Economic perspectives

Address by Governor Svein Gjedrem at the meeting of the Supervisory Council of Norges Bank on Thursday, 17 February 2005

Introduction

This year, Norway is commemorating the centenary of the dissolution of the union with Sweden. Historically, an important part of nation-building has been the establishment of a monetary system and a central bank. In Norway, the stage was set for the introduction of a national currency in autumn 1814. With the prospect of a union with Sweden, a clause was included in the Constitution stipulating that Norway should maintain its own bank and its own monetary system. The monetary unit was the specie daler.

In 1875, the Storting (Norwegian parliament) decided to join the currency union that Denmark and Sweden had established two years earlier. The specie daler was then replaced by the krone. One Norwegian krone was worth 0.40323 grams of fine gold.

In the latter part of the 1800s, Norway benefited from free trade and free capital movements and became a relatively prosperous country. The standard of living in Norway did not lag behind that of Sweden (Chart 1).

The currency union was maintained after the political union with Sweden was dissolved. The agreement lost its practical significance after the gold standard was suspended in 1914. The agreement was not formally terminated until 1972.

From an economic viewpoint, the dissolution of the union in 1905 was a painless process. Former Central Bank Governor Nicolai Rygg[1] wrote: *"For 1905, (Norges Bank) points to the bright aspects of developments over the year, i.e. rising exports,..., but it takes time for confidence and the enterprising spirit to grow sufficiently to generate greater vitality and activity"*. Norges Bank's role was primarily to secure confidence in the monetary system. There were fairly large cash withdrawals from banks. Many sought to safeguard their wealth by investing in foreign bonds. Banks had to resort to loans from Norges Bank. The Board of Norges Bank nevertheless chose to leave the interest rate unchanged at 5 per cent. In Rygg's words, this would not contribute to undermining the confidence-inspiring calm that marked major historical events.

Economic developments were favourable up to World War I.

International real interest rates have fallen

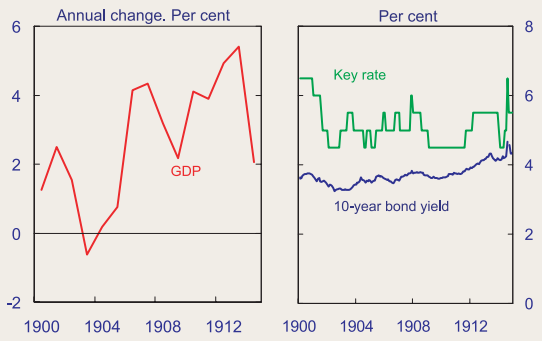
The interest rate level is lower today than in 1905. In fact, Norges Bank has not allowed the key rate to be this low since the Bank was established in 1816. This partly reflects international conditions.

In many countries interest rates were reduced considerably when the economic situation deteriorated early in 2000. Interest rates adjusted for inflation, i.e. real interest rates, are now also low.

The first decades following World War II were marked by stable nominal interest rates, moderate inflation and low, but positive real interest rates. In subsequent periods, real interest rates have fluctuated (Chart 2).

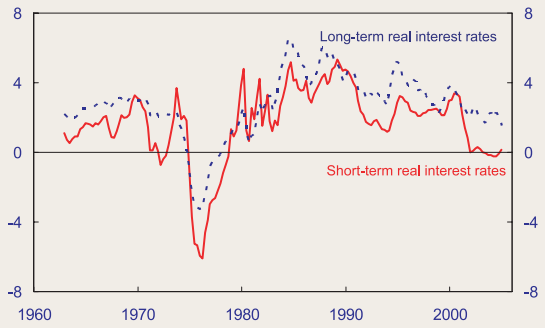
In the 1970s inflation surged. Nominal interest rates rose, but to a lesser extent than the inflation rate, and

Chart 1. Developments in GDP and interest rates
1900-1914



Sources: Statistics Norway and Norges Bank

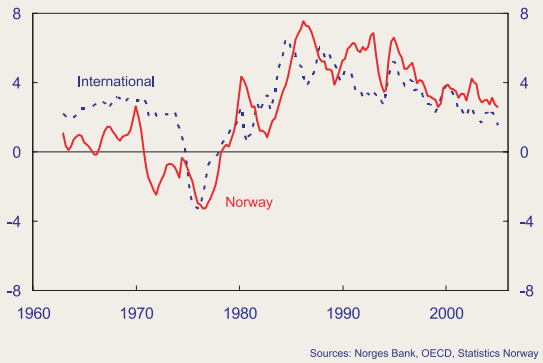
Chart 2. International real interest rates
Per cent



Sources: Norges Bank, OECD, Statistics Norway

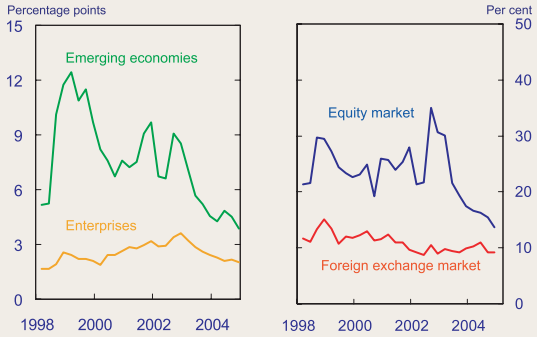
[1] N. Rygg (1954): Norges Bank's history, Norges Bank

Chart 3. Long-term real interest rates



Sources: Norges Bank, OECD, Statistics Norway

Chart 4. Risk premium



Source: EcoWin

real interest rates turned negative. Early in the 1980s, monetary policy was tightened considerably in many countries. Real interest rates moved up. Inflation gradually fell and stabilised again at a low level. This paved the way for a decrease in real interest rates in the 1990s before they fell further after the economic turnaround in 2001.

Low real interest rates may be ascribed to several factors:

Inflation has been low for such a long period that savers require a low premium as a hedge against unexpected inflation in the future.

In order to prevent an appreciation against the dollar many Asian central banks have been buying US government bonds, exerting downward pressure on yields.

Low short-term interest rates in the US, Japan and euro area countries are inducing investors to shift into more long-term securities, with an attendant fall in long-term interest rates.

The US and some other countries have increased their key rates, but expectations of the rate of increase ahead have been dampened. The fall in long-term interest rates may be attributable to new assessments of the growth outlook for the world economy.

In Norway, the real interest rate may deviate from external real interest rates when growth prospects diverge. This will also lead to a change in the real krone exchange rate, so that the expected return on investments in Norway and abroad become about the same. However, over time long-term real interest rates have largely followed international rates, and in line with international developments long-term interest rates in Norway have also fallen markedly (Chart 3).

Low risk?

Real interest rates abroad are unusually low, and the risk premium is also low. Savers and investors are offered a wide range of investment options. Risk and expected returns are assessed when choosing among the alternatives. The premium that investors require to take risk has fallen considerably in recent months and is now generally low.

For example, there is little difference between government bond yields and yields on bonds issued by private enterprises. The extra premium that emerging economies have to pay on loans is also small. Moreover, premiums paid to hedge against future fluctuations in foreign exchange and equity markets are small (Chart 4).

The low risk premiums may reflect fairly solid growth in the world economy and a strengthening of corporate profits and financial positions. It seems that credit risks are fairly well diversified in securities markets and international banks appear to be solid. Fewer major negative events have shaken the markets in recent periods.

But another explanation may be that low interest rates have prompted investors to take more risk, thereby pushing down risk premiums. In that case, lower premiums reflect an expansionary monetary policy rather than low real risk.

Imbalances in the world economy

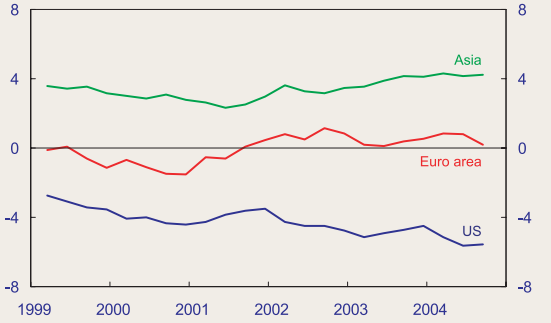
Low interest rates and risk premiums stand in stark contrast to the considerable imbalances in the world economy.

There are particularly larges imbalances both with regard to the US trade and current account balance. This partly reflects the US federal budget deficit. Moreover, US households have a high level of consumption and a low level of saving. Strong demand in the US has sustained growth in the world economy. The deficit in the US is matched by surpluses in Europe and Asia (Chart 5).

A persistent deficit has pushed up US foreign debt to a high level (Chart 6).

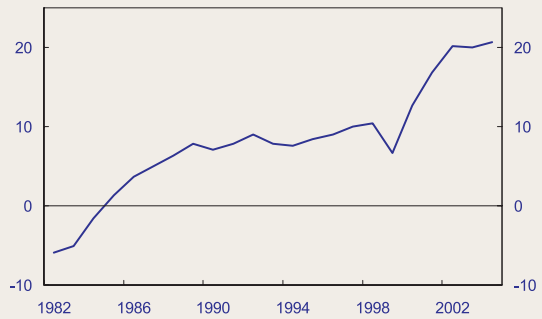
The US population is growing faster than that of other OECD countries. This may suggest that saving in the US is somewhat lower and investment somewhat higher, but

Chart 5. Current account balance
Per cent of GDP



Sources: EcoWin / National statistics

Chart 6. US net foreign debt
Per cent of GDP



Sources: Federal Reserve Board and US Department of Commerce

the impact is now considerably greater than implied by demographic factors alone.

The imbalances may continue for a period. International capital markets are deep and liquid with an ample supply of credit for US borrowers. If creditors begin to fear a fall in prices and withdraw, this may still trigger substantial corrections. This may lead to higher interest rates and perhaps also a fall in US equity markets that spills over to other countries' financial markets. In that case the dollar will also depreciate. The household debt burden in the US may be another source of instability if households abruptly reduce both demand for housing and consumption.

The Federal Reserve is now gradually increasing interest rates and the first measures aimed at reducing the US budget deficit have been announced. This may curb growth in domestic demand and imports of goods and services. However, the US authorities will probably not go as far as to bring economic growth to a halt, with an accompanying increase in unemployment.

The US issues the world's most important settlement and reserve currency. States and agencies in the US have access to dollar-denominated loans in major international capital markets. The exchange rate risk lies with foreign creditors. The US may have a long-term interest in maintaining a stable dollar that is used in international payments. But this may be weighed against short-term interests: If the dollar depreciates, the US trade deficit will be reduced with a limited impact on domestic production.

The US is not the only source of trade imbalances. They also reflect very low growth in continental Europe and the largely export-based growth in Asian countries. Countries other than the US must therefore also contribute in order to prevent growth in the global economy from faltering.

With limited domestic growth capacity and high unemployment, many industrial countries are poorly equipped to cope with a weaker dollar and lower US demand. The challenges are perhaps particularly demanding in Japan and some large European countries (Chart 7).

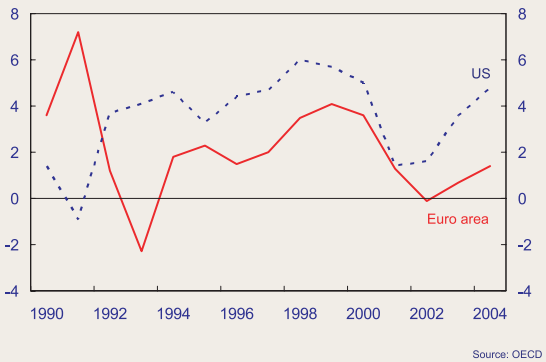
The situation is not negative across the board. There is solid growth in a number of European countries such as Spain, Ireland and the Nordic countries. In Germany, structural reforms are being implemented, particularly in the labour market, which could promote growth. It is possible that low long-term interest rates will boost investment. Nevertheless, there is uncertainty as to future economic developments, which is not fully reflected in prices, interest rates and premiums.

There is also a risk that large imbalances in world trade and low employment in Europe will trigger protectionism, which could reduce growth capacity even further.

Low interest rates in Norway

Norges Bank's key rate, the sight deposit rate, is at a historically low level. Real interest rates are also low. Between December 2002 and March 2004, the key rate was reduced by a total of 5.25 percentage points. The

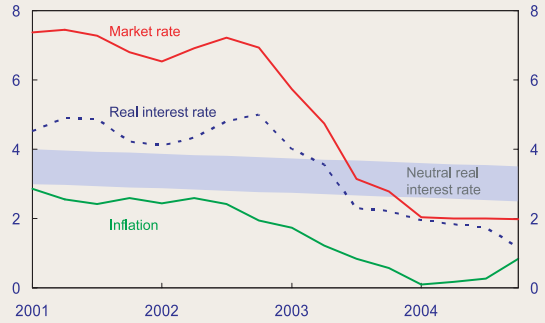
Chart 7. Private domestic demand
Annual growth. Per cent



Source: OECD

Chart 8. Interest rates and inflation

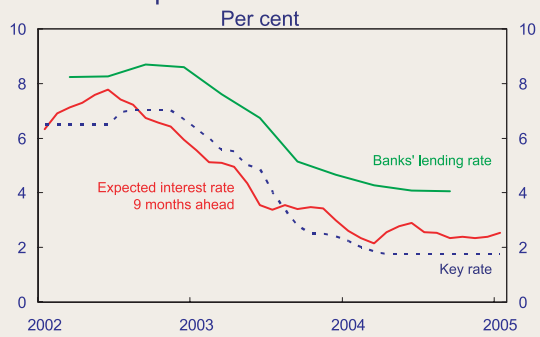
Per cent



Sources: Statistics Norway and Norges Bank

Chart 9. Key rate, lending rate and expected interest rate

Per cent



Sources: EcoWin and Norges Bank

interest rate decline can be ascribed to a number of factors (Chart 8).

In late autumn 2002, inflation started to fall. The inflation projections were also revised down. Gradually new information about the outlook for other countries and the Norwegian economy indicated that inflation might be very low. Short-term interest rates fell by close to 4 percentage points.

It would seem that it is not only changes in the real interest rate that have an influence, but also the level of real interest rates. Between December 2002 and March 2004, the interest rate has moved from a high to a low level.

The real interest rate is now lower than a neutral interest rate. A real interest rate that is lower than the neutral rate will stimulate activity even after the effects of the interest rate fall itself have been exhausted. This was pointed out by the Swedish economist Knut Wicksell in 1907[2]: "*...the upward movement of prices, whether great or small in the first instance, can never cease so long as the rate of interest is kept lower than its normal rate*".

Calculations seem to indicate that the neutral real interest rate for Norway is between 2½ and 3½ per cent and it has probably fallen somewhat in recent years.

Monetary policy is functioning

It takes time for an interest rate reduction to have an impact on inflation. We are now seeing the effects of monetary policy decisions some of which were taken two years ago.

The interest rate has affected inflation via the krone exchange rate and via demand for goods and services. In particular, the rise in prices for domestically produced goods and services has picked up. In addition, the reduction in the interest rate has probably contributed to holding up expectations of future inflation even when inflation is low.

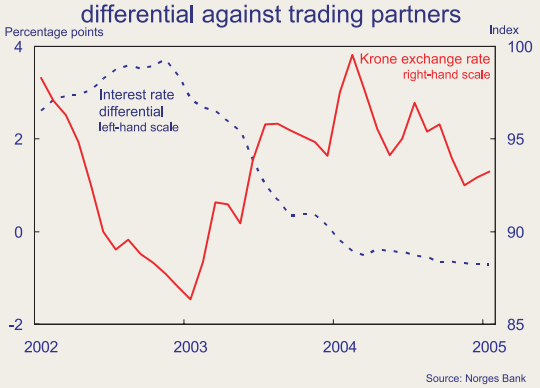
Norges Bank's key rate is an overnight rate. The interest rate on deposits and loans with longer maturities will reflect expectations as to future interest rate decisions. As the key rate was gradually reduced, expectations also fell, and banks reduced their lending rates. Monetary policy has had a greater impact because market participants expected the low interest rate to persist over a period (Chart 9).

The first signs of the effects of the interest rate cuts appeared in the foreign exchange market. The interest rate differential against other countries narrowed (Chart 10). It became more attractive to borrow and less profitable to invest in the Norwegian krone. The movement in the krone exchange rate was reversed and it depreciated through 2003 and into 2004. However, the impact on the krone exchange rate has been considerably dampened because external interest rates have remained low. High prices for oil and gas and other export goods also contributed to an appreciation of the krone last year.

The depreciation of the krone in 2003 contributed to restraining the fall in prices for imported goods (Chart 11). The effect occurred gradually. Companies and importers may have preferred to observe changes in the

The exchange rate channel

Chart 10. Krone exchange rate and interest rate differential against trading partners

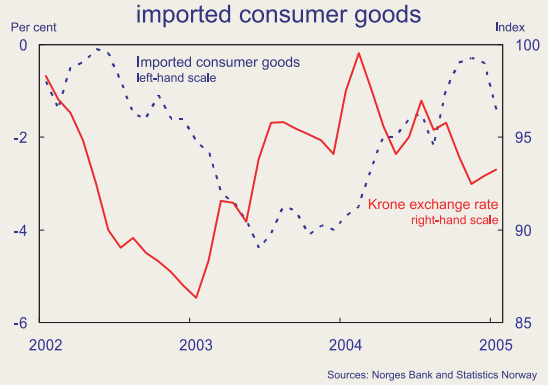


Source: Norges Bank

[2] Knut Wicksell (1907): "The Influence of the Rate of Interest on Prices", *Economic Journal*, XVII (1907), pages 213-220.

The exchange rate channel

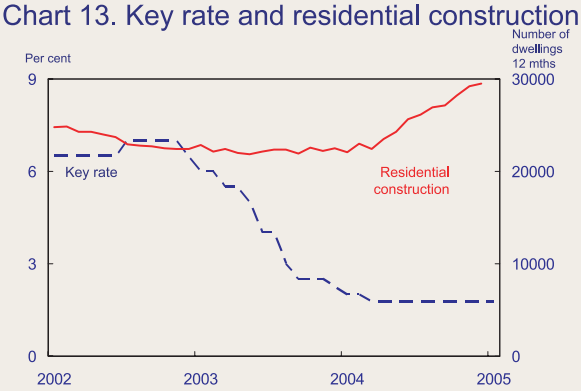
Chart 11. Krone exchange rate and rise in prices for imported consumer goods



Sources: Norges Bank and Statistics Norway

The demand channel

Chart 13. Key rate and residential construction



Sources: Statistics Norway and Norges Bank

exchange rate over time before changing their selling prices.

After several expensive wage settlements and a short period of a strong krone had weakened profitability in the Norwegian business sector, the depreciation of the krone contributed to curbing the decline in activity and employment.

There is nevertheless uncertainty as to the magnitude of the impact of short-term exchange rate fluctuations because companies engage in currency hedging.

There are different ways to hedge against currency fluctuations. Some enterprises buy intermediate goods in the same currency in which they sell their products. Other companies raise a loan in the same currency as that of the company's assets. In addition, companies can hedge against currency swings in the forward exchange market and options market. The large volume of international trade in currency derivatives, which is dominated by banks reduces, premiums and costs for other business sectors and thereby promote cross-border trade in goods and services. It is not a good idea to throw a spanner into the works.

The impact on household consumption and housing investment has been substantial. Business investment is now picking up.

In Norway, household debt is higher than household deposits. The decline in interest rates has thereby freed up funds. Households reacted relatively rapidly, and growth in consumption picked up.

The fall in interest rates pushed up house prices (Chart 12). Turnover in the housing market has been high. Higher housing wealth provides increased borrowing opportunities and thereby also boosts demand for consumer durables. Household debt has risen by around 11 per cent over the past year.

High resale home prices have made it more profitable to build new homes, and residential construction is rising (Chart 13).

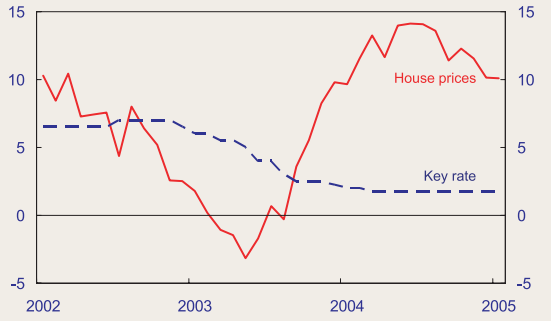
The fall in interest rates has also contributed to sustaining the market value of office premises and commercial property even with a high vacancy rate. With the prospect of higher occupancy rates, prices are now rising.

Owing to higher productivity and a drop in sickness absence, it may have taken time for the effects to

The demand channel

Chart 12. Key rate and house prices

Annual rise. Per cent

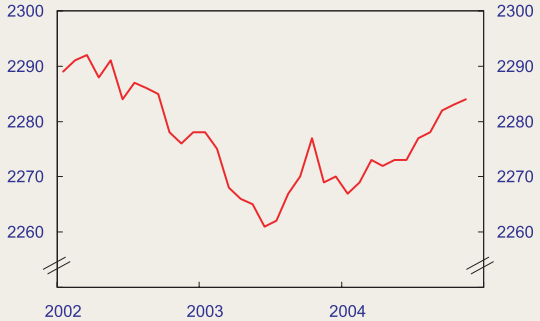


Sources: Associations of Norwegian real estate agents (NEF, EFF)

The demand channel

Chart 14. Number employed

In thousands

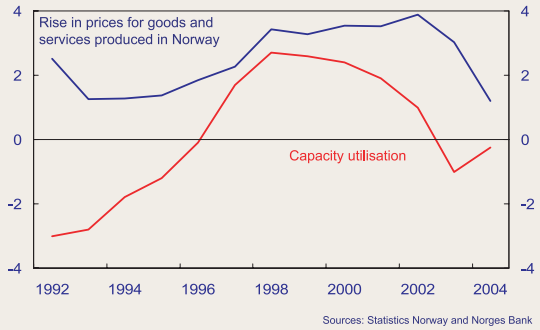


Source: Statistics Norway

The demand channel

Chart 15. Rise in prices and capacity utilisation in the Norwegian economy

Per cent

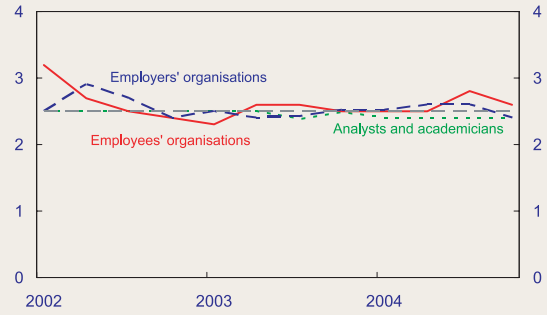


Sources: Statistics Norway and Norges Bank

The expectations channel

Chart 16. Projected consumer price inflation

5-year horizon. Annual rise. Per cent



Source: TNS Gallup

become visible in the labour market. However, higher demand for labour and falling unemployment is gradually leading to a tighter labour market (Chart 14).

High interest rates in 2002 and fiscal discipline contributed to a deceleration in wage growth to a more sustainable level.

Higher demand for companies' goods provides scope for increasing prices. Experience shows that inflation is directly influenced by the level of capacity utilisation in the Norwegian economy. Some of the rise in prices for domestically produced goods and services can be attributed to higher margins in the business sector (Chart 15).

If there is confidence in monetary policy, economic agents will expect inflation to be close to target over time. This will provide a basis for company budgets. This will then contribute to stabilising inflation. Many companies change their prices only once or twice a year. When they change prices, they probably take into account the expected rise in other prices.

It has been important to prevent inflation expectations from falling and becoming entrenched at a low level. Surveys of inflation expectations nevertheless indicate that expectations are well anchored around the inflation target in the long term (Chart 16).

The interest rate is a powerful instrument. The effects come through growth in private consumption, higher house prices, increased residential construction, higher investment in various business sectors, business start-ups, improved corporate profitability, higher employment and wage growth, higher profit margins and higher imported inflation.

The effects of the interest rate decline on demand, output and employment have been pronounced. It has taken time for inflation to pick up. This partly reflects low external interest rates and high oil prices, which have moderated the impact on the krone exchange rate. Higher imports from low-cost countries, competition and improved efficiency in Norwegian production have also kept inflation at a low level.

As a result of low inflation, we have kept interest rates low for a longer period. The impact on output and employment is therefore more pronounced.

We cannot expect the interest rate to have the same impact from one period to the next. The economy is also exposed to unexpected disturbances. As a result, we cannot fine-tune economic developments using the interest rate, but avoid the largest effects when the economy is exposed to disturbances. Experience seems to indicate that inflation expectations remain stable even if inflation varies somewhat as long as the interest rate is used actively to curb effects. Given our highly open economy, we may have to accept somewhat wider variations in inflation than some other countries.

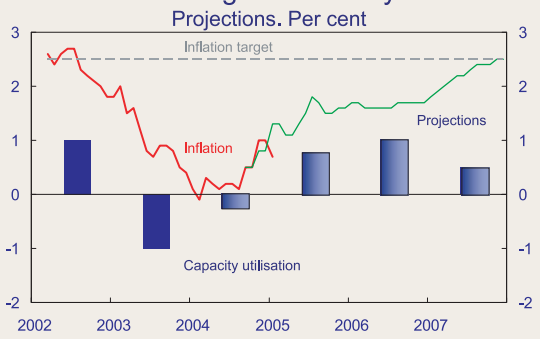
The interest rate level can influence the timing of household and business investment. With the current low interest rate level, many have found it advantageous to move forward purchases of property and other investments which they would otherwise have delayed.

Housing demand 10 to 15 years ahead will depend on future income levels, population growth and living patterns. The current level of interest rates has limited implications for housing demand in the longer term. A high level of residential construction today will be followed by a lower level at a later stage. The same may apply to commercial property investment.

There are examples showing that a period of higher-than-normal house prices can have an impact over a very long period. At the end of the 1800s, house prices in Kristiania (now Oslo) rose sharply. Some areas of Oslo are still marked by the massive volume of residential construction prompted by the rise in prices. The housing market collapsed at that time. The demand for new dwellings was saturated. It was not until the mid-1980s that real house prices returned to the level in 1899.

Household debt is now more than one and a half times as high as disposable income. The accumulation of debt partly reflects structural adaptation over time to a

Chart 17. Inflation and capacity utilisation in the Norwegian economy



Sources: Statistics Norway and Norges Bank

deregulated credit market and partly to low interest rates. The higher debt burden has made households more vulner-able. A period will come when households prefer to stabilise debt and reduce consumption.

The fall in interest rates has sustained activity in Norway after a period of weak economic developments abroad and high domestic wage and cost inflation. But an aggressive use of the interest rate as an instrument may itself be a source of new fluctuations in the economy because it influences the time profile for saving and investment. It is therefore important that growth is self-driven when the interest rate has to return to a more normal level after a period.

The effect of Norway's interest rate also depends on external interest rates. Many countries have raised their key rates during this cyclical upturn, also in several steps. Most recently, the Federal Reserve increased its key rate by 0.25 percentage point, and it has also announced further interest rate hikes. With the prospect of low inflation, Norway has lagged behind other countries in adjusting interest rates to a more normal level.

Two years after we started to lower interest rates it would appear that inflation is moving up, albeit slowly. Inflation is low, but the indices are also influenced by temporary and erratic disturbances. It will still take time before we will have seen the full impact of low interest rates. It may appear that growth in the Norwegian economy has become more self-driven. Capacity utilisation is close to normal and rising. After a period, the interest rate can then gradually be raised to a more normal level (Chart 17).

Economic policy tasks

The various components of economic policy have varying effects. This is why they have different functions:

- Monetary policy steers inflation in the medium and long term and can also contribute to smoothing swings in output and employment.
- The central government budget – growth in public expenditure – influences the krone and the size of the internationally exposed business sector in the medium term. Government expenditure and revenues must be in balance in the long term.
- Wage formation, the structure of the economy and incentives determine how efficiently we utilise our labour resources and other economic resources.

There is also an interaction:

- In its budget resolutions, the government authorities will attach importance to the effects of the budget on the Norwegian economy and will therefore take account of interest rate effects. In this way, they avoid a situation where growth in public expenditure and the interest rate push the economy in different directions.
- With a known monetary policy response pattern, the parties to the centralised income settlements can take into account interest rate effects when wage increases are agreed.
- Moreover, the parties to public sector negotiations can take into account that the higher the pay increases are, the fewer there are that can be remunerated over government budgets. The interaction here came into clear evidence when employment in the general government sector fell after the expensive wage settlement in 2002.

The authorities can achieve better economic policy results if they can commit in advance to a set of credible policy rules. Households, enterprises and capital markets are forward-looking in their decision-making. It is therefore important that the authorities do not sow doubt, but on the contrary act in a long-term and predictable manner. There must be consistency between plans and actions.

Monetary policy's role is to ensure low and stable inflation. Experience shows that we cannot reduce unemployment over time by simply accepting somewhat higher inflation. In many countries, also in Norway, confidence that inflation will be held at bay has increased because interest rate setting has been delegated to the central bank.

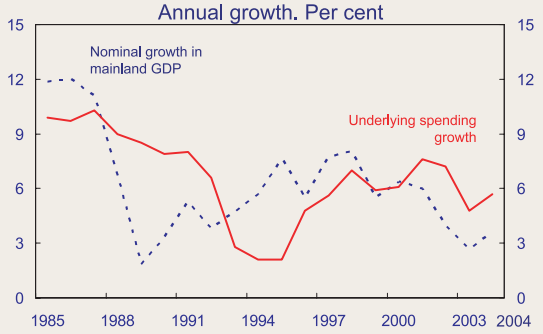
Budget norms are not new. The norm during the first 25 post-war years – and it was adhered to – was that the annual budgets should show a surplus. The surplus was sufficient to finance an increase in loans to state banks.

At the beginning of the oil age in Norway, in the early 1970s, the norm had to be assessed. The relationship between the use of petroleum revenues and changes in industry structure was highlighted.

Report no. 25 to the Storting from 1973-1974, *"The role of petroleum activities in Norwegian society"* stated: *"A transfer of production and employees between enterprises and industries can occur as a result*

Chart 18. Central government spending and GDP

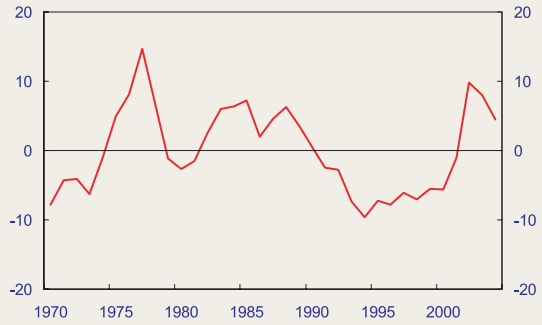
Annual growth. Per cent



Sources: Ministry of Finance and Statistics Norway

Chart 19. Competitiveness

Deviation from average. Per cent



Sources: TRCIS, Ministry of Finance and Norges Bank

of higher domestic cost pressures" … and further … *"Inflationary pressures will depend in particular on the extent to which the Norwegian business sector is involved in petroleum activities and the share of revenues that are used domestically"*. The implications for economic policy were also clarified: *"The risk of excessive inflationary pressures must be given considerable weight when decisions are to be taken here"*. The government budget was at that time used to steer the activity level in the economy. The interest rate was to be low – and kept unchanged. Today, with an inflation target, inflationary pressures will be steered using the interest rate, while the value of the krone will fluctuate. Today, this sentence would have to read: *"The risk of an exchange rate that is too strong must be given considerable weight when decisions are to be taken here"*.

We are now in a period where petroleum wealth is being invested in foreign financial assets via the Government Petroleum Fund. The government is to gradually phase in petroleum revenues into the domestic economy by using approximately the expected real return on the Fund.

The fiscal rule was established in 2001. Growth in public expenditure started to accelerate in 1997 after having been low in the mid-1990s. Spending growth has also been fairly strong in recent years, but perhaps somewhat slower than earlier. Since 2000, spending growth has averaged 6.3 per cent, while GDP growth in value terms has been 4.5 per cent (Chart 18). We have limited overall knowledge about real growth in public service production. Reliable measures of productivity and price developments have not been developed.

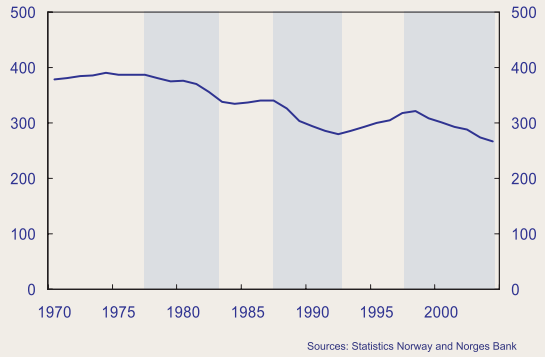
The fiscal rule for the budget implies that the government can use 4 per cent of the Fund over time. This year, a little more than 6 per cent is being used. The deviation partly reflects an unexpected shortfall in tax revenues in recent years. The government budget deficit is the difference between total revenues and total expenditure. They each account for about half of total GDP in Norway. Even small deviations from expenditure and revenue projections can have a major impact on the deficit. Exchange rate changes will also lead to fluctuations in the value of the Petroleum Fund. For these reasons alone, the use of petroleum revenues may in periods deviate from the 4 per cent rule. Spending was also increased in response to the economic downturn. We can therefore safely affirm that the fiscal rule has been normative for fiscal policy.

In the years following 1997, with strong growth in public expenditure, the fiscal rule pointed to a continued increase in the use of petroleum revenues. We had to expect this growth in spending to lead to deteriorating competitiveness in Norwegian manufacturing, either through higher wages or an appreciation of the krone. With stronger wage growth in Norway than abroad, the competitiveness of Norway's manufacturing industry has weakened by about 15 per cent since the mid-1990s (Chart 19). Competitiveness is about 5 per cent weaker than the average for the past 30 years. The krone exchange rate has been influenced by high oil and gas prices and prices for other Norwegian export goods. Monetary policy has also influenced the path for Norway's relative costs, but the nominal value of the krone is about the same as 10 years ago. Strong growth in public expenditure and expectations of moderately higher growth in the use of petroleum revenues now seem to have been factored into the cost level.

Over the past 30 years manufacturing has been scaled back in waves. The last wave occurred around the turn of the millennium, but a substantial decline also occurred in the period 1977 to 1984 and from 1987 to 1992. Prior to these periods, the manufacturing sector's competitiveness deteriorated (Chart 20).

The usefulness of a fiscal rule is that it gives weight to long-term considerations when addressing day-to-day economic policy challenges. The fiscal rule stabilises enterprises' expectations concerning competitiveness and the krone exchange rate. This can prevent abrupt

Chart 20. Employment in manufacturing
In thousands



Sources: Statistics Norway and Norges Bank

and pronounced swings in the structure of the economy. If the government authorities disregard the rule, enterprises will lose an important reference. A policy rule can make matters worse if economic agents have drawn up long-term plans on a faulty basis.[3]

Both short-term and long-term considerations imply that the use of petroleum revenues as a share of the Petroleum Fund should be curbed ahead.

The Norwegian economy is growing at a brisk pace.

The public sector has invested heavily in the care of the elderly, which should cover the needs of a generation that was born just after World War I. The need for growth in public expenditure will be more moderate in the coming years and marked by the small cohorts of the 1930s and war years, who are now joining the ranks of the elderly. Moreover, the National Insurance Scheme, introduced in 1967, is nearing maturity. In addition, a few years remain before the large post-war cohorts retire and add to the demand for health services.

Hence, the conditions are now conducive to returning to the use of 4 per cent of the Petroleum Fund.

The current cost level in the Norwegian business sector is adapted to an expansion of the petroleum sector and a steady phasing-in of petroleum revenues into the mainland economy. Costs rose sharply from the mid-1960s to the mid-1970s and reached a very high level. In subsequent years, costs have varied around this level. After a period, we will be able to cover a smaller share of our imports using current petroleum revenues and drawings on the Petroleum Fund. Competitiveness must then have to be improved. It may have to be brought back to around the level prevailing at the end of the 1960s prior to Norway's emergence as an oil nation.[4]

The labour market

In the long run, wage growth must be consistent with labour productivity. When real wage growth is higher than productivity growth, profitability in the business sector deteriorates and the business sector will then recruit fewer employees and reduce their workforces. Likewise, employment in public entities will decline if labour costs rise more than revenues. When the social partners engage in centralised and local negotiations, they will therefore weigh employment against the usefulness of taking out higher pay.

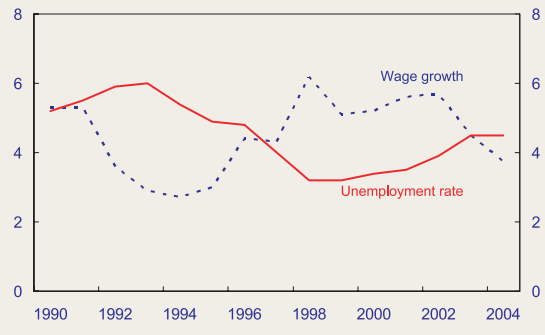
Compared with other European countries, income formation in Norway has been fairly flexible. Wage growth has rapidly declined when unemployment has risen. This is why unemployment has not taken hold at a high level (Chart 21).

The favourable results partly reflect the considerations underlying the wage settlements at a centralised level. But perhaps it has been equally important that it has been possible to adjust workforces and wage growth at a local level.

First, companies can adapt the use of labour to production by using overtime, part-time positions or contract labour.

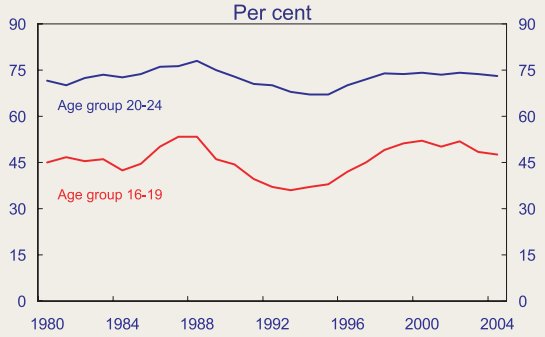
Moreover, the supply of labour is highly flexible. When demand rises, the number of job-seekers increases. Those

Chart 21. Wage growth and unemployment
Per cent



Source: Statistics Norway, TRCIS

Chart 22. Labour force participation among young people
Per cent

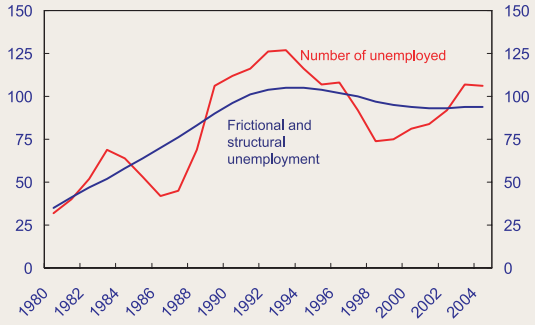


Source: Statistics Norway

[3] See Kydland, F.E. and E.C. Prescott (1977):"Rules rather than discretion: The inconsistency of optimal plan", *Journal of Political Economy* 85, pages 473-490.

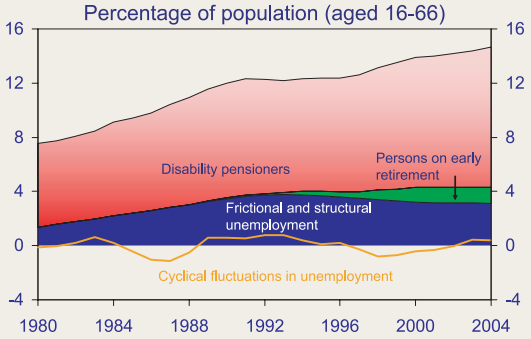
[4] See Akram, Farooq Q. (2003): "Reell likevektsvalutakurs for Norge" (Real equilibrium exchange rate for Norway), *Norsk Økonomisk Tidskrift* 118, pages 89-112.

Chart 23. Number of unemployed
In thousands



Sources: Statistics Norway and Norges Bank

Chart 24. Persons on early retirement, disability pensioners and unemployed persons
Percentage of population (aged 16-66)



Sources: Statistics Norway, National Insurance Administration and Norges Bank

who are already employed work more. During an upturn, we have in particular observed an increase in labour force participation among young people. Along the same lines, the number of persons in education tends to rise when unemployment is rising (Chart 22).

When labour demand increases, we see an influx of job-seekers from our neighbouring countries. In addition, close to 30 000 persons had some form of employment in Norway throughout or during parts of 2001, but resided in Sweden. With the enlargement of the EU Norway has become part of a larger labour market. Enlargement also provides scope for increased trade in services. This increases the production capacity of the Norwegian economy. For example, it seems that capacity in the construction industry has increased. The activity level is now very high, and there are still no signs of rising wage growth. Hence, labour mobility can eliminate bottlenecks in the labour market.

Employment is also strengthened by local wage negotiations. Some of the newer industries apply performance-related pay to a greater extent, allowing firms to reduce costs more easily while retaining employees when earnings decline. There also seems to be wage flexibility in more traditional industries. Differences in productivity growth and wage growth across Norwegian manufacturing enterprises show that workers tend to accept lower pay increases in enterprises with low productivity growth.[5] This can provide companies with more time to adapt and curb the impact on unemployment.

Unemployment will vary over the business cycle, but there will always be job-seekers who are temporarily without work. Fluctuations around the trend level of unemployment can be an expression of the level of frictional and structural unemployment (Chart 23). If restructuring and job changes become more common, the number of unemployed will also increase as a result of job changes. If economic activity is high, most job-seekers will rapidly find a new position. Job-seekers with skills for which there is less demand must seek employment for a longer period. In periods of major structural changes in the economy, this group may increase. When there are few unemployed of this type, wage growth tends to be high.

Even if Norway fares favourably in relation to many other countries, the Norwegian labour market also has its weaknesses. Wage growth now probably accelerates at a higher level of unemployment than it would have ten and twenty years ago. Many are also channelled from unemployment to social security benefits, and benefits may be an obstacle to returning to the labour force. Sickness absence also rose for a long period, but has decline markedly over the past six months, partly reflecting tighter requirements concerning individual follow-up.

Over time, cyclical fluctuations in unemployment have been small in relation to the increase in structural and frictional unemployment and growth in the number of disability pensioners and persons on early retirement (Chart 24).

It is important to preserve and perhaps improve our flexible system of wage formation. Pension schemes and the application of social security rules should also be changed to provide better incentives and opportunities to seek employment. Legislation and rules governing the labour market can also be better designed to promote production and employment.

Conclusion

Before I conclude, let us return to the period surrounding the dissolution of the union with Sweden in 1905.

As mentioned, the dissolution did not have any implications for monetary policy in Norway. However, a Swedish economist of that period is in some ways present in today's monetary policy – in both Norway and Sweden.

Knut Wicksell was professor of economics at the

[5] Source:Kjell Gunnar Salvanes: "Omstilling og strukturelle endringer i det norske arbeidsmarkedet" (Adaptation and structural changes in the Norwegian labour market). Lecture at a conference arranged by the Norwegian School of Economics and Business Administration, the Norwegian Shipowners' Association and the Foundation for Research in Economics and Business Administration in Oslo on 8 October 2004.

University of Lund. When the Scandinavian currency union lost its significance in 1914, he proposed the establishment of a Scandinavian central bank. Its objective would be price stability.

Once inflation targeting became the framework for monetary policy in many countries, Wicksell's works experienced a renaissance. Not only did he point to the importance of maintaining price stability, but he also gave the interest rate responsibility for doing so. When we today refer to a normal or neutral rate of interest, Wicksell is an obvious reference.

In 1907, he wrote the following about the relationship between the interest rate and inflation:

"… the problem of keeping the value of money steady, the average level of money prices at a constant height, which evidently is to be regarded as the fundamental problem of monetary science, would be solvable (…) by a proper manipulation of general bank rates, lowering them when prices are getting low, and raising them when prices are getting high".[6]

Wicksell's proposal to establish a Scandinavian central bank was never realised. Wicksell himself entered into a union with a Norwegian woman, Anna Bugge. As the story goes, she strongly urged him to complete his academic works, rather than devoting his time to writing for newspapers and popular oratory. She was active in the peace and women's movement and was Sweden's first female diplomat. The union between the two did not consist of a formal marriage as Wicksell refused to enter into a contract which at that time would have made him her guardian. It was a contractual form of cohabitation based on mutual trust and respect, perhaps not unlike the cohabitation that Norway and Sweden have enjoyed on the Scandinavian peninsula over the past 100 years.

But that is another story.

6 Knut Wicksell (1907): "The Influence of the Rate of Interest on Prices", *Economic Journal*, XVII (1907), pages 213-220.