

## Øystein Olsen: Economic perspectives

Annual address by Mr Øystein Olsen, Governor of the Norges Bank (Central Bank of Norway), to the Supervisory Council of Norges Bank and invited guests, Oslo, 14 February 2014.

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*Accompanying charts can be found at the end of the speech.*

### Introduction

This year is the bicentenary of the signing of the Constitution of Norway. Two hundred years ago, Norway was a poor country on the periphery of a Europe that was then the world's economic centre of gravity.

Thomas Robert Malthus, one of the foremost experts of his time in the field of demography, toured Norway in 1799. In his travel diary, Malthus describes an agricultural society where most people lived a simple life subsisting on a diet of whatever they were able to harvest. Wealthy Norwegians, on the other hand, complained about how expensive it was to maintain a respectable lifestyle when everything had to be imported.<sup>1</sup>

The Napoleonic wars brought harsh economic realities. Blockades, epidemics and crop failures took their toll on the population. Large parts of southern Norway experienced severe famine in 1809 and again in 1813. Population numbers fell. The timber trade and shipping industry showed a marked contraction.

#### *Chart 1: Inflation in Norway*

King Fredrik VI financed public expenditure by printing money. Combined with goods shortages, the result was hyperinflation and failing confidence in the monetary system. The level of prices rose more than twentyfold in the period from 1806 to 1813<sup>2</sup>, and in 1813 the currency was devalued by almost 90 percent. The first national assembly at Eidsvoll was attended by representatives of a nation in deprivation.

For the 112 sworn representatives, popularly known as the men of Eidsvoll, who took their places as the Constituent Assembly in spring 1814, the atmosphere was nonetheless full of hope for freedom and a better future. Several of them had spent time abroad and had been influenced by the Enlightenment philosophers and by the American and French revolutions. The Norwegian Constitution was inspired by the thoughts and ideas they brought home with them. Absolute monarchy under the Danish king was to be replaced by the sovereignty of the people and the separation of powers. Institutions with clearly distinguished roles would prevent the arbitrary use of power and foster confidence.

This evening we are gathered in one such institution. In the discussion at Eidsvoll, Christian Magnus Falsen, a key member of the Constituent Assembly, said that no state can exist without a well functioning monetary system. Another prominent member of the Assembly, Count Wedel Jarlsberg, insisted that the nation must have its own bank.

The people's elected representatives took responsibility for the monetary system, as stated in Article 75 of the Constitution: *«It devolves upon the Storting to supervise the monetary affairs of the Realm».*

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<sup>1</sup> The Scandinavian Journal, 1799, in The travel diaries of Thomas Robert Malthus, edited by Patricia James, Cambridge University Press (1966).

<sup>2</sup> See Norges Bank Working Paper 23/2013, Contributions to a history of prices in Norway: Monthly price indices, 1777–1920, by Jan Tore Klovland.

The Storting delegated the task of supervising the monetary system to Norges Bank, which was established in 1816. The king would no longer have the authority to print money at will.

At its inception, Norges Bank's head office was located in Trondheim, a twelve-day journey from the government in Christiania, and even farther from Stockholm<sup>3</sup>, giving the central bank a geographical – and not just formal – distance from the government authorities.

The value of money would be guaranteed by a stock of silver and a silver tax was introduced. But establishing confidence would take many years. The banknotes that were printed were not fully redeemable in silver until 1842.

Since then, the value of Norway's currency has been fairly stable for long periods, but we have also experienced periods of deflation, high inflation and waning confidence. The lesson has been the same every time: restoring confidence comes with a cost.

Much has happened since 1814. Norway no longer lags behind other western economies. Inflation is low and stable. We have established a clear division of responsibility for economic policy and well developed institutions founded on the Constitution written at Eidsvoll 200 years ago. The bicentenary is a natural occasion for me to cover the scope of Norges Bank's tasks, against the backdrop of the challenges facing us today.

### **Low growth and structural changes**

In 1814, the great powers of Europe dominated world trade. The world's economic centre of gravity has since shifted westward. Today, in the 21st century, the centre of gravity is moving across the Pacific to Asia.

#### *Chart 2: International trade for the US and China*

When China became a member of the World Trade Organization in 2001, its foreign trade was 30 percent of that of the US. The Chinese economy has since grown at an unprecedented pace. In 2013, China overtook the US as the world's largest trading nation. An ample supply of labour and low cost levels have given China and the other growth economies of Asia strong competitive advantages in international markets.

The global flow of credit over the past 15 years has taken an untraditional direction – from relatively poor countries with strong economic growth to more prosperous, mature economies experiencing lower growth. For a long period, this shift contributed to substantial imbalances in the global economy. An ample supply of credit in western economies pushed down borrowing rates.

Facing competition from Asia, it became relatively less profitable for firms in the west to invest in new productive capacity in their home countries. Instead, cheap credit was used to debt-finance consumption and housing, particularly in the US and Europe. Banks and financial institutions had, in practice, free rein to fuel credit growth.

In retrospect, it is clear that a vast amount of capital was squandered. Many businesses and a number of countries are struggling with high debt levels. Governments that ran economies on cheap credit are now paying a high price in the form of austerity measures and unemployment. In parts of Europe, unfinished infrastructure and empty buildings are not uncommon sights.

#### *Chart 3: Productivity growth in advanced economies*

Productivity growth has been declining in advanced economies since the beginning of the 2000s. The willingness to invest has been low since the financial crisis. To what extent this is

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<sup>3</sup> In 1814 Norway entered into a personal union with Sweden, under the Swedish king who reigned from Stockholm.

related to the economic downturn remains to be seen. Better times may eventually entice investors, but it is also possible that the substantial changes in the global economy have had a more lasting effect on the willingness to invest and the growth capacity of western economies.

*Chart 4: Real wages in mainland Norway, US and Germany*

A demanding restructuring process is underway in the traditional industrialised countries. In the US and Germany, real wages have barely risen since the turn of the millennium. Income inequality has deepened. This may in part be related to the global change in the price of labour. In other countries, particularly in Europe, economic restructuring is throwing a large number of people into unemployment. Over 26 million people are unemployed in the EU today, almost 10 million more than in 2007.

Low growth, high unemployment and high debt levels are not a good combination. Even though there are signs of a moderate revival of activity abroad, growth may remain low for a protracted period.

Real wage growth in Norway has diverged substantially from that observed in Germany and the US. This is attributable to the sharp price rise for Norwegian goods in recent years. Norway's terms of trade have improved and the gains shared between owners and workers. The wage share has remained fairly stable.

*Chart 5: Real wages and productivity for mainland Norway*

Strong growth in activity in the petroleum sector has for many years been an engine of growth also for the mainland economy, generating high growth in output and employment. Since a share of the terms of trade gains has benefitted wage-earners in the form of wage increases, real wage growth in Norway has been considerably higher than productivity growth.

But the economic picture for Norway may be changing. We cannot assume that Norway's terms of trade will continue to improve. Investment in the petroleum sector is levelling off. Output growth in the mainland economy has slackened.

When activity in the petroleum sector eventually declines, there will also be a need for economic restructuring in Norway. The business sector will have to seek new markets where competition may be intense. Restructuring may prove particularly demanding given Norway's high cost level.

Although restructuring will be a gradual process and may lie some years ahead, Norway may find that sustaining growth and keeping unemployment low in the coming years might become a challenge more on a par with that facing other economies today.

The economic policy framework matters. Fiscal policy follows the fiscal rule, which aims to ensure a sustainable level of petroleum revenue spending over the long term. In the event of major aggregate demand shocks, fiscal policy, in line with the fiscal rule, can be used to alleviate the situation in the short term, as evidenced during the financial crisis. But an imbalance arising from a cost level that is too high and weak competitiveness cannot in the long term be addressed by means of an expansionary fiscal policy. This approach could, quite to the contrary, amplify the problem by crowding out businesses.

The fiscal policy stance can affect the growth capacity of the economy. Government regulation and various features of the tax system can influence corporate decisions with regard to localisation, investment and technology. Other measures can affect the labour force and the functioning of the labour market.

Supply-side mechanisms are complex and interlinked in ways that we do not fully understand. Nonetheless, an effective supply-side policy is probably the most important contribution we can make to strengthening the growth capacity of the economy.

Monetary policy is oriented towards maintaining low and stable inflation over time, while seeking to smooth fluctuations in output and employment at the same time.

Labour cost growth in the business sector influences the inflation outlook. An increase in wage growth will, all else equal, normally result in prospects for higher inflation and higher interest rates. Normally, the krone will then also appreciate somewhat. Conversely, a decline in wage growth will generate prospects for lower inflation, lower interest rates and a weaker krone.

Over time, real wages must move in line with productivity. The social partners determine wage growth. We have seen that they pull in the right direction when the need arises. The alternative could be a more painful adjustment with higher unemployment.

As long as inflation is low and stable, the krone can act as a buffer during periods of adjustment. We cannot, however, rely on a depreciation of the krone to ensure Norway's competitiveness in the longer run.

Monetary policy cannot influence the long-term growth capacity of the economy. The challenges associated with low growth and changes in business structure must be addressed using other measures.

#### *Chart 6: Long-term real interest rates and potential growth in advanced economies*

Monetary policy easing and low interest rates do not lead to a sustainable level of higher growth. The inverse is true: prospects for persistently weak growth result in low interest rates over a long period.

In order to prevent deflation and recession, the central banks of major advanced countries have implemented extraordinary measures to keep both short- and long-term interest rates low. The medicine has worked. The US economy in particular is on the road to recovery, and there are signs of some revival in manufacturing. Financial market participants see opportunities, not just problems. However, there are also signs of renewed turbulence in a number of emerging economies. Volatile capital flows are creating problems. High debt growth and rising house prices may constitute a risk. The recovery abroad is fragile.

The key policy rate is also low in Norway. Our inflation target is slightly higher than that of other European countries. As a result, inflation and nominal interest rates in Norway will also be slightly higher. But prospects for a persistently low interest rate level internationally will inevitably also have consequences for Norway. The real interest rate in a small open economy such as ours cannot in the long run differ substantially from that of our closest trading partners. Given the prevailing long-term interest rates abroad, it will likely take a number of years for interest rates in Norway to move up towards a level that was previously considered to be normal.

### **Banking regulation**

When the drafters of the Constitution gathered at Eidsvoll, there were no private banks in Norway. Norwegian businessmen who needed credit had to borrow from friends or acquaintances or travel to Copenhagen or Hamburg to raise loans. This was expensive and cumbersome. The men of Eidsvoll needed a bank that could provide credit in Norway.

Norges Bank quickly became an important lender. It was not until the latter half of the 1800s that a private banking system truly came into being. Norges Bank acquired its present-day role of the bankers' bank and lender of last resort.

With private banking came banking crises. The 1899 crash in Christiania triggered the first serious banking crisis in Norway. A real estate bubble in the capital burst and house prices

plummeted. It took more than 100 years for real house prices in Oslo to return to their pre-crash level.<sup>4</sup>

Banks play a key role in the payments system and channel credit from savers to investors. If the flow of credit seizes up, problems will rapidly spread through the entire economy, as witnessed during the latest financial crisis. A robust banking system is of benefit to us all.

Banks are now adapting to new capital requirements. On top of the new capital requirements is a countercyclical capital buffer. The countercyclical capital buffer will vary over time. It will be increased when financial imbalances build up. In the event of economic stress and large bank losses, banks will be able to draw down the buffer.

*Chart 7: Key policy rate and bank lending rates*

Even if the key policy rate is low, interest rates on loans to households and enterprises are not particularly low. Banks have responded to the new requirements by increasing interest margins to boost earnings. It can be safely assumed that once they have adapted to the new requirements, interest margins will decrease.

The countercyclical capital buffer is not an instrument for managing business cycles. The key policy rate and the buffer are designed to promote different objectives. Monetary policy is geared towards ensuring low and stable inflation and is the first line of defence for managing business cycles. The countercyclical capital buffer is designed to strengthen banks' capacity to withstand periods of large losses.

The simultaneous failure of many banks will paralyse the economy. The payments system and flow of credit for investment will seize up. The downturn could be long-lasting. This is why it is often the case that the authorities ultimately intervene in support of failing banks. This is what transpired during the Christiania crash – and it has occurred many times since then, both in Norway and other countries.

It may be necessary to provide support to banks in distress, but it comes with a major drawback: Banks will expect support also in the future, which is a source of moral hazard. In spite of the term, this is not about morals, but about incentives. The banks' creditors are induced to charge low interest rates on loans to banks. This leads to the underpricing of risk, which may in turn lead to excessive risk-taking in the banking sector.

The problem must be nipped in the bud. No bank should be promised life eternal.

A new regulatory framework for the recovery and resolution of failing banks is underway. A plan for orderly resolution must be drawn up for all banks. Large losses must be absorbed by writing down the bank's equity capital and debt. The bank can then recapitalise by converting existing debt to new equity capital. The bank's creditors step in as new owners. The bank's losses can be allocated to both owners and creditors, while core banking services continue.

A market functions best when there is scope for new entrants and for the closure of loss-making companies. The same applies to financial markets. The banking sector is characterised by large entities and complex products. Banking regulation is also complex and rich in detail. If the authorities succeed in developing a system for resolving failing banks, perhaps we can take one step back with regard to other detailed regulations.

The work on reforms that has been engaged abroad must be followed up in Norway. A national bank resolution authority must be designated. It should be placed in a unit under the Ministry of Finance. This is not a natural role for a central bank.

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<sup>4</sup> See e.g. the box "Historical monetary statistics for Norway" in Norges Bank Annual Report 2007.

## **Building wealth for future generations**

Among Norges Bank's key tasks is the management of Norway's foreign exchange reserves. This responsibility has followed the Bank since its establishment in 1816, first in the form of silver and gold reserves. Later, reserves were expanded to include bank deposits and securities in various currencies.

Originally, Norges Bank had an obligation to redeem notes against precious metals, a promise that was printed on each and every banknote.

This redemption guarantee applied in principle right up to the abolishment of the gold standard in 1931. In more recent times, reserves have primarily consisted of foreign government bonds, first in US dollars under the Bretton Woods Agreement up to 1971 and later also in various European currencies and Japanese yen.

Norges Bank was charged with managing the Government Petroleum Fund when the first capital transfers were made to the Fund in 1996. This was a natural extension of our responsibility for managing foreign exchange reserves.

The aim of the Government Pension Fund Global, as it is now called, is to ensure that the income from our oil and gas resources will also accrue to future generations. The principle underlying the fiscal rule is that the real return on the Fund can be used over time for consumption or investment. This ensures a gradual phasing-in of petroleum revenue spending, while preserving the wealth.

The Fund is the nation's family silver. It is no longer held in Norges Bank's vault, as it was during the period of the silver and gold standards. The Fund is invested in fixed-income securities, equities and real estate across the world. When Norges Bank had finished collecting the silver tax around 1820, the Bank's silver holdings came to somewhat more than 50 grams per inhabitant, which is the equivalent of about one silver spoon. The value of the Fund has just recently exceeded NOK 5 trillion, or about NOK 1 million per inhabitant.

It is the political authorities – the Government and the Storting – that define the investment framework for the Fund. Norges Bank is charged with the operational management of the Fund and ensuring compliance with the guidelines. Within the framework established by the Ministry of Finance, Norges Bank shall aim to achieve the highest possible return. The investment management function has to a large extent been delegated from Norges Bank's Executive Board to Norges Bank Investment Management – or NBIM.

### *Chart 8: Cumulative value of the Government Pension Fund Global (GPFG)*

The Fund's results have been favourable. Since 1998, the cumulative return on the Fund has been close to NOK 1 800 billion, which is more than a third of the Fund's total value. So far, our nation has earned a solid return on its investments.

### *Chart 9: Real return on the GPFG and estimated spending*

High returns in recent years have contributed to an average annual real return since start-up of close to 4 percent, while the spending of petroleum revenues over the fiscal budget accounts for a smaller percentage of the Fund than earlier. Last autumn, the Storting decided to spend less than 3 percent of the Fund over the fiscal budget for 2014.

It would seem that the return and actual spending of petroleum revenues are moving in opposite directions. The figures 3 and 4 have apparently switched places since 2012.

Petroleum revenue spending is not falling in absolute terms. On the contrary, fiscal policy has stimulated overall demand in the mainland economy over several years. The sharp increase in the value of the Fund is the main reason behind the decline in the percentage share of spending via the fiscal budget.

Quite paradoxically, low growth and low interest rates abroad are probably the main factors behind the solid performance of the Fund over the past two to three years.

#### *Chart 10: Annual return on the GPFG*

Since the end of the 1990s, a persistent fall in yields has driven up government bond prices. In recent years, the unconventional monetary policy measures of the world's major central banks have contributed to even lower interest rates and higher prices for equities and other securities. This has resulted in above-normal returns on the Fund's investments. But today there is no longer room for a considerable fall in interest rates and equity prices have risen to fairly high levels.

#### *Chart 11: Annual return on the GPFG divided into value gains and cash flow*

Our return measure includes both value gains and direct cash flows, which comprise dividend and interest income. The value of the Fund and its investment returns will therefore swing in tandem with equity and bond prices. This may draw a veil over the progression of the Fund's underlying earnings.

In the long run, it is the Fund's cash flow that makes a permanent contribution to our national income. Put in simple terms: The cash flow is cash in hand, while the prices we measure in market values vary with shifting market sentiments. The cash flow is more stable than the market values as expressed by exchange listed prices. The Fund's cash flow is therefore a good cross-check for measured capital returns.

#### *Chart 12: Cash flow from the GPFG and petroleum revenue spending over the fiscal budget*

The cash flow is commensurate with the actual level of petroleum revenue spending over the fiscal budget of about 3 percent of the Fund's capital. This is reassuring because it implies that the Fund's capital is not being depleted.

The fall in yields in recent years has provided one-off price gains in bond and equity markets. Looking ahead, low long-term interest rates will feed through into lower returns. It is doubtful that equity prices will continue to advance at the same pace as seen in the past couple of years. The most likely scenario is still one where the Fund's real return will approach 3 percent in the longer term.

Above all we should recognise that future returns on the Fund are uncertain. Ultimately, returns depend on the pace of growth in the world economy and the share of that growth that accrues as value in the companies and bonds in the Fund's investment portfolio. These variables are uncertain. Growth in the world economy may come to a halt. Governments may default on interest payments. Real properties may fall in value when bubbles burst.

To achieve returns, we must take on risk. The Fund features a very long investment horizon and a sizeable capacity to bear short-term risk. If we can exploit these distinctive features when making investment choices, it should be possible to obtain a return in excess of average market return.

Shareholders are last in line when company profits are to be distributed. They bear a considerable risk. As compensation, shareholders have received a higher return over time – a risk premium. It is sound investment logic for a fund such as ours to exploit this risk premium to boost returns, which is why the chosen allocation to equities is relatively high.

In addition, a reasonable distribution between bonds and equities can contribute to reducing the Fund's overall risk, as bond and equity prices tend to move inversely. The bond portfolio may thus be seen as a kind of hedge against a drop in equity prices.

In recent years, the Fund has also invested directly in real estate. In the light of its size and long horizon, the Fund is well poised to make gains in low liquidity markets. Real estate investment is an example. The mandate provides for an increase in the real estate allocation up to 5 percent, while the allocation to fixed-income instruments is to be reduced from 40 percent to 35 percent.

A few years from now, almost two-thirds of the Fund will thus be invested in real assets. This is a fairly high share. A pertinent question may still be whether as much as a third of the Fund should be invested in low-yielding instruments.

It takes time to build up a real estate portfolio. As we gain experience in real estate investing, it may be natural to invest in other types of real assets, or increase the equity allocation. In the long run, a bond allocation of 20–25 percent should suffice to maintain the Fund's needed hedge against a fall in equity prices.

Risk management must encompass the Fund's overall risk. This can only be achieved if total risk is managed and controlled as a whole. This is why the Fund is a single integrated entity located in Norges Bank.

Norges Bank works to preserve the Fund's long-term financial value. That is our task. Responsible investment is part of that task. As a long-term financial investor, the Fund stands to benefit from sound and sustainable growth in the companies and markets included in its investment universe.

We use a variety of instruments to exercise our ownership rights. We engage in close dialogue with companies, investors and regulatory authorities. We vote at shareholder meetings in line with pre-defined principles and publish our voting results on a regular basis. We also make shareholder proposals and participate in consultations based on the fundamental principles that we apply in the exercise of ownership rights.

Norges Bank integrates the considerations relating to corporate governance, the environment and social conditions into the investment process. In some cases, this has resulted in decisions to sell or not to acquire certain shares. Since 2012, the Fund has disposed of holdings in palm oil and mining companies. Because the Fund is a long-term financial investor, we place considerable emphasis on our role as responsible investor. The overriding goal, which is the highest possible return at an acceptable level of risk, remains firmly established.

The Strategy Council for the Government Pension Fund Global recently put forward recommendations to strengthen the work on responsible investment. The Council points to the need for clarifying objectives, roles and responsibilities, while highlighting that the aim of the Fund is to maximise returns. The manager of the Fund should thus gear its activity to increasing the Fund's value. If the Fund is perceived as an instrument for achieving other political objectives, its role as investor will be undermined.

This is sound advice. If Norges Bank is assessed using criteria other than return and risk, its mission will become unclear. This might also impact return performance. There must be no doubt as to the objective of investment management.

## **Conclusion**

During the Napoleonic Wars, the British naval blockade of Norwegian ports led to shortages of essential foods over several years. Many people risked their lives to sneak past the blockade. Count Wedel Jarlsberg organised the transport of grain from Denmark and sailed several times across Skagerrak himself. The chances of succeeding were greatest when weather conditions were adverse and visibility low.

Today, trade with other countries is less perilous. Our prosperity is built on extensive trade in goods with other countries. People from other countries seek to enter Norway to find work and new opportunities.

The enormous economic progress in Norway has not been linear. Rapid population growth and food crises in the latter half of the 1800s led to the massive emigration of close to 1 million Norwegians to America. Norway gradually became an industrialised country, and trade and shipping provided our new nation with much needed income. Moreover, an



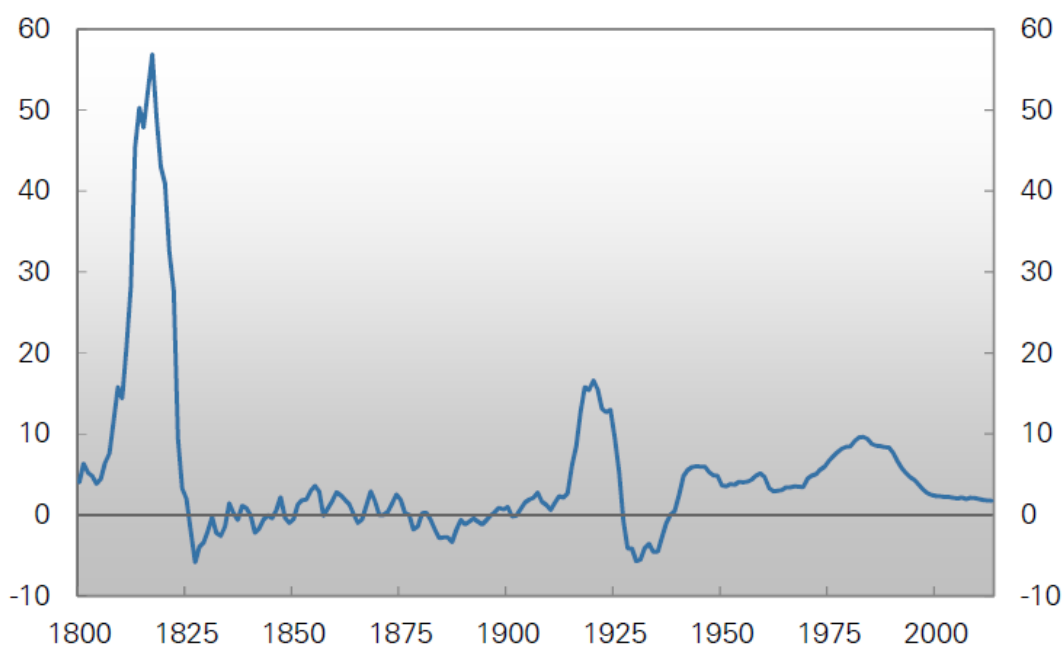
abundance of natural resources has been essential for our country's prosperity. Norway never did become a true manufacturing nation.

We cannot expect the strong growth in national income we have seen in recent years to continue. Norway is not immune to shifting circumstances and external shocks. Steering the course through stormy weather will be testing, but we have an optimal starting point. The beneficial tailwinds have been put to good use and Norway is in a solid position to tackle challenges when the winds shift.

The Constitution is the foundation of modern Norway. This year's bicentenary of the Norwegian Constitution is an occasion to remember the importance of good institutions that have clearly defined roles. This is essential for stability and progress. Come what may.

Thank you for your attention.

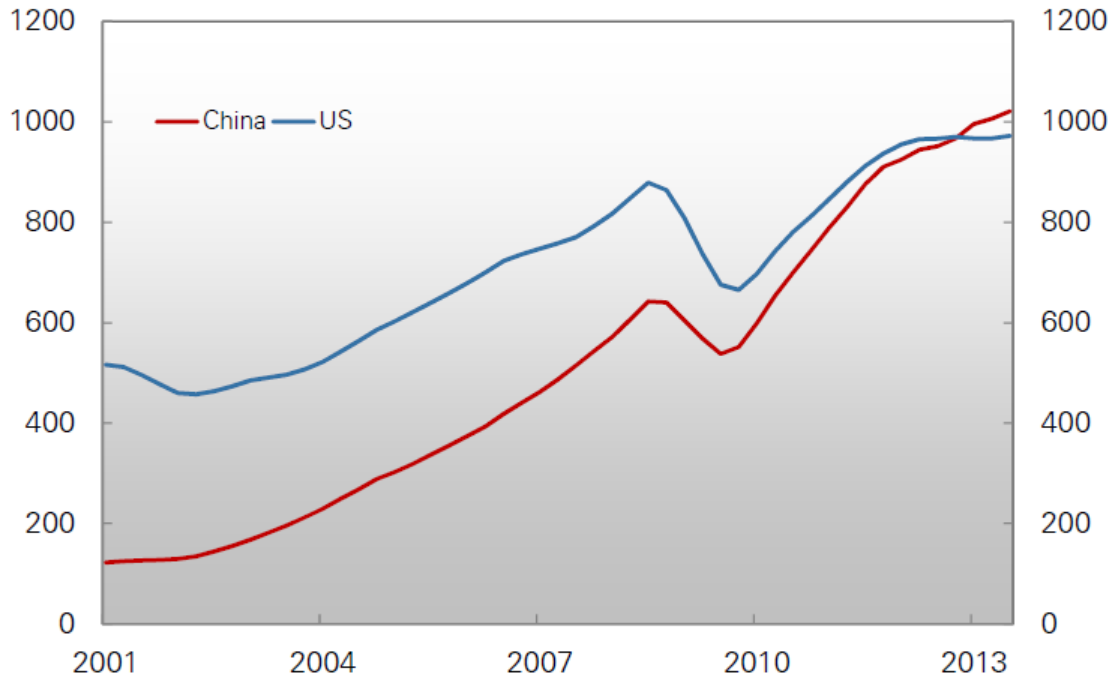
Chart 1 Inflation<sup>1)</sup> in Norway.  
Percent. Ten-year moving average. Annual figures. 1800 – 2013



1) CPI

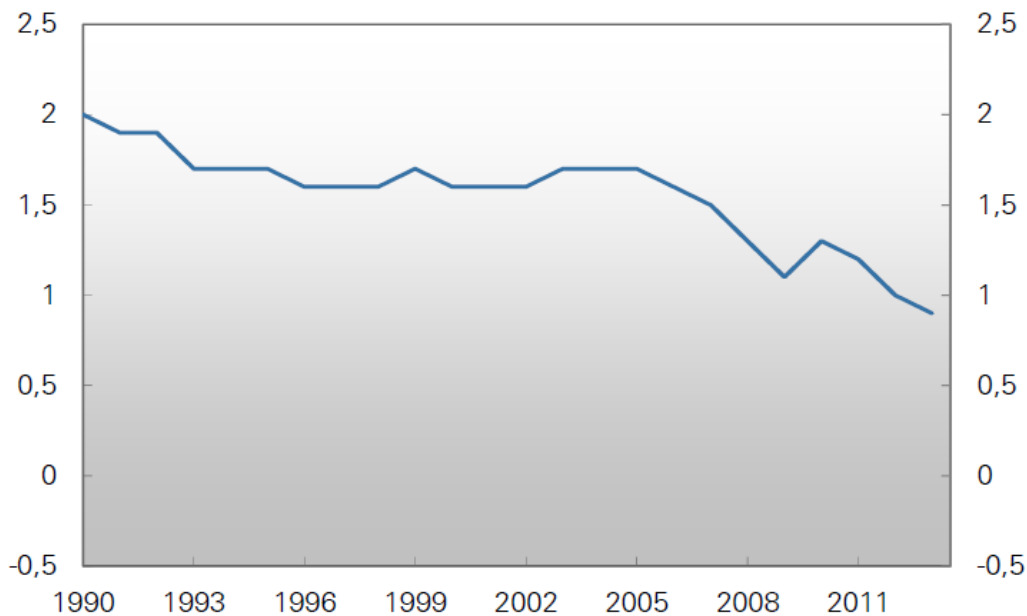
Sources: Statistics Norway and Eitrheim et al. (2004): Norges Bank Occasional Papers No 35  
"Historical Monetary Statistics for Norway 1819-2003"

Chart 2 International trade<sup>1)</sup> for the US and China. Current prices. Four-quarter moving average. In billions USD. Quarterly figures. Q1 2001 - Q2 2013



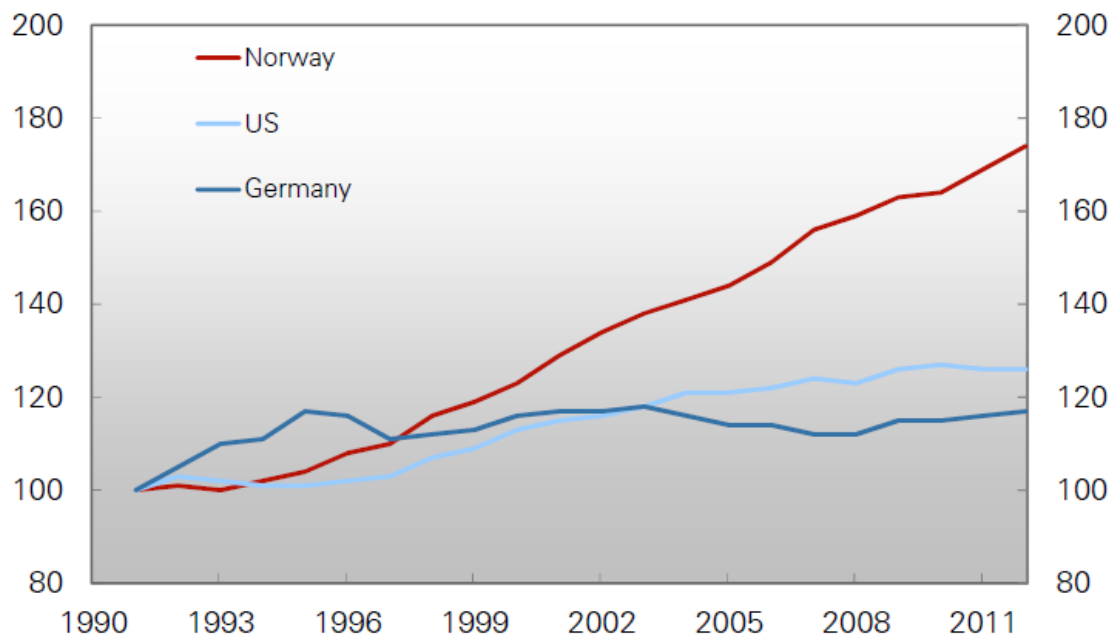
1) Export and import of goods  
Source: Thomson Reuters Datastream

Chart 3 Productivity growth in advanced economies.<sup>1)</sup>  
Percent. Eight-year moving average. Annual figures. 1990 – 2013<sup>2)</sup>



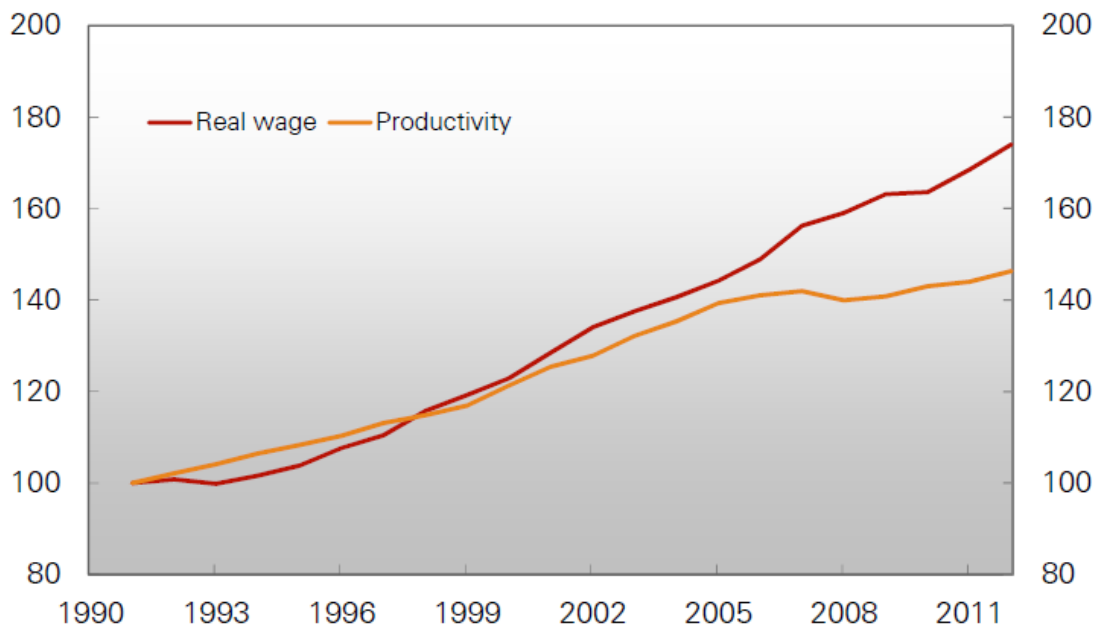
1) Annual growth in GDP per employee for the euro area, US, UK and Japan (GDP weights)  
2) 2013 figures are projections  
Sources: IMF and European Commission (AMECO)

Chart 4 Real wages<sup>1)</sup> in mainland Norway, US and Germany.  
Index. 1991=100. Annual figures. 1991 – 2012



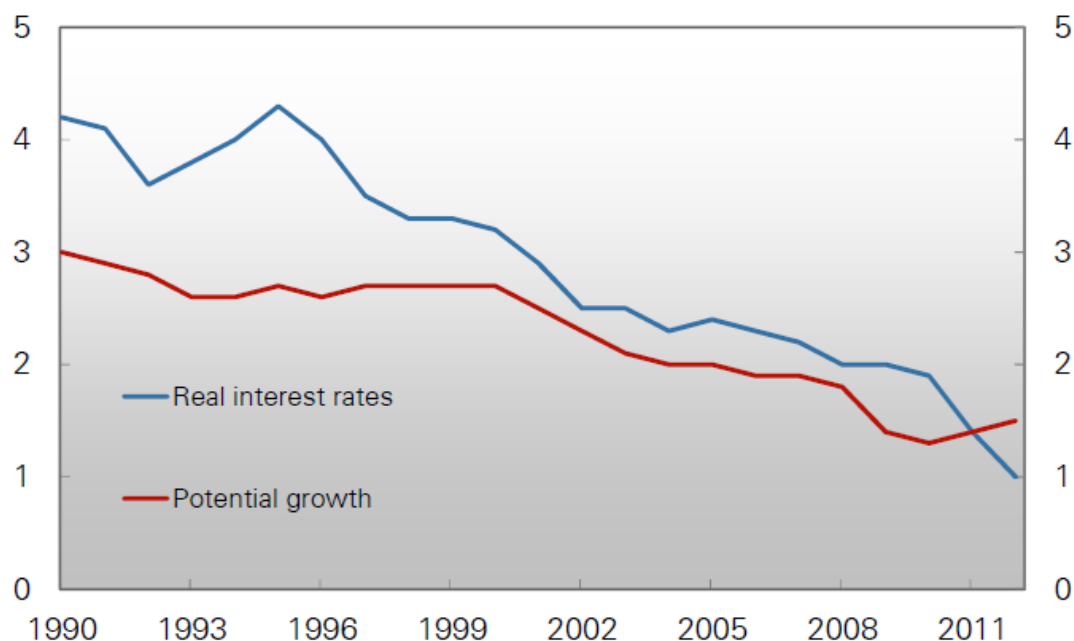
1) Real wage defined as hourly labour costs deflated by consumer prices  
Sources: OECD and Statistics Norway

Chart 5 Real wages<sup>1)</sup> and productivity<sup>2)</sup> for mainland Norway.  
Index. 1991=100. Annual figures. 1991 – 2012



1) Real wage defined as hourly labour costs deflated by consumer prices  
2) Gross product per hour worked at constant prices  
Source: Statistics Norway

Chart 6 Long-term real interest rates<sup>1)</sup> and potential growth in advanced economies<sup>2)</sup>. Percent. Annual figures. 1990 – 2012



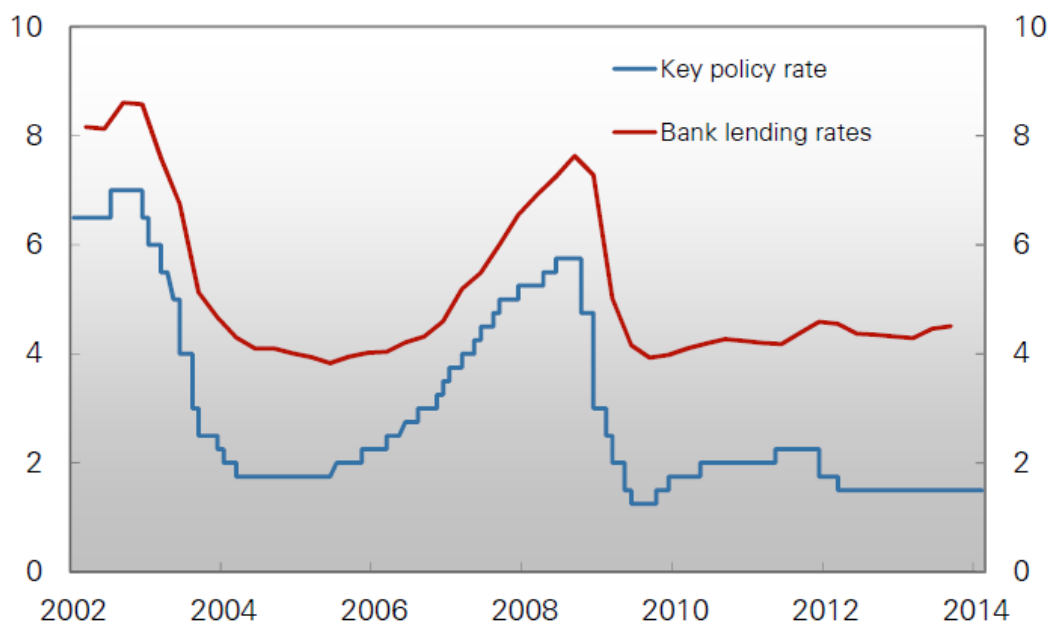
1) Ten-year government bond deflated by consumer price inflation. Three-year average

2) Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Japan, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, UK and US

Source: OECD

Chart 7 Key policy rate and bank lending rates<sup>1)</sup>. Percent. Quarterly figures (bank lending rates) and daily figures (key policy rate).

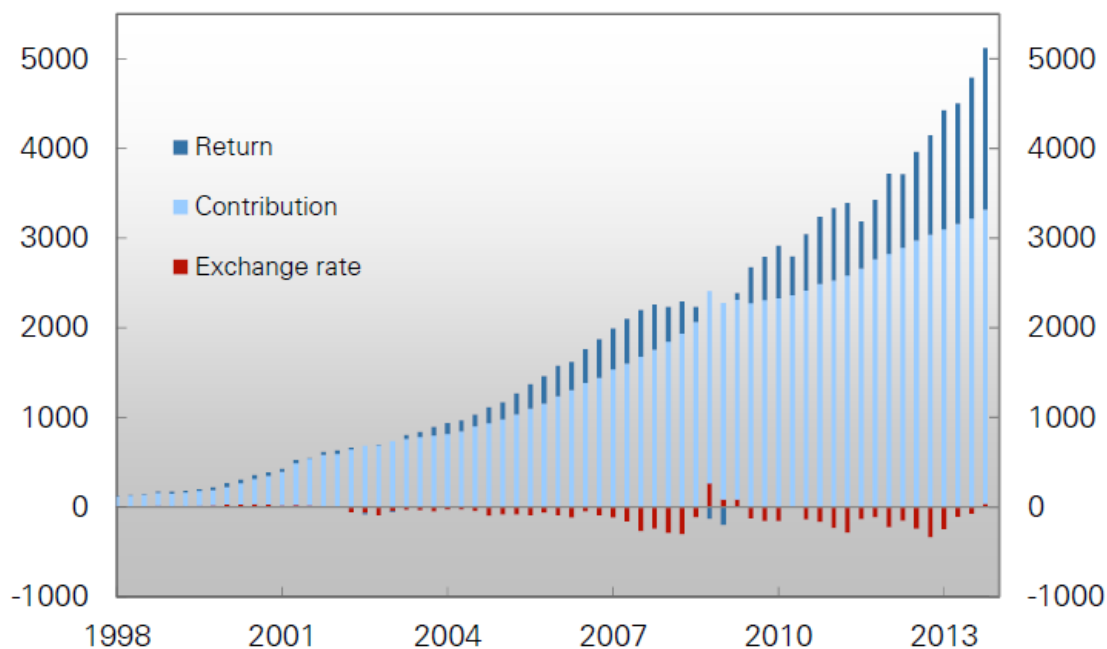
1 March 2002 – 10 February 2013



1) Weighted average of interest rates including fees and commissions on loans to households from banks and credit institutions

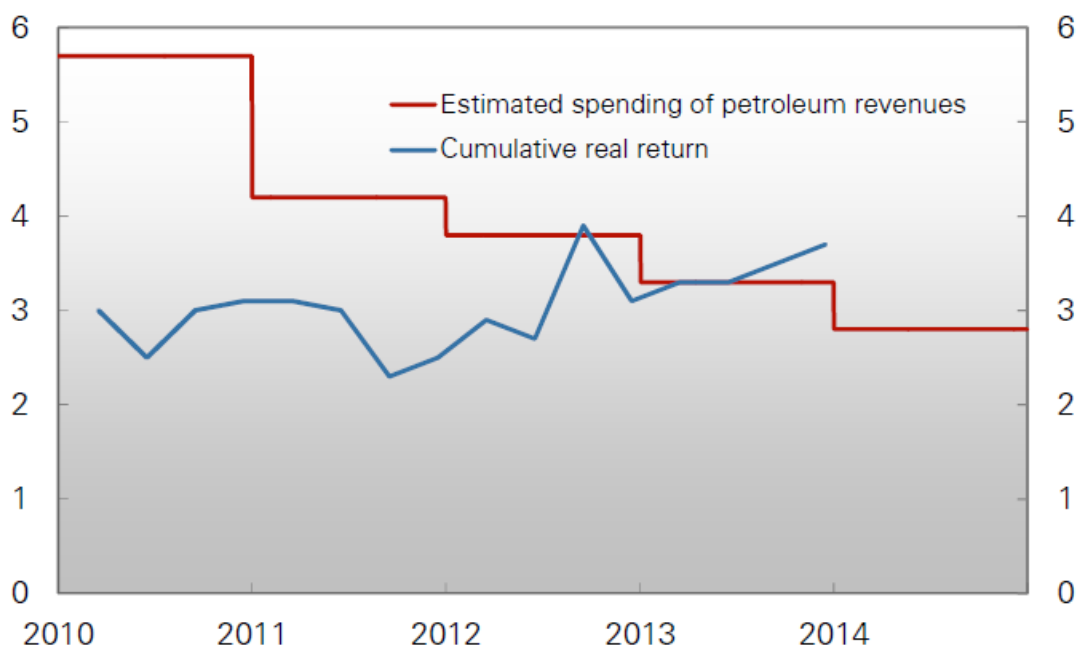
Sources: Statistics Norway and Norges Bank

Chart 8 Cumulative value of the Government Pension Fund Global (GPFG). Billions of NOK. Quarterly figures. Q1 1998 – Q4 2013



Source: Norges Bank

Chart 9 Real return on the GPFG<sup>1)</sup> and estimated spending<sup>2)</sup>. Percent. Annual figures (estimated spending) and quarterly figures (real return). 2010 – 2014

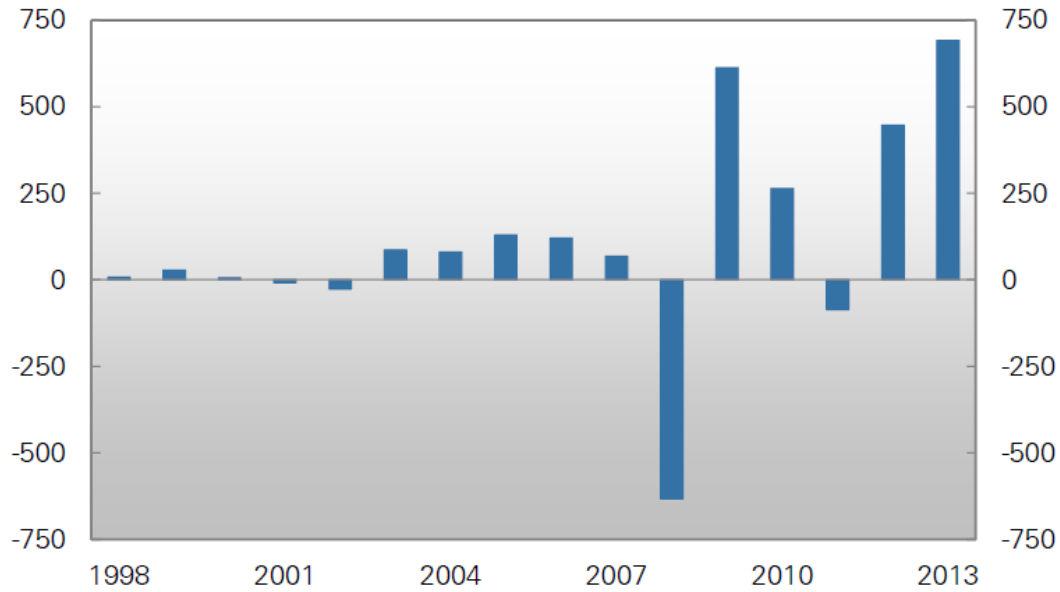


1) Average annual real return on the GPFG from 1998, excluding administrative costs

2) Projections from the Ministry of Finance on estimated spending of petroleum revenues in government budget for the selected year, published in national budget previous autumn, in percent of estimated value of the GPFG at beginning of the year

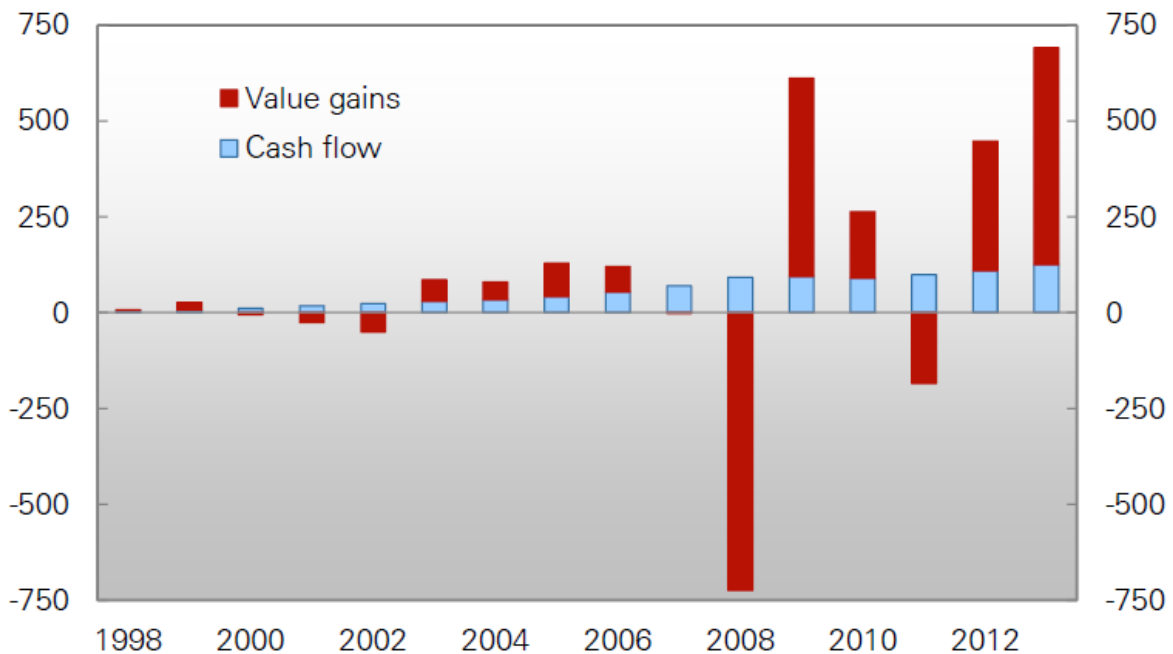
Sources: Ministry of Finance and Norges Bank

Chart 10 Annual return on the GPFG. In billions of NOK. Annual figures. 1998 – 2013



Source: Norges Bank

Chart 11 Annual return on the GPFG divided into value gains<sup>1)</sup> and cash flow<sup>2)</sup>. In billions of NOK. Annual figures. 1998 – 2013

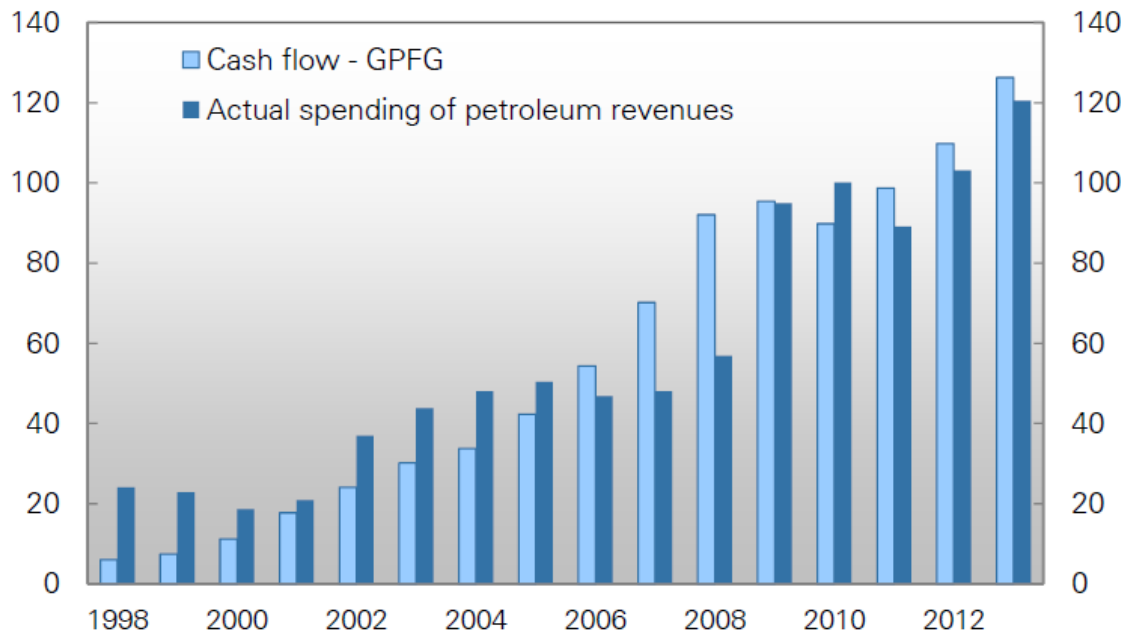


1) Effect on the GPFG of change in valuation of GPFG assets

2) Sum of dividend and interest income from fixed-income securities and rental income from real estate

Source: Norges Bank

Chart 12 Cash flow from the GPFG and petroleum revenue spending<sup>1)</sup> over the fiscal budget. In billions of NOK. Annual figures. 1998 – 2013



1) Structural, non-oil deficit

Sources: Ministry of Finance and Norges Bank