

# 2005

Annual Report 2005



Norges Bank - Annual Report 2005

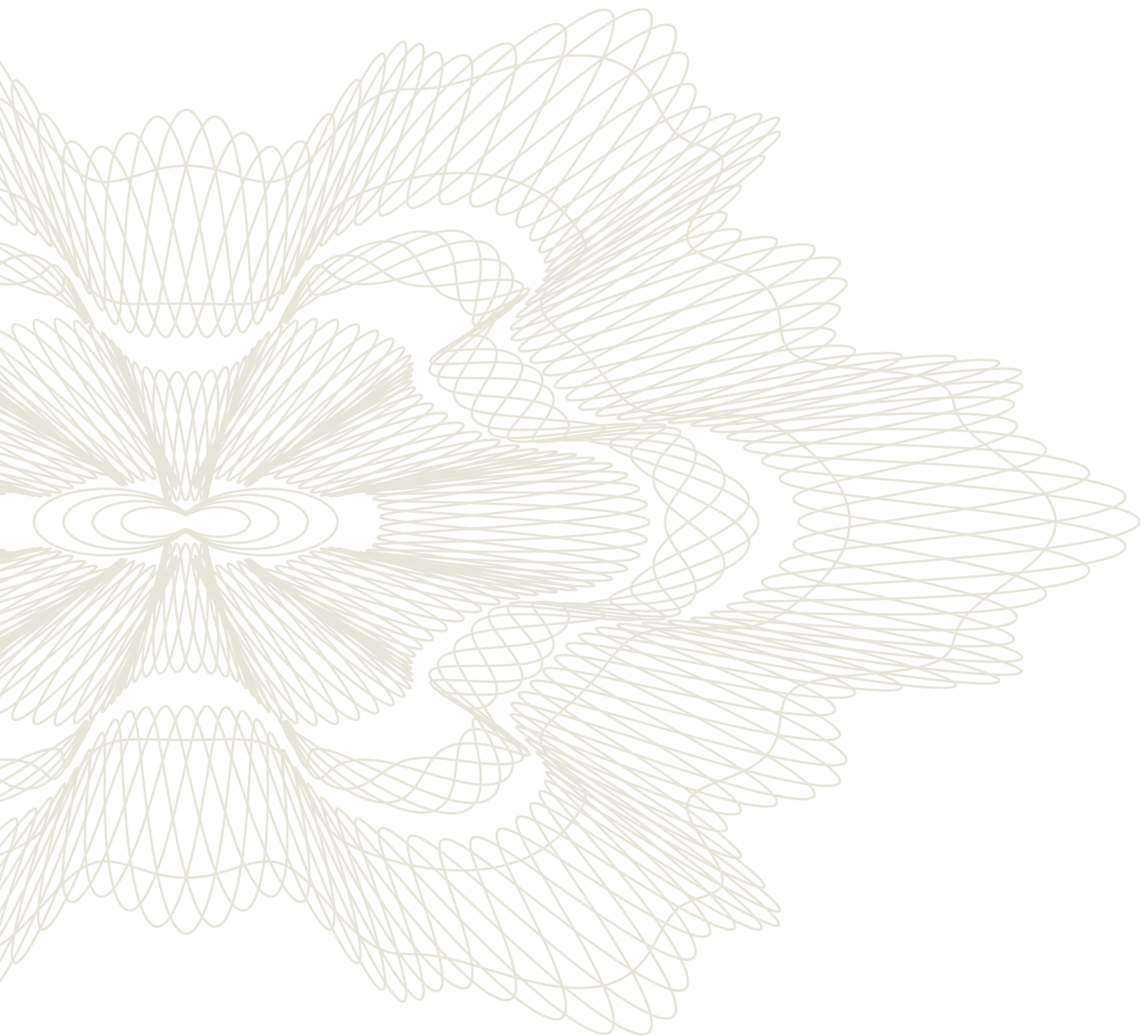


NORGES BANK



# 2005

Annual Report 2005



# Norges Bank (Central Bank of Norway)

## Oslo, Norway 2006

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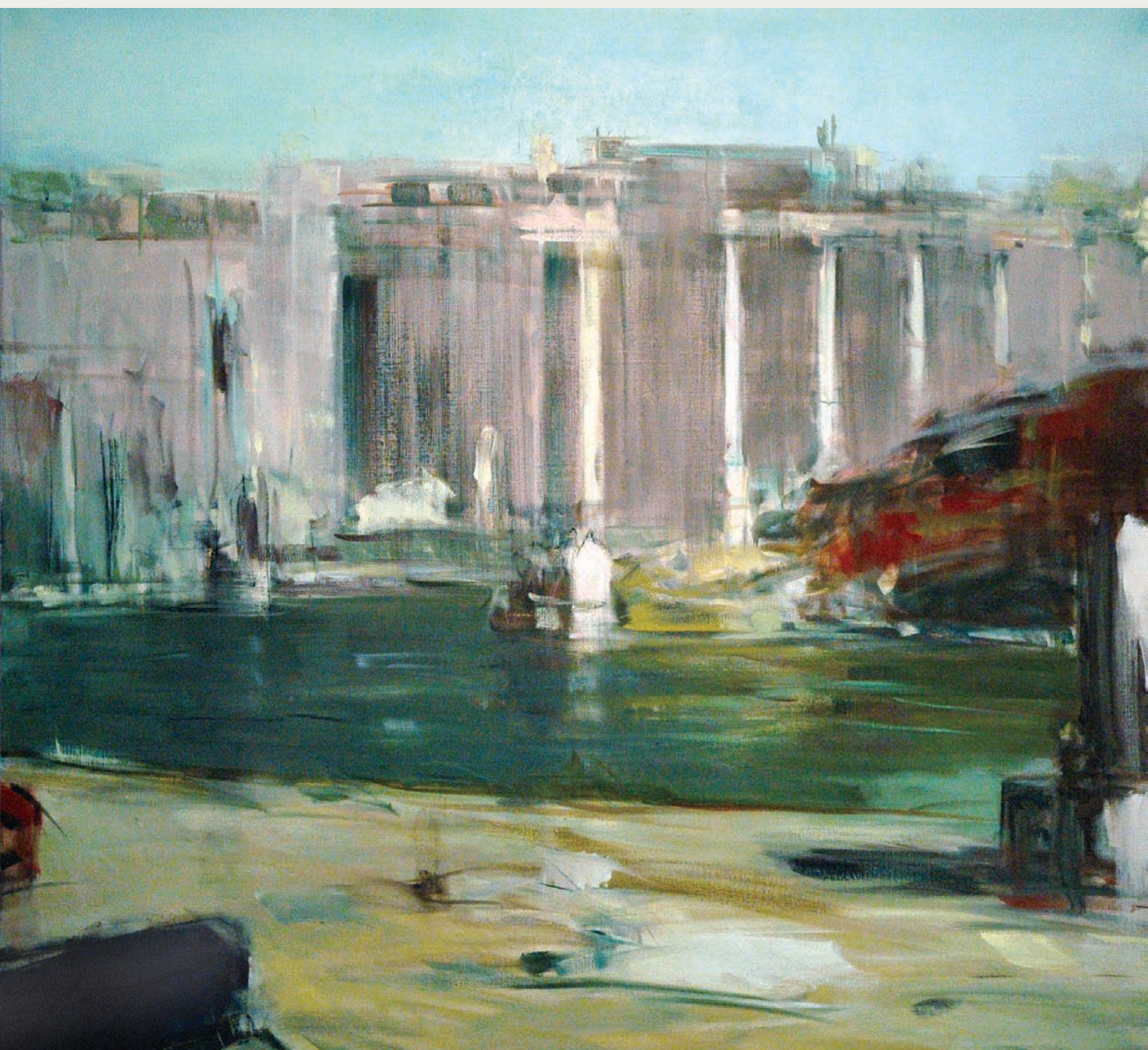
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# 1

## REPORT OF THE EXECUTIVE BOARD 2005



## Report of the Executive Board 2005

In accordance with the Norges Bank Act, executive and advisory authority is vested in the Executive Board. The Executive Board is in charge of the Bank's operations and manages its funds.

The Executive Board works to realise the Bank's objectives and values with particular emphasis on achieving price stability, financial stability and prudent and effective asset management that generates added value. The Executive Board continues to focus on organisational development and on the Bank's overall utilisation of resources.

The Executive Board held 16 meetings in 2005 and dealt with 119 matters. Two employee representatives supplement the Executive Board when administrative matters are discussed. In addition to ordinary Executive Board meetings, a number of seminars dealing with the Bank's core activities were held. As part of a study visit to London in autumn 2005, the Executive Board visited the Bank of England, Norges Bank's London office and financial institutions that perform tasks for Norges Bank Investment Management.

### Monetary policy

The operational objective of monetary policy is low and stable inflation, with annual consumer price inflation of approximately 2.5% over time. The Executive Board operates a flexible inflation targeting regime, so that weight is given to both variability in inflation and variability in output and employment.

Monetary policy influences the economy with long and variable lags. The interest rate is set with a view to stabilising inflation at the target within a reasonable time horizon, normally one to three years. The actual horizon will depend on the disturbances to which the economy is exposed and how they will affect the path for inflation and the real economy ahead.

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 published in advance. Most of the material presented to the Executive Board is made public.

The Executive Board's decision is published at a fixed, predetermined time shortly after the monetary policy meeting. A detailed account of the basis for the interest rate decision and the Executive Board's assessments are included in the press release concerning the interest rate decision. At the press conference, the central bank governor or deputy governor elaborates further on the Executive Board's decision and the points that were given most weight.

Three times a year, following every third monetary policy meeting, Norges Bank publishes an inflation report, including monetary policy assessments, in conjunction with the publication of the interest rate decision. Since *Inflation Report 3/05*, the analyses have been based on the Bank's own interest rate forecast. The interest rate forecast provides a balance between the objectives of monetary policy. On the basis of the analysis in the *Inflation Report*, the Executive Board adopts every fourth month the monetary policy strategy for the next four months. The strategy is published at the beginning of the relevant strategy period, and it is conditional on economic developments that are approximately as projected. Interest rate decisions are based on this strategy for interest-rate setting.

The upturn in the Norwegian economy that started in spring 2003 continued in 2005. The economy probably reached a cyclical peak towards the end of 2005, with capacity utilisation that appeared to be slightly above the normal level. Inflation picked up from its very low level in 2004. Consumer prices, adjusted for taxes and excluding energy products (CPI-ATE), rose by 1.0% in 2005. This was mainly due to a sharper rise in prices for domestically produced goods and services, primarily prices for services with wages as the dominant factor. Towards the end of the year, an accelerating fall in prices for imported consumer goods pushed down the CPI-ATE somewhat.

The key rate (sight deposit rate) was reduced by 5.25 percentage points from December 2002 to March 2004, and then left unchanged at 1.75% up to June 2005. The most recent interest rate reductions in winter 2003/2004 were intended to prevent inflation expectations from becoming entrenched at a level that was too low. The Executive Board stated that when inflation gradually picked up from a very low level, it would provide a basis for beginning to move short rates up towards a more normal level. Real short-term interest rates have been unusually low since the beginning of 2004. However, inflation in 2005 was expected to be below target. The decline in the external value of the krone from 2003 to 2004 was largely reversed in 2005.

Monetary policy in 2005 was oriented towards providing a reasonable balance between the objective of bringing inflation up to target and the objective of stabilising developments in output and employment. Inflation picked up in November and December 2004, but was still below target. Prospects of continued low inflation in Norway implied that we should lag behind other countries in setting interest rates at a more normal level. At the monetary policy meeting on 2 February, the key rate was left unchanged at 1.75%.

Inflation was unexpectedly low in the first months of 2005 as a result of a marked fall in prices for imported con-



sumer goods. At the monetary policy meeting of 16 March, the Executive Board stated that in the light of Norway's highly open economy we might have to expect somewhat wider variations in inflation than some other countries. International interest rates had risen, albeit slowly and from a low level. On average, our trading partners had increased their key rates by slightly more than  $\frac{1}{4}$  percentage point so far in this upturn. Even if capacity utilisation in the Norwegian economy rose, there appeared to be little risk that inflation would rapidly move up to a level that would be too high. The key rate was kept unchanged at 1.75%.

The monetary policy strategy in the *Inflation Report* presented on 16 March was that the interest rate could after a period, and then gradually, be brought up towards a more normal level. The objective of bringing inflation back to target and anchoring inflation expectations nevertheless implied a continued expansionary monetary policy. The unusually low interest rate and developments in output and inflation implied that it was now less appropriate to reduce the interest rate even further.

Economic developments up to the monetary policy meeting of 20 April were approximately as expected. Key rates abroad were rising, albeit slowly and from a low level. Norges Bank's key rate was left unchanged. Prices had risen approximately as projected following the unexpected fall at the beginning of the year, and this was given weight at the monetary policy meeting on 25 May. The krone was fairly strong. A development where interest rates rise gradually - in small and not too frequent steps - was considered to provide a good balance between the different monetary policy objectives. With the prospect that low inflation would continue for a period, the key rate was left unchanged at 1.75%.

At the monetary policy meeting on 30 June, prospects of slower growth in Europe and a somewhat stronger krone implied that the increase in the interest rate should be postponed further. Oil futures had increased markedly. On the other hand, the objective of stabilising developments in output and employment implied a higher interest rate. High capacity utilisation might prompt a sharper rise in property prices and household borrowing and constitute a source of instability in demand and output in the somewhat longer term. Inflation was still low, although it had picked up over the past year. The key rate was raised by 0.25 percentage point to 2.00%. The increase was in line with the analyses in the two previous inflation reports.

The monetary policy strategy in the *Inflation Report* presented on 30 June was that the interest rate might gradually - in small, not too frequent steps - be brought up towards a more normal level. No new information emerged up to the monetary policy meeting on 11 August to suggest that the Executive Board should deviate from this strategy. The key rate was left unchanged. The krone appreciated up to the monetary policy meeting on 21 September. Inflation had gradually picked up. One option was to increase the interest rate at this meeting, but the Executive Board found it appropriate to leave the interest rate unchanged.

At the monetary policy meeting on 2 November 2005, the Executive Board emphasised that interest rate setting since the early summer had been oriented towards increasing the interest rate gradually towards a more normal level. This strategy appeared to continue to provide a reasonable balance between the objectives of monetary policy. The key rate was raised by 0.25 percentage point to 2.25%.

The projections in the *Inflation Report* presented on 2 November were, in contrast to previous projections, based on the Bank's own interest rate forecast. The *Report* showed that an interest rate that increases gradually - in small, not too frequent steps - towards a more normal level would provide a reasonable balance between the objectives of monetary policy. The objective of bringing inflation back to target and anchoring inflation expectations nevertheless implied a continued expansionary monetary policy.

Up to the monetary policy meeting on 14 December 2005, developments in output, demand and inflation did not differ substantially from the projections in the November *Inflation Report*. The key rate was left unchanged at 2.25%.

## Financial stability

Financial stability implies that the financial system is robust to disturbances to the economy and can channel capital, execute payments and redistribute risk in a satisfactory manner. The Executive Board places emphasis on Norges Bank's contribution to financial stability. Therefore, Norges Bank monitors the economy and the financial system in order to identify trends that may erode financial stability. The assessments are published in the *Financial Stability* report, which was issued in June and November 2005. In its submissions to the Ministry of Finance, the Executive Board provides an assessment of financial stability, based on the *Financial Stability* reports.

The outlook for financial stability at end-2005 was satisfactory in the short term. Norwegian banks' results were solid, mainly as a result of very low loan losses and reduced costs. Corporate earnings and profitability were high, partly as a result of high prices for our export goods, strong global growth, low interest rates and high domestic demand. Households' financial position was sound. Income has increased in recent years and low interest rates

have contributed to low interest expenses. Unemployment has declined, and there are prospects that it will continue to fall. The risk of a substantial increase in banks' loan losses in the near term seems to be fairly low.

Household debt is continuing to rise at a rapid rate. Overall, debt relative to disposable income is now higher than at the end of the 1980s. The sharp rise in house prices in recent years has contributed to debt accumulation. Experience shows that higher house prices have a fairly prolonged effect on debt. The sharp rise in house prices may thus contribute to an increase in household debt accumulation over the next few years, even if the rise in house prices should slow ahead. This would entail a risk of less stable economic developments and higher loan losses for banks in the longer term. When the interest rate is gradually brought up to a more normal level, however, the rise in house prices and debt is expected to edge down. This will reduce the risk of wide fluctuations in activity in the Norwegian economy and in banks' results.

The International Monetary Fund (IMF) concluded a Financial Sector Assessment Program (FSAP) in Norway in 2005. This programme is designed to identify the strengths and weaknesses of a country's financial system. The Ministry of Finance, Kredittilsynet (the Norwegian Financial Supervisory Authority) and Norges Bank participated in the review process. The IMF report of 14 June 2005 concluded that on the whole, Norway's financial system functions well and in keeping with international standards. See box on page 61 for a more detailed description of the IMF assessment.

The proposal for new capital adequacy rules for banks (Basel II) has been adopted in the EU and will come into force on 1 January 2007. In Norway, the capital adequacy rules will be implemented into Norwegian law from the same date, as part of Norway's EEA obligations. The new rules allow greater weight to be given to banks' own systems and methods of risk management, and this also applies when calculating the capital adequacy requirement.

In connection with payment settlement and the implementation of monetary policy, Norges Bank extends loans to banks against collateral in the form of securities. Norges Bank had accepted a broad range of securities as collateral. In autumn 2005, the rules were changed in order to reduce Norges Bank's exposure to risk. The new rules include a credit rating requirement for Norwegian corporate bonds.

In 2005, Norges Bank has continued its work to upgrade the settlement system. The reason for this is that the tasks handled by Norges Bank's settlement system have changed since the existing system solutions were developed, and that these systems are approaching the end of their technological life. The upgrading of the settlement system involves establishing separate system solutions for the interbank settlement system and the central government's consolidated account. Tenders for new solutions for these two systems were received from potential suppliers in 2005 in accordance with the Public Procurement Act. Negotiations with potential suppliers are expected to be completed early in 2006.

A new system and operating solution for the government consolidated account is expected to be operational in autumn 2006. A new interbank settlement system is scheduled to be operational in 2008.

Effective from 1 January 2005, the terms for banks' cash deposits and withdrawals from Norges Bank's depots were changed. In addition, the Executive Board decided that on certain conditions the central bank may pay interest compensation for cash owned by banks and stored in their own depots. Partly as a result of this, it was decided in 2005 to reduce the number of central bank depots from eleven to five (Bergen, Oslo, Stavanger, Tromsø and Trondheim). As of end-2005, banks have established five private cash depots.



## Investment management

Norges Bank manages the Government Pension Fund – Global (previously the Government Petroleum Fund) on behalf of the Ministry of Finance. The Bank also manages its foreign exchange reserves, which in addition to the investment portfolio also contain two smaller sub-portfolios. Finally, the Bank manages the Government Petroleum Insurance Fund on behalf of the Ministry of Petroleum and Energy. At the end of 2005, Norges Bank managed capital amounting to a total of NOK 1 658bn in international capital markets.

In 2005, all portfolios managed by Norges Bank recorded a solid return, measured in terms of the currency basket corresponding to the composition of the individual portfolio's benchmark index. Because of favourable developments in the equity market in 2005, the two large portfolios showed a return of 11.09% for the Government Pension Fund – Global and 9.08% for the foreign exchange reserves investment portfolio. As a result of the depreciation of the Norwegian krone in relation to the currency basket, the return measured in NOK was even higher – 14.28% and 12.30% respectively. The return in terms of international currencies, however, provides the best indication of developments in the two funds' purchasing power. At end-2005, the Pension Fund had reached NOK 1 399bn and the investment portfolio NOK 211bn.

With low global inflation, the real return was also high in 2005. Since 1997, the Pension Fund has recorded an average annual real return of 4.48%, while the investment portfolio has recorded a return of 3.91% since 1998. Management costs have been deducted from these figures.

Active management produced solid results in 2005, in particular for the Pension Fund, where the actual return was 1.10 percentage points higher than the return on the benchmark portfolio defined by the Ministry of Finance. Since 1998, the average annual excess return has been 0.54 percentage point. The excess return on the foreign exchange reserves investment portfolio was 0.35 percentage point in 2005.

Norges Bank's Executive Board has defined an investment management strategy. The main objectives in the strategy are to achieve an annual excess return of at least 0.25 percentage point through active management and to retain the confidence of the delegating authorities and the general public. Active management will be expanded further. Management shall be conducted in a prudent manner with considerable emphasis on good internal control procedures and without substantial infringements of the guidelines from the delegating authorities.

The Executive Board has determined that remuneration and personnel policies in investment management are to be an instrument for achieving performance targets. Many of the staff have performance-based pay. This is to ensure sufficient competitiveness in the Norwegian and international labour markets.

The Executive Board has also laid down guidelines for corporate governance for the equity portfolios, which supplement the Ministry of Finance guidelines for the Pension Fund portfolio. The objective of Norges Bank's guidelines is to make corporate governance an integral part of investment activities, where the aim is to achieve a high return. It is particularly important that enterprises in which the Bank owns shares are aware of Norges Bank's corporate governance principles and that the boards of these enterprises act in accordance with internationally accepted principles of good corporate governance. As of 2005, it will be possible to vote at the annual general meetings of most of the companies in the portfolio. To ensure that voting is consistent, the Bank has taken over the exercise of voting rights from all the external portfolio managers. A special corporate governance group has been established in the Equity department.

In October 2005, the Executive Board approved a plan to establish an office in Shanghai. A contract for the leasing of premises has been signed, and efforts are in progress to secure final approval of the office from the Chinese authorities.

In its submission to the Ministry of Finance of 21 March, the Executive Board proposed a number of changes to the framework for the management of the Pension Fund. The Ministry followed up most of these proposals in the National Budget for 2006, including a proposal to eliminate constraints in permissible asset classes other than those resulting from risk and return measurement requirements, and to permit the use of commodity derivatives in investment management. The Bank had also proposed that the limit on ownership interests in any one company should be raised from 3% to 10%. The Ministry decided that the maximum limit could now be raised to 5%. The limit may be reassessed at a later time. The Ministry deemed that the list of countries in which the Fund may be invested should be maintained. The existing list is being reassessed with a view to extending it.

The Executive Board lays down guidelines for the management of the foreign exchange reserves. Benchmark portfolios are used as a basis for managing risk and measuring operational management performance. The investment portfolio accounts for the largest portion of the foreign exchange reserves. In May 2005, the Executive Board decided to make some changes in the operational framework for the portfolio. The changes are basically the same as those proposed for the Pension Fund (see above). The purpose was partly to simplify day-to-day management and partly to provide opportunities to achieve a somewhat higher return by expanding the investment universe. The

list of permitted countries and currencies for investment portfolio investments is now considerably longer, and fixed income securities no longer have to meet a minimum credit rating requirement. The Executive Board has also raised the maximum limit for ownership interests in any one company to 5%. On the other hand, more extensive risk management requirements now apply to operational management.

In November 2005, the Executive Board decided to increase the equity portion of the investment portfolio from 30% to 40%. The equity portion was last assessed in 2002. The reserves have increased since then and are now at a high level in relation to the level needed to meet a contingency. This means that greater emphasis can be placed on achieving a high return in the long term within acceptable risk limits. The Executive Board has also adopted changes in the regional distribution. Real return bonds were already included in the portfolio. All in all, the new composition of the benchmark portfolio has only resulted in minor changes in the risk profile. Norges Bank's capital is now considerably larger than it was in 2002, and the level of capital is more consistent with the level of risk in the foreign exchange reserves. This means that the Bank's risk-bearing capacity has increased.

In 2005, risk exposure in relation to the benchmark portfolio remained well within the limits set by the Executive Board. The total risk in the portfolio is determined by the benchmark portfolio and by the magnitude of fluctuations in equity and fixed income markets. According to Norges Bank's risk models, the standard deviation on the total return is estimated at 7.2 percentage points. The standard deviation indicates the width of an interval above and below the expected return. There is a high probability that the actual return will fall within this interval.

The other sub-portfolios in the foreign exchange reserves, the money market portfolio and the buffer portfolio, are smaller. There have been no changes in the management of these sub-portfolios.

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 Pension Fund – Global and the Government Petroleum Insurance Fund.

The Ministry of Finance has also established ethical guidelines for the Pension Fund's investments. An Advisory Council on Ethics advises the Ministry of Finance on how the guidelines for negative screening and the exclusion of companies from the investment universe should be applied. The Executive Board has established similar rules for negative screening and the exclusion of companies in the foreign exchange reserves.

In 2005, the Ministry of Finance transferred NOK 221.3bn to the Pension Fund. Of this amount, management fees for 2004 of NOK 1.0bn were deducted. In 2005, risk exposure in relation to the benchmark portfolio remained well within the limits set by the Ministry of Finance. Total risk in the portfolio is determined by the benchmark portfolio and by the magnitude of fluctuations in equity and fixed income markets. According to Norges Bank's risk models, the standard deviation on the total return at end-2005 is estimated at 7.4 percentage points. This is low in relation to comparable funds in other countries.

The management of the Government Pension Fund – Global is also described in a separate annual report.

## Organisation and personnel

### Use of resources and restructuring

The Executive Board emphasises that the central bank should discharge its responsibilities in a professional manner and at low cost. Operations should be well managed, reflect a strong ethical awareness and comply with best international practice. The Bank should show a willingness and capability for change.

In the last few years, the Bank has concentrated its operations on its core activities: monetary policy, financial stability and investment management, including related operational and staff functions. This has resulted in substantial restructuring. Until a few years ago, cash handling and the production of notes and coins accounted for a large part of the Bank's activities and use of resources. In 2001, most of the cash handling activities were spun off into a separate company (Norsk Kontantservice AS), jointly owned by Norges Bank and several private banks. At the end of 2005, Norges Bank sold all its shares in the company. The Royal Norwegian Mint was sold in 2003, and bank-note production in the Bank will be discontinued in 2007. In 2005, the number of cash depots was reduced from eleven to five. Operation of the Bank's settlement systems has been outsourced. Through 2005, further organisational changes were made to concentrate on the Bank's core activities. The work on foreign payment statistics was transferred to Statistics Norway in spring 2005. The Bank's staff and support functions will be reduced further in the years ahead.

At end-2005, the number of permanent employees at Norges Bank totalled 547, as against 563 at end-2004. Since the end of the 1990s, the number of employees has been reduced by about 600. This has been accompanied by an increase in the use of resources in the Bank's core areas. The number of employees engaged in the Bank's invest-



ment management operations has continuously increased in the last few years, particularly as a result of the sharp rise in the capital of the Government Pension Fund – Global, where active management internally in the organisation has been expanded. The number of permanent employees engaged in investment management operations at end-2005 was 128, compared with 118 at end-2004. A further rise is planned in the next few years.

The Bank's restructuring affects many employees. Norges Bank is using personnel policy programmes to facilitate the restructuring. In the period 1999 to end-2005, the Bank applied personnel policy programmes in connection with 305 termination agreements. In 2005, applications under these agreements were approved for 24 employees in different parts of the Bank, compared with 17 the year before. NOK 158m has been set aside in the accounts to cover future payments related to restructuring.

Restructuring and the reduction in the number of employees also means that office space becomes available at the head office. In 2004, preparations were started for the disposal and leasing of space that will become vacant when the printing works' activities are discontinued in 2007. Negotiations with a potential lessee were started in autumn 2005, and are now reaching the closing phase. The agreement includes extensive rebuilding. The printing works' current premises will, for example, be rebuilt as office premises. During its discussions of the budget for 2006, the Supervisory Council approved the project, which has been allocated NOK 273m. The expected return on the project is acceptable, although not high. The new premises are scheduled to be ready for use in autumn 2008.

Net resources employed in the Bank's own operations have been reduced by about 25% in real terms since 1998. Restructuring costs are not included. Net resource use has also been reduced from 2004 to 2005 (for more information, see Chapter 6).

### **Gender equality**

Women account for 40% of the employees in Norges Bank. The share of women is higher in the lower paid job categories than in management positions and in the category economist/senior economist. In 2005, the share of women recruited to permanent positions was 43%. At the end of 2005, 5% of the permanent employees, primarily women, were working part time.

The Bank's gender equality programme has set targets for the share of women in different job categories. At the end of 2005, the share of women in management positions was 27%, the same as the previous year. The target is 40%. A comparison shows that on average the salary of women managers in Norges Bank was 96.3% of the salary of male managers in 2005, down from 97.4% in 2004. For the category economist/senior economist, the figure was 93.8% compared with 89.6% one year earlier.

Efforts are in progress to increase the share of women in management positions and economist/senior economist positions by seeking women candidates for vacant management positions, externally and internally. Women are given management training by being engaged as project coordinators and serving as acting managers during temporary vacancies. The working situation is adapted to employees with small children through flexible working hours and the possibility of working from home via computer.

The Executive Board is following developments in gender equality at Norges Bank closely via regular reports from the Bank's administration.

### **Health, environment and safety**

Norges Bank has entered into an agreement to be an inclusive workplace enterprise. In 2005, absence due to illness was 3.7% of the total number of working days, compared with 4.0% in 2004. Long-term absences (16 days or more) accounted for 2.1% of total absence, against 2.9% in 2004.

Health, environment and safety surveys are conducted in the Bank's departments at intervals of two to three years. The Executive Board monitors developments in the working environment and the stress experienced in those areas of the Bank undergoing restructuring. Norges Bank has no significant impact on the external environment.

The Executive Board places considerable emphasis on ensuring adequate safety in all parts of the Bank's operations. The objective is to protect the lives and



health of the employees and cooperative partners and protect the considerable assets managed by the Bank. In autumn 2004, the Bank initiated measures to upgrade security at the head office and at the Bank's depots. This work is now largely finished, with final completion scheduled for 2006.

### **Internal control and risk management**

Internal control and risk management are essential to the Bank's operations and are an integral part of the Bank's line management and management systems.

In 1998, the Executive Board decided that a systematic arrangement for the establishment and follow-up of internal control at Norges Bank should be developed based on the regulation laid down by Kredittilsynet (the Norwegian Financial Supervisory Authority) concerning the clarification of control responsibilities, and the documentation and confirmation of internal control. The Executive Board has also laid down basic principles for internal control at Norges Bank.

Norges Bank defines internal control as all measures, arrangements, systems etc. that contribute to the achievement of the Bank's goals. The systematic arrangements include requirements as to the conduct and documentation of risk analyses and control measures. Annual reports are submitted to the Executive Board on the risk outlook and quality of internal control for the various areas of operation.

### **Ethical rules**

For Norges Bank to be able to fulfil its responsibilities, the general public must have complete confidence that the Bank will perform its duties in an unbiased and independent manner. The Executive Board emphasises that the Bank's employees must always behave in an ethical manner. Therefore, the Executive Board has established ethical rules for the Bank's employees to prevent them from exploiting their positions to achieve unethical advantages for themselves or others or being disloyal to the Bank. These rules were revised in 2005. Ethical rules have also been established for the members of the Executive Board, cf. the Regulation from the Ministry of Finance of 7 August 2000 concerning the relationship to other credit institutions and enterprises for members of Norges Bank's Executive Board.

### **Profit and loss account and balance sheet**

Net international reserves are Norges Bank's main assets, apart from the Government Pension Fund – Global, which does not affect the Bank's results. Norges Bank has liabilities in the form of notes and coins in circulation and domestic deposits from the central government and banks. This balance sheet composition will normally generate a positive return over time. This is mainly because the Bank has substantial capital and liabilities in the form of notes and coins in circulation. The Bank's assets primarily consist of investments that generate a return.

However, since the Bank's assets are largely invested in foreign exchange and liabilities are in NOK, there is a foreign exchange risk that requires substantial capital.

Norges Bank's income consists primarily of interest and any net exchange gains from foreign exchange investment. Exchange and capital gains are the result of changes in exchange rates and equity prices and of interest rate changes that 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 annual accounts for 2005 show a surplus of NOK 21.3bn, compared with a surplus of NOK 1.1bn in 2004. Due to the depreciation of the Norwegian krone against most of the main currencies in the foreign exchange reserves, the foreign exchange reserves translated into NOK showed exchange gains of NOK 8.4bn in 2005, compared with exchange losses of NOK 10.0bn in 2004. Exchange gains due to the depreciation of the krone have no effect on the international purchasing power of the foreign exchange reserves.

The rise in prices in international securities markets in 2005 resulted in a capital gain of NOK 11.0bn, compared with a loss of NOK 5.7bn in 2004. Interest income and dividends from foreign investments amounted to NOK 9.2bn, which is NOK 0.7bn more than in 2004.

Interest payments to the Treasury amounted to NOK 2.6bn compared with NOK 2.3bn in 2004.

The Adjustment Fund contained NOK 46.1bn at end-2004. Following the year's allocations for 2005, the Adjustment Fund amounted to NOK 67.5bn. The Ministry of Finance has determined how much Norges Bank may allocate to the Adjustment Fund as a buffer against changes in exchange rates and securities prices (cf. description under Distribution of profit below). If the Adjustment Fund were to reflect the ratios in the guidelines for provisions and allocation of profits, it would have to total NOK 102.1bn.

Norges Bank's total balance sheet amounts to NOK 1 744.6bn. The Government Pension Fund – Global is inte-

grated into Norges Bank's accounts, and constitutes about 80% of the Bank's balance sheet. The krone deposits in the Government Pension Fund - Global are a liability item for Norges Bank and at year-end amounted to NOK 1 397.9bn. Norges Bank invests the equivalent of the krone deposits in an earmarked portfolio abroad. The return achieved on the international portfolio is transferred to the Fund's krone account. Norges Bank's costs associated with managing the Government Pension Fund – Global are covered by the Ministry of Finance up to a certain limit.

The value of notes and coins in circulation amounted to NOK 51.9bn, which is NOK 4.3bn more than at end-2004. These are interest-free liabilities in Norges Bank's accounts.

Contracts to purchase and sell financial derivatives and options contracts entered into as of 31 December 2005 are shown as off-balance-sheet items.

Reference is made to the financial statements for 2005 which include the profit and loss account, the balance sheet and additional information in the notes.

## Distribution of profit

Pursuant to 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 been revised several times, most recently by the 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 has reached 5% of the Bank's holdings of Norwegian securities and 40% of the Bank's net foreign exchange reserves, excluding the immunisation portfolio and capital managed for the Government Petroleum Fund, other claims/liabilities abroad or any other commitments which the Executive Board considers to involve a not insignificant exchange risk.

The immunisation portfolio corresponds 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 to/debited from the Treasury in the accounts of the same year. The same applies to the Government Petroleum Fund portfolio.

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

2. If the Adjustment Fund falls below 25% of the Bank's net foreign exchange reserves excluding the immunisation portfolio and capital managed by the Government Petroleum Fund, and other claims/liabilities 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 reaches 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 deficit 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 one-third of the capital in the Transfer Fund shall be transferred to the Treasury.

In accordance with a statement from the Ministry of Finance, NOK 71.2m is to be transferred from other capital to cover the write-down on previously written up assets. The amount will be transferred to profit/loss for allocation for the year.

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

In accordance with point 1, the surplus for the year after other allocations, NOK 21 391.8m, will be allocated to the Adjustment Fund. As there are no funds in the Transfer Fund, no transfer will be made to the Treasury.

### Oslo, February 2006

Svein Gjedrem

Jarle Bergo

Liselott Kilaas

Vivi Lassen

Brit K. Rugland

Asbjørn Rødseth

Øystein Thøgersen

Sonja Blichfeldt Myhre  
(Employees' representative)

Jan Erik Martinsen  
(Employees' representative)







# 2

## FINANCIAL STATEMENTS FOR 2005





## Profit and loss account

Figures in millions of NOK

	Note	2005	2004
Interest income and dividends	1	9 190	8 479
Change in value financial instruments	2	10 985	5 711
Valuation adjustments on foreign exchange	3	8 380	-10 053
<b>Return on international reserves</b>		<b>28 555</b>	<b>4 137</b>
Share dividend, BIS	13	18	18
Loss on other foreign financial instruments	4	-3 543	-1 071
Gain/loss on domestic financial instruments	5	-147	952
Interest expenses to Treasury etc.	6	-2 872	-2 283
<b>Net other financial activities</b>		<b>-6 544</b>	<b>-2 384</b>
<b>Overall return financial activities</b>		<b>22 011</b>	<b>1 753</b>
<b>Return on investments for Government Pension Fund - Global</b>	<b>7</b>	<b>162 388</b>	<b>32 937</b>
<b>Transferred to krone account Government Pension Fund - Global</b>	<b>7</b>	<b>-162 388</b>	<b>-32 937</b>
Management remuneration Government Pension Fund - Global	8	1 239	984
Other operating income		145	108
<b>Total operating income</b>		<b>1 384</b>	<b>1 092</b>
Personnel expenses	8	-563	-448
Write-downs	16	-116	-108
Other operating expenses		-1 396	-1 200
<b>Total operating expenses</b>		<b>-2 075</b>	<b>-1 756</b>
<b>Net operating expenses</b>	<b>8</b>	<b>-691</b>	<b>-664</b>
<b>Profit for the year</b>		<b>21 320</b>	<b>1 089</b>
Transferred from Adjustment Fund		0	0
Transferred from 'Other capital'	26	72	3 084
<b>Reserves</b>		<b>21 392</b>	<b>4 173</b>
Allocated to Adjustment Fund	25	-21 392	-4 173
Allocated to Transfer Fund		0	0
Allocated to 'Other capital'		0	0
<b>Total allocations</b>		<b>-21 392</b>	<b>-4 173</b>

## Balance sheet at 31.12.2005

Figures in millions of NOK

ASSETS	Note	2005	2004
FOREIGN FINANCIAL ASSETS			
Securities and deposits	9	219 137	186 187
Lending	10	94 489	74 184
Claims on the IMF	11	4 537	7 989
<b>Total international reserves</b>	<b>12</b>	<b>318 163</b>	<b>268 360</b>
<b>Other foreign assets</b>	<b>13</b>	<b>113</b>	<b>39</b>
<b>Total foreign financial assets excl. Government Pension Fund - Global</b>		<b>318 276</b>	<b>268 399</b>
DOMESTIC FINANCIAL AND OTHER ASSETS			
Lending to banks etc.	14	25 404	495
Other domestic assets	15	1 322	1 814
<b>Total domestic financial assets</b>		<b>26 726</b>	<b>2 309</b>
Fixed assets	16	1 386	1 395
Gold		291	291
<b>Total other domestic assets</b>		<b>1 677</b>	<b>1 686</b>
<b>Total domestic financial and other assets</b>		<b>28 403</b>	<b>3 995</b>
<b>Total assets excl. Government Pension Fund - Global</b>		<b>346 679</b>	<b>272 394</b>
<b>Investments for Government Pension Fund - Global</b>	<b>17</b>	<b>1 397 896</b>	<b>1 015 471</b>
<b>TOTAL ASSETS</b>		<b>1 744 575</b>	<b>1 287 865</b>



Figures in millions of NOK			
LIABILITIES AND CAPITAL	Note	2005	2004
<b>FOREIGN LIABILITIES</b>			
Deposits	18	377	309
Borrowing	19	61 002	48 994
Other liabilities	13,20	334	289
Equivalent value of allocated special drawing rights	11	1 620	1 575
<b>Total foreign liabilities</b>		<b>63 333</b>	<b>51 167</b>
<b>DOMESTIC LIABILITIES</b>			
Notes and coins in circulation	21	51 910	47 595
Treasury deposits	6	109 627	88 816
Deposits from banks etc.	22	42 699	37 158
Other liabilities	23	10 488	356
<b>Total domestic liabilities</b>		<b>214 724</b>	<b>173 925</b>
<b>Total liabilities excl. Government Pension Fund - Global</b>		<b>278 057</b>	<b>225 092</b>
<b>Deposits krone account Government Pension Fund - Global</b>	<b>24</b>	<b>1 397 896</b>	<b>1 015 471</b>
<b>Total liabilities</b>		<b>1 675 953</b>	<b>1 240 563</b>
<b>CAPITAL</b>			
Adjustment Fund	25	67 488	46 096
Other capital	26	1 134	1 206
<b>Total capital</b>		<b>68 622</b>	<b>47 302</b>
<b>TOTAL LIABILITIES AND CAPITAL</b>		<b>1 744 575</b>	<b>1 287 865</b>
<b>Obligations</b>	<b>27</b>		
Derivatives and forward contracts sold, international reserves		137 051	83 020
Derivatives and forward contracts purchased, international reserves		136 670	87 931
Derivatives and forward contracts sold, Government Pension Fund - Global		798 223	534 611
Derivatives and forward contracts purchased, Government Pension Fund - Global		785 681	526 161
Allocated, not yet paid for shares in BIS	13	287	258
<b>Rights</b>	<b>28</b>		
Options sold, international reserves		759	341
Options purchased, international reserves		1 448	598
Options sold Government Pension Fund - Global		5 273	2 232
Options purchased Government Pension Fund - Global		8 578	3 992

**Norges Bank's Executive Board**

**Oslo, 8 February 2006**

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

## Notes

### 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 of the Accounting Act if these differ from the recommendations of the International Monetary Fund (IMF) or other practice in other central banks. The profit and loss account and balance sheet are set up in a manner appropriate to the Bank's activities. Cash flow analyses are not prepared. Norges Bank's accounts are adjusted to incorporate value-dating corrections. Securities trades are registered on the trade date. Income and expenses are recognised as they are earned or accrued, according to the accruals principle. According to an agreement with the Ministry of Finance, Norges Bank's accounting principles are applied to the portfolio of the Government Pension Fund – Global (formerly the Government Petroleum Fund).

In the event of a change in the classification of accounts, comparable figures from previous years are changed correspondingly.

#### Currency

Assets and liabilities in foreign currency are translated into NOK as at 31 December 2005 at market rates quoted on WM Reuters London at 4 pm on 30 December 2005. Income and expenses in foreign currency are converted to NOK at the exchange rate prevailing on the transaction date.

#### International reserves

The item 'Norges Bank's international reserves' reflects Norges Bank's gross investments with foreign institutions. Reporting takes place pursuant to IMF guidelines.

#### Securities

The portfolio of foreign and Norwegian securities is carried at fair value at 31 December 2005. It is invested largely in foreign fixed income instruments and equities. Fair value is based on market values provided by recognised international index suppliers. The securities are classified as short-term investments. Accrued interest is included in the securities holdings. Unrealised gains are taken to income.

In the securities management, the securities are sometimes used as underliers for financial instruments, for example through the sale of securities with an agreement for repurchase at a later date. The repurchase agreements are presented as borrowing against collateral in securities.

#### Off-balance sheet financial instruments

Off-balance sheet financial instruments are contracts concerning future delivery of foreign exchange or securities at a pre-determined price. In the case of Norges Bank, these comprise forward exchange contracts, financial futures, interest rate swaps, equity swaps and options. Forward contracts are recorded at forward rates. Forward premia/discounts, futures contracts, interest rate swaps, equity swaps and options

are carried at fair value at 31 December 2005. Fair value is based on market values delivered by recognised international index suppliers. Fluctuations in the fair value are recorded in the profit and loss account under 'Valuation changes'.

#### Valuation of stocks

Stocks of raw materials at the Printing Works are valued at the lower of average purchase price or 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 on the basis of 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. Procured fixed assets with a total value of over NOK 100 000 are entered on the balance sheet for depreciation over their economic life.

#### Gold and other collections

Norges Bank has no gold among its international reserves after these holdings were sold in 2004. A collection of gold coins and gold bars was retained. The collection has been assessed at the fair value of gold at 1 January 2004, which is the value at the time it was removed from the international reserves and the purpose changed to longterm ownership. If the fair value becomes persistently and substantially lower in the long-term, the value will be written down. If the fair value of gold rises, the value of the collection will not be written up.

Norges Bank has a substantial collection of art, gifts and museum pieces such as medals, banknotes and coins. This collection is registered, but not entered on the balance sheet.

#### Pensions and payment obligations

Pensions and payment obligations are entered in the accounts in accordance with NRS 6 Pension costs.

The Bank's payment obligations are associated with restructuring measures in the form of redundancy pay, early retirement schemes and severance pay. In connection with fund-based schemes through Norges Bank's Pension Fund, the calculations are based on actuarial assumptions regarding life expectancy, expected wage growth and adjustment of the basic amount in the social security scheme. The estimation of pension costs is based on linear distribution of pension earnings and consists of the year's accrued pension earnings less return on capital allocated for pensions. The economic assumptions forming the basis for the computation of pension obligations change over time.

#### Shares in associated companies

Shares in associated companies are entered according to the cost accounting method.

## Note 1. Interest income and dividends

	Figures in millions of NOK	
	2005	2004
Interest income on deposits	48	222
Share dividends	1 467	1 003
Interest income on securities	6 399	5 316
Interest income on lending	2 321	1 850
Interest income, IMF and SDR	118	66
Interest income on derivatives	-1 168	15
Other interest income	5	7
<b>Interest income and dividends</b>	<b>9 190</b>	<b>8 479</b>

## Note 2. Change in value financial instruments

	Figures in millions of NOK	
	2005	2004
Realised gains/losses equities	3 093	998
Unrealised gains/losses equities	7 108	3 349
Realised gains/losses fixed income instruments	2 297	260
Unrealised gains/losses fixed income instruments	-1 790	1 803
Gains/losses gold	0	77
Gains/losses derivatives	277	-776
<b>Change in value financial instruments</b>	<b>10 985</b>	<b>5 711</b>

## Note 3. Valuation adjustments on foreign exchange

	Figures in millions of NOK	
	2005	2004
Realised valuation change on foreign exchange	-219	-1 598
Unrealised valuation change on foreign exchange	8 599	-8 455
<b>Valuation adjustment on foreign exchange</b>	<b>8 380</b>	<b>-10 053</b>

## Note 4. Net other foreign financial instruments

	Figures in millions of NOK	
	2005	2004
Loss on borrowing	-3 174	-985
Exchange rate change IMF	-318	0
Other losses	-51	-86
<b>Losses other foreign financial instruments</b>	<b>-3 543</b>	<b>-1 071</b>

## Note 5. Net domestic financial instruments

	Figures in millions of NOK	
	2005	2004
Interest expenses, borrowing	-95	-129
Exchange rate adjustment	-52	2
Interest income, securities	0	572
Realised gains/losses fixed income instruments	0	1 651
Unrealised gains/losses fixed income instruments	0	-1 144
<b>Net domestic financial instruments</b>	<b>-147</b>	<b>952</b>

As a result of changes in the Norges Bank Act, all Norwegian government securities were transferred to the Ministry of Finance in 2004. Norges Bank's management of this portfolio on behalf of the Ministry of Finance is not included in Norges Bank's accounts.

## Note 6. Interest expenses to Treasury etc.

	Figures in millions of NOK	
	2005	2004
Interest expenses to Treasury	-2 648	-2 267
Interest income on bank deposits	23	21
Interest expenses on deposits from banks	-547	-395
Interest expenses depots operated by banks	-2	0
Interest income on lending	302	357
Other interest income	0	1
<b>Interest expenses to Treasury etc.</b>	<b>-2 872</b>	<b>-2 283</b>

In 2005, interest on deposits from the Treasury was paid at a rate of 2.25% per annum in the first and second quarters, 2.50% per annum in the third quarter and 2.75% per annum in the fourth quarter. The same interest rates apply to deposits from public account-holders that receive interest on their deposits.

## Note 7. Return on investments for Government Pension Fund - Global

	Figures in millions of NOK	
	2005	2004
Interest income	27 815	26 046
Dividends	10 308	8 246
Exchange rate adjustments	33 610	-46 791
Unrealised securities gains/losses	36 521	28 576
Realised securities gains/losses	49 908	21 581
Brokers' commissions	-19	-49
Gains/losses futures	1 250	252
Gains/losses options	0	21
Gains/losses equity swaps	1 239	393
Gains/losses interest rate swaps	1 756	-5 338
<b>Transferred to krone account</b>	<b>162 388</b>	<b>32 937</b>
Accrued management remuneration	-1 239	-984
Consulting services	0	-4
<b>Net transfer krone account</b>	<b>161 149</b>	<b>31 949</b>

## Note 8. Net operating expenses

Norges Bank's net operating expenses amounted to NOK 691m.

The Bank's operating income and operating expenses include income and expenses associated with the management of the Government Pension Fund – Global. These expenses are covered by the Ministry of Finance up to a certain limit. The expenses associated with management also include distributed indirect and imputed expenses.

The table below shows the operating income and expenses associated with the management of the Government Pension Fund - Global.

	Figures in millions of NOK	
	2005	2004
<b>Fees for managing Government Pension Fund - Global</b>	<b>1 239</b>	<b>984</b>
<b>Expenses of managing the Government Pension Fund - Global</b>	<b>1 239</b>	<b>984</b>
Internal management fixed income portfolio	223	188
Internal management equity portfolio	225	185
External management	791	611

Included in Norges Bank's operating expenses are the Bank's total personnel expenses, which amount to NOK 563m and consist of the following components:

	Figures in millions of NOK	
	2005	2004
<b>Personnel expenses</b>		
Salaries and fees	403	366
Employer's social security contribution	58	63
Pension costs (see 8.1)	33	1
Restructuring expenses (see 8.2)	28	-8
Other personnel expenses	41	26
<b>Total personnel expenses</b>	<b>563</b>	<b>448</b>



### Salaries, pensions and restructuring

The salaries of the Central Bank Governor and Deputy Governor are set by the Ministry of Finance, and in 2005 were NOK 1 362 000 and NOK 998 257 respectively. In addition, they have a company car at their disposal (benefits estimated at NOK 102 537 and NOK 80 210 respectively), a free telephone and insurance.

A full old-age pension for the Central Bank Governor and the Deputy Governor is 2/3 of the prevailing salary for the position in question. Old-age pensions are payable from the date of retirement, albeit not before the age of 65. The earning period for a full pension is 12 years. The pension is subject to coordination with other public pension schemes. At end-2005, these obligations were both determined by actuarial assessment to be NOK 5.0m, when coordination with the National Insurance Scheme is taken into account. Changes in 2005, which amounted to NOK 1.1m and NOK 1.0m, respectively, were charged to Norges Bank's operations. Coordination with other public pension schemes is not taken into account in the calculations.

Remuneration to the Supervisory Council and the Executive Board totalled NOK 1.4m in 2005.

#### *Pension schemes in Norges Bank*

Norges Bank's ordinary pension obligations are covered by the Bank's own pension fund, which is organised as a foundation. Pension 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% of their gross annual salary to the Pension Fund. Norges Bank's contribution for 2005 was covered partly by cash payments and partly by capital saved in the premium fund.

Pension obligations relating to secured schemes in Norges Bank amount to NOK 1 734m. The assumptions concerning mortality and other demographic factors are based on the standard K 1963 basis for group pension insurance. The IR 73 rate has been used in the calculation of disability provisions. A 3% supplement for future administration costs is priced into the pension obligations. The basis for calculating individual pension obligations is the pension benefit the individual has earned or is receiving at 31 December 2005. Pension obligations are equivalent to the calculated cash value of earned benefits.

The Bank's pension scheme covers 2136 persons, of whom 986 are drawing pensions, 705 are active members (including all those affected by restructuring) and 445 are former members with deferred rights.

#### *Norges Bank's pension and payment obligations*

Norwegian accounting standards for pension costs provide the basis for calculating pension and payment obligations. Norges Bank has secured pension schemes

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

#### Economic assumptions underlying the calculations:

	2005	2004
Discount rate	5.0%	5.5%
Pension and basic rate adjustment	2.5%	2.5%
Expected wage growth	3.0%	3.0%
Expected return on pension capital	5.5%	6.0%
Expected annual resignations	2-3% up to age 50, then 0	2-3% up to age 50, then 0

The payment obligations related to restructuring include the present value of all agreements, including agreements that start disbursements in 2006 or later.

In Norges Bank's balance sheet, the item 'Other liabilities' includes the Bank's total pension and payment obligations (including employers' national insurance contribution) which consist of the following:

Figures in millions of NOK

Pension and payment obligations	2005	2004
Secured schemes through the Pension Fund (over-financing)	-167	-84
Special pensions and allocated pensions	51	47
Payment obligations associated with restructuring	158	180
<b>Total pension and payment obligations</b>	<b>42</b>	<b>143</b>

### 8.1. Pension costs

At end-2005, schemes secured through the Pension Fund were over-financed. Pension costs are computed in accordance with Norwegian accounting standards for pension costs, and include earnings for the year, interest expenses and expected return on the capital in the Pension Fund.

The increase in special and allocated pensions (not secured) is included in the Bank's overall pension costs.

Figures in millions of NOK

Pension costs for the year	2005
Pension costs secured schemes, which consist of:	22
Net present value earnings for the year	38
Interest expenses on pension obligations	92
Expected return on capital in Pension Fund	-108
Administration expenses	4
Members' contributions	-7
Employer's social security contribution	3
Special pensions and allocated pensions	5
Reimbursement Norsk Kontantservice AS	6
<b>Net pension costs for the year</b>	<b>33</b>

## 8.2. Restructuring expenses

Restructuring expenses are related to study packages, redundancy pay and early retirement pensions. The change in payment obligations takes account of new agreements in 2005.

Restructuring expenses	Figures in millions of NOK	
	2005	2004
Change in payment obligation during the period	- 22	-60
Disbursements from the scheme	50	52
<b>Restructuring expenses including employer's social security contribution</b>	<b>28</b>	<b>- 8</b>

## Note 9. Securities and deposits

	Figures in millions of NOK	
	2005	2004
Deposits in foreign banks	1 905	3 005
Foreign Treasury bills	645	112
Foreign notes and short-term paper	717	934
Foreign bonds	145 314	129 114
Foreign equities	70 614	54 568
Initiated, not yet settled trades	-58	-1 546
<b>Securities and deposits</b>	<b>219 137</b>	<b>186 187</b>

## Note 10. Lending

	Figures in millions of NOK	
	2005	2004
Lending associated with repurchase agreements	65 577	47 085
Secured lending (triparty)	29 289	27 912
Valuations forward exchange contracts and derivatives	-377	-813
<b>Lending</b>	<b>94 489</b>	<b>74 184</b>

## Note 11. Claims on the IMF

	Figures in millions of NOK	
	2005	2004
Quota in the IMF	16 147	15 693
The Fund's NOK holdings	-14 109	-10 443
Reserve position in the IMF	2 038	5 250
Special drawing rights	2 074	2 180
Loan to the IMF	403	535
Earned interest	22	24
<b>Claims on the IMF</b>	<b>4 537</b>	<b>7 989</b>
<b>Equivalent value of allocated special drawing rights</b>	<b>-1 620</b>	<b>-1 575</b>

The IMF's task is to work for international monetary and financial stability. The Fund gives advice to member countries and provides temporary funding in the event of balance of payment problems. A member's quota (SDR 1 671.7m) determines its financial contribution to the IMF and provides the basis for determining the amount of financing the member can obtain in the event of balance of payments problems.

Loans to the IMF take the form of capital contributions to the Poverty Reduction and Growth Facility (PRGF), which was established to promote economic

growth and reduce poverty in the poorest countries.

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

The equivalent value of allocated special drawing rights in the IMF shows total allocations of SDRs since the scheme entered into force in 1970. No SDR allocations have been made since 1990. The change in the item is an expression of a change in the exchange rate for SDR (9.66 at 31 December 2005).

## Note 12. International reserves, by portfolio

Relationship between different reserve terms used in Norges Bank's publications.

Figures in millions of NOK

	Investment portfolio	Money market portfolio	Buffer portfolio	IMF reserves	Total
Securities and deposits	218 355	560	13	210	219 137
Other foreign exchange reserves	65 833	8 355	20 301	409	94 898
<b>Foreign exchange reserves according to IMF definition</b>	<b>284 188</b>	<b>8 915</b>	<b>20 314</b>	<b>618</b>	<b>314 035</b>
IMF reserve position/SDRs	0	0	0	4 128	4 128
<b>International reserves</b>	<b>284 188</b>	<b>8 915</b>	<b>20 314</b>	<b>4 747</b>	<b>318 163</b>
- IMF reserve position/SDRs and loans	0	0	0	-4 537	-4 537
Borrowing (foreign exchange liabilities)	-61 002	0	0	0	-61 002
<b>Foreign exchange reserves according to Norges Bank's accounts</b>	<b>223 186</b>	<b>8 915</b>	<b>20 314</b>	<b>210</b>	<b>252 624</b>
Foreign currency claims on residents	2	0	0	0	2
Domestic foreign exchange liabilities	-11 702		3 828		-7 874
<b>Foreign exchange</b>	<b>211 486</b>	<b>8 915</b>	<b>24 142</b>	<b>210</b>	<b>244 752</b>

### Distribution of foreign exchange reserves by currency

Currency	2005	2004
USD	36.6	35.4
CAD	1.9	1.6
JPY	6.6	6.2
GBP	9.7	9.4
EUR	39.8	42.6
Other currencies	5.4	4.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

## Note 13. Other foreign assets

Figures in millions of NOK

	2005	2004
BIS shares	94	25
Other assets	19	14
<b>Other foreign assets</b>	<b>113</b>	<b>39</b>

Norges Bank has been allocated a total of 8000 shares at SDR 5000 in the Bank for International Settlement (BIS). 25% of the shares, valued at NOK 25m, have been paid for.

In 2005, 564 new BIS shares valued at NOK 69m were purchased. The shares do not give increased voting rights in the BIS.

Norges Bank has not paid up the share capital for 75% of the shares. There is a limited liability amount-

ing to NOK 310m attached to shares purchased in 2005 plus previously allocated shares. The portion of the conditional liability corresponding to the value of the shares at the time of allotment, i.e. NOK 24m, is recorded under the item 'Other foreign liabilities'. The remainder of the conditional liability, NOK 287m, is shown as an off-balance sheet item. In 2005, dividends on BIS shares amounted to NOK 18m.

## Note 14. Lending to banks etc.

Figures in millions of NOK

	2005	2004
Lending to banks	24 917	0
Lending to own employees	487	495
<b>Lending to banks etc.</b>	<b>25 404</b>	<b>495</b>

The Bank offers loans to its employees and in 2005 the interest rate was linked to the norm rate (the norm rate for loans on favourable terms from an employer). The

Ministry of Finance sets the norm rate up to 6 times a year, and in 2005 the interest rate was 2.5%.

## Note 15. Other domestic assets

	Figures in millions of NOK	
	2005	2004
Remuneration for management of Government Pension Fund - Global	1 239	984
Domestic deposits	20	708
Other domestic assets	34	57
Inventories, banknote production	12	15
Shares in Norsk Kontantservice AS	17	17
Investment in Bankplassen Parkeringsanlegg AS	0	33
<b>Other domestic assets</b>	<b>1 322</b>	<b>1 814</b>

### Shares in Norsk Kontantservice AS (NOKAS)

Norges Bank owned 33.5% of the shares in NOKAS as at 31 December 2005. The company was established and began operations on 1 July 2001 and had share capital of NOK 50m. In 2003, the share capital was increased to NOK 51.1m. Norges Bank's relative ownership interest remained unchanged, and after paying NOK 0.42m in 2003, the Bank owned shares with a cost price of NOK 17.2m. The shares were sold in January 2006 to Hafslund Sikkerhet AS for NOK

17.5m. Norges Bank received a share dividend of NOK 0.28m in 2005.

### Bankplassen Parkeringsanlegg AS

Bankplassen Parkeringsanlegg AS was wound up at the end of 2005. Norges Bank owned all the shares, which had a cost price of NOK 100 000. In connection with the winding up, the facility was valued at NOK 28.5m and was taken over by Norges Bank as partial settlement for an investment of NOK 32.5m for parking places.

## Note 16. Fixed assets

	Figures in thousands of NOK								
	Vehicles machinery IT equipment	Security system	Machinery, fixtures	Buildings with installations	Bankbuilding Head office Bankpl. 2	Plant under construction	Dwellings Bank's holiday cabins	Land	Total
Original cost at 1.1.	207 687	54 588	44 532	439 534	1 528 106	17 690	2 950	59 881	2 354 969
+ Transfers from plant under construction	5 862	4 869	0	6 833	0	-17 564	0	0	0
+ New orders	5 424	20 908	0	27 320	28 500	24 941	827	0	107 920
- Disposals	20 560	3 596	48	504	0	0	391	0	25 099
Adjustments	0	-56	0	0	0	46	0	0	-10
Original cost at 31.12.	198 414	76 714	44 484	473 182	1 556 606	25 113	3 386	59 881	2 437 780
- Accum. depreciation and write-downs	120 486	30 763	29 528	411 647	459 557	0	0	0	1 051 981
Book value at 31.12.	77 929	45 951	14 956	61 535	1 097 049	25 113	3 386	59 881	1 385 800
Non-written-off remainder of previously revalued assets	0	0	0	6 270	1 068 549	0	2 950	56 580	1 134 349
Ordinary depreciation for the year	32 539	5 952	3 177	37 854	36 243	0	0	0	115 765
Of which write-off of revalued assets	0	0	0	35 002	36 243	0	0	0	71 245
Depreciation rate	20.00	15.00	10.00	5.00	2.00	0.00	0.00	0.00	

## Note 17. Investments for the Government Pension Fund - Global

	Figures in millions of NOK	
	2005	2004
Short-term assets, incl. deposits in foreign banks	23 784	9 154
Money market investments in foreign financial institutions against collateral in the form of securities	558 979	380 118
Borrowing from foreign financial institutions against collateral in the form of securities	-438 717	-406 194
Foreign fixed income paper	682 024	631 256
Foreign equities	576 683	407 673
Adjustment of forward exchange contracts and derivatives	-3 618	-5 548
<b>Total portfolio before management fees and consulting services</b>	<b>1 399 135</b>	<b>1 016 459</b>
Accrued management fees	-1 239	-984
Consulting services	0	-4
<b>Net portfolio</b>	<b>1 397 896</b>	<b>1 015 471</b>

At 31 December 2005, the Government Petroleum Fund had krone deposits in Norges Bank amounting to NOK 1 397.9bn. The equivalent of the NOK amount is managed by Norges Bank and has been invested in foreign currency in an earmarked portfolio. The return

on the portfolio is added to the Government Pension Fund – Global's krone account as return on this account. The investments, which account for about 80% of Norges Bank's balance sheet, therefore represent no financial risk to Norges Bank.



### Currency distribution of the Government Pension Fund - Global. Per cent

Valuta	2005	2004
USD	34.4	34.6
CAD	2.0	1.5
Asian currencies	11.1	10.3
GBP	11.6	10.8
EUR	35.9	37.8
Other currencies	5.0	5.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

### Note 18. Deposits

Figures in millions of NOK

	2005	2004
Banks	96	105
Other customers	281	204
<b>Deposits</b>	<b>377</b>	<b>309</b>

### Note 19. Borrowing

Figures in millions of NOK

	2005	2004
Funding related to repurchase agreements	60 996	48 927
Other borrowing	6	67
<b>Borrowing</b>	<b>61 002</b>	<b>48 994</b>

### Note 20. Other liabilities

Figures in millions of NOK

	2005	2004
Share capital in BIS not paid up (see Note 13)	24	23
Other foreign debt	310	266
<b>Other liabilities</b>	<b>334</b>	<b>289</b>

### Note 21. Notes and coins in circulation

The Bank's cash holdings have been deducted in the item 'Notes and coins in circulation'. Notes and coins in circulation are recorded at NOK 51 910 m, consisting of NOK 47 234m in banknotes and NOK 4 676m in coins.

Norges Bank is obliged to redeem notes and coins for 10 years following the decision that they are no longer legal tender. Norges Bank has been flexible about redeeming expired notes after the expiry of the

10-year deadline. In 2005, redeemed/invalidated banknotes and coins amounting to NOK 2m were charged to Norges Bank's accounts.

At 31 December 2005, there were a total of approximately 5.4 million commemorative coins in circulation with a nominal value of about NOK 468m. This amount is not included in the item 'Notes and coins in circulation'. Norges Bank is obliged to redeem the coins at their nominal value.

### Note 22. Deposits from banks etc.

Figures in millions of NOK

	2005	2004
Banks	42 653	37 062
Other deposits	46	96
<b>Deposits from banks etc.</b>	<b>42 699</b>	<b>37 158</b>

## Note 23. Other liabilities

	Figures in millions of NOK	
	2005	2004
Outstanding accounts among separate portfolios under management	10 232	17
Pension and payment obligations (see Note 8)	42	143
Other domestic liabilities	214	196
<b>Other liabilities</b>	<b>10 488</b>	<b>356</b>

## Note 24. Deposits in krone account Government Pension Fund - Global

The Government Pension Fund - Global's krone account in Norges Bank is composed of deposits and returns earned from the time the Fund was established in 1996 to end-2005. Management fees are deducted from the increase in value.

	Figures in billions of NOK										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	TOTAL
Krone account 01.01.	0.0	47.5	113.3	167.6	222.3	386.1	613.3	608.5	844.6	1 015.5	0.0
Total krone deposits	47.5	60.9	32.8	24.5	150.0	251.5	125.8	104.5	139.0	221.3	1 157.8
Increase in value, return	0.0	4.9	21.5	30.2	13.8	-24.3	-130.6	131.6	31.9	161.1	240.1
<b>Krone account 31.12</b>	<b>47.5</b>	<b>113.3</b>	<b>167.6</b>	<b>222.3</b>	<b>386.1</b>	<b>613.3</b>	<b>608.5</b>	<b>844.6</b>	<b>1 015.5</b>	<b>1 397.9</b>	<b>1 397.9</b>
<b>Government Pension Fund</b>											
<b>- Global portfolio at 31.12</b>	<b>47.6</b>	<b>113.5</b>	<b>171.8</b>	<b>222.3</b>	<b>386.1</b>	<b>613.3</b>	<b>608.5</b>	<b>844.6</b>	<b>1 015.5</b>	<b>1 397.9</b>	<b>1 397.9</b>

## Note 25. Adjustment Fund

	Figures in millions of NOK	
	2005	2004
Adjustment fund balance at 01.01.	46 096	41 923
Allocation for the year	21 392	4 173
<b>Adjustment fund balance at 31.12.</b>	<b>67 488</b>	<b>46 096</b>

## Note 26. Other capital

In accordance with a statement by the Ministry of Finance, an item 'Other capital', which includes the former Revaluation Fund, may be used. 'Other capital' includes the non-written-down components of capitalised fixed assets expensed in 1994. Changes in the Revaluation Fund are included in 'Other capital'.

Changes in 'Other capital' in 2005:

	Figures in millions of NOK	
	2005	2004
Revaluation Fund balance at 01.01.	1 206	4 290
Reversals from the Fund in 2005	-72	-3 084
<b>Revaluation Fund balance at 31.12.</b>	<b>1 134</b>	<b>1 206</b>

## Note 27. Forpliktelser

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

### *Forward exchange contracts*

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

### *Financial futures*

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 at the time of closing the contract. Collateral in the form of securities was pledged for the changes in the daily market value settlement. The market value of these securities was NOK 1 590m at 31 December 2005.

*Interest rate swaps*

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

*Equity swaps*

An equity swap is an unlisted agreement between two counterparties to exchange payment flows on the basis of changes in the underlying securities. In addition, payments are received in connection with dividends and corporate events. The underlying security may be an equity, a group of equities or an index. Collateral is required in the form of bank deposits.

	Figures in millions of NOK	
	2005	2004
<b>International reserves</b>		
Forward exchange contracts sold	18 639	17 688
Futures sold	27 959	19 961
Equity swaps sold	988	450
Interest rate swaps sold	89 465	44 921
<b>Obligations sold international reserves</b>	<b>137 051</b>	<b>83 020</b>
Forward exchange contracts purchased	18 639	17 771
Futures purchased	27 891	25 654
Equity swaps purchased	1 059	394
Interest rate swaps purchased	89 081	44 112
<b>Obligations purchased international reserves</b>	<b>136 670</b>	<b>87 931</b>
<b>Government Pension Fund - Global</b>		
Forward exchange contracts sold	32 348	16 838
Futures sold	88 091	118 994
Equity swaps sold	27 628	8 116
Interest rate swaps sold	650 156	390 663
<b>Obligations sold, Government Pension Fund - Global</b>	<b>798 223</b>	<b>534 611</b>
Forward exchange contracts purchased	32 348	16 838
Futures purchased	74 221	114 745
Equity swaps purchased	33 201	9 489
Interest rate swaps purchased	645 911	385 089
<b>Obligations purchased, Government Pension Fund - Global</b>	<b>785 681</b>	<b>526 161</b>

**Note 28. Rights**

	Figures in millions of NOK	
	2005	2004
<b>International reserves</b>		
Futures options sold	759	341
<b>Rights sold, international reserves</b>	<b>759</b>	<b>341</b>
Futures options purchased	1 448	598
<b>Rights purchased, international reserves</b>	<b>1 448</b>	<b>598</b>
<b>Government Pension Fund - Global</b>		
Futures options sold	5 144	2 232
Swap options sold	129	0
<b>Rights sold, Government Pension Fund - Global</b>	<b>5 273</b>	<b>2 232</b>
Futures options purchased	8 546	3 992
Swap options purchased	32	0
<b>Rights purchased, Government Pension Fund - Global</b>	<b>8 578</b>	<b>3 992</b>

*Options:*

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

## To the Supervisory Council of Norges Bank

### Auditors' report for 2005

We have audited the annual financial statements of Norges Bank for 2005, which show a profit of NOK 21 320 million. We have also audited the information in the Executive Board's report concerning the financial statements and the proposal for the allocation of the profit. The financial statements comprise the profit and loss account, balance sheet and notes to the accounts. Norges Bank's accounting policies, which are based on the Norwegian Accounting Act and on generally accepted accounting principles in Norway (see note in the financial statements), are used when preparing the financial statements. The financial statements and the Executive Board's report are the responsibility of the Executive Board. Our responsibility is to express an opinion on the financial statements and other information, in accordance with the Act relating to Norges Bank and the requirements of the Norwegian Act on Auditing and Auditors.

We have conducted our audit in accordance with laws, regulations, instructions issued by the Supervisory Council and good auditing practice in Norway, including standards on auditing adopted by Den norske revisorforening (the Norwegian Institute of Public Accountants). These auditing standards require that we plan and perform the audit so as to obtain reasonable assurance that the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles applied and significant estimates made by management, and evaluating the overall financial statement presentation. To the extent required by good auditing practice and our auditing instructions, our audit also includes a review of Norges Bank's capital management and accounting and internal control systems. We believe that our audit provides a reasonable basis for our opinion.

In our opinion,

- the financial statements have been presented in accordance with laws and regulations, and provide a true and fair view of the financial position of the Bank as of 31 December 2005 and of the results of its operations for the financial year in accordance with Norges Bank's accounting principles.
- 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 bookkeeping practice in Norway
- the information in the Executive Board's report concerning the financial statements and the Executive Board's proposal for the allocation of the profit are consistent with the financial statements, and comply with the Norges Bank Act and guidelines adopted in the Council of State.

Oslo, 9 February 2006

Svenn Erik Forsstrøm  
Central Bank Auditor  
State Authorised Public Accountant (Norway)

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



## Resolution of the Supervisory Council concerning the financial statements for 2005

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 the Royal Decree of 6 December 2002, the Supervisory Council adopted the following resolutions at a meeting on 16 February 2006:

1. The Supervisory Council takes cognisance of the Executive Board's annual report for 2005.
2. The Supervisory Council adopts, with reference to the Auditors' Report, the financial statements presented as Norges Bank's financial statements for 2005 and approves the following allocations of the profit for the year:
  - In accordance with a statement from the Ministry of Finance, the sum of NOK 71.2m is to be transferred from 'Other capital'. The amount is to be transferred to profit/loss for the year.
  - In accordance with point 1 of the guidelines, NOK 21 391.8m is to be allocated to the Adjustment Fund.
3. The Supervisory Council forwards Norges Bank's financial statements for 2005 and the Executive Board's annual report for 2005, the auditor's report and the Supervisory Council's statement concerning its supervision of Norges Bank in 2005 to the Ministry of Finance for submission to the King and communication to the Storting.

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

Pursuant to Section 5, third paragraph of the Act relating to Norges Bank and the Monetary System (Norges Bank Act), the Supervisory Council adopted at its meeting on 16 February 2006 the following resolution, which, with reference to Section 30, second paragraph of the Norges Bank Act, is to be sent to the Ministry of Finance for submission to the King and communication to the Storting.

The Supervisory Council supervises the Bank's operations and ensures that the rules governing the Bank's activities are observed. It organises the auditing of the Bank, including the appointment of a central bank auditor, and draws up instructions for Central Bank Audit. The Supervisory Council adopts the Bank's annual accounts and, on the recommendation of the Executive Board, approves the budget. It supervises companies owned wholly or partially by Norges Bank. In accordance with the Norges Bank Act, the Executive Board has executive and advisory authority in Norges Bank. The Executive Board is in charge of the Bank's operations and manages its resources. The Executive Board has the overriding responsibility for internal control in the Bank. The Supervisory Council supervises the Executive Board's exercise of its responsibility for management and control. This supervision does not include the Executive Board's exercise of its discretionary authority pursuant to the Act.

In 2005, the Supervisory Council supervised the Bank in accordance with the Norges Bank Act. As a basis for its supervision, the Supervisory Council has examined:

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

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

In 2005, the Supervisory Council has had no comments concerning the minutes of Executive Board meetings, nor has its supervision of the Bank's operations revealed circumstances that constitute grounds for special remarks pursuant to Section 30, second paragraph of the Norges Bank Act.

Oslo, 16 February 2006  
Norges Bank's Supervisory Council

Mary Kvidal  
Chairman of the Supervisory Council

Liv Røssland  
Deputy Chairman of the Supervisory Council

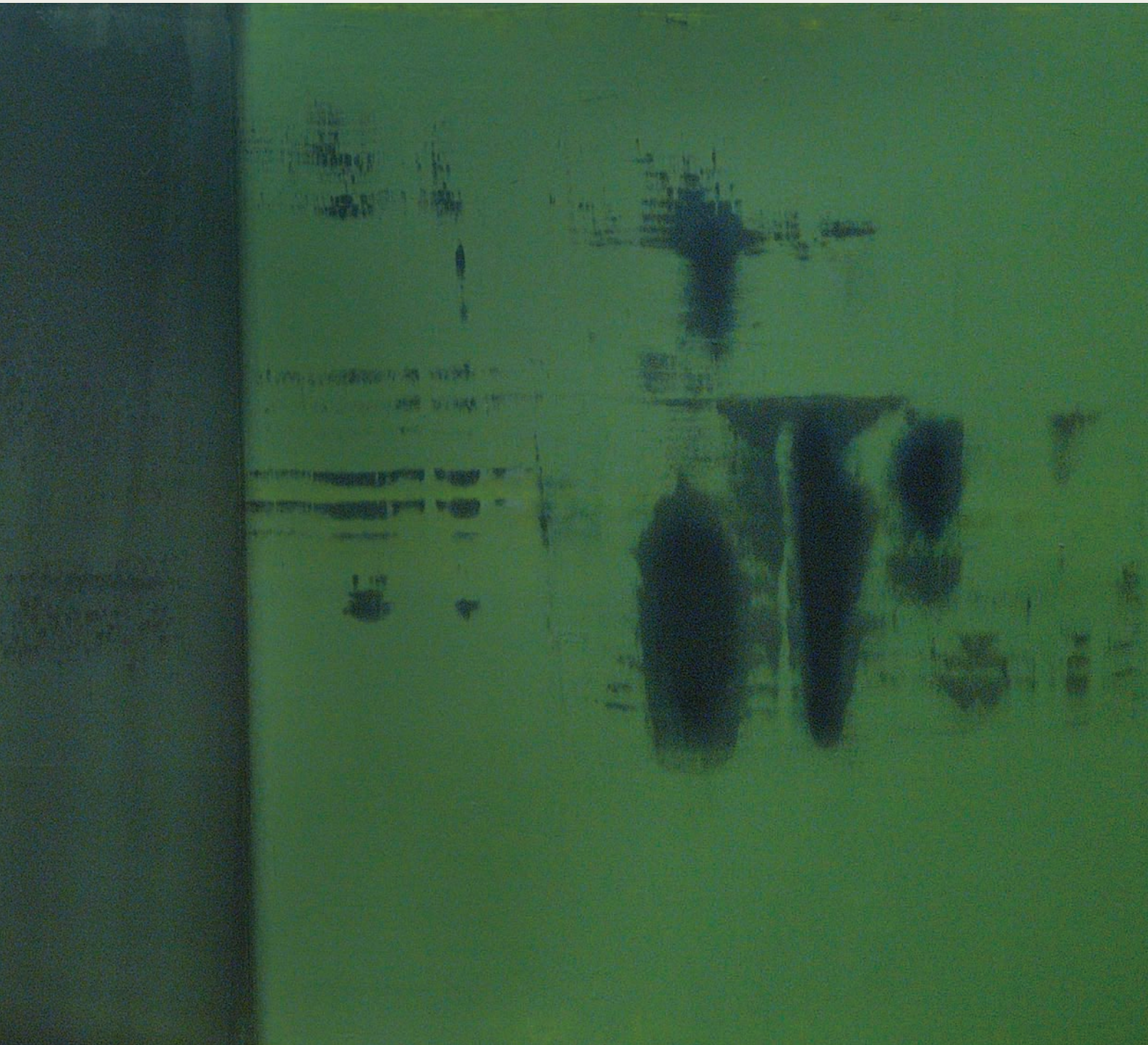






# 3

## NORGES BANK'S ACTIVITIES



## Chapter 1 Monetary policy

### Flexible inflation targeting

Monetary policy in Norway is oriented towards low and stable inflation. The operational objective of monetary policy is annual consumer price inflation of approximately 2.5% over time. In general, direct effects on consumer prices resulting from changes in interest rates, taxes, excise duties and extraordinary temporary disturbances shall not be taken into account. The operational objective provides an anchor for economic agents' expectations concerning future inflation. When there is confidence in the inflation target, monetary policy can also contribute to stabilising developments in output and employment.

Norges Bank operates a flexible inflation targeting regime, so that both variability in inflation and variability in output and employment are given weight in interest-rate setting. Flexible inflation targeting builds a bridge between the long-term objective of monetary policy, which is to keep inflation on target and provide an anchor for inflation expectations, and the more short-term objective of stability in the real economy.

Monetary policy influences the economy with long and variable lags. Norges Bank sets the interest rate with a view to stabilising inflation at the target within a reasonable time horizon, normally 1–3 years. The rele-

### The mandate for monetary policy in Norway

Monetary policy in Norway is conducted by Norges Bank. The Bank's activities are subject to the Norges Bank Act, adopted by the Storting (Norwegian parliament) on 24 May 1985. Section 2 of the Act defines the relationship with the government authorities, while Section 4 deals with decisions concerning changes in the exchange rate regime for the krone. Pursuant to Sections 19 and 20, Norges Bank stipulates the conditions for the interest rates on banks' deposits with and loans from the central bank.

Pursuant to Section 2, third paragraph and Section 4, second paragraph of the Norges Bank Act, the Government issued a new regulation on monetary policy on 29 March 2001. Norges Bank's mandate for the conduct of monetary policy is laid down in the Regulation. Section 1 of the Regulation states:

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

*Norges Bank is responsible for the implementation of monetary policy.*

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

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

Norges Bank issued its opinion on the mandate in its submission of 27 March 2001 to the Ministry of Finance. The submission stated the following:

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



## Monetary policy instruments

At the monetary policy meetings, the Executive Board sets the interest rate on banks' overnight deposits in Norges Bank – the sight deposit rate. 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. Market rates for loans with longer maturities are influenced by the sight deposit rate and by market expectations concerning developments in the sight deposit rate. Market expectations concerning the sight deposit rate reflect participants' perception of the central bank's response pattern in monetary policy and with regard to economic developments. The purpose of Norges Bank's communication of monetary policy, which includes Norges Bank's interest rate projections in the *Inflation Report*, is to contribute to the predictability of monetary policy. When Norges Bank's response pattern is predictable, the reaction of economic agents to new information about economic developments will have a stabilising effect.

Market rates have an effect on the exchange rate, securities prices, house prices and credit and investment demand. Changes in Norges Bank's key interest rate may also shape expectations concerning future inflation and economic developments. The interest rate operates through all these channels to influence total demand, output, prices and wages.

Norges Bank is in a position to intervene in the foreign exchange market at short notice, but will not normally use interventions to influence the krone. Exchange market intervention, whether it entails purchases or sales of foreign exchange, is not an appropriate instrument for influencing the krone over a longer period. However, interventions may be appropriate if the krone deviates substantially from the level that the Bank judges to be reasonable in relation to fundamentals, and if exchange rate developments weaken the prospect of achieving the inflation target. Interventions may also be appropriate in response to pronounced short-term fluctuations in the krone when liquidity in the foreign exchange market falls to a very low level. Norges Bank does not wish to act in a way that may give rise to a game situation that may amplify pressures in the foreign exchange market. Foreign exchange intervention rather than a change in the interest rate may give ambiguous signals to foreign exchange operators and a game situation may arise. The Bank will provide an account of any interventions and the background for them. Norges Bank did not intervene to influence the krone exchange rate in 2005.

vant horizon will depend on disturbances to which the economy is exposed and how they will affect the path for inflation and the real economy ahead.

Predictability is an important element of monetary policy. Norges Bank regularly publishes assessments of the outlook for the global and Norwegian economy and the key interest rate. When participants understand the central bank's response pattern, the reaction of market rates to new information about economic developments has a stabilising effect.

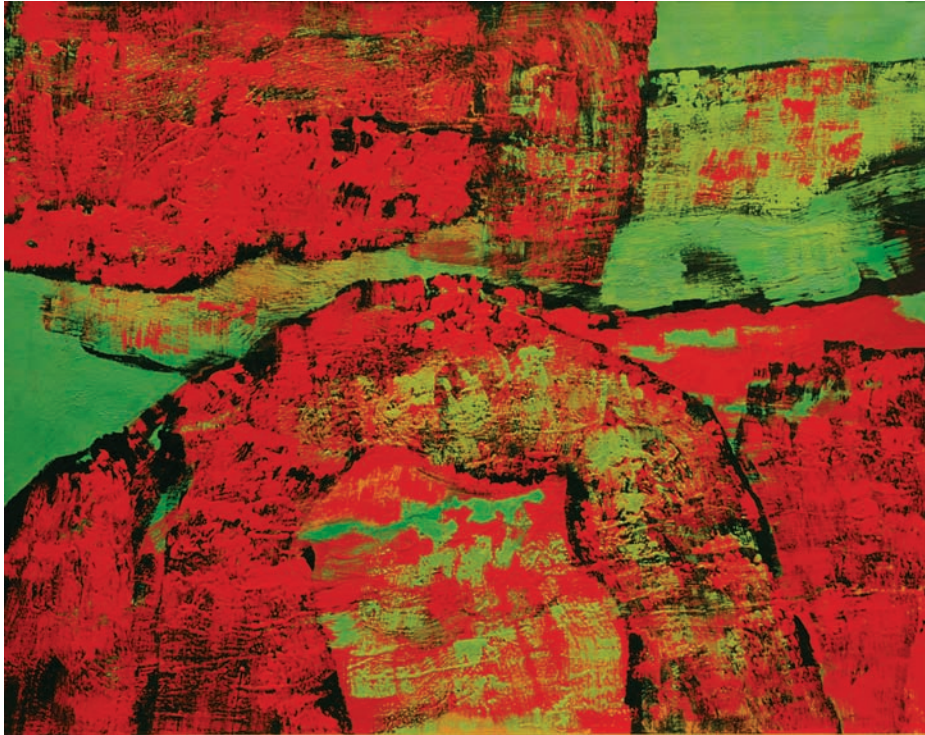
Interest-rate setting must be viewed in the context of Norges Bank's assessment of the current economic situation, inflation expectations and future developments in interest rates, inflation, output and employment. There is considerable uncertainty surrounding developments in these variables. Monetary policy cannot fine-tune economic developments, but it can avoid the largest effects when the economy is exposed to disturbances. In some situations, it may be appropriate to take into account particularly unfavourable developments.

Decisions concerning interest rates and other important changes in the use of instruments will normally be taken at the Executive Board's monetary policy meet-

ing every sixth week. The basis for the Executive Board's decisions and assessments is communicated in a press release and at a press conference. The press release includes a detailed account of the main aspects of economic developments that have influenced the decision. The interest rate decision is published at a pre-announced time.

Three times a year, in connection with every third monetary policy meeting, an inflation report including monetary policy assessments is published at the same time as the interest rate decision. In the inflation reports, Norges bank analyses the current situation and the economic outlook. Up to *Inflation Report 2/05*, the analyses were based on technical assumptions that the interest rate would move in line with financial market expectations. Since *Inflation Report 3/05*, the analyses have been based on the Bank's own forecast for future interest rates. It is the Executive Board's assessment that the interest rate forecast provides a reasonable balance between the objectives of monetary policy. This forecast will in many cases be close to market expectations, but this will not necessarily be the case.

The central bank influences economic developments



## Transparency

According to Section 3 of the Norges Bank Act, Norges Bank shall inform the public about the monetary, credit and foreign exchange situation and about the assessments on which monetary policy decisions are based. According to Section 2 of the Regulation on Monetary Policy, Norges Bank shall regularly publish the assessments that form the basis for the implementation of monetary policy.

Table 1 provides an overview of the publications associated with the Executive Board's monetary policy decisions. The material is published in Norwegian and English simultaneously. There were no changes in the procedure for publication of the background data in 2005.

Information for monetary policy meetings and time of announcement

Information	Announcement
Norges Bank's <i>Inflation Report</i> , with the Executive Board's monetary policy assessments and strategy and Norges Bank's interest rate projections, is published three times a year and is the reference document for the interest rate decisions made during the following four months.	2 pm on the same day as the monetary policy meeting
Press release with an account of the assessments underlying the interest rate decision	2 pm on the same day as the monetary policy meeting
Charts presented at the monetary policy meeting by the central bank governor or the deputy governor <sup>1</sup>	2 pm on the same day as the monetary policy meeting
A press conference where the central bank governor or deputy governor provides a more detailed explanation of the Executive Board's decision and the reasons for the decision. The press conference is webcast.	2:45 pm on the same day as the monetary policy meeting
Report from the regional network <sup>2</sup>	2 pm on the day after the monetary policy meeting

<sup>1</sup> Charts containing confidential information, such as forecasts from the OECD and the IMF which are not published, wage growth estimates for various groups based on confidential information from employers or employee organisations, data from specific enterprises or new, preliminary analyses from Norges Bank are not published.

<sup>2</sup> The report is not published in its entirety since it contains confidential information about individual enterprises.

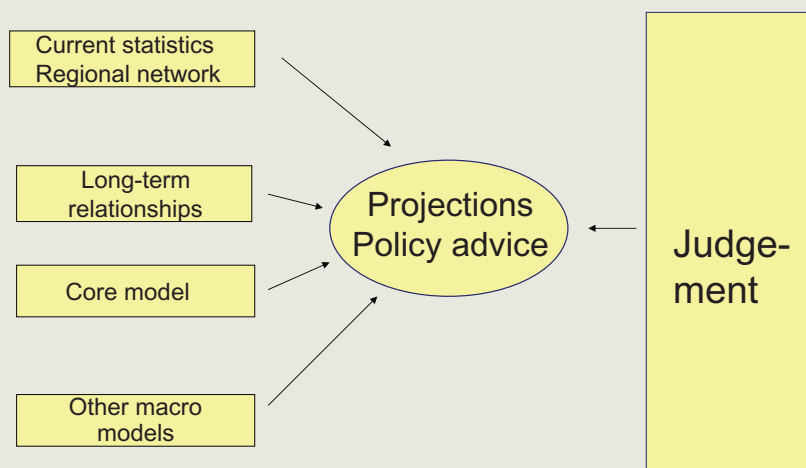
## Criteria for a good interest rate path

In the *Inflation Report*, Norges Bank makes forecasts for developments in the real economy, consumer prices and the interest rate. The interest rate path forecast shall provide a reasonable balance between the objectives of monetary policy. In its forecasting, Norges Bank uses an approach that captures and juxtaposes many different elements. This is illustrated in the chart below. Current statistics and input from Norges Bank's regional network provide the basis for evaluating the current situation in the Norwegian economy. In our forecasting, we seek to build a bridge between our assessments of the current situation and long-term relationships in the economy. As part of this process, the Bank uses several macroeconomic models: a core model and a number of smaller models. In the core model, the interest rate and other economic variables are mutually dependent.<sup>1</sup>

The macroeconomic models provide a simplified description of the economy. As a guideline in its work to develop forecasts and use good judgement, Norges Bank has defined six criteria for a good interest rate path. A good interest rate path provides a reasonable balance between the various objectives of monetary policy. The criteria cannot provide a precise guideline as to how the interest rate should be set, but point to factors that Norges Bank should have taken into account and assessed. In some contexts, the various criteria may conflict. In these situations, it is particularly important to exercise judgment in the trade-off between the different objectives. The criteria are:

1. If monetary policy is to anchor inflation expectations around the target, the interest rate must be set so that inflation moves towards the target. Inflation should be stabilised near the target within a reasonable time horizon, normally one to three years. For the same reason, inflation should also be moving towards the target well before the end of the three-year period.
2. Assuming that inflation expectations are anchored around the target, the inflation gap and the output gap should be in reasonable proportion to each other until they close. The inflation gap and the output gap should normally not be positive or negative at the same time further ahead.
3. Interest rate developments, particularly in the next few months, should result in acceptable developments in inflation and output also under alternative, albeit not unrealistic assumptions concerning the economic situation and the functioning of the economy.
4. The interest rate should normally be changed gradually so that we can assess the effects of interest rate changes and other new information about economic developments.
5. Interest-rate setting must also be assessed in the light of developments in property prices and credit. Wide fluctuations in these variables may in turn constitute a source of instability in demand and output in the somewhat longer run.
6. It may also be useful to cross-check by assessing interest rate setting in the light of some simple monetary policy rules. If the interest rate deviates systematically and substantially from simple rules, it should be possible to explain the reasons for this.

### The basis for the projections



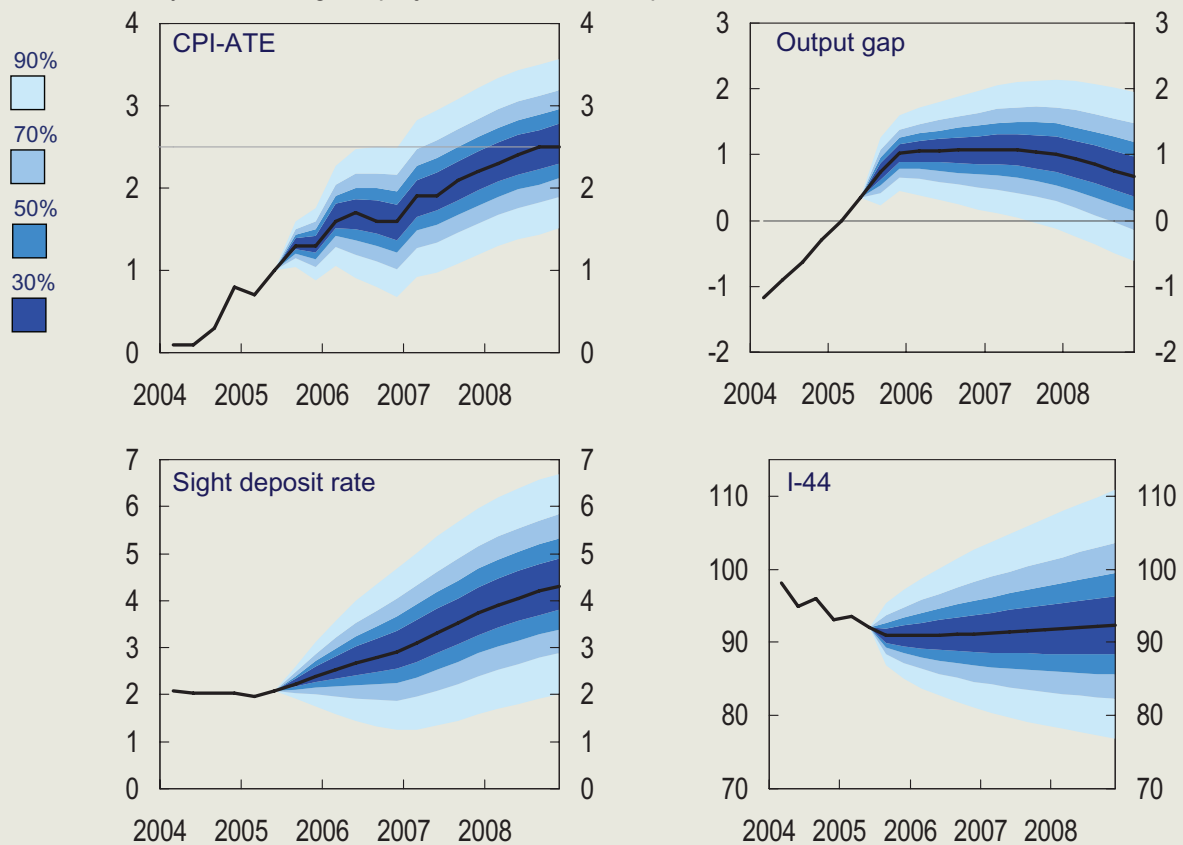
<sup>1</sup> See *Norges Bank Staff Memo* 2004/3 "A small calibrated macro model to support inflation targeting at Norges Bank".

## Interest rate projections and uncertainty

Norges Bank seeks to achieve an interest rate path that provides a reasonable balance between the objective of stabilising inflation at target and the objective of stabilising developments in output and employment. In the Bank's earlier analyses, the interest rate was assumed to move in line with market expectations. *Inflation Report 3/05*, however, and for the first time, presented a forecast for future interest rates.

The forecasts for the interest rate and other economic variables are based on incomplete information about the current economic situation and about the functioning of the economy. If developments in economic driving forces differ from the assumptions or if the central bank changes its view of the functioning of the economy, developments in the interest rate and other variables may deviate from the forecasts. Thus, there is considerable uncertainty associated with these forecasts. The chart below shows the forecasts in *Inflation Report 3/05* with the fan chart showing the uncertainty surrounding the projections. The wider the fans, the more uncertain the projections are. The uncertainty around the projections is calculated on the basis of disturbances to the Norwegian economy in the period 1993-2005. Calculation of the fan charts is based on a number of assumptions and it is difficult to be precise about the degree of uncertainty surrounding the projections. The fan charts illustrate the uncertainty associated with developments in inflation, the real economy and future interest rates.<sup>1</sup>

Uncertainty surrounding the projections. Inflation Report 3/05



Source: Norges Bank

<sup>1</sup> The uncertainty associated with the projections is discussed in further detail in *Inflation Report 3/05*.

primarily via expectations. Norges Bank's publication of its interest rate forecast may make it easier for economic agents to understand the Bank's intentions in its interest-rate setting. This may promote stability in output and employment and in inflation. Forecasts based on an interest rate path that is the most realistic in Norges Bank's view also facilitates the interpretation and evaluation of the Bank's projections.

On the basis of the analysis in the *Inflation Report*, the Executive Board adopts a monetary policy strategy every fourth month for the next four months. The strategy is published at the beginning of the relevant strategy period, and it is conditional on economic developments that are broadly in line with projections. Interest rate decisions are based on this monetary policy strategy.

The conduct of monetary policy requires a reliable stream of information concerning economic developments. In 2005, 1400 firms and public enterprises in Norges Bank's regional network were interviewed about output and price developments and plans for investment and employment. Combined with available official statistics, the reports from the regional network form an important part of the decision-making basis. The reports are published in connection with the *Inflation Report*. For a more detailed description, see the box in the section entitled 'Performance' in 2005.

Norges Bank exercises professional judgment in interest-rate setting. As a guide in the exercise of this judgment, Norges Bank utilises analytical tools and economic models that describe relationships in the economy. The models combine and apply empirical

and theoretical knowledge on the functioning of the Norwegian economy, contributing to a consistent analysis of the interaction between different economic variables. Through 2005 Norges Bank further developed the use of models to analyse alternative scenarios for the interest rate, inflation and output. In the *Inflation Report*, particular emphasis was given to analysing the monetary policy response in the event of error on the part of the Bank regarding key features of the Norwegian economy, or if particular risk factors should dominate developments.

To assure the quality of the analyses and the basis for decisions, the Bank maintains close contact with other central banks and the international academic community. Economists from other central banks and academic institutions in Norway and abroad are regularly invited to Norges Bank to evaluate the quality of the Bank's monetary policy analysis.

Monetary policy and monetary policy performance in 2005 are assessed in the following section. Performance in 2005 is influenced by the use of instruments in previous years. The use of instruments in 2005 will have a particular impact on performance in the years ahead.

## Performance in 2005

### Inflation and capacity utilisation through 2005

The cyclical upturn in the Norwegian economy, which began in the second half of 2003, continued in 2005.

### Work on macroeconomic models

In autumn 2003, Norges Bank began work to establish a new analytical and forecasting model. In 2004, a small, calibrated macro model was developed to provide support for the macroeconomic and monetary policy analysis.<sup>1</sup>

In 2005, the Bank continued its work to develop the modelling system. At the end of 2004, the Bank initiated a project to develop a somewhat larger macro model, NEMO (Norwegian Economy Model). NEMO belongs to a class of macroeconomic models that are referred to as DSGE models (Dynamic Stochastic General Equilibrium). A preliminary empirical quantification of the model has been conducted using Bayesian Maximum Likelihood estimation. The model's first "trial projection" was made in connection with *Inflation Report 1/06*. NEMO will be put to use in the Bank's analyses as we gain experience. The model and quantification will also be documented.

The Bank has also been working with various empirical models in addition to Nemo, such as the ARIMA and VAR models as well as a number of indicator models. The Bank has also attempted to quantify relationships between certain other economic variables, such as domestic and imported inflation and private consumption. These empirically-based models and individual equations are used to cross-check the output from the macro models, which to a further extent are based on theory. They are also used directly to make projections, especially short-term projections.

<sup>1</sup> See *Norges Bank Staff Memo 3/2004*.



Capacity utilisation at the beginning of 2006 is probably somewhat above the normal level. Low interest rates, higher petroleum investment, strong global growth and an improvement in Norway's terms of trade have been the most important driving forces. At the beginning of the upturn, low interest rates contributed to high growth in private consumption and housing investment. The upturn gradually broadened, and last year exports and corporate investment in mainland Norway showed solid growth.

So far in this upturn, employment has not increased to the same extent as in previous upturns. One of the reasons for this is the sharp fall in sickness absence through 2004. In 2005, the number of person-hours worked increased relatively quickly, and productivity per employee was high. This may have curbed labour demand. Norges Bank assumes that production capacity in the Norwegian economy in both 2004 and 2005 probably rose somewhat more than normal. The result is that the economy has been able to grow more quickly without resulting in bottlenecks and cost inflation. Towards the end of 2005, the number employed also picked up as a result of continued strong output growth.

Inflation has risen somewhat, but is still low (see Chart 1). Consumer price inflation adjusted for taxes and excluding energy products (CPI-ATE) was 1.0% in 2005. Consumer price inflation edged up through the first half of the year, but an accelerating fall in prices for imported consumer goods pushed the CPI-ATE down somewhat towards the end of the year. A higher rise in prices for domestically produced goods and services contributed most to the rise in consumer prices. Of the domestic components, it was primarily prices for services with wages as the dominant factor

that showed a marked rise, despite relatively low wage growth in 2005. Increased competition in a number of markets contributed to restraining inflation. Other measures of underlying inflation showed somewhat stronger inflation than the CPI-ATE for 2005 as a whole (see Chart 2). The difference was smaller than in the two previous years, however.

### Reasons for the deviations from the inflation target and output developments in 2005

In 2005, different measures of inflation stood at between  $\frac{3}{4}\%$  and 2%. Underlying inflation, as measured by the CPI-ATE, was 1.0% in 2005.

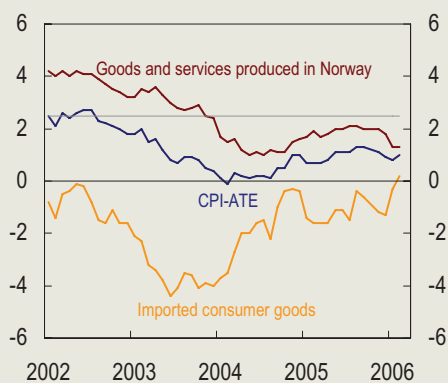
Monetary policy influences the economy with long and variable lags. In 2005, inflation and output and employment were primarily influenced by monetary policy in previous years. Low inflation in 2005 is the result of monetary policy trade-offs and of unforeseen disturbances to the economy.

Towards the end of 2002, new information emerged indicating that developments in output and employment might be weaker than projected and inflation might be lower. The key rate was therefore reduced in December 2002. New information gradually emerged about the outlook for other countries and the Norwegian economy, indicating that inflation might be very low. Up to March 2004, the key rate was reduced by a total of 5.25 percentage points to 1.75%.

Norges Bank's projections for inflation in 2005 showed little change in *Inflation Reports* through 2003 and the March 2004 *Report*. In the March 2004 *Report*, the Bank projected underlying inflation at  $2\frac{1}{4}\%$  in 2005 (see Chart 5).

Of the deviation of slightly more than one percentage point between projected inflation for 2005 in the

**Chart 1** CPI-ATE<sup>1)</sup>. Total and by supplier sector <sup>2)</sup>. 12-month change. Per cent. January 2002–February 2006

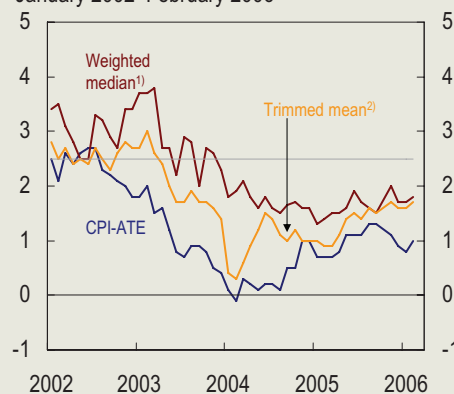


<sup>1)</sup> CPI-ATE: CPI adjusted for tax changes and excluding energy products.

<sup>2)</sup> Norges Bank's calculations.

Sources: Statistics Norway and Norges Bank

**Chart 2** Indicators of underlying inflation. 12-month change. Per cent. January 2002–February 2006



<sup>1)</sup> Estimated on the basis of 93 sub-groups of the CPI.

<sup>2)</sup> Price changes accounting for 20 per cent of the weighting base are eliminated.

Source: Statistics Norway

## The regional network in 2005

In autumn 2002, Norges Bank established a regional network of enterprises, organisations and local authorities throughout Norway. In five rounds of talks in 2005, representatives for Norges Bank have engaged in discussions with business and community leaders on economic developments in their enterprises and industries. Each of the five rounds has comprised roughly 290 visits. Approximately 1500 individuals have been contacted in all, representing the production side of the Norwegian economy, both in terms of industry and geographic area. Six regional research institutions are responsible for the network in their respective regions and have conducted the contact meetings on behalf of Norges Bank. The research institutions are the Centre of Innovation and Entrepreneurship Ltd. in Bodø, the Centre for Economic Research at the Norwegian University of Science and Technology, Møre Reseach, Rogaland Research, Agder Research and the Eastern Norway Research Institute. In addition, Norges Bank covers a region consisting of four counties in Eastern Norway.

Some of the main impressions from the network in 2005 are:

- In 2005, there has been very solid growth in demand and output in all industries. Growth is expected to slow somewhat in the first half of 2006.
- The export industry has reported solid growth in 2005. Growth has been particularly strong in the technology industry, shipbuilding, fishing and fish farming. On the other hand, the process industry has reported more moderate growth due to high energy prices.
- Demand for domestically manufactured goods has been solid throughout the year. The strongest growth has been reported by suppliers to the construction sector and producers of consumer durables.
- Suppliers to the petroleum industry have reported accelerating growth in 2005, and growth is strong. This is a result of high oil prices and record-high investment in the petroleum sector. In Norway, this is primarily due to the Snøhvit and Ormen Lange field developments. Internationally, increased exploration activity and measures to increase production have contributed to growth.
- Building and construction are still experiencing solid growth, although growth slowed during the second half of 2005 compared with the first half of the year. The lower growth rate in the second half of the year reflects lower growth in residential construction. In commercial building and construction, growth has gathered pace in 2005. The market for office premises has also improved in 2005, particularly in Oslo.
- Retail trade has reported solid growth in demand in 2005, but growth slowed towards year-end. Growth has been strongest for consumer durables such as kitchens, furniture, electrical articles and building materials. On the other hand, there has been no growth in demand for motor vehicles in 2005. Service industries have reported solid growth throughout 2005. Growth has been strongest in corporate services. Growth has been particularly strong in banking/finance, temporary employment agencies, consulting services, law and architect firms and the transport industry.
- In 2005, labour shortages have been reported in building and construction, petroleum-related industry and in a number of service industries. Capacity utilisation has been somewhat higher in the second half of 2005 compared with the first half of the year.
- On the whole, businesses have increased their investment plans at the end of 2005 compared with a year earlier. Manufacturing and the local government and hospital sectors in particular have increased their investment plans.
- Employment is increasing in the entire private sector, in pace with the economic upturn. Growth has been strongest in building and construction and service industries. Employment in the local government and hospital sectors has remained virtually unchanged through 2005.
- In general, it was reported that selling prices rose moderately through 2005. The rise in prices has been sharpest in building and construction and petroleum-related industries as a result of increasing resource shortages. The export industry has also experienced a marked increase in prices through 2005, primarily due to rising commodity prices. Inflation expectations for the next 12 months have been falling throughout the year.
- Profitability has increased in all industries in 2005. Increased demand, a rise in selling prices and generally low wage pressures have contributed to improved profitability.

In 2005, the network was also used to examine a number of current issues. The effects of higher oil prices, import shares, and costs related to the introduction of mandatory occupational pensions as well as the reasons for the decline in sickness absence in 2004 are examples of issues that received special attention last year.



March 2004 *Inflation Report* and actual inflation in 2005, about ½ percentage point can be attributed to lower-than-projected wage growth (see Table 1). However, it may be difficult to make a precise estimate of the contribution from wage growth as there is a reciprocal relationship between wage growth and inflation. Very low inflation and lowered inflation expectations prior to the 2005 wage settlement may have contributed to low wage growth. In addition, the labour market was somewhat weaker than assumed (see Chart 3).

The krone exchange rate was considerably stronger through 2004 and 2005 than assumed at the beginning of 2004 (see Chart 4). Exchange rate developments can explain about ½ percentage point of the deviation in inflation. The higher-than-expected value of the Norwegian krone may be due to weaker developments in global interest rates than indicated by forward rates

at the beginning of 2004. External price impulses for the year as a whole were approximately as expected.

The direct effect on house rents of the interest rate reductions in 2003-2005 also pushed down CPI-ATE inflation.

The projections for CPI-ATE inflation through 2005 proved to be a fairly accurate forecast of actual developments.

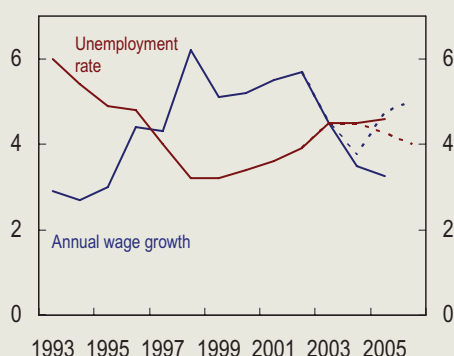
In the light of the substantial uncertainty surrounding the calculations of capacity utilisation in the economy, the projections in the *Inflation Report* in 2004 were fairly accurate for capacity utilisation in 2005 (see Chart 5). In *Inflation Report* 3/04, the projection was revised upwards slightly in relation to the previous two reports. The revision was due to slightly lower forward rates and the prospect of higher growth in housing and petroleum investment. The output gap estimate was

**Table 1. Decomposition of the difference between actual and projected inflation in 2005 published in *Inflation Report* 1/04 and 1/05.**

	IR 1/04	IR1/05
Difference between actual and projected rise in CPI-ATE. Percentage points	-1½	-0.1
<i>Decomposition of difference</i>		
Stronger exchange rate	-0.4	0
Lower international price impulses	-0.1	0
Lower wage growth	-0.4	-0.1
Direct effect of interest rate on house rents	-0.2	0
Other factors/unexplained <sup>1</sup>	-0.2	0

<sup>1</sup> Mainly related to the fall in imported consumer prices at the beginning of 2005.

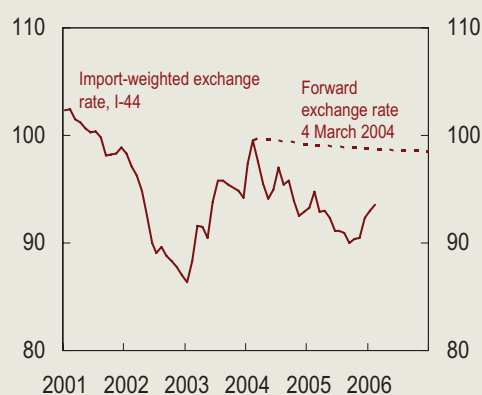
**Chart 3** Annual wage growth<sup>1)</sup> and LFS unemployment<sup>2)</sup>. Projections in IR 1/04 (broken line) and actual developments (solid line). Per cent. 1993–2006



<sup>1)</sup> Average for all groups. Including costs associated with increase in number of vacation days.  
<sup>2)</sup> LFS.

Sources: TRCIS, Statistics Norway and Norges Bank

**Chart 4** The krone exchange rate (I-44). Assumption in IR 1/04 (broken line) and actual developments (solid line). Index<sup>1)</sup>. January 2001–February 2006



<sup>1)</sup> A rising curve denotes a weaker krone exchange rate.

Source: Norges Bank

revised downwards again through 2005 as a result of projected higher growth in potential mainland output.

In the Executive Board's strategy document from March 2004, the projections were based on forward interest rates, which implied a key rate that would move down towards 1½% in the coming months and increase gradually from autumn 2004. According to the Executive Board's assessment, this would provide a reasonable balance between the objective of bringing inflation back to target and the objective of reasonable developments in the real economy. The Executive Board noted that the risk of a persistent, large negative deviation from the inflation target seemed to dominate. There was reason to focus particular attention on factors that might delay a rise in inflation.

In *Inflation Report 2/04*, which was published on 1 July, the inflation projections for 2005 and 2006 were again revised downwards (see Charts 5 and 6). The krone had appreciated, and forward rates, on which the projections were based, were slightly higher than in the previous *Report*. It appeared that inflation would not reach target until summer 2007. The Executive Board pointed out that monetary policy should be oriented towards achieving a somewhat more rapid rise in inflation. Rather than reducing the interest rate further, it was the view of the Executive Board that the key rate should be left unchanged for a longer period than assumed in the baseline scenario.

In the November 2004 *Inflation Report*, an assessment was made of the trade-off between low inflation and high growth in the real economy. Since the previous *Report*, the inflation projection had been revised downwards, partly as a result of increased domestic

competition and downward revisions of the rise in prices for imported consumer goods. At the same time, the output gap estimate was revised upwards. The projections were based on forward rates, which implied that the key rate would remain unchanged in the period to summer 2005, followed by a gradual increase. The Executive Board's assessment implied that inflation would continue to be low for a period, and that it would take longer than previously assumed to attain the inflation target.

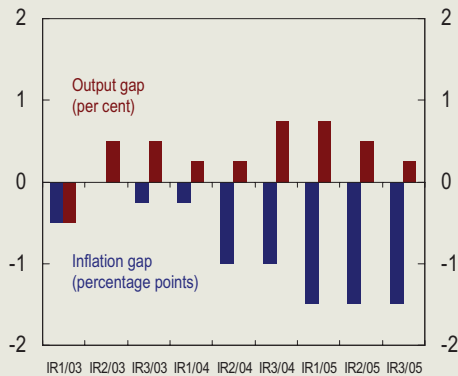
The Executive Board considered an alternative monetary policy stance where the sight deposit rate was set at zero in the short term, followed by a rapid increase. Monetary policy influences the economy with long and variable lags. The effect on inflation in 2005 of a substantially lower interest rate from the end of 2004 would have been fairly small. The impact on total output over the next two years, however, might have been more pronounced. Monetary policy assessments in 2004 thereby implied that Norges Bank expected inflation to remain below target in 2005.

#### Variability in inflation and output

Developments in inflation, adjusted for some temporary factors, provide a basis for assessing monetary policy performance. The operational objective of monetary policy is a rise in consumer prices of 2.5% over time, but not at all times. The degree of precision in attaining the inflation target that can reasonably be required of monetary policy must also be taken into account. Consumer price inflation may and will frequently deviate from the target, partly as a result of unforeseen disturbances and partly as a result of monetary policy



**Chart 5** Developments in estimates of the output and inflation gap in 2005<sup>1),2)</sup>

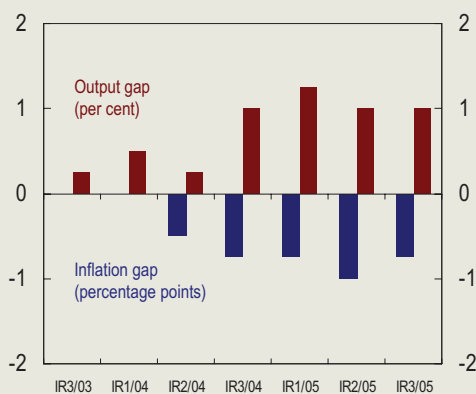


<sup>1)</sup> The output gap measures the difference between actual and estimated potential mainland GDP. The inflation gap measures the difference between inflation and the inflation target.

<sup>2)</sup> The projections in IR 1/03 – 2/05 are based on market forward rates adjusted for an increase in credit risk over the period to maturity. The projections in IR 3/05 are based on Norges Bank's interest rate projections.

Source: Norges Bank

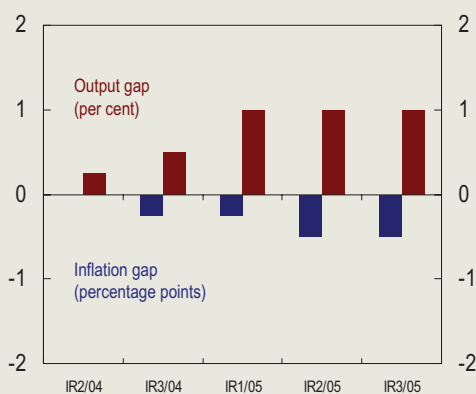
**Chart 6** Developments in projections for the output gap and the inflation gap in 2006<sup>1)</sup>



<sup>1)</sup> See notes to Chart 5.

Source: Norges Bank

**Chart 7** Developments in projections for the output gap and the inflation gap in 2007<sup>1)</sup>



<sup>1)</sup> See notes to Chart 5.

Source: Norges Bank

trade-offs. In recent years, most events and disturbances have exerted downward pressure on inflation.

The level of consumer price inflation over a short period does not therefore provide an adequate basis for assessing whether long-term monetary policy objectives have been achieved. Chart 8 shows a ten-year moving average for annual consumer price inflation. Inflation stabilised early in the 1990s after falling from a high level in the previous decade. In the ten year period 1996–2005, average inflation was 2.0%, measured by the consumer price index.

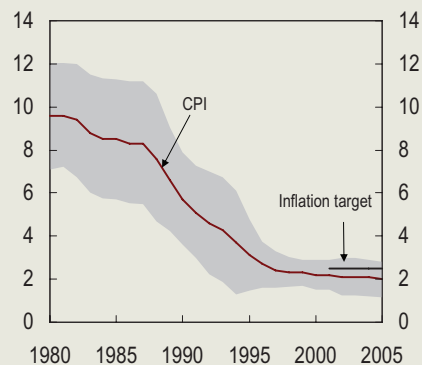
The band around average inflation shows inflation variability. Variability is calculated as the standard deviation over a ten-year period, 7 years back and two years ahead. From a longer perspective, variability has declined. Through the 1990s, inflation largely hovered around 1½–3½%, but has varied slightly more in recent years. In a period of increasing cross-border labour flows, major technological advances, changes in competitive conditions and substantial changes in trade patterns we will, with our very open economy, probably experience somewhat greater variation in inflation, as we have witnessed over the past two to three years. Experience may indicate that inflation expectations remain stable even if inflation varies somewhat as long as the interest rate is used actively to moderate variations in inflation.

Under a flexible inflation targeting regime, monetary policy also gives weight to the objective of stabilising developments in the real economy. Chart 9 shows developments in the output gap since 1980 and output gap variability over a period of 10 years. Output gap variability seems to have been diminishing since the end of the 1990s.

### Inflation expectations

For monetary policy to contribute to stabilising developments in output and employment, economic agents

**Chart 8** CPI. Annual change. 10-year moving average<sup>1)</sup> and variation<sup>2)</sup>. Per cent. 1980–2005<sup>3)</sup>



<sup>1)</sup> The moving average is calculated 7 years back and 2 years ahead.

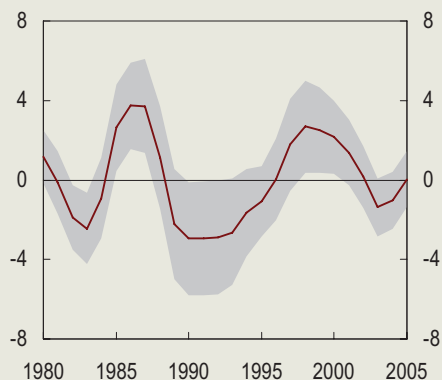
<sup>2)</sup> The band around the CPI is the variation in the average period, measured by  $\pm$  one standard deviation.

<sup>3)</sup> Projections for 2006–2007 in *Inflation Report 1/06* form the basis for this estimate.

Sources: Statistics Norway and Norges Bank



**Chart 9** Estimates for the output gap. Level<sup>1)</sup> and variation<sup>2)</sup>. Per cent. 1980–2005



<sup>1)</sup>The output gap measures the difference between actual mainland GDP and estimated potential mainland GDP.  
<sup>2)</sup>The band shows the variation in the output gap measured by  $\pm$ one standard deviation. The variation is estimated as average standard deviation in a 10-year period, 7 years back and 2 years ahead.  
 Source: Norges Bank

must be confident that the inflation target will be reached. Expectations concerning inflation and economic stability are of crucial importance for the foreign exchange market. Exchange rate expectations are influenced by growth in public expenditure and terms of trade, although stable inflation expectations will also have a stabilising effect on exchange rate expectations.

Inflation will not be on target at all times, but with confidence in monetary policy, expected inflation in the long term will be close to target. This alone contributes to stabilising inflation.

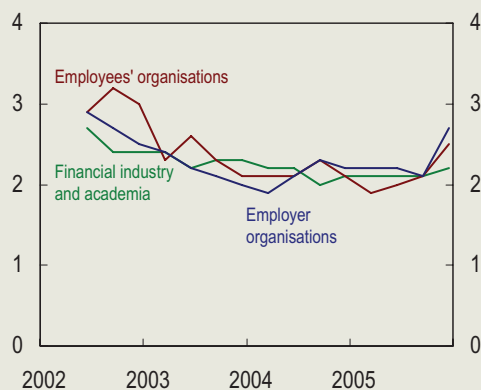
TNS Gallup has been commissioned by Norges Bank to carry out quarterly surveys on inflation expectations. The fourth quarter 2005 survey showed that expected

inflation edged up towards the end of the year. Economists in the financial industry and academia expect annual inflation to reach 2.4% five years ahead. On average, employer and employee organisations expect inflation of 2.8% five years ahead. Average expected inflation two years ahead was 2.2% among economists in the financial industry and academia and 2.6% among employer and employee organisations (see Charts 10 and 11).

Another measure of inflation expectations is different institutions' forecasts for consumer price inflation in Norway. Twice a year, in October and April, Consensus Forecasts Inc. provides an overview of forecasts for inflation 5 and 10 years ahead. The overview in October 2005 showed that inflation expectations were low. At both the 5-year and 10-year horizon, inflation was projected at 2.3%.

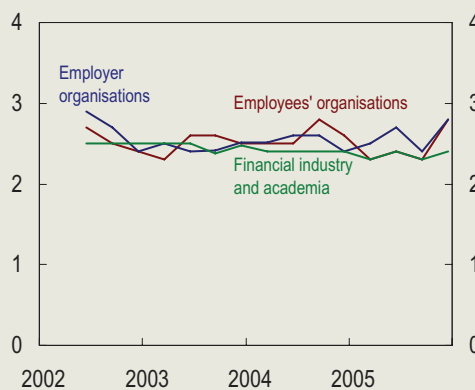
The difference between expectations concerning money market rates (forward rates) ten years ahead in Norway and Germany may provide an indication of whether inflation expectations in Norway differ substantially from expectations in the euro area. Under the assumption that inflation expectations in the euro area are stable, a wider difference between forward rates may be interpreted as an increase in inflation expectations in Norway, or as an increase in the Norwegian risk premium. However, it must be taken into account that Norway's inflation target is higher than in the euro area. Even with confidence in the inflation target, it must be expected that forward rates in Norway will be somewhat higher than in the euro area. The forward rate differential may also reflect different liquidity premiums in the Norwegian and German markets. In the short term, disturbances related to market conditions might also affect the figures. The level of the differential should therefore be assessed over a period of time.

**Chart 10** Expected consumer price inflation 2 years ahead. Per cent. 2002 Q2–2005 Q4



Source: TNS Gallup

**Chart 11** Expected consumer price inflation 5 years ahead. Per cent. 2002 Q2–2005 Q4



Source: TNS Gallup



In the euro area, long-term inflation expectations remained at about 2.1% through 2005.<sup>1</sup> In 2005, the forward rate differential was fairly stable at an average 0.4 percentage point (see Chart 12).

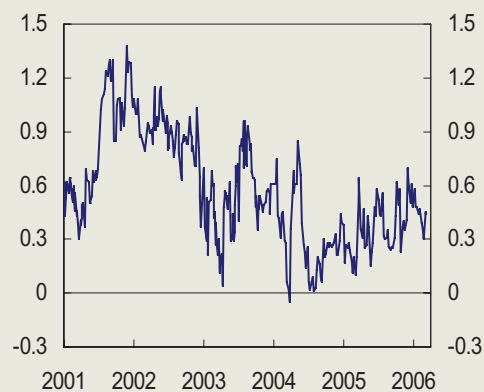
Overall, these indicators suggest that there is confidence in the inflation target in the long term. Inflation in the shorter term is expected to be somewhat below 2.5%, reflecting generally low consumer price inflation in recent years.

## Monetary policy in 2005

### Monetary policy decisions and the basis for decisions

The background for the interest rate decisions in 2005 was summarised in press releases and at press conferences following the monetary policy meetings. Moreover, the three issues of the *Inflation Report* published in 2005 provide an extensive account of the conduct of monetary policy through the year. As from

**Chart 12** Differential between Norwegian and German forward rates 10 years ahead. Percentage points. 2 January 2001–8 March 2006



Source: Norges Bank

<sup>1</sup> See ECB Monthly Bulletin, December 2005.

*Inflation Report 3/05*, Norges Bank's interest rate forecasts have also been included.

Norges Bank's projections for inflation in 2005 were revised downwards slightly in *Inflation Report 1/05*, but were unchanged thereafter. The downward revision is mainly due to a weaker movement in prices for imported consumer goods than expected at the beginning of the year. The estimate for the output gap in 2005 was revised downwards somewhat through the year. The projections for inflation and the output gap estimates for the years 2006–2007 were relatively unchanged through the three issues of the *Inflation Report* in 2005 (see Charts 5–7).

The projections in the November 2004 *Inflation Report* implied that inflation would remain considerably below 2.5% for a period ahead and reach the target at the three-year horizon. The output gap was expected to be positive in 2005–2007. On the basis of the projections in the *Report*, the Executive Board adopted a monetary policy strategy that implied a sight deposit rate in the interval 1¼–2¼% in mid-March 2005. The Executive Board stated that particular emphasis should be placed on factors that could delay an increase in inflation.

At the monetary policy meetings from 11 March 2004 until 2 February 2005, the Executive Board had in various terms highlighted the importance of developments in external interest rates for Norges Bank's interest-rate setting.<sup>2</sup> The press releases following the monetary policy meetings between September 2004 and February 2005 stated the following: *The prospect of continued low inflation in Norway implies that we should lag behind other countries in setting interest rates at a more normal level.*

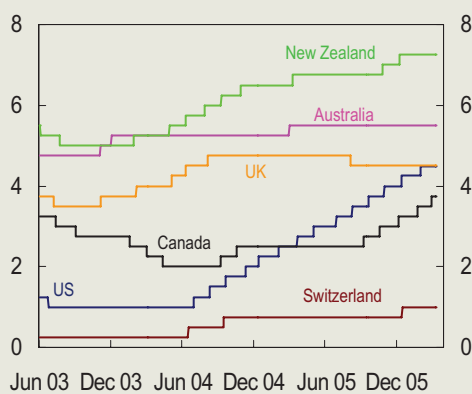
This wording was no longer used by Norges Bank following the statement made by the central bank governor at the meeting of the Supervisory Council of Norges Bank on 17 February 2005: *The effect of Norway's interest rate also depends on external interest rates. Many countries have raised their key rates during this cyclical upturn, also in several steps. Most recently, the Federal Reserve increased its key rate by 0.25 percentage point, and it has also announced further interest rate hikes. With the prospect of low inflation, Norway has lagged behind other countries in adjusting interest rates to a more normal level.* Developments in key rates in Norway and other countries are shown in Charts 13a and 13b.

A summary of the monetary policy meetings and the *Inflation Reports* in 2005 is presented below.

#### *The monetary policy meeting on 2 February 2005*

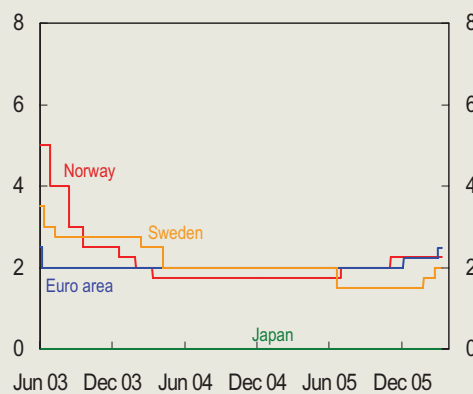
At the monetary policy meeting on 2 February 2005, the Executive Board emphasised that inflation had picked up, but was still below target. The key rate was low. Growth in the Norwegian economy was solid. The unusually low interest rate and developments in inflation and output implied that further interest rate reductions were less likely. On the other hand, with the prospect of continued low inflation for a period ahead, wide deviations from projected economic developments would be required before the interest rate should be increased in the strategy period to mid-March. Prospects of continued low inflation implied that we should lag behind other countries in setting interest rates at a more normal level. Norges Bank's Executive Board left the sight deposit rate unchanged at 1.75%. The Executive Board did not see any clear alternatives to leaving the interest rate unchanged.

**Chart 13a** Key rates in other countries. Per cent.  
2 June 2003–10 March 2006.



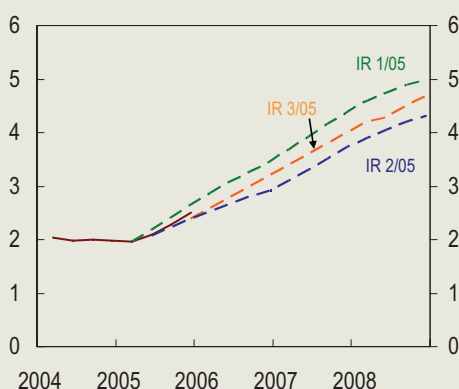
Sources: EcoWin and Norges Bank

**Chart 13b** Key rates in Norway and other countries.  
2 June 2003–10 March 2006. Per cent



<sup>2</sup> See Norges Bank's Annual Report for 2004.

**Chart 14** Assumptions for 3-month money market rates in baseline scenarios in *Inflation Report* in 2005<sup>1)2)</sup>. 2004 Q1–2008 Q4

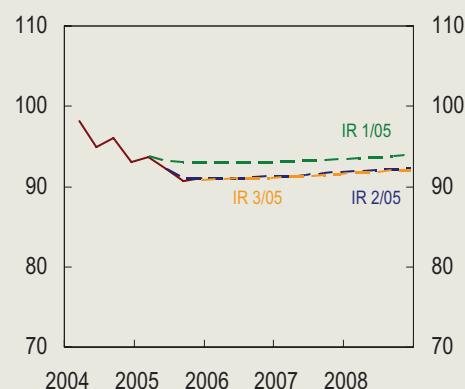


<sup>1)</sup> The money market rate is normally about  $\frac{1}{4}$  percentage point higher than the sight deposit rate.

<sup>2)</sup> In IR 1/05 and IR 2/05 the assumption concerning the money market rate was based on the interest rates in the money and interest rate swap markets at the designated times. The interest rate in IR 3/05 is Norges Bank's interest rate forecast.

Source: Norges Bank

**Chart 15** Assumptions for import-weighted exchange rate (I-44)<sup>1)</sup> in baseline scenarios in *Inflation Report* in 2005. 2004 Q1–2008 Q4



<sup>1)</sup> A rising curve denotes a weaker krone exchange rate.

Source: Norges Bank

### *The monetary policy meeting on 16 March 2005 and Inflation Report 1/05*

The objective of bringing inflation back to target and anchoring inflation expectations implied a continued expansionary monetary policy. External interest rates had risen, albeit slowly and from a low level. On average, our trading partners had increased their key rates by slightly more than  $\frac{1}{4}$  percentage point so far in the upturn. Norges Bank had lagged behind other countries in adjusting the interest rate to a more normal level. There were prospects of continued low inflation in Norway for a period ahead. Even if capacity utilisation in the Norwegian economy rose, there appeared to be little risk that inflation would rapidly move up to a level that would be too high. Inflation was unexpectedly low in the first months of 2005, but the Executive Board stated that in the light of Norway's highly open economy we might have to expect somewhat wider variations in inflation than some other countries. The Executive Board decided to leave the key rate unchanged at 1.75%.

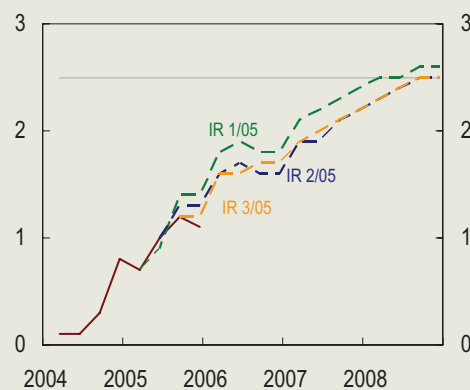
The analyses in *Inflation Report 1/05*, published on 16 March, were based on a key rate that would shadow forward interest rates up to end-2006. This would imply a key rate that would rise to 2% in summer 2005 and then to 3 $\frac{1}{4}$ % at end-2006 (see Chart 14). Norges Bank assumed that interest rates from 2007 onwards would increase somewhat more than implied by forward rates both in Norway and abroad. The krone exchange rate was assumed to remain fairly stable (see Chart 15).

With such a path for the interest rate and the krone exchange rate, there were prospects that activity in the

Norwegian economy would rise at a fairly rapid pace in 2005 and 2006. Corporate profit margins might increase further, and wage growth might be somewhat higher. The extraordinary factors that had contributed to restraining the rise in prices for imported consumer goods were expected to have a diminishing impact in the years ahead. Inflation measured by the CPI-ATE might then rise from a little less than 1% to almost 2% in mid-2006. There were prospects that inflation would stabilise around 2 $\frac{1}{2}$ % three years ahead (see Chart 16).

The Executive Board's assessment in *Inflation Report 1/05* was that the interest rate could after a period, and then gradually, be brought up to a more normal

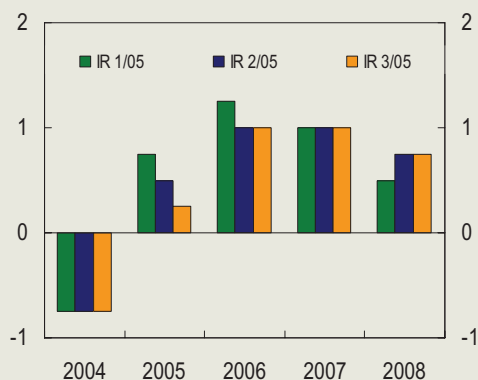
**Chart 16** Projections for CPI-ATE in the *Inflation Report* in 2005. Per cent. 2004 Q1–2008 Q4



Sources: Statistics Norway and Norges Bank



**Chart 17** Estimates for output gap<sup>1)</sup> in the *Inflation Report* in 2005. Per cent. 2004–2008



<sup>1)</sup>The output gap measures the difference between actual mainland GDP and estimated potential mainland GDP.

Sources: Statistics Norway and Norges Bank

level. The objective of bringing inflation back to target and anchoring inflation expectations nevertheless implied a continued expansionary monetary policy. The Executive Board decided that the sight deposit rate should lie in the interval 1½-2½% in the period to the publication of the next *Inflation Report* on 30 June 2005, conditional on economic developments that were broadly in line with projections. The upper and lower limits of the strategy interval were thus ¼ percentage point higher than in the previous four-month period (see Chart 18).

*The monetary policy meeting on 20 April 2005*

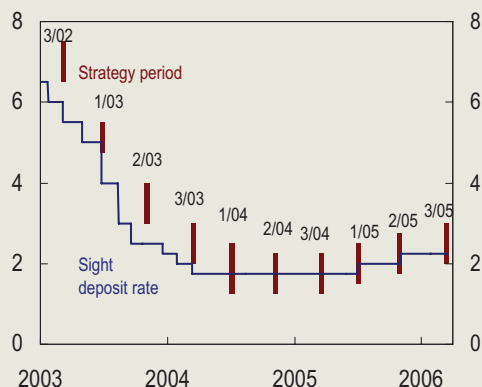
At the monetary policy meeting on 20 April, the assessments in *Inflation Report* 1/05 were maintained. Economic developments since the publication of the *Report* had been broadly in line with expectations. Key rates abroad were rising, albeit slowly and from a low level. Although a gradual rise in the interest rate still seemed to provide a good balance between the different objectives, the Executive Board concluded that it was too early to increase the interest rate at this meeting. The interest rate was therefore left unchanged.

*The monetary policy meeting on 25 May 2005*

As at the time of the monetary policy meetings in March and April, the Executive Board emphasised that an interest rate that was held at such a low level for a long period could contribute to a situation where capacity utilisation might become too high further ahead. It was pointed out that there was a risk that the high rise in property prices and debt accumulation might persist for a longer period and lead to instability in demand, output and inflation somewhat further ahead. This implied, in isolation, a higher interest rate. Inflation was still low, but prices had risen approximately in line with projections after the unexpected fall at the beginning of the year. At the same time the krone was fairly strong (see Chart 19). A path where interest rates rise gradually - in small, not too frequent steps - was assessed to provide a good balance between the different monetary policy objectives.

The outlook for inflation and activity had not changed appreciably since the March *Inflation Report*. As an alternative, the Executive Board considered increasing the interest rate. With the prospect of continued low inflation for a period ahead, the Executive

**Chart 18** Interval for the sight deposit rate at the end of each strategy period and actual developments. Per cent. 2 January 2003–16 March 2006



Source: Norges Bank

**Chart 19** The krone exchange rate (I-44)<sup>1)</sup>. January 2002–February 2006

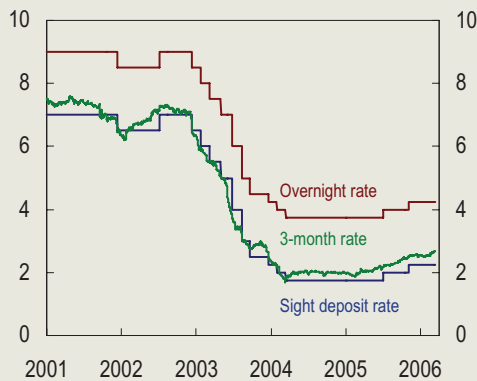


<sup>1)</sup> A rising curve denotes a weaker krone exchange rate.

Source: Norges Bank



**Chart 20** Norges Bank's interest rates and 3-month money market rate. Nominal rates. Per cent. 2 January 2001–10 March 2006.



Source: Norges Bank

Board did not find grounds to deviate from expectations in the money and foreign exchange market at that meeting. The sight deposit rate was kept unchanged at 1.75%.

*The monetary policy meeting on 30 June and Inflation Report 2/05*

At the monetary policy meeting on 30 June, the Executive Board decided to raise the interest rate by 0.25 percentage point to 2.0%. The increase was in line with the analyses in the two previous reports. The key rate had last been raised on 3 July 2002, when it was raised to 7.0%. In the period between December 2002 and March 2004, the key rate was lowered to 1.75% and was left unchanged thereafter (see Chart 20).

In the Executive Board's assessment at this monetary policy meeting, the objective of bringing inflation back

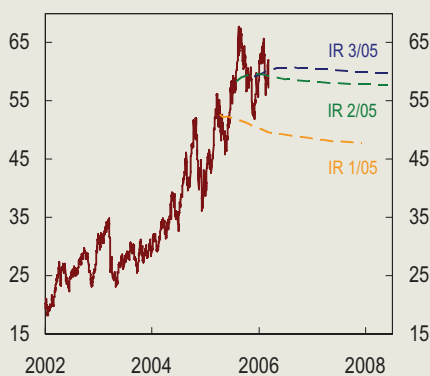
to the target of 2½% and anchoring inflation expectations implied a continued expansionary monetary stance. Oil futures prices had increased markedly (see Charts 21 and 22). Market interest rate expectations in other countries had been lowered since the March *Inflation Report*. There might therefore have been a risk of a stronger krone in the following months. This suggested that the interest rate should be held unchanged for a longer period.

On the other hand, output growth was high. Inflation remained low, but had edged up over the past year. Partly as a result of low interest rates, it was assumed that capacity utilisation and inflation would rise further. The objective of stabilising developments in output and employment suggested a higher interest rate. It was pointed out that high capacity utilisation could lead to rising property prices and household debt accumulation and result in instability in demand and output somewhat further ahead. Even though recent developments with weaker growth prospects for Europe and tendencies towards a somewhat stronger krone might warrant postponing an interest rate increase, the Executive Board concluded that it was appropriate to increase the interest rate.

The analyses in *Inflation Report 2/05*, which was published on 30 June, were based on a baseline scenario where the key rate would shadow forward interest rates up to 2007, and then rise somewhat more rapidly. This would imply an increase in the key rate to about 2¼% towards the end of 2005 and 2¾% at the end of 2006. The increase was somewhat smaller than assumed in the March *Report* (see Chart 14). The interest rate path implied an expansionary stance throughout the projection period (see Chart 23).

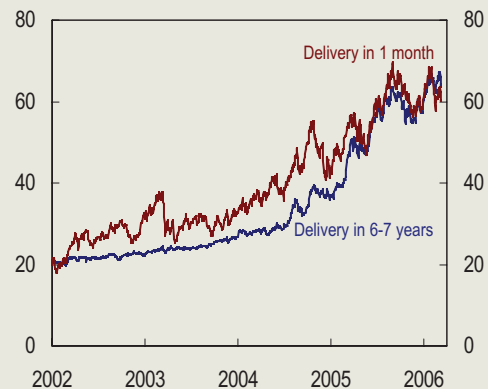
The krone exchange rate was assumed to remain approximately unchanged, but at a somewhat stronger

**Chart 21** Oil price (Brent Blend) in USD per barrel. Futures prices from the *Inflation Report* in 2005. 2 January 2002–8 March 2006



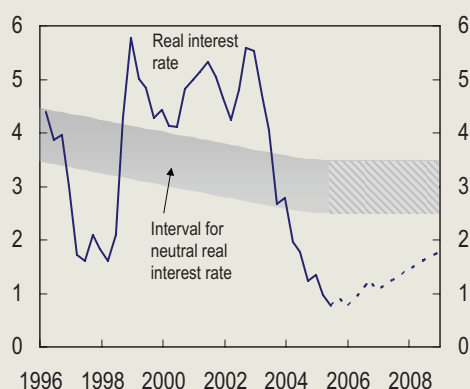
Sources: Reuters, IPE and Norges Bank

**Chart 22** Oil price futures. USD per barrel light crude (West Texas). 2 January 2002–9 March 2006



Sources: NYMEX and Norges Bank

**Chart 23** 3-month real interest rate<sup>1)</sup> and the neutral real interest rate in Norway. 1996 Q1–2008 Q4  
(Broken line is projections from *Inflation Report 2/05*)



<sup>1)</sup> 3-month money market rate deflated by inflation measured by the CPI-ATE.

Source: Norges Bank

level than assumed in the previous *Report* (see Chart 15).

The output level towards the end of 2005 was put at about 1% higher than the level implied by a near-trend growth. Inflation might then increase gradually to almost 2% in the first part of 2007. There were prospects that inflation might be close to 2½% three years ahead.

The Executive Board's monetary policy strategy in *Inflation Report 2/05* was that the interest rate could gradually – in small, not too frequent steps – be brought back to a more normal level. The objective of bringing inflation back to target and anchoring inflation expectations nevertheless implied a continued expansionary monetary stance.

The Executive Board's assessment was that the sight deposit rate should lie in the interval 1¾–2¾% in the period to the publication of the next *Inflation Report* on 2 November 2005, conditional on economic developments that are broadly in line with projections. The upper and lower limits for the strategy interval for the interest rate for the next four months were thus increased again by a quarter percentage point in relation to the previous period (see Chart 18). The Executive Board argued that stronger trade shifts and increased labour market competition might, on the one hand, result in lower price and wage inflation. The unusually low real interest rate might, on the other hand, result in a higher-than-projected rise in output and inflation. A stronger krone would imply that inflation would take longer to reach the target.

#### *The monetary policy meeting on 11 August 2005*

The Executive Board held the interest rate unchanged at 2.00%. Developments in output, demand and under-

lying inflation had been broadly in line with the overall picture in the June *Inflation Report*. The Executive Board's assessment in the June *Inflation Report* was that the interest rate could gradually – in small, not too frequent steps – be brought up towards a more normal level if economic developments were approximately as projected in the *Report*. New information did not warrant any deviation from the interest rate path presented in the *Inflation Report*.

#### *The monetary policy meeting on 21 September 2005*

The Executive Board pointed out that the objective of bringing inflation back to the target of 2.5% and anchoring inflation expectations implied a continued low interest rate. The krone exchange rate had appreciated since the previous monetary policy meeting in August. On the other hand, the objective of stabilising output suggested, in isolation, a higher interest rate. Inflation had gradually edged higher. The Executive Board's overall assessment was that developments in output, demand and underlying inflation had been in line with that projected in Norges Bank's *Inflation Report* published at end-June. In its assessment, the Executive Board pointed out that the interest rate could have been raised already at that meeting, but the Executive Board found it appropriate to leave the interest rate unchanged.

#### *The monetary policy meeting on 2 November 2005 and Inflation Report 3/05*

Interest rate setting since May had been oriented towards a gradual increase in the interest rate – in small, not too frequent steps – towards a more normal level. Against the background of the analyses in the *Inflation Report*, that strategy still appeared to provide a reasonable balance between the monetary policy objectives to be pursued by Norges Bank. The Executive Board assessed output growth as strong and in isolation this could have warranted a faster increase in interest rates ahead. That would have reduced the risk of bottlenecks in the economy, with rising cost inflation and continued debt build-up. On the other hand, raising the interest rate more rapidly would have increased the risk of an appreciation of the krone, which might have prevented inflation from reaching the target of 2.5%. The sight deposit rate was raised by 0.25 percentage point to 2.25%.

Unlike the projections in previous reports, the projections in *Inflation Report 3/05* published on 2 November were based on the Bank's own interest rate forecast (see Chart 14). According to the Executive Board, the interest rate path in the *Report* provided a reasonable trade-off between the different objectives assigned to monetary policy. As in the June *Inflation Report*, developments implied that the interest rate

## Norges Bank's interest rate decisions in 2005

Date	Key rate, percent	Percentage change
2 February	1.75	-
16 March	1.75	-
20 April	1.75	-
25 May	1.75	-
30 June	2.00	0.25
11 August	2.00	-
21 September	2.00	-
2 November	2.25	0.25
14 December	2.25	-

would be raised gradually – in small, not too frequent steps – towards a more normal level. The path for domestic and external interest rates seemed consistent with a situation where the krone would remain approximately unchanged (see Chart 15).

Inflation, as measured by the CPI-ATE, was projected to edge up to 2 per cent in the beginning of 2007 and reach the target of 2.5% during the latter half of 2008 (see Chart 16). The output gap was projected to increase to about 1% in 2006. The forecast implied that a gradually less expansionary monetary policy would after a period stabilise inflation close to the target.

The monetary policy strategy in *Inflation Report 3/05* was that the sight deposit rate should lie in the interval 2-3 per cent in the period to the publication of the next *Inflation Report* on 16 March 2006, conditional on economic developments that are broadly in line with the projections. The upper and lower limits for the strategy interval were thus a quarter percentage point higher than in the previous four-month period (see Chart 18). The Executive Board stated that stronger trade shifts and increased labour market competition could, on the one hand, result in lower price and wage inflation. The unusually low real interest rate could, on the other hand, result in rising and higher-than-projected output and inflation.

### *The monetary policy meeting on 14 December 2005*

The interest rate was left unchanged at 2.25%. The Executive Board's assessment was that growth in demand and output was still strong and in isolation could warrant a faster increase in the interest rate. This would reduce the risk of bottlenecks in the economy, with rising cost inflation and continued debt build-up. On the other hand, raising the interest rate more rapidly would have increased the risk of a renewed appreciation of the krone. This could have countered an increase in inflation towards the target of 2.5%.

Developments in output, demand and inflation did not differ substantially from the projections in *Inflation Report 3/05*. There were still prospects that the interest rate might be increased further in small, not too frequent steps.

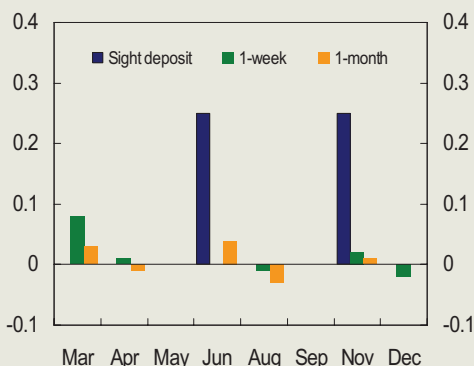
### **Was monetary policy in 2005 predictable?**

When market participants understand the central bank's response pattern, the reaction of market rates to new information about economic developments has a stabilising effect. One indicator of the predictability of interest-rate setting is the impact on money market rates around the Executive Board's monetary policy meetings. Substantial changes in market rates may indicate that the decision is unexpected.

Norges Bank's communication of monetary policy is partly aimed at influencing market interest rate expectations. Norges Bank's interest rate forecast and monetary policy strategy are published with a view to enhancing the predictability of monetary policy and facilitating the evaluation of monetary policy. Through 2005, the Executive Board placed considerable emphasis on communicating that the key rate would be raised gradually in small, not too frequent steps towards a more neutral level. Expectations of interest rate increases were lowered somewhat after Norges Bank projected in *Inflation Report 2/05* a more moderate increase in the interest rate than in the March report.

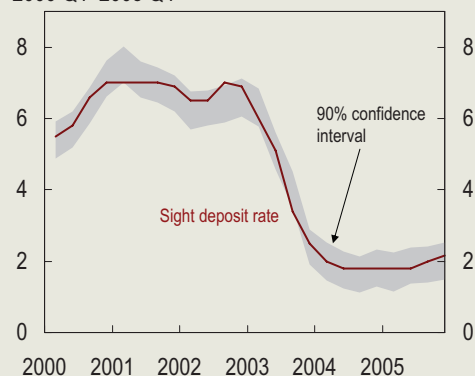
In 2005, Norges Bank raised the key rate on two occasions. The first increment of 0.25 percentage point was implemented on 30 June and was expected by both market makers in financial markets and a majority of macroeconomists at Norwegian financial institutions. As a result, the interest rate decision led to modest movements in money and foreign exchange markets. The second increment, which was decided on 2 November, was also in line with market expectations and led to small changes in money market rates (see

**Chart 24** Change in sight deposit rate and impact on money market rates at monetary policy meetings in 2005. Percentage points



Source: Norges Bank

**Chart 25** Sight deposit rate and interest rate developments that follow from Norges Bank's average pattern for interest-rate setting.<sup>1)</sup> Per cent. 2000 Q1–2005 Q4



<sup>1)</sup> The interest rate movements are explained by developments in inflation, mainland GDP growth, wage growth and 3-month interest rates among trading partners. See *Inflation Report* 3/04 for further discussion.

Source: Norges Bank

Chart 24). At the other monetary policy meetings in 2005, the key rate was kept unchanged, as expected by most market participants.

Market participants seek to form a picture of how the central bank reacts to new information about the economy and how the key rate is set in response to developments in economic variables. The response pattern in interest-rate setting can be approximated using a reaction function where one attempts to explain historical interest rate changes through changes in macroeconomic variables. Such an estimated relationship will not capture all the elements to be assessed. In particular, it does not capture specific assessments made at the various monetary policy meetings. An estimated reaction function for interest-rate setting will thus be a considerable simplification and will only provide an indication of how Norges Bank has on average reacted to selected variables. Estimation results will also depend on the data period and the econometric method used.

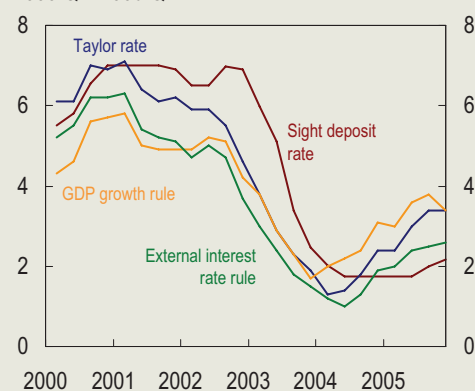
Chart 25 shows the interest rate path that follows from the Bank's average response pattern between 2000 and 2005 and actual developments in the sight deposit rate. The estimated equation includes developments in inflation, wage growth, Norges Bank's projections for GDP growth in mainland Norway and money market rates abroad. The interest rate in the previous period is also of importance. The chart indicates that interest-rate setting through 2005 was in line with the Bank's response pattern in the period from 2000.

Interest-rate setting may also be assessed in the light of simple monetary policy rules. The rules must be interpreted with caution and only provide a rough

indication of the recommended level. Common to many simple interest rate rules is that the interest rate is set with a view to maintaining inflation around a specific target over time, while contributing to stabilising output.

The Taylor rule<sup>3</sup>, as estimated by Norges Bank, implies that the interest rate has been too low since the end of 2004 (see Chart 26). The Taylor rule gives weight to inflation and the output gap. The output gap cannot be observed directly, however, and is thus an uncertain variable. An alternative is to apply observed GDP growth<sup>4</sup> in addition to inflation. This rule also

**Chart 26** Sight deposit rate, Taylor rate, GDP growth rule and external interest rate rule. Per cent. 2000 Q1–2005 Q4



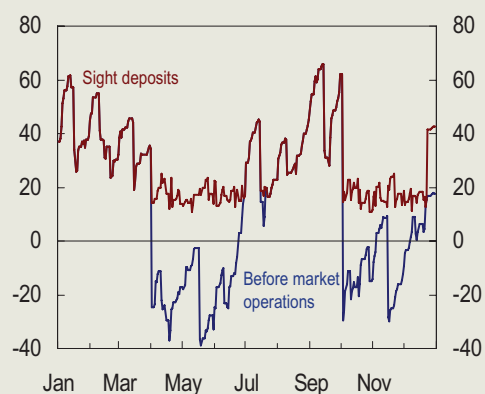
Source: Norges Bank

<sup>3</sup> The Taylor rule: Interest rate = Inflation target + equilibrium real interest rate + 1.5 (inflation – inflation target) + 0.5 output gap. See Taylor J.B. (1993): "Discretion versus policy rules in practice", *Carnegie-Rochester Conference Series on Public Policy* 39, pages 195-124. The CPI-ATE is used as a measure of inflation.

<sup>4</sup> Output gap is replaced with the difference between actual growth and trend growth in the economy (growth gap).



**Chart 27** Banks' liquidity in 2005. Daily figures.  
In billions of NOK



Source: Norges Bank

indicates that the interest rate has been too low for a period. The rules have some limitations for a small, open economy, however. An interest rate increase in line with the rules could have led to a marked appreciation of the krone and it might therefore take considerably longer for inflation to reach target. The external interest rate rule<sup>5</sup> results in a somewhat lower interest rate than the other rules. This is because external interest rates are low.

Nor does the rule take into account a normal horizon of 1-3 years for achieving the inflation target. The rules imply a considerably longer period for bringing inflation up to 2.5% from today's level, and the rules have limitations as a reference for monetary policy.

### Liquidity management in the money market

The Executive Board sets the interest rate on banks' sight deposits and overnight loans in Norges Bank. The purpose of Norges Bank's liquidity policy is to ensure that the Executive Board's interest rate decisions have a broad impact on short-term money market rates. Through its liquidity policy, Norges Bank ensures that the banking system has surplus liquidity every day, deposited as sight deposits with Norges Bank. Short-term money market rates will therefore normally be slightly higher than the sight deposit rate, which is Norges Bank's key rate. Developments in Norges Bank's interest rates and money market rates are illustrated in Chart 20.

The liquidity policy instruments consist of fixed-rate loans (F-loans), fixed-rate deposits (F-deposits) and currency swaps.<sup>6</sup> F-loans are Norges Bank's primary liquidity supplying instrument. Currency swaps have not been used in liquidity management since 2001.

Norges Bank can withdraw liquidity in order to reduce the banking system's surplus liquidity via F-deposits. F-deposits have not been used since April 2003. Under the current monetary policy regime, it makes little difference whether the banking system's surplus liquidity is deposited as sight deposits or as F-deposits with Norges Bank.

Norges Bank draws up projections for banks' structural liquidity. The banking system's structural liquidity is banks' sight deposits in their sight deposit accounts at Norges Bank before the central bank supplies or withdraws liquidity through liquidity policy instruments. The banking system's structural liquidity is influenced by incoming and outgoing payments over the government's account in Norges Bank, government loan transactions, Norges Bank's transactions in the foreign exchange and government securities markets and changes in notes and coins in circulation.

Government transactions result in substantial fluctuations in structural liquidity in the course of a year. The general pattern is that liquidity falls markedly on days where direct and indirect tax payments fall due and then accumulate again as a result of government spending and Norges Bank's foreign exchange purchases.

If structural liquidity is not regarded as adequate to keep short-term money market rates slightly higher than the sight deposit rate, Norges Bank offers to supply liquidity to banks through F-loans. The maturity of an F-loan will depend on the variations in the banking system's estimated liquidity requirements in the first few days. F-loans are auctioned to the banks through an Internet-based system. The interest rate on F-loans is normally set using an American auction, and is usually slightly higher than the sight deposit rate.

In 2005, 39 F-loan auctions were held. The loans varied from NOK 3 to 56 billion. Loan maturities varied from 1 to 10 days.

Swings in banks' structural liquidity in 2005 were wider than in previous years, primarily reflecting record-high oil tax payments to the state as a result of oil price developments. Higher oil tax revenues result in higher transfers to the Government Pension Fund – Global, which are matched by liquidity-providing foreign exchange purchases. The objective is to spread the foreign exchange purchases evenly over the year<sup>7</sup>, while oil tax payments fall due twice a year. After these payments fall due, structural liquidity is low for a period (see Chart 27). As a result of the uncertainty associated with banks' scope for redistributing liquidity around the turn of the year, Norges Bank supplied more liquidity than normal towards the end of December. This was a means of ensuring that the Executive Board's interest rate decision would have a broad impact on short-term money market rates.

<sup>5</sup> Rule with external interest rate = 0.5 Taylor rule + 0.5 money market rate among Norway's trading partners.

<sup>6</sup> See Kran, Lars-Christian and Grete Øwre (2001), "Norges Bank's system for managing interest rates", *Economic Bulletin* no. 2/2001.

<sup>7</sup> Norges Bank's foreign exchange purchases are described in further detail in the section "Foreign Exchange Transactions" in Chapter 5.

## Chapter 2 Financial stability

### Responsibility for the stability of the financial system

Norges Bank's mandate and responsibility in the area of financial stability are defined in Section 1 of the Norges Bank Act, which states that the Bank shall "(...) promote an efficient payment system domestically as well as vis-à-vis other countries, and monitor developments in the money, credit and foreign exchange markets", and in Section 3 which states that "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." Under the Payments Systems Act, Norges Bank has responsibility for authorising banks' clearing and settlement systems, i.e. the interbank systems. In a biannual submission to the Ministry of Finance, Norges Bank presents an overall assessment of financial stability in Norway.

The financial system consists of financial institutions, financial markets and payment systems. Financial stability implies that the financial system is robust to disturbances in the economy and is capable of channelling capital, executing payments and redistributing risk in a satisfactory manner. Responsibility for financial stability is divided between Norges Bank, Kredittilsynet (the Norwegian Financial Supervisory Authority) and the Ministry of Finance. The Ministry of Finance has overall responsibility for ensuring that Norway's financial industry functions smoothly. Norges Bank has the responsibility for the clearing and settlement systems, while Kredittilsynet has the responsibility with regard to financial strength and

management and control in financial institutions. Both Norges Bank and Kredittilsynet analyse financial institutions and financial markets and monitor the financial sector to identify any risk of problems.

In a joint submission to the Ministry of Finance dated 16 December 2005 concerning follow-up of the International Monetary Fund's (IMF) assessment of the stability of the Norwegian financial system (FSAP), Kredittilsynet and Norges Bank recommended that Norway endorse the EU agreement on cooperation between central banks, supervisory authorities and ministries of finance. The submission also proposes that Norway establish an arrangement for regular tripartite meetings between Norges Bank, Kredittilsynet and the Ministry of Finance. Discussions at these meetings should include the outlook for financial stability, coordination of contingency planning and important factors related to the regulatory framework for the financial sector.

A report on cooperation between Kredittilsynet and Norges Bank was attached in an annex to the submission of 16 December. In accordance with the Storting's requirements, Norges Bank and Kredittilsynet have established extensive and effective cooperation. The purpose of this cooperation is to underpin their joint objective of promoting financial stability. The institutions try to achieve this by means of a regular exchange of information, an efficient division of tasks and joint development of expertise. The management of Norges Bank and Kredittilsynet have quarterly meetings to discuss the economic situation and developments in financial institutions. Norges Bank is represented by an observer on the board of Kredittilsynet.





Norges Bank's work on financial stability consists of the following:

- *Preventing financial instability.* Norges Bank's preventive tasks are primarily aimed at limiting the risk associated with clearing and settlement systems in order to prevent liquidity and solvency problems from spreading among financial market participants. In addition, the Bank advises Kredittilsynet and the Ministry of Finance on issues associated with the regulation of financial markets and financial institutions.
- *Surveillance of risks to financial stability.* Norges Bank's surveillance is aimed at identifying developments that may lead to reduced earnings and financial strength in the financial sector and the build-up of financial imbalances that may pose a threat to financial stability.
- *Crisis management.* Should a situation arise where financial stability is threatened, Norges Bank and other authorities will, if necessary, implement measures to strengthen the financial system. Norges Bank may supply extraordinary liquidity to individual banks or to the banking system as a whole.

Norges Bank also places emphasis on the financial stability outlook in its interest rate policy. The objective of monetary policy is low and stable inflation, and Norges Bank sets the interest rate with a view to stabilising inflation at close to 2.5% within a reasonable time horizon, normally 1-3 years. The interest rate affects developments in household and enterprise debt as well as prices for assets such as dwellings and equities. A sharp rise in property prices and debt accumulation may be a source of instability in demand and output in the somewhat longer term.

## Financial markets and financial institutions

### Surveillance of financial stability

Norges Bank monitors developments in financial markets and financial institutions in order to identify trends that may weaken financial stability. Surveillance is focused in particular on:

- banks' earnings and financial strength, i.e. how well equipped banks are to deal with any losses
- banks' exposure to various types of risk, including developments in factors that affect the debt-servicing capacity of borrowers
- whether problems in one part of the financial system could potentially intensify and/or spread to other parts of the system.

Banks' risk of loan losses, credit risk, is an important part of the financial stability work. Assessments of the debt-servicing capacity of households and enterprises are therefore important. 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 consequences for enterprises' earnings and financial strength and for macroeconomic stability. Moreover, developments in enterprises' profitability will affect household income and job security.

Norges Bank's macroeconomic model contains key relationships for monitoring financial stability, including relationships for developments in household debt, house prices and the number of bankruptcies among enterprises. The model is used to assess developments in financial stability based on the forecasts published in Norges Bank's *Inflation Report*.

Norges Bank has developed a credit risk model (SEBRA) which is used to estimate bankruptcy probabilities for enterprises. In this model, bankruptcy probability depends on the enterprise's earnings, liquidity, financial strength, industry, size and age. Norges Bank uses accounts data from all Norwegian limited companies in this work. Kredittilsynet also applies the SEBRA model in its supervision of individual institution's loan portfolios.

Norges Bank also monitors banks' liquidity and market risk. A bank is liquid if it is able to meet its obligations as they fall due. Banks take short-term deposits and provide long-term loans. This makes them vulnerable when funding becomes tighter. Customer deposits, bond debt and short-term money market financing are important sources of funding. Liquidity risk analysis is very important since banks can incur substantial losses, for example if assets have to be sold at low prices in weak markets. Market risk is the risk of losses due to changes in market prices such as interest rates, exchange rates and equity prices. Market risk is rela-



tively low in Norwegian banks because holdings of equities and fixed income instruments are relatively small. Insurance companies have larger securities holdings and their risk exposure is thus higher than banks.

Norges Bank regularly analyses the functioning of financial markets and adaptation among financial institutions. The *Financial Stability* report is published semi-annually. The report contains an overall assessment of the outlook for financial stability, with special emphasis on the situation in and the outlook for banks. The conclusions in the report are summarised in a submission from the Executive Board to the Ministry of Finance. The report is also intended to foster dialogue with the financial industry and to increase awareness of and fuel debate on the importance of financial stability. In the report, Norges Bank focuses on developments in debt, asset prices and the debt servicing capacity of borrowers. Credit and liquidity risk are discussed in each report. Other types of risk, such as market risk, counterparty risk, settlement risk and operational risk are examined periodically. Developments in mortgage companies, finance companies and life insurance companies are also assessed. Many of these institutions are linked to banks through financial conglomerates.

The discussion of the various types of risk culminates in a qualitative assessment of risk. The designations low, relatively low, moderate, relatively high and high risk are used. An assessment is also provided of changes in risk since the previous report. In the overall assessment of the financial stability outlook, a discretionary assessment of the different types of risk is made. In the light of the structure of banks' exposures, considerable emphasis is placed on credit risk. The risk assessment may be different in the short and long term. For example, there may be situations where credit risk is low in the short term because of low interest rates and/or favourable economic developments. However, the same factors may lead to debt accumulation and rising asset prices, which may increase long-term risk.

In 2005, the *Financial Stability* report was assessed. This was a follow-up of a similar assessment conducted in 2003. Both assessments were conducted by an independent panel of three individuals. The results of the most recent assessment were presented to Norges Bank's Executive Board in November 2005. The panel's main conclusion was that the quality of the *Financial Stability* report was high and that the changes implemented since the previous assessment have further improved the report. The assessment is available on Norges Bank's website.

In Norges Bank's quarterly journal *Penger og Kreditt* (*Economic Bulletin*), articles were published in 2005 on currency hedging in enterprises, bankruptcy trends among enterprises, differences in unexpected loan losses for enterprises of various size, investors' preference for domestic securities and the IMF's stress testing of

the Norwegian financial sector. An analysis of whether developments in house prices, equity prices, investment and credit can provide warning of future banking crisis was also published. The regular analyses of financial stability are also enhanced by long-term competence development through Norges Bank's research activities (see section on research activities in Chapter 4).

## Financial stability in 2005

### Somewhat improved outlook for financial stability in the short term

Banks' results were solid in 2005. Capital adequacy declined somewhat, but financial strength remains satisfactory. Despite strong growth in household debt, the interest rate burden is low because interest rates are still low. The risk of higher losses on loans to households is therefore considered to be relatively low in the short term. With a high equity ratio and continued solid profitability in the corporate sector, the credit risk associated with loans to the corporate market is also considered to be relatively low. Banks' market risk and liquidity risk are also relatively low. On balance, the short-term outlook for financial stability is therefore regarded as satisfactory and has improved somewhat compared with the situation at the beginning of the year. The sharp rise in house prices and household debt, however, entail a risk of less stable economic developments in the longer term.

### Solid bank earnings

Banks' results were solid and improved further compared with results in 2004 (see Chart 28). This was largely due to very low loan losses and reduced operating costs. Low losses are a reflection of low interest rates and solid income growth in both the household and enterprise sectors. The reduction in costs is related to increased use of automated services. Banks' interest rate margin has fallen. This is due to strong growth in mortgage lending, where interest rate margins on average are lower than for corporate lending, lower risk premiums on corporate loans and increased competition. Solid performance and satisfactory capital adequacy mean that banks are well equipped to deal with a situation involving somewhat higher loan losses.

### Strong growth in household debt

There was a sharp rise in house prices and household debt in 2005. Twelve-month growth in household debt was 13.4% at the end of 2005 (see Chart 29). The debt to income ratio is higher now than at the end of the 1980s (see Chart 30). Households have also set aside capital through housing investment and investment in financial assets. Households' net financial assets as a share of disposable income (net financial wealth to



income ratio) have been relatively stable in recent years. A large portion of their financial assets consists, however, of group insurance reserves. Most of these reserves are illiquid and are not available when the household financial situation weakens. If insurance reserves are excluded, net financial wealth is negative.

An analysis of the household sector, based on data from Statistic Norway's income distribution survey, shows that income, debt and financial assets are very unevenly distributed among households. Low- and middle-income households have increased their debt most in relation to income over the 15 years to 2003. Banks' credit assessments are often based on a general rule that households should not borrow more than three times their pre-tax income. In 2003, 11% of households had debt that was higher, and this group accounted for 26% of total household debt. Even though households have built up their financial assets considerably over the last few years, households with a high debt burden account for a very small share of financial assets. This indicates that growth in financial assets in recent years has only marginally reduced the credit risk associated with the high rate of debt accumulation.

House prices have risen considerably in recent years, and in 2005 house prices were at a historically high level both in relation to house rents and building costs. House prices have also risen substantially in the past 10 years in relation to household disposable income. Calculations using an empirical house price model show that house prices were somewhat higher in 2005 than developments in fundamentals such as income,

interest rates, unemployment and housing starts alone could explain.

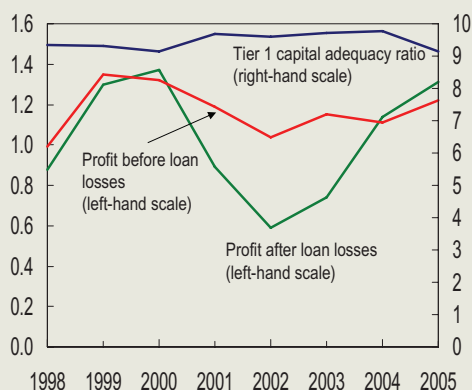
However, there is substantial uncertainty surrounding calculations of a fundamental value for house prices. The model does not capture the effects of all factors that may be important, such as very high share dividends and expectations of continued low interest rates. Experience shows that developments in the housing market have a considerable influence on lending growth and that the effects are long-lasting. Growth in household debt may therefore remain high for several years, even if the rise in house prices should taper off. The debt burden would then increase to a historically high level.

In the short term, households' financial position is sound. The interest rate is low and income is rising. A sharp rise in house prices has increased households' housing wealth, but has also led to high growth in debt. Since most borrowers have floating rate loans, the build-up of debt will lead to higher household interest expenses when the interest rate reaches a more normal level. The high household debt burden thus implies increased long-term risks to financial stability.

#### Solid corporate profitability

Enterprises' financial position is solid. Accounts figures for limited companies show that profitability improved in all industries from 2003 to 2004. Listed companies' profitability has been solid in 2005. Developments have been driven by high oil prices, increased demand, moderate wage growth and low

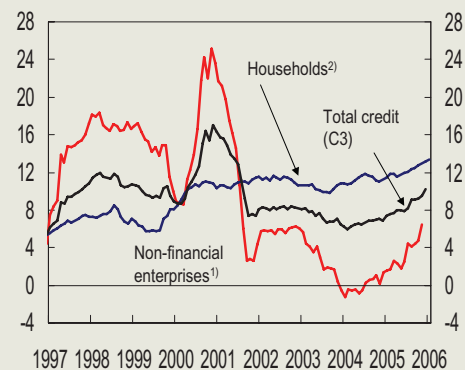
**Chart 28** Banks' Tier 1 capital adequacy ratio and pre-tax profit as a percentage of average total assets.<sup>1)</sup> Annual figures. 1998–2005



<sup>1)</sup> Excluding branches of Norwegian banks abroad

Source: Norges Bank

**Chart 29** Credit to mainland Norway. Per cent. Twelve-month growth. Jan 97–Dec 05



<sup>1)</sup> All foreign credit to mainland Norway assumed given to enterprises

<sup>2)</sup> Household domestic debt

Source: Norges Bank

interest rates. The favourable economic situation led to a further decline in the number of bankruptcies in 2005.

Risk-weighted debt, defined as bankruptcy probability multiplied by bank debt, provides a rough estimate of financial institutions' future losses. Both a decline in bank debt and a lower bankruptcy probability in key industries contributed to a reduction in risk-weighted debt in 2004.

On average, the equity ratio, both overall and for most industries, increased in 2004. The picture is somewhat more mixed when looking at the spread within each industry. In relation to equity, dividends have increased markedly in recent years. This has led to a reduction in the equity ratio of enterprises with medium and high equity ratios. Enterprises with a low equity ratio, on the other hand, have substantially increased their financial strength. Very high dividends in recent years are largely a result of adjustments to the introduction of dividend tax from fiscal 2005. A substantial portion of dividends is ploughed back into enterprises in the form of paid-in capital or loans.

High demand and solid profitability have contributed to boosting mainland business investment. The upswing in investment has largely been financed by enterprises' internal capital, but corporate borrowing also rose in 2005. Total year-on-year growth in credit to mainland enterprises was 6.5% at end-November 2005 (see Chart 29). In recent years, there has been a marked shift from foreign to domestic sources of funding. Lower interest rates in Norway compared with

other countries may be one explanation for this.

The risk associated with loans to the corporate market as a whole is relatively low and in the short term appears to be somewhat lower than one year earlier. In the longer term, factors such as a deterioration in competitiveness may reduce enterprises' profitability and their debt-servicing capacity. In addition, lower prices for oil and other export goods may weaken earnings in many industries.

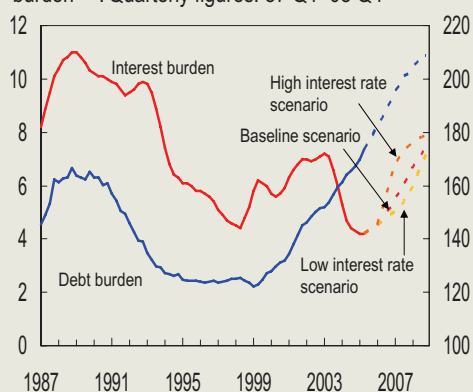
### Strong rise in Norwegian equity prices

Prices in the Norwegian equity market measured by the OSEBX rose 40% in 2005 (see Chart 31). The upswing on the Oslo Stock Exchange was broad-based. Enterprises in most sectors experienced a sharp increase in share prices. This was partly due to high oil prices, solid earnings and higher expectations of future earnings in listed enterprises. Empirical analyses show that oil price developments are an important driving force behind price developments on the Oslo Stock Exchange. Naturally, the correlation is strongest between oil price developments and the energy index, but there is also a positive correlation between oil prices and the majority of the Oslo Stock Exchange's sector indices.

### Strengthened financial stability globally

The conditions for global financial stability improved somewhat in 2005. Economic growth was solid in many countries. Both banks and enterprises recorded substantial profits. Equity prices in the US, Europe and

**Chart 30** Household debt burden<sup>1)</sup> and interest burden<sup>2)</sup>. Quarterly figures. 87 Q1–08 Q4

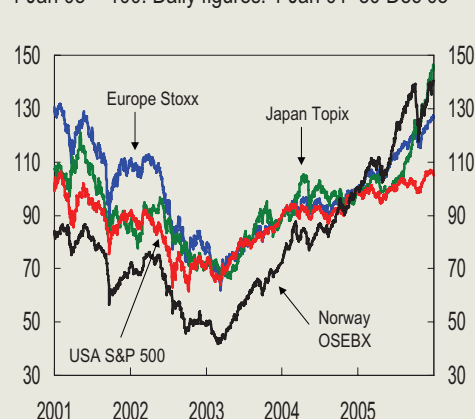


<sup>1)</sup> Loan debt as a percentage of liquid disposable income

<sup>2)</sup> Interest expenses after tax as a percentage of liquid disposable income (disposable income less return on insurance claims) plus interest expenses

Source: Norges Bank

**Chart 31** Developments in international equity indices. 1 Jan 05 = 100. Daily figures. 1 Jan 01–30 Dec 05



Source: EcoWin

Japan rose by 5%, 27% and 45% respectively in 2005. International long-term interest rates and real interest rates are still low.

The threat of global financial instability in the medium and long term is nevertheless somewhat more pronounced than at the beginning of the year. For example, house prices and household debt have increased substantially in many countries. A correction in the housing market could result in increased saving, lower economic activity and, after a period, higher loan losses in banks.

### **Financial market structure, financial market regulation and contingency planning**

The IMF assessed the Norwegian financial system in autumn 2004 and winter 2005 and evaluated compliance with international standards. The Ministry of Finance, Kredittilsynet and Norges Bank participated in the review process. The IMF's final report was published on 14 June. The main conclusion in the report was that Norway's financial system is solid and well managed and that short-term vulnerabilities are low. The IMF recommendations are summarised in a box.

The proposal for new capital adequacy rules for banks (Basel II) has been approved by the EU and will come into force on 1 January 2007. In Norway, the directives will be implemented as part of the EEA agreement from the same date. The CEBS (Committee of European Banking Supervisors) plays an important role in the implementation of banking directives. The CEBS shall contribute to consistent implementation of EU directives in member countries and encourage cooperation in the area of supervision so that supervisory practice becomes as consistent as possible. Norges Bank and Kredittilsynet have participated as observers in the CEBS since 2004.

In the Banking Supervision Committee, which comprises representatives of central banks and supervisory authorities in the EU, contingency planning and crisis management are important tasks. In general, the Committee shall promote cooperation between central banks and supervisory authorities and publish reports on stability in the EU banking system. Due to the close integration between banks domiciled in the EU and banks in the EEA countries, Norway and other EEA countries will be allowed to participate in the Committee's meetings when contingency planning and crisis management are being discussed.

Increased integration of financial markets in various countries requires closer cooperation on contingency planning and crisis management. The central banks and

supervisory authorities in the Nordic countries continue to cooperate on supervision and crisis management in relation to cross-border banks. There is increasing focus on this in the EU as well, cf. agreements between ministries of finance, central banks and supervisory authorities in member countries on cooperation in financial crisis situations.

In 2005, Norges Bank advised Kredittilsynet and the Ministry of Finance on a number of issues related to the regulation of financial markets. On 15 April, the Bank submitted a consultative statement concerning Kredittilsynet's proposal concerning the regulation of hedge funds. Hedge funds include many different types of funds with very different risk profiles and investment strategies. In its consultative statement, Norges Bank was positive to regulations that would pave the way for establishing hedge funds in Norway. Norges Bank believes that rules for mandatory information concerning the risks involved in investing in hedge funds and the fact that investors confirm in writing that they have received and understood the information provide investors with adequate protection.

The Banking Law Commission's report on compulsory occupational pensions was circulated for comment. In its consultative statement of 8 August, Norges Bank stated that the proposal concerning a law on compulsory occupational pensions is a satisfactory and straightforward solution. In its statement, Norges Bank focused on comparing defined contribution and defined benefit pension schemes and on the consequences of compulsory occupational pensions for financial stability and for labour and capital markets.

In 2001, the Banking Law Commission proposed a new regulation on bank liquidity based on qualitative liquidity requirements. On 22 August 2005, Norges Bank presented a submission to the Ministry of Finance stressing the importance of speeding up the deliberations on the proposal. In its submission, Norges Bank cites two conditions that indicate that the Ministry should now consider replacing quantitative requirements with qualitative requirements. First, in its recent FSAP report for Norway, the IMF pointed out problems related to the existing liquidity regulations for Norwegian banks. Second, Norges Bank has decided to change the rules for collateralisation of loans in Norges Bank. This change means that some banks must change their portfolio of securities pledged as collateral if they intend to continue using their borrowing facility at Norges Bank to comply with quantitative liquidity requirements.

## Main recommendations from the IMF FSAP assessment of Norway<sup>1</sup>

As part of the FSAP assessment, the IMF had meetings with Norwegian authorities (the Ministry of Finance, Kredittilsynet and Norges Bank) and a number of financial institutions and trade organisations. The IMF focused in particular on standards relating to banking supervision, insurance supervision and the payment system as well as measures to combat money laundering and the funding of terrorist operations. The assessment of Norway was generally positive. The conclusion was: "Norway's financial system appears sound, well managed, and competitive and shorter-term vulnerabilities appear low overall." Nonetheless, the IMF had a number of concrete recommendations, which are presented below.

### Key short-term stability-related issues:

- Continue monitoring developments in household debt and the housing market. Examine whether banks have concentrations of exposures to more vulnerable sub-groups of household borrowers.
- Given the reduced risk weighting of mortgages under Basel II, consider whether additional capital requirements should be required for banks under "Pillar 2".
- Continue to monitor the risk of spillovers, in extreme events, resulting from the two-tier payments arrangements, and examine the scope for increasing the use of collateral in interbank market exposures.
- In the securities settlement system (VPO), ensure that measures are taken to reduce market and liquidity risk in the event of a key bank failing to settle. In addition, in the retail payments system, examine the scope for shifting more payments from NICS Retail (Norwegian Interbank Clearing System) to Norges Bank's real time gross settlement system (NBO), and/or for introducing more settlement cycles in NICS Retail during the day.
- Continue working with other Nordic authorities on the evolving framework for cross-border crisis management and coordination of last-resort lending; and domestically, ensure appropriately coordinated contingency plans in the unlikely event of a major problem at the largest, partly state-owned bank.
- Formalise more regular high-level meetings between Kredittilsynet, the Ministry of Finance and Norges Bank on financial stability issues, and consider establishing a formal tripartite financial stability Memorandum of Understanding on respective roles and responsibilities.

### Key structural and longer-term issues:

- Re-examine key aspects of the deposit guarantee arrangements, including whether and how to achieve greater international comparability in coverage levels.
- Examine whether the clearing of medium and smaller interbank payments in NICS SWIFT netting could be phased out.
- Review the continued desirability of state ownership in DnB NOR. In the interim, consider further entrenching appropriate commercial autonomy and accountability for the bank through clearly specifying – in law, regulation or at least in a public policy statement – the principles that will be followed with respect to the government's relationship with DnB NOR.

### Refinements to supervisory arrangements and other technical recommendations:

- Increase the level of powers delegated to Kredittilsynet in respect of licensing and similar authorisations, and for issuing prudential regulations and supervisory decisions; strengthen and make more explicit some aspects of the regulations relating to, e.g., connected lending, treatment of insiders and enforcement measures; and complete the development of risk management guidelines for various other types of risk.
- Formalise and publish supervisory requirements and standards for payments and securities settlement systems. Formalise monitoring, in Norges Bank's Payment System Department, of NBO's compliance with standards.
- Further strengthen Norges Bank's risk management arrangements in relation to the collateral it accepts from banks.

<sup>1</sup> The recommendations are published on page 6 of the IMF Country Report No. 05/200, June 2005.





## Payment systems and means of payment

### Norges Bank's tasks and responsibilities

Section 1 of the Norges Bank Act states that the Bank shall: "...promote an efficient payment system domestically as well as vis-à-vis other countries..." The Payment Systems Act of 1999 gives Norges Bank a particular responsibility for authorising and supervising systems for clearing and settlement of interbank payment transactions. Thus, Norges Bank has both general responsibility for oversight of the payment system as a whole, as stipulated in the Norges Bank Act, and responsibility for authorising those parts of the payment system that carry out interbank clearing and settlement. Central banks focus on payment systems because they play a central role in the financial infrastructure and because they are a channel for monetary policy instruments.

Norges Bank works to promote more efficient and robust payment systems by:

- settling interbank claims and debts via the banks' accounts in Norges Bank
- monitoring the financial infrastructure through authorisation and supervision of interbank systems pursuant to the Payment Systems Act, including monitoring banks' risk in connection with participation in clearing and settlement systems
- publishing annual reports which present developments in the use of payment instruments in Norway and compare the efficiency and security of the

Norwegian payment system with developments in other countries

- facilitating the best possible link-up with international payment systems
- contributing to robust contingency arrangements for dealing with any problems when they arise.

### Norges Bank's settlement system

Interbank claims and liabilities arise as a result of banks' financial transactions, payment services and customers' positions in cash settlement of trading in equities, bonds and derivatives. Final settlement of these positions is made through entries in the banks' accounts in Norges Bank. Settlement in central bank money does not involve credit or liquidity risk. To contribute to the efficiency of these settlements, banks can take up loans in Norges Bank against collateral in the form of securities. A smoothly functioning settlement system is important for promoting financial stability. At the same time, the settlement system provides the central bank with an effective channel for transmitting interest rate signals in monetary policy.

Since 1 July 2001, banks have paid for Norges Bank's settlement services. The price structure consists of a connection fee for new participants, annual fees for participation in the various parts of the settlement system and a unit price for transactions that are sent to Norges Bank for settlement. Prices are normally adjusted on 1 January each year and announced by means of a circular from Norges Bank. Since 2001,

prices have been increased gradually each year with a view to reaching a price level in 2006 that fully reflects the costs incurred by Norges Bank in producing settlement services.

Norges Bank is responsible for managing government liquidity. This is handled through the central government's consolidated account system which is an integral part of Norges Bank's settlement system. The central government's liquid assets are placed in the government accounts in Norges Bank at the end of the day. The actual payment services for the central government were supplied by DnB NOR Bank and Nordea Bank Norge in 2005.

Like the banks, the central government, represented by the Ministry of Finance, pays Norges Bank for the services it performs for the government. As from 2006, the prices for these services shall also fully reflect Norges Bank's costs in producing them.

In 2003, Norges Bank entered into an agreement with ErgoIntegration AS (now ErgoGroup AS) concerning the operation and administration of IT systems associated with Norges Bank's settlement system. The actual IT operations were transferred in 2004. The agreement runs until 1 September 2007 with an option for Norges Bank to extend the agreement by another three years. In 2005, IT operations have generally been satisfactory and of the same quality as in preceding years.

In 2005, Norges Bank has continued its work to upgrade the settlement system. The reason for this is that the tasks handled by Norges Bank's settlement system have changed since the existing system solutions were developed, and that these systems are approaching the end of their technological life. The work to establish a new interbank settlement system is based on the following: the new system must be a standard system, communication with other systems must go through a very limited number of standardised, internationally recognised interfaces, and it must be possible to link the system to existing and future international settlement systems without extensive system adaptations. When establishing a new solution for the central government's consolidated account, the aim is to enter into an agreement with a supplier that offers consolidated account services.

The upgrading of the settlement system thus involves establishing separate system solutions for the interbank settlement system and the central government's consolidated account. Tenders for new solutions for these two systems were received from potential suppliers in 2005 in accordance with the Public Procurement Act. Negotiations with potential suppliers are expected to be completed early in 2006. A new system and operating solution for the government consolidated account is expected to be operational in autumn 2006. A new interbank settlement system is scheduled to be opera-

tional in 2008.

In upgrading the settlement system, Norges Bank has been in close contact with external users of the systems in question, including the banking industry and the Ministry of Finance. Norges Bank has also been in contact with other central banks that have recently procured or are in the process of procuring new settlement systems, including Sveriges Riksbank.

### **Risk in payment systems**

Participating in payment systems can expose banks to risk. The most important types of risk are credit risk, liquidity risk, legal risk and operational risk. One of Norges Bank's key tasks is oversight of the payment systems to ensure that banks' risk is not so high that financial stability is threatened.

Credit risk arises primarily if banks' credit customers before they receive settlement for a payment transaction themselves. In recent years, banks have switched to crediting customer accounts after they have received settlement. Therefore, credit risk associated with the payment system is considerably reduced.

Legal risk arises in the event of uncertainties in connection with rights and obligations of participants in the system. Since the entry into force of the Payment Systems Act, which sets requirements for agreements in payment systems that are subject to authorisation, Norges Bank regards legal risk to be limited.

Liquidity risk is associated with a shortage of liquidity if settlement is not executed as planned. Analyses conducted by Norges Bank show that banks generally have solid liquidity and that banks' liquidity risk is currently regarded as low.

Operational risk can arise as a result of deficient procedures, malfunctions in IT systems and telecommunications systems, breaches of rules, deception, fire, etc. It is the responsibility of the individual system operators to ensure that routines, back-up solutions, expertise and contingency plans are in place to deal effectively with operational risk. Norges Bank continuously assesses the need for measures in relation to systems that do not place sufficient emphasis on operational risk, and cooperates closely with Kredittilsynet.

### **Authorisation and supervision of interbank systems**

Act no. 95 of 17 December 1999 relating to Payment Systems, etc., entered into force on 14 April 2000. The objective of the Act is to ensure that interbank systems are designed with a view to promoting financial stability. Pursuant to the Act, Norges Bank is responsible for authorising and supervising systems for clearing and settlement of interbank payment transactions. In 2001, the Norwegian Interbank Clearing System (NICS), Union Bank of Norway and DnB were granted authorisation to operate interbank systems. These systems are

also subject to supervision.

In 2005, the authorisation work has continued along the same lines as in earlier years. The authorised operators shall report any significant changes in ownership, organisation or operations, etc. System stability is followed up by means of operating reports from the authorised operators. There is regular contact, and regular supervisory meetings are held.

In 2005, the authorised operators submitted their first reports after the expanded reporting requirements were established in summer 2004. The requirements are:

- A test of contingency plans covering all important elements of the interbank system shall be developed. Testing and follow-up shall be described in the report.
- An annual risk and vulnerability analysis shall be prepared. It shall contain an identification and assessment of sources of operational risk. Control measures shall be established for the sources of risk. These measures shall be documented.
- There shall also be procedures for making changes, which ensure that all changes concerning the interbank system are approved by the responsible authority before they are implemented. This shall be documented and an auditor shall certify compliance with the procedures for handling changes and non-conformities.

Norges Bank is satisfied with the new reporting but sees possibilities for further development.

In 2005, DnB NOR received an authorisation which replaced the individual authorisations previously granted to DnB and Union Bank of Norway in 2001. However, the new authorisation only applies from the date on which a new interbank system, replacing the earlier systems of each bank, becomes operational in the first half of 2006.

As from 2006, Norges Bank's settlement system will be subject to oversight and operational reporting in line with the clearing and settlement systems that are subject to authorisation.

#### **Follow-up of the IMF's recommendations on the payment system**

In its assessment of the Norwegian payment system, the IMF says in its FSAP report: "The infrastructure for payments is highly developed and efficient, and the systemically important RTGS<sup>8</sup> system, NBO, complies in full with the international standard."

In 2005, Norges Bank informed the banking industry and operators of payments systems that are subject to authorisation about the IMF's assessments. In connection with the new technical solutions in NICS, the banking industry has already decided to implement two of the IMF's recommendations: shifting large customer payments to NBO and phasing out the NICS-SWIFT

netting. Other recommendations and some minor comments concerning improvement measures are being discussed with the industry and the work will continue in 2006. With respect to securities settlement, the responsibility for oversight is divided between Kredittilsynet and Norges Bank. Together with Verdipapirsentralen ASA, these two institutions started work on evaluating improvement measures.

In 2006, Norges Bank will begin formal oversight of its own settlement system, in line with the IMF's recommendations. Gathering and updating previously published documents will make supervisory requirements and standards more easily accessible.

#### **Rules for pledging collateral for loans in Norges Bank**

Norges Bank extends loans to banks against collateral in the form of securities. These loans are provided in connection with the conduct of monetary policy and payment settlements. The collateral shall ensure that Norges Bank is not exposed to risk if a bank is unable to meet its obligations. The credit risk associated with the collateral should therefore be low and the collateral should be easily negotiable even in periods of financial turbulence.

In October 2005, Norges Bank made changes in the rules for banks' collateralisation of loans. The changes have been made primarily to limit Norges Bank's risk. When Norges Bank reintroduced the requirement for collateral for all loans in 1999, after the requirement had been suspended due to the banking crisis, it was uncertain as to whether banks had sufficient holdings of bonds that would satisfy the prevailing collateral rules. To ensure that banks' borrowing facilities were adequate, some bonds with higher credit and liquidity risk than had been approved earlier were now approved. For example, Norges Bank approved corporate bonds and bonds issued by Norwegian banks and mortgage companies as collateral. In recent years, however, banks' bondholdings have increased more than their borrowing needs in Norges Bank. In addition, the rules have been changed somewhat as a result of the fact that the new Act relating to financial collateral provides for immediate realisation of collateral if the bank declares bankruptcy. This means a considerable reduction of risk for Norges Bank, and paves the way for using market values combined with lower haircuts in calculating banks' borrowing facilities. This made it possible for Norges Bank to increase banks' borrowing facilities for securities pledged as collateral without increasing its own risk.

The most important changes in the new rules are:

- Norges Bank will calculate banks' borrowing facilities on the basis of market value rather than nominal value.
- The haircut rates for banks' collateral have been

<sup>8</sup> Real Time Gross Settlement



reduced on average from about 16% to slightly less than 8%.

- Credit rating requirements have been introduced for Norwegian corporate bonds. These bonds may only be used as collateral if they have a minimum rating of BBB- from Standard & Poor's or a Baa3 from Moody's.
- A minimum volume requirement of NOK 300 million has been introduced for bonds issued by Norwegian banks and mortgage companies owned by Norwegian banks. Bonds from loans with a lower volume will not be accepted as collateral for loans in Norges Bank.
- Further provision has been made for collateralisation of asset-backed bonds. Among other things, a bank may pledge such bonds as collateral even if it owns the mortgage company that issued the bonds.
- Norges Bank only accepts the upper tranche of bonds issued by Special Purpose Vehicles, and the bonds may not be linked to credit derivatives.

The new rules imply that some types of securities will no longer be accepted by Norges Bank as collateral. On the whole, banks' borrowing facilities have increased as a result of the transition to market values. Borrowing facilities for some banks will decrease, however, due to the new rules. A two-year transition period before some of the new rules enter into force has been introduced to give these banks time to adjust. Securities that were pledged as collateral when the new rules were introduced on 24 October 2005 may be used as collateral throughout the transition period. The Ministry of Finance has also announced that the quantitative liquidity requirement will be replaced by a general requirement stating that banks must have adequate liquidity to meet their obligations. This will limit small and medium-sized banks' needs to maintain borrowing facilities in Norges Bank. The new rules may also have consequences for bond issuers if the bonds they issue may no longer be used as collateral. However, the consequences of this are being limited by the fact that only a small share of the bonds in question were pledged as collateral in favour of Norges Bank's when the new rules were introduced.

#### **Developments in the use of various means of payment and payment instruments**

A modern economy with a large number of payment transactions makes considerable demands on the efficiency of the payment system. In Norway, the use of electronic payment services has been rising and the use of paper-based services has been falling for a number of years. In general, electronic services are less expensive to produce and allow payments to be executed more rapidly than paper-based services. These developments have contributed to increased efficiency in the

Norwegian payment system.

Norges Bank publishes the *Annual Report on Payment Systems* each year. The report discusses developments in the payment system and is an important part of Norges Bank's oversight of the payment system.<sup>9</sup> Norway's most rapidly growing payment service is online payment of bills. In 2004, the number of giros paid in this way rose from 102 million to 138 million. Electronic invoicing (eFactura) is also growing rapidly. This service provides simplified bill presentation and payment via the Internet. Increasingly fewer bills are paid by mail giro or over the counter in the bank. In 1995, 31% of all giro transactions were paid over the counter at the bank, whereas in 2004 the share of transactions had fallen to 8%. The use of payment cards in Norway is high by international standards. Card use has more than doubled in the last five years and this use is now largely electronic. In 2004, a total of 785 million card transactions were registered for goods purchases and ATM cash withdrawals. A steadily increasing number of operators are accepting cards as well, and at end 2004 there were more than 97 000 payment terminals in Norway that accepted both BankAxept and other types of payment cards.

Although list prices for a number of payment services have increased in recent years, the price for an average payment transaction has fallen. This is because over time customers have increasingly used the relatively less expensive electronic alternatives. The *Annual Report on Payment Systems* stresses the role of pricing in promoting an efficient payment system. In Norway, prices that reflect relative cost differences between various payment services have contributed to a more rapid transition from paper-based to electronic payment services and thus better utilisation of resources in this area of the economy.

In 2004, Norwegian banks began issuing payment cards based on new technology. The new cards are more difficult to copy and stolen cards are easier to deactivate. The new type of card is called a smart card, a chip card or an EMV card (based on international standards developed by Europay, MasterCard and Visa). Banks in Norway will issue smart cards with functionality for BankAxept and international cards in the card's chip. At the end of 2005, roughly 500 000 such cards had been issued in Norway. Payment terminals and ATMs have been shifted and upgraded to accommodate the new technology. In 2005, banks in Norway have also worked to promote a new coordinated payment service, BankAxept. The service will probably be introduced in 2006 and will be designed in particular for payments in connection with online shopping.

#### **International payment systems**

Cross-border payments are more resource-intensive to

<sup>9</sup> Since the statistics for 2005 are not yet available, the information below is from the report for 2004.



effectuate than domestic payments. Each country has its own payment system, so cross-border payments often involve several banks and payment systems as well as a range of manual tasks. Making these types of payments more efficient involves considerable challenges for banks.

Prices for cross-border payments are much higher than prices for domestic payments. The EU has introduced a regulation stating that prices for cross-border payments in euros shall not be higher than prices for similar domestic payments in euros.<sup>10</sup> The regulation was implemented in Norwegian legislation on 1 January 2005. Norges Bank has conducted a survey of prices to clarify whether this has reduced the cost of euro payments from Norway to the EU/EEA countries. The results are presented in the *Annual Report on Payment Systems for 2004* and show that prices for some services fell.

In December 2005, the EU Commission proposed a directive designed to introduce a new, modern, harmonised legal basis for an integrated payment market in the EU. In the opinion of the Commission, the proposal will enhance competition between national payment markets by opening up markets and ensuring a level playing field for all operators that satisfy the directive's requirements. The draft directive will also increase transparency for both payment service providers and users by means of a simplified and harmonised set of information requirements. The directive will apply to all EU countries and their currencies and will create a legal platform for the development of a Single Euro Payment Area (SEPA). The proposed directive must be considered relevant for the EEA.

#### **Contingency arrangements in the financial sector**

Norges Bank's work with contingency plans for the financial sector is related to its responsibility for promoting an efficient payment system, contributing to

financial stability and coordinating the Civil Defence and Emergency Planning System in the financial sector. This applies internally to the Bank's own systems, including Norges Bank's settlement system, and externally to the infrastructure of the financial sector and the discharging of Norges Bank's responsibilities under the Bank Guarantee Act.

Each financial sector participant has an independent responsibility to reduce the operational risk in its own activities. This responsibility includes developing stable operating systems, sound back-up and contingency plans and a robust financial infrastructure. The Contingency Committee for Financial Infrastructure was established in October 2000 to help optimise the coordination of contingency work among financial sector participants. The following institutions and operators are represented on the Committee: Kredittilsynet, the Norwegian Financial Services Association, the Norwegian Association of Savings Banks, the Banks' Payment and Central Clearing House (BBS), EDB Business Partner ASA and Verdipapirsentralen ASA (the Norwegian Central Securities Depository). The Ministry of Finance participates in the Committee as an observer. The Committee also has contacts with a number of other operators, including DnB NOR Bank ASA, Nordea Bank Norge ASA, the Norwegian Water Resources and Energy Directorate, the Norwegian Post and Telecommunication Authority and Telenor ASA.

Norges Bank chairs the Committee and provides a secretariat. The Committee's primary tasks are:

- to establish and coordinate measures to prevent and resolve crises that may result in major disruptions in the financial infrastructure
- to coordinate contingency work in the financial sector, including the Civil Defence and Emergency Planning System.

### **Conference on banking crisis resolution**

On 16-17 June, Norges Bank hosted a conference on "Banking Crisis Resolution – Theory and Policy". A number of internationally leading researchers and practitioners discussed the lessons learned from earlier banking crisis, the role of the authorities, liquidity support from the central bank and management of crises in cross-border banks. Norges Bank presented its experience from the Norwegian banking crisis (see Norges Bank's *Occasional Papers* no. 33, "The Norwegian Banking Crisis" (2004)).

The scope of banking crises has increased sharply since 1990. Since both the social and central government costs of such crises are considerable, it is important to resolve these crises so that the costs are limited and the threat of new crises is reduced. Both the authorities and academics are very interested in finding good solutions to crises. Ninety participants from some 40 countries participated in the conference.

The programme and presentations at the conference are available on Norges Bank's website, <http://www.norges-bank.no/konferanser/2005-06-16/program.html>

<sup>10</sup> Regulation (EC) No 2560/2001 of the European Parliament and of the Council on cross-border payments in euro implemented in Norwegian legislation by means of a change in Section 9 of the Financial Contracts Act of 1 January 2005 (Proposition no. 52 (2003-2004) to the Odelsting).

In 2005, the Contingency Committee for Financial Infrastructure discussed matters relating to the operating stability, risk and vulnerability of the financial infrastructure and reviewed contingency incidents, the testing of back-up solutions and contingency exercises. The Committee has conducted a contingency exercise on handling a situation where a bank was unable to meet its obligations in the payment system. At the initiative of the Committee, an appraisal is being conducted to determine which operators and functions in the financial infrastructure should have priority access to electricity supply and telecommunications in an emergency situation. The Committee has also been presented with relevant problems related to risk and vulnerability in the area of data communication and use of the Internet.

## Notes and coins

### Norges Bank's responsibility

Pursuant to the Norges Bank Act, Norges Bank is responsible for issuing notes and coins and promoting an efficient payment system. The responsibility for issuing notes and coins involves ensuring that a sufficient quantity of notes and coins is produced to meet the general public's needs for cash and to ensure that this cash is available. Banks order cash from Norges Bank and deliver surplus cash to Norges Bank. Similarly, the general public orders notes and coins, and turns over surplus cash to banks. Norges Bank thus supplies banks with cash, and the banks are responsible for supplying cash to the public. The central bank is also responsible for maintaining the quality of notes and coins in circulation by seeing to it that worn and damaged notes and coins are withdrawn from circulation and destroyed.

The central bank is also responsible for ensuring that cash functions efficiently as a means of payment. This means that notes and coins are equipped with security features that are difficult to copy and that make it easy for the public to differentiate between genuine and counterfeit notes and coins. One of Norges Bank's important tasks is therefore to inform the public about the characteristics and special security features of notes and coins.

In accordance with the Norges Bank Act, Norges Bank alone can issue notes and coins, i.e. function as debtor for issued notes and coins and decide the terms and conditions surrounding this. The other tasks can be performed by others, but Norges Bank must ensure that they are carried out, and that their execution is consistent with the requirements made by the central bank.

### Notes and coins in circulation

Following an increase in the average value of notes and coins in circulation in the 1990s, there was a slight

decline from 2000 until the end of 2003. This trend reversed in 2004, when the value of cash in circulation increased by more than 5%. In 2005, the value of cash in circulation rose further by approximately 5% and amounted to NOK 45.9bn.

The average value of notes in circulation was NOK 41.4bn in 2005, which is 5% higher than in 2004. The denominations of notes in circulation have remained virtually the same during the last year.

The average value of coins in circulation was NOK 4.5bn in 2005, an increase of nearly 5% compared with 2004. The 20-krone coin has increased its share of the coins in circulation at the expense of the 10-krone coin.

### Commemorative coins

In 2005, two commemorative coins were issued, a gold coin and a silver coin in commemoration of the centenary of the dissolution of the union between Norway and Sweden. The coins are the third and final pair in a series of six coins. The first pair was issued in 2003.

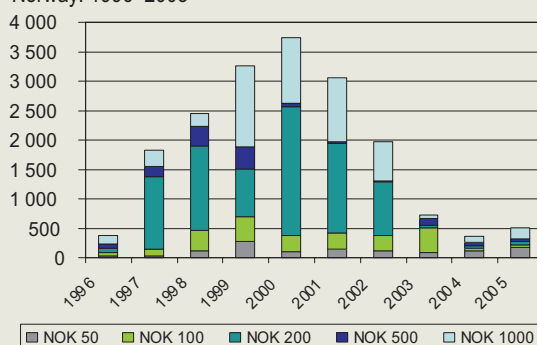
The commemorative coins were issued in cooperation with Hundreårsmarkeringen - Norge 2005 AS (Norge 2005) (The Centennial Celebration – Norway 2005 Ltd.), a company established by the Storting and reporting to the Ministry of Culture and Church Affairs. Norge 2005 was responsible for the official programme and for marketing and sale of the commemorative coins.

A total of 29 550 gold coins and 192 000 silver coins were sold. This is high compared with previous commemorative coin sales. Gross sales value was NOK 189.8m.

### Counterfeit money

From the mid-1990s, the number of counterfeit notes confiscated increased annually to a peak of 3064 in

**Chart 32** Number of counterfeit Norwegian banknotes in Norway, 1996–2005



Source: National Criminal Investigation Service (Kripos)

2000. This is attributable to an increase in the number of colour copying machines, scanners and printers. In the period from 2002 to 2004, Norges Bank upgraded the lower denominations of banknotes. The number of counterfeit notes has fallen since the upgrading and has been very low in the period 2003-2005 (see Chart 32), indicating that the metallic features in the upgraded notes have been effective.

### Organisation of cash handling

A limited company was established in July 2001 to handle cash – Norsk Kontantservice AS (NOKAS). Norges Bank's regional branches and cash-handling activities were incorporated into this company. The company that was established and owned by Norges Bank and private banks performs cash handling services and competes with other similar companies. In December 2005, the Executive Board decided to sell Norges Bank's ownership share. NOKAS performs services for Norges Bank and private banks. Norges Bank buys cash handling services related to central bank responsibilities and services associated with the management of central bank depots.

In 2004 and 2005, Norges Bank assessed its role in cash distribution with a view to optimising the division of responsibility between the various participants and achieving a clearer distinction between different types of services. The central bank also wants to have a wholesaler role in cash distribution so that the further distribution of cash is handled by banks based on their needs.

To achieve this, changes were made in the terms for banks' cash deposits in and withdrawals from Norges Bank in 2005. In addition, following a consultative round with the banking associations, Norges Bank introduced an arrangement whereby banks could establish private cash depots. Such depots may be established on the basis of banks' own needs and Norges Bank can, based on given conditions, pay compensation in the form of interest for cash held in banks' own depots. At the end of 2005, five private cash depots had been established in Norway and by 15 February 2006 the number had increased to twelve.

Due to the introduction of the compensation scheme and to contribute to the realisation of Norges Bank's role as wholesaler, the number of central bank depots

was reduced in 2005. The depots in Bodø, Hammerfest, Kristiansand, Larvik, Lillehammer and Vardø were closed. At the end of 2005, Norges Bank had depots in Bergen, Oslo, Stavanger, Tromsø and Trondheim.

### Costs

The costs associated with Norges Bank's role as issuer consists of production costs for new notes and coins, the costs of maintaining the quality of notes and coins in circulation and the costs of distribution to banks. The costs of maintaining the necessary quality are related to the destruction of damaged, worn and invalid notes and coins. Distribution involves transport to the central bank's depots, storage and providing services in connection with delivery to and receipt from banks.

Table 2 shows developments in Norges Bank's cash handling costs from 2003 to 2005. Production costs will vary from year to year, due in part to fluctuations in production volume and to variations in the denominations produced. Replacements in note and coin series may lead to considerable variations in volumes. The more sophisticated security features in the newest note series have also increased the unit costs of these notes in relation to earlier series.

The table shows a decline of NOK 25.4m in total costs for the distribution of notes and coins. The decline is primarily due to a reduction in distribution costs of NOK 24.6m from 2004 to 2005. There is no change in the principle that banks cover handling costs for notes that are recycled and that the central bank covers similar costs for worn notes that are to be destroyed. However, the central bank has adjusted the conditions for deposits in and withdrawals from Norges Bank in order to achieve a more efficient division of responsibility among the market participants in cash distribution. In order to further clarify central bank services, Norges Bank started billing banks directly for handling costs in 2005. The banks were previously billed for these costs by NOKAS. The reduction in the number of central bank depots from 11 to five in 2005 also contributes to explaining the reduction in distribution costs. Costs in connection with the production of notes and coins were virtually unchanged compared with 2004.

**Table 2 Norges Bank's cash handling costs. In millions of NOK**

	2003	2004	2005
Total costs for production of notes at NB Printing Works*	45.0	48.7	48.1
Costs for purchase of coins	38.1	26.4	26.2
Total production costs	83.1	75.1	74.3
Costs of central administration and transport*	15.3	17.6	16.6
Purchase of external depot and processing services	51.5	49.1	49.2
Handling fees, deposit and withdrawal of cash**			-23.7
Total distribution costs	66.8	66.7	42.1
Total costs	149.9	141.8	116.4

\* The figures in the table do not include house rents and joint overheads.

\*\* Billed by Norges Bank as from 2005.

## Chapter 3 Investment management

At the end of 2005, Norges Bank managed assets worth NOK 1 658bn in international capital markets. The bulk of this was the Government Pension Fund – Global (formerly the Government Petroleum Fund), which is managed on behalf of the Ministry of Finance, and the Bank's international reserves. The Bank also manages the Government Petroleum Insurance Fund on behalf of the Ministry of Petroleum and Energy. Norges Bank's international reserves comprise foreign exchange reserves and claims on the International Monetary Fund (IMF). The foreign exchange reserves accounted for more than 95% 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 and claims on the IMF

The market value of the foreign exchange reserves, after deductions for borrowing in foreign currency, was NOK 252.6bn at the end of 2005. The foreign exchange reserves shall be available for interventions in the foreign exchange market in connection with the implementation of monetary policy or to promote financial stability. Norges Bank's Executive Board lays down guidelines for the management of the foreign exchange reserves and has delegated responsibility to the Governor for issuing supplementary rules. The reserves are divided into a *money market portfolio* and an *investment portfolio*. In addition, a *buffer portfolio* is used for the regular foreign exchange purchases for the Government Pension Fund - Global.

The investment portfolio accounts for the largest portion of the foreign exchange reserves, and at end-2005 amounted to NOK 211.5bn. In 2005, new capital was added to the portfolio through transfers of NOK 2.2bn from the money market portfolio and NOK 1.0bn from the Government Pension Fund – Global as remuneration for the Bank's management of the Fund in 2004.

The investment portfolio has a wide geographic spread and the duration (interest rate risk) on the fixed income portion is the same as the duration in the bond market. The management objective is a high return in the long term, but it should also be possible to use the portfolio for monetary policy purposes or to promote financial stability if this is considered necessary.

The main strategy for both the investment portfolio and the money market portfolio is defined by means of benchmark portfolios. These are constructed portfolios with a given country or currency distribution and with specific securities or fixed income indices in various markets or currencies. The benchmark portfolio

provides the basis for managing and monitoring risk exposure and for evaluating the actual return achieved in reserves management.

In May 2005, the Executive Board decided to make some changes in the operational framework for the investment portfolio. The purpose was partly to simplify day-to-day management and partly to provide opportunities for achieving a somewhat higher return by expanding the investment universe. Following these changes, the list of countries and currencies in which the investment portfolio may be invested is substantially larger. In addition, the minimum credit rating requirement for fixed income instruments has been abolished, and commodity contracts are now permitted. The Executive Board has introduced more extensive requirements for the operational management to compensate for this increased flexibility.

In November 2005, the Executive Board decided to increase the equity portion of the investment portfolio from 30% to 40%. The equity portion was last assessed in July 2002. The portfolio has grown since then, and Norges Bank currently has large reserves compared with what is needed to meet both short- and long-term intervention requirements. This means that more emphasis can now be placed on wealth management. In isolation, a larger equity portion will increase the Bank's risk. The Executive Board has also made changes in the regional distribution which will contribute to reducing risk. Taking into account that inflation-linked bonds were included in the portfolio in 2004, there are only small changes in the risk profile of the new benchmark. Norges Bank's balance sheet capital is now considerably larger than it was in 2002, so the Bank's risk-bearing capacity has increased.

The Executive Board has also decided that the maximum ownership interest in a single company shall be 5% of the voting shares. Ownership interest refers to investments in equity instruments that allow the owner or a proxy to exercise voting rights in companies. It also refers to contracts that allow the holder to achieve such an ownership position. Norges Bank's investments are not strategic but are purely financial.

If combined holdings in the foreign exchange reserves and the Government Pension Fund - Global exceed 5%, a separate report must be submitted to the Executive Board. The Executive Board has laid down common guidelines for the exercise of ownership rights in the two funds.

The entire equity portion and more than 90% of the fixed income portion of the investment portfolio is managed internally in Norges Bank. The remainder of the fixed income portfolio is managed externally.



An upper limit has been set for the actual portfolio's deviation from the benchmark. A measure of overall risk (expected tracking error) is the limit set for the investment portfolio. In practice, this means that the difference between the return on the actual portfolio and the return on the benchmark portfolio will normally be small. The upper limit for expected tracking error is 1.5 percentage points. In 2005, 0.2 percentage point of this risk quota was used on average. If the risk remained constant at this level, the actual difference between the returns on the benchmark and the actual portfolio could be expected to be between -0.2 and +0.2 percentage point on average in two out of three years. It is then assumed that the management organisation is not more competent than the average of other managers.

The return on the investment portfolio for 2005 was 9.08% measured in terms of the currency basket that corresponds to the composition of the benchmark portfolio. Measured in NOK, the return was 12.30%. The difference is due to the depreciation of the Norwegian krone in relation to the benchmark's currency basket. The portfolio outperformed the benchmark by 0.35 percentage point.

The money market portfolio is invested in short-term money market instruments, primarily secured lending to approved international banks. The size of the money market portfolio can normally vary between NOK 2 billion and NOK 7 billion. It shall be invested in such a way that it can be used at short notice as a monetary policy instrument or to promote financial stability. The money market portfolio is also used to execute transactions on behalf of the IMF and to carry out foreign exchange transactions on behalf of the Government Petroleum Insurance Fund. Towards the end of March 2005, the upper limit of NOK 7bn was temporarily exceeded as a result of foreign exchange purchases to cover premiums paid to the Government Petroleum Insurance Fund. At end-April 2005, an amount equivalent to NOK 2.2bn was therefore transferred to the investment portfolio.

In autumn 2005, a number of countries made extraordinary debt repayments to the IMF. As a result, Norway's reserves position in the IMF was reduced, and the value of the money market portfolio increased correspondingly, so that the effect on Norges Bank's international reserves was virtually neutral. However, as a result of the transactions with the IMF, the money market portfolio again exceeded the upper limit. The Governor issued a temporary dispensation, and on 8 February 2006, the Executive Board decided to increase the upper limit to NOK 10bn. At the end of 2005, the size of the money market portfolio was NOK 8.9bn.

The return on the money market portfolio in 2005 was 2.71% measured in terms of the benchmark

currency basket. Measured in NOK, the return was 7.08%. The difference is due to the depreciation of the Norwegian krone against the benchmark currency basket in 2005. The portfolio outperformed the benchmark by 0.13%.

The buffer portfolio receives capital when the State's Direct Financial Interest in petroleum activities (SDFI) transfers gross income in foreign currency to Norges Bank. At times, Norges Bank also purchases foreign currency directly in the market in order to cover the amount that is to be transferred to the Government Pension Fund - Global. The procedure for these foreign exchange purchases is described in more detail in Chapter 5. Since only cash is transferred to the Government Pension Fund - Global, the buffer portfolio is invested exclusively in money market instruments. At the end of 2005, the size of the portfolio was NOK 24.1bn. Capital is normally transferred from the buffer portfolio to the Government Pension Fund - Global at the end of each month, except in December when no transfer is made. This means that at year-end the portfolio will normally be larger than the average value at other month-ends (after transfers). The return on the buffer portfolio, measured in NOK, was 7.22% in 2005.

Claims on the IMF consist of three components: SDR (Special Drawing Rights), reserve positions in the IMF and loans to the IMF (Poverty Reduction and Growth Facility - PRGF). Norges Bank's aim is to keep the SDR reserves at between SDR 200m and SDR 300m. At end-2005, holdings amounted to SDR 215m, equivalent to NOK 2 075m. Reserves in the IMF amounted to NOK 2 037m. This was a decline of NOK 3 212m in the course of 2005. This is mainly because a number of countries made extraordinary debt repayments to the IMF, (see above). Norges Bank's share of the IMF's Poverty Reduction and Growth Facility (PRGF) was SDR 42m, equivalent to NOK 403m.

### **Government Pension Fund - Global**

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

At the end of 2005, the market value of the Government Pension Fund - Global was NOK 1 399bn, before deduction of Norges Bank's management fees. In 2005, the Ministry of Finance transferred a total of NOK 221.3bn to the Fund. As a general rule, the transfers are made at the end of each month.

The Ministry of Finance has established a strategic

benchmark portfolio of equities and fixed income instruments. The benchmark portfolio consists of equity indices for 27 countries and fixed income indices in the currencies of 21 countries. In 2005, the fixed income portion was expanded to include inflation-linked bonds. The benchmark expresses the principal's investment strategy for the Government Pension Fund - Global. The strategy is 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.

In 2005, the return on the Government Pension Fund - Global was 11.09% measured in terms of the benchmark portfolio's basket of currencies. It is this measure of return that best describes developments in the Fund's international purchasing power. Measured in NOK, the return on the Fund was 14.28%. Measured in terms of the Fund's currency basket, the return on the equity portfolio was 22.49%, while the return on the fixed income portfolio was 3.82%.

Measured over the nine calendar years since capital was first transferred to the Fund's international portfolio, the annual nominal return has been 6.34% measured in terms of the Fund's basket of currencies. The net real return after deductions for management costs has been 4.48% annually.

The actual return in 2005 was 1.10 percentage point higher than the return on the benchmark. The excess return on the fixed income portfolio was 0.37 percentage point and the excess return on the equity portfolio was 2.24 percentage point.

Norges Bank's wealth generation through management may be calculated by comparing the actual return with the return that could have been achieved by simply replicating the benchmark portfolio. Both costs and returns have been higher than would have been the case with passive management. In 2005, estimated net value added by active management was 1.05 percentage point, or NOK 11.4bn. Over the past eight years, total net value added by active management has been NOK 24.2bn.

A more detailed account of management in 2005 is presented in the Annual Report of the Government Pension Fund - Global.

#### **Government Petroleum Insurance Fund**

The market value of the Government Petroleum Insurance Fund at the end of 2005 was NOK 14.2bn. The Fund is owned by the Ministry of Petroleum and Energy and its purpose is to provide support for the government's role as self-insurer of ownership interests in petroleum activities. The Fund is managed by Norges Bank. In 2005, the return was 4.28% measured



in terms of the currency basket corresponding to the composition of the Fund's benchmark portfolio. Measured in NOK, the return was 6.63%. This was 0.14 percentage point higher than the return on the benchmark portfolio.

#### **Research**

In addition to managing the portfolios, Norges Bank also conducts studies and research in the area of investment management. The purpose of the research work is to provide the Executive Board with a sound basis for decision-making when setting the framework conditions for management of the foreign exchange reserves. Thorough analyses are also an important precondition for providing sound advice to the Ministry of Finance and the Ministry of Petroleum and Energy concerning investment strategies and management regimes for the Government Pension Fund - Global and the Government Petroleum Insurance Fund. The relationship between the Ministry of Finance and Norges Bank in connection with the advisory work related to the Government Pension Fund's strategy is set out in a separate agreement. The agreement specifies, for example, how costs for advisory work are to be distributed between the two institutions. Norges Bank's research related to investment management is described in Chapter 4.



## Chapter 4 Research and international cooperation

### Research in 2005

Research at Norges Bank provides part of the basis for the Bank's decisions. Research is carried out in the fields of monetary policy, financial stability and investment management. Monetary policy research focuses in particular on the functioning of the Norwegian economy, the formulation of monetary policy strategy and the properties of the monetary policy regime. Research on financial stability and investment management focuses on credit markets, the behaviour of financial institutions, portfolio management and the functioning of equity markets. Research activities at Norges Bank are presented on the Bank's website.<sup>11</sup>

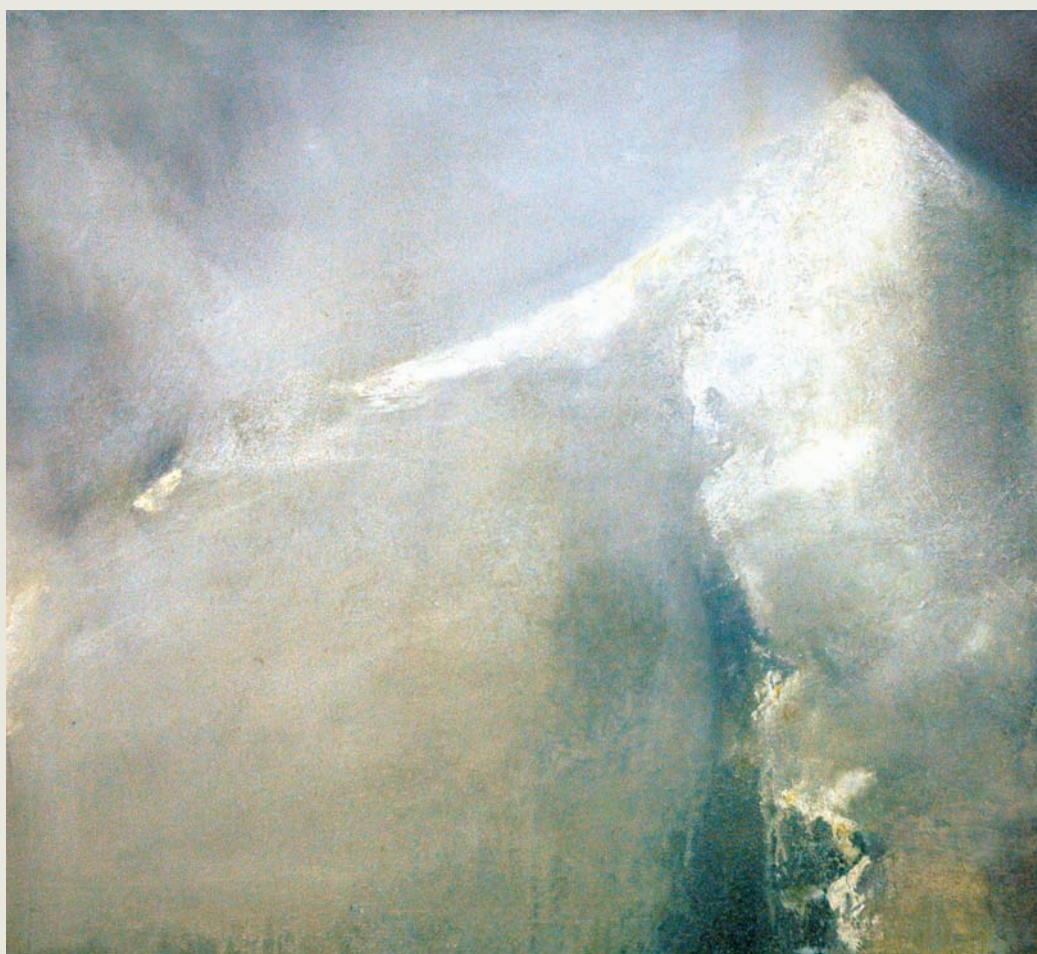
It is the Bank's aim that research shall reflect Norwegian economic conditions, have a firm basis in the international and Norwegian research community and maintain the standard required for publication in international or national journals where researchers' articles are reviewed by their peers in the field.

Employees of Norges Bank published 15 articles in peer-refereed journals in 2005.

Publication of articles is often a lengthy process, and the list of published works includes articles on research carried out several years ago. Ongoing research activity is documented in the Bank's *Working Papers* series. In 2005, 16 papers were published in this series and are available on Norges Bank's website. *Norges Bank Working Papers* are also available through the internet portals Research Papers in Economics (RepEc) and the BIS Central Bank Research Hub.

### Prize for best article

Researcher Qaisar Farooq Akram was awarded the Association of Norwegian Economists' prize for the best article in the association's journals (*Økonomisk Forum* and *Norsk Økonomisk Tidsskrift*). The title of the article is "En effisient handlingsregel for bruk av



<sup>11</sup> <http://www.norges-bank.no/english/research>

## Research papers published in external publications in 2005

- Akram, Q. Farooq (2005): "Multiple unemployment equilibria and asymmetric dynamics - Norwegian evidence". *Structural Change and Economic Dynamics*, vol. 16, pp. 263–283
- Akram, Q. Farooq (2004): "En effisient handlingsregel for bruk av petroleumsinntekter" (An efficient fiscal rule for the use of petroleum revenues), *Norsk Økonomisk Tidsskrift*, vol. 119, pp. 91–11
- Bauwens, Luc, Dagfinn Rime and Gennaro Sucarrat. (2005): "Exchange rate volatility and the mixture of distribution hypothesis". *Empirical Economics*, (October), pp. 1–23
- Bernhardsen, Tom, Øyvind Eitrheim, Anne Sofie Jore and Øistein Røisland (2005): "Real time Data for Norway: Challenges for monetary policy", *North American Journal of Economics and Finance*, 16, pp. 333–49
- Bjønnes, Geir H. and Dagfinn Rime (2005): "Dealer behavior and trading systems in foreign exchange markets". *Journal of Financial Economics*, vol. 75, issue 3 (March), pp. 571–605. Also published as *Reprints* No. 69, Norges Bank.
- Bjønnes, Geir H., Dagfinn Rime and Haakon O.Aa. Solheim (2005): "Liquidity provision in the overnight foreign exchange market". *Journal of International Money and Finance* vol. 24, issue 2 (March), pp. 177–198. Also published as *Reprints* No. 68, Norges Bank.
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- Bårdsen, Gunnar, Øyvind Eitrheim, Eilev S. Jansen and Ragnar Nymoen (2005): "The econometrics of macroeconomic modelling", in *Advanced Texts in Econometrics*, Oxford University Press.
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- Matsen, Egil and Øistein Røisland (2005): "Interest rate decisions in an asymmetric monetary union". *European Journal of Political Economy*, 21 (2)
- Matsen, Egil and Ragnar Torvik (2005): "Optimal Dutch disease". *Journal of Development Economics*, 494–515
- Røisland, Øistein (2005): "Should Central Banks Care About Regional Imbalances?" *Scottish Journal of Political Economy* 52, p. 242–260
- Røisland, Øistein and Tommy Sveen (2005): "Pengepolitikk under et inflasjonsmål" (Monetary policy under an inflation target), *Norsk Økonomisk Tidsskrift* 119 (2005), 16–38
- Sveen, Tommy and Lutz Weinke (2005): "New perspectives on capital, sticky prices, and the Taylor principle". *Journal of Economic Theory*, vol. 123, 1 (July), pp. 21–39

petroleumsinntekter" (An efficient fiscal rule for the use of petroleum revenues), and it was published in *Norsk Økonomisk Tidsskrift* no. 2 in 2004. The article considers how much of its petroleum revenues Norway should spend while at the same time minimising the costs of spending them. The costs in question are associated with sectoral adjustments that cannot be maintained and have to be reversed in order to avoid internal and external imbalance in the economy. The real exchange rate plays a central part in bringing about such sectoral adjustments. It reflects the level of use of petroleum revenues, among other things. The rate of expenditure of petroleum revenues that causes the least fluctuation in the real exchange rate and sectoral composition is designated the "efficient consumption rate". Akram quantifies this rate as 1% of total petroleum wealth.

### Participation in the research community

A number of research projects have been presented at Norwegian and international conferences and seminars, at which Norges Bank's researchers have also contributed with commentaries. In 2005, the researchers were also involved in organising research conferences, one of them under the auspices of the Basel Committee. The Bank's researchers also contributed to student guidance, teaching, assessment of PhD candidates, book reviews and acted as referees for national and international journals and publishers.

In 2005, a total of 13 researchers from various schools of economics in Norway (12) and abroad (1) worked at Norges Bank on part-time contracts. These researchers work with the Bank's regular staff and enhance the research environment at Norges Bank.



As a member of the international research community, Norges Bank has extensive contact with researchers at universities and other central banks. This is important to maintaining a high professional standard of research and ensuring the best possible basis for the Bank's decisions. As a result, researchers visit Norges Bank to present their research findings and take part in seminars arranged by the Bank where the Bank's staff present their own papers.

Norges Bank arranges conferences on economics where it can present its own results and learn from others. In 2005, the Bank held conferences on Economic Models at Central Banks, the Microstructure of Equity and Currency Markets, and Historical Monetary Statistics for Norway. These are discussed briefly below. The presentations are available on Norges Bank's website.

Norges Bank's monetary policy conference in 2005

was devoted to Economic Models at Central Banks. The subject reflected the fact that several central banks have developed new forecasting and policy analysis models. Speakers came from the Federal Reserve, Sveriges Riksbank, the ECB and the Bank of England. Norges Bank presented its Norwegian Economy Model (NEMO).

In recent years, Norges Bank has been actively researching the microstructure of securities markets. Much of the research in this field is currently focused on the interplay between the market's microstructure and long-term factors such as pricing and market development and structure. These developments have made microstructure relevant for a number of Norges Bank's core responsibilities. In September, Norges Bank and the Norwegian School of Management BI arranged a conference at which leading researchers from all over the world presented both theoretical and

### Visiting researchers to Norges Bank in 2005

- Philippe Bacchetta, The Study Center Gerzensee
- Allen Berger, Board of Governors of the Federal Reserve System
- Espen Eckbo, Tuck School of Business at Dartmouth
- Michael Ehrmann, ECB
- Barry Eichengreen, University of California, Berkeley
- Martin Evans, Georgetown University
- Jeffrey C. Fuhrer, Federal Reserve Bank of Boston
- Jordi Gali, Universitat Pompeu Fabra
- Nils Gottfries, Uppsala Universitet
- Yakov Ben Haim, Israel Institute of Technology
- Bård Harstad, Northwestern University
- Dale Henderson, Board of Governors of the Federal Reserve System
- Espen Henriksen, Carnegie Mellon University
- Lars Jonung, European Commission
- Timothy Kehoe, University of Minnesota
- Hans-Martin Krolzig, University of Kent
- Alfred Lehar, University of Vienna
- Anna Lindahl, Sveriges Riksbank.
- Jesper Lindé, Sveriges Riksbank
- Michael Melvin, Arizona State University
- John Moore, London School of Economics
- Ibolya Schindele, Norwegian School of Management BI
- Pierre L. Siklos, Wilfrid Laurier University
- Frank Smets, ECB
- Tommy Stamland, Norwegian School of Economics and Business Administration (NHH)
- Ross Starr, University of California, San Diego
- Paul Söderlind, University of St. Gallen
- Hui Tong, Bank of England
- Anders Vredin, Sveriges Riksbank
- Min Wei, Federal Reserve Board

empirical research associated with equity and currency markets. This was the first time a central bank arranged a conference on microstructure. In the aftermath of the conference, the Bank of Canada has taken the initiative for a follow-up conference in 2006, which Norges Bank staff will also be involved in arranging.

The conference “Historical Monetary Statistics for Norway”, which was held at Bogstad Gård in Oslo on 7 June 2005, was Norges Bank’s contribution to the centennial of the dissolution of Norway’s union with Sweden in 2005. Mr Westye Høegh, chairman of the board of the Bogstad Foundation (family representative of the last private owners of Bogstad Gård) had kindly made the location available to the Bank. The speeches given at the conference were published in *Norges Bank Occasional Papers 37* “Tilbakeblikk på norsk pengehistorie” (Perspectives on the history of Norwegian money). The aim of the project is to encourage the use of a long-term historical perspective in economic policy analysis. The underlying data can be downloaded from Norges Bank’s website. The data are updated regularly, and supplementary documentation of revisions and new series will be published as the series become available.

### Support for economic research

Norges Bank supports economic research through a number of channels. Norges Bank helps to increase the focus on macroeconomics and monetary policy issues through a sponsored professorship at the University of Oslo. Norges Bank’s Fund for Economic Research provides financial support for researchers spending time abroad, for participation in international conferences, for presentation of research work and for the arrangement of research conferences in Norway.

In 2005, the Fund decided to present an award for the best doctoral thesis in macroeconomics in the period 1 May 2001 to 30 April 2004 to Espen Villanger, at Christian Michelsen’s Institute. Villanger, who did his doctorate at the Norwegian School of Economics and Business Administration, received the award for his dissertation “Fighting Poverty: Company Interests and Foreign Aid Policy, and an Impact Analysis of Natural Disasters”.

### International cooperation

In addition to international cooperation in the field of research, there is extensive contact and cooperation between Norges Bank and other central banks and international organisations.

#### Other central banks

Norges Bank collaborates extensively with the other Nordic central banks. The annual meeting of the

Nordic central bank governors was hosted by Norges Bank on Svalbard. Subjects discussed included safety and contingency planning. Staff from various departments of the central banks meet regularly to discuss issues relating to economic analysis, monetary policy, financial stability, payment systems, legal matters concerning central banks, personnel policy, etc.

Norges Bank has regular contact with the ECB and a number of central banks in EU countries. In 2005, members of Norges Bank’s staff were seconded to both the ECB, in Frankfurt, and the Bank of England. This arrangement provides an opportunity for staff to work at these institutions, normally for periods of 12 months.

#### International organisations

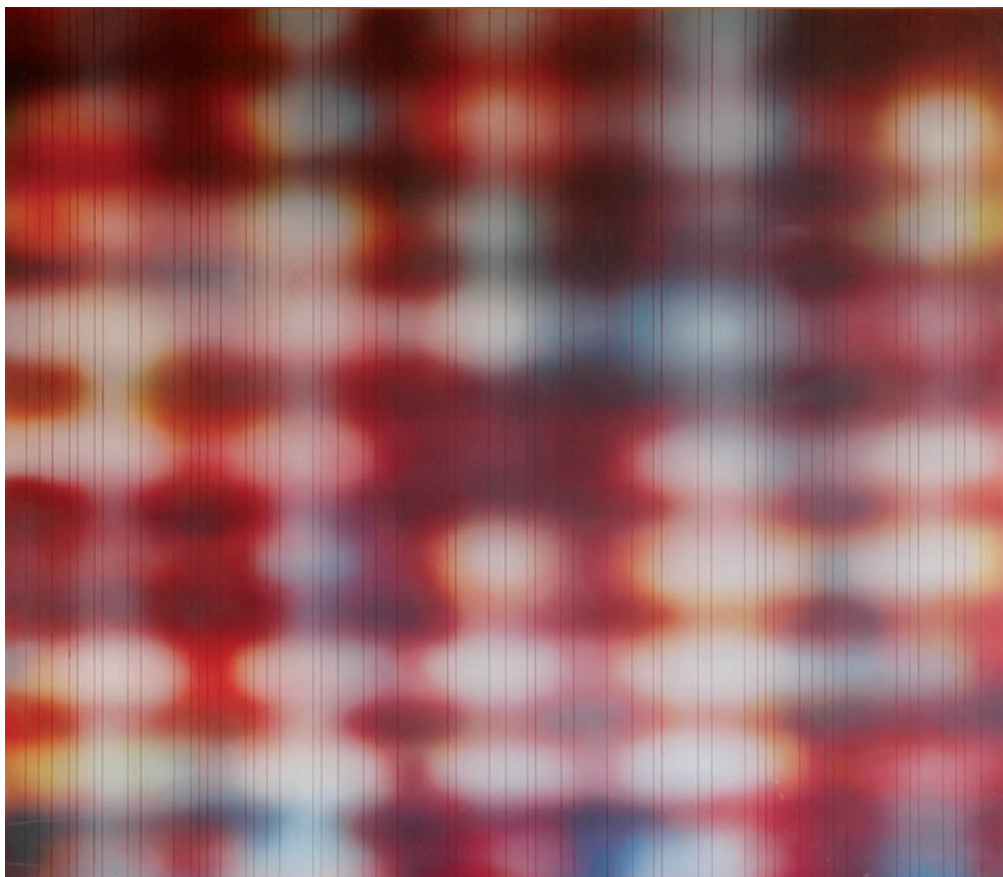
Norway’s small, open economy is heavily influenced by international conditions. Norges Bank therefore places considerable emphasis on taking part in and maintaining contact with international economic organisations.

Norges Bank is one of the owners of the Bank for International Settlements (BIS), whose task is to foster cooperation between central banks. In addition to providing banking services for central banks, the BIS is a research body and serves as a discussion forum for member banks. The Governor of Norges Bank regularly attends meetings of the BIS.

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 has been commissioned by the Ministry of Finance to serve as secretariat for IMF work in Norway. 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.

The Government’s annual credit report to the Storting provides a detailed account of IMF activities.

The highest decision-making body in the IMF is the Board of Governors. Norway is represented by the Governor of Norges Bank, Svein Gjedrem, and the Secretary General of the Ministry of Finance, Tore Eriksen, is his 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. In the period 2004-2005, Jon A. Solheim from Norway was the executive director of the constituency. The Nordic and Baltic countries also have a joint representative on the International Monetary and Financial Committee (IMFC), which is an advisory body for the Executive Board. The



Committee meets twice a year. The Norwegian Minister of Finance was the constituency's representative in the period 2004-2005. The country in the constituency 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. Thus, Norway had this responsibility in the period 2004-2005.

IMF activity is particularly focused on monitoring economic developments in member countries, with particular emphasis on macroeconomic conditions and financial stability. The primary emphasis is on bilateral surveillance through the Article IV consultations, which take place annually for most countries. The Norwegian authorities have indicated to the IMF that they would not object to intervals of two years between Article IV consultations with Norway, provided there were no special circumstances indicating that annual consultations were necessary.

The most recent annual Article IV consultation with Norway was conducted 7-15 March 2005. The IMF delegation's preliminary conclusions were published on 15 March.

In cooperation with the World Bank, the IMF established the "Financial Sector Assessment Program" (FSAP) in 1999 to assist countries in identifying and rectifying structural weaknesses in their financial sec-

tors. In an FSAP review, the IMF assesses compliance with internationally recommended standards for various parts of the financial sector. An FSAP for Norway in the fields of banking supervision, insurance supervision and the payment system was concluded in spring 2005. The final report was published on 14 June 2005.

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

Through two loan agreements (1988 and 1994), Norges Bank has made capital available to the PRGF. This capital has totalled SDR 150m (equivalent to about NOK 1.4bn according to the exchange rate on 31 December 2004). In addition, the Ministry of Foreign Affairs has allocated a total of about NOK 390m over the development assistance budget since 1988 to subsidise interest payments. Loan agreements between the IMF and Norges Bank are formulated in such a way that repayments to Norges Bank are in pace with borrowers' repayment of loans to the IMF. The amount outstanding at the end of December 2005 was SDR 42m. Norges Bank receives interest on these loans based on short-term market rates.

## Chapter 5 Other responsibilities

### Production of statistics

Norges Bank's production of statistics on the money, credit and foreign exchange markets was characterised by major changes in 2005 with respect to area of responsibility, data compilation and statistical products.

#### Area of responsibility

In 2001, Statistics Norway and Norges Bank agreed on a future division of responsibility for statistics on which the two institutions collaborate. The agreed distribution of responsibilities took effect in 2005, and as a result Norges Bank was given increased responsibility for financial sector data (excluding the insurance sector etc.) and main responsibility for securities markets data. Statistics Norway took over responsibility for non-financial sector data for the balance of payments. As a result, Norges Bank's foreign payments statistics were discontinued at the beginning of 2005.

Norges Bank is responsible for compiling accounts data for banks and other financial institutions (except insurance companies) for use in producing statistics in Norges Bank and Statistics Norway, and for the Financial Supervisory Authority (Kredittilsynet) for supervisory purposes. In 2005, there has been preparatory work for major IT-related changes in this data compilation, including in how the common database is to be organised. In parallel with this, the three institutions are discussing future forms of cooperation, use of data and cost sharing. This work will be continued in 2006 with a view to implementation at the end of the year.

#### Legal basis for compilation of data

The most important acts to which Norges Bank refers in respect of its compilation of data for statistical purposes are the Act relating to the Supervision of Credit Institutions, Insurance Companies and Securities Trading, etc. (the Financial Supervision Act) and the Act on Norges Bank and the Monetary System etc. (the Norges Bank Act). The collaboration on data with Kredittilsynet is an important reason for applying the Financial Supervision Act. As regards the Norges Bank Act, on November 2005 the Ministry of Finance issued a regulation concerning the duty to provide Norges Bank with information pursuant to Section 27 of the Act. The regulation lays down who has a duty to provide information, and what information shall be provided, and will be gradually applied to data from 2006 onward.

#### Financial and securities statistics

Norges Bank produces and publishes accounts statistics for banks and other financial undertakings. These

primary statistics form the most important basis for the monthly indicators of developments in debt in municipalities, non-financial institutions and households, and in the money supply. In 2005, the statistics were expanded to include balance of payments data. Norges Bank also produces statistics for securities registered in the VPS, for issues of bonds and short-term paper and for securities funds. In 2005, new sources of data on holdings in Norwegian securities funds and on foreign securities were added to the securities market statistics. These statistics are also adjusted so that the data can be delivered to the balance of payments. In 2005, new statistics were also established for banks' foreign exchange trading, which replace the previous foreign exchange flow statistics. Payment statistics are published in Norges Bank's *Annual Report on Payment Systems*, and from 2006 the Bank will also make changes in the compiling of data for these statistics.

#### Financial sector accounts (FINSE)

Norges Bank's work on the databank for quarterly financial sector accounts (FINSE) was continued and improved in 2005. The statistics are based on accounting statistics on banks and other financial undertakings, statistics on securities markets and other sources. FINSE contains data from the end of 1995 and is used in the Bank's work on models, in monetary policy analyses and in the work on financial stability. Annual FINSE data are reported to Eurostat under the EEA agreement. The statistics product *Financial accounts for households*, which is based on FINSE, is published quarterly on the Bank's website and shows developments in household assets, debt and net lending.

#### Reporting and international cooperation

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

Norges Bank participates in fora on the development of international statistical standards and international reporting. These fora include the Committee on Monetary, Financial and Balance of Payments Statistics and working groups under this committee.

#### Foreign exchange regulation and control

Norges Bank's responsibilities in the field of foreign exchange regulation and control terminated at the end of 2004. This move, which is related to the discontinuation of statistics on payments between Norway and other countries (foreign payment statistics), is discussed under 'Area of responsibility'. The new Foreign Exchange Register, which is administered by the Directorate of Customs and Excise, is now the data



source for the authorities' monitoring of foreign payments.

## Foreign exchange transactions

In 2005, Norges Bank's commercial foreign exchange transactions mainly comprised foreign exchange purchases for building up the Government Pension Fund – Global (previously the Government Petroleum Fund). In addition, Norges Bank executed some transactions on behalf of the Government Petroleum Insurance Fund.

The Government Pension Fund – Global is built up through transfers of foreign exchange income from the state's direct financial interest in petroleum activities (SDFI), and through Norges Bank's purchase of foreign exchange in the market.

The system for transferring foreign exchange from SDFI and calculating Norges Bank's foreign exchange purchases was last changed in 2004, and was continued in 2005. Foreign exchange requirements are evaluated for one month at a time. The Ministry of Finance stipulates the monthly allocation to the Fund. Transfers to the Fund are primarily covered by foreign exchange from SDFI. However, SDFI can only transfer foreign exchange equivalent to the amount allocated. If the foreign exchange income from SDFI is not sufficient, Norges Bank purchases the balance of the foreign exchange in the market. Norges Bank's foreign exchange purchases are calculated from estimates of both allocations to the Fund and SDFI's foreign exchange income. The actual transfers may differ from the estimates. They are adjusted for these deviations. As a result, Norges Bank's foreign exchange purchases may vary considerably from month to month. The daily foreign exchange purchases are fixed for one month at a time, and are announced on the last business day of the previous month.

Capital is not normally transferred to the Fund in December. It is therefore improbable that foreign exchange will be purchased by Norges Bank in December. Foreign exchange income from SDFI may nevertheless be transferred in order to minimise the government's exchange costs. The December transfers from SDFI cause the foreign exchange reserves to increase. The reserves are reduced again through the monthly transfers to the Fund in the first quarter.

The allocation for 2004 was revised substantially downwards after Norges Bank's foreign exchange purchases for November 2004 had been fixed. In consequence, more foreign exchange reserves than usual had accumulated before the end of 2004. The reduction of the foreign exchange reserves to a normal level plus the foreign exchange income from SDFI were more

than sufficient to cover the allocations to the Fund in the first three months of 2005. Once the foreign exchange reserves had been reduced, Norges Bank resumed its purchases of foreign exchange in the market in April 2005 (see Table 3). No foreign exchange was purchased in the market in December. In 2005, Norges Bank purchased foreign exchange for NOK 93.2bn in the market, while transfers from SDFI amounted to NOK 129.6bn.

## Government debt policy

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 that are sold in the Norwegian market. The Ministry of Finance pays for bank-related services provided by Norges Bank for the Ministry in connection with government debt and liquidity management, and variable costs incurred by Norges Bank in its capacity as provider of services for the Ministry of Finance (stock exchange membership, transaction expenses, line rental etc.).

The government's schedule for the issue of short- and long-term securities in 2005 was published in an auction calendar in December 2004. In accordance with the 2005 auction calendar, five auctions of government bonds and 14 auctions of Treasury bills were held. No ad hoc auctions were held. The total volume issued, excluding the government's own purchases in the primary market, amounted to NOK 18bn in government bonds and NOK 54bn in Treasury bills.

According to the issue programme for short government paper, new Treasury bills are issued on IMM days (international standard for settlement days: third Wednesday in March, June, September and December) and fall due on the IMM day one year later. The loans are increased through subsequent auctions.

**Table 3. Norges Bank's daily foreign exchange purchases for the Government Pension Fund – Global in 2005**

Month	Daily amount (NOKm)	Total per month (NOKm)
April	320	6 720
May	470	8 930
June	360	7 920
July	360	7 560
August	510	11 730
September	580	12 760
October	740	15 540
November	1 000	22 000
<b>2005</b>		<b>93 160</b>

The long-term strategy for long-term government borrowing is based on maintaining a government interest rate curve with particular weight on liquidity in the 5- and 10-year segments. Government bond borrowing has been aimed at issuing a new 11-year bond every second year. No new bond was issued in 2005, and no government bonds matured in 2005.

The government paper auctions have been held via the Oslo Stock Exchange trading system. The bid-to-cover ratio, which is the volume of bids in relation to the volume allocated in the auction, was 2.3 for government bonds and 2.4 for Treasury bills.

Norges Bank has entered into an agreement with a group of primary dealers who are obligated at all times to furnish binding bid and offer prices for certain amounts of both government bonds and Treasury bills on the Oslo Stock Exchange. In return for furnishing these binding bid and offer prices, the primary dealers may borrow government paper for a limited period. The upper borrowing limit for each Treasury bill issue is NOK 500m. For government bonds, up to NOK 416m may be borrowed in the shortest issue and somewhat less in longer government bond issues.

In June 2005, the government began using interest rate swaps in its domestic debt management. An interest rate swap is an agreement between two parties to exchange future interest payments associated with a given principal. The use of interest rate swaps gives the government the flexibility to change the average period that the interest rate on the debt portfolio is fixed without changing its borrowing strategy. The Ministry of Finance has entered into framework agreements with several counterparties. Norges Bank carries out the operational functions in connection with entry into interest rate swap agreements on behalf of the Ministry of Finance. The commercial decisions are taken by the Ministry. At end-2005, the average fixed-rate period for government debt was 3.82 years. If existing interest rate swap agreements are taken into account, the fixed-rate period was 3.43 years.

Total government domestic securities debt registered in the VPS at end-2005 amounted to NOK 208bn, calculated at face value. Of this, over 99% was concentrated in nine benchmark loans with ample liquidity by Norwegian standards. Foreign investors own about 31% of Norwegian government domestic securities debt, while life insurance companies and private pension funds own about 35%. Government domestic securities debt was equivalent to about 11% of GDP in 2005.

## 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 seeks to achieve the broadest possible understanding of its conduct of monetary policy and of the mechanisms contributing to financial stability through active information activities.

The Bank places considerable emphasis on responding to growing interest with transparency and predictability. Press conferences are therefore regularly webcast following the Executive Board’s monetary policy meetings and in connection with the publication of the *Inflation Report*, the *Financial Stability* report and the quarterly reports of the Government Pension Fund - Global. There were 15 such press conferences in 2005. Speeches given by the Governor or Deputy Governor of Norges Bank are also published on Norges Bank’s website at the time that they are given. In 2005, a total of 22 speeches were published.

The use of the internet is an important part of the Bank’s information strategy. The Bank’s website is under constant development. In addition to news and the publications mentioned above, the website contains extensive information about the Bank’s responsibilities and a large quantity of financial statistics. Electronic versions of the Bank’s publications are also made available on the website. User statistics show that Norges Bank’s website has an average of 454 000 hits per month.

In addition to the information on the world wide web, annual reports and the other reports mentioned above, Norges Bank issues the following publications: the journal *Penger og Kreditt* and its English equivalent *Economic Bulletin* are published quarterly, and there is an *Annual Report on Payment Systems*. Research projects are documented in the *Working Papers* series (16 published in 2005), the *Reprints* series (reprints of work that Bank employees have had accepted in international research journals – two published in 2005) and the series *Doctoral Dissertations* (two in 2005). *Staff Memos* contain other documentation or reports on the Bank’s work on central issues, and eleven were published, one in print and the other ten only on the Bank’s website. There was one issue of *Norges Bank Occasional Papers* in 2005. This was no. 37 “Tilbakeblikk på norsk pengehistorie” (Perspectives on the history of Norwegian money). Conference 7 June 2005 at Bogstad gård”.

## Chapter 6 Organisation, management and use of resources

### Core responsibilities

The organisation of Norges Bank is based on clearly defined core responsibilities.

Norges Bank shall promote price stability by means of monetary policy. Norges Bank shall promote financial stability and contribute to robust and efficient financial infrastructures and payment systems. Norges Bank shall manage the portfolios of the Government Pension Fund – Global (formerly the Government Petroleum Fund), the Bank’s own foreign exchange reserves and the Government Petroleum Insurance Fund in an efficient and satisfactory manner.

### Developments in the use of resources

Concentration on these three core responsibilities has directed the development of the Bank. As a result of the establishment of limited companies, outsourcing, discontinuation of tasks and generally increased efficiency, the number of permanent employees has been reduced from 1 150 in 1998 to 547 at end-2005. At the same time, the real net resources employed, measured

in relation to the consumer price index, have been reduced by about 25%. Restructuring costs are not included. The costs of managing the Government Pension Fund - Global are covered by means of income from the Ministry of Finance. By 2010 Norges Bank is to be a trim, efficient specialised enterprise with a strong focus on its core responsibilities.

The box below provides an overview of changes since 1998, and Chart 32 shows developments in costs and staffing.

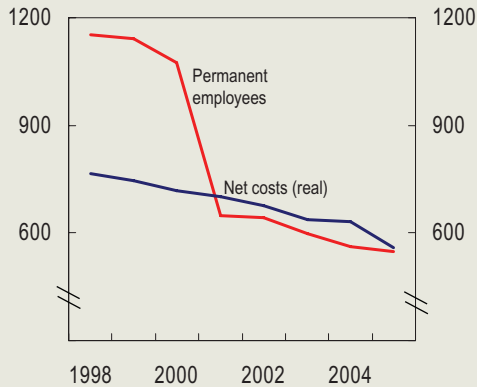
The restructuring has consequences for many employees. Norges Bank is using personnel policy programmes to facilitate the restructuring. These include severance pay, study grants combined with retirement agreements, redundancy pay and early retirement. In 2005, applications for retirement from 24 employees in various parts of the Bank were approved using personnel policy programmes. Between 1999 and the end of 2005, a total of 305 retirement agreements were concluded<sup>12</sup>. Of these agreements, 133 were terminated by the end of 2005, and 28 will commence in the period 2006-2008.

#### Restructuring

- Norges Bank Investment Management (NBIM) has been built up from 41 employees in 1998 to almost 130 in 2005.
- The Royal Norwegian Mint was established as a separate company in 2001 and sold in 2003.
- Cash handling was established as a separate company (NOKAS) in 2001. Norges Bank owned 33.5% of the shares until end-2005, when they were sold.
- Norges Bank’s Printing Works phased out stamp production in 2000 and passport production in 2003. Banknote production will be terminated in 2007.
- Concentration on core activities in the Banking Department (2004).
- Responsibility for producing statistics on non-financial sectors for the balance of payments was transferred to Statistics Norway in 2005.
- A profit centre for the management of the head office building was established in 2003.
- Dimensioning of staff and support functions to the “new” Norges Bank.
- Operation of Norges Bank’s settlement system was outsourced in 2003.

<sup>12</sup> These include five early retirement pensions approved before 1999.

**Chart 33** Developments in net costs (real) (in millions of NOK) and the number of permanent employees at Norges Bank. 1998-2005



**Operational areas as core units**

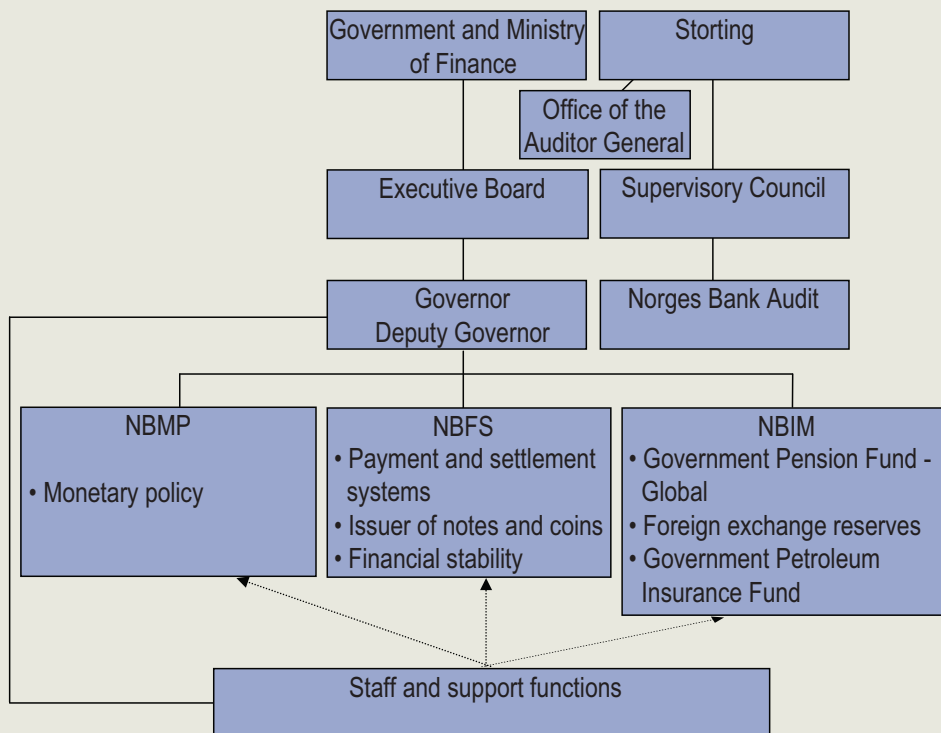
The Bank's activities are built up around the three operational areas Norges Bank's Monetary Policy (NBMP), Norges Bank Financial Stability (NBFS) and Norges Bank Investment Management (NBIM). An additional area provides staff and support services. See Chart 34.

The resulting small number of relatively large units provides an appropriate span of control for the Governor and Deputy Governor. The operational areas have clearly defined interfaces with the other units, and currently have between about 80 and 180 employees.

**Extensive delegation**

The Supervisory Council has fifteen members, elected by the Storting (the Norwegian Parliament). They adopt the budget, approve the accounts and ensure that the rules governing the Bank's activities are observed. The Bank's auditing department, Central Bank Audit,

**Chart 34** Norges Bank organisation



*Broken lines indicate delivery of services, while solid lines indicate reporting.*



reports to the Supervisory Council. The Supervisory Council usually meets five times a year.

The Executive Board has seven members, all appointed by the King in Council, and heads the Bank's executive and advisory activities. The Governor and Deputy Governor of Norges Bank are chairman and deputy chairman, respectively, of the Executive Board. The employees have two members who supplement the Executive Board when it deals with administrative matters. The Executive Board normally meets every three weeks.

The Executive Board has delegated much of the day-to-day operations to the Governor, who in turn has largely delegated operations further to the operational areas. The Governor is also empowered pursuant to the last paragraph of Section 5 of the Norges Bank Act to carry out the "Bank's administration and the implementation of the decisions".

Subject to annual person-year and budgetary limits, the wings have extensive freedom with respect to personnel administration and budgetary dispositions. Guidelines for the number of person-years are set for three-year periods for most activities.

The pay system is changing, with emphasis on contribution and performance for management positions and the academics.

Performance-linked pay is used extensively in NBIM.

## Management and follow-up

The main management principle in Norges Bank is line management. The result is a straightforward organisation with clear lines of responsibility. The organisational areas prepare annual action plans for activities with associated performance goals which are approved by the Governor. In the course of the year, the Governor follows up the performance of the individual executive directors by means of an appraisal dialogue in the spring and a follow-up dialogue in the autumn. During the year, there are shorter follow-up talks about every three weeks.

### Fundamental values

Norges Bank is to be efficiently run and to work in a focused manner, as far as possible in line with best international practice. The Bank shall demonstrate the will and ability to change, and enjoy the confidence of society at large. Norges Bank shall be conservative in its use of resources.

- In order to achieve this, all employees shall:
- Achieve results
- Be engaged
- Comport themselves in conformity with high ethical

standards

- Seek to attain a high professional standard and integrity

## Distribution of costs by task category

The purpose of the distribution is to illustrate the total cost picture for the various tasks. The overview has also increased awareness with respect to achieving cost efficiency in the common support functions. Costs were distributed among these categories in 2005:

- Monetary policy
- Management of the Government Pension Fund - Global
- Management of the long-term foreign exchange reserves
- Financial stability
- Settlement services
- Purchase, production and distribution of notes and coin
- Other responsibilities<sup>13</sup>

The point of departure is operating costs and operating income in the Bank's internal accounts, with the addition of depreciation and imputed pension costs. Emphasis has been placed on including costs and income that provide a picture of what ordinary bank operations cost. Restructuring costs and extraordinary income are therefore excluded. At the same time, internal house rent has been used instead of depreciation of the building in Oslo. As a result there is a deviation from the figures for operating costs and operating income in the report on the accounts.

The costs in the executive area are distributed by task category. Moreover, all central staff and support costs outside the operational areas are distributed by task category.

The distribution is based on assessments of cost-drivers. The proportions of the distribution keys are based on discretion, and the results must be viewed accordingly. The analyses contain both costs that the individual parts of the Bank can influence, and costs that are more central bank-specific, which to a large extent are fixed.

Gross costs in 2005 amounted to NOK 1 965m and net costs to NOK 645m. The corresponding figures for 2004 were NOK 1 752m and NOK 715m, respectively. Net resources employed have thus been reduced by about NOK 70m<sup>14</sup>. The reduction is attributable to the task notes and coins, the transfer of balance of payment statistics to Statistics Norway, and somewhat lower net expenses for settlement services.

Management of the Government Pension Fund – Global is by far the most resource-intensive task. Gross

<sup>13</sup> These include advisory work on investment management, the organisation of historical records, operation of buildings, the Banking Act Commission, foreign exchange statistics for others, tasks for the Government and the management of the Government Petroleum Insurance Fund.

<sup>14</sup> Including a reduction in imputed rental and pension costs of about NOK 15m.

costs were NOK 1 240m in 2005 and NOK 980m in 2004. Norges Bank's costs are covered by the Ministry of Finance on the principle of full cost coverage.

Chart 35 shows the distribution of costs. The Government Pension Fund – Global is not included in the graphical presentation.

Next to the management of the Government Pension Fund – Global, the tasks monetary policy and notes and coins are the most costly.

The costs for the purchase, production and distribution of notes and coins amounted to just under NOK 200m. This is more than the amount shown in Table 2 in Chapter 2. The figure in Chart 35 is based on a distribution of the Bank's total costs, and not a selection of costs, as in the table.

The external costs of custodian, settlement and management costs for the long-term foreign exchange reserves have been marked in orange on the chart.

The central staff and support resources were reduced from 2004 to 2005. They constitute the highest percentage of the personnel-intensive task categories.

### Working conditions

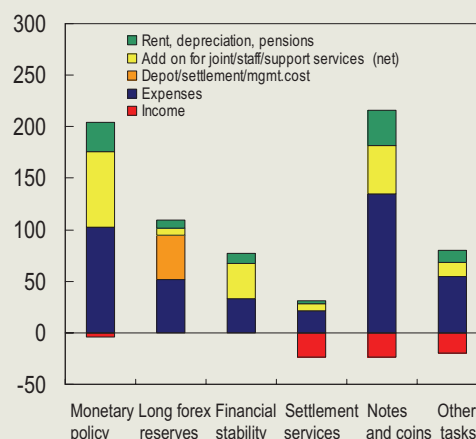
Norges Bank has consistently placed emphasis on the importance of providing good working conditions.

The Bank has a loan scheme for employees where the interest rate is equal to the norm interest rate<sup>15</sup>.

The employee insurance programme covers personal guarantees (including compulsory occupational injury and occupational health insurance), group life insurance, group accident and illness insurance, business travel insurance and accident insurance for especially exposed occupations. These costs account for 1.3% of total personnel expenses.

Norges Bank has its own pension fund for employees. Pension 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% of their gross annual salary to the Pension Fund.

Chart 35 Use of resources by task. In millions of NOK



The Bank owns two course and holiday facilities: Venastul, which is located in Ringebu Municipality, is open all the year round, and in 2005 recorded a total of 8046 guest-nights. Vindåsen, which is located in Tjøme, is only open during the summer, and it recorded 2492 guest-nights in 2005. Net operating subsidies to the holiday facilities in 2005 amounted to NOK 3.1m. Capital costs are not taken into account. The Bank also has agreements with central banks in Denmark, the Netherlands, the Czech Republic and Germany for reciprocal use of holiday facilities.

Norges Bank has previously provided interest- and instalment-free loans for the purchase of nine cabins for use by the employees. One of these will continue to be available to the Bank's employees. The Bank has decided to sell the other cabins. Three were sold in 2003, one in 2005, and one early in 2006. The loans associated with the three unsold cabins amounted to NOK 1.1m at the end of 2005.

<sup>15</sup> The norm interest rate laid down by the Ministry of Finance for taxation of loans on favourable terms for employees.







# APPENDICES





## Appendix A. Tables

Table 1. Norges Bank's balance sheet at 31.12.2004 and each month of 2005, by sector. In millions of NOK

	2004-12	2005-01	2005-02	2005-03
<b>ASSETS</b>				
<b>FOREIGN ASSETS</b>	<b>268 399</b>	<b>284 663</b>	<b>290 926</b>	<b>272 255</b>
International reserves	268 360	284 627	290 889	272 227
Other assets	39	36	37	29
<b>GOVERNMENT PENSION FUND - GLOBAL INVESTMENTS</b>	<b>1 015 471</b>	<b>1 070 462</b>	<b>1 073 545</b>	<b>1 089 913</b>
<b>DOMESTIC CLAIMS AND OTHER ASSETS</b>	<b>3 995</b>	<b>4 320</b>	<b>3 379</b>	<b>2 648</b>
Loans	495	497	501	503
Other claims	1 814	2 145	1 208	482
Fixed assets	1 395	1 387	1 379	1 372
Gold	291	291	291	291
<b>TOTAL ASSETS</b>	<b>1 287 865</b>	<b>1 359 446</b>	<b>1 367 850</b>	<b>1 364 816</b>
<b>LIABILITIES AND CAPITAL</b>				
<b>FOREIGN LIABILITIES</b>	<b>51 167</b>	<b>73 811</b>	<b>82 986</b>	<b>67 405</b>
Deposits	309	620	618	615
Borrowing	48 994	71 316	80 504	64 898
Other liabilities	289	255	271	289
Equivalent of Special Drawing Rights, IMF	1 575	1 620	1 593	1 603
<b>DEPOSITS GOVERNMENT PENSION FUND - GLOBAL KRONE ACCOUNT</b>	<b>1 015 471</b>	<b>1 070 462</b>	<b>1 073 545</b>	<b>1 089 913</b>
<b>DOMESTIC LIABILITIES</b>	<b>173 925</b>	<b>161 148</b>	<b>160 135</b>	<b>155 324</b>
Notes and coin in circulation	47 595	45 175	44 599	44 679
Treasury deposits	88 816	76 368	82 496	75 925
Other deposits	37 158	39 256	32 431	34 470
Borrowing	0	48	0	0
Other liabilities	356	301	609	250
<b>CAPITAL</b>	<b>47 302</b>	<b>47 302</b>	<b>47 302</b>	<b>47 302</b>
<b>RESULT</b>	<b>0</b>	<b>6 722</b>	<b>3 882</b>	<b>4 872</b>
<b>TOTAL LIABILITIES AND CAPITAL</b>	<b>1 287 865</b>	<b>1 359 446</b>	<b>1 367 850</b>	<b>1 364 816</b>
<b>Liabilities</b>				
Derivatives and forward exchange contracts sold, international reserves	83 020	100 641	82 157	102 763
Derivatives and forward exchange contracts purchased, international reserves	87 931	99 513	83 215	93 844
Derivatives and forward exchange contracts sold, Government Pension Fund - Global	534 611	607 293	465 072	596 179
Derivatives and forward exchange contracts purchased, Government Pension Fund - Global	526 161	573 522	460 182	578 269
Allotted, unpaid shares in the BIS	258	258	258	258
<b>Rights</b>				
Options sold, international reserves	341	223	0	487
Options purchased, international reserves	598	3 149	1 782	3 234
Options sold, Government Pension Fund - Global	2 232	1 093	0	2 726
Options purchased, Government Pension Fund - Global	3 992	14 371	8 800	15 685

2005-04	2005-05	2005-06	2005-07	2005-08	2005-09	2005-10	2005-11	2005-12
<b>262 309</b>	<b>274 854</b>	<b>303 931</b>	<b>294 414</b>	<b>287 278</b>	<b>280 736</b>	<b>280 141</b>	<b>293 583</b>	<b>318 276</b>
262 269	274 744	303 817	294 296	287 160	280 620	280 028	293 461	318 163
40	110	114	118	118	116	113	122	113
<b>1 101 570</b>	<b>1 138 128</b>	<b>1 183 443</b>	<b>1 204 782</b>	<b>1 228 707</b>	<b>1 280 530</b>	<b>1 279 017</b>	<b>1 363 485</b>	<b>1 397 896</b>
<b>38 091</b>	<b>50 096</b>	<b>6 206</b>	<b>3 075</b>	<b>3 002</b>	<b>3 478</b>	<b>29 298</b>	<b>31 636</b>	<b>28 403</b>
31 498	47 533	3 317	494	497	515	26 497	28 605	25 404
4 935	910	1 239	934	865	1 320	1 162	1 392	1 322
1 367	1 362	1 359	1 356	1 349	1 352	1 348	1 348	1 386
291	291	291	291	291	291	291	291	291
<b>1 401 970</b>	<b>1 463 078</b>	<b>1 493 580</b>	<b>1 502 271</b>	<b>1 518 987</b>	<b>1 564 744</b>	<b>1 588 456</b>	<b>1 688 704</b>	<b>1 744 575</b>
<b>62 835</b>	<b>67 634</b>	<b>88 499</b>	<b>77 085</b>	<b>66 887</b>	<b>63 594</b>	<b>62 940</b>	<b>62 008</b>	<b>63 333</b>
638	607	639	1 043	387	398	364	360	377
60 337	65 171	85 992	74 197	64 663	61 260	60 707	59 743	61 002
260	268	268	264	265	349	297	295	334
1 600	1 588	1 600	1 581	1 572	1 587	1 572	1 610	1 620
<b>1 101 570</b>	<b>1 138 128</b>	<b>1 183 443</b>	<b>1 204 782</b>	<b>1 228 707</b>	<b>1 280 530</b>	<b>1 279 017</b>	<b>1 363 485</b>	<b>1 397 896</b>
<b>185 984</b>	<b>204 064</b>	<b>164 172</b>	<b>163 948</b>	<b>167 031</b>	<b>160 020</b>	<b>190 941</b>	<b>199 084</b>	<b>214 724</b>
44 461	44 416	45 967	46 128	45 411	45 317	45 263	47 318	51 910
127 280	145 211	95 461	87 748	67 632	50 795	126 128	128 171	109 627
13 922	14 176	19 890	22 745	45 360	62 220	11 810	18 913	42 699
46	0	0	1	31	0	0	0	0
275	261	2 854	7 326	8 597	1 688	7 740	4 682	10 488
<b>47 302</b>	<b>47 302</b>	<b>47 302</b>	<b>47 302</b>	<b>47 302</b>	<b>47 302</b>	<b>47 302</b>	<b>47 302</b>	<b>68 622</b>
<b>4 279</b>	<b>5 950</b>	<b>10 164</b>	<b>9 154</b>	<b>9 060</b>	<b>13 298</b>	<b>8 256</b>	<b>16 825</b>	<b>0</b>
<b>1 401 970</b>	<b>1 463 078</b>	<b>1 493 580</b>	<b>4 502 271</b>	<b>1 518 987</b>	<b>1 564 744</b>	<b>1 588 456</b>	<b>1 688 704</b>	<b>1 744 575</b>
104 665	89 563	86 951	86 016	99 779	97 992	106 975	120 116	137 051
100 564	92 995	87 152	86 001	99 873	91 459	108 458	110 738	136 670
568 004	542 693	473 441	454 095	548 761	639 397	688 799	754 777	798 223
556 197	549 677	476 546	455 927	544 189	621 614	689 020	727 197	785 681
258	258	258	258	258	258	258	258	287
734	476	792	393	9	43	0	0	759
4 408	4 683	4 223	2 668	3 684	1 149	413	385	1 448
4 309	2 419	4 442	1 851	62	290	0	0	5 273
21 332	21 147	20 904	11 654	16 011	5 430	1 653	2 313	8 578

Table 2. Norges Bank's profit and loss account at 31 December 2003-2005. In millions of NOK

Figures in millions of NOK

	2005	2004	2003
Interest income and dividends	9 190	8 479	7 987
Change in value financial instruments	10 985	5 711	4 183
Valuation adjustments on foreign exchange	8 380	-10 053	12 331
<b>Return on international reserves</b>	<b>28 555</b>	<b>4 137</b>	<b>24 501</b>
Share dividend, BIS	18	18	17
Loss on other foreign financial instruments	-3 543	-1 071	-1 188
Gain/loss on domestic financial instruments	-147	952	1 497
Interest expenses to Treasury	-2 872	-2 283	-3 181
<b>Net other financial activities</b>	<b>-6 544</b>	<b>-2 384</b>	<b>-2 855</b>
<b>Total return financial activities</b>	<b>22 011</b>	<b>1 753</b>	<b>21 646</b>
<b>Return on investments for Government Pension Fund - Global</b>	<b>162 388</b>	<b>32 937</b>	<b>132 414</b>
<b>Transferred to krone account Government Pension Fund - Global</b>	<b>-162 388</b>	<b>-32 937</b>	<b>-132 414</b>
Management remuneration Government Pension Fund - Global	1 239	984	773
Other operating income	145	108	155
<b>Total operating income</b>	<b>1 384</b>	<b>1 092</b>	<b>928</b>
Personnel expenses	-563	-448	-720
Write-downs	-116	-108	-110
Other operating expenses	-1 396	-1 200	-969
<b>Total operating expenses</b>	<b>-2 075</b>	<b>-1 756</b>	<b>-1 799</b>
<b>Net operating expenses</b>	<b>-691</b>	<b>-664</b>	<b>-872</b>
<b>Profit for the year</b>	<b>21 320</b>	<b>1 089</b>	<b>20 775</b>
Transferred from Adjustment Fund	0	0	0
Transferred from 'Other capital'	72	3 084	107
<b>Reserves</b>	<b>21 392</b>	<b>4 173</b>	<b>20 882</b>
Allocated to Adjustment Fund	-21 392	-4 173	-20 411
Allocated to Transfer Fund	0	0	0
Allocated to 'Other capital'	0	0	-471
<b>Total allocations</b>	<b>-21 392</b>	<b>-4 173</b>	<b>-20 882</b>

Table 3. Norges Bank's loans to and deposits from banks in 2005

Period	D-loans	Fixed-rate loans		Fixed-rate deposits		Sight deposits
	NOK bn <sup>1)</sup>	NOK bn <sup>1)</sup>	Nominal rate <sup>2)</sup>	NOK bn <sup>1)</sup>	Nominal rate <sup>2)</sup>	NOK bn <sup>1)</sup>
January	-	-	-	-	-	44.0
February	-	-	-	-	-	38.9
March	-	0.4	1.82	-	-	35.8
April	-	39.5	1.80	-	-	17.4
May	-	36.2	1.80	-	-	16.9
June	-	27.4	1.80	-	-	16.9
July	-	1.1	2.03	-	-	27.7
August	-	-	-	-	-	33.4
September	-	-	-	-	-	51.6
October	-	28.9	2.07	-	-	20.0
November	-	27	2.30	-	-	17.9
December	-	16	2.30	-	-	23.6

1) Average of daily observations, in billions of NOK.

2) Average interest rate allotted. Weighted average for all F-loans/F-deposits in the period.

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

Period	Overnight lending (D-loan) rate		Sight deposit rate	
	Nominal	Effective	Nominal	Effective
28.01.99-02.03.99	9.50 %	9.95 %	7.50 %	7.78 %
03.03.99-25.04.99	9.00 %	9.40 %	7.00 %	7.24 %
26.04.99-16.06.99	8.50 %	8.86 %	6.50 %	6.71 %
17.06.99-22.09.99	8.00 %	8.31 %	6.00 %	6.18 %
23.09.99-12.04.00	7.50 %	7.78 %	5.50 %	5.65 %
13.04.00-14.06.00	7.75 %	8.04 %	5.75 %	5.91 %
15.06.00-09.08.00	8.25 %	8.58 %	6.25 %	6.44 %
10.08.00-20.09.00	8.75 %	9.13 %	6.75 %	6.97 %
21.09.00-12.12.01	9.00 %	9.40 %	7.00 %	7.24 %
13.12.01-03.07.02	8.50 %	8.86 %	6.50 %	6.71 %
04.07.02-11.12.02	9.00 %	9.40 %	7.00 %	7.24 %
12.12.02-22.01.03	8.50 %	8.86 %	6.50 %	6.71 %
23.01.03-05.03.03	8.00 %	8.31 %	6.00 %	6.18 %
06.03.03-30.04.03	7.50 %	7.78 %	5.50 %	5.65 %
01.05.03-25.06.03	7.00 %	7.24 %	5.00 %	5.12 %
26.06.03-13.08.03	6.00 %	6.18 %	4.00 %	4.08 %
14.08.03-17.09.03	5.00 %	5.12 %	3.00 %	3.04 %
18.09.03-17.12.03	4.50 %	4.60 %	2.50 %	2.53 %
18.12.03-28.01.04	4.25 %	4.34 %	2.25 %	2.27 %
29.01.04-11.03.04	4.00 %	4.08 %	2.00 %	2.02 %
12.03.04-30.06.05	3.75 %	3.82 %	1.75 %	1.76 %
01.07.05-02.11.05	4.00 %	4.08 %	2.00 %	2.02 %
03.11.05-	4.25 %	4.34 %	2.25 %	2.27 %

Table 5. Denominations of coins in circulation 2001–2005. Annual average and at the end of each month in 2005. In millions of NOK. Figures are based on physical holdings at month – and year-end.

	20-krone	10-krone	5-krone	1-krone	50-øre	10-øre <sup>1)</sup>	Total
2001	1 124.0	1 110.9	496.8	640.8	174.0	129.5	3 676.0
2002	1 387.0	1 085.0	505.3	666.1	182.4	129.5	3 955.3
2003	1 560.9	1 051.3	514.6	686.3	190.5	128.6	4 132.3
2004	1 666.6	1 049.3	537.8	717.9	198.5	128.4	4 298.7
2005	1 778.2	1 076.2	562.9	752.6	207.6	128.4	4 505.8
2005							
January	1 724.3	1 057.7	544.8	732.5	203.0	128.4	4 390.7
February	1 730.7	1 055.5	548.0	735.1	203.6	128.4	4 401.3
March	1 761.4	1 066.4	553.4	740.2	204.8	128.4	4 454.6
April	1 735.2	1 060.5	553.6	741.8	205.4	128.4	4 424.8
May	1 762.5	1 068.4	559.5	747.2	206.2	128.4	4 472.1
June	1 773.8	1 079.5	564.6	752.7	207.5	128.4	4 506.5
July	1 784.0	1 086.8	570.0	755.5	208.0	128.4	4 532.5
August	1 796.3	1 086.8	569.8	759.8	208.8	128.4	4 549.8
September	1 784.3	1 080.3	567.2	760.4	209.6	128.3	4 530.0
October	1 780.3	1 071.5	566.9	762.8	210.2	128.3	4 519.9
November	1 834.1	1 092.6	576.2	767.9	211.6	128.3	4 610.7
December	1 871.0	1 109.0	580.4	775.1	212.5	128.3	4 676.3

<sup>1)</sup> As of 1 March 1993, the 10-øre coin was no longer legal tender, but was redeemed by Norges Bank until 1 March 2003.



**Table 6. Denominations of notes in circulation 2001-2005. Annual average and at the end of each month of 2005. In millions of NOK. Figures are based on physical holdings at month- and year-end.**

	1000-kroner	500-kroner	200-kroner	100-kroner	50-kroner	Totalt
2001	24 713.2	6 920.6	4 446.4	2 463.6	727.1	39 270.9
2002	22 598.8	7 626.1	4 572.7	2 270.2	743.5	37 811.3
2003	22 166.6	7 732.3	4 674.5	2 091.5	764.6	37 429.4
2004	23 555.0	8 277.5	4 792.3	2 012.0	792.5	39 429.4
2005	24 648.7	9 059.5	4 819.0	2 020.9	833.4	41 381.6
2005						
January	25 018.9	8 521.9	4 520.2	1 935.2	789.3	40 785.4
February	24 491.3	8 444.8	4 514.8	1 950.7	796.0	40 197.6
March	24 132.9	8 643.4	4 689.3	1 954.1	804.8	40 224.6
April	24 039.9	8 591.9	4 627.2	1 975.0	802.7	40 036.6
May	23 882.7	8 585.2	4 630.0	2 021.6	824.9	39 944.4
June	24 394.8	9 114.5	4 943.7	2 134.6	873.5	41 461.0
July	24 338.8	9 317.8	4 958.0	2 111.2	869.6	41 595.5
August	24 135.3	9 032.2	4 810.6	2 034.6	848.2	40 860.8
September	24 124.5	9 055.7	4 781.7	1 994.6	830.8	40 787.3
October	24 263.8	8 984.2	4 710.2	1 962.1	823.3	40 743.7
November	25 109.4	9 615.1	5 085.1	2 040.4	857.8	42 707.8
December	27 852.6	10 807.5	5 557.2	2 136.9	880.0	47 234.2

**Table 7. Banknotes destroyed 2001–2005. In millions of notes**

	1000-krone <sup>1)</sup>	500-krone	200-krone <sup>2)</sup>	100-krone <sup>3)</sup>	50-krone	Total
2001	22.7	13.8	19.6	16.2	12.4	84.8
2002	12.7	5.8	62.6	33.2	11.8	126.2
2003	3.8	5.8	10.9	53.1	14.0	87.5
2004	2.7	7.8	12.5	11.6	12.3	46.8
2005	2.4	6.9	15.8	11.7	10.2	46.9

The table shows the total number of banknotes destroyed apart from notes from older series (50- and 100-krone notes from Series III, IV and V, and also 500- and 1000-krone notes from Series III and IV). The notes are destroyed when they are worn or damaged, or when a series is replaced by another. The figures in the table are influenced by the following issues:

- 1) A new 1000-krone banknote, Series VII, was put into circulation on 19 June 2001.
- 2) An upgraded 200-krone banknote was put into circulation on 16 April 2002.
- 3) An upgraded 100-krone banknote was put into circulation on 25 March 2003.

The figures have been influenced by the decision to store notes instead of destroying them in 1998 and 1999 to provide a reserve supply for the millenium. The notes were destroyed in 2000/2001, increasing the figures for these years.

**Table 8. Average life of banknotes 2001–2005. In years**

	1000-krone	500-krone	200-krone	100-krone	50-krone
2001	1.1	1.0	1.1	1.5	1.2
2002	1.8	2.6	0.4	0.7	1.3
2003	5.8	2.7	2.2	0.4	1.1
2004	8.7	2.1	1.9	1.7	1.3
2005	10.3	2.6	1.5	1.7	1.6

The figures show the volume of notes in circulation compared to the number destroyed in the year in question. For an explanation of the changes in banknote life, see footnote to Table 7.

**Table 9. Inflow of banknotes to Norges Bank, 2001-2005. In millions of notes**

	1000-krone	500-krone	200-krone	100-krone	50-krone	Total
2001	39.5	99.8	221.0	110.9	30.0	501.3
2002	38.6	107.1	225.7	109.5	31.3	512.3
2003	33.4	103.6	234.7	96.0	32.0	499.7
2004	32.4	104.9	230.1	90.2	33.1	490.7
2005	31.8	105.7	209.3	89.2	35.3	471.4

The table shows numbers of banknotes delivered to Norges Bank.

**Table 10. Velocity of banknote circulation 2001-2005**

	1000-krone	500-krone	200-krone	100-krone	50-krone	Total
2001	1.60	7.21	9.94	4.50	2.07	5.28
2002	1.71	7.02	9.87	4.82	2.11	5.21
2003	1.51	6.69	10.03	4.59	2.09	5.14
2004	1.37	6.33	9.60	4.48	2.09	4.91
2005	1.29	5.84	8.69	4.42	2.12	4.54

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

**Table 11. Inflow of coins to Norges Bank 2001-2005. In millions of coins**

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
2001	94.7	140.0	81.2	339.9	52.6	708.4
2002	149.0	120.1	80.2	348.2	54.5	752.1
2003	216.5	119.8	84.5	353.9	60.6	835.2
2004 <sup>1)</sup>	281.4	117.4	83.7	361.0	63.6	907.1
2005	114.2	159.7	127.6	361.5	94.4	857.3

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

<sup>1)</sup> The figures are estimates because of changes made in the conditions concerning the entry of coins in Norges Bank's books.

**Table 12. Velocity of coin circulation 2001-2005**

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
2001	1.69	1.26	0.82	0.53	0.15	0.56
2002	2.15	1.11	0.79	0.52	0.15	0.57
2003	2.77	1.14	0.82	0.52	0.16	0.61
2004 <sup>1)</sup>	3.38	1.12	0.78	0.50	0.16	0.64
2005	1.28	1.48	1.13	0.48	0.23	0.58

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

<sup>1)</sup> See footnote Table 11.

**Table 13. Production of circulation coins at the Mint of Norway 2001-2005. In thousands of coins <sup>1)</sup>**

	20-krone	10-krone	5-krone	1-krone	50-øre	Total
2001	4 188	9 838	460	50 484	30 140	95 110
2002	20 459	1 125	3 618	21 298	23 958	70 458
2003	30 061	957	827	24 093	19 853	75 790
2004	499	513	503	25 151	14 806	41 472
2005	1 509	466	503	25 648	4 963	33 090

<sup>1)</sup> The table shows figures for coins produced and delivered to Norges Bank, and cannot be used to indicate the number of coins minted with different years. Coin sets are included.

**Table 14. Banknote production at Norges Bank's Printing Works 2001–2005**  
(Number of packets of 500 notes)

	1000-krone	500-krone	200-krone	100-krone	50-krone
2001	72 131 <sup>1)</sup>	0	31 814 <sup>2)</sup>	0	36 075
2002	0	34 776	79 309	20 014 <sup>3)</sup>	0
2003	0	0	30 304	60 400	50 366 <sup>4)</sup>
2004	24 700	0	70 380	54 556	1 584
2005	45 912	52 900	0	0	71 254

1) New series (Series VII).

2) Upgraded Series VII, put into circulation 16 April 2002.

3) Upgraded Series VII, put into circulation 25 March 2003.

4) Upgraded Series VII, put into circulation in 2004.

**Table 15. Norges Bank's banknote series 1877-2005. 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	1995-
50-krone notes	1877-99	1901-45	1945-50	1950-65	1966-84	1984-96	1996-
10-krone notes	1877-99	1901-45	1945-53	1954-74	1972-85	-	-
5-krone notes	1877-99	1901-44	1945-54	1955-63	-	-	-
Low denomination banknotes							
1-krone notes	1917	1940-50					
2-krone notes	1918	1940-50					

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

## Appendix B

# Norges Bank's management and organisation

### The Bank's governing bodies

The governing bodies of the Bank are the Executive Board and the Supervisory Council.

Pursuant to the Act on Norges Bank and the Monetary System of 24 May 1985, executive and advisory authority is vested in the Executive Board. The Executive Board is in charge of the Bank's operations and manages its funds. The Executive Board consists of seven members, appointed by the King. The Governor and Deputy Governor are chairman and deputy chairman respectively of the Executive Board. They are appointed to full-time positions for a term of six years. The other five members are appointed for four-year terms. Two employee representatives supplement the Executive Board when administrative matters are discussed. The Executive Board normally meets every three weeks. Every second meeting is a monetary policy meeting.

The Executive Board has appointed an administration committee. This committee has decision-making authority in administrative matters (the internal management of Norges Bank). This committee is composed of the following members: the governor of Norges Bank, the deputy governor of Norges Bank, the executive director of Norges Bank Staff and Group Services and the employee representatives on the Executive Board.

In accordance with the Norges Bank Act, the Governor of Norges Bank is in charge of the Bank's administration and the implementation of Executive Board decisions.

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 elected by the Storting for four-year terms. The Storting elects the chairman and deputy chairman from among the members of the Council for terms of two years. The Supervisory Council usually meets five times a year.

*The composition of the Executive Board and Supervisory Council as at January 2006*

### Executive Board

Governor of Norges Bank Svein Gjedrem, Chairman (reappointed 01.01.2005-31.12.2010)

Deputy Governor Jarle Berge, Deputy Chairman (reappointed 12.04.2002-11.04.2008)

Vivi Lassen (reappointed 01.01.2006 -31.12.2009)

Alternate: Kari Broberg (reappointed 01.01.2006-31.12.2009)

Brit K.Rugland (reappointed 01.01.2006-31.12.2009)

Alternate: Inger Johanne Pettersen (01.01.2006-31.12.2009)

Øystein Thøgersen (reappointed 01.01.2006-31.12.2009)

Alternate: Ingunn Myrtveit (reappointed 01.01.2006-31.12.2009)

Liselott Kilaas (01.01.2004-31.12.2007)

Alternate: Per Christiansen (01.01.2004-31.12.2007)

Asbjørn Rødseth (01.01.2004-31.12.2007)

Alternate: Einar Forsbak (01.01.2004-31.12.2007)

### Employee representatives:

Sonja Blichfeldt Myhre

Jan Erik Martinsen

Einar Alnæs (alternate)

Nina Fagereng (alternate)

### Supervisory Council

Mary Kvidal, 2006-2009 (reelected) (Chairman 2004-2007)

Alternate: Lars Gjedebo, 2006-2009 (new)

Liv Røssland, 2006-2009 (new) (Deputy Chairman 2006-2007)

Alternate: Frode Klemp, 2006-2009 (new)

Solveig Nordkvist, 2004-2007

Alternate: Liv Stave, 2004-2007

Terje Ohnstad, 2004-2007

Alternate: Herdis Maihack Engen, 2006-2007

Eva Karin Gråberg, 2004-2007

Alternate: Jan Elvheim, 2004-2007

Tom Thoresen 2004-2007

Alternate: Hans Kolstad, 2004-2007

Runbjørg Bremset Hansen, 2004-2007

Alternate: Camilla Bakken Øvald, 2004-2007

Hans Petter Kvaal, 2004-2007

Alternate: Arent Kragh, 2004-2007

Kåre Harila, 2004-2007

Alternate: Liv Sandven, 2004-2007

Trond Lode, 2006-2007 (new) (for Anne Tingelstad Wøien who has leave of absence)

Alternate: Ivar B. Prestbakmo, 2006-2007 (new) (for Steinulf Tungesvik who has leave of absence)

Anne Strifeldt, 2006-2009 (new, previous alternate)

Alternate: Inger Spangen, 2006-2009 (new)

Reidar Åsgård, 2006-2009 (new)

Alternate: Ola Røtvei, 2006-2009 (new)

Frank Sve, 2006-2009 (new)

Alternate: Erland Vestli, 2006-2009 (new)

Oskar Grimstad, 2006-2009 (new)

Alternate: Pål Morten Borgli, 2006-2009 (new)

Terje Johansen, 2006-2009 (new)

Alternate: Torhild Skogsholm, 2006-2009 (new)

### Audit

Svenn Erik Forsstrøm

State Authorised Public Accountant



## The Bank's organisation

Svein Gjedrem, Governor of Norges Bank  
Jarle Berge, Deputy Governor

### Norges Bank Monetary Policy

Jan F. Qvigstad, Executive Director

#### Research Department

Øyvind Eitrheim, Director

#### Department for Market Operations and Analysis

Asbjørn Fidjestøl, Director

#### Monetary Policy Department

Amund Holmsen, Director

#### Statistics Department

Marit Hoel, acting Director

#### Economics Department

Anne Berit Christiansen, Director

### Norges Bank Financial Stability

Kristin Gulbrandsen, Executive Director

#### Financial Markets Department

Birger Vikøren, Director

#### Payment Systems Department

Inger-Johanne Sletner, Director

#### Interbank Settlement Department

Helge Strømme, Director (until 28.02.2006)

Kjetil Hjeltne, Director (as of 18.04.2006)

#### Cashier's Department

Trond Eklund, Director

#### Contingency planning

Arild J. Lund, Director

### Norges Bank Investment Management

Knut N. Kjær, Executive Director

#### Equities - Investments

Yngve Slyngstad, Chief Investment Officer

#### Equities - Operations

Stephen A. Hirsch, Chief Operating Officer

#### Fixed income - Investments

Dag Løtveit, Chief Investment Officer

#### Fixed Income - Operations

Bjørn Egge, Chief Operating Officer

#### Risk, Performance and Accounting

Ilse Bache, Chief Technology Officer

#### Staff and Legal

Marius Nygaard Haug, Chief of Staff and General Counsel

#### IT Infrastructure

Ilse Bache, Chief Technology Officer

### Norges Bank Staff and Group Services

Harald Bøhn, Executive Director

#### Staff Services

Anne-Britt Nilsen, Director

#### Norges Bank's Printing Works

Jan Erik Johansen, Director

#### Property Management Department

Marit Kristine Liverud, Director

#### Security Department

Arne Haugen, Head of Security

#### Shared Services

Torkel Fagerli, Director

#### ICT Department

Kjetil Heltne, Director

### Corporate Communications

Poul Henrik Poulsson, Director

### Legal Department

Marius Ryel, Director

### Governor's Staff - Investment Strategy

Sigbjørn Atle Berg, Director









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