

# Economic perspectives

Annual address by Governor Svein Gjedrem at the meeting of the Supervisory Council of Norges Bank on 19 February 2004

## Introduction

There is now growth in the Norwegian economy. Oil prices are high. Capacity utilisation in the mainland economy is at the level prevailing in the mid-1990s. Wage growth is slowing. White-collar workers have lowered their wage demands, and there are prospects of a moderate main settlement this spring – the first in eight years. The value of the krone is on a par with the mid-1990 level. The interest rate level is in line with the level among our trading partners.

In that respect, there is equilibrium in the Norwegian economy at present. But it is fragile.

The international division of labour is shifting, and when faced with major changes it is a disadvantage for Norwegian business and industry that costs are high. Inflation is very low.

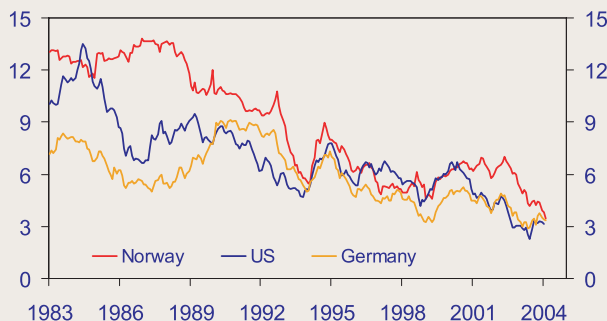
Short-term interest rates abroad have been unusually low over the past 2½ years, and there are no prospects of a considerable increase in the near term even if the world economy is expanding. Last year, interest rates abroad acted as a magnet on Norwegian interest rates. We now have the lowest nominal interest rate level recorded in decades.

Norwegian households are optimistic and are borrowing and investing in housing and property.

This stands in contrast to corporate behaviour. Businesses are rationalising and earnings are on the rise, but they are still investing and borrowing on a limited scale.

The upturn is still not entirely self-sustained.

**Chart 1** Long-term interest rates. Per cent



Source: EcoWin

The chart shows changes in yields on five-year government bonds. Monthly figures.

## A global financial market

Cross-border capital flows have increased considerably in recent decades. Bond markets have moved more in tandem, particularly since the mid-1990s (see Chart 1). This also applies to equity markets.

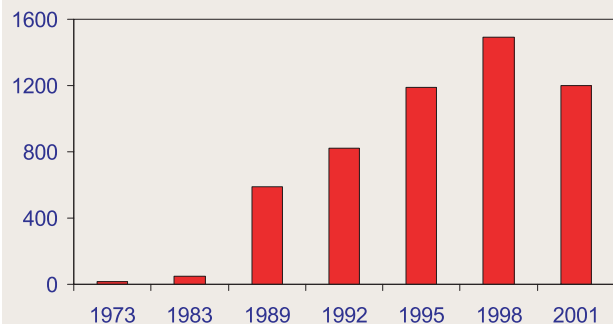
Investors are increasingly spreading their investments across countries. They are diversifying risk, and seeking high returns. In parallel, governments, banks and companies are issuing more debt externally.

Currency trading has increased markedly since the 1980s (see Chart 2). This trend was reversed when the number of currencies was reduced owing to the introduction of the euro. Large trading volumes enhance market liquidity. The growth in currency trading is ascribable to an increase in portfolio investment, higher foreign direct investment and growth in world trade.

The forward exchange and options market have expanded in recent years. A deeper market reduces transaction costs, and it is easier to find counterparties. This has provided companies with greater scope for hedging against foreign exchange risk. The use of instruments that reduce the risk associated with a floating krone is also increasing in Norway.

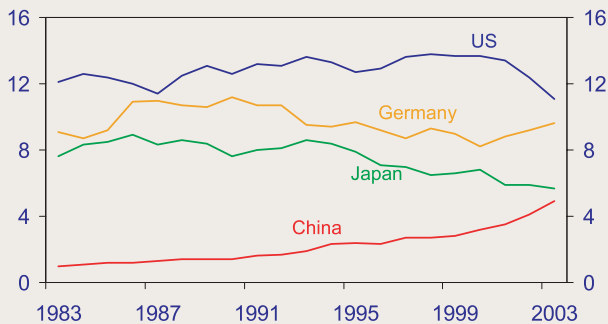
A considerably larger portion of credit in other countries is now channelled via the bond market. Less risk is being accumulated in banking systems. The development of new markets and instruments, for example credit derivatives, has also led to a broader risk spread than earlier.

**Chart 2** Global daily foreign exchange trade. In billions of USD



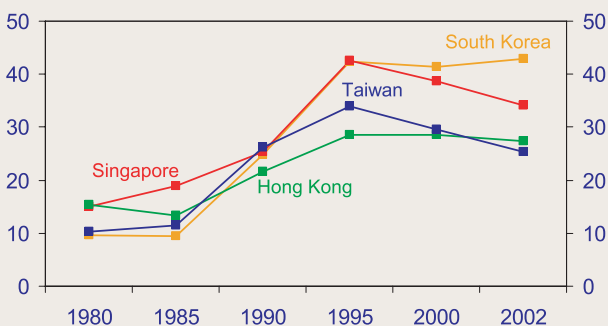
Sources: BIS, IMF, central banks

The chart shows average daily foreign exchange trading reported by member banks in the Bank for International Settlements (BIS). Every third year since 1989, BIS has conducted a survey of activity in the foreign exchange market by gathering data from the central banks of member countries. The figures do not include currency trading over the counter (OTC) and currency trading among member banks. The figures therefore underestimate actual currency exchange. The number of countries included in the study has increased over time. Growth may therefore be overestimated.

**Chart 3** Share of global exports. Per cent

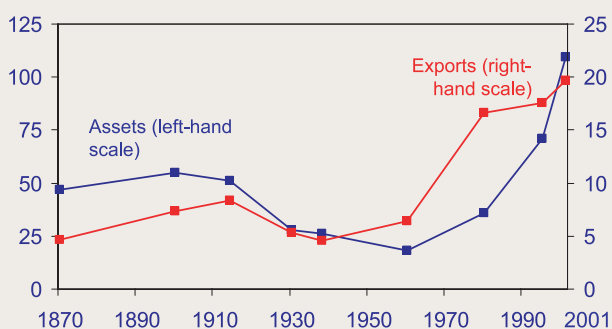
Sources: IMF, EcoWin and Norges Bank

Figures for 2003 for the US, Germany and Japan are based on projections from the IMF.

**Chart 4** Wage level. Percentage of wages in the US

Sources: US Department of Labor and Norges Bank

The chart shows developments in hourly costs, measured in USD, for production workers in manufacturing as a per cent of the level in the US. Hourly costs include wages, health insurance and pension costs.

**Chart 5** Exports and foreign assets. Per cent of global GDP. 1870 - 2001

Sources: IMF and Norges Bank

The curve "Exports" shows global exports as a share of global GDP. The curve "Assets" shows all countries' foreign assets (public and private) as a share of global GDP. Values up to 1995 have been estimated by the IMF. The value for 2001 has been estimated by Norges Bank on the basis of growth in foreign assets for the average of the G-7 countries in the period 1995-2001.

The improved diversification of risk is probably one of the reasons that world financial markets have coped with the stock market decline and the accounting scandals with limited damage to the wider economy. This is probably one reason why the downturn following the stock market decline in 2000 was considerably less pronounced than earlier downturns.

The new instruments spread risk, but do not eliminate it. Financial markets have become highly complex. This alone entails an operational risk, which is a challenge to participants and the supervisory authorities.

## A shift in the international division of labour

Increased trade promotes growth and lays a basis for prosperity. A number of Asian countries have experienced strong, export-led growth – Japan from the 1950s and several countries in Southeast Asia from the 1960s. In recent years, China has become an important player in international trade, and the country is now probably the world's fourth largest trade nation (see Chart 3). The Asian economies and the rest of the world have become more integrated.

Technological advances and a sharp fall in prices in the IT and telecommunications sectors have exposed a number of services that were previously sheltered to competition from low-cost countries. Indian companies service three million customer telephones for companies in the US and the UK – daily. European airlines are transferring ticket settlement to India. US companies are outsourcing accounting services to India. Analytical activity in investment banks and development divisions in ITC companies are also being moved to India. Norwegian engineering companies are buying cheap engineering services in India and China. EU enlargement this spring, with ten new members, is also influencing the division of labour in Europe.

The advances in Asian economies have generally relied on an abundant supply of cheap labour, but wages have gradually increased in step with productivity gains (see Chart 4). A higher income level paves the way for higher imports.

Today's globalisation has a historical parallel (see Chart 5). In the period preceding World War I, the world experienced a period of strong growth in trade and cross-border capital flows. There were few political barriers and major technological advances fostered growth in trade. Prosperity increased. But this period was interrupted, and in the interwar period protectionism gained ground, with trade barriers and a contraction in international trade. This was combined with an economic recession. In the post-war period, trade barriers have gradually been scaled back. Trade picked up already in the 1950s, and since the 1980s financial markets have become evermore interwoven.

## Implications for the Norwegian economy

Intensified competition from Japanese and Korean shipyards had serious implications for Norwegian shipbuilding in the 1970s and 1980s. However, Japan has also become an important market for Norwegian products. From the considerable deficits of earlier years, trade in traditional goods with Japan has moved into near balance.

Strong growth in Asia is probably one of the prominent factors contributing to high oil prices in spite of low growth in the OECD area in recent years. China accounted for close to 50 per cent of growth in world oil consumption in 2002 and 2003. Trade in Asia has stimulated Norwegian shipping.

The Chinese economy could continue to expand at a brisk pace for a longer period, which would open a large market that can also be entered by Norwegian enterprises. Norwegian exports to China have increased, but are still limited.

Over several years, enterprises in Central European countries have been a source of competition for Norwegian jobs. Integration is also opening new markets and providing new sources of income for Norwegian enterprises. At the same time, tender requirements and the freedom of establishment have increased the competition facing Norwegian industries that were previously sheltered.

A steadily larger share of Norway's consumer goods imports come from China and Central European countries (see Chart 6). Growth in imports from China was provided with an additional impetus after China became a member of the World Trade Organization in 2001. Imports from Eastern Europe have also continued to grow.

There are many economic agents in Norway that are benefiting from globalisation. Consumers are enjoying lower prices for goods and services. Input prices have

fallen and companies can sell their products in new markets. But there are also costs. Norwegian businesses and jobs may lose in the competition.

The challenge lies in moving idle resources to new business activities. This requires adaptability and a sound cost policy.

## Monetary policy

The operational target of monetary policy, as defined by the Government, is inflation of 2½ per cent over time. The target is symmetrical – it is just as important to avoid an inflation rate that is too low as an inflation rate that is too high. The inflation target provides economic agents with an anchor for inflation expectations.

History shows that there is no long-term trade-off between lower unemployment or stronger economic growth and higher inflation (see Chart 7). We witnessed this in the 1980s when growth was low and inflation high. The task of monetary policy is to provide a nominal anchor. Low and stable inflation is such an anchor.

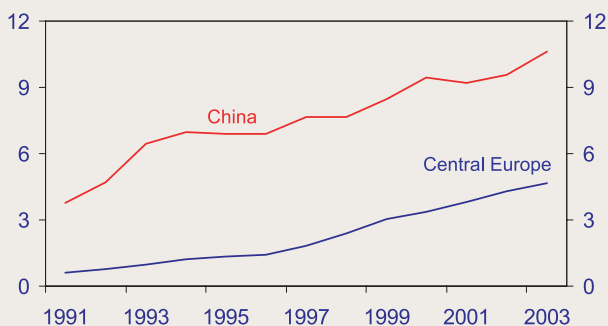
## Why is a little inflation an advantage?

There are several reasons why it is an advantage for inflation to be higher than zero.

The structure of the economy is in flux. Demand for labour with different qualifications is changing. This requires changes in relative wages. There are rigidities in nominal wage growth. Nominal wages do not readily fall. With some inflation, relative wages can change without a fall in nominal wages. There may also be rigidities in the pricing of goods and services. Some degree of inflation will thus oil the economic machinery.

In periods, inflation and economic growth will be low. It is then appropriate for real interest rates to be low, or even negative. Nominal interest rates cannot be set below zero. If inflation becomes entrenched at a low

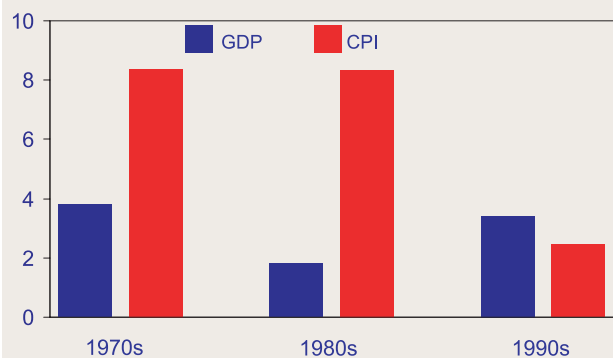
Chart 6 Imports to Norway. Share. Per cent



Sources: Statistics Norway and Norges Bank

The chart shows the share of Norway's import of consumer goods from China and Central Europe. In this chart, Central Europe includes Slovenia, Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Slovakia, Poland and Hungary.

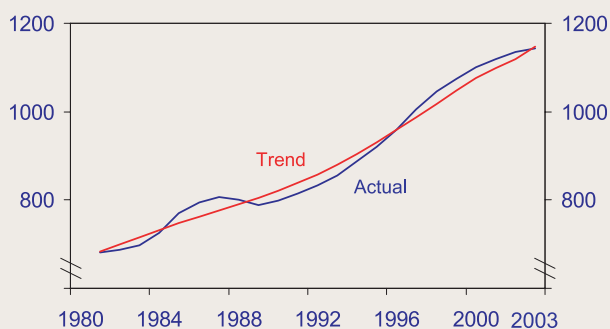
Chart 7 Consumer prices and mainland GDP. Percentage annual rise. Average



Sources: Statistics Norway and Norges Bank

The chart shows the average annual rise in the consumer price index and mainland GDP for the given decade.

**Chart 8 Mainland GDP. In billions of NOK. Constant 2000 prices**



Sources: Statistics Norway and Norges Bank

The chart shows mainland GDP in billions of NOK with constant 2000 prices. The curve "Trend" expresses trend output and is estimated using the Hodrick-Prescott method. The method allows gradual changes in trend output over time, whereas more short-term fluctuations in output are assumed to reflect cyclical variations in demand in the economy. Trend has been adjusted for the fact that the increase in the number of vacation days in 2001 and 2002 reduced the growth potential by approximately ½ percentage point in each of these years.

level or near zero, the interest rate will be less effective as an instrument.

There are different ways of measuring inflation. The consumer price index tends to overestimate actual inflation. The most important source of measurement errors is probably the difficulty of distinguishing between changes in the quality and price of goods. In other countries, findings show that the consumer price index overestimates actual inflation to the order of ½ -1 percentage point.

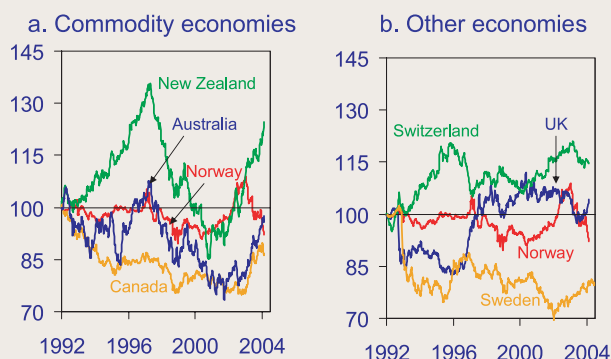
## The conduct of monetary policy

Norges Bank normally sets the interest rate with a view to attaining an inflation rate of 2½ per cent two years ahead. If demand for goods and services is high and there is a shortage of labour, there will normally be prospects of higher inflation. When the interest rate is raised, demand is dampened and inflation is kept in check. If demand is low and unemployment rises, there will be prospects of lower inflation. The interest rate will then be lowered. The inflation target thus represents a framework, not an obstacle, for monetary policy to contribute to stability in output and employment.

In the long run, output is determined by the supply of labour and capital and adaptability, but in the short and medium term monetary policy can also have an impact on the real economy.

Norges Bank operates a flexible inflation targeting regime, so that weight is given to variability in output and employment and inflation. The economy grows over time (see Chart 8). Output will in periods lie below trend growth and in others above trend. Stabilising output growth means that one seeks to maintain actual output near trend.

**Chart 9 Trade-weighted exchange rate. Index. 1992 Week 1 = 100**



Sources: Bank of England and EcoWin

The chart shows developments in the trade-weighted nominal exchange rate. A rising curve denotes a stronger exchange rate. Weekly figures.

## Monetary policy credibility

Expectations play an important role in price and wage formation. Expectations concerning inflation and economic stability are of crucial importance for the foreign exchange market. Inflation expectations also influence wage demands and pricing in the business sector.

With confidence in monetary policy, expected inflation in the long term will be close to the inflation target. This alone contributes to stabilising inflation.

Surveys indicate that enterprises, the social partners and other economic agents expect inflation to be 2½ per cent over time. Financial market participants also expect that inflation will be 2½ per cent ahead, as implied by long-term bond yields.

## A flexible exchange rate

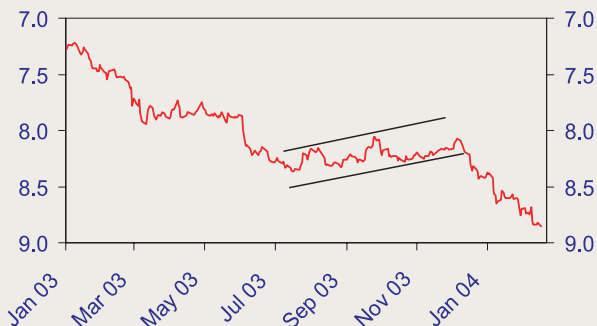
The krone exchange rate is an important channel for monetary policy.

The krone fluctuates. This is not surprising because other countries' currencies also fluctuate. The krone exchange rate is the price of our currency measured in a foreign currency. Developments in other countries are just as important for the krone as developments in the Norwegian economy. Capital flows freely and flows can change rapidly. This can spill over to exchange rates and interest rates as well as output and employment.

A structural feature of open economies like the Norwegian economy - with a national currency - is that the exchange rate fluctuates. The Norwegian krone does not stand out as particularly unstable. On the contrary, in countries like Sweden, the UK, Switzerland, Australia, Canada and New Zealand, the exchange rate fluctuates just as much - or more - than in Norway (see Chart 9).

There is a cost involved for businesses in hedging against fluctuations in the krone. A krone that is stable -

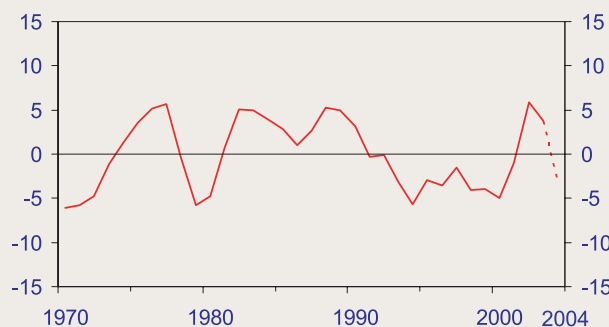
Chart 10 Exchange rate. NOK-EUR



Source: EcoWin

The chart shows developments in NOK measured against the euro. A rising curve denotes an appreciation of the krone. Daily figures.

Chart 11 Real krone exchange rate. Deviation from average. Per cent



Source: Norges Bank

The chart shows developments in the real exchange rate. The real exchange rate may be defined as the relationship between the price level in Norway and the price level among trading partners, measured in a common currency. An increase in the real exchange rate may be due to an increase in the Norwegian price level compared with trading partners, an appreciation of the nominal exchange rate in relation to other currencies or a combination of the two.

The consumer price index (CPI) provides the basis for these calculations. The nominal exchange rate used in the calculations is the trade-weighted exchange rate index (TWI).

The average has been calculated over the period 1970-2003.

The projection for 2004 is based on price projections in *Inflation Report 3/03*. The projections were based on the assumption of an exchange rate equal to the average in the period from 1 January to mid-February.

but too strong - also entails costs in the form of low activity. Similarly, a krone that is stable - but weak - is a source of high inflation.

Petroleum revenues generally provide substantial, but uneven currency inflows into Norway. The currency flows might have resulted in a strong krone and large variations in the exchange rate. This tendency is countered when the annual use of petroleum revenues over the central government budget is predictable and independent of annual revenue inflows, and the remainder is invested abroad. The capital outflow through the Petroleum Fund contributes to both curbing the appreciation of the krone and maintaining its stability.

Norges Bank has not defined an exchange rate target. Nevertheless, developments in the krone are of considerable importance to interest-rate setting because exchange rate developments have an impact on inflation and output. When there are prospects of moderate economic activity, low wage growth and low inflation, Norges Bank will reduce the interest rate. This will normally result in a depreciation of the krone. Prices for imported goods and services will increase. A weaker krone strengthens the competitiveness of Norwegian enterprises and indirectly leads to higher output, employment and inflation.

Themes in foreign exchange markets shift. In periods, investor focus on stock returns feeds through to exchange rate movements. During periods of political and economic unrest, investors may choose individual currencies as a safe haven - often the Swiss franc. In the autumn of 2002, the Norwegian krone was probably also perceived as a safe haven. Wide fluctuations between major currencies have a tendency to result in a weaker krone. In the past 12-18 months, developments in the interest rate differential between Norway and other countries appear to have had a particularly marked impact on our currency. Norwegian interest rates have been pushed down to the level prevailing abroad.

In the autumn of 2003, the krone showed a tendency

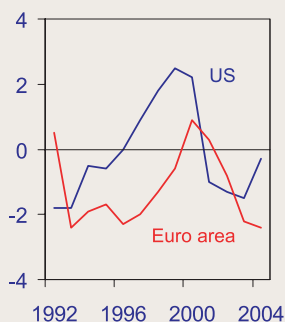
to appreciate against the euro (see Chart 10). This partly reflected lowered market expectations concerning an interest rate increase abroad and expectations that interest rates might rise earlier in Norway than in other countries. At the same time, the euro appreciated in relation to other currencies. Changes in the krone resulted in an unintended tightening of monetary policy. This trend was reversed in December owing to a reduction in interest rates and low inflation figures. The interest rate reduction was probably of considerable importance as it eliminated the excess return on NOK investments. Today, the krone is at a level that is more consistent with the objective of promoting stability in output and employment. The weaker krone will contribute to a rise in inflation from a level that is too low.

Normally, Norges Bank will not intervene in the foreign exchange market in order to influence the exchange rate. Exchange market intervention, whether it be purchases or sales of foreign exchange, is not an appropriate instrument for influencing the krone over a longer period. We do not wish to act in a way that may trigger a game situation 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.

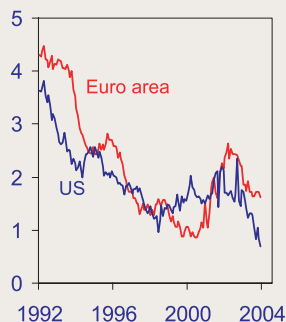
Although the krone may fluctuate in the short term, it will generally stabilise over time (see Chart 11). When inflation has been higher in Norway than among our trad-

**Chart 12****a. Output gap**

Deviation from trend BNP. Per cent

**b. Inflation**

Per cent



Sources: OECD and EcoWin

The chart shows capacity utilisation (annual figures) and inflation (monthly figures) in the US and the euro area.

Capacity utilisation is measured by an output gap. The output gap measures output in the economy in relation to trend output, or to be more precise, potential output, as it is called in the economic literature. Potential output may be interpreted as the level of output that is consistent with stable domestic price and wage inflation.

Inflation in the US is measured by a deflator for private consumption excluding food and energy. Inflation in the euro area is measured by a consumer price index excluding energy, food, alcohol and tobacco.

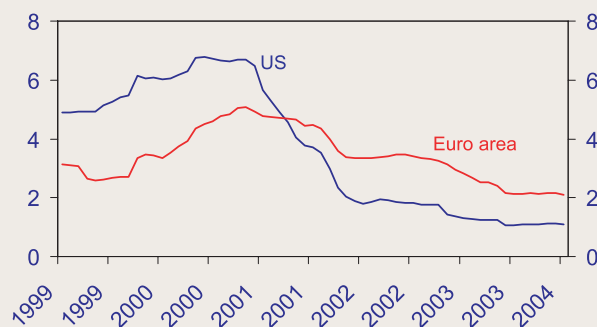
ing partners for a longer period, the krone has generally depreciated. When inflation in Norway is expected to be broadly in line with that of other countries, the exchange rate will normally also return to its normal range following periods when the krone has been particularly strong or particularly weak. This provides a basis for stable exchange rate expectations.

The advantage of a flexible exchange rate is perhaps most evident when the economy is sluggish. If the krone were to remain at a level that is too strong, nominal wages would have to remain unchanged over a longer period or fall in order to bolster companies and jobs. This only occurs when unemployment is very high. With a flexible exchange rate, a depreciation of the krone can also boost competitiveness. A flexible exchange rate can reduce fluctuations in employment and output.

Empirical studies do not provide any evidence that floating exchange rates have reduced growth in industrial countries. Rather, they suggest that industrial countries with floating exchange rates have fared well, and often better, than countries with an exchange rate target. A precondition is that there is an economic policy framework so that inflation does not spin out of control.

## Economic developments and prospects

External cyclical developments and events have had considerable implications for developments in the Norwegian economy.

**Chart 13 Short-term interest rates. Per cent**

Source: Norges Bank

The chart shows developments in three-month money market rates in the US and the euro area. Monthly figures.

The US fuelled the international upswing in the 1990s, with strong growth in private consumption, rising equity prices and a high level of investment. Inflation was low because productivity increased (see Chart 12). In Continental Europe, the upturn started later and was weaker. Capacity utilisation in Germany and France was low through most of the 1990s.

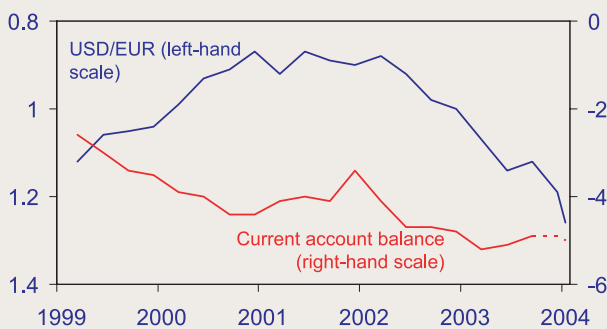
The international upturn came to a halt in 2000. The bubbles in the equity markets burst. Many years of high investment led to excess capacity, and rising unemployment. The terrorist attacks on 11 September 2001 put a new damper on economic activity. From the summer of 2002 to the spring of 2003, a highly extraordinary accumulation of negative events in the global community - accounting scandals, fear of terror, war and disease - put a brake on growth. US interest rates, which were sharply reduced at the beginning of the downturn, have subsequently been reduced further. Interest rates have also remained low in the euro area (see Chart 13).

There are now clear signs that the global economy has passed the trough. However, while the outlook is brighter, price inflation is still low and interest rates are being kept unusually low. Economic growth is high again in the US. Employment is rising, but there is still excess production capacity and very low inflation. It may take some time before interest rates are increased substantially in the US. Growth in Asia is solid, but a global rise in interest rates is unlikely to start there.

Inflation is higher in the euro area than in the US and approximately in line with the objective defined by the European Central Bank. In the euro area, however, capacity utilisation is very low, unemployment high and the outlook for growth is weaker. Against this background, it will probably also take time before interest rates rise markedly in the euro area.

The imbalances in world trade represent a particular risk (see Chart 14). The US is running a substantial trade deficit, which was financed for a number of years by pri-

**Chart 14** USD/EUR and the US current account balance as a percentage of GDP



Sources: OECD and Norges Bank

The chart shows developments in USD/EUR and the US current account balance as a percentage of GDP. Quarterly figures.

The figure for Q1 2004 for USD/EUR is the average exchange rate in the period from 1 January to mid-February.

The OECD's estimates for Q4 2003 and Q1 2004 are used for the US current account balance.

vate capital flows to the US business sector. The flows have subsided and led to a sharp fall in the US dollar at the same time as the euro has appreciated. Through purchases of US government securities, Asian countries have thus far kept their currencies stable against the US dollar.

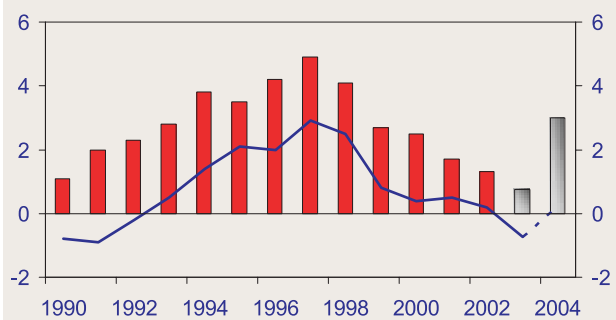
The US federal budget deficit is an important source of the imbalances in world trade. It appears that it will take time before the deficit is reduced to a considerable extent. This entails a risk that the dollar will depreciate further and that US long-term government bond yields will move up. Growth in Continental Europe, which is highly reliant on impetus from exports, may weaken markedly if the dollar continues to fall.

Norway, like other countries, experienced a period of strong expansion in the 1990s (see Chart 15). The expansion in Norway lasted considerably longer than in other countries. In 1998, the economy shifted from an upturn with high growth rates to an expansion with lower growth but low unemployment, labour shortages in many sectors and strong growth in labour costs.

Wage developments culminated in the spring of 2002 and the expansion was reversed in the second half of the year. Growth came to a halt and employment fell. A number of factors triggered this development. Higher wage costs weakened the purchasing power of public entities. Global stagnation had a dampening impact on Norwegian exports. In Norway, the interest rate was kept high after the wage settlement and a persistent, unexpected low level of interest rates abroad resulted in a strong krone. The sharp rise in electricity prices last winter also affected the domestic economy.

Consumer price inflation in Norway declined sharply through 2003 (see Chart 16). A number of factors appear to have contributed to the decline. The appreciation

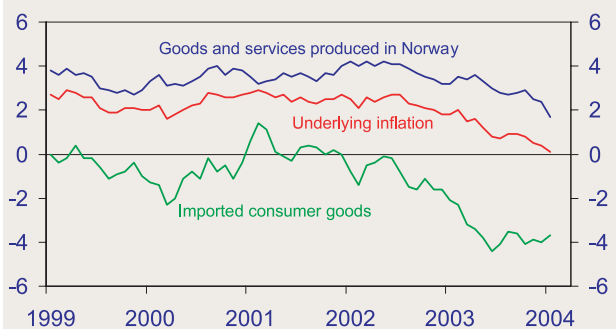
**Chart 15** Mainland GDP and employment. Annual growth. Per cent



Sources: Statistics Norway and Norges Bank

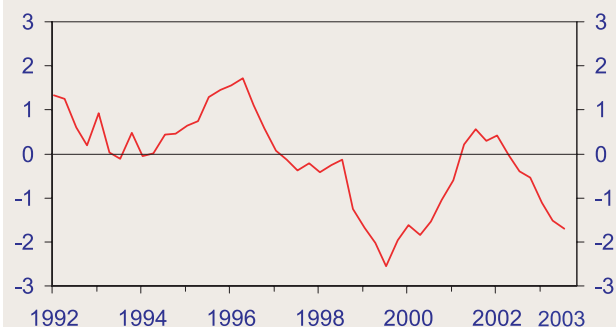
The chart shows annual growth in mainland GDP and employment. GDP growth for 2003 and 2004 are projections from *Inflation Report 3/03*. The same is the case for employment growth in 2004. Figures for annual employment growth in 2003 are taken from Statistics Norway's Labour Force Survey (LFS).

**Chart 16** Inflation. Per cent



Sources: Statistics Norway and Norges Bank

**Chart 17** Price indicator for imported consumer goods. Foreign currency. Percentage rise



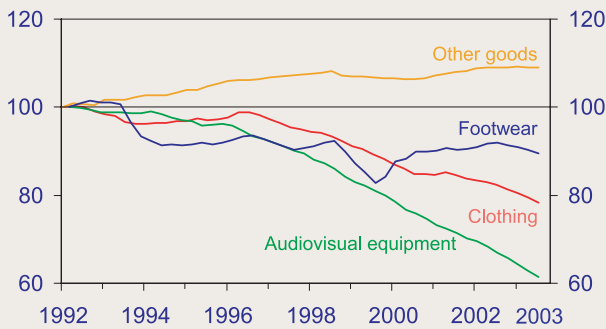
Source: Norges Bank

The chart shows a price indicator for imported consumer goods, measured in foreign currency. Quarterly figures.

The indicator summarises the rise in prices for various groups of consumer goods: audiovisual equipment, furniture and domestic appliances, clothing and footwear, vehicles and other goods (see chart 18).

The indicator is weighted on the basis of the size of the group of goods in the CPI-ATE. The weight is adjusted in relation to the share that is imported.

**Chart 18** Price indicator for imported consumer goods. Foreign currency. Index. 1991 Q1 = 100

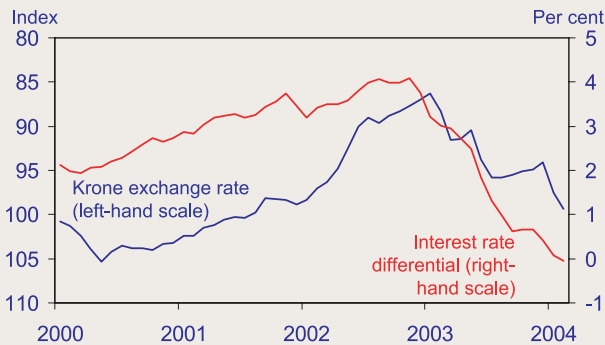


Source: Norges Bank

The chart shows a price indicator for imported consumer goods, measured in foreign currency. Quarterly figures.

Each indicator summarises the rise in prices in the various countries from which we import the individual consumer goods. In addition, account is taken of the effects of shifts in imports from high-cost to low-cost countries.

**Chart 19** Import-weighted krone exchange rate and interest rate differential against trading partners



Source: Norges Bank

The chart shows developments in the interest rate differential between Norwegian three-month money market rates (NIBOR) and a weighted average of three-month money market rates among our trading partners. Developments in the exchange rate are measured by the import-weighted index (I-44). A rising curve indicates an appreciation of the krone. Monthly figures.

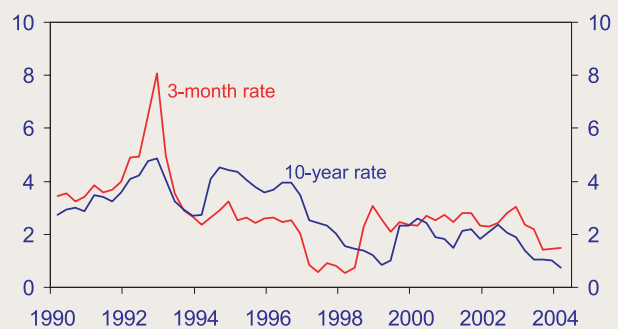
of the krone through 2002 pushed down import price inflation.

A change in trade patterns and external economic conditions have resulted in an unexpectedly sharp fall in import prices, even when measured in terms of what Norwegian importers pay in foreign currency (see Chart 17).

The change in trade patterns has made a considerable contribution to the sharp decline in prices for clothing, shoes and audiovisual equipment (see Chart 18). Rapid technological advances have also pushed down prices for audiovisual equipment.

In Norway, competition has probably increased in the

**Chart 20** After-tax real interest rates. Quarterly figures. Per cent



Sources: Statistics Norway and Norges Bank

The chart shows real after-tax three-month money market rates and real after-tax yields on ten-year government bonds.

Three-month money market rates (NIBOR) have been deflated by underlying inflation the same year. The inflation rate used is the annual rise in the CPI excluding energy products until 1995, Norges Bank's calculations for the CPI adjusted for tax changes and excluding energy products from 1995 to July 2000 and subsequently the CPI-ATE.

The same deflator is used for ten-year government bond yields, but from Q2 2001, the inflation target of 2.5 per cent is used.

January 2004 figures are used for Q1 2004.

retail industry and other service sectors in recent years. Initially, heightened competition affects companies' profit margins. But enterprises will respond by reducing their costs. This will occur in part in the individual enterprise, but subcontractors will also be required to reduce their prices and enhance efficiency. Therefore, increased competition usually triggers higher productivity growth in the economy. Low inflation may therefore be matched by growth in productivity.

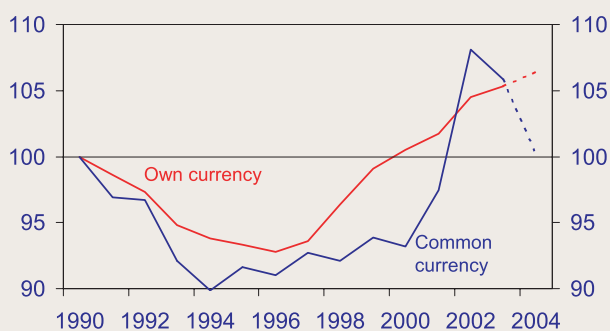
The cyclical downturn last winter, low wage increases last year, fiscal discipline, an unexpected decline in inflation and prospects of low inflation have resulted in a considerable easing of monetary policy. The interest rate has been reduced by 5 percentage points and is now approximately the same as among our trading partners. The krone has depreciated by about 12 per cent over the past year, and has returned to the level prevailing in the summer of 2001 and is in line with the average for the 1990s (see Chart 19).

Monetary policy is expansionary now. This is reflected in low after-tax real interest rates (see Chart 20). A long-term real yield on 10-year bonds can be estimated at about 1 per cent. We have adjusted the nominal interest rate for expected inflation. The short-term real interest rate is estimated at 1½ per cent. We have then adjusted the figure for actual inflation. The fall in nominal interest rates in 2003 has also reduced household net interest expenses. This has increased household purchasing power considerably.

The fall in the value of the krone over the past year has strengthened the Norwegian business sector. The business sector is, however, still feeling the effects of a sharp



**Chart 21** Labour costs in Norway compared with trading partners. Index. 1990=100



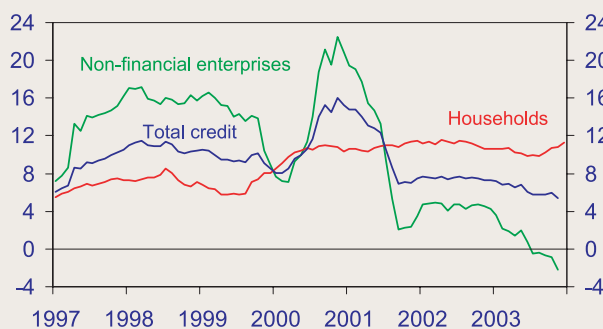
Sources: TRCIS, Ministry of Finance and Norges Bank

The chart shows relative hourly wage costs for manufacturing in Norway and among trading partners. Index 1990 = 100

The curve "Own currency" shows the index for relative hourly wage costs, without taking exchange rate movements into account. The curve "Common currency" shows relative hourly wage costs when exchange rate movements are also taken into account. This curve expresses developments in competitiveness. A rising curve indicates a weakening of competitiveness.

The figures for 2004 are projections. The projection is based on the average exchange rate for the period from 1 January to mid-February.

**Chart 22** Credit growth. Per cent



Source: Norges Bank

The chart shows growth in gross credit to mainland Norway from domestic and foreign sources in the last twelve months, and an estimated distribution between households and non-financial enterprises.

The curve "Total credit" shows Norges Bank's credit indicator C3 for mainland Norway.

The curve "Non-financial enterprises" shows growth in gross credit to mainland non-financial enterprises from domestic and foreign sources. For the sake of simplicity, it is assumed that all borrowing from foreign sources goes to enterprises. In practice, a small share of the loans from foreign sources will also go to households.

The curve "Households" shows the increase in household's domestic gross debt (C2 households).

rise in labour costs over a period of several years. Relative labour costs measured in a common currency are in line with the level prevailing in 1990, but approximately 10 per cent higher than in the mid-1990s (see Chart 21). The internationally exposed sector has been scaled back. Those companies that are currently operating may be in a better position to bear the high wage level. Nevertheless, costs may limit activity and employment.

Growth in the Norwegian economy picked up again through the summer of 2003. In the period ahead, solid growth in household income, subdued consumer price inflation and low interest rates will provide the conditions for high growth in private consumption. There is optimism in the building and construction sector. High petroleum investment is also supporting activity while mainland business investment has been low for a long period.

The number of persons employed began to increase in the summer of 2003 and unemployment stabilised. An economic turnaround has occurred, with a soft landing after the long period of high cost inflation in Norway and a low level of activity in other countries. But inflation is too low.

As mentioned, there are three main factors that have contributed to this.

First, the global downturn had considerable implications for the impact of interest-rate setting in Norway. A strong krone contributed to the decline in inflation. The krone has now returned to its previous level so that the effect will be reversed.

Second, low inflation in other countries and rapid changes in the international division of labour have resulted in a fall in prices for imported goods and services, even when measured in terms of what Norwegian importers pay in foreign currency.

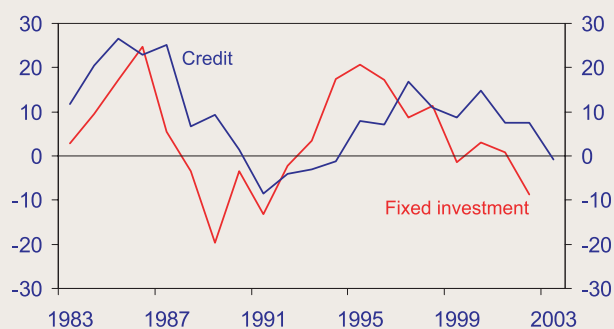
Third, intensified domestic competition also appears to have exerted downward pressure on prices.

As a result of both changes in the international division of labour and increased domestic competition, there is idle labour and available real capital in Norway. We cannot rule out that adjustments will be made over a period of time and that these adjustments will encompass a large portion of the domestic economy. Thus, it is possible that the level of output that is consistent with stable inflation will increase.

Inflation will remain low in 2004. However, the easing of monetary policy will gradually push up inflation. As mentioned, it may take some time before interest rates in other countries are increased to a considerable extent. We have seen that in periods, the krone is heavily influenced by changes in the difference between interest rates at home and abroad, and we must take this into account when setting interest rates. Themes in foreign exchange markets may shift, however. The impact of interest rate changes on the exchange rate may be less pronounced.

When inflation gradually moves up from a very low level, there will be a basis for gradually moving towards a more normal short-term interest rate level in Norway. This may counter the emergence of excessive pressures on domestic resources in the medium term. Interest rate

**Chart 23 Enterprise credit and investments. Nominal growth. Per cent**

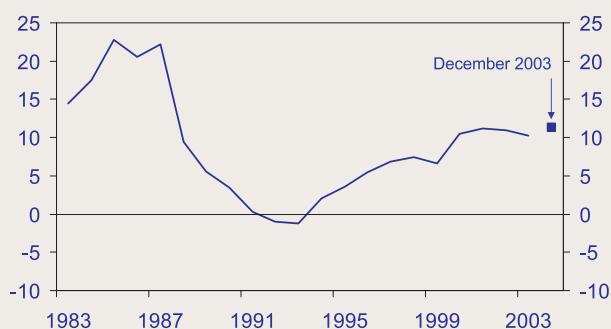


Sources: Statistics Norway and Norges Bank

The curve "Credit" shows the twelve-month rise in private, incorporated enterprises' domestic bond and loan debt at year-end.

The curve "Fixed investment" shows the annual rise in nominal investment in real capital in mainland Norway, excluding public investment and household investment in dwellings.

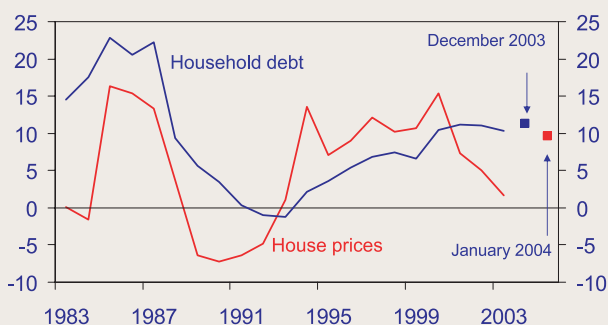
**Chart 24 Household debt. Annual growth. Per cent**



Source: Norges Bank

The chart shows developments in household debt. In addition to the annual figures for 1983-2003, the last months' observations have also been included.

**Chart 25 House prices and household debt. Annual rise. Per cent**



Sources: Norwegian Association of Real Estate Agents, Statistics Norway and Norges Bank

developments in other countries may also have considerable impact on the krone and hence on Norwegian interest rates.

When inflation is low – and as low as it is now – it is appropriate to place considerable emphasis on pushing up inflation. Therefore, we are particularly vigilant with regard to consumer price developments.

## Financial stability

Developments in real economic variables are mirrored in credit markets.

In recent years, household income has shown solid growth, and household confidence has been high. However, corporate earnings have been low, and until recently enterprises have primarily focused on enhancing efficiency.

Credit developments (see Chart 22) are giving ambiguous signals to our interest-rate setting. Growth in household borrowing is high, but enterprises are reducing debt. The change in the breakdown of credit may have been amplified by banks' increased eagerness to extend credit to households after a period of losses on loans to the business sector. Total credit is expanding broadly in line with normal growth in nominal GDP.

Developments in credit to enterprises shadow developments in their investments (see Chart 23). Low credit growth indicates that mainland business investment has not yet picked up.

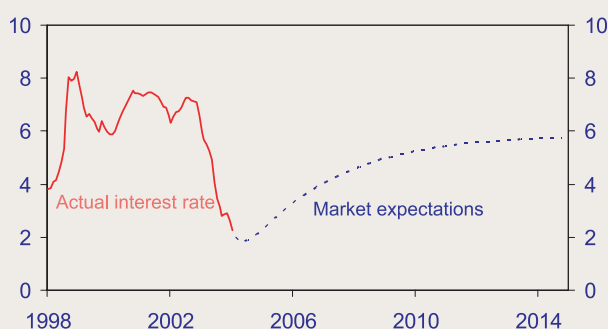
Household debt has increased sharply since 1999 (see Chart 24). Developments in debt in the 1990s may partly be interpreted as a delayed adaptation to the deregulation of the housing and credit markets in the 1980s after many households experienced financial difficulties following the relaxation.

Moreover, there now seems to be a tendency towards investing in property and incurring loans at a more mature age so that younger generations not only inherit dwellings, but debt as well. Both debt and wealth are on the rise for these more mature age groups.

Household credit demand is closely linked to developments in the housing market (see Chart 25). House prices have risen by an average of around 9 per cent over the past 10 years. High and persistent house price inflation can contribute to holding up credit growth even after prices have levelled off. Since only a portion of the housing stock is sold each year, some dwellings will be sold at a higher price than they were last sold for a long period. This is one of the reasons why growth in credit to households has remained high even after house price inflation moderated in 2002 and into 2003.

Home-owners who have seen the value of their dwellings rise have the possibility of taking up new mortgage-secured loans. They free up a portion of their home equity value to finance consumption and other investments.

**Chart 26** Short-term interest rates in Norway  
Actual and market expectations. Per cent



Source: Norges Bank

The chart shows nominal three-month interest rates ("Actual interest rate") and market expectations.

We have used estimated forward rates at 16 February 2004 as an indicator for market expectations. Forward rates are implied interest rates between two future dates. For example, expected three-month rates in three months may be derived from observations of three-month and six-month rates today.

Money market rates with one, three and six-month maturities and yields on government bonds with a residual maturity of from about 1½ to 9½ years have been used to calculate forward rates.

It is easiest to sell dwellings in the largest cities and some specific areas are particularly attractive. Residential property is now a fairly liquid and attractive investment.

Price developments in the housing market are characterised by the fact that there is little change in the housing stock from one year to the next. As a result, higher demand for housing will in the first round translate into higher prices. Housing prices fluctuate more than prices for goods and services, where supply can be rapidly adapted.

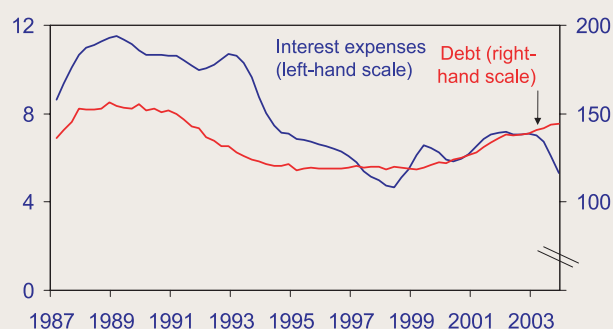
A persistently high rate of increase in house prices can in isolation engender expectations of a further rise and can thus prove to be self-reinforcing for a period.

Norwegian households generally finance their mortgages at an interest rate that follows the short-term money market rate. Floating interest rates tend to vary widely over time.

The interest rate level is very low at present, and long-term investments cannot rely on this interest rate spanning the life of a housing loan. According to money market expectations, the interest rate will eventually stabilise around 5½ per cent (see Chart 26). This is consistent with an inflation target of 2½ per cent and a long-term real interest rate in line with the level abroad. This interest rate, with a mark-up for banks' margins, provides a more realistic expression of the interest rate level that will apply over the loan's life than the floating interest rate prevailing today.

It may prove to be particularly challenging for borrowers to assess their debt-servicing capacity over time at a

**Chart 27** Debt and interest expenses. Per cent of household income



Sources: Statistics Norway and Norges Bank

The curve "Debt" shows household loan debt as a percentage of disposable income.

The curve "Interest expenses" shows household interest expenses after tax as a percentage of disposable income plus interest expenses. The figures from March to December 2003 are projections. Quarterly figures.

time when the interest rate is abnormally low. Such a low interest rate also places particular demands on banks in assessing the creditworthiness of borrowers. But experience has shown that the underlying cause of loans defaults can be overly optimistic assessments on the part of both the lender and borrower.

House prices and developments in household credit influence consumption and housing investment. We seek to take account of these indirect effects in interest-rate setting.

A sharp rise in asset prices and debt accumulation may pose a risk to economic stability. With a view to mitigating this risk, it will be appropriate in some situations to apply a somewhat longer-than-normal time horizon than two years to attain the inflation target. However, at present debt accumulation is high only in the household sector. Enterprises are accumulating little debt. House prices are rising, but non-residential property prices are stable.

The debt to income ratio is now in line with the level recorded at the beginning of the 1990s (see Chart 27).

We have limited scope for restraining structural changes that occur when households increase their debt over several years to invest in housing and other property and assets. An interest rate that would effectively restrain these structural adjustments would also have an adverse impact on output and employment.

The interest rate can be used to reduce credit demand. At present – with low interest rates abroad and a close link between domestic interest rates and the krone – a tighter monetary policy would restrain credit demand primarily because job security would be reduced.

A flexible inflation targeting regime reduces the possibility of exposing households to a double shock in the

form of higher unemployment and higher interest rates, as was the case prior to the banking crisis in the beginning of the 1990s. If the economy is exposed to disturbances that lead to higher unemployment, inflation will normally decline and interest rates will be lowered.

## Conclusion

### *To sum up:*

The operational target of monetary policy is inflation of close to 2½ per cent over time. Norges Bank operates a flexible inflation targeting regime, so that weight is given to variability in output and employment and inflation.

Norges Bank has not defined an exchange rate target. A flexible exchange rate enhances stability in output and employment.

A structural feature of open economies like the Norwegian economy – with a national currency – is that the exchange rate fluctuates. The forward exchange and options markets have provided companies with greater scope for hedging against foreign exchange risk.

An economic turnaround has occurred, with a soft landing after the long period of high cost inflation in Norway and low activity in the global economy.

But inflation is too low.

The appreciation of the krone through 2002, a change in trade patterns and external economic developments

have contributed to low import price inflation. Domestic competition also appears to be exerting downward pressure on inflation.

As a result of both changes in the international division of labour and increased domestic competition, there is idle labour and available real capital in Norway. Thus, it is possible that the level of output that is consistent with stable inflation will increase.

Credit developments are giving ambiguous signals to our interest-rate setting. The interest rate can be used to reduce credit demand. At present – with low interest rates abroad and a close link between domestic interest rates and the krone – a tighter monetary policy will restrain credit demand primarily because job security would be reduced.

When inflation gradually moves up from a very low level, we can begin to move towards a more normal short-term interest rate level in Norway. This may counter the emergence of excessive pressures on domestic resources in the medium term. Interest rate developments in other countries may also have a considerable impact on the krone and hence on interest rates in Norway.

When inflation is low – and as low as it is now – it is appropriate to place considerable emphasis on pushing up inflation. Therefore, we are particularly vigilant with regard to consumer price developments.