

Economic perspectives

Annual address by Governor Svein Gjedrem at the meeting of the Supervisory Council of Norges Bank on Thursday 17 February 2000

We have just marked the turn of the millennium. Norway can look back at a century of upheaval – the dissolution of the union with Sweden in 1905, social conflict in the interwar period and the emergence of the welfare state. At the beginning of a new century it is natural to examine some of the threads running through our economic history. This may also shed light on the choices Norway is now facing.

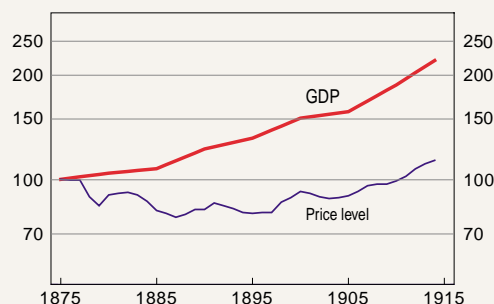
We have experienced periods of inflation and periods of deflationary recession. Vast changes in the world economy have led to shifts in monetary policy and financial markets. Technology has broken down regulations. Patterns of funding and ownership are changing. This creates unrest and uncertainty, but also offers new opportunities for growth and welfare. The welfare state is facing major challenges as a result of the ageing of the population and tax competition among countries. In this year's annual address I will discuss various aspects of monetary policy, financial markets and the welfare state.

Historical perspective

One of the first endeavours of the Storting (Norwegian parliament) after its establishment in 1814 was monetary reform. In 1816 Norges Bank was founded. The specie daler was Norway's first monetary unit.

From the mid-1800s an increasing number of countries chose to link the value of money to gold. The central banks were under the obligation to convert their currency at a fixed rate into gold on demand. At the same time, there were no import or export restrictions on gold. This gradually resulted in the establishment of an international fixed exchange rate system based on a gold standard.

Chart 1. The Norwegian economy under the gold standard 1875=100. Logarithmic scale

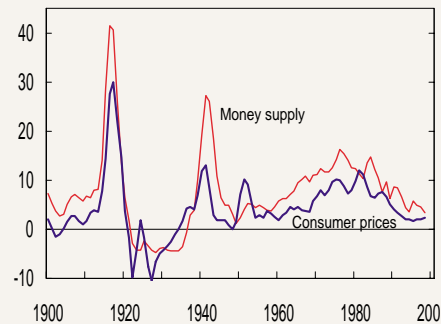


Source: Statistics Norway

Norway switched from the silver standard to the gold standard in 1874. The krone was introduced as a currency unit and we formed a monetary union with Sweden and Denmark. The gold standard and the monetary union

were successful. The world economy and the Norwegian economy were expanding. Price levels were stable. In the 1900s periods of nominal stability, ie price and exchange rate stability, have also coincided with periods of steady and solid economic growth.

Chart 2. Consumer prices and money supply. Annual percentage growth. 3-year moving average



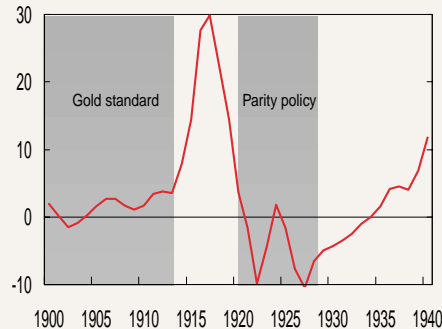
Sources: Statistics Norway and Norges Bank

The money supply is defined as money-holding sectors' stock of Norwegian notes and coins (cash balance), in addition to bank deposits in Norwegian banks and bank certificates. Money-holding sectors are domestic sectors other than the central government and social security administration, state lending institutions and banks.

The experience of the last century shows that consumer price inflation is ultimately associated with high growth in the money supply. However, the causal relationship between money supply and inflation may be unclear.

Norway has experienced four episodes of high inflation in the last century: During and after the two world wars and the Korean War, and a 15-year period from the first half of the 1970s to the second half of the 1980s.

Chart 3. Consumer price inflation 1900-1940. Per cent. 3-year moving average

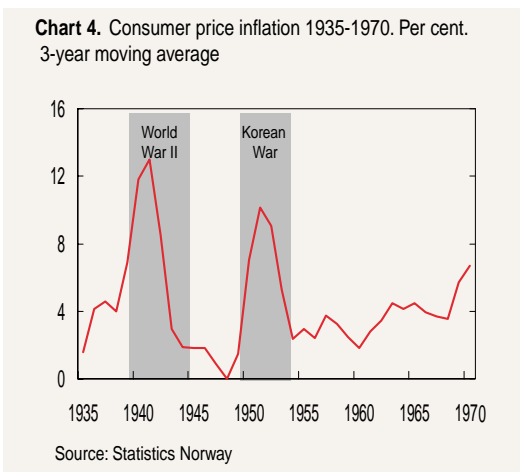


Source: Statistics Norway

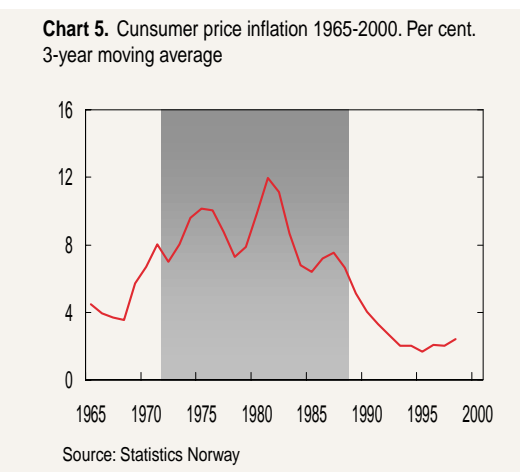
During the First World War inflation accelerated sharply. The British war effort was primarily financed by printing

money. Price inflation accelerated in most countries, also in Norway. The gold standard was suspended.

The krone's value against gold and pound sterling fell sharply in the boom during and after the First World War. Price inflation soared, accompanied by a speculative bubble with rising asset prices. When the bubble burst the boom came to an end, followed by a deflationary recession and a banking crisis. The recession was probably exacerbated by the so-called parity policy pursued at that time, which aimed at returning the krone exchange rate to its pre-war value against gold.



Inflation also accelerated during the Second World War. But unlike the interwar period, the years after 1945 were not marked by recession. With the exception of a few years of high price inflation during the Korean War, the post-war period featured low and stable inflation and buoyant economic growth.

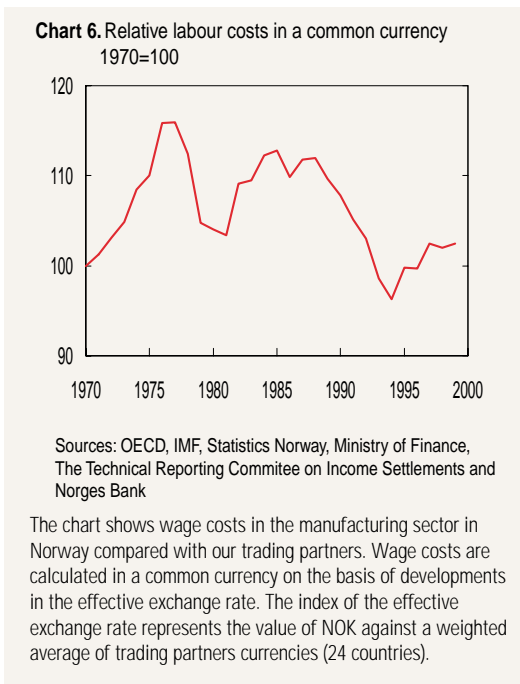


The fourth period of high inflation was different from the three previous ones. In the 1970s and 1980s inflation gradually increased. Although inflation rates were not as high as during the two world wars, inflation remained high for a longer period.

The post-war fixed exchange rate system – the Bretton Woods System – collapsed in 1971. A few years later, the Yom Kippur War broke out and OPEC countries suspended oil deliveries, triggering the first oil crisis. The

sharp rise in oil prices led to a recession in the western economies. Moreover, inflation took root in most countries. In Europe, only Germany and Switzerland were able to keep inflation more or less at bay.

In Norway, the welfare state and support schemes were rapidly expanded, partly due to expectations of large future oil revenues. Economic policy was oriented towards building a bridge over what was expected to be a temporary downturn in the world economy. This led to a tug of war for real resources between the business sector and the public sector – between the exposed sector and the sheltered sector.

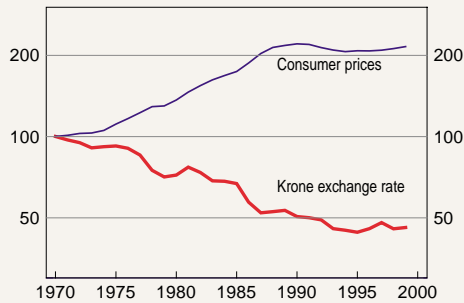


The cost level in manufacturing industry was driven upwards. At the same time, the slowdown in growth proved to be permanent. The sheltered sector continued to expand, while industries exposed to international competition experienced deteriorating profitability and a relative decline. The recession at the end of the 1980s was followed by a period of low wage growth and gains in competitiveness. This may help to explain why the decline in manufacturing employment came to a halt in the 1990s. However, wage costs increased again in the late 1990s. The relative wage level in manufacturing industry compared with trading partners is now back at the level in the 1970s.

Two forces were behind economic developments from the beginning of the 1970s. First, the deterioration in competitiveness was caused by the expansion of the Norwegian welfare state and a transfer of real resources from the exposed sector to the sheltered sector. Second, inflation expectations took root as a result of low administered interest rates and competitive devaluations. Nominal interest rates were kept low although price inflation and the value of tax-deductible interest expenses rose. Frequent devaluations in the period from 1976

were ultimately ineffective with regard to preventing a relative decline in manufacturing industry. On the contrary, the devaluations proved to be self-reinforcing.

Chart 7. Norway and Germany. Relative prices and exchange rates. 1970=100. Logarithmic scale



Sources: Statistics Norway and Norges Bank

The graph shows consumer prices in Norway compared with consumer prices in Germany and the value of NOK against DEM since 1970. In the course of fifteen years, from 1973 to 1988, consumer prices in Norway increased twice as much as in Germany. In the same period, the value of NOK against DEM was almost halved.

Over a period of 15 years from 1973 to 1988 consumer prices in Norway rose twice as much as in Germany. In the same period, the value of the krone was virtually halved against the Mark. While we paid around 2 kroner for one Mark in 1973, 15 years later we had to pay close to 4 kroner. Since then the krone has remained relatively stable against the Deutsche Mark. Today the exchange rate is around 4 kroner and 10 øre.

The last devaluation came in 1986 after the fall in oil prices. Thereafter, the krone exchange rate was fixed. The Norwegian economy had to go through a severe economic turnaround. Confidence in the krone had to be restored in order to avoid persistent inflation. This required very high interest rates. The Norwegian economy entered the worst recession experienced since the interwar period. Unemployment rose from about 2 per cent in 1987 to almost 6 per cent in the winter of 1992/1993. Many companies went broke and households were faced with debt problems. The financial sector was hit by crisis.

The fixed exchange rate regime led to a gradual decline in price inflation, but not to deflation as was the case in the 1920s. An improved wage-setting process, in conjunction with an active fiscal policy, contributed to curbing the real economic costs. Hence, the experience of 1986 and the beginning of the 1990s probably provides a realistic picture of the minimal costs associated with stamping out high inflation. At the same time, an active fiscal policy enhanced the credibility of monetary policy because it led to lower unemployment than would have been the case otherwise.

In Norway, high inflation is a war phenomenon and a phenomenon of the 1970s and 1980s. In the aftermath of

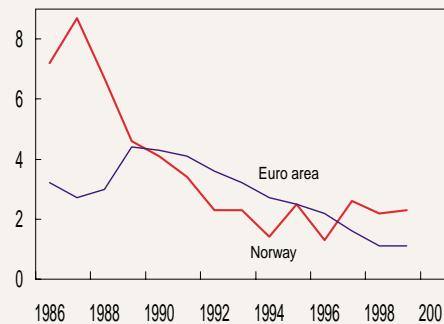
high inflation, we experienced substantial real economic losses and financial instability. The cost of inflation has been high.

History shows that lower unemployment cannot be achieved in exchange for higher inflation in the long run. A monetary policy that fuels inflation does not generate economic growth. On the contrary, the result is booms and speculative bubbles, which are the precursors of recession and unemployment.

In the absence of nominal stability, employment and production will not show stability either. The economy must be endowed with a nominal anchor. This is the task of monetary policy.

The Norwegian economy was lacking a nominal anchor during the period of low interest rates and devaluations in the 1970s and 1980s. This led to rising inflation and instability. From 1986 the fixed exchange rate regime restored confidence in monetary policy and subsequently laid a foundation for more stable economic developments.

Chart 8. Consumer price inflation 1986-2000. Per cent



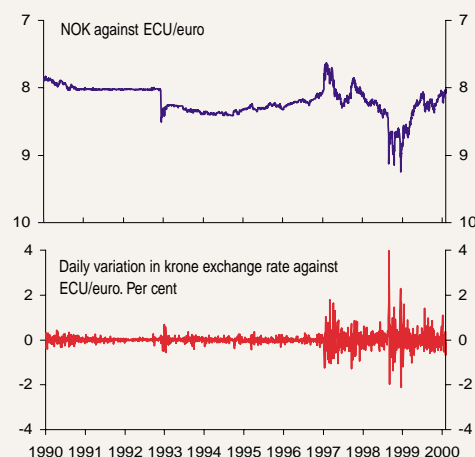
Sources: OECD, Eurostat and Statistics Norway

The chart shows year-on-year increases in consumer prices in Norway and the eleven countries currently forming the euro area. Up to 1990, consumer price inflation in the euro area is based on a weighted average of national consumer price indices (OECD weights). Since 1999, we have used the harmonised consumer price index (MUICP, Monetary Union Index of Consumer Prices).

Through the 1990s, inflation has been on a par with or below inflation in Europe. While the average annual rise in prices was a good 8 per cent in Norway in the 1970s and 1980s, the annual rise in consumer prices has been confined to 2¼ per cent in the 1990s. The subdued rate of increase in consumer prices has coincided with a strong expansion. In 1999, the number of employed was 200 000 higher than in 1990, ie an increase of almost 10 per cent.

We had to abandon our fixed exchange rate policy in December 1992, primarily as a result of the system's inherent weaknesses in a world of free flows of capital and deep international financial markets. When the fixed exchange rate policy was formally abandoned, there was a risk that the Norwegian economy would again lose its nominal anchor. However, the krone exchange rate showed little change and quickly found a new trading range.

Chart 9. Krone exchange rate against ECU/euro



Source: Norges Bank

The upper chart shows movements in the value of NOK against the theoretical ECU up to 31 Dec 1998 and against the euro from 1 Jan 1999. The lower chart shows daily percentage changes in the value of NOK against ECU/euro.

In the first years the krone exchange rate was very stable, also on a daily basis. When we now look back at developments in the Norwegian foreign exchange market in the 1990s, we see no significant change in 1992. On the contrary, we witnessed a pronounced shift in January 1997. It was from this point in time that daily quotations and month-to-month variations in the exchange rate show that the krone is floating.

Wider fluctuations in the exchange rate have improved the functioning of the options market and forward contracts in Norwegian kroner. At a premium, businesses hedge against short-term fluctuations in the krone exchange rate. The fluctuations are not greater than in other countries with a floating exchange rate.

In 1996 and in the autumn of 1998, Norges Bank attempted to attenuate movements in the krone exchange rate through exchange market interventions. On both occasions, interventions prompted a game situation between the central bank and market participants, as was also the case during the currency crisis in the autumn of 1992. When a central bank trades its own currency, market operators make a play for profits on the premise that the exchange rate does not reflect market fundamentals. In a world where capital flows freely, this game situation can quickly trigger large capital movements. The experience of the 1990s shows that Norges Bank does not have the instruments to fine-tune the krone exchange rate.

Today's monetary policy

The objective of monetary policy is exchange rate stability against European currencies, defined as the euro from 1 January. Norges Bank's mandate – which is the Exchange Rate Regulation – takes into account that the

krone may remain outside its normal range. The Exchange Rate Regulation states that "in the event of significant changes in the exchange rate, monetary policy instruments will be oriented with a view to returning the exchange rate over time to its initial range". The concept "significant changes" is not quantified and must be given an economic content. Norges Bank interprets a "significant" change in the exchange rate as a change that fuels expectations of price and cost inflation to the extent that the change in the exchange rate becomes self-reinforcing.

Monetary policy can counter such a self-reinforcing movement in the exchange rate by contributing to low and stable inflation without recession. In its conduct of monetary policy, Norges Bank therefore places emphasis on fulfilling the fundamental preconditions for exchange rate stability against the euro: Monetary policy instruments must be oriented towards bringing inflation down to the level aimed at by the Eurosystem. At the same time, Norges Bank must prevent monetary policy from contributing to a deflationary recession as this may weaken confidence in the krone.

The experience of the 1970s and 1980s shows that monetary policy cannot in the long run steer competitiveness or the size of the exposed sector. If we attempt to do so, monetary policy only contributes to instability. Such real economic fundamentals may, on the other hand, be influenced through fiscal policy and cooperation between the social partners. Norges Bank cannot with open eyes contribute to higher inflation or a deflationary recession. This would contribute to an unstable krone. Hence, there is no conflict between gearing monetary policy instruments towards low and stable inflation and the objective of a stable krone exchange rate over time.

Although monetary policy cannot be used to steer competitiveness, changes in the krone exchange rate may provide an early warning of a weakening – or strengthening – of the exposed sector in the tug of war for real resources. A successful fiscal policy and a well functioning wage formation process provide a sound basis for a stable krone exchange rate. The main difference between Norway and countries that have adopted an inflation target for monetary policy lies in the interaction between monetary policy and fiscal policy. The oil economy and capital exports through the Government Petroleum Fund are also features that are specific to the Norwegian economy.

The most important factor that influences the krone exchange rate is confidence in nominal stability. If such confidence exists, short-term fluctuations in the krone exchange rate may vary without consequences for the exchange rate level over time. However, confidence depends on a number of factors, such as the authorities' will to pursue nominal stability. Under the fixed exchange rate regime, we tied ourselves to the mast by stipulating an exchange rate band for the krone. With a floating

exchange rate regime and wider scope for discretion, transparency concerning analyses and policy response pattern can contribute to bolstering confidence in the nominal anchor. However, this presupposes that the announced policy response pattern is actually followed.

Fluctuations in domestic activity may induce changes in the exchange rate. For instance, strong demand for labour could push up wages and weaken competitiveness. If there is confidence in nominal stability, the deterioration in competitiveness may result in an appreciation of the krone in the short term. A lack of confidence in nominal stability may result in a depreciation of the krone. Both cases may cause fluctuations in the exchange rate.

A shift in public expenditure growth – or one-sided tax cuts – will have an impact on domestic demand, thus prompting movements in the exchange rate. When fiscal policy is used to smooth fluctuations in domestic demand, it will contribute to a stable exchange rate.

International business cycles and financial market unrest may have an impact on the krone exchange rate. Exchange rate variations among major currencies may influence the krone exchange rate measured against individual currencies. Over the last year the euro has depreciated against the US dollar, the yen and the pound sterling. The krone has appreciated against the euro. The effective exchange rate has been more stable.

A situation may arise with a significant shift in economic fundamentals in Norway. A shock of this nature may be due to a permanent change in growth prospects. This may also imply a permanent change in the krone exchange rate. Our experience suggests that this seldom occurs. A sharp and sustained shift in oil prices, as witnessed in 1973 and 1986, may imply that the use of oil revenues will have to change. This may in itself have an impact on the exchange rate.

Fiscal policy and the Government Petroleum Fund have proved to be effective in terms of sheltering the mainland economy from more normal variations in oil revenues. A permanent change in the krone exchange rate will occur only if there is an increase in the use of oil revenues through a shift in expenditure growth. In this context, instruments other than those available to Norges Bank must be used to return the krone to its initial range.

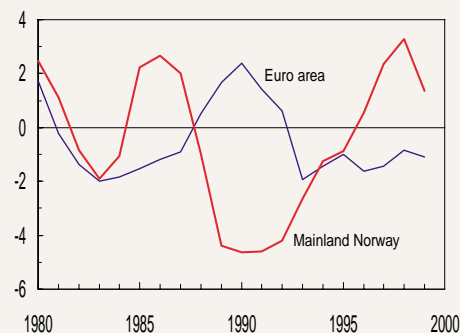
Interest rates influence the exchange rate through two channels. The interest rate differential against other currencies has some effect on the exchange rate. The exchange rate is further influenced via the impact of interest rates on domestic price and cost trends. The isolated effect of the interest rate differential on the exchange rate may be of little consequence compared with other factors. According to Norges Bank's calculations, the current interest rate differential against the euro area impacts the krone exchange rate in the order of 20 øre against the euro in the short term. On the other hand, the effect of the interest rate on the exchange rate through the channel of domestic demand and price and wage inflation may in

many situations be considerable.

The Norwegian economy may be exposed to shocks or disturbances that both reduce domestic activity and weaken the Norwegian krone. In response, interest rates should not be increased. An increase in interest rates will result in higher unemployment and mounting instability in the domestic economy and the exchange rate. Our economy may also be exposed to disturbances that both increase domestic activity and strengthen the krone. Interest rates should then not be lowered.

In response to the prospect of a downturn in the Norwegian economy, Norges Bank reduced interest rates in the winter of 1999 when the krone was weak against the euro. This contributed to stabilising the Norwegian economy and hence also the krone exchange rate. Along the same lines, a situation may arise with growing pressures in the economy and signs of higher inflation where interest rates will be increased when the krone is strong in relation to the euro.

Chart 10. Output gap. Percentage of GDP



Source: OECD

The output gap is calculated as the difference between actual output and average production capacity in the economy (product function method).

Over the last 15 years, the business cycle in Norway has been desynchronised in relation to cyclical developments in most European countries. The output gap provides a rough indication of capacity utilisation in the economy. The chart shows a specifically Norwegian upturn in the mid-1980s and a subsequent downturn. While the downturn bottomed out in Norway in 1990, other European economies were booming. Subsequently, cyclical developments have remained desynchronised. The cyclical fluctuations in Norway can to some extent be traced back to the disturbances in the Norwegian economy in the 1980s and the economic shock in Europe in the wake of the fall of the Berlin Wall.

The cyclical desynchronisation is the main reason behind the inflation differential between Norway and euro area countries. The very low rate of inflation in Europe primarily reflects the downturn in the 1990s. A fundamental precondition for exchange rate stability

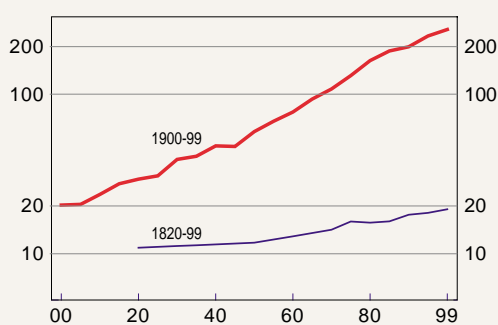
against the euro is that the inflation rate in Norway is brought down to the level aimed at by the Eurosystem. In recent years, the rate of increase in prices has been higher in Norway than in euro area countries, which is reflected in the interest rate differential between Norway and the euro area.

If we were to lower interest rates to the level prevailing in the euro area in the current environment, inflation would rise rapidly in Norway accompanied by exchange rate volatility. Any movements in the krone exchange rate will be thoroughly analysed by Norges Bank. A policy response pattern involving automatic changes in interest rates in response to movements in the exchange rate, as a fixed exchange rate regime would imply, is inappropriate.

A century of growth

At the turn of the last century GDP per capita was around NOK 20 000 in present-day value. Today the average is around NOK 250 000, or about ten times higher than a hundred years ago. For purposes of comparison, the increase was barely twofold between 1820 and 1900.

Chart 11. GDP per capita. Thousands of 1998 NOK. Logarithmic scale

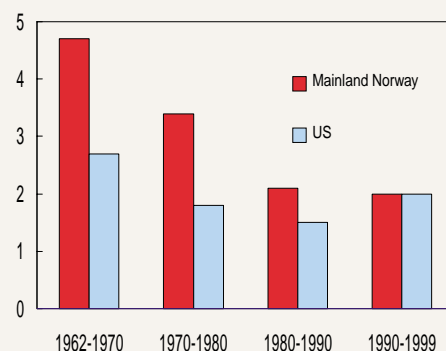


Sources: Statistics Norway and OECD

Economic growth in Norway was particularly strong in the first thirty years following the Second World War, as a result of the introduction of new technology from the US and new products in Europe. Europe has gradually caught up with the US thanks to the import of technology from the US, effective restructuring and the expansion in global trade. This explains why welfare gains have been substantially higher in Norway and other European countries than in the US in the post-war period.

Growth in productivity in mainland Norway was high in the 1960s and 1970s. Since 1980 productivity growth has been more in line with growth in the US. By then we had reached a high level of income. It follows that there was less to gain than earlier from the import of new technology.

Chart 12. Productivity in the business sector. Annual average growth. Per cent

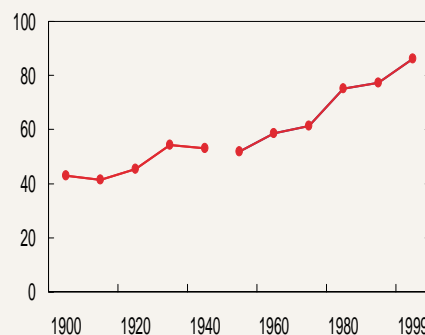


Sources: Bureau of Labor Statistics and Statistics Norway

The chart shows productivity growth in the business sector in mainland Norway and the US since 1962. The mainland business sector is business activity excluding oil and gas and shipping. The business sector in the US is the non-farm business sector. Productivity is calculated as output per hour.

In spite of the boost provided by Norway's oil resources, there is a difference in income between Norway and the US. The income differential is probably to a large extent ascribable to differences in working hours and employment. Labour participation is slightly higher in Norway than in the US, while the average working time in Norway is almost 30 per cent below the US average. Many people in Norway work part-time. But even a full person-year amounts to a good 10 per cent fewer hours than the US average. The income differential primarily reflects that Norwegians have chosen to increase their leisure time.

Chart 13. GDP per capita. Percentage of income level in the US



Sources: Statistics Norway and OECD

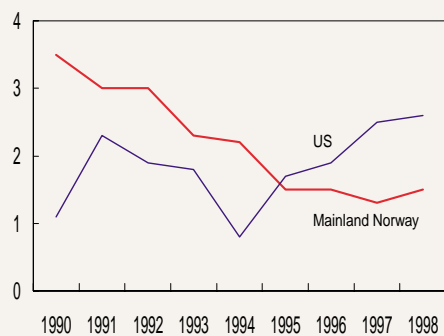
The chart shows GDP per capita in Norway as a percentage of GDP per capita in the US. The numbers are based on purchasing power parities (OECD).

However, the income level in Norway is high compared with other European countries, which is attributable to Norway's petroleum revenues and high level of employment. The relatively high level of income indicates that we have to a large extent closed the technological gap between Norway and the US. This means that we cannot expect growth rates on a par with that of the 1950s and 1960s, ie annual growth rates of up to 5 per cent.

A new economy

New technology may be a driving force behind structural changes in the economy and lead to high growth rates.

Chart 14. Productivity growth in the business sector. Per cent. 3-year moving average



Sources: Bureau of Labor Statistics and Statistics Norway

The chart shows productivity growth in the business sector in Norway and the US in the 1990s. See comments to chart 12.

The trend in the post-war period, with stronger growth in productivity in Norway than in the US, may have been reversed. Productivity growth has tended to move on a weaker trend in Norway, while rising in the US. Both Norway and the US have enjoyed a long period of sustained expansion in the 1990s. At this stage, productivity growth tends to be low. Signs of higher growth in the US may thus suggest a new trend.

It is probably too early to draw any definite conclusions. We also know that there may be considerable statistical sources of error. However, the new growth trend is supported by evidence of a more anecdotal nature. Major changes are taking place in the US business sector through processes such as mergers and acquisitions. There is an exceptionally rich supply of capital in the stock market. The new technology companies dominate stock exchange developments. In Europe, Sweden and Finland are leaders in developing new technology environments. Norwegian companies may also be at the forefront of developments in some areas.

Securities markets have been a vital force behind these changes. In the course of the last 20 years, a revolution has taken place in global financial markets. Capital restrictions have been removed. Companies around the world are experiencing a wave of mergers, acquisitions

and demergers. These transactions reflect a higher required rate of return among all companies and all areas of a business. At the same time, there is an increased willingness to take risk, with a soaring number of start-up companies. This trend has been particularly evident in the US, but European countries are also part of this process.

Increased possibilities for using information improve financial markets' ability to act as a catalyst for profitable restructuring and growth. Companies financed through equities, bonds and commercial paper are continuously monitored through a transparent process. Owners and potential investors follow company performance closely. There are ever-stricter requirements concerning information. A poorly performing enterprise can be acquired by others who feel they can either run it more profitably or use its resources more effectively elsewhere.

One may be sceptical with regard to these developments, which seem to have created a situation where a few keyboard operations can lead to wealth and losses. Financial markets are driven by forces and psychological mechanisms that may result in extreme volatility. Financial bubbles fuelled by unrealistic optimism may lead to the darkest pessimism and fears. The so-called new economy may be a bubble. The concept "new economy" was first introduced prior to the stock market crash in 1929. The authorities carry a particular responsibility for monitoring financial stability and ensuring that the rules of the game are followed.

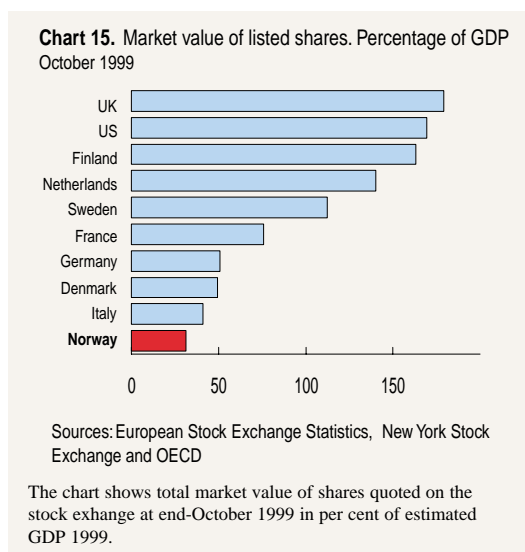
The alternative to open securities funding is bank credit. This type of financing is traditionally based on a close relationship between banks and borrowers. Banks gain access to extensive information concerning the borrower and often exert influence over business decisions.

This type of arrangement has long been preferred in many European countries as it was very difficult to obtain adequate information about individual companies and time-consuming to analyse the information that was available.

This situation has changed with the advent of new information technology. Financial markets are now more effective in terms of channelling capital to investments that yield the highest returns.

Germany is the country in Europe where banks and borrowers have been the most dependent on each other. In addition to providing loans, banks have large shareholdings in companies and big companies have a large stake in private banks. The tax system has locked in this cross-ownership. Owners have had to pay about 50 per cent in taxes on capital gains on share transactions. The German government has announced that this tax will be eliminated from 2001. This is expected to prompt a restructuring, first in the ownership of German banks and enterprises and subsequently in production.

The business sector is dependent on both a smoothly functioning securities market and banks with a close relationship to borrowers. Small and medium-sized enterprises are particularly dependent on the expertise and guidance offered by banks. Funding in securities markets is too expensive for the smallest enterprises.



The securities market plays less of a role in Norway than in other European countries and the US. The market for equity capital is particularly small in Norway. Norwegian companies often rely on foreign funding for new projects. The thin market for securities capital in Norway may be an obstacle to the development of the business sector.

This means that it is essential that the banking system function smoothly.

When they function, the strength of financial markets lies in their transparency and adaptability. Capital which is tied up in unprofitable activity can be freed up for other activities. Competition for capital contributes to creative destruction.

Structural changes also take place within individual companies. One example is NOKIA. Thirty years ago, the forerunners of the world's leading producer of cellular telephones were primarily producing telephone cables, rubber boots and tyres. At that time, the electronics division accounted for 3 per cent of NOKIA's turnover and employed 460 persons. However, research and product development led to a wider range of products. In 1988, NOKIA was the third largest producer of television sets in Europe and the largest producer of cellular telephone equipment in the Nordic area.

NOKIA experienced a deep crisis in the beginning of the 1990s, as did many Finnish companies. NOKIA decided to concentrate on telecommunications. The split-up of the group was initiated from within the company. Non-core activities were spun off and sold. This allowed NOKIA to free up capital for the most profitable activities of the company. Today the company has more than 50 000 employees. At the end of last year, the

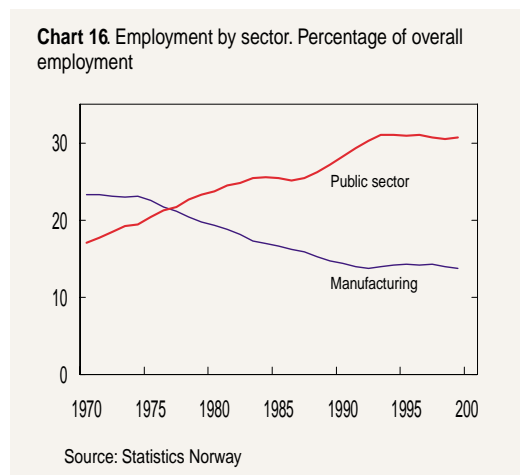
market value of NOKIA was about NOK 1 700 billion, which is four times the market value of all the companies listed on the Oslo Stock Exchange.

The economy needs creative destruction to develop. The tendency may have been for the Norwegian authorities to provide various type of support to businesses and industries that have existed for some time. When the government intervenes, the authorities tread a fine line between business development and conservation. It is thus important to tread carefully, so that capital and labour are not tied up in less profitable activity.

The required rate of return and the need for restructuring in the business sector often conflict with the need for stability and security for the individual employee. Local communities may suffer. The answer is not to oppose restructuring. The best solution is to develop and take advantage of skills and expertise. This also requires extensive adaptability and labour mobility.

The welfare state

The restructuring that we are facing in the Norwegian public sector is hardly of less significance than the changes in the business sector. During the last decades the Norwegian welfare state has expanded rapidly. Household income and consumption have also shown steady and strong growth. We have also witnessed a sharp expansion in the production of services in both the public and the private sector.

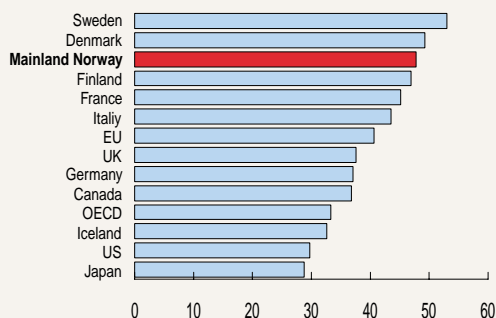


Employment growth in the service industries increased while declining in primary industries and manufacturing, with a redistribution of real resources between sectors. The transfer is the result of a steeper increase in demand for services than for goods when income rises.

Taxes were increased to finance the expansion of the welfare state. Excluding the petroleum sector, the tax level has increased from 41 per cent of mainland GDP in 1970 to around 48 per cent today.

The tax burden in mainland Norway is among the highest in the OECD countries. Only Sweden and Denmark have a higher tax burden. There are many rea-

Chart 17. Tax level. 1998. Percentage of GDP



Source: Statistics Norway

The chart shows total tax income in per cent of GDP in 1998. Figures from 1997 are used for the United States and Canada. The tax level in mainland Norway is calculated as total tax income excluding oil and gas taxes in per cent of mainland GDP.

sons why further tax increases would put the Norwegian welfare state in jeopardy. Tax competition among countries is intensifying. Several countries have attracted new business by reducing taxes. Enterprises, capital and labour base their choice of location on tax considerations.

In principle, it is conceivable that higher taxes only affect the household sector, so that the business sector is not exposed to a heavy tax burden. However, it is difficult to find direct or indirect taxes that do not also affect the business sector. Higher direct and indirect taxes may lead to demands for higher income, which will be easier to achieve the tighter the labour market is. However, companies exposed to strong international competition have limited scope for passing on higher costs to households.

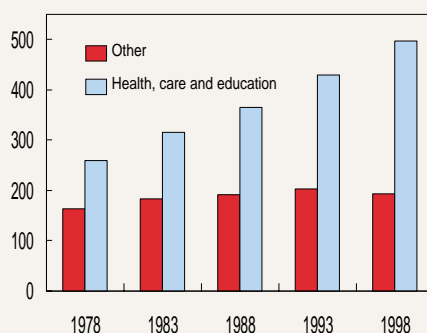
A high tax level is particularly dependent on an efficient tax system. High tax rates promote tax planning and hamper the growth capacity of an economy. Low, broad-based tax rates are preferable to high tax rates with a narrow base. Norway made headway with the tax reform of 1992. There is still room for considerable improvement in the Norwegian system.

Many public services are of considerable economic importance. Infrastructure, education, sound legislation and a solid judicial system are necessary for the economy to function and grow. Public services may be important in order to secure equality and security. At the same time, the public sector is so large that it affects the economy at large. This means that requirements concerning efficiency and adaptability must also apply to the public sector.

Over a twenty year period, the number of employed in the health, care and education sectors has increased by 240 000, which accounts for about 60 per cent of the increase in overall employment in Norway. The number employed in the health and care sector has more than doubled in twenty years. More people are now working in this sector than in the whole of manufacturing.

Nevertheless, every day we receive reports of personnel shortages at hospitals, in elderly care, or at schools. The authorities constantly signal increases in appropriations in order to remedy these problems. Norway

Chart 18. Public sector employment by sector. Thousands of persons



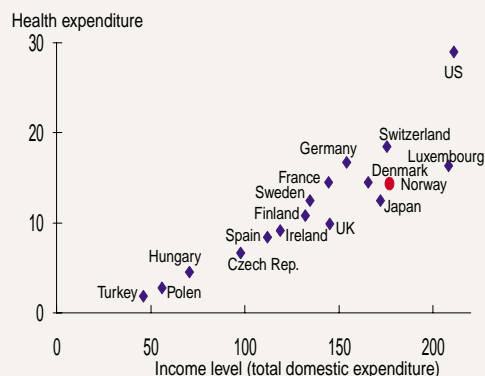
Source: Statistics Norway

The chart shows the distribution of public employment by sector. From 1978 to 1998, the number of employed in health, care and education increased by 240 000. In the health and care sector, employment rose by 182 000, to 340 000 in 1998. In the education sector, employment rose by 57 000, to 158 000 in 1998.

imports labour from other countries to cover its resource shortages. What are the reasons behind this situation?

Demand for health and care services rises sharply when incomes increase. The chart shows income on the horizontal axis, and health expenditure on the vertical axis. Norwegian health service expenditure is on a par with or higher than that of other western countries, with the exception of the US, Germany and Switzerland. However, as a percentage of income, health expenditure in Norway is still not particularly high.

Chart 19. Income level and health expenditure. Thousands of 1997 NOK per inhabitant



Source: OECD

The chart shows income level (total domestic expenditure) per capita on the horizontal axis and health expenditure per capita on the vertical axis. The figures are from 1997 and based on purchasing power parities

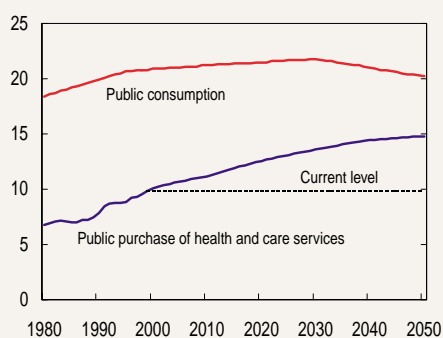
A further reason for the situation outlined above might be the composition of the population. We know that in a few years health expenditure will rise sharply because of an ageing population. However, current demographic trends do not indicate particularly strong pressures.

The challenges will increase considerably in the years ahead. Continued growth in incomes and an ageing population will boost demand for health and care services.

Moreover, it will be possible to offer services and forms of treatment that are not available today.

All this has to be provided for within tight personnel and budget constraints. The increase in social security expenditure on pensions will lay claim to a steadily increasing share of overall central government expenditure. Even with sizeable government financial assets, these resources will primarily be used to finance the increase in pension expenditure associated with the ageing of the population. Taxes cannot be increased without a weakening of the position of the business sector. Therefore, it would be inappropriate to base policy decisions on the assumption that growth in public expenditure items other than pensions can exceed GDP growth.

Chart 20. Health, care and public consumption. Percentage of mainland GDP



Sources: Statistics Norway, Ministry of Finance, and Norges Bank

The chart shows the development in public consumption as a share of mainland GDP, as estimated in the Long-Term Programme 1998-2001, and Norges Bank's estimate of public expenditure on health and care. Current level of public expenditure on health and care is estimated on the basis of total production of health and care services excluding the share financed by the private sector. The estimate is based on an income elasticity in line with historical figures. In addition, the estimate is based on the assumption that demand for and production of health and care services will increase due to demographical factors.

Allow me to illustrate this. The chart shows Norges Bank's estimates for public purchases of health and care services. The estimate is based on the assumption that the public sector will finance the same share of public services as today. The source for the estimate for public consumption is the Government's Long-Term Programme, and the estimate is based on unchanged tax rates.

The fundamental problem is that demand for health and care services is growing faster than tax revenues. There will be a limit on the extent to which the state can reduce appropriations for other important social objectives such as education, research and the judicial system. Something has to give.

Even after all the structural changes of recent years, there is probably still room for efficiency gains in the health and care sector. However, this is hardly sufficient to fully address the challenges. Users may therefore have to finance a substantially greater share of these ser-

vices, whether the services are provided by public or private operators. There are limits on the extent to which the public sector should and can impose user fees without creating unacceptable distributional effects. A private insurance system is not a foolproof solution.

It seems obvious that there is a need for a clearer definition of the public sector's core activities in the health and care sector, and in other areas. There is a need for delimiting what the public sector should finance by means of tax revenues.

The main challenge

At this time last year, oil prices stood at USD 10 a barrel. The Norwegian economy had experienced a turnaround, with a risk of a deflationary recession. Indeed, this particular risk now would seem less prominent. Oil prices have risen to almost USD 30 a barrel. The period of sluggish growth now appears to be transient. European economies are expanding while the US economy is still booming. Even after a year of slower growth, economic activity in Norway is still high.

Over the last decade, inflation has been subdued in Norway. The economy has expanded at a rapid pace and the business sector and public enterprises have created new jobs. Technology and the competition for capital are engendering structural changes, unrest and uncertainty, but also provide opportunities for renewed growth. At the same time, the stock market shows some features that may prove to be a source of future instability.

Economic policy must draw on the lessons of the boom and bust cycles of the past. The most important task of monetary policy is to secure a nominal anchor for the economy. Fiscal policy and monetary policy must be complementary. Fiscal policy determines the distribution of labour and other real resources between the business sector and public sector activity – between exposed and sheltered industries.

Norway's state finances are solid and will be further strengthened in the years ahead. However, government savings will hardly exceed the requisite level implied by pension expenditure over the next decades. Considerations relating to the business sector and the supply of labour set limits on how fast the public sector can expand. Given the current structure and pricing of public services - and the many tasks assumed by the public sector - it will become increasingly difficult as each year goes by to make ends meet in both central and local government budgets in an environment of growing demands and expectations. This probably represents the greatest challenge to economic policy in the years ahead.

Thank you for your attention.