# Economic perspectives

Annual address by Governor Svein Gjedrem at the meeting of the Supervisory Council of Norges Bank on 20 February 2003

The global economy is ailing, plagued by a recent history of unsound investments, a fall in equity prices and fears of terror and war. In Norway, employees obtained the strongest increase in real wages for a generation in 2002. Petroleum revenues have generated excessive optimism. The imbalances caused by the combination of global stagnation and the high Norwegian cost level are leading to job losses and higher unemployment.

## Why has the krone appreciated?

The krone is strong. As a result, prices for imported goods have fallen. This has led to low and stable inflation in spite of sharp wage growth. It would appear that inflation will also remain low in the years ahead.

The krone exchange rate fluctuates. This is not surprising because other countries' currencies also fluctuate (see Chart 1). The Swedish krona depreciated sharply in 1992. Since then it has remained weak, but has shown wide variations. Pound sterling appreciated by more than 20 per cent between 1996 and 1998, reflecting solid growth in the UK economy from the mid-1990s. A currency that has exhibited wider swings than most is the New Zealand dollar. A sharp appreciation up to the mid-1990s was subse-quently reversed. Over the past two years, this currency has moved in tandem with the Norwegian krone.

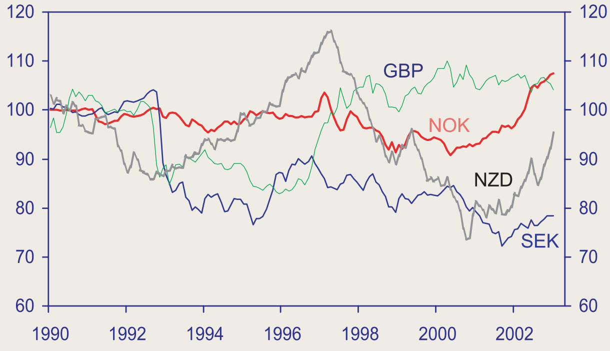
The krone exchange rate is the price of our currency measured in terms of a foreign currency. Developments in other countries are just as important for the krone as developments in the Norwegian economy.

Capital flows freely and flows can change rapidly. This can spill over to exchange rates and interest rates as well as output and employment.

Currency swings are driven by cross-border capital movements. Capital flows were heavily influenced by investor focus on stock market returns until the downturn began. In the US, equity prices almost trebled between 1995 and 2000 (see Chart 2). Stock markets in other countries followed suit. Capital inflows into the stock market resulted in a strong dollar. However, expectations concerning corporate earnings were higher than later proved to be warranted. When expectations were lowered, equity prices fell. The decline was amplified after the downturn in the global economy deepened as a result of terror and fears of war. Investors sought to avert the risk in the stock market. Demand for bonds increased, resulting in low long-term interest rates.

In response to heightened uncertainty and fears of war, traditional safe havens for capital, such as the Swiss franc and gold, have become increasingly attractive. The Swiss franc appreciated after the terrorist attacks on 11 September 2001 and towards the end of last year (see Chart 3). Gold prices moved up sharply after UN Security Council Resolution 1441 was adopted on 8 November last year.

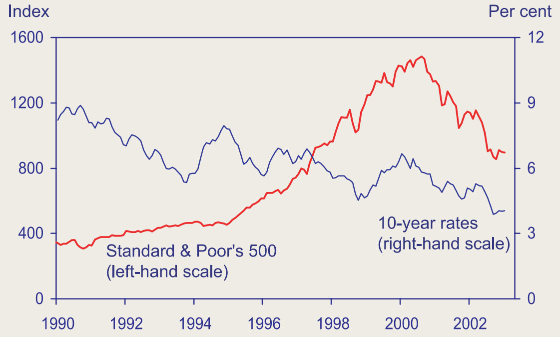
Chart 1. Effective exchange rates
1990=100




Source: EcoWin

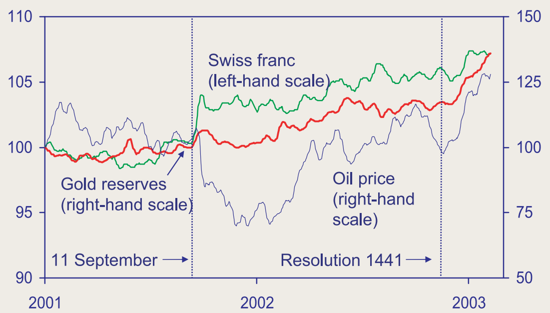
The chart shows developments in the nominal effective exchange rates for Norway, Sweden, the UK and New Zealand. A rising curve denotes an appreciation of the exchange rate. Monthly figures

Chart 2. Equity prices and long-term interest rates in the US




Source: EcoWin

Chart 3. A war economy?
Index. January 2001=100




Source: EcoWin

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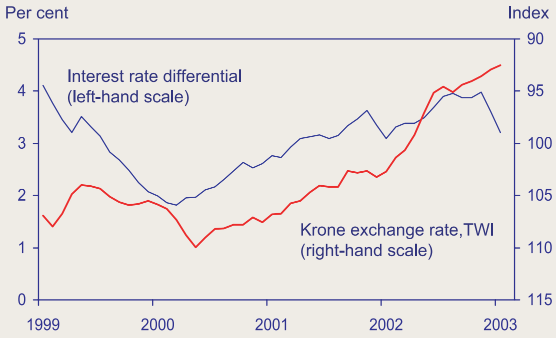
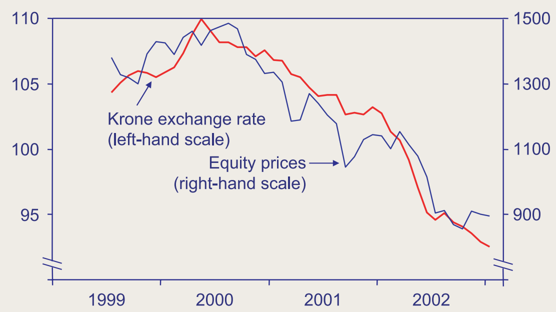
## Chart 4. Krone exchange rate and the interest rate differential




Source: Norges Bank

The chart shows the difference between Norwegian and trading partners' three-month rates. Trading partners' interest rates are trade-weighted. Developments in the krone exchange rate are measured in terms of the trade-weighted exchange rate index index (1990=100). A rising curve denotes an appreciation of the krone. Monthly figures.

## Chart 5. Krone exchange rate and US equity prices

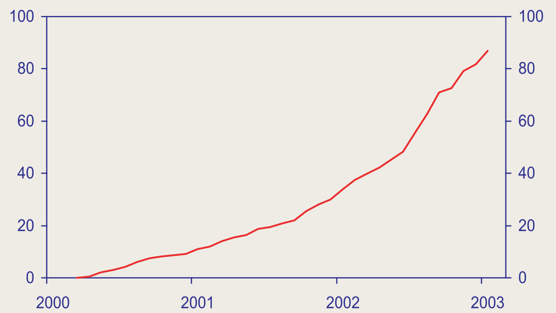



Sources: EcoWin and Norges Bank

The chart shows developments in Standard and Poor's 500 equity index as well as developments in the trade-weighted exchange rate index (1990=100). A falling curve for the krone exchange rate denotes an appreciation of the krone. Monthly figures.

## Chart 6. NOK bonds issued outside Norway

Total outstanding. In billions of NOK




Source: Norges Bank

Oil prices fell markedly after 11 September 2001, but have since risen. Fears of war in Iraq have increased the uncertainty surrounding global oil supplies. Strategic oil reserves have risen, while private reserves are low. This has exerted upward pressure on oil prices. The strike in Venezuela has also had an impact.

Major economies such as the US, Germany and France are struggling with stagnation and fears of recession. Substantial tax relief and low interest rates are holding up activity in the US. The Japanese economy has been in a deflationary recession for a long period.

In recent years, the krone exchange rate has shadowed the difference between Norwegian and foreign short-term rates (see Chart 4). This is why the krone has appreciated to its current strong level. In addition, high oil prices have had an influence. The effect of the interest rate differential on the krone has been intensified by conditions in capital markets. Investors have been favouring carry trades. Risk premiums in major currency markets have been low, which seems to indicate that investors have been less prone to speculate in exchange rate fluctuations.

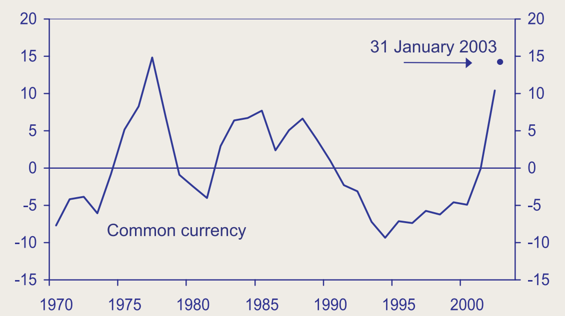
As equity prices fell, investors started seeking alternative vehicles. This made the krone market more attractive. The krone appreciated at the same time that foreign stock markets and domestic equity prices fell (see Chart 5). Bonds and other interest-bearing securities have been of particular interest.

This is reflected in the international market for bonds issued in NOK. Last year, such bond issues amounted to more than NOK 50 billion (see Chart 6). Both foreign and Norwegian companies were issuers and a number of small and large foreign investors and Norwegian companies - primarily life insurance companies - were buyers.

The relationships in the foreign exchange market are unstable. New shifts in the world economy may reduce interest in the krone.

## Chart 7. Relative labour costs

Deviation from historical average. Per cent




Sources: TRCIS/IMF, Ministry of Finance and Norges Bank

The chart shows relative hourly labour costs in the manufacturing sector in Norway and among Norway's trading partners, calculated in a common currency. The series shows the percentage deviation from the average for the period 1970-2002. Estimates from the Technical Reporting Committee on Income Settlements (TRCIS) for 2002. Annual averages. The point marked 31 January 2003 shows relative hourly labour costs in 2002, translated into a common currency with the trade-weighted exchange rate index as at 31 January 2003 (93.64).

As a result of the strong krone and a high wage level, competitiveness in business and industry is close to 15 per cent weaker than the average for the past 30 years (see Chart 7). Historically, following such substantial deviations, competitiveness has always returned to the average fairly rapidly. Market participants weigh the interest rate differential between Norway and other countries against the likelihood of a depreciation of the krone in the future. Cyclical divergence can cause the krone to overshoot its future level in the short term. However, in the long term, the krone cannot remain this strong. This would require a substantial improvement in our capacity to generate income.

## What are the factors behind the wide interest rate differential?

With the krone exchange rate prevailing at end-January, competitiveness had weakened by a little less than 25 per cent since 1996 (see Chart 8). The krone had appreciated by almost 10 per cent.

In the same period, wages in Norwegian manufacturing increased by close to 15 per cent more than wages among trading partners. In the years around the millennium, the depreciation of the krone veiled the underlying deterioration in competitiveness. In May 2000, the krone hit its lowest level in six years[1]. The krone has since appreciated, and the effect of high wage growth has gradually come into evidence in company accounts.

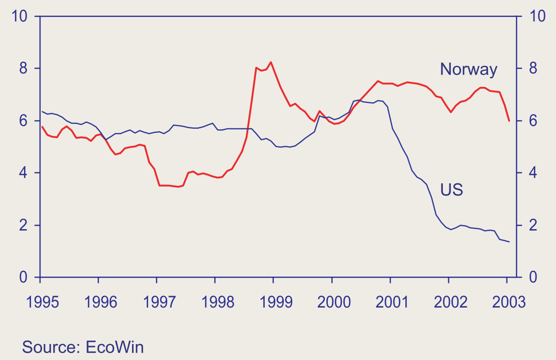
In the ten years that have passed since the banking and currency crisis in 1992, the economy featured a long period of balanced growth. However, towards the end of the upturn the economy was facing labour shortages, higher wage growth and a sharp increase in household consumption and debt. Interest rates had to be kept at a high level in Norway.

The turnaround abroad took place two years ago, but the Norwegian economy continued to show a high level of activity. This led to a widening of the interest rate differential against other countries. The main explanation for the wide interest rate differential is not that interest rates are high in Norway, but that interest rates are at a historic low abroad (see Chart 9). Interest rates in the US have not been at such a low level since the 1960s.

A further jump in wages in 2002 amplified the imbalances in the economy and fuelled the rise in prices for goods and services produced in Norway. This is why monetary policy has been tight.

The real interest rate, i.e. the interest rate adjusted for inflation, rose in 2000 and was thereafter somewhat higher than the average for the past 30 years (see Chart 10). With the reduction in the key rate this winter, the real interest rate is no longer particularly high. The tight monetary stance is reflected in the strong krone.

Chart 9. Cyclical divergence
Short-term interest rates in the US and Norway



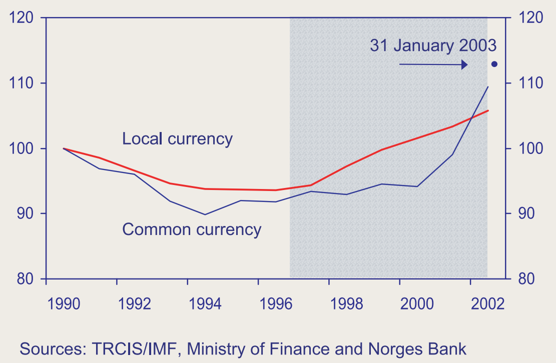

The chart shows average monthly figures for three-month money market rates in Norway and the US.

## Is there a risk of prolonged stagnation?

The US has been the driving force in the world economy. The US economy has historically been very resilient. Growth tends to pick up rapidly after short periods of contraction. Most likely this will prove to be the case this time as well. A positive aspect is that confidence in the financial system has not been impaired. There is some evidence of a recovery in investment.

However, we cannot exclude the possibility of a fairly long period of stagnation in the global economy. Low interest rates in the US and Europe are a reflection of this risk. The level of investment in the US was high during the expansion, which may have resulted in excess capacity in the business sector. The fall in equity prices is having a negative effect on household wealth. In addition,

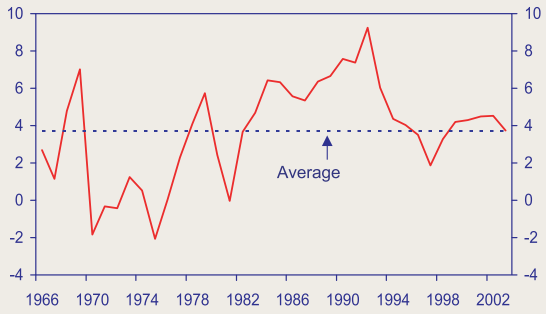
Chart 8. Relative labour costs




The chart shows relative hourly labour costs in the manufacturing sector in Norway and among Norway's trading partners. Index 1990=100. Estimates from TRCIS for 2002. Annual averages. The curve *local currency* shows the index for relative hourly labour costs without taking exchange rate developments into account. The curve *common currency* shows relative hourly labour costs when exchange rate developments are also taken into account. This curve expresses developments in competitiveness. A rising curve denotes a deterioration in competitiveness. The point marked 31 January 2003 shows relative hourly labour costs in 2002, translated into a common currency with the trade-weighted exchange rate index as at 31 January 2003 (93.64).

[1] Measured by the monthly average of the import-weighted exchange rate against 44 countries, the krone was at its weakest level in May 2000 since May 1994. Measured by the monthly average of the trade-weighted exchange rate index, the krone was at its weakest level in May 2002 since the series was started in January 1971. Measured by both indices, there were a few days in autumn and winter 1998 when the krone was weaker than in May 2000.

Chart 10. The real interest rate
Per cent




Sources: Statistics Norway and Norges Bank

The real interest rate is the three-month nominal money market rate (NIBOR) deflated by the inflation rate the same year. The inflation rate used is the annual rise in the CPI-ATE in the period 1980-2002 (calculated by Norges Bank until 2000). For the years 1966-1979, the interest rate is deflated by the annual rise in the CPI. For 2003, the nominal interest rate level as of 13 February 2003 is held constant for the remainder of the year. The nominal interest rate is deflated by Norges Bank's projection for the annual rise in the CPI-ATE in 2003 from *Inflation Report* 3/02. The average real interest rate from 1966 to 2003 is 3.71 per cent.

US household saving is low and low interest rates have induced households to accumulate debt. The fall in the value of the dollar may make a contribution, but growth in the business sector is still not self-driven and the depreciation of the dollar is reducing other countries' exports. The impetus generated by the US economy may be weak for several years ahead.

Nor is the rest of the world showing clear signs of an imminent recovery. Japan is dragging down growth in the world economy. The large European economies, in particular Germany, are stagnating. Unemployment is high, but the growth potential appears to be low.

Interest rates in the US and Japan have been reduced to such a low level that there is little room for further stimulus. The monetary policy authorities could use more unorthodox measures. For example, the central bank could purchase massive volumes of long-term bonds – as seen in Japan – or other assets. It is uncertain how effective such measures are. Traditional fiscal policy instruments may also prove to be ineffective when budget deficits are rising sharply. This may fuel expectations of future fiscal retrenchment and tax increases.

If the world economy continues to stagnate over a longer period, the effects will also spill over to the Norwegian economy. The decline in traditional exports will then persist. Sooner or later, the oil market will also feel the effects of the downturn and oil prices will decline. If the world economy experiences prolonged stagnation and the krone remains firm, a markedly lower interest rate will contribute to a weakening of the krone and mitigate the effects for Norway. On the other hand, any fiscal slippage will contribute to maintaining a strong krone.

A precondition for countering a possible downturn by means of monetary policy easing is slower growth in labour costs. Monetary policy cannot prevent an increase in unemployment that is caused by a significantly higher rate of growth in labour costs in Norway compared with other countries.

A stagnating global economy has changed the domestic inflation outlook in recent months. World stock markets have continued to decline. It does not appear that interest rates in the US and Europe will increase in the near future. They may even be reduced further before the recovery starts. In Norway, the interest rate has also been reduced. At the same time, fiscal policy is stimulating activity, partly through tax reductions and growth in government allocations. In addition, state finances weaken when the economy shows little growth and unemployment rises. As a result of the strong krone, however, overall economic policy is tight. With an equally tight policy ahead, inflation would probably have been lower than the inflation target. A gradual easing of monetary policy would thus seem appropriate.

## Does the inflation target promote stability?

The operational target of monetary policy as defined by the Government is inflation of close to 2.5 per cent over time. The inflation target provides economic agents with an anchor for their decisions concerning saving, investment, budgets and wages. Households, businesses, public entities, employees and employers can base decisions on the assumption that inflation in Norway will be 2½ per cent over time.

The responsibility for implementing monetary policy has been delegated to the central bank. This is also the case in comparable countries. The central bank shall exercise professional judgement within the framework of its mandate. Assessments of economic developments and the basis for interest rate decisions are presented to the public. This makes it possible for others to gain insight into the assumptions and analyses underlying interest rate decisions.

The operational target is well defined. The Bank's judgement can therefore be evaluated retrospectively. Norges Bank explains the reasoning behind its judgement in its annual report. The Bank's reporting requirement is set out in § 75, litra c of the Constitution, which stipulates that the Storting shall supervise Norway's monetary system. Up to 1950, the annual report was submitted directly to the Storting. Today, in keeping with the Norges Bank Act, it is sent to the Ministry of Finance for submission to the King in Council and communication to the Storting in the Government's credit report. The law thereby provides a framework that allows the government authorities to follow up the performance of the delegated responsibility for monetary policy.

Norges Bank sets the interest rate so that future inflation will be equal to the inflation target of 2½ per cent. High demand for goods and services and labour shortages normally point to higher inflation in the future. When interest rates are increased, demand falls and inflation is kept at bay. When demand is low and unemployment rises, inflation will tend to slow. Interest rates will then be reduced. The inflation target is a vehicle for, not an obstacle to, monetary policy's contribution to stabilising output and employment. This intention is also expressed in the Regulation on Monetary Policy.

The inflation target of 2½ per cent is broadly in line with the inflation targets of our trading partners. It is also an anchor for developments in the krone exchange rate. The krone fluctuates. We have open trade with other countries and free capital movements. We do not have the instruments to fine-tune the krone exchange rate. As long as inflation remains low and stable, any substantial deviations in the krone exchange rate over time will have a considerable impact on activity in business and industry. As a result, the krone exchange rate will tend to return to its long-term mean following any substantial deviations. The best contribution monetary policy can make to stability in the krone exchange rate is to aim at low and stable inflation.



Wide cyclical differences and differences in wage formation between Norway and other countries have always had an impact on the krone exchange rate and competitiveness. The central bank alone cannot, with the instruments at its disposal, steer the exchange rate.

During the years when a fixed or stable exchange rate was the objective of monetary policy, fiscal policy was responsible for smoothing fluctuations in the economy. At the same time, incomes policy's role was to keep wage growth in line with wage growth abroad. The objective of exchange rate stability therefore provided a framework for economic policy.

When foreign interest rates moved up, the interest rate in Norway also had to be raised in order to prevent a weakening of the krone. Conversely, interest rates in Norway were often reduced following a reduction in interest rates abroad.

One can imagine how this division of responsibility would have been implemented in the face of the disturbances to the Norwegian economy which occurred in 2001 and 2002. The upward tendency of the krone would have led to reductions in the interest rate down to the international level. As a result, interest rates would also have reached a historical low in Norway. Low interest rates would have fuelled lending growth, pushed up house prices and intensified the shortage of labour. In order to prevent another bubble of this type in the Norwegian economy, substantial fiscal policy tightening would have been required in 2001, 2002 and 2003.

The fiscal rule stipulates that the central government budget deficit shall over time be equivalent to the expected real return on the Government Petroleum Fund. The rule is robust to variations in government revenues and provides a stable framework for economic developments. The fiscal rule has been adhered to, which in itself makes a considerable contribution to stability.

Monetary policy has been assigned a clear responsibility for stabilising the economy. Inflationary pressures are addressed using a different approach than earlier. Monetary policy keeps inflation under control. This may translate into high interest rates and in periods a strong krone.

The alternative could have been higher inflation, with a continued contest for economic resources and persistently high wage growth. This would have resulted in a continued deterioration in business sector competitiveness year after year as a result of higher price and cost inflation in Norway than abroad. The experience of the 1970s and 1980s shows that inflation and wage growth do not have a stable anchor under these conditions. Inflation and wage growth would have continued to move up until monetary policy was tightened. Unleashing inflation is not a viable alternative.

## Why is unemployment rising?

High labour costs, a strong krone and global stagnation are leaving a mark on Norway's internationally exposed sector. Many enterprises will not be able to sustain activity given current market conditions and cost levels. Labour costs are also squeezing margins in some private service industries. More enterprises are competing on international markets. Moreover, even if allocations are growing, public entities have limited capacity for increasing employment because wage expenses have risen so sharply.

Unemployment has edged up recently. The current unemployment rate of 4 per cent is more or less on a par with unemployment in 1997 (see Chart 11). It is also 2 percentage points lower than the average number of unemployed and persons participating in labour market programmes in the 1990s. For manufacturing, the effect of weak profitability has not yet come into full evidence. Unemployment is therefore expected to increase somewhat in the period ahead.

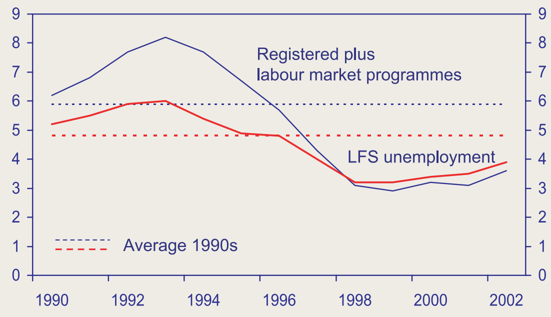
In spite of the high level of wage growth, inflation is low. Conditions are now conducive to a gradual narrowing of the interest rate differential between Norway and abroad. How tight monetary policy will be is essentially contingent on how fast wage growth is brought down.

The inflation targets adopted by Norway and our trading partners imply that total wage growth of about 4½ per cent is consistent with little or no change in business sector competitiveness. This is based on the assumption that productivity growth in Norway is around 2 per cent, or about the same as the average for the past 20 years. Both companies and employees can take as a given that inflation will be 2½ per cent over time. This reduces uncertainty and makes it possible for the social partners to disregard brief spells of somewhat lower or somewhat higher inflation.

Inflation does not have to be higher than 2½ per cent in Norway to achieve growth and high employment. The experience of the 1990s demonstrates this. During that period unemployment fell and growth was strong. Even with major restructuring and changes in industry structure, inflation was close to 2½ per cent.

Growth in real wages is now markedly higher than the underlying growth in productivity. This is why unemployment is rising. Businesses must adjust their work-

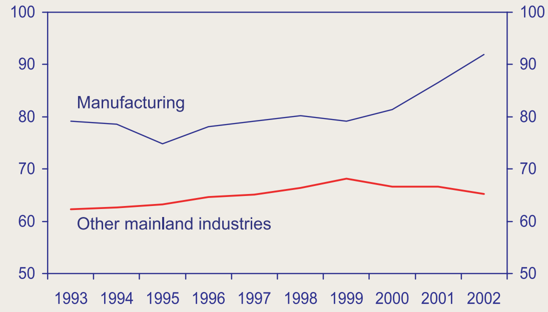
## Chart 11. Unemployment
Per cent




Sources: Public Employment Service, Statistics Norway and Norges Bank

The chart shows the total number of registered unemployed and those participating in ordinary labour market programmes as a percentage of the labour force. Unemployment as measured by the Labour Force Survey (LFS) is also shown as a percentage of the labour force. Annual averages. The dotted lines show the averages for the period 1990-1999.

## Chart 12. Wage shares
Labour costs as a percentage of factor income




Sources: TRCIS and Statistics Norway

Wage shares are labour costs' share of value added after direct and indirect taxes on production (factor income).

forces to sustain profitability. This leads to a fall in employment, but also continued operations in Norway. The alternative is that companies are not able to adjust their workforces quickly enough. If higher costs cannot be passed on to customers, earnings will fall and the wage share rise. This may lead to closures or relocation of production.

The wage share in Norwegian manufacturing has increased (see Chart 12). The situation in service industries is more mixed. Import firms have wider margins. We know that employment in some service industries has fallen. This may indicate that many service enterprises have adjusted their workforces. To some extent, higher costs can more easily be passed on to customers through higher prices in this sector.

This picture is typical of the final phase of an expansion. A tight labour market and the contest for economic resources lead to a sharp increase in real wages. This results in high growth in household income, consumption and housing investment. The propensity to borrow increases and house prices rise sharply. On the other hand, the business sector faces pressures on profitability, a high cost level and declining investment. Commercial property prices fall. At the same time, corporate restructuring brings growth in employment to a halt. When costs reach a high level, employment starts to fall. The period of expansion has then come to an end. The cost level must be adjusted to restore balance in the labour market.

Wage formation in Norway is subject to an institutional and statutory framework and agreements that have been developed over several decades. The result of negotiations is influenced by labour legislation, including regulations relating to job protection, unemployment benefits and the rules that apply to cooperation and settlement of industrial disputes.

In important segments of the labour market, there appears to have been a shift in the social partners' strategic position in negotiations in favour of employees. Technological changes, increased demands for stable supplies and intensified international competition have made enterprises in many industries ever more vulnerable to even short operational disruptions. The employers' ability and willingness to take on open labour conflicts have therefore diminished.

On the other hand, corporate boards and management are responsible for decisions on expansions, closures, rationalisation, location and workforce increases. Unions have little direct influence on these matters. If company costs increase, either productivity must be improved, production closed or relocated to another country. This is the companies' arena. Their decisions concerning operations, investment and location are in turn determined by the rate of return required by owners to keep their capital in the company.

Under these operating parameters, developments in labour costs essentially reflect employees' and their organisations' assessment of the trade-off between real wage growth and employment. These organisations cannot assume that others can safeguard their members' jobs when they determine how high pay increases should be.

The pay increases for white-collar workers in the business and financial sector and academics in the public sector have been particularly high. For a long period, this mirrored the high wage growth for liberal professions, consultancy firms, law firms and the IT industry. However, wage growth for white-collar workers and academics appears to be holding up even with weaker labour market conditions for these groups. In many places in our country, public sector wages are higher than the level that can be sustained by local businesses in a less favourable economic environment.

It may appear that wages for white-collar workers are first increased in line with that of other groups and then supplemented by individual increases based on performance and profits. The overall rise in wages does not seem to be adapted to the situation now faced by many enterprises or to an ample supply of labour. The system for determining these groups' wages may be an unnecessary source of cost increases for enterprises and public entities.

Last year's wage settlements resulted in wide differences in pay increases across different groups. This may give rise to renewed tension between occupational groups and new wage spirals. Because substantial pay increases negotiated in 2002 will take effect in 2003, wage growth will also be high this year even without any new generous pay increases. It may take time and be very costly for business and public entities to resolve the problems caused by last year's wage settlements. It will only be well into 2004 before we can assess how high the unemployment rate will be in this business cycle.

## One of the richest countries in the world?

Norway's position as petroleum exporter may have influenced wage developments and affected household optimism and eagerness to borrow. The risk of job losses and a rise in unemployment may have been underestimated. Cash flows from the petroleum sector may give rise to the perception that Norway is one of the absolute richest countries in the world.

The large cash flows from petroleum activities are reflected in official income figures. Measured by GDP per capita, Norway ranks high in the statistics. These figures do not, however, provide an accurate picture of value added.

When calculating GDP and national income, the cash flow from petroleum activities is measured in the same way as all other income. Extracting oil and gas from the seabed is measured in the same way as all other production. This means that Norway's income is overestimated. Oil and gas represent wealth under the seabed. When oil and gas are sold, this wealth is invested abroad. This transaction does not in itself generate income, even though it is posted as income in the national accounts. The income is not equivalent to the entire cash flow, only to the return on this wealth.

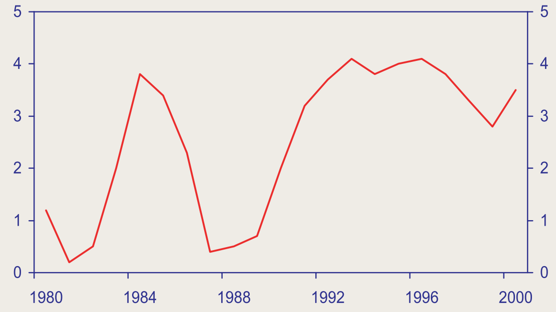
A more accurate picture of Norway's income is obtained when GDP is adjusted for the transfer of petroleum wealth to financial investments abroad. The so-called "permanent income" from petroleum activities can be used to calculate the return both on today's Petroleum Fund and on future investments. The value of labour input in the petroleum sector comes in addition.

With this more accurate picture, the income level in Norway is not particularly high. Norway's income is approximately on a level with other Western countries such as Australia and Germany, while the level in, for example, Canada and Denmark is considerably higher[2].

Norway's income is generated through labour. Income growth in the 1990s was unusually strong as a result of substantial productivity gains and a sharp increase in employment. Major technological advances were achieved in the petroleum industry, and productivity growth in private services was especially high – particularly in retail trade, financial services and telecommunications and postal services (see Chart 13). In retail trade, nationwide chains boosted efficiency. New technology and improved services provided new impetus to the financial industry. The telecommunications and postal services started operating on normal commercial terms.

Chart 13. Productivity in the private service sector

Annual growth. Per cent



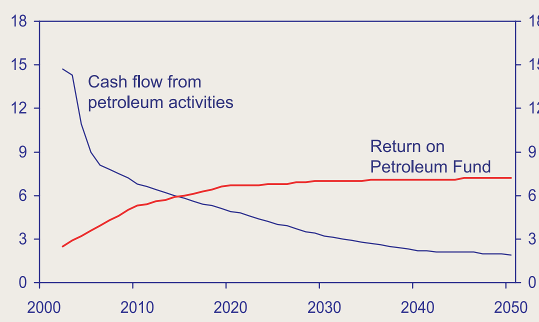

Source: Statistics Norway

Productivity is measured as gross product per person-hour. National accounts figures for the person-hours worked and volume growth in value added in basic values by main industries are used in the calculations. Private service sector is defined here as mainland Norway excluding manufacturing, mining, dwellings (households), utilities, government administration, farming and forestry, fishing and fish farming. The chart shows the three-year moving averages (centered) of annual growth rates.

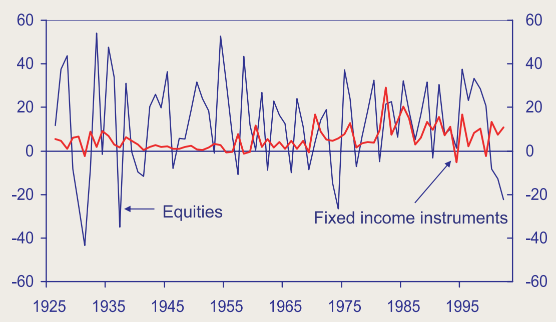
A number of conditions were conducive to favourable developments in the 1990s. Wage growth was moderate for a long period and interest rates were low. Banks regained their strength after the banking crisis. The tax reform stimulated innovation and strengthened the incentive to work. The reorganisation of state-owned commercial enterprises enhanced efficiency and value added. It is unlikely that gains of this magnitude will be achieved in this decade.

Today, the greatest potential for new and substantial improvements is probably to be found within the public service sector. Norway has a high level of spending for schools and education compared with other countries. The considerable potential for efficiency gains in public administration, particularly in local government, has been amply documented. The reorganisation of the regional health authorities promises an increase in efficiency. The organisational challenges are nevertheless considerably greater than they were for Telenor and Norway Post. In hospitals managed by the regional health authorities, the patient's bill is covered by the central government and competition is – for obvious reasons – highly limited. In this context, therefore, other instruments to promote efficiency are required. Hospitals must have reasonable prospects of being able to provide satisfactory services to the public over time. On the other hand, establishing a framework that the hospital authorities and employees perceive as binding and credible is not an easy task for the central government. Thus, encouraging hospitals to seek the most efficient solutions probably represents a particular challenge.

[2] The analysis was based on provisional figures from the OECD. Revised figures from the OECD, based on new calculations of purchasing power parities, show higher GDP per capita in Norway. When adjusting for the transfer of petroleum wealth to financial investments abroad, GDP per capita in Norway was lower than in the US, but still somewhat higher than in other European countries.




The figure shows projections for net cash flow from petroleum activities and the real return on the Petroleum Fund.




The chart shows the annual return on US equities (S&P Composite Index) and 5-year government bonds.

## Is it wise to invest in equities?

The cash flow from petroleum activities to the Treasury resulted in a government budget surplus – as this is measured - of almost 10 per cent of GDP in 2002. The central government invests this amount abroad through the Petroleum Fund. This results in capital outflows and a balance-of-payments surplus. The central government builds up assets, but also obligations through the social security system. Even if a large share of oil revenues is set aside, it would appear that, in the long term, the level of direct and indirect taxes will have to be at least maintained in order to honour these obligations.

Petroleum revenues would normally have resulted in substantial currency inflows into Norway. If we had used this capital domestically, we would have had to convert this currency into NOK. The attendant increase in demand for kroner would have resulted in an even sharper appreciation of the krone exchange rate. The capital outflow through the Petroleum Fund contributes to curbing the appreciation of the krone. With oil and gas production now reaching its peak, Norway has – and must have – a substantial balance-of-payments surplus.

The return on the Petroleum Fund will to some extent make up for the fall in petroleum revenues in the period ahead. In about 15 years, the return on the Fund may exceed the cash flow from petroleum activities (see Chart 14). Norway's position as international investor may then overshadow its position as an oil and gas producer. Swings in capital markets may have a greater impact on central government finances than oil price fluctuations.

We are now in a phase where petroleum wealth is being invested at home and abroad. Norway is – and has to be – an international investor. We must invest abroad in order to safeguard our petroleum wealth and maintain a broad-based business sector. This will also be the case if we should decide to reform our pension system in the future, with a larger component of public or private fund-based schemes. Risk diversification also favours the investment of capital abroad. The state is already a dominant owner in many of Norway's largest companies. Future government tax revenues will also largely depend on the growth potential of the Norwegian economy.

The safest investment an individual or a small firm can make is to deposit their money in a bank. The return on bank deposits may be low, but for small amounts it is safe. The central government cannot, however, safeguard its capital by depositing tens of billions of kroner in banks. Investments can be made in two main types of instruments: bonds and equities. The international bond market is about the same size as the equity market.

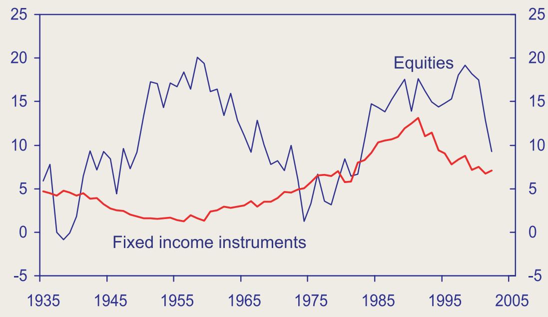
Government bonds are a relatively safe investment, but the return is low. Long-term interest rates in the US and Europe are currently around 4 per cent. New investments will thus achieve an annual real rate of return of 1½-2 per cent. By way of comparison, the authorities have based their use of petroleum revenues over the central government budget on the assumption that the Petroleum Fund can achieve a long-term real return of 4 per cent. It is unlikely that this rate of return will be achieved if we only invest in bonds.

In the long term, there may even be a risk associated with investments in government bonds. This has been experienced by the Norwegian state. The State Reserve Fund, established in 1904, lost much of its capital during the First World War as a result of losses on investments in German and French government bonds.[3)]

Buying a bond means lending money to others. Buying equities is the same as investing in real assets. Buying equities gives us direct ownership of the means of production in global business and industry. On the one hand, these ownership rights provide high returns when companies are flourishing. On the other, shareholders are the first to sustain losses when companies fail. As a result, returns on equities fluctuate far more than returns on bonds, reflecting the higher level of risk (see Chart 15). Over the past 75 years, equity returns in the US market have been negative almost every third year.

3) For further details, see Hylland (1991) "Statens Reservefond - et forsøk fra politikerne på å binde sin egen handlefrihet?" (The State Reserve Fund - An attempt by politicians to restrict their scope for manoeuvre?). Unpublished paper, University of Oslo.

Chart 16. Average return in the US
Rolling 10-year periods. Per cent




Sources: Ibbotson Associates and Datastream

The chart shows 10-year rolling returns on US equities (S&P Composite Index) and 5-year government bonds. 10-year rolling returns means that the figure for each year shows the average annual return on an investment in equities or bonds that was made 10 years earlier. The average annual return on fixed income instruments for the entire period was 5.4 per cent. The average annual return for equities was 10.2 per cent.



An investor will only invest in high-risk vehicles if it is reasonable to expect compensation for the risk. The compensation for high risk in the stock market is a far higher average return for equities compared with bonds. Since 1926, the annual return on US equities has on average been 4.8 percentage points higher than the return on bonds.

Also in most ten-year periods, investing in US equities has been profitable, with the exception of the depression in the 1930s and the last half of the 1970s (see Chart 16). Equity returns have been negative after ten years only in the years between 1928 and 1938, in other words on equity investments made the year before the 1929 stock market crash. It may also be worth noting that equities purchased during recessions – such as in the mid-1930s and mid-1970s – brought solid returns ten years later. This picture is the same for most other countries.

Since short-term fluctuations in equity prices are difficult to predict, it may be a sound strategy to keep the share of equities constant over time. This means buying a relatively large volume of equities when prices are low, and buying a smaller volume – or selling – when prices are high. This is the strategy applied by the Petroleum Fund.

Optimism and pessimism, confidence and doubt influence equity prices. In periods when markets are characterised by optimism and confidence in the future, equity prices tend to be high. When markets are marked by pessimism and fear, prices tend to be low. The actual income flow from equities – the dividend – depends more on developments in the global economy over time. This is a far more stable variable than equity prices. Investing a large share of the capital in bonds diversifies risk even further.

We are nevertheless left with the question of whether we are now entering a long period of very low or negative returns on investment in global business. This would then imply that there is an unusually low growth potential in the global economy, as in the 1930s.

There is little we can do to achieve high returns on investments if global growth is weak. In this situation, not even investments in our own business sector - or for that matter in long-term bonds or infrastructure - would generate returns of any size. But even in an economy with low growth, we can basically expect to be compensated for risk.

The global business sector must be profitable in the long run. This must imply that equity investments can, in the long run, generate a solid return in relation to other alternatives.

If prospects for achieving a return should deteriorate, another question is whether we should save less and spend more now. However, there are good reasons to maintain the saving ratio. It will be even more demanding to finance future pensions for an ageing population if the economy stagnates.

## Conclusion

The global economy is in the doldrums. Swings in capital markets have a substantial impact on the value of wealth accumulated by the central government. However, it is highly unlikely that investing in global business will not be profitable in the long run, and with a high portion of wealth invested in bonds the risk is spread.

It is unlikely that we will achieve the substantial productivity gains seen in the 1990s. The Norwegian business sector is facing pressures on profitability, a high cost level and declining investment. Growth in real wages is markedly higher than underlying growth in productivity. This is why unemployment is rising. Businesses must adjust their workforces to maintain profitability, or close down or relocate production.

The inflation target is the vehicle for monetary policy's contribution to stabilising output and employment. In spite of high wage growth, the strong krone has kept inflation at a low level. Global stagnation has changed the domestic inflation outlook in recent months. The tight monetary stance is reflected in the strong krone. A gradual easing of monetary policy would thus seem appropriate.

As long as inflation remains low and stable, any substantial deviations in the krone exchange rate over time will have an impact on business and industry. As a result, the krone exchange rate will tend to return to its long-term mean. The interest rate differential between Norway and other countries has resulted in a strong krone. The wide interest rate differential is due to the historically low level of interest rates abroad. If the world economy experiences prolonged stagnation and the krone remains firm, a markedly lower interest rate will lead to a weakening of the krone and mitigate the effects for Norway. Any fiscal slippage will contribute to maintaining a strong krone.