruments is high in Norway and continues to increase. At the same time, Norway is fairly advanced in developing a common infrastructure for the payment system with a high degree of communication between various systems. Competition between banks for customers for different types of payment services has also been maintained. The Norwegian payment system therefore appears relatively efficient by international standards.

Contingency plans in the financial sector

Norges Bank's work on contingency in the financial sector relates to its responsibility for promoting an efficient payment system, contributing to financial stability and monitoring the Civil Emergency Planning System in the financial sector. These plans apply to the Bank's internal systems, including NBO, and to the infrastructure of the financial sector and the discharging of Norges Bank's responsibilities under the Bank Guarantee Act.

The Contingency Committee for Financial Infrastructure, a joint coordination body, was established so that contingency work in the financial sector could be more effective and better adapted to a modern infrastructure. Norges Bank's Executive Board established this Committee in October 2000, after consultation with the Ministry of Finance and key participants in the financial sector. The Committee's primary tasks are i) to establish and coordinate measures to prevent and resolve crisis situations that may result in major disruptions in the financial infrastructure and ii) to coordinate contingency work in the financial sector, including the Civil Emergency Planning System. The main emphasis of the Committee's work is thus on the coordination of information and measures between key participants, while the individual institution is responsible for the implementation of contingency measures for its own activities.

In 2002, the Contingency Committee discussed issues relating to operational stability and vulnerability in the financial infrastructure. Experiences from abnormal situations and contingency exercises in the financial sector were reviewed, and cooperation concerning regular joint contingency exercises was continued. In addition, the Committee had a coordinating role for contingency issues in the Civil Emergency Planning System, and there has been contact with other bodies that work on contingency and security issues of importance to the financial sector.

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. Examples are Danske Bank's takeover of Norway's Fokus Bank and the formation of the financial conglomerate Nordea, which includes the former Christiania Bank. As a result, the central banks and supervisory authorities in the Nordic countries have developed closer cooperation in order to safeguard contingency considerations.

Notes and coins

The Norges Bank Act assigns Norges Bank responsibility for issuing notes and coins. This implies a responsibility in connection with the nominal value and design of notes and coins as well as for ensuring that society has access to and the necessary confidence in cash as a means of payment. To ensure this access, Norges Bank performs wholesale functions in relation to banks. These functions include supply, exchange, renewal and redemption of notes and coins that are no longer legal tender.

In relative terms, the use of cash has declined compared with the use of giro and card payments. In relation to private consumption, the value of notes and coins in circulation has declined over the last ten-year period (see Table 2). The value of cash in circulation increased in the 1990s, but has fallen somewhat since 2000. In 2002, the average value of notes and coins in circul-ation was NOK 41.8 billion, compared with NOK 42.9 billion in 2001.

In 2002, the average value of notes in circulation was NOK 37.8 billion, 3.6 per cent lower than the average for 2001. The 1000-krone note accounted for the largest share of notes in circulation, at 59 per cent, but its importance has declined in recent years, particularly in the last two years with a reduction of 14 percentage points from 2000 to 2002. In the last few years, the 100-krone note has shown the sharpest decline, but the decline was less in 2001 and 2002 than in previous years. The number of 200-krone and 500-krone notes continues to rise due to their increased use in ATMs. The annual average for the value of coins in circulation was NOK 4 billion in 2002, an increase of 7.6 per cent compared with 2001. The 20-krone coin continued to increase its share of coins in circulation. In 2002, it accounted for 35 per cent of coins in circulation, and in the last two years has accounted for a higher share than the 10-krone coin.

With the issue of the new 1000-krone note in 2001, the new series (Series VII) was complete. The introduction of the 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 was issued in 1999. The notes in this series have a design and features that should make it easier to recognise authentic notes under different conditions, visually, by touch and by machine.

Although the extent of counterfeiting in Norway is

Table 2: Notes and coins in circulation

	1991	1993	1995	1997	1999	2001	2002*	Change 1991-2002
Notes in circulation (NOK billion)	28.6	31.3	35.9	38.3	40.5	39.2	37.8	32%
Coins in circulation (NOK billion)	2.1	2.1	2.5	2.9	3.3	3.7	4.0	88%
Notes and coins in circulation (NOK billion)	30.7	33.4	38.4	41.2	43.8	42.9	41.8	36%
Notes and coins in circulation as % of private consumption	8.5	8.4	8.7	8.2	7.8	6.9	6.4	

*Preliminary figures for private consumption limited, the number has risen in recent years. This was part of the reason for Norges Bank's decision to issue an upgraded 200-krone note on 16 April 2002 and an upgraded 100-krone note on 25 March 2003. The new notes have the same security features as the 1000-krone and 500-krone notes, and are equipped with metallic features that are easy for the public to see and difficult to counterfeit.

Organisation of cash handling

The actual issuance 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 may be performed by others, but Norges Bank must ensure that their performance satisfies central bank requirements.

In 2001, a limited company was established to handle cash, Norsk Kontantservice AS (NOKAS), which incorporated Norges Bank's regional branches and cash-handling activities. Norges Bank today owns 33.5 per cent of the company with the remainder owned by private banks. The company performs cash-handling services for Norges Bank and private banks. Norges Bank buys cash-handling services related to central bank tasks as well as services for the management of central bank depots. Through this cooperation Norges Bank has depots in Bergen, Bodø, Kristiansand, Larvik, Lillehammer, Oslo, Stavanger, Tromsø and Trondheim. In addition, Norges Bank has maintained depots in Hammerfest and Vardø, where a management agreement has been entered into with Sparebanken Nord-Norge

The destruction of notes is subject to specific security and control requirements. In order to satisfy these requirements, a system has been developed that enables Norges Bank to monitor NOKAS' destruction activities. Norges Bank itself destroys notes that do not fulfil the requirements for mechanical destruction by NOKAS. These include notes from old series. Norges Bank also destroys coins that are damaged or no longer legal tender.

Norges Bank's costs in connection with its responsibility as issuer of cash consist of the costs of producing new notes and coins and distributing them to banks. Distribution involves transport to the central bank's depots, storage, deliveries to and from banks, and destruction of damaged or worn and invalid notes and coins.

Table 3 shows developments in Norges Bank's cash-handling costs over the last few years. Production costs will vary from year to year, partly as a result of fluctuations in production volume and variations in the denominations produced. Replacements in note and coin series may lead to substantial variations in volumes. Due to more sophisticated security features, unit costs are higher for the newest notes. Before 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, did not come under Norges Bank's statutory responsibility for supplying cash and were invoiced to banks on a commercial basis. The table shows both total costs and net costs, i.e. costs less revenues 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 total costs of note and coin production and distribution were NOK 35.8 million lower in 2002 than in 2001. Production costs were NOK 7.4 million higher in 2002 than in 2001, while distribution costs were NOK 43.2 million lower than in 2001 and NOK 52.5 million lower than in 2000.

Table 3: Norges Bank's cash-handling costs (in millions of NOK)

	2000	2001	2002
Total costs for note production, Norges Bank's Printing Works	49.2	57.9	61.6
Total costs for coin production, the Royal Norwegian Mint	41.6	38.6	42.3
Total production costs	90.8	96.5	103.9
Costs regional branches [1]	237.4	148.4	-
Revenues regional branches	-129.8	-86.3	-
Net costs regional branches	107.6	62.1[2]	-
Costs of central administration and transport3 [3]	10.9	15.2	15.4
Purchase of external depot and processing services	-	32.2	50.9
Total distribution costs	118.5	109.5	66.3
Total costs for production and distribution of notes and coins	209.3	206.0	170.2

[1] In order that the figures may be comparable with those of later years, imputed rent and share of central joint costs are added at the same level as in remuneration to NOKAS. These items were excluded in previous annual reports.

[2] 1st half year

[3] Includes central distribution inventories from 2001.

Chapter 3 Investment Management

At end-2002, Norges Bank managed resources worth more than NOK 790 billion in the international capital markets. The bulk of this capital was the Government Petroleum Fund, which is managed on behalf of the Ministry of Finance, and the Bank's international reserves. In addition, the Bank manages the Government Petroleum Insurance Fund on behalf of the Ministry of Petroleum and Energy. Norges Bank's international reserves comprise foreign exchange and gold reserves and claims on the International Monetary Fund (IMF). Foreign exchange reserves account for more than 90 per cent of 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 net foreign exchange reserves (after deductions for bonds subject to repurchase agreements) was NOK 159.0 billion at end-2002. The reserves are divided into different portfolios depending on the purpose of the investments:

- the immunisation portfolio, which shall hedge exchange rate risk and interest rate risk on the central government's foreign exchange debt.
- the Petroleum Fund buffer portfolio, which shall accumulate the current purchases of foreign exchange for the Petroleum Fund.
- Other foreign exchange reserves, which 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. These reserves are divided into a liquidity portfolio and a long-term portfolio.

Norges Bank's Executive Board stipulates guidelines for the management of the foreign exchange reserves. In 2002, the Executive Board decided that the equity portion of the long-term portfolio shall gradually be increased to 40 per cent, the share of the portfolio invested in European markets shall be reduced and that non-government guaranteed bonds shall be included in the bond portfolio. The first step toward increasing the equity share was taken in December 2002, whereas the phasing in of non-government guaranteed bonds was not begun in 2002. An upper limit of 0.5 per cent of the share capital has been placed on holdings in any one company, and ownership rights associated with equities shall 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 also applies to the foreign exchange reserves. A small portion of the fixed income instruments in the long-term portfolio are managed externally. In 2002, about half of the equity portfolio was transferred from internal to external mandates.

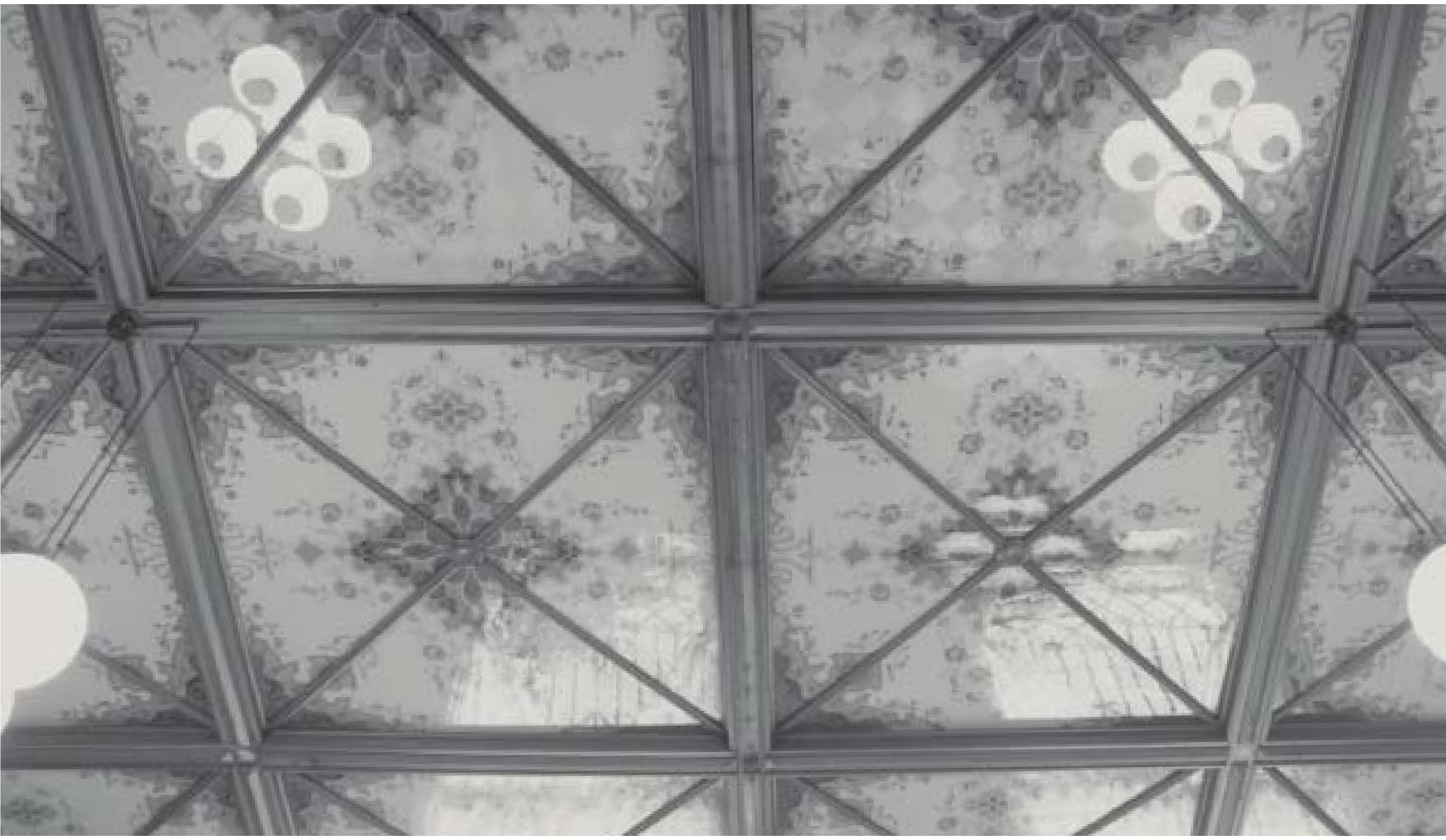
The Petroleum Fund buffer portfolio may be invested in equity instruments, but the equity exposure is limited to the few days each month that it takes to build up the exposure in the portfolio which will be transferred to the Petroleum Fund at the end of the month. The liquidity and immunisation portfolios are invested in fixed income instruments. The Central Bank Governor has established supplementary guidelines for the management of the four sub-portfolios.

The liquidity portfolio represents the portion of the foreign exchange reserves with the shortest investment horizon. The portfolio must be large enough to be able to execute market operations in foreign currency when necessary. The other reserves may also be used for interventions if conditions in the foreign exchange market so require. In accordance with the guidelines stipulated by Norges Bank's Executive Board, the lower limit for the liquidity portfolio is NOK 10 billion and the upper limit is NOK 50 billion. The liquidity portfolio amounted to NOK 32.8 billion at end-2002.

The long-term portfolio constitutes the largest portion of the foreign exchange reserves, and at end-2002 amounted to NOK 93.6 billion, including NOK 1.0 billion in claims on Norwegian counterparties. This portfolio has a longer duration and a broader country distribution than the liquidity portfolio. The management objective is a high return in the long term, but it should also be possible to use the portfolio for monetary policy purposes if necessary.

The main strategic choices for both the liquidity and the long-term portfolio are defined by means of benchmark portfolios. These are constructed portfolios with a given country distribution and specific securities from the various sub-markets. A benchmark portfolio is used to manage and monitor risk exposure, and also serves as a point of reference for evaluating the actual return achieved on the reserves.

An upper limit has been set for the actual portfolio's deviation from the benchmark. This limit is a measure of total risk (tracking error). In practice, this means that the difference in return on the actual portfolio and the benchmark will normally be small. The upper limit for tracking error is 0.5 percentage point for the liquidity portfolio and 1.0 percentage point for the long-term portfolio. In simplified terms, a tracking error of 1 percentage point 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 and +1 percentage points in 2 out of 3 years on average.



Management of the liquidity portfolio assumes minimal differences between the composition of the liquidity portfolio and the benchmark. The modified duration of the benchmark portfolio is about 1.5. This means that the liquidity portfolio consists mainly of fixed income instruments with a maturity of up to three years and low interest-rate risk. The portfolio consists primarily of government paper, which is highly liquid and has low credit risk.

In terms of the benchmark's basket of currencies, the return on the liquidity portfolio was 5.12 per cent in 2002. Measured in NOK, the return was -9.18 per cent. The difference is due to the appreciation of the Norwegian krone in relation to the benchmark's currency basket. The portfolio outperformed the benchmark by 0.14 percentage point. The liquidity portfolio tracked the benchmark portfolio closely throughout the year.

The return on the long-term portfolio was 2.17 per cent measured in terms of the benchmark's basket of currencies and -12.32 per cent measured in NOK. This was 0.32 percentage point higher than the return on the benchmark portfolio when it is adjusted for tax on dividends and transaction costs connected with the phasing in of equities.

Management of the immunisation portfolio is determined by the composition of government foreign currency debt. In 2002, the return on the portfolio was 0.14 percentage point higher than the costs of servicing the government's foreign debt. At end-2002, the market value of the immunisation portfolio was NOK 4.3 billion, including holdings of Norwegian government bonds in foreign currency worth NOK 0.4 billion. Since then, the portfolio has been reduced substantially due to redemption of the government's foreign currency loans. The Executive Board plans therefore to wind up the immunisation portfolio in 2003.

The Petroleum Fund's buffer portfolio receives funds when the State's Direct Financial Interest in petroleum activities (SDFI) transfers foreign currency to Norges Bank. Norges Bank also purchases foreign currency directly in the market to bring the total amount up to the level to be allocated to the Government Petroleum Fund. The routines for these foreign exchange purchases are described in more detail in Chapter 5, which describes other tasks, including Norges Bank's commercial transactions in the foreign exchange market. In order to avoid unnecessary transaction costs, the buffer portfolio is managed with the objective of reducing the need for transactions in connection with rebalancing the Petroleum Fund. The framework is therefore less restrictive for the buffer portfolio than for the Petroleum Fund. For example, a separate benchmark index has not been defined for the buffer portfolio. The return on the Petroleum Fund buffer portfolio, measured in NOK, was -8.39 per cent in 2002. The size of the portfolio varied from NOK 2.9 billion (after the transfer) to NOK 30.8 billion (before the transfer). At end-2002, the Petroleum Fund buffer portfolio was NOK 29.5 billion, including foreign exchange purchased forward.

The Government Petroleum Fund

At the end of 2002, the market value of the Government Petroleum Fund's foreign exchange portfolio was NOK 608.5 billion, after deduction of Norges Bank's management fees. The Bank is responsible for the operational management of the Government Petroleum Fund on behalf of the Ministry of Finance. This management responsibility is governed by a regulation and a separate agreement between Norges Bank and the Ministry of Finance. The agreement stipulates that the Ministry of Finance covers the Bank's management costs.

In 2002, the Ministry of Finance transferred a total of NOK 125.7 billion to the Petroleum Fund. The final central government accounts for 2001 showed that an additional NOK 6 billion should be transferred for 2001. This amount is included in the transfers for 2002. The equivalent of this capital was immediately transferred to the foreign exchange portfolio. The transfers are usually made at the end of each month.

The Ministry of Finance has defined a benchmark portfolio of equities and fixed income instruments from the countries in which investment is permitted. The benchmark portfolio reflects the owner's investment strategy for the Petroleum Fund. The benchmark provides an important basis for managing the risk associated with the operational management and for evaluating Norges Bank's management performance. The Ministry of Finance has set limits for the actual portfolio's deviation from the benchmark portfolio. The benchmark portfolio was changed in January 2002 with a reduction in the share of fixed income instruments in Asian currencies and a comparable increase in the share of fixed income instruments in European currencies. In February 2002, the benchmark was expanded to include non-government-guaranteed bonds. During the year, considerable work has gone into establishing an actual portfolio of such bonds in a cost-effective manner.

On 31 January 2002, the Ministry of Finance allocated an additional NOK 1 billion to a separate Environmental Fund, which consists of equities in enterprises that have been evaluated according to environmental criteria. The Environmental Fund is invested in the same countries as the ordinary equity portfolio, with the exception of five emerging markets.

In 2002, the return on the Government Petroleum Fund, including the Environmental Fund, was -4.74 per cent measured in terms of the benchmark's basket of currencies. This is the measure of performance that best describes the international purchasing power of the Fund. The return on the Petroleum Fund's equity portfolio (excluding the Environmental Fund) was -24.38 per cent, whereas the return on the fixed income portfolio was 9.90 per cent. The return on the Environmental Fund was -24.99 per cent.

Measured in NOK the return was -19.09 per cent. This figure reflects an appreciation of the krone during the year of nearly 15 per cent compared with the currencies in which the Petroleum Fund is invested. The appreciation of the krone has no effect, however, on the Fund's purchasing power.

Measured over the six years since the Petroleum Fund exceeded NOK 2 billion, the annual nominal return has been 4.1 per cent measured in terms of the Fund's basket of currencies. The net real return after deductions for management costs has been 2.5 per cent per year.

The return in 2002 was 0.25 percentage point higher than the corrected return on the benchmark portfolio. The estimated costs of adjusting the actual portfolio 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. Both costs and return have been higher than would have been the case with passive management. In 2002, net value added calculated in this way was 0.21 percentage point, or NOK 1.7 billion. For further details, refer to the Annual Report of the Government Petroleum Fund for 2002, page 16, Table 6. Overall for the last five years, the value added has been NOK 4.9 billion.

A more detailed presentation of the management of the Government Petroleum Fund in 2002 is available in the Annual Report of the Government Petroleum Fund.

The Government Petroleum Insurance Fund

The market value of the Government Petroleum Insurance Fund at year-end 2002 was NOK 11.5 billion. The Fund is owned by the Ministry of Petroleum and Energy and its purpose is to provide financial support for the

government in its capacity as self-insurer of holdings in petroleum activities. The Fund is managed by Norges Bank. The return in 2002 was 8.69 per cent measured in terms of the currency basket, which corresponds to the composition of the Fund’s benchmark portfolio, and -2.72 per cent measured in NOK. This was 0.14 percentage point higher than the return on the benchmark portfolio.

Gold reserves and claims on the IMF

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

Norges Bank's total gold reserves amount to just under 37 tonnes, of which 33.5 tonnes consist of gold bars deposited in the Bank of England. In addition, Norges Bank has a collection of gold coins of historical value and a few gold bars used for exhibitions. The gold bars deposited in the Bank of England are constantly on loan to other financial institutions for periods of up to six months. At end-2002, the market value of the gold reserves was NOK 2 806 million.

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). Norges Bank aims to maintain reserves of between SDR 200 million and SDR 300 million. At end-2002, the holding was SDR 232 million, equivalent to NOK 2 197 million. Reserves in the IMF amounted to the equivalent of NOK 6 911 million. Norway’s share of the IMF Poverty Reduction and Growth Facility – PRGF – accounted for almost SDR 88 million, equivalent to NOK 837 million.

Investment management research

Through research, Norges Bank has sought to acquire knowledge about behaviour in securities markets and about optimal investment strategies. For example, the Bank has carried out empirical studies of the costs and gains associated with crossing of equities compared with trading directly on the stock exchange. Current projects are analysing (i) the effect of the introduction of Internet trading of equities on investor behaviour and markets and (ii) the relationship between risk and investment horizon. The research is documented in Norges Bank’s Working Paper series. In 2002, a paper on a research project was accepted for publication in a leading international 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.

Report No. 8 (2002-2003) to the Storting (Kredittmeldinga, the credit report) 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 2002, 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, with the Secretary General of the Ministry of Finance, Tore Eriksen, as 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.

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 per cent of the total votes and the Nordic-Baltic constituency 3.52 per cent. 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. In accordance with the Articles of Agreement, the need for adjustments to the general quota level is reviewed every five years. The latest review, completed in January 2003, concluded that no increase in quotas should be made.

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 Board of Governors. The Committee meets twice a year.

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.

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 for 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 4 -11 December 2002. The IMF delegation's preliminary evaluation was published on 11 December. The final report was published on 18 March 2003.

The IMF provides loans to member countries with balance of payment problems. The largest loans in 2002 were extended to Argentina, Brazil and Turkey. Loans to these countries accounted for 60 per cent of total IMF lending at the end of 2002. Based on experience from the financial crises of recent years, the IMF is placing greater emphasis on preventing crises and uncovering problems at an early stage. The IMF is in the process of finding ways to involve the private sector in both preventing and dealing with crises. The IMF is working to establish the Sovereign Debt Restructuring Mechanism (SDRM) for countries with unsustainable debt problems. Under the SDRM, international investors will bear more of the responsibility for solving debt problems when they arise. IMF loans to countries in crisis can thereby be limited.

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. These funds are either capital used for loans, or subsidies to allow the IMF to lend these resources at a very low interest rate.

Norges Bank has made capital totalling SDR 150 million (about NOK 1.7 billion) 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 withdrawn by the Fund by a given date. At the end of 2002, 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 2003 was SDR 87.6 million. The interest that Norges Bank receives on these loans is 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.

Central banks in the European Union (EU)

The European Central Bank (ECB) is responsible for formulating and implementing monetary policy in EMU. The ECB also plays a central role in the development of payment systems in Europe. Economic developments in the EU provide important parameters for Norway's monetary policy. Norges Bank therefore seeks to maintain regular contact with the ECB and central banks in the EU.

Norges Bank has made arrangements with both the ECB in Frankfurt and the EU Commission in Brussels so that its employees have the opportunity to work in these institutions for a period which normally extends over 12 months.

Nordic central banks

The Nordic central banks cooperate extensively in a number of areas. In 2002, the annual Nordic central bank meeting was held on the Åland islands and hosted by the Bank of Finland. Topics discussed included monetary policy strategies for price stability and liquidity risk in Nordic banking groups. Staff from various departments of the central banks meet regularly to discuss issues relating to monetary policy, management of foreign exchange reserves, financial stability, payment systems, statistics, legal matters in the central bank area, personnel policy, etc.

On 1 January 1999, the central banks of Denmark, Iceland, Norway and Sweden signed an agreement on reciprocal foreign exchange support. The agreement is described in Norges Bank's Annual Report for 2000.

Chapter 5. Other responsibilities

Foreign exchange transactions

Norges Bank executes commercial transactions in the foreign exchange market. These mainly consist of foreign exchange purchases for the Government Petroleum Fund and the Government Petroleum Insurance Fund. Norges Bank also executes some smaller customer transactions.

The Government Petroleum Fund's foreign currency is acquired partly through foreign currency transfers of revenues from the State's Direct Financial Interest in petroleum activities (SDFI), and partly through Norges Bank's purchases of foreign currency in the market. A small share of Norges Bank's foreign exchange purchases is allocated to building up the Government Petroleum Insurance Fund. In 2002, transfers from the SDFI were equivalent to NOK 93.2 billion, while Norges Bank purchased foreign exchange equivalent to NOK 56.5 billion to build up the Government Petroleum Fund and the Government Petroleum Insurance Fund.

To ensure predictability with regard to Norges Bank's foreign exchange purchases for the Government Petroleum Fund, purchases are made on a daily basis and planned for one month at a time. The foreign exchange purchases planned for the next calendar month are announced on the last business day of each month.

From January to May 2002, Norges Bank's foreign exchange purchases for the Government Petroleum Fund and the Government Petroleum Insurance Fund were gradually increased. In January, NOK 180 million in foreign currency was purchased each business day. In May and June the amount was NOK 300 million. In the period from June to December, daily purchases of foreign currency were gradually reduced to NOK 185 million every business day in December. Norges Bank's purchases of foreign exchange to cover allocations to the Petroleum Fund in 2003 will be carried out in the period from October 2002 to November 2003.

Norges Bank purchased foreign exchange every business day in 2002 with the exception of Wednesday before Maundy Thursday and in the period from Christmas Eve to New Year's Eve. This is in line with previous practice.

Foreign exchange regulation and control

Norges Bank perform tasks related to foreign exchange regulation and control, including cooperation with other supervisory bodies and monitoring and control operations associated with EU programmes and UN sanctions against other countries.

In 2002, there were no amendments to Norges Bank's Foreign Exchange Regulations of 27 June 1990.

Norwegian authorities have adopted regulations that implement UN sanctions concerning economic boycotts of countries and/or regions. The Ministry of Finance has delegated responsibility to Norges Bank to serve as supervisory and authorising body. In 2002, Iraq was subject to UN sanctions. Norges Bank received no applications to transfer funds to Iraq in 2002 and did not uncover any breach of the sanctions.

On 25 June 1999, the Norwegian Storting adopted an Act concerning special measures against the Federal Republic of Yugoslavia (FRY). Pursuant to this Act, the Government adopted a regulation concerning the implementation of the measures on 6 August 1999. In accordance with the regulation, the Ministry of Finance delegated responsibility to Norges Bank to operate as a supervisory and authorising body for financial transactions. Any transactions that anyone wished to make in accordance with the regulation's exemption rules had to be approved by Norges Bank in advance. In 2002, 972 applications for transfers of funds to the FRY were processed. Norges Bank notified the Ministry of Foreign Affairs in 2002 that the legal authority to require prior approval of transactions to or from Yugoslavia is no longer included in the regulation. Norges Bank has therefore ceased to perform this authorisation task.

Government debt management

According to an agreement between the Ministry of Finance and Norges Bank, the Bank shall provide services as adviser, organiser and payment agent in connection with raising and managing domestic government loans.

In accordance with the 2002 auction calendar, five auctions of government bonds and sixteen auctions of Treasury bills were held. In addition, one ad hoc auction of government bonds and an ad hoc auction of short-term Treasury bills were carried out, giving a total of 23 auctions of government securities in 2002. The total issue volume, excluding Norges Bank's purchases in the primary market, amounted to NOK 18.4 billion in government bonds and NOK 74.0 billion in Treasury bills.

In May 2002, a new government bond was issued with maturity in May 2013. This new 11-year government bond was subsequently increased twice, and the total issue volume in the market in 2002 amounted to NOK 11.4 billion. A government bond amounting to NOK 25 billion that was first issued in 1992 matured in October.

In connection with the maturity of the government bond in October, one ad hoc auction of a Treasury bill was held in order to withdraw some of the liquidity supplied to the money market and to strengthen the Treasury until some tax payments fell due in November. One ad hoc auction of a government bond was also held in December to reduce surplus liquidity in the money market.

In accordance with its agreement with the Ministry of Finance, Norges Bank was market maker for the largest government issues on the Oslo Stock Exchange. Norges Bank furnished simultaneous bid and offer prices for

Treasury bills, while for government bonds, agreements were concluded with a group of primary dealers, who were at all times obligated to furnish binding bid and offer prices for certain amounts on the Oslo Stock Exchange. In exchange, the primary dealers were entitled to borrow bonds from Norges Bank totalling up to NOK 320 million in each of the government issues.

Information activities

Pursuant to the Norges Bank Act, Norges Bank is obliged to "inform the public of developments in monetary, credit and foreign exchange conditions." In addition, the Bank will seek to achieve the broadest possible understanding of its conduct of monetary policy and of the mechanisms contributing to financial stability through its information activities. The media, the various market participants and the general public have shown increasing interest in Norges Bank's various activities, and the Bank places considerable emphasis on responding to this interest with transparency and predictability.

Press conferences have been introduced as a regular arrangement following all of the Executive Board's monetary policy meetings and in connection with the publication of the inflation reports, the reports on financial stability and the Government Petroleum Fund quarterly reports. Sound from all press conferences is streamed over the Internet and may also be replayed afterwards. Seventeen press conferences were held in 2002 and 42 press releases were issued.

Speeches and newspaper articles by executives in Norges Bank are also published on the Bank's website. In 2002, 35 speeches and newspaper articles were published.

Use of the Internet is an increasingly important part of the Bank's information strategy. User statistics show that Norges Bank's website has an average of 549 000 hits per month.

Norges Bank issues a number of publications in addition to the Annual Report, the *Inflation Report*, the Report on Financial Stability and the reports on the management of the Government Petroleum Fund. Penger og Kreditt and its English counterpart, Economic Bulletin, are published quarterly and the Bank also publishes an Annual Report on Payment Systems. Other publications in 2002 included 15 working papers describing research projects, six reprints of articles written by bank employees and published in international research journals and 5 circulars.

Chapter 6. Organisation, use of resources and Norges Bank' balance sheet

Changes in Norges Bank's use of resources

There were extensive changes in Norges Bank's core tasks in the 1990s. Monetary policy was gradually revised, which entailed that Norges Bank was compelled to place increased weight on broad analyses of developments in the Norwegian and international economy. The management of the Government Petroleum Fund was delegated to Norges Bank, under a new wing established on 1 January 1998. Following the banking crisis in 1991-1992, the Bank's work to promote financial stability was intensified. Norges Bank was given the authority to authorise payment systems under the Act of 17 December 1999 relating to Payment Systems etc. The Bank's core tasks became more challenging and required greater focus on the part of management and the Bank's governing bodies. This required a change in both the content and organisation of Norges Bank's activities. The aim of the restructuring was ensure high quality and cost effectiveness in the Bank's performance of the tasks assigned to it by the authorities. In order to achieve this, Norges Bank has systematically sought to concentrate its activities on core tasks. Tasks that cannot be performed cost-effectively within the Bank have been removed from the Bank's area of activity. The number of employees and level of efficiency in administrative and support functions will also be reviewed.

Norges Bank is organised into four wings, each of which is responsible for the four main areas of the Bank's activities: Monetary Policy, Financial Stability, Norges Bank Investment Management and Norges Bank Staff and Group Services. Personnel and general administration have been largely delegated to the four wings. The line management model gives a more transparent and smaller organisation, which executes policy functions and investment management, and performs operational and support functions that are closely linked to the Bank's core tasks. The new organisation is illustrated in Chart 21.

Chart 21. Organisation of Norges Bank

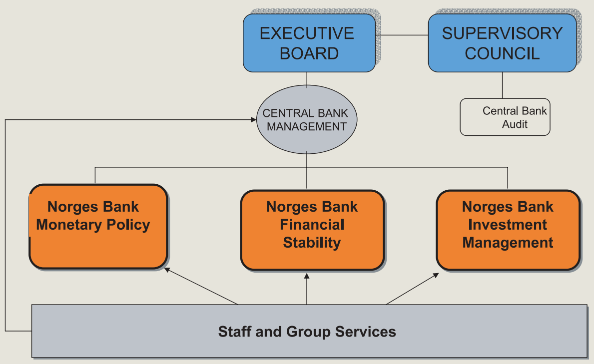


Table 4: Changes in composition of staff by level of education 1992-2002. Per cent

	1992	1998	2000	2002
Not available	7			
Up to 9 years (lower secondary school)	5	5	3	1
10-12 years (upper secondary school)	55	54	49	33
13-16 years (first university degree)	25	28	30	37
17 years and over (higher university degree/researcher)	8	13	18	29
Total	100	100	100	100
Memo: Number of employees	*1351*	*1165*	*1086*	*663*

Norges Bank has undergone extensive restructuring over the past ten years. In the 1990s, the Bank was engaged in a wide range of activities. Roughly 50 per cent of the employees were involved in production and services, with 30 per cent in support functions and 20 per cent in policy tasks. A fundamental change in character is now in process, with the Bank becoming an expert institution specialised in economic policy and investment management. Table 4 illustrates how the distribution of staff qualifications at the Bank has changed since 1992. In 2002, 66 per cent of the employees had a minimum of 13 years of education and 29 per cent had a minimum of 17 years of education, in other words education at university or college level.

The number of man-years will be reduced from about 1150 at the end of the 1990s to about 500 when the current restructuring process has been completed. Roughly 40 per cent of the reduction is due to downsizing, and 60 per cent is a result of outsourcing and spinning off units of the Bank into separate companies.

These changes affect many of the Bank's employees, and Norges Bank makes every effort to offer employees packages that take them into account. Packages include various measures, such as redundancy pay, early retirement schemes, severance pay and support for further training. Packages are largely based on similar arrangements in the public sector, and package components are offered on application from individual employees. In 2002, a total of 40 applications were approved, and 26 of these involved severance pay. The employees and their organisations have played a positive role in the restructuring process.

The use of resources measured in nominal krone terms has been stable in the period 1998-2002. In real terms, measured against the consumer price index, resource use has fallen by about 10 per cent since 1998. The costs of managing the Petroleum Fund are not included here, as they are covered by the Ministry of Finance.

The Royal Norwegian Mint was spun off as a separate limited company on 1 January 2001. Norges Banks owns 100 per cent of the shares. On 24 October 2002, Norges Bank's Supervisory Council endorsed the recommendation from the Executive Board to start the process of selling the Royal Norwegian Mint. To ensure the company's profitability in an increasingly competitive market, new owners are needed that can focus on the company's activities and provide expertise in production and/or distribution.

Norsk Kontant Service AS (NOKAS), supplying cash-handling services, was established in the form of a limited company on 1 July 2001. The company is jointly owned by the largest commercial and savings banks and Norges Bank. Norges Bank owns 33.5 per cent of the company. The company is responsible for most cash handling services in Norway and performs some of the statutory cash-handling tasks assigned to Norges Bank on commission. In connection with the establishment of NOKAS, the regional branches of Norges Bank that were still in operation were closed and their activities transferred to NOKAS.

Norges Bank Investment Management (NBIM) was established as a separate unit in the Bank on 1 January 1998. At the end of the first year of operations, the unit had 41 employees. At end-2002, there were 116 employees in NBIM.

The Bank's work on monetary policy has become more demanding in terms of resources. Resource use for analytical work has risen and will be further increased in 2003. External communications have been strengthened. Access to information pertaining to the work on monetary policy has been improved in various ways, including the establishment in autumn 2002 of a network of regional contacts and by the introduction of expectations surveys.

The production of foreign exchange statistics will be reorganised and transferred to Statistics Norway in the first quarter of 2005.

The Banking Department, which previously performed a number of operational functions for public entities, will focus its operations on activities relating to Norges Bank's core tasks.

Norges Bank's Executive Board has evaluated developments in Norges Bank's Printing Works. The Printing Works previously had a wide product range, but due to changes in the competitive environment, the production of stamps was discontinued in 2000, and the production of passports will cease in 2003. After that, banknotes will be the Printing Works' only product. New technology and heightened security requirements would in the longer term have resulted in the need for extensive investment. On the basis of a profitability assessment, the demand for banknotes at Norges Bank is not sufficient to keep the Printing Works in operation. A new series of banknotes will not be needed until 2007 at the earliest, and the Printing Works will be able to produce banknotes under the current product specifications without the need for major investments and without increasing the workforce until mid-2007. The Executive Board has therefore concluded that the production of banknotes should only be continued up to that date.

The future of the central bank's interbank settlement system has also been assessed by the Executive Board, see Chapter 2 for furthers details. The Executive Board decided that operational activities in Norges Bank's settlement system should be outsourced, but that the operation of interbank settlement and the development of functionality, IT solutions, etc., should remain Norges Bank's responsibility. The basis for a final decision concerning outsourcing of activities is to be prepared in the form of a draft agreement with an external supplier. This is to be drawn up by the end of the first half of 2003 as the basis for a proposal to be presented to the governing bodies of Norges Bank.

Management of the Norges Bank building has been organised as a separate profit centre with the objective of utilising the building more efficiently. Vacant premises are to be leased. The other staff and group services are to be reviewed more closely in the course of 2003.

The Bank has conducted analyses of the total costs of the main functions performed by the Bank with the objective of illustrating the distribution of costs for the various functions. The analysis may raise awareness of cost effectiveness in group services. The distribution of costs was presented for the first time in the 2002 budget and accounts. The costs have been distributed among the following main functions (the abbreviations correspond to those in the chart below):

- Monetary Policy (MonPol)
- Management of Government Petroleum Fund (GPF)
- Management of long-term foreign exchange reserves (LongRes)
- Financial stability (FinStab)
- Settlement Services (SettServ)
- Purchase, production and distribution of notes and coins (Notes/coins)
- Other main functions (Other)[5]

The figures are based on operating expenses and income in the Banks' internal accounts, including depreciation and imputed pension costs. Emphasis has been placed on including costs and income that reflect the Bank's ordinary operating expenses. Costs associated with restructuring and income from the sale of property have therefore been excluded. Consequently, the

5 This includes the operation of buildings by the previous regional branches, commercial activities at Norges Bank's Printing Works, the Banking Law Commission, Statistic Norway's foreign exchange statistics, public funds, banking services for Norges Bank's employees, and the management of the Government Petroleum Insurance Fund and Norges Bank's Pension Fund.

figures presented here differ from the operating expenses included in the Report on the Accounts.

Costs for the three policy areas have been distributed among the main functions. In addition, all central staff and support services that are not included in the policy areas have been distributed among the respective main functions.

The distribution is based on an assessment of what the cost drivers are. However, a certain degree of discretion is involved, and the result must therefore be regarded as an illustration of the overall cost picture. The analyses include both costs that the individual sections of the bank can influence and more central bank-specific costs that are largely fixed.

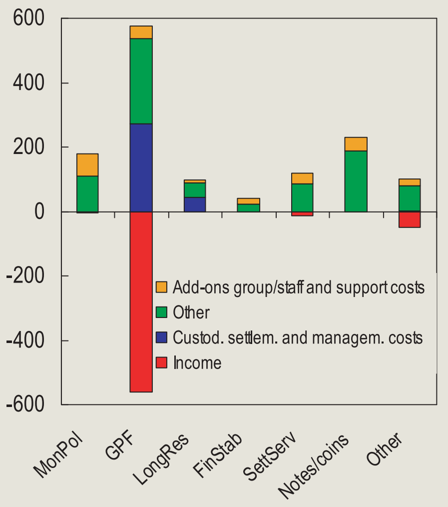
The figure below shows the distribution of costs:

Total costs in 2002 came to a gross amount of NOK 1 345 million and net costs to NOK 720 million.

Management of the Government Petroleum Fund is by far the most demanding task in terms of resources. Norges Bank's management costs are covered by the Ministry of Finance based on the principle of full cost coverage. However, the chart shows that there is a gap between costs and income. This is because the method of calculation that has so far been used by the Ministry of Finance has included a somewhat lower add-on for costs related to staff and support services.

Purchasing, production and distribution costs for notes and coins totalled approximately NOK 230 million, which is higher than the figure in Table 3 in Chapter 2. The figure here is based on a distribution of total costs in the Bank, while the table shows a selection of costs. The method of distributing all costs increases the add-on for capital expenses and costs for staff and support resources.

Chart 22. Use of resources by main functions. In millions of NOK



The chart shows the external costs for the Government Petroleum Fund and the long-term reserves for custodian, settlement and management costs.

The central staff and support resources account for a large portion of operating expenses, with the human-resource intensive main functions accounting for the largest share.

Wholly and partially owned companies

Norsk Kontantservice AS (NOKAS)

Norges Bank owns 33.5 per cent of the shares in NOKAS. A number of banks own the rest of the shares. NOKAS is responsible for most cash handling services in Norway and performs some of the statutory cash-handling tasks assigned to Norges Bank on commission from the Bank. Ordinary operations were approximately in line with the budget. However, due to exchange rate losses and allocations to honour future pension obligations, the company recorded a small deficit in 2002.

The Royal Norwegian Mint

Norges Bank owns 100 per cent of the shares in the Royal Norwegian Mint. Work is under way to prepare for the possible sale of the company with the aim of strengthening its position to meet the challenges of a more competitive market.

Bankplassen Parkeringsanlegg A/S

Norges Bank owns 100 per cent of the shares in Bankplassen Parkeringsanlegg A/S. Expected results for 2002 show a pre-tax deficit of NOK 0.1 million. An agreement to sell 4/5 of the facility was signed in 2001. Some formalities related to division of the property and a technical assessment remain before the final transfer can take place.

Management of Norges Bank's balance sheet

The asset side of Norges Bank's balance sheet comprises international reserves and other foreign assets, domestic securities, loans to banks and fixed assets[6]. These holdings largely reflect the Bank's statutory responsibilities as laid down in the Norges Bank Act: management of foreign exchange reserves, management of domestic liquidity and market-making for the domestic securities markets. On the liability side of the balance sheet, central government deposits, deposits from banks, notes and coins in circulation and capital are the most important items. These liabilities reflect Norges Bank's responsibilities in the area of liquidity

[6] The investments on behalf of the Government Petroleum Fund are also included in the Bank's assets. The counterpart to these investments is the Petroleum Fund's krone account, which is recorded on the liabilities side of the balance sheet with the same value as the investments. As Norges Bank does not have any risk of its own associated with the return on the Petroleum Fund, this part of the balance sheet will not be discussed in this section.

Table 5: Norges Bank's balance sheet at 31 December 2002 – simplified version (in billions of NOK

Assets		Liabilities and capital	
Net international reserves[1]	166	Notes and coins in circulation	45
Securities	13	Central government deposits	49
Other assets	5	Deposits from banks	58
		Other liabilities	6
		Capital	25

[1] Less the Petroleum Fund's investments and the immunisation portfolio in the foreign exchange reserves. The counterpart to the immunisation portfolio is an earmarked portion of central government deposits, to which the return on the portfolio is credited. This portion of central government deposits is also excluded from this simplified presentation.

management and as banker to the central government.

Table 5 provides a simplified overview of the most important items in Norges Bank's balance sheet at end-2002.

The composition of Norges Bank's balance sheet implies an expected surplus. Neither capital nor notes and coins in circulation are interest-bearing. In addition, investment of foreign exchange reserves can be expected to result in a return that is higher than the interest paid by Norges Bank on the various deposits in the Bank. Over time, the expected surplus will be transferred to the Treasury in compliance with stipulated rules and regulations. At the same time, the substantial difference between the compositions of assets and liabilities, respectively, is a source of considerable risk to the Bank's results. Whereas the liability items are denominated in NOK, the largest portion of total assets, i.e. international reserves, is denominated in other currencies. This entails a currency risk for Norges Bank. Norges Bank also pays interest on deposits in the Bank at an interest rate that varies with money market rates, whereas the Bank's securities and reserves are invested mainly in equities and long-term bonds. This entails a risk to the Bank's results related to changes in security prices and interest rate differentials between Norway and abroad.

Norges Bank can only to a limited extent control these risks by changing the composition of the balance sheet. Norges Bank's must have sufficient capital to provide an effective buffer against market volatility. The Adjustment Fund is the most important capital item. Any surplus in Norges bank's accounts shall be divided between the Adjustment Fund and provisions for subsequent transfers to the Treasury (the Transfer Fund). At the beginning of 2002, the Adjustment Fund accounted for NOK 36 billion of NOK 40 billion in total capital.

There was a sharp decline in the Adjustment Fund in the course of 2002, as it had to be used to offset accounting losses related to the risks mentioned above. The main reason for this was that the Norwegian krone appreciated throughout the year. The fall in international equity markets was also a contributory factor. In addition, just under NOK 3 billion in net interest was credited to private banks in 2002. This amount was larger than normal due to an increase in banks' deposits in Norges Bank because the liquidity supplied through Norges Bank's foreign exchange purchases to build up the Petroleum Fund was greater than the liquidity withdrawn over the central government budget. This also detracts from the results for 2002.

Norges Bank's most effective instrument for improving its results in the short term is the interest rate on central government deposits. The interest rate on these deposits is a weighted average of international and Norwegian money market interest rates, where the weights of the international and Norwegian interest rates are determined on the basis of shares of international and Norwegian assets in Norges Bank's assets with a currency exposure. In view of these circumstances, Norges Bank therefore decided in autumn 2002 that the interest rate on central government deposits could be set at zero if the Bank's capital fell below a specific limit. The Bank also proposed changing the system for allocation of the results for the year, which are laid down by Royal Decree. It was proposed that the required amount to be allocated to the Adjustment Fund be increased. This will not improve the Bank's capital position in 2002, because allocations to the Adjustment Fund are contingent on a profit in the accounts. In the longer term, however, a higher allocation requirement would increase the Bank's capital.

Rather than an interest rate reduction as proposed by the Bank, the Ministry of Finance favoured a reversal of the transfer to the Treasury from year-end allocations for 2001, as an extraordinary contribution. Following deliberations on Proposition no. 40 to the Storting (2002-2003), the Storting accordingly decided to transfer NOK 8.9 billion to Norges Bank. This made it unnecessary to reduce the interest rate on central government deposits in the Bank. It was also decided by Royal Decree to increase the requirement for the Adjustment Fund as a share of the Bank's international assets with a currency exposure from 25 to 40 per cent. As a result of this, any surplus in the years ahead will be used in full to increase the Adjustment Fund, until it reaches the statutory size.

PART III: FINANCIAL STATEMENTS FOR 2002 FOR NORGES BANK

Report of the Executive Board on the financial statements for 2002

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 non-interest-bearing debt. The offsetting entry is the Bank's interest-bearing claims on other market participants. 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 achieve 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 financial statements for 2002 show a deficit of NOK 24.1 billion, compared with a deficit of NOK 4.7 billion in 2001. The main reason for this is the appreciation of NOK against all the main currencies in the foreign exchange reserves. As a result, foreign exchange reserves translated into NOK showed exchange losses of NOK 24.3 billion in 2002, compared with losses of NOK 4.9 billion in 2001. Exchange losses due to the appreciation of the krone have no effect on the international purchasing power of the foreign exchange reserves.

The decline in prices in the international securities markets in 2002 resulted in a capital loss of NOK 2.1 billion, compared with a loss of NOK 3.8 billion in 2001.

Interest income from foreign investments came to NOK 8.7 billion, which is NOK 2.7 billion less than in 2001.

Interest payments to the Treasury amounted to NOK 2.5 billion. Total interest payments to the Treasury came to NOK 4.8 billion in 2001.

In 2002, a net amount of NOK 2.8 billion in interest was paid to banks, compared with NOK 0.1 billion in 2001.

The Adjustment Fund contained NOK 36.3 billion at end-2001. In order to boost the Adjustment Fund, the Storting resolved after considering Recommendation no. 40 (2002-2003) to the Storting to transfer NOK 8.9 billion to Norges Bank. This is equivalent to the amount transferred from Norge Bank's Transfer Fund to the central government for the 2001 accounting year. The guidelines for the application of Norges Bank's profit were amended with effect for the 2002 accounting year to permit the accumulation of a larger buffer in the Adjustment Fund. The Bank's deficit in 2002 will by and large be covered by the Adjustment Fund. Following the year's allocations for 2002, the Adjustment Fund amounts to NOK 21.5 billion.

Notes and coins in circulation amount to NOK 45.0 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 70 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 up to a certain limit, according to the principle of full coverage of expenses.

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 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 and submitted to the Ministry of Finance. These guidelines set limitations on credit exposure, interest rate risk, equity risk and exchange rate risk.

Norges Bank's international reserves are divided into separate portfolios according to purpose. The liquidity portfolio is composed in such a way that it

Table 1. The composition of net international reserves at 31 December by main portfolio, and current derivatives (market values in millions of NOK)

	Foreign exchange reserves 2002						Total international reserves	
	Liquidity portfolio etc.[1]	Long-term portfolio	Immuni-sation portfolio	Buffer portfolio	**Total foreign exchange reserves**	Gold reserves IMF	**2002**	**2001**
Total reserves	**33 031**	**92 553**	**3 936**	**28 265**	**157 785**	**12 749**	**170 534**	**168 618**
Derivatives purchased		33 007		1 256	34 263		34 263	28 990
Derivatives sold		30 879			30 879		30 879	23 166

[1] Includes working accounts abroad

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

Currency	**2002**	**2001**
USD	27.1	24.4
CAD	1.2	1.4
JPY	5.8	8.4
GBP	14.4	16.6
EUR	47.4	44.6
Other currencies	4.1	4.6
Total	**100.0**	**100.0**

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 immunisation portfolio is coordinated with central government foreign debt to minimise interest rate and exchange rate risk. 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. This sub-portfolio contains equities from 2002 in addition to interest-bearing securities. 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.

Size and composition of the international reserves

Gross international reserves stand at NOK 224.2 billion on the balance sheet. After account was taken of repurchase agreements and borrowing abroad, which amount to NOK 53.7 billion, net international reserves came to NOK 170.5 billion at end-2002, of which foreign exchange reserves amounted to NOK 157.8 billion. Table 1 shows the distribution of international reserves in the main portfolios. The table also shows the value of derivatives (futures, forward contracts and interest rate swaps) at year-end. Note 2 to the accounts shows the distribution of foreign exchange reserves by instruments.

The percentage distribution of Norges Bank's foreign currency reserves broken down by currency at end-2002 and end-2001 is shown in Table 2.

Changes in the value of foreign exchange reserves

Foreign exchange reserves[1] amounted to NOK 155.4 billion at end-2001. In the course of 2002, foreign exchange reserves increased by NOK 2.4 billion to NOK 157.8 billion. Reserves increased mainly because foreign exchange transfers from the SDFI, the State's Direct Financial Interest in petroleum activities, and

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

Table 3: Changes in foreign exchange reserves in 2002. In billions of NOK

	Change 2002	Holdings
Foreign exchange reserves at market value, 31.12.2001		**155.4**
Foreign exchange purchases for the Government Petroleum Fund	56.5	
Transfers to the Government Petroleum Fund)	93.2	
Transfers from the Government Petroleum Insurance Fund	-125.7	
Interest payments on central government foreign debt	-0.4	
Repayment of central government foreign debt	-0.3	
Change IMF	-1.3	
Investment in foreign banks in Norway	-0.8	
Return on foreign exchange reserves	-0.8	
Change in investment in foreign banks in Norway	-18.0	
Total change	2.4	**2.4**
Foreign exchange reserves at 31.12.2002 (market value)		**157.8**

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 2002. On the other hand, a negative return of NOK 18.0 billion was recorded on the foreign exchange reserves in 2002. Table 3 shows a breakdown of the change in foreign exchange reserves by main items.

Return on international reserves

A negative return of NOK 19.7 billion was recorded on the international reserves in 2002, compared with a positive return of NOK 0.5 billion in 2001 (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.

The loss of NOK 24.3 billion on foreign exchange was due to the appreciation of NOK against the currencies in the international reserves. The exchange loss has no effect on the international purchasing power of the reserves.

Capital losses on securities amounting to NOK 2.6 billion in 2002 were due primarily to a fall in prices in international stock markets. By way of comparison, there was a loss of NOK 3.8 billion in 2001.

Interest income on the foreign exchange reserves was NOK 7.2 billion in 2002, compared with NOK 9.1 billion in 2001. One reason for the reduction is that some bondholdings in the long-term portfolio were replaced with equities as an adaptation to a new investment strategy.

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 krone deposits in Norges Bank. Norges Bank invests this capital separately in the Bank's name in assets denominated in foreign currency. In 2002, the Fund was managed in accordance with the Regulation on the Management of the Government Petroleum Fund, pursuant to section 7 of Act no. 36 of 22 June 1990 relating to the Government Petroleum Fund.

Table 4. Return on international reserves in 2002 and 2001. In millions of NOK

	Foreign exchange reserves 2002							**Total international reserves**	
	Working accounts	Liquidity portfolio	Long-term portfolio	Immunisation portfolio	Petroleum buffer portfolio	**Total foreign exchange reserves**	Gold reserves IMF	**2002**	**2001**
Exchange rate and gold reserve changes	306	-5 190	-14 944	-825	-1 918	**-22 571**	-1 743	**-24 314**	**-4 787**
Securities adjustments	-	-30	-2 896	-93	586	**-2 433**	-127	**-2 560**	**-3 837**
Current interest income	-5	1 741	4 695	237	324	**6 992**	183	**7 175**	**9 101**
Total	**301**	**-3 479**	**-13 145**	**-681**	**-1 008**	**-18 012**	**-1 687**	**-19 699**	**477**

Table 5. Changes in the Government Petroleum Fund's krone account in 2002. In billions of NOK

	Transfers	Government Petroleum Fund's krone account
The Petroleum Fund's portfolio at 31.12.2001		613.3
Transferred in 2002 Q1	24.3	
" 2002 Q2	53.6	
" 2002 Q3	37.6	
" 2002 Q4	10.3	
Net return in 2002:		
Valuation adjustments on foreign exchange	-104.1	
Other items	-25.9	
Remuneration for management	-0.6	
Total change	**-4.8**	**-4.8**
The Petroleum Fund's krone account at 31.12.2002		**608.5**

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

	31.12.01	**31.03.02**	**30.06.02**	**30.09.02**	**31.12.02**
Equity portfolio	246 576	264 314	234 219	219 644	230 993
Fixed income portfolio	367 113	360 757	371 114	383 938	378 042
Accrued management remuneration	-372	-130	-260	- 391	-560
Total	**613 317**	**624 941**	**605 073**	**603 191**	**608 475**

The Government Petroleum Fund's krone account in 2002
The Government Petroleum Fund's krone account amounted to NOK 613.3 billion at the end of 2001. During 2002, capital totalling NOK 125.8 billion was transferred to the Fund. After taking account of the negative return in 2002, the krone account amounted to NOK 608.5 billion at end-2002. Table 5 shows developments in the krone account.

Measured by market value, the return on the Government Petroleum Fund in 2002 was a negative NOK 130.6 billion, of which NOK 104.1 billion is attributable to exchange rate losses due to the appreciation of the krone against most investment currencies in 2002. Exchange rate losses have no effect on the international purchasing power of the Fund. The Petroleum Fund's losses on securities in 2002 amounted to NOK 47.0 billion, which included unrealised losses of NOK 27.1 billion at end-2002. See note 18 for a specification of various items on the balance sheet and profit and loss account.

Table 6 shows changes in the composition of the Government Petroleum Fund in 2002 and figures for end-2001 for purposes of comparison.

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

Currency	**2002**	**2001**
US dollar	30.3	29.0
Canadian dollar	2.3	1.7
Asian currencies	12.4	18.8
Sterling	10.7	13.0
Euro	39.6	32.2
Other European currencies	4.7	5.3
Total	**100.0**	**100.0**

Norwegian Treasury bills and government bonds

All holdings and turnover figures in this section are stated in nominal values. Accounting values are shown in Note 8.

Norges Bank's holdings of Norwegian securities consist of Treasury bills and bonds issued by the Norwegian government. Treasury bills are used by the Bank for market-making purposes in the secondary market.

Norges Bank’s net sales of Treasury bills in the secondary market amounted to NOK 2.4 billion. Norges Bank purchased Treasury bills for NOK 3 billion in the primary market. When Norges Bank's holdings of particular Treasury bills become too small for market-making purposes, the Ministry of Finance may issue new bills for subscription by Norges Bank. In 2002, Norges Bank subscribed for NOK 5.5 billion.

Market-making in government bonds is undertaken by primary dealers who, according to an 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 from Norges Bank, contingent upon an agreement to sell them back within five days (repurchase agreement). Norges Bank’s holdings of government bonds form the basis for this borrowing facility.

Commitments to Norwegian banks

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 2002, banks had an average of NOK 15.6 billion in sight deposits.

Fixed-rate deposits (F-deposits)

Norges Bank issues F-deposits with short maturities in periods when there is substantial excess liquidity in the banking system. The interest rate on F-deposits is determined through standard auction. In 2002, maturities for F-deposits varied from 1 to 12 days. The daily average for F-deposits was NOK 23.1 billion in 2002, compared with NOK 2.7 billion in 2001.

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 for D-loans. Interest rates on F-loans in 2002 were determined through standard auction. The maturity of F-loans varied from 1 to 6 days. The daily average for F-loans was NOK 0.5 billion in 2002, compared with NOK 13.3 billion in 2001. No liquidity was supplied through currency swap agreements or repurchase agreements for securities in 2002.

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 2002. The scale of overnight loans is 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 and F-deposits are accepted as collateral.

Extraordinary loans (E-loans)

An E-loan is an extraordinary, intraday borrowing facility for banks and branches, in excess of the collateral furnished. The arrangement was introduced to assure the execution of high-priority payment settlements. E-loans must be repaid on the same day they are provided. E-loans were introduced because banks lacked experience in managing liquidity through the day. They have gradually adjusted to the new parameters for payment settlements and have become more adept at managing liquidity through the day and from one day to the next.

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. The E-loan limits are set in such a way that normal cash withdrawals are not restricted. The limits are NOK 15 million for banks with total assets up to NOK 10 billion, NOK 125 million for banks with total assets of NOK 10-100 billion and NOK 500 million for banks with total assets over NOK 100 billion.

Banks’ responsibility for procuring cover for settlement has been made clear through the introduction of a fixed charge of NOK 5 000 for E-loans in addition to an amount equivalent to the interest on an unsecured D-loan.

E-loans were issued to three banks in 2002. All E-loans were issued because of insufficient cover for cash withdrawals. The total amount was NOK 2.4 million. At end-2002, 139 banks furnished collateral for loans in Norges Bank.

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 (PRGF). The programme is not funded over the IMF’s ordinary budget, but instead capital is borrowed from the 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 agreement between Norges Bank and the IMF is formulated to the effect that the Fund must have drawn this amount by a given date. Once the IMF draws on the resources, they are tied for up to 10 years as far as Norges Bank is concerned. The amount outstanding at end-2002 was SDR 87.6 million, which is equivalent to NOK 0.8 billion.

Norges Bank's Printing Works

The primary task of the printing works is to develop and produce Norwegian banknotes. The printing works also produces Norwegian passports on a commercial basis for the Directorate of Police. Passport production at the printing works will be discontinued in 2003.

A new, upgraded 200-krone note was put into circulation on 16 April 2002. The note was upgraded to the same level of security against counterfeits as the 1000- and 500-krone notes by equipping it with metallic features which are easily seen by the public and difficult to reproduce.

The printing works' operating expenses, less depreciation and imputed expenses, totalled NOK 59.2 million, of which NOK 12 million is attributable to commercial activities. Turnover due to commercial activities amounted to NOK 17.6 million, which resulted in a profit of NOK 2.9 million after depreciation and imputed expenses. The average production cost per banknote is NOK 0.90.

Cash handling

Norsk Kontantservice AS (NOKAS), which was established in 2001, provides services associated with the management of depots and destruction of banknotes for Norges Bank. Total remuneration for these services amounted to NOK 47.9 million in 2002.

In addition, Norges Bank has depots in Hammerfest and Vardø, where a management agreement has been entered into with Sparebanken Nord-Norge. The costs associated with this activity came to NOK 2.5 million in 2002.

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 42.3 million in 2002.

The Bank's administration

Staff

At end-2002, Norges Bank had a total of 663 permanent and temporary employees, which is 1 position more than a year earlier.

Health, environment and safety

Bank employees participate in decision-making bodies and in central and local works councils. The Bank has arranged working environment courses for managers, safety delegates and members of environmental and works councils.

The Bank has continued its efforts to achieve a more even distribution between men and women in all areas and job categories. Focus on this work has resulted in some increase in the percentage of women in job categories for which targets have been set.

Absenteeism due to illness was 3.9 per cent of the total number of working days in 2002. The corresponding figure for 2001 was 4.6 per cent.

Working conditions

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

Norges Bank offers loans to its employees, and in 2002 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 Bank also offers its employees some banking services. Payment for these banking services is determined on the basis of other banks' charges for corresponding services.

The employee insurance programme covers personal guarantees (including compulsory occupational injury and health insurance), accident insurance for especially exposed occupations, group life insurance and travel insurance for business travel. These expenses accountfor 1.2 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.

Table 8. Production figures for Norwegian banknotes and Norwegian passports in 2002 and 2001. (One package = 500 notes)

	2002	2001
1000-krone notes	0 packages	72 131 packages
500-krone notes	34 776 packages	0 packages
200-krone notes	79 309 packages	31 814 packages
100-krone notes	20 014 packages	0 packages
50-krone notes	0 packages	36 075 packages
Norwegian passports	326 700	359 600
Personalised passports	13 981	101 111

[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 2002 was set at 6%.

The Bank owns two course and holiday facilities: Venastul and Vindåsen. Venastul, which is located in Ringebufjellet, is in operation all year round. In 2002, a total of 8045 guest-nights were recorded. Vindåsen, which is located in Tjøme, is only open during the summer. In 2002, it recorded 3106 guest-nights. Net operating subsidies in 2002 amounted to NOK 2.8 million. Capital costs are not taken into account.

The Bank has also issued interest- and instalment-free loans for a total of NOK 3.6 million over the years for the purchase of nine cabins for use by employees. The sale of these cabins is being considered.

Restructuring

In 2002, 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. At end-2002, 240 agreements for redundancy pay or early retirement had been concluded. Many agreements will only take effect in the period 2003-2007. Restructuring is not yet complete in the Statistics Department, Banking Department or Norges Bank Printing Works, where additional agreements are expected.

Distribution of 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 levels specified in point 1, first paragraph, the surplus shall be reversed to the profit and loss accounts.
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 397.5 million is to be transferred from other capital to cover the 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 4, the year's deficit after other allocations, NOK 23.7 billion, will be covered by a transfer from the Adjustment Fund.

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

Oslo, 5 February 2003
Norges Bank's Executive Board

Svein Gjedrem Chairman	Jarle Bergo Deputy Chairman	Sigbjørn Johnsen
Elisabeth Hunter	Sylvi R. Sørfonn	Trond R. Reinertsen
Vivi Lassen	Jan Erik Martinsen	Sonja Blichfeldt Myhre

Profit and loss account

All figures in thousands of NOK	Note	2002	2001	2000
Foreign interest income:				
Interest on bank deposits/loans	2	2 170 968	3 226 943	2 584 568
Interest on bearer bonds and Treasury bills	2, 5	6 313 887	7 903 585	8 725 846
Other interest income		169 079	258 465	338 292
Share dividend, BIS	7	15 221	14 959	14 373
Total foreign interest expenses		**8 669 155**	**11 403 952**	**11 663 079**
Return on investments for Government Petroleum Fund	**18**	**-130 010 197**	**-23 955 688**	**14 178 454**
Foreign interest expenses:				
Interest on deposits/borrowings	2	1 881 050	2 425 249	1 752 469
Interest to foreign customers		15 557	41 971	44 175
Total foreign interest income		**1 896 607**	**2 467 220**	**1 796 644**
Net foreign interest income		**-123 237 649**	**-15 018 956**	**24 044 889**
Domestic interest income				
Interest on bearer bonds		635 993	696 710	682 771
Interest on negotiable notes and short-term paper		0	8 265	158 910
Interest on loans to banks		38 188	947 701	323 779
Interest on other loans		48 085	42 029	36 689
Total domestic interest income		**722 266**	**1 694 705**	**1 202 149**
Domestic interest expenses:				
Interest to the Treasury	15	1 654 300	4 813 988	3 561 391
Interest (return) to Government Petroleum Fund	18	-130 010 197	-23 955 688	14 178 454
Interest to public account holders	15	4 229	125 318	7 707
Interest to banks		2 876 431	1 082 317	1 012 364
Other interest expenses		6 126	9 883	9 726
Total domestic interest expenses		**-125 469 111**	**-17 924 182**	**18 769 642**
Net domestic interest expenses		**-126 191 377**	**-19 618 887**	**17 567 493**
Net interest income, domestic and foreign		**2 953 728**	**4 599 931**	**6 477 396**
Dividend		**402 293**	**136 379**	**0**
Valuation changes:				
Net losses (-)/gains on foreign exchange	1, 2	-24 442 031	-4 877 135	5 988 149
Net losses (-)/gains on foreign securities and financial instruments	1, 2	-2 559 906	-3 912 645	1 582 116
Net losses (-)/gains on Norwegian securities	1	418 166	151 034	503 014
Net valuation changes		**-26 583 771**	**-8 638 746**	**8 073 279**
Net interest income, dividends and valuation changes		**-23 227 750**	**-3 902 436**	**14 550 675**
Operating income:				
Fees and commission income		18 566	88 726	126 693
Other income	13, 18	651 294	465 555	458 418
Total operating income		**669 860**	**554 281**	**585 111**

Operating expenses:				
Wages, salaries and other personnel costs	16	445 625	501 887	555 713
Restructuring costs	16	70 877	103 037	129 860
Depreciation and write-downs	11	123 668	108 391	120 249
Other operating expenses	13	890 898	672 531	608 386
Total operating expenses		**1 531 068**	**1 385 846**	**1 414 208**
Net operating expenses		**861 208**	**831 565**	**829 097**
Operating profit before allocations and loan losses/bad debts	**-24 088 958**	**-4 734 001**	**13 721 578**	
Allocations and loan losses/bad debts	1	2	70	-37
Profit/loss(-) for the year		**-24 088 960**	**-4 734 071**	**13 721 615**
Transfers:				
Profit/loss(-) for the year		-24 088 960	-4 734 071	13 721 615
Transferred from the Adjustment Fund	20	23 691 494	4 725 769	0
Transfers from 'Other capital\rquote	19	397 466	79 417	80 197
Reserves		**0**	**71 115**	**13 801 812**
Allocated to 'Other capital'	19	0	71 115	68 118
Total allocations		**0**	**71 115**	**68 118**

Balance sheet at 31.12.2002

All figures in thousands of NOK

ASSETS	Note	2002	2001
International reserves	**1,2**	**224 179 147**	**212 123 800**
Gold reserves	3	2 805 880	2 932 674
Special drawing rights on the International Monetary Fund		2 189 733	3 191 702
Reserve tranche position in the International Monetary Fund	4	6 886 165	6 532 763
Loans to the International Monetary Fund		834 145	1 164 892
Deposits and loans, foreign banks	6	87 913 980	55 446 825
Foreign bearer bonds (incl. Treasury bills)	5,6	105 139 231	117 274 632
Foreign equities		16 357 360	22 951 890
Accrued interest, earned, incl. current assets		2 052 653	2 628 422
Investments for Government Petroleum Fund	**18**	**608 474 538**	**613 317 485**
Other foreign assets		**8 912 048**	**12 407 635**
The International Monetary Fund	4	8 887 327	12 382 857
Shares in the BIS	7	24 700	24 700
Other foreign deposits		21	78
Norwegian securities	**1,8**	**12 837 536**	**11 523 342**
Treasury bills/notes	8	2 087 695	2 450 649
Government bonds	8	10 749 841	9 072 693
Domestic lending		**653 679**	**15 743 002**
Banks		2 794	15 140 000
Other domestic sectors	9	650 885	603 002
Deposits in Norwegian banks		**1 035 875**	**42 975**
Other domestic assets		**1 620 988**	**1 057 411**
Accrued interest, earned		408 033	329 156
Other assets		1 191 200	701 265
Inventories, banknote and coin production	1	21 755	26 990
Shares in subsidiaries and associated companies	**10**	**41 800**	**41 800**
Fixed assets	**1,11,12**	**1 574 619**	**1 832 102**
TOTAL ASSETS		**859 330 230**	**868 089 552**

Oslo, 5 February 2003

Svein Gjedrem
Chairman

Jarle Bergo
Deputy Chairman

Sylvi R. Sørfonn

Trond R. Reinertsen

Vivi Lassen

LIABILITIES AND CAPITAL	Note	2002	2001
Foreign debt		**62 772 707**	**56 211 296**
Foreign banks		94 980	76 502
Borrowing, foreign banks	6	53 502 737	42 860 172
Foreign customers' sight deposits		9	662 140
The International Monetary Fund	4	8 887 588	12 383 147
Other foreign liabilities	7	287 393	229 335
Equivalent value of SDR allocations		**1 583 011**	**1 898 351**
Government Petroleum Fund's assets	**18**	**608 474 538**	**613 317 485**
Government Petroleum Fund's krone account	18	608 474 538	613 317 485
Notes and coins in circulation	**14**	**44 954 570**	**46 633 235**
Notes in circulation		40 836 071	42 743 609
Coins in circulation		4 118 499	3 889 626
Domestic sight deposits		**111 893 018**	**106 662 794**
Treasury		52 491 753	83 502 622
Central government registrars		28 805	39 824
Central government funds		240 405	5 165
Banks		57 626 580	21 614 118
State lending institutions and state enterprises		1 427 268	1 405 602
Other deposits	9	78 207	95 463
Other domestic liabilities		**4 213 792**	**2 696 139**
Borrowing from domestic banks	6	3 498 432	2 005 658
Accrued interest, payable		100 677	51 327
Other liabilities	16	614 683	639 154
Capital		**25 438 594**	**40 670 252**
Adjustment fund	20	21 512 972	36 347 164
Other capital	11,19	3 925 622	4 323 088
TOTAL LIABILITIES AND CAPITAL		**859 330 230**	**868 089 552**
Derivatives sold	1,17	30 879 001	23 164 887
Derivatives purchased	1,17	34 262 328	28 989 742
Government Petroleum Fund, derivatives sold	18	143 088 671	109 491 630
Government Petroleum Fund, derivatives purchased	18	149 549 163	129 918 325
Allotted, unpaid shares in the BIS	7	309 557	324 329

Norges Bank's Executive Board

Sigbjørn Johnsen Elisabeth Hunter

Jan Erik Martinsen
(Employees' representative)

Sonja Blichfeldt Myhre
(Employees' representative)

Notes to the accounts

Note 1. 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. Norwegian accounting legislation differs on the following points:

- Cash flow analyses are not prepared.
- Gold is valued at market value with effect from 2002, even though gold is not sold.

Norges Bank's accounts are adjusted to incorporate value-dating corrections. Securities trades are registered on the trade date.

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 were translated into NOK at 31 December 2002 on the basis of market rates from WM Reuters, London, at 4 pm. Income and expenses in foreign currency were translated into NOK at the exchange rates prevailing at the time of transactions.

Securities
The portfolio of foreign and Norwegian securities is valued at market value at 31 December 2002. The securities are classified as short-term, since they shall be available for intervention purposes.

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 and interest rate swap agreements.

Forward contracts are recorded at forward rates. Forward premiums/discounts, futures contracts and interest rate swap agreements are carried at market value at 31 December 2002. Fluctuations in the market value are recorded in the profit and loss account under valuation adjustments.

Valuation of stocks
Stocks of raw materials at the Printing Works and the metal stocks for coin production 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 2. Foreign exchange reserves

Total international reserves amount to NOK 224.2 billion, including bonds subject to repurchasing agreements. The repurchasing agreements must be seen in connection with foreign funding, which, including accrued interest, amounts to NOK 53.7 billion. International reserves also include gold reserves and claims on the International Monetary Fund (IMF), neither of which is included in the foreign exchange reserves. After deduction of bonds subject to repurchase agreements and existing agreements on forward purchase and sale of foreign exchange, net foreign exchange reserves amounted to NOK 159.0 billion.

Net foreign exchange reserves at 31 December 2002:

Figures in thousands of NOK	2002	2001
Deposits and loans, foreign banks	87 913 980	55 446 826
Foreign bearer bonds and Treasury bills	105 139 231	117 274 633
Foreign equities	16 357 360	22 951 890
Accrued interest	2 042 370	2 628 422
- Interest earned on gold lending	-2 214	-6 585
- Interest earned IMF	-20 875	-24 386
Borrowing, foreign banks	-53 502 737	-42 860 172
- Accrued interest on borrowing, banks, and interest rate swap agreements	-142 528	-58 434
Gross foreign exchange reserves	**157 784 587**	**155 352 194**
- Forward foreign exchange purchases	4 383 481	3 632 684
- Forward foreign exchange sales	-3 127 516	-1 862 505
Net foreign exchange reserves	**159 040 552**	**157 122 373**

Return on net foreign exchange reserves:

Figures in thousands of NOK	2002	2001
Interest income from bank deposits/loans	2 170 968	3 226 943
- Interest from gold lending	-14 445	-33 363
Interest income from bearer bonds and Treasury bills	6 313 887	7 903 585
Interest expenses on bank borrowing	-1 881 050	-2 425 249
Share dividends	402 292	136 379
Net interest income and dividend	**6 991 652**	**8 808 295**
Valuation adjustments, foreign securities and fin. instruments	-2 559 906	-3 836 781
- Adjustments, gold	126 589	-71 115
Income forward foreign exchange transactions	227	12 097
Net valuation adjustments for foreign exchange	-24 442 030	-4 877 135
- Correction for changes, IMF	1 745 146	361 920
- Correction for changes, gold reserves	-1 994	-611
- Correction for changes in domestic foreign exchange investments	128 230	90 956
Net valuation changes	**- 25 003 738**	**- 8 320 669**
Return on net foreign exchange reserves	**- 18 012 086**	**487 626**

Note 3. Gold reserves

Gold reserves are marked to market with effect from 2002. The change in principle resulted in a write-up of NOK 586.5 million for the value of gold as at 1 January 2002. The effect of the change in principles has been entered under ‘Other capital’ (see Note 20). The market price (LME) at 31 December 2002 was USD 342.75 per ounce of pure gold, i.e. a market price of NOK 76 342.00 per kg of gold.

At end-2002, 33 494.7 kg of the gold bars were placed in international banks as short-term loans. The market value of the gold on loan was NOK 2 557.1 million.

The gold bar reserves have been reduced by 26.6 kg since end-2001. 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 differential is settled at the market value of gold at the time the gold is returned.

Interest on gold lending in 2002 amounted to NOK 14.4 million.

Gold reserves consist of:	**Weight in kg 31.12.02**	**Market value at 31.12.02 (NOKm)**	**Weight in kg 31.12.01**	**Market value at 31.12.01 (NOKm)**
Bars	33 582.73	2 563.8	33 609.3	2 679.8
Coins*	3 171.4	242.1	3 171.4	252.9
	36 754.1	**2 805.9**	**36 780.7**	**2 932.7**

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

Note 4. Reserve tranche position in the International Monetary Fund

In millions of NOK	2002	2001
Norway's quota in the IMF	15 773.5	18 915.6
The IMF's holdings of NOK	-8 887.3	-12 382.8
Reserve tranche position	6 886.2	6 532.8

The reserve tranche position in the IMF is classified as "International reserves". The Fund's holdings of NOK are posted under "Other foreign assets" as the item "The International Monetary Fund". The corresponding liability, including the Fund's working account, amounting to NOK 8 887.6 million, is entered under "Foreign liabilities" as the item "The International Monetary Fund".

Note 5. Foreign securities

In millions of NOK	2002	2001
Short-term paper	566.6	0
Bearer bonds	104 572.6	117 274.6
Equities	16 357.4	22 951.9
Holdings foreign securities at 31 December	121 496.6	140 226.5

Investments are made in market-based, current financial assets which are valued at market value.

Note 6. Repurchase/reverse repurchase agreements

Repurchase agreements for securities in foreign currencies are included under "Borrowing from foreign banks". The book value (the transfer amount) of the repurchase agreements is NOK 53.5 billion. The market value of the securities is NOK 52.6 billion.

Reverse repurchase agreements for securities are entered as "Deposits and loans, foreign banks" under "International reserves". The book value of the reverse repurchase agreements is NOK 39.9 billion.

Repurchase agreements for securities in NOK are included under "Other domestic liabilities". The book value (the transfer amount) of repurchase agreements is NOK 3.5 billion. The market value of the securities is NOK 3.4 billion.

Note 7. Shares in the Bank for International Settlements (BIS)

Norges Bank has been allotted a total of 8 000 shares at 2 500 Gold Francs in the 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 4 000 shares, of which 1 000 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 4 000 shares in 1931 (NOK 7.2 million), plus the value of 3 000 shares in 1970 (NOK 17.5 million).

Norges Bank has a conditional obligation to pay for the remaining 75 per cent of the shares in either Gold Francs or gold. The liability is calculated at NOK 332.5 million on the basis of the price of gold on the London Stock Exchange on 31 December 2002. 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 309.6 million, is recorded as an off-balance sheet item. In 2002, the dividend on BIS shares amounted to NOK 15.2 million.

Note 8. Norwegian securities

In millions of NOK	2002	2001
Treasury bills	2 087.7	2 450.6
Norwegian government bonds	10 423.1	8 352.4
Norwegian government bonds in foreign currency	326.7	720.3
Holdings of Norwegian securities at 31.12.	12 837.5	11 523.3

Note 9. Loans to and deposits from employees and pensioners

In millions of NOK	2002	2001
Housing loans to employees and pensioners	606.0	551.3
Other loans to employees	41.3	47.9
Total loans to employees at 31.12.	**647.3**	**599.2**
Presented in the line: "Other domestic sectors"		
Deposits from employees and pensioners 31.12.	**56.2**	**62.7**
Presented in the line: "Domestic sight deposits"		

Note 10. Shares in subsidiaries and associated companies

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 50 000, i.e. the nominal value of the shares. Norges Bank has paid NOK 34 million for its own parking places, and has also provided a subordinated loan of NOK 143.7 million, of which NOK 29 million was repaid to Norges Bank in the period 1997-2002. In 2002, Norges Bank's interest income on the loan totalled NOK 7 million. An agreement to sell 4/5 of the facility was signed in 2001. Formalities associated with sectioning of the facility remain to be settled before transfer takes place. 97 parking places are not being sold and can be used by the employees.

The pre-tax deficit is estimated at NOK 0.1 million.

Shares in Den Kongelige Mynt AS (the Royal Norwegian Mint)
Norges Bank owns 100 per cent of the shares in Den Kongelige Mynt AS. Operations in the newly formed limited company commenced on 1 January 2001. The company's share capital is NOK 25 million, fully paid up in 2000. A process aimed at selling the company is currently in progress.

In 2002, DKM AS achieved a pre-tax profit of NOK 2.0 million.

Shares in Norsk Kontantservice AS (NOKAS)
Norges Bank owns 33.5 per cent of the shares in NOKAS. The company was established by Norges Bank and a number of other banks, and started operations on 1 July 2001. There is equity capital of NOK 50 million, of which Norges Bank has a 33.5 per cent ownership interest. NOK 16.75 million has been paid in. NOKAS' preliminary accounts for 2002 are estimated to show zero profit.

Note 11. Fixed assets

Figures in thousands of NOK

	Vehicles, machinery, computer equipment	Security system	Machinery, fixtures	Buildings	Bank buildings with installations	Plant under construction	Dwellings	Land	Total
Original cost at 1.1.	140 803	54 809	62 346	509 920	1 728 555	48 589	2 950	93 299	2 641 271
+ Transfers from plant under construction	47 976					(47 976)			0
+ Additions	24 150	11 431	1 462			24 595			61 638
- Disposals	45 236	22 125	14 407	40 839	160 745	169	0	26 829	310 350
Adjustments				(38 771)	38 771				0
Original cost at 31.12.	167 693	44 115	49 401	430 310	1 606 581	25 039	2 950	66 470	2 392 559
- Accum. depreciation and write-down	89 733	22 401	23 786	303 127	378 893	0	0	0	817 940
Book value at 31 December	77 960	21 714	25 615	127 183	1 227 688	25 039	2 950	66 470	1 574 619
Non-written-off remainder of previously revalued assets	0	0	0	111 276	1 224 786	0	2 950	64 920	1 403 932
Ordinary depreciation for the year	22 552	5 119	5 463	37 120	53 414	0	0	0	123 668
Of which write-off of revalued assets	0	0	333	35 577	53 254	0	0	0	89 164
Depreciation rate	20	15	10	5	2	0	0	0	

Note 12. Real estate

Norges Bank's properties at 31 December 2002 are specified below.

Branch	Address	Year built/ purchased	Subsequent building projects	Year completed	Gross area (sq.m.) incl. area let and staff flats
Bergen	Bradbenken 1-50% interest	1983/89	Restoration	1989/1990	5 364
Hammerfest	Sørøygt. 10	1962	Restoration	1995,99,01	1 462
Stavanger	Domkirkepl.3,				
	site, about 5 000 sq. m.	1964	Restoration	1991	3 254
Oslo	Bankpl. 2, 207/198	1978/86	New building/ restoration	1986	65 000
	Bankpl. 4, 207/392	1899	Previous headquarters*	1992	
	Bankplassen parking				
	facility, 207/28	1948			
Course and holiday					
centres:					
Venastul	Venabygd	1963	Restoration	1993	2 000 **
Vindåsen	Sundane, Tjøme	1948/56	Annex, restoration	1960,1993	1 067
Abroad:					
New York					
Staff flat	275, West 96th Street	1984			140

There are staff flats in Stavanger and Hammerfest connected with the bank premises.
* Leased to the government for 80 years. Expires on 21 November 2066 (Museum of Contemporary Art). Lease dated 21 November 1986. Deadline for notice of termination: 21 November 2065.
**Including manager's residence and parking facility

In 2002, the buildings connected with previous regional branches in Vardø, Bodø, Fredrikstad, Larvik, Lillehammer, Tromsø, Trondheim and Ålesund and the land in Stavanger were sold. The sales sum less the costs associated with the sale was NOK 135.3 million. Overall, the sales led to an accounting loss of NOK 49.9 million.

In January 2003, Norges Bank entered into contracts for the sale of buildings in Bergen and Hammerfest. In the accounts, a total of NOK 14 million was written down for expected losses on the sale of the properties.

The building in Stavanger will be sold when the future location of NOKAS's operations has been established.

Rented properties

In 2002, the Bank had rental contracts on the following properties:

Address	Lease term	Area	Rent 2002
Bodø	30.06.2007	774 sq. m.	424 300
Kristiansund	15.05.2008	486 sq. m.	466 929
Larvik	31.03.2007	38.4 sq. m.	78 000
Oslo (Lillehammer)	25 years beginning in 1990	3 588 sq. m.	5 032 161
Vardø	30.06.2007	1 570 sq. m.	650 750
New York			
17 State St.[1)]	31.08.2007	330 sq. m.	817 000
London:			
14 Ryder Court[1)]	08.06.2005	170 sq. m.	GBP 111 772 (incl. joint overheads)

[1)] In addition, Norges Bank rents apartments in London and New York which are made available to personnel who are posted to the external offices.

Note 13. Other revenues and other expenses

Distribution of other revenues and other operating expenses, by main items:

Figures in thousands of NOK	**2002**	**2001**
Other revenues:		
Total	**651 294**	**465 555**
Management fee Petroleum Fund etc.	573 877	391 974
Rental revenues	20 806	15 680
Sale of computer, accounting and security services etc.	22 587	9 376
Gain on sale of properties and operating assets	12 491	12 701
Sales revenues NBS	17 537	27 125
Other revenues	3 996	8 699
Other operating expenses:		
Total	**890 898**	**672 491**
External management and settlement services	248 543	158 873
Loss on sale of operating assets and properties	72 102	13 540
Depot, transaction and intermediation fees	115 053	118 772
Central bank services and cash depots	50 395	32 199
Rent, operation of buildings etc.	54 576	68 062
Computer equipment, maintenance, office equipment, fittings etc.	69 571	82 229
Consulting and computer services	144 216	47 070
Postage, telecoms and information	25 576	28 965
Materials, notes and coins	72 036	69 040
Other expenses	38 830	53 781

Note 14. Notes and coins

The Bank's cash holdings have been deducted from the item "Notes and coins in circulation".

Norges Bank is obligated to redeem notes and coins for a period of 10 years after they have ceased to be legal tender. In 2002, redeemed/invalidated banknotes and coins were charged to the accounts in the amount of NOK 3.9 million.

At 31.12.2002 there were a total of 5.1 million commemorative coins in circulation with a nominal value of some NOK 405.5 million. This amount is not included in the item "Notes and coins in circulation". Norges Bank is obligated to redeem the coins at nominal value.

Note 15. Interest to the Treasury

For the portion of ‘Domestic sight deposits’ – ‘Treasury’ that corresponds to central government foreign debt, the central government receives the accounting return on an equivalent, earmarked portion of the foreign exchange reserves (the immunisation portfolio). The return for 2002 was a negative NOK 807 million.

On the remaining portion of the deposits from the Treasury, interest of 4.75 per cent per annum was paid in the first quarter, 4.0 per cent per annum in the second quarter, 3.5 per cent per annum in the third quarter and 4.5 per cent per annum in the fourth quarter of 2002, ie total interest income of NOK 2 461.0 million. The same interest rates were paid on deposits from government account holders who receive interest on their deposits.

Note 16. Salaries and pensions

The salaries of the Central Bank Governor and Deputy Governor are set by the Ministry of Finance, and in 2002 were NOK 1 112 900 and NOK 904 100 respectively. In addition, they have a company car at their disposal (benefits estimated at NOK 86 000 and NOK 118 000 respectively) and a free telephone.

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. At end-2002, these commitments were determined by actuarial assessment as being NOK 1.6 million and NOK 4.0 million, respectively, when coordination with the National Insurance Scheme is taken into account. Coordination with other employers is not taken into account in the calculations. Changes in 2002, which are NOK 0.4 million and NOK 0.5 million respectively (incl. employer’s contribution) are charged to Norges Bank’s operations.

Total expenses related to the Supervisory Council and the Executive Board were NOK 2.7 million in 2002.

Norges Bank's total pension obligations

Pension 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 283.5 million. Pension obligations of NOK 216.4 million have been determined by actuarial assessment according to accounting standards for pension expenses (NRS-P). 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 (G) in the national insurance system, 3 per cent future wage growth and standard turnover. This figure does not take account of agreements concerning redundancy pay and early retirement which come into effect in 2003 or later. These obligations are estimated at NOK 67.1 million and are included in the total pension obligations.

Pension expenses charged to operations in 2002

Total pension expenses in 2002 (including redundancy pay and early retirement pensions) amounted to NOK 69.0 million. Of this amount, NOK 41.2 million has been charged to the Bank's cost accounts. In addition, NOK 27.8 million has been charged to the Bank's profit and loss account, corresponding to the increase in pension obligations (including redundancy pay and early retirement pensions) from end-2001 (NOK 255.7 million) until end-2002 (NOK 283.5 million).

Restructuring costs

Costs related to study packages, redundancy pay and early retirement amounted to NOK 70.9 million in 2002. NOK 43.5 million represented current pensions in 2002 and NOK 27.4 million represented the increase in future pension commitments. The costs (which are largely covered in the discussion of pension expenses charged to operations) are presented in the item "Restructuring costs". Future obligations associated with restructuring amounted to NOK 240.8 million at end-2002.

The Pension Fund (secured pensions)

Norges Bank's ordinary pension obligations are covered by the Bank's own pension fund, which is organised as a foundation. The Bank guarantees pension fund payments. The employer's contribution to the pension fund in 2002 was covered by capital from the pension premium fund.

Pension obligations as at 31.12.2002 amounted to NOK 1 482.0 million, according to an actuarial assessment based on the same principles as the assessment in 2001. The assessment is based on a discount rate of 4 per cent. The assumptions concerning mortality, disability and other demographic factors are based on the standard K1963 basis for group pension insurance. The pension obligations item includes a supplement of 3 per cent to cover future administrative costs. Calculation of the pension obligation for each individual is based on the pension benefits earned or being received by that individual as of 31 December 2002. Pension commitments are equal to the estimated cash value of the earned benefits.

The Bank's pension scheme covers 2 477 persons, of whom 1 002 are drawing a pension, 1 092 are active members contributing to the fund and 383 are former employees with deferred rights. Included in the figure for active members are 287 employees at the Royal Norwegian Mint (Den Kongelige Mynt AS) and Norsk Kontantservice AS.

Pension obligations calculated according to accounting standards for pensions amount to NOK 1 336.8 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 liability by NOK 40.5 million. The amount is not recorded on Norges Bank's balance sheet.

Note 17. Forward exchange contracts and derivatives

Norges Bank uses forward exchange contracts, listed futures contracts and interest rate swaps to manage interest rate risk and foreign exchange risk related to the foreign exchange reserves.

Forward exchange contracts

Forward exchange contracts are agreements to purchase or sell foreign currency at a future date at a predetermined price. At 31 December 2002, currency had been purchased on forward contracts for a total of NOK 4 383.5 million and sold on forward contracts for a total of NOK 3 127.5 million.

Derivatives

Financial futures

Listed futures contracts 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. At end-2002, listed futures contracts with a total market value of NOK 7 270.6 million had been purchased. In addition, listed equity index futures with a market value of NOK 289.9 million had been purchased. Listed financial futures with a market value of NOK 5 170.0 million had been sold.

Securities with a market value of NOK 361.1 million at end-2002 had been pledged as collateral for the initial margin.

Interest rate swaps
A swap is an agreement between two parties to exchange payments on several given dates in the future in accordance with a set of rules specified in the agreement. An interest rate swap agreement is an agreement in which both parties' payment obligations are determined by interest rates which are fixed or dependent on movements in a specified reference rate, multiplied by a hypothetical principal. The net market value is calculated by discounting the future cash flows in the interest rate swap agreements. At end-2002, interest rate swaps with a market value of NOK 22 581.4 million had been sold, and interest rate swaps with a market value of NOK 22 318.3 million had been purchased.

Note 18. Government Petroleum Fund

At 31 December 2002, the Government Petroleum Fund had krone deposits in Norges Bank amounting to NOK 608.5 billion. The equivalent of the amount in NOK has been invested in foreign currency in an earmarked portfolio.

The Petroleum Fund's portfolio is distributed among the following instruments:

Figures in thousands of NOK	**31.12.2002**	**31.12.2001**
Short-term assets, incl. deposits in foreign banks	9 877 743	20 002 123
Money market investments in foreign financial institutions against collateral in the form of securities	188 229 945	121 848 011
Borrowing from foreign financial institutions against collateral (securities)	-209 803 763	-119 092 695
Foreign interest-bearing securities	394 253 546	350 008 902
Foreign equities	226 354 150	240 884 381
Forward contract adjustments	122 752	39 018
Total portfolio before remuneration for management	**609 034 373**	**613 689 740**
Accrued management remuneration	-559 835	-372 255
Total portfolio recorded value	**608 474 538**	**613 317 485**

Norges Bank’s management remuneration, NOK 559.8 million, is included in the item "Other operating income".

The return for 2002 was negative at NOK -130.6 billion, distributed as follows:

Figures in thousands of NOK	**31.12.2002**	**31.12.2001**
Interest income	18 705 159	14 911 191
Dividends	4 428 514	2 738 851
Exchange rate gains/losses	- 104 109 677	- 16 242 683
Unrealised securities gains/losses	- 27 071 528	- 19 308 721
Realised securities gains/losses	- 19 934 100	- 4 190 744
Brokers’ commissions	-877	-48 960
Profit/loss forward exchange trading	4 681	1 477
Gains/losses futures	- 2 032 369	-1 816 099
Total return on investments	**-130 010 197**	**-23 955 688**
Accrued management remuneration	- 559 835	-372 255
Net earned return	**- 130 570 032**	**-24 327 943**

Repurchase/reverse repurchase agreements

Securities repurchase agreements are recorded under "Borrowing from foreign financial institutions". The book value (the transfer amount) of the repurchase agreements is NOK 208 932.1 million. The market value of the securities is NOK 205 825.4 million.

The item "Money market investments in foreign financial institutions" includes securities repurchase agreements for a book value of NOK 172 020.4 million.

The Government Petroleum Fund's krone deposits in Norges Bank are composed of deposits and returns earned from the time the Fund was established in 1996 to the end of 2002.

In billions of NOK	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**TOTAL**
Krone account 01.01	**0.0**	**47.5**	**113.3**	**167.6**	**222.3**	**386.1**	**613.3**	
Total krone deposits	47.5	60.9	32.8	24.5	150.0	251.5	125.8	693.0
Return	0.05	4.9	21.5	30.1	13.8	-24.3	-130.6	-84.5
Krone account 31.12	**47.5**	**113.3**	**167.6**	**222.3**	**386.1**	**613.3**	**608.5**	
Market value of Petroleum Fund’s portfolio at 31 December	**47.6**	**113.5**	**171.8**	**222.3**	**386.1**	**613.3**	**608.5**	

Derivatives in the Government Petroleum Fund

At end-2002, listed equity index futures with a market value of NOK 2 456.1 million and listed interest rate futures with a market value of NOK 28 118.9 million had been purchased. Financial futures (interest rate futures) with a market value of NOK 22 829.6 million had been sold. Securities with a market value of NOK 981.9 had been pledged as collateral for the initial margin.

At end-2002, foreign exchange with a market value of NOK 11 423.0 million had been bought forward and foreign exchange for the same amount had been sold forward.

At end-2002, interest rate swaps with a market value of NOK 107 551.2 million had been sold, and interest rate swaps with a market value of NOK 108 836.1 million had been purchased.

Note 19. 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 made for gold in 1999 is also included in "Other capital". Changes in the valuation principle for gold and changes in the Revaluation Fund are included in "Other capital".
Changes in "Other capital" in 2002 were as follows:

In thousands of NOK		
Other capital at 31.12.2001		**3 736 553**
Change in valuation principle for gold as from 01.01.2002		586 535
Other capital at 01.01.2002		**4 323 088**
Write-down of previously revalued assets in 2002	-270 877	
Reduction in fair value of gold in 2002	-126 589	397 466
Other capital at 31.12.2002		**3 925 622**

Note 20. The Adjustment Fund

Adjustment Fund at 31.12.2001		**36 347 165**
Changes in 2002:		
Increasing of Adjustment Fund through transfers from Treasury	+ 8 857 301	
Deficit covered by the Adjustment Fund	- 23 691 494	
Total changes		-14 834 193
Adjustment Fund at 31.12.2002		**21 512 972**

To the Supervisory Council of Norges Bank

Auditors' report for 2002

We have audited the annual financial statements of Norges Bank for 2002, which show a loss of NOK 24 088 960 thousand. We have also audited the information in the Executive Board's report on the financial statements and the proposal for covering the loss. 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 Auditors and Auditing.

We have conducted our audit in accordance with the Norwegian Act on Auditing and Auditors, instructions issued by the Supervisory Council and good Norwegian auditing practice. Good auditing practice requires that we plan and conduct the audit so as to obtain reasonable assurance that the financial statements are free of material errors or omissions. An audit includes examining, on a test basis, the evidence supporting the information in the financial statements as well as assessing the accounting principles applied, significant estimates made by management and the contents and presentation of the financial statements. To the extent required by good auditing practice and our auditing instructions, our audit also includes a review of Norges Bank's asset management and its 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 2002 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
- the information in the Executive Board's report on the financial statements and the Executive Board's proposal for covering the loss are consistent with the financial statements, and comply with the Norges Bank Act and guidelines adopted in the Council of State

Oslo, 5 February 2003

Svenn Erik Forsstrøm
State Authorised Public Accountant (Norway)

Resolution of the Supervisory Council concerning the financial statements for 2002

Pursuant to Section 5, third paragraph, of the Act relating to Norges Bank and the Monetary System, the Supervisory Council adopted at its meeting of 20 February 2003 the following resolution, which, with reference to Section 28, second paragraph, is to be sent to the Ministry of Finance for submission to the King and communication to the Storting:

The Supervisory Council has examined the Executive Board’s proposal for the financial statements for 2001 for Norges Bank, and has taken note of the Executive Board’s report on the accounts, the profit and loss account, the balance sheet and the notes to the accounts.

Norges Bank's financial statements for 2002 show a deficit of NOK 24.1 billion, compared with a deficit of NOK 4.7 billion in 2001. The main reason for this is the appreciation of NOK against all the main currencies in the foreign exchange reserves. As a result, foreign exchange reserves translated into NOK showed exchange losses of NOK 24.3 billion in 2002, compared with losses of NOK 4.9 billion in 2001. Exchange losses due to the appreciation of the krone have no effect on the international purchasing power of the foreign exchange reserves. The decline in prices in the international securities markets in 2002 resulted in a capital loss of NOK 2.1 billion, compared with a loss of NOK 3.8 billion in 2001. Interest income from foreign investments came to NOK 8.7 billion, which is NOK 2.7 billion less than in 2001. Interest payments to the Treasury amounted to NOK 2.5 billion, while total interest payments to the Treasury in 2001 amounted to NOK 4.8 billion.

In accordance with the prevailing guidelines for the allocation and application of Norges Bank’s profit or loss, originally established by the Council of State on 7 February 1986 and most recently amended by Royal Decree of 6 December 2002, the Supervisory Council adopted the following resolutions:

1) The Supervisory Council has examined the Executive Board’s proposal for the financial statements for 2002 for Norges Bank, dated 5 February 2003, and has taken note of the Executive Board’s report on the financial statements, the profit and loss account, the balance sheet and the notes to the accounts.
2) The Supervisory Council has no comments to the Auditors’ Report dated 5 February 2003.
3) The Supervisory Council approves Norges Bank’s financial statements for 2002 as presented by the Executive Board, with the following allocations:
   - 3.1 In accordance with a statement from the Ministry of Finance, the net sum of NOK 397.5 million is to be transferred from other capital to cover the write-down on previously written up assets.
   - 3.2 In accordance with point 4 of the guidelines, the year’s deficit after other allocations, NOK 23.7 billion, will be covered by a transfer from the Adjustment Fund.
4) The Supervisory Council will forward the financial statement, the Executive Board’s report on 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.

Oslo, 20 February 2003

Mary Kvidal	Jens Marcussen
Chairman of the Supervisory Council	Deputy Chairman of the Supervisory Council

Resolution of the Supervisory Council concerning the minutes of the Executive Board meetings

Pursuant to Section 5, third paragraph, of the Act relating to Norges Bank and the Monetary System, the Supervisory Council adopted at its meeting of 20 February 2003 the following resolution, which, with reference to Section 28, second paragraph, is to be sent to the Ministry of Finance for submission to the King and communication to the Storting:

The Supervisory Council has examined the minutes of the Executive Board meetings for 2002 and has received all the information requested.

The Supervisory Council has no comments concerning the minutes which give grounds for a statement to the Ministry pursuant to Section 28, second paragraph, of the Norges Bank Act.

Oslo, 20 February 2003

Mary Kvidal	Jens Marcussen
Chairman of the Supervisory Council	Deputy Chairman of the Supervisory Council

APPENDICES

Appendix A. Tables

Table 1. Norges Bank's balance sheet at 31.12.2001 and each month of 2002, by sector. In millions of NOK

	31.12. 2001	31.1. 2002	28.2. 2002	31.3. 2002	30.4. 2002
ASSETS					
Foreign assets	**837 262**	**846 057**	**846 686**	**854 000**	**843 756**
International reserves	211 537	214 753	214 991	217 013	203 528
Investments for Government Petroleum Fund	613 317	618 939	619 555	624 941	628 761
Other foreign assets	12 408	12 365	12 140	12 046	11 467
Claims on Norwegian financial institutions	**15 242**	**1 072**	**1 227**	**743**	**598**
Loans to private banks	15 140	31	23	4	5
Other assets in the form of deposits, securities, loans and overdrafts	102	1 041	1 204	739	593
Provisions for losses on loans to banks					
Claims on central government	**11 813**	**12 518**	**13 180**	**12 219**	**11 961**
Bearer bonds	9 073	9 026	8 989	8 882	8 837
Other securities	2 451	3 260	3 948	3 049	2 780
Other assets	289	232	243	288	344
Claims on other Norwegian sectors	**1 327**	**1 314**	**844**	**1 020**	**1 146**
Securities and loans	603	604	607	612	611
Other assets	724	710	237	408	535
Inventories, production units	**27**	**25**	**21**	**19**	**22**
Fixed assets	**1 832**	**1 822**	**1 817**	**1 804**	**1 791**
Valuation changes	**0**	**10 172**	**26 803**	**24 968**	**52 790**
Expenses	**0**	**1 101**	**2 031**	**3 220**	**4 281**
TOTAL ASSETS	**867 503**	**874 081**	**892 609**	**897 993**	**916 345**
LIABILITIES AND CAPITAL					
Foreign debt	**56 211**	**59 707**	**62 862**	**54 661**	**55 360**
IMF debt in NOK	12 383	12 340	12 113	12 022	11 442
Other foreign debt	43 828	47 367	50 749	42 639	43 918
Notes and coins in circulation	**46 633**	**42 613**	**41 510**	**42 002**	**40 746**
Domestic deposits	**719 980**	**713 108**	**718 162**	**732 914**	**725 400**
Treasury	83 503	55 037	50 040	55 815	77 225
Government Petroleum Fund	613 317	618 939	619 555	624 941	628 761
Central government	45	95	193	136	108
Private banks	21 614	37 610	46 906	50 799	18 045
Other financial institutions	1 406	1 335	1 375	1 134	1 183
Other domestic sectors	95	92	93	89	78
Accrued interest to the Treasury	**0**	**206**	**398**	**582**	**842**
Other domestic liabilities	**2 697**	**6 804**	**3 380**	**3 372**	**4 853**
NOK value of SDRs in IMF	**1 898**	**1 892**	**1 857**	**1 842**	**1 788**
Adjustment fund	**36 347**	**36 347**	**36 347**	**36 347**	**36 347**
Transfer fund1 [1]	**0**	**0**	**0**	**0**	**0**
Other capital	**3 737**	**3 737**	**3 737**	**3 737**	**3 737**
Valuation changes	**0**	**0**	**0**	**0**	**0**
Income	**0**	**9 667**	**24 356**	**22 536**	**47 272**
TOTAL LIABILITIES AND CAPITAL	**867 503**	**874 081**	**892 609**	**897 993**	**916 345**
Off-balance sheet items, incl. Gov't Petroleum Fund					
Foreign exchange sold forward	11 541	19 539	22 761	19 530	22 247
Foreign exchange purchased forward	13 311	21 688	23 968	21 058	23 433
Derivatives sold	121 116	58 028	58 322	134 877	106 140
Derivatives purchased	145 597	74 390	61 999	150 514	109 792
Allotted, unpaid shares in the BIS	324	324	324	324	324

[1] The transfer fund was reclassified from capital to liability on 1 January 1999

31.5. 2002	30.6. 2002	31.7. 2002	31.8. 2002	30.9. 2002	31.10. 2002	30.11. 2002	31.12. 2002
833 648	**799 961**	**803 260**	**821 177**	**808 900**	**854 146**	**864 889**	**841 566**
196 249	184 983	182 675	188 972	196 165	225 813	222 331	224 179
626 023	605 057	610 245	622 050	603 203	618 604	633 019	608 475
11 376	9 921	10 340	10 155	9 532	9 729	9 539	8 912
8 104	**885**	**223**	**286**	**999**	**1 102**	**1 090**	**1 066**
8 002	5	8	0	11	35	4	3
102	880	215	286	988	1 067	1 086	1 063
13 759	**12 875**	**13 307**	**14 522**	**13 713**	**12 129**	**11 645**	**13 234**
10 299	10 397	10 436	10 520	10 594	8 909	8 935	10 750
3 245	2 215	2 545	3 618	2 680	2 871	2 431	2 088
215	263	326	384	439	349	279	396
1 077	**1 358**	**1 224**	**1 241**	**1 320**	**1 405**	**1 301**	**1 868**
616	620	624	628	644	651	650	651
461	738	600	613	676	754	651	1 217
20	**20**	**20**	**19**	**27**	**26**	**24**	**22**
1 794	**1 787**	**1 630**	**1 624**	**1 607**	**1 608**	**1 604**	**1 575**
78 779	**119 444**	**129 102**	**131 989**	**164 750**	**150 589**	**150 387**	**0**
5 426	**6 542**	**8 082**	**10 314**	**11 668**	**13 491**	**14 988**	**0**
942 607	**942 872**	**956 848**	**981 172**	**1 002 984**	**1 034 496**	**1 045 928**	**859 331**
53 669	**45 566**	**43 690**	**49 672**	**56 222**	**73 238**	**69 868**	**62 773**
11 351	9 896	10 315	10 139	9 508	9 704	9 514	8 888
42 318	35 670	33 375	39 533	46 714	63 534	60 354	53 885
40 784	**41 899**	**40 945**	**40 649**	**40 188**	**40 024**	**40 783**	**44 955**
732 384	**702 046**	**706 605**	**720 352**	**703 335**	**730 162**	**743 987**	**720 367**
96 712	57 475	46 947	44 682	44 440	45 536	70 353	52 492
626 023	605 057	610 245	622 050	603 203	618 604	633 019	608 475
116	95	83	77	46	43	63	269
8 428	38 399	47 888	52 233	54 421	64 793	39 369	57 626
1 027	935	1 356	1 225	1 135	1 115	1 113	1 427
78	85	86	85	90	71	70	78
1 118	**29**	**199**	**355**	**481**	**761**	**958**	**0**
3 335	**4 654**	**3 248**	**3 674**	**4 360**	**3 724**	**4 424**	**4 214**
1 725	**1 650**	**1 684**	**1 672**	**1 652**	**1 656**	**1 623**	**1 583**
36 347	**36 347**	**36 347**	**36 347**	**36 347**	**36 347**	**36 347**	**21 513**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3 737	**3 737**	**3 737**	**3 737**	**3 737**	**3 737**	**3 737**	**3 926**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
69 508	**106 944**	**120 393**	**124 714**	**156 662**	**144 847**	**144 201**	**0**
942 607	**942 872**	**956 848**	**981 172**	**1 002 984**	**1 034 496**	**1 045 928**	**859 331**
24 000	21 642	24 104	25 255	8 249	5 683	16 135	14 550
25 175	23 465	25 541	26 253	9 473	7 698	17 194	15 806
114 931	171 240	149 456	116 781	166 765	156 187	139 382	159 417
112 884	167 825	166 146	129 459	176 547	160 990	139 933	168 005
324	324	324	324	324	324	324	310

Table 2. Norges Bank. Profit and loss account at 31 December, 1998-2002. In millions of NOK

	1998	1999	2000	2001	2002
Foreign interest income					
Interest on bank deposits/loans	719.5	1 023.0	2 584.6	3 226.9	2 171.0
Interest on Treasury bills	12.0	0.4	8.4	0.0	0.0
Interest on bearer bonds	9 688.2	7 315.8	8 717.4	7 903.6	6 313.9
Other interest income	402.6	477.2	338.3	258.5	169.1
Share dividend, BIS	12.1	13.0	14.4	15.0	15.2
Total foreign interest income	**10 834.4**	**8 829.4**	**11 663.1**	**11 404.0**	**8 669.2**
Return on investments for Government Petroleum Fund	**21 571.5**	**30 295.5**	**14 178.4**	**(23 955.7)**	**(130 010.2)**
Foreign interest expenses:					
Interest on deposits/borrowings	346.9	716.5	1 752.5	2 425.2	1 881.0
Interest to foreign customers	44.6	42.7	44.1	42.0	15.6
Total foreign interest expenses	**391.5**	**759.2**	**1 796.6**	**2 467.2**	**1 896.6**
Net foreign interest income	**32 014.4**	**38 365.7**	**24 044.9**	**(15 018.9)**	**(123 237.6)**
Domestic interest income					
Interest on bearer bonds	706.6	508.3	682.8	696.7	636.0
Interest on negotiable notes and short-term paper	139.7	181.8	158.9	8.3	0.0
Interest on loans to banks	206.6	432.2	323.8	947.7	38.2
Interest on other loans	20.1	30.0	36.7	42.0	48.0
Total domestic interest income	**1 073.0**	**1 152.3**	**1 202.2**	**1 694.7**	**722.2**
Domestic interest expenses					
Interest to the Treasury	4 277.4	1 775.8	3 561.4	4 814.0	1 654.3
Interest to Government Petroleum Fund	21 571.5	30 295.5	14 178.4	(23 955.7)	(130 010.2)
Interest to public account holders	123.9	116.7	7.7	125.3	4.2
Interest to banks	659.6	661.2	1 012.4	1 082.3	2 876.5
Interest on tax-free allocations to funds	0.7	0.6	0.4	0.1	0.0
Other interest expenses	2.8	6.9	9.4	9.9	6.1
Total domestic interest expenses	**26 635.9**	**32 856.7**	**18 769.7**	**(17 924.1)**	**(125 469.1)**
Net domestic interest expenses	**25 562.9**	**31 704.4**	**17 567.5**	**(19 618.8)**	**(126 191.3)**
Net interest income, domestic and foreign	**6 451.5**	**6 661.3**	**6 477.4**	**4 599.9**	**2 953.7**
Dividends	**0.0**	**0.0**	**0.0**	**136.4**	**402.3**
Valuation changes					
Net gains/(losses) on foreign exchange	15 351.6	(887.3)	5 988.1	(4 877.1)	(24 442.0)
Net gains/(losses) on foreign securities and financial instruments	2 534.6	(7 345.0)	1 603.9	(3 836.8)	(2 559.9)
Net gains/(losses) on Norwegian securities	(167.2)	(809.8)	503.0	151.0	418.2
Net valuation changes	**17 719.0**	**(9 042.1)**	**8 095.0**	**(8 562.9)**	**(26 583.7)**
Net interest income, dividends and valuation adjustments	**24 170.5**	**(2 380.8)**	**14 572.4**	**(3 826.6)**	**(23 227.7)**
Operating income					
Fees and commission income	89.1	99.0	126.7	88.7	18.6
Sales income, production units	76.3	76.8	94.0	27.1	0.0
Other operating income	180.4	232.5	364.4	438.4	651.3
Total operating income	**345.8**	**408.3**	**585.1**	**554.2**	**669.9**
Operating expenses					
Wages, salaries and other personnel costs	484.0	506.0	555.7	501.9	445.6
Restructuring costs	0.0	8.0	129.9	103.0	70.9
Ordinary depreciation	114.6	116.2	120.2	108.4	123.7
Goods consumption. production units	97.8	85.1	90.3	69.0	0.0
Other operating expenses	309.6	426.9	539.8	679.4	890.9
Total operating expenses	**1 006.0**	**1 142.2**	**1 435.9**	**1 461.7**	**1 531.1**
Net operating expenses	**660.2**	**733.9**	**850.8**	**907.5**	**861.2**
Operating profit before allocations and loan losses/bad debts	**23 510.3**	**(3 114.7)**	**13 721.6**	**(4 734.0)**	**(24 088.9)**
Loan losses	0.0	(0.3)	0.0	(0.1)	0.0
Profit/loss for the year before transfers	**23 510.3**	**(3 115.0)**	**13 721.6**	**(4 734.1)**	**(24 088.9)**
Transfers					
Transferred from the Adjustment Fund	2 977.9	0.0	0.0	4 725.8	23 691.5
Transferred from the Transfer Fund	3 400.6	0.0	0.0	0.0	0.0
Transfers from 'Other capital'	83.7	3 371.8	80.2	79.4	397.4
Reserves	**29 972.5**	**256.8**	**13 801.8**	**71.1**	**(0.0)**
Transferred to 'Other capital'.	0.0	132.6	68.1	71.1	0.0
Transferred to the Treasury from the Transfer Fund [1]	3 400.6	0.0	0.0	0.0	0.0
Allocated to the Transfer Fund	26 571.9	0.0	0.0	0.0	0.0
Allocated to the Adjustment Fund	0.0	124.2	13 733.7	0.0	0.0
Total allocations	**29 972.5**	**256.8**	**13 801.8**	**71.1**	**0.0**

[1] The transfer fund was reclassified from capital to liability on 1 January 1999

Table 3. Norges Bank's loans to and deposits from banks in 2002

Month		D-loans	Fixed-rate loans		Fixed-rate deposits		Sight deposits
		Actual drawings, NOK bn	Daily average NOK bn	Nominal rate	Daily average NOK bn	Nominal rate	Daily average NOK bn
January	01-15	-	2.00	6.59	17.40	6.62	19.60
	16-31	0.10	0.60	6.60	19.20	6.59	11.10
February	01-15	-	-	-	31.20	6.61	13.90
	16-28	-	-	-	26.90	6.61	12.40
March	01-15	-	-	-	31.90	6.63	25.20
	16-31	-	-	-	27.90	6.61	16.70
April	01-15	-	0.20	6.56	11.20	6.61	14.00
	16-30	-	-	-	7.50	6.60	11.20
May	01-15	-	-	-	15.50	6.59	10.80
	16-31	-	4.90	6.55	-	-	11.60
June	01-15	-	3.90	6.56	-	-	10.20
	16-30	-	1.10	6.56	10.80	6.59	14.50
July	01-15	-	-	-	31.00	7.00	20.20
	16-31	-	-	-	26.20	7.10	14.00
August	01-15	-	-	-	34.30	7.10	13.60
	16-31	-	-	-	31.80	7.10	13.20
September	01.-15.	-	-	-	48.90	7.11	13.40
	16.-30.	-	-	-	28.70	7.10	19.80
October	01-15	-	-	-	11.50	7.10	13.00
	16-31	-	-	-	26.50	7.09	12.10
November	01-15	-	-	-	48.10	7.10	23.00
	16-30	-	0.40	7.10	35.90	7.10	9.80
December	01-15	-	-	-	27.10	6.96	18.30
	16-31	-	-	-	20.40	6.59	33.30

Table 4. Norges Bank's D-loan and sight deposit rates, 1999-2003

	Overnight lending (D-loan)		Sight deposit rate	
Period	Nominal	Effective	Nominal	Effective
28.01.99-02.03.99:	9.50 %	10.0 %	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 %	5.7 %
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-	8.00 %	8.3 %	6.00 %	6.2 %

Table 5. Denominations of coins in circulation 1998-2002, annual average and at the end of each month in 2002. In millions of NOK. Figures are based on physical holdings at month- and year-end

	20-krone	10-krone[3]	5-krone[6]	1-krone[5]	50-øre[4]	10-øre[2]	Total[1]
1998	778.7	1 029.5	440.3	561.0	150.3	130.5	3 090.2
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
2002							
Januar	1 264.9	1 095.8	499.5	654.3	179.2	129.5	3 823.2
Februar	1 297.5	1 090.4	499.1	655.2	179.0	129.5	3 850.6
Mars	1 326.2	1 091.6	500.4	657.4	179.6	129.5	3 884.7
April	1 343.2	1 080.3	499.4	657.9	180.0	129.5	3 890.3
Mai	1 374.5	1 093.8	506.2	664.3	181.1	129.5	3 949.3
Juni	1 373.4	1 098.0	508.4	666.9	181.7	129.5	3 957.8
Juli	1 403.3	1 092.1	508.8	667.9	182.3	129.5	3 983.8
August	1 410.8	1 084.3	508.8	672.2	183.7	129.5	3 989.3
September	1 428.4	1 073.9	507.2	672.2	184.5	129.5	3 995.7
Oktober	1 441.6	1 068.3	505.4	672.4	185.1	129.5	4 002.3
November	1 459.5	1 065.9	505.4	672.2	185.8	129.5	4 018.3
Desember	1 521.1	1 085.2	514.7	680.6	187.3	129.5	4 118.4

1) Excluding silver coins totalling NOK 6 743 000, and commemorative coins issued by Norges Bank from 1964-2002 (see Note 14 concerning banknotes and coins in the notes to the accounts).
2) As of 1 March 1993, the 10-øre coin is no longer legal tender, but will be 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 September 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 banknotes in circulation 1998-2002, annual average and at the end of each month in 2002. In millions of NOK. The figures are based on physical holdings at month- and year-end

	1000-krone [5]	500-krone [4]	200-krone [1]	100-krone [3]	50-krone [2]	Total
1998	27 772.9	4 875.1	3 649.5	3 473.3	716.6	40 487.3
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
2002						
January	24 184.0	7 521.5	4 361.1	2 251.4	716.4	39 034.3
February	23 364.0	7 367.2	4 280.8	2 236.4	713.7	37 962.1
March	23 054.5	7 708.1	4 619.2	2 310.0	730.1	38 421.9
April	22 528.5	7 415.9	4 499.9	2 253.6	721.5	37 419.4
May	22 213.1	7 412.9	4 518.8	2 293.7	749.1	37 187.7
June	22 544.8	7 784.2	4 794.3	2 390.8	769.4	38 283.4
July	21 999.0	7 659.6	4 630.3	2 345.4	772.1	37 406.4
August	21 762.4	7 587.5	4 612.5	2 266.4	759.1	36 988.0
September	21 660.2	7 531.0	4 510.2	2 217.1	744.9	36 663.3
October	21 608.3	7 449.3	4 436.7	2 169.5	734.9	36 398.8
November	22 053.4	7 597.7	4 548.3	2 192.1	742.8	37 134.3
December	24 213.6	8 478.0	5 060.2	2 315.8	768.4	40 836.1

1) An upgraded 200-krone note was put into circulation on 16 April 2002.
2) A new 50-krone note. Series 7, was put into circulation on 20 January 1997. At the same time it was announced that the Series 6 50-krone note would cease to be legal tender from 20 January 1998, but will be redeemed by Norges Bank until 20 January 2008.
3) A new 100-krone note, Series 7, was put into circulation on 15 September 1997. At the same time it was announced that the Series 6 100-krone note would cease to be legal tender from 5 September 1998, but will be redeemed by Norges Bank until 5 September 2008.
4) 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.
5) 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. Notes destroyed 1998-2002. In millions of notes

	1000-krone [4]	500-krone [3]	200-krone [5]	100-krone [2]	50-krone [1]	Totalt
1998	1.0	3.8	7.2	26.8	12.5	51.3
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

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 50-krone note, Series VII, was put into circulation on 20 January 1997.
2) A new 100-krone note, Series VII, was put into circulation on 15 September 1997.
3) A new 500-krone note, Series VII, was put into circulation on 7 June 1999.
4) A new 1000-krone note, Series VII, was put into circulation on 19 June 2001.
5) An upgraded 200-krone note, Series VII, was put into circulation on 16 April 2002.

In addition, the figures are 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, which contributed to an increase in these years.

Table 8. Average life of notes 1998-2002. In years

	1000-krone	500-krone	200-krone	100-krone	50-krone
1998	28.2	2.6	2.5	1.3	1.1
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

The figures show the volume of notes in circulation in relation to the volume destroyed in the year in question.
For an explanation of the changes in note life see footnote to Table 7.

Table 9. Inflow of notes to Norges Bank 1998-2002. In millions of notes

	1000-krone	500-krone	200-krone	100-krone	50-krone	Total
1998	34.7	82.1	197.3	151.8	28.5	494.3
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

The table shows numbers of notes delivered to Norges Bank.

Table 10. Velocity of banknote circulation 1998-2002

	1000-krone	500-krone	200-krone	100-krone	50-krone	Total
1998	1.25	8.38	10.78	4.37	1.99	4.71
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

The table shows the average number of times notes pass through Norges Bank per year.

Table 11. Inflow of coins to Norges Bank 1998-2002. In millions of coins

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
1998	82.7	169.2	85.4	474.7	74.7	886.7
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

The table shows the number of coins delivered to Norges Bank.

Table 12. Velocity of coin circulation 1998-2002

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
1998	2.12	1.64	0.97	0.85	0.25	0.81
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

The table shows the average number of times coins pass through Norges Bank per year.

Table 13. Circulation coins delivered by the Royal Norwegian Mint 1997-2002. In thousands of coins[1)]

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
1997	1 049	1 229	1 742	145 425 [2)]	24 089	173 558
1997				4 300 [3)]		
1998	5 007	1 058	47 701	139 493 [4)]	30 913	224 173
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

1) The table shows figures for circulation coins delivered to Norges Bank, and cannot be used to indicate the number of coins minted with different years. Coin sets are included.
2) New 1-krone coins.
3) Old 1-krone coins.
4) 4.8 million of these coins were produced in Canada.

Table 14. Banknote production at Norges Bank's Printing Works 1992-2002
Number of packets, each containing 500 notes

	1000-krone	500-krone	200-krone	100-krone	50-krone
1992	15 500	10 500		85 800	23 400
1993	4 400	0		61 400	24 800
1994	2 100	6 800	45 300 [1)]	46 800	31 200
1995	0	10 500	62 800	49 400	41 200
1996	0	14 600	5 150	20 000 [2)]	73 600 [3)]
1997	0	4 200	0	109 210	12 200
1998	5 800	16 600	51 950	43 600	45 400
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 [4)]	0	31 814 [5)]	0	36 075
2002	0	34 776	79 309	20 014 [6)]	0

1) New series (Series VII)
2) Series VII - introduced in 1997
3) 13 600 Series VI and 60 000 Series VII (introduced in 1997)
4) Series VII put into circulation 19 June 2001
5) Upgraded Series VII, put into circulation 16 April 2002
6) Upgraded Series VII, to be put into circulation in 2003

Table 15. Norges Bank's banknote series 1877-2002. Period of production

	Series I	Series II	Series III	Series IV	Series V	Series VI	Series VII
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	1996-
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 I 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 Series V 500-krones note on 21 June 1992. 1- and 2-krone notes from the period 1917-1918 are no longer legal tender and are not redeemed by the Bank. 1- and 2-krone notes from the period 1940-1950 ceased to be legal tender on 13 July 1989.

Appendix B
Norges Bank's management, administration 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. It administers the Bank's activities and manages its resources. The Executive Board has seven members who are appointed by the King. The Central Bank Governor is Chairman of the Board and the Deputy Central Bank Governor is the Deputy Chairman. Both are employed in full-time positions for a period of six years. The other five members are appointed for four-year terms. Two employee representatives supplement the Executive Board when administrative manners 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 a period of four years. The Storting appoints the Chairman and Deputy Chairman for a period of two years. The Supervisory Council usually meets four times a year.

The composition of the Executive Board and Supervisory Council as at January 2003 is as follows:

The 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)
Elisabeth Hunter (28.06.2002 – 31.12.2005)
  Alternate: Solveig Elisabeth Lothe
  (01.01.2002 – 31.12.2005)
Sigbjørn Johnsen
(01.01.2002 – 31.12.2005)
  Alternate: Eystein Gjelsvik
  (01.01.2002—31.12.2005)
Vivi Lassen
(01.01.2002 – 31.12.2005)
  Alternate: Per Botolf Maurseth
  (01.01.2002 – 31.12.2005)
Trond R. Reinertsen
(01.01.2000 – 31.12.2003)
  Alternate: Kristine Sundtoft
  (01.01.2002 – 31.12.2003)
Sylvi Røssland Sørfonn
(01.01.2000 - 31.12.2003)
  Alternate: Tore Johansen
  (01.01.2000 – 31.12.2003)

Employee representatives:

(For the period 01.01.2001 – 31.12.2003)
Permanent representatives:
Sonja Blichfeldt Myhre
Jan Erik Martinsen
  Alternates:
  Einar Alnæs
  Sven-Odd Rotbæk

Supervisory Council

Mary Kvidal (2002-2005), Chairman 2002-2003
  Alternate: Bjørnar Olsen (2002-2005)
Jens Marcussen (2002-2005) Deputy Chairman 2002-2003
  Alternate: Nils Olav Skilbred
Terje Ohnstad (2000-2003)
  Alternate: Ragnhild Weiseth (2000-2003)
Johan Solheim (2000-2003)
  Alternate: Jan Elvheim (2000-2003)
Tom Thoresen (2002-2003)
  Alternate: Rigmor Aasrud (2000-2003)
Veslemøy Rabe (2000-2003)
  Alternate: Camilla Bakken Øvald (2000-2003)
Pål Julius Skogholt (2002-2005)
  Alternate: Karin Westhrin (2002-2005)
Hakon Lunde (2002-2005)
  Alternate: Dag Sandstå (2002-2005)
Solveig Nordkvist Haugerud (2000-2003)
  Alternate: Monica Mæland (2000-2003)
Morten Steenstrup (2000-2003)
  Alternate: Liv Stave (2002-2003)
Siri Frost Sterri (2002-2005)
  Alternate: Vidar Andersen (2002-2005)
Oddleif Olavsen (2002-2005)
  Alternate: Kjellaug Nakkim (2002-2005)
Hanne Varhaug Søberg (2000-2003)
  Alternate: Bjørn Arild Gram (2000-2003)
Trude Brosvik (2002-2005)
  Alternate: Steinar Løsnesløkken (2002-2005)
Kåre Harila (2000-2003)
  Alternate: Unni Hennum Lie (2000-2003)

Audit

Svenn Erik Forsstrøm,
  State Authorised Public Accountant
Mats Leonhard Pedersen,
  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 also 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

The organisation chart on page 93 presents the Bank's organisational structure. The report of the Executive Board on the annual accounts contains a table showing the number of individuals employed full-time, part-time and on a short-term basis at the end of 2002.

Management

Svein Gjedrem, Central Bank Governor
Jarle Bergo, Deputy Governor
Jan F. Qvigstad, Executive Director
Jon A. Solheim, Executive Director
Knut N. Kjær Executive Director
Harald Bøhn, Executive Director
Bernt Nyhagen, Executive Director
Anne-Britt Nilsen, Personnel Director
Poul H. Poulsson, Director of Corporate Communications

Norges Bank Monetary Policy

Jan F. Qvigstad, Executive Director

Economics Department
Amund Holmsen, Director
Kjetil Olsen, Assistant Director

International Department
Anne Berit Christiansen, Director
Anders Svor, Assistant Director

Market Operations Department
Asbjørn Fidjestøl, Director
Morten Jonassen, Assistant Director
Jannecke Ebbesen, Assistant Director

Monetary Policy Department
Kristin Gulbrandsen, Director
Ingvild Svendsen, Assistant Director

Research Department
Øyvind Eitrheim, Research Director
Bent Vale, Head of Research
Fredrik Wulfsberg, Head of Research

Statistics Department
Audun Grønn, Director
Vetle Hvidsten, Assistant Director
Marit Hoel, Assistant Director
Jan Tore Larsen, Assistant Director

Staff – Monetary Policy
Jon Nicolaisen, Director
Trond Munkerud Johansen, Assistant Director

Financial Stability

Jon A. Solheim, Executive Director

Banking Department
Helge Strømme, Director
Eline Vedel, Assistant Director
Gunnar Hauge, Assistant Director

Chief Cashier's Department
Trond Eklund, Director
Sylvi Johansen, Chief Cashier
Leif Veggum, Assistant Director

Financial Analysis and Structure Department
Henning Strand, Director
Thea Birkeland Kloster, Assistant Director

Financial Infrastructure and Payment Systems Department
Inger-Johanne Sletner, Director
Grete Øwre, Assistant Director

Securities Markets and International Finance Department
Arild Lund, Director

IT Settlement
Bjørn Helge Vatne, Director
Semming Austin, Assistant 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
Jens Petter Olsen, Director New York Office

Investment Support
John D. Fahs, Director

IT
Ilse Bache, Chief Technology Officer

Staff and Legal
Marius Nygaard Haug, Chief of Staff and General Counsel

Norges Bank Staff and Group Services
Harald Bøhn, Executive Director

Administration Department
Berit Martinsen, Acting Director

Budget and Accounting Department
Torkel Fagerli, Director
Unni Lærum, Assistant Director

Health and Social Services
Jean R. Campbell, M.D.

Information Department
Brynjulv Vollan, Director

IT
Øyvind Seljeseth, Director
Marit Torgersen, Assistant Director

Norges Bank's Printing Works (Oslo)
Jan Erik Johansen, Director

Personnel, Organisation and Management
Anne-Britt Nilsen, Personnel Director

Property Management Department
Harald Haare, Director

Security and Contingency Advisory Staff
Britt Amundsen Hoel, Director

Security Department
Arne Haugen, Head of Security

Legal Department
Bernt Nyhagen, Executive Director
Else M. Bøthun, Director
Ole Jonny Oldertrøen, Assistant Director

The Governor's Investment Management Staff
Birger Vikøren, Director
Helge Eide, Assistant Director

NORGES BANK

Organisation chart

- Executive Board
  - DKM AS (Royal Norwegian Mint)
  - NOKAS
  - Supervisory Council – Chairman: Mary Kvidal
    - Central Bank Audit – S. E. Forsstrøm, Head of Department
  - Governor – Svein Gjedrem; Deputy Governor – Jarle Bergo
    - Dir. Corporate Communications – Poul H. Poulsson
    - Legal Department – Bernt Nyhagen, Exec.Dir.
    - Governor's Staff for Investment Management – Birger Vikøren, Dir.
    - Norges Bank Monetary Policy – Jan F. Qvigstad, Exec.Dir.
      - Monetary Policy Department
      - International Department
      - Market Operations Department
      - Research Department
      - Statistics Department
      - Economics Department
      - Staff
    - Norges Bank Financial Stability – Jon A. Solheim, Exec.Dir.
      - Financial Analysis and Structure Department
      - Securities Markets and International Finance Department
      - Financial Infrastructure and Payment Systems Department
      - Banking Department
      - IT Settlement Department
      - Chief Cashier's Department
    - Norges Bank Investment Management – Knut N. Kjær, Exec.Dir.
      - Equity Management
      - Fixed Income Management Oslo, New York
      - Staff and Legal
      - Investment Support
      - IT Department
    - Norges Bank Staff and Group Services – Harald Bøhn, Exec.Dir.
      - Administration Dept.
      - Budget and Accounting Dept.
      - Central IT Department
      - External Affairs Dept.
      - Health and Social Serv.
      - Norges Bank's Printing Works
      - Personnel, Organisation and Management
      - Property Management Dept.
      - Security and Contingency Advisory Staff
      - Security Dept.

Appendix C

Submissions and statements by Norges Bank to the Ministry of Finance in 2002

(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:

Expanding the Petroleum Fund's investment universe
Norges Bank's submission of 21 March 2002 to the Ministry of Finance

An appraisal of the regional weighting of the Petroleum Fund
Norges Bank's submission of 11 April 2002 to the Ministry of Finance