Economic trends

The cyclical upturn in the Norwegian economy has continued with undiminished momentum through the first half of 2005, and we expect the upturn to continue to the end of the year and perhaps into the beginning of 2006. The main driving forces behind the upturn have been petroleum investment and an expansionary monetary policy, with low interest rates that have stimulated household consumption and housing investment. There are still no signs of labour market pressures in spite of the cyclical upturn, which probably reflects the recent increase in average working hours partly owing to a fall in sickness absence. Consumer price inflation remains low, but will edge up in the period ahead as a result of higher energy prices. The krone exchange rate has appreciated again, reflecting high oil prices, relatively low inflation in Norway and the interest rate differential in relation to the euro area which has turned positive again.

High oil prices influence the Norwegian economy via various mechanisms. A fairly immediate effect is through higher prices for petrol and heating oil, which push up CPI inflation both in Norway and other countries. For a given budget share, the impact on the inflation rate is smallest in countries with high specific taxes on petroleum products. This means, for example, that inflation in the US is more heavily influenced than inflation in most European countries. The question is then how the monetary policy authorities react to the increase in the inflation rate. In Norway, the regulation on monetary policy explicitly states that the central bank shall not take into account such supply-driven inflation shocks, but the monetary policy guidelines are not as clearly formulated in all countries. Moreover, higher energy prices have indirect effects on inflation through a rise in prices for a number of transport services. Most businesses will be faced with higher input costs if oil prices remain high. Underlying inflation will then also accelerate, which implies a possible interest rate increase, for instance in the euro area. On the downside, higher oil prices will normally reduce economic activity in most OECD countries, i.e. among Norway's main trading partners. In isolation, this implies that central banks will be averse to increasing interest rates. Lower global economic activity will reduce demand for Norwegian exports, which may be adversely affected by a strong krone exchange rate and lower market growth.

Norway is in the fortuitous situation where higher oil prices improve our terms of trade, with an attendant increase in Norway's real disposable income. In the first round, Norwegian and foreign-owned oil companies and the Norwegian state benefit from the terms-of trade gains. However, the fiscal rule in Norway implies that the additional central government revenues be invested abroad, while normally only the increase in the expected real return is to be used domestically. As spending in 2005 and 2006 is higher than implied by the fiscal rule, higher oil prices will result in an increase in saving while petroleum revenue spending remains unchanged. This means that higher oil prices will reduce household purchasing power and lead to weaker economic developments also in Norway.

In the somewhat longer term, however, the effects of higher oil prices on the Norwegian economy will be the inverse. Once spending is brought back into line with the fiscal rule, the increase in the Petroleum Fund will pave the way for a more expansionary fiscal stance. Persistently high oil prices will also engender higher oil investment and increase national wealth. This means that any forthcoming slowdown in growth in the wake of higher oil prices could be short-lived and that a renewed cyclical upturn in 2008 may be stronger than we have projected. If the authorities adopt a stance that leads to the occurrence of such an oil-driven upturn at an earlier stage, interest rates will probably be increased more rapidly than assumed in this report.

The cut off date for information used in this issue was 13 September 2005.

Cyclical developments in Norway

In line with previous projections, growth in the Norwegian economy continued in the first half of 2005, and the cyclical upturn is progressing with undiminished momentum. The main driving force behind growth is the increase in gross fixed capital formation, but household demand for new dwellings and consumer goods is also making a considerable contribution to growth. Moderate global growth is also fuelling growth in traditional goods exports. Combined with rapidly expanding petroleum investment, this is contributing to brisk growth in manufacturing production. Buoyant investment activity, particularly housing investment, is driving growth in the building and construction industry. High growth in private consumption is fuelling growth in service sectors. The cyclical upturn is thus broad-based both in terms of the demand components that are increasing and the sectors that are benefiting from the upturn.

Consumer price inflation in Norway remains moderate and is lower than in the euro area. The marked appreciation of the krone during the spring and summer of 2005 has curbed inflation expectations in spite of higher crude oil prices and the rise in prices for refined products is pushing up total CPI inflation. If the level of petrol prices prevailing in the first two weeks of September persists in the period ahead, CPI inflation will be markedly higher this winter than previously projected, both in Norway and in other OECD countries. Consumer price inflation adjusted for tax changes and excluding energy products (CPI-ATE) is expected to show a moderate rise, however. If the

Macroeconomic indicators 2002-2005. Growth from previous period unless otherwise noted. Per cent

			Seasonally adjusted			
	2003	2004	04.3	04.4	05.1	05.2
Demand and output						
Consumption in households etc.	3.0	4.4	0.9	1.3	-0.3	2.5
General government consumption	1.4	2.3	-0.3	0.4	1.1	0.4
Gross fixed investment	-2.0	9.1	5.3	10.5	-9.3	10.9
Mainland Norway	-2.2	6.1	4.8	7.4	-8.3	7.2
Extraction and transport via pipelines	16.9	12.3	3.3	9.8	-8.1	22.5
Final domestic demand from Mainland Norway[1]	1.6	4.1	1.2	2.1	-1.4	2.7
Exports	1.6	0.9	-0.9	-1.1	-0.9	1.7
Crude oil and natural gas	-0.6	-0.5	-3.3	-4.7	1.8	1.9
Traditional goods	5.1	3.0	5.0	2.5	-1.9	-0.8
Imports	2.2	9.1	3.5	3.0	-3.2	4.7
Traditional goods	4.3	11.0	3.4	0.2	0.4	3.3
Gross domestic product	0.4	2.9	-0.8	1.1	0.3	1.3
Mainland Norway	0.7	3.5	1.0	1.5	0.6	0.9
Labour market						
Man-hours worked	-1.2	2.0	0.8	0.5	0.2	0.6
Employed persons	-0.6	0.2	0.1	0.0	0.1	0.1
Labour force[2]	0.0	0.2	0.2	-0.1	0.1	0.3
Unemployment rate, level[3]	4.5	4.5	4.5	4.5	4.5	4.7
Prices and wages						
Wages per standard man-year[4]	3.9	3.8	4.1	4.3	3.9	3.4
Consumer price index (CPI)[4]	2.5	0.4	1.2	1.2	1.0	1.5
CPI adjusted for tax changes and excl. energy products (CPI-ATE)[4]	1.1	0.3	0.3	0.8	0.7	1.0
Export prices, traditional goods	-2.2	7.9	2.8	1.1	1.0	0.2
Import prices, traditional goods	0.4	3.8	0.4	-0.4	0.4	-0.2
Balance of payment						
Current balance, bill. NOK	200.3	227.8	61.0	65.2	73.3	63.9
Memorandum items (unadjusted level)						
Money market rate (3 month NIBOR)	4.1	2.0	2.0	2.0	2.0	2.1
Lending rate, banks[5]	6.1	4.2	4.1	4.0	4.0	3.9
Crude oil price NOK[6]	204.7	257.3	283.1	279.9	298.0	327.5
Importweighted krone exchange rate, 44 countries, 1995=100	92.8	95.6	96.1	93.1	93.6	92.1
NOK per euro	8.00	8.37	8.39	8.20	8.24	8.05

[1] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in Mainland Norway.
[2] Unemployed (Labour Force Survey) and employment (NA) excl. maritime personnel in ocean transport.
[3] According to Statistics Norway's labour force survey (LFS).
[4] Percentage change from the same period the previous year.
[5] End of period.
[6] Average spot price, Brent Blend.
Sources: Statistics Norway and Norges Bank.

krone exchange rate remains strong in the period head, it will take a long time for inflation to approach the inflation target. In isolation, this will reduce the need for interest rate increases in the coming period. In 2008 and 2009, the fiscal rule implies that there is room for a pronounced expansionary shift in fiscal policy. Pressures in the Norwegian economy will then increase somewhat and inflation may edge up.

The cyclical upturn has been accompanied by an increase in the number of person-hours worked both in 2004 and 2005. However, the number of employed has shown a moderate increase and LFS unemployment has been fairly stable in recent years, with an attendant rise in the average number of working hours per employee. The factors behind this are reduced sickness absence, an increase in the number of working days (i.e. increased number of public holidays occurring on Saturday or Sunday), increased overtime and a shift to increased part-time posts or full-time posts among existing part-time employees. It is also reasonable to assume that temporary residents from new EEA countries, who are now working in Norway, work more hours than the average for the Norwegian population. These factors may have prevented the build-up of labour market pressures that normally lead to higher wage growth. Even though nominal wage growth has been moderate, real wage growth has been high owing to low consumer price inflation.

The cyclical upturn in the Norwegian economy has continued since the first half of 2003. The driving forces behind the upturn have primarily been an expansionary monetary policy, moderate fiscal impulses combined with strong growth in petroleum investment and a moderate international cyclical upswing. We now project that the expansion will continue to the beginning of 2006, followed by a downturn thereafter. The cyclical turnaround in Norway is expected to occur against the background of a turnaround in the global economy, a tight fiscal policy and a decline in petroleum investment. The turnaround in Norway will to some extent also come as a result of gradually fading impetus to household demand from low interest rates. These assumptions are highly uncertain. Growth in the world economy may be stronger than assumed here. In that case, oil prices may remain at today's level or increase to an even higher level. This will lead to higher external inflation and key interest rates may be increased, which will probably result in higher interest rates in Norway as well. The effects on the Norwegian economy of an alternative scenario for developments in the world economy were analyzed in the December 2004 *Economic Survey*.[1] The implications of deviation by the authorities from the fiscal rule are analyzed in box in this report. Higher oil prices may also lead to higher petroleum investment. Our projections for petroleum investment have been revised up somewhat for 2007 and thereafter. In isolation, this implies that the cyclical downturn will be somewhat more moderate than previously projected. In conjunction with high oil prices, which implies that fiscal policy may be more expansionary in 2008 and 2009 than previously assumed, the coming downturn may be even more moderate and short-lived than projected earlier. Moreover, a new government will probably adopt a fiscal stance that in isolation will contribute to stronger economic growth in the short term. This will lead to a somewhat milder downturn in the period ahead than previously projected.

At the start of the next cyclical upturn in Norway in 2008, idle production capacity will be somewhat lower than previously projected, while fiscal policy may be somewhat more expansionary given the fiscal rule. Against this background, there is reason to assume that monetary policy in Norway will be tightened somewhat. This will coincide with the projected cyclical turnaround in the world economy, which will probably be accompanied by a modest increase in key rates in the euro area.

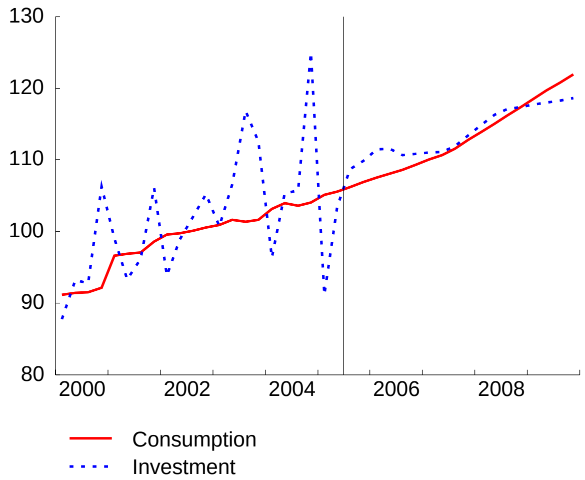
Fiscal policy - mild impulses up to 2008?

In recent years, the impulses from fiscal policy have been moderate, but they are expected to be positive also in 2005. Since 2001, general government purchases of goods and services have grown in nominal terms at about the same pace as overall general government expenditure. Transfers to foreign sectors, businesses and households have grown at a somewhat faster pace, while the increase in tax revenues from mainland Norway has been considerably smaller than overall expenditure growth. Against this background, it can be said that the weakening of the structural budget in the period 2001-2005 is primarily the result of an increase in transfers and tax cuts. Our assumptions concerning fiscal policy in 2005 are based on the budget resolutions that have been approved, including the changes in the VAT system that were introduced at the beginning of the year, and which push up consumer price inflation by about 0.4 per cent between 2004 and 2005.

For the two years ahead, we assume that the fiscal stance will be gradually tightened (measured by the structural, non-oil deficit as a percentage of trend GDP for mainland Norway), as indicated in the Revised National Budget (RNB) for 2005. The shift in government this autumn will probably entail a different fiscal policy orientation, but we do not assume that the structural, non-oil budget deficit will deviate in the next few years from that implied by the RNB for 2005. A shift in fiscal policy implies greater emphasis on increased general government spending on consumption and investment than on personal tax cuts.

[1] See pages 22 and 23 in the section Cyclical Developments, *Economic Survey* 4/2004, Statistics Norway.

General government
Seasonally adjusted volume indices, 2002=100



Source: Statistics Norway.

Our projections show that the Norwegian economy will shift out of expansion and into a moderate downturn towards the end of 2006, but that the downturn will be very moderate. As early as in 2008, our calculations show that the Petroleum Fund will have increased in size to the extent that an increased budget deficit can be justified. We therefore assume a slightly tighter fiscal policy over the next two years than in 2005, followed by an expansionary shift in line with the fiscal rule in 2008 and 2009.

General government consumption increased by close to 3 per cent in the first half of 2005 compared with the same period one year earlier. This is somewhat higher consumption growth than we assume for the year as a whole, i.e. a good 2 per cent. Gross investment is projected to show little change in relation to 2004 as a whole, in spite of a decline in the first half of the year. For 2006 and 2007, general government purchases of goods and services are expected to show moderate growth, approximately on a par with trend growth in the mainland economy. Transfers are projected to grow in line with the regulatory norm without any significant changes to the rules other than an adjustment of wage rates. Owing to a fall in sickness absence, lower registered unemployment and moderate wage growth, total transfers are expected to increase by a little more than 3 per cent between 2004 and 2005. We do not expect a further decline in sickness absence. Even though unemployment will edge down in the period ahead, transfers growth may be somewhat higher next year and in subsequent years partly owing to underlying growth in retirement pension and disability benefits. The pension reform compromise adopted by the Storting (Norwegian parliament) is not expected to entail any appreciable changes in real growth in social security spending up to 2009 in relation to the existing system, but pension expenditure is thereafter expected to increase at a markedly faster pace than at present.

The introduction of private occupational pensions in 2006 for those who are not covered at present will increase enterprises' pension contributions as from 2006. Preliminary and highly uncertain estimates indicate that this may in isolation lead to an increase in labour costs of somewhat less than NOK 4 billion in 2006, which accounts for about 0.7 per cent of labour costs in the business sector as a whole. Normally such employer contributions will be passed on to employees over a period, which implies that growth in disbursed wages per standard person-year in 2006 and 2007 will be curbed somewhat as a result of the reform. We have assumed that the introduction of an occupational pension scheme for all will have the same effect on all industries (excluding the public sector). We have also assumed that the scheme will, in isolation, reduce household saving. Fund contributions are considered to be a form of saving so that the net effect on household saving will probably be limited over time.

Tax changes have been announced (e.g. in connection with the split-income model) in 2006. We have assumed that these changes will have a revenue-neutral effect. The expected change in the tax system in 2006 influence dividend payments in 2005, and dividend payments are unusually high this year. Dividend payments are expected to show an appreciable decline in 2006 and a few years ahead. We do not expect any changes in indirect taxes ahead besides the normal price adjustment of specific rates. On the other hand, personal taxes are expected to rise over the next few years to bring the tax level back to the 2004 level.

As mentioned above, we therefore assume that there is room for an expansionary fiscal policy in 2008 and 2009 if the fiscal rule is adhered to in the period. This follows from the high level of saving in the coming years as a result of high oil prices and a relatively tight fiscal policy in 2006 and 2007. On the basis of our oil price estimates and the assumptions in the RNB for 2005, the structural, non-oil deficit is estimated at NOK 76 billion in 2008 and NOK 87.5 billion in 2009 (in 2005 krone terms) if the fiscal rule is adhered to. This implies an overall fiscal stimulus of NOK 18 billion for the two years as a whole. We have assumed that the stimulus corresponds to NOK 10 billion at 2005 prices in 2008 and NOK 8 billion in 2009. The estimates imply that spending is at exactly the level implied by the fiscal rule in 2009 when mainland GDP growth is around trend level according to our calculations. The budget weakening increases general government expenditure growth in 2008 and 2009 compared with the two preceding years. The effects on the Norwegian economy of different fiscal policy assumptions in these two years were analyzed in the previous issue of *Economic Survey.*[2]

[2] Cyclical Developments, *Economic Survey* 2/2005, Statistics Norway

What are the implications of deviation from the fiscal rule?

According to RNB 2005 (see Table 3.8), the structural, non-oil deficit is estimated at a good NOK 65 billion in 2005. This is about NOK 25 billion higher than the level that would have been recorded had the fiscal rule been adhered to. Our baseline scenario is based on the assumption that fiscal policy is conducted approximately in line with the fiscal rule as from 2007. Fiscal policy is brought into line with the fiscal rule gradually so that the budget deficit is somewhat higher in 2006 than implied by the fiscal rule, but appreciably smaller than in 2005. In a situation with high oil prices and large budget surpluses, it is conceivable that policy will break with the fiscal rule's budget discipline requirements. In order to illustrate the attendant implications for our projections, we have constructed an alternative where the structural, non-oil deficit in 2005 continues to weaken in real terms in the period 2006-2009. In this alternative, the budget balance weakens by NOK 10 billion in 2006 and by NOK 25 billion in the period 2007-2009. The weakening is distributed equally between personal tax cuts and increases in general government consumption expenditure. The effects of this policy are only studied within the forecast horizon. With a weaker budget balance in this period, the central government budget balance must be strengthened either through tax increases or spending cuts in relation to the baseline scenario.

In one alternative, monetary policy is assumed to remain unchanged in spite of a more expansionary fiscal stance. The results are shown in the left panel in the table below. A more expansionary fiscal policy leads to an increase in both household consumption as a result of tax cuts and an increase in general government consumption. Higher consumption leads to higher production and mainland GDP gradually increases and is 1.6 per cent higher in 2009 than in the baseline scenario. Towards 2009, exports show a moderate fall as a result of deteriorating cost competitiveness and higher inflation, which is not fully offset by a weaker krone exchange rate. Real wages increase by about 1 percentage point as a result of a half percentage point decline in unemployment. Inflation accelerates by a quarter percentage point in each year in the period 2007-2009.

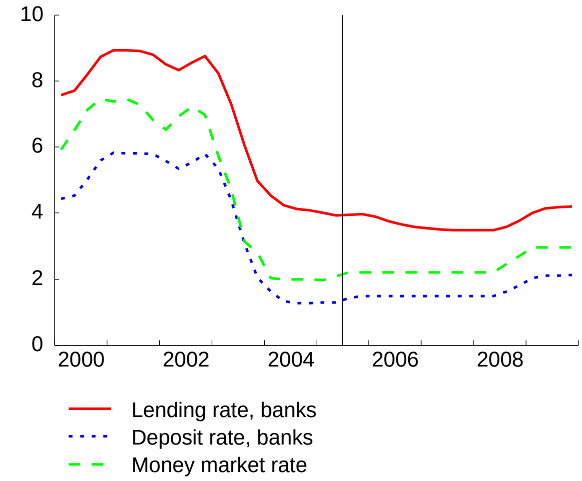
In another alternative, we assume that Norges Bank raises the key rate so that the inflationary effects of a more expansionary fiscal policy are neutralized in the period 2007-2009. The results are shown in the right panel in the table. The inflationary impulses generated by a more expansionary fiscal policy in 2006 and 2007 are counteracted in the years 2007-2009. The calculations shows that the key rate must be increased by a quarter percentage point in the first quarter of 2007, the first quarter of 2008 and the second quarter of 2009 in order to eliminate the inflationary effects. The key rate is then 0.75 percentage point higher than in our baseline scenario, i.e. a money market rate of 3.75 per cent compared with 3.0 per cent in the baseline scenario. The scale of the interest rate increase depends to some extent, but not to a large extent, on the developments in the baseline scenario. The inflationary effects are eliminated partly because economic activity is dampened, but primarily because the krone appreciates, and in 2009 the krone is as much as 2.7 per cent stronger. Production falls primarily as a result of lower household consumption. As shown in the table, manufacturing production declines, while it rises in the absence of a monetary policy reaction. Unemployment is still lower, which is why real wages are higher. Exports now show a more pronounced fall as a result of the krone appreciation, and imports expand almost at the same pace as in the alternative without an interest rate increase.

The operational target for Norges Bank's interest rate setting is inflation of close to 2.5 per cent over time. If inflation in the baseline scenario had remained at 2.5 per cent, it is highly likely that central bank would respond by adjusting interest rates with a view to neutralizing the inflationary impulses generated by changes in the fiscal stance. In our scenario, however, inflation remains lower than the inflation target through the period. This may point to a milder interest rate response. The two scenarios can thus be looked upon as extremes in terms of the effects of a more expansionary fiscal policy.

Effects of increased petroleum revenue spending. Volume difference in per cent, unless otherwise indicated

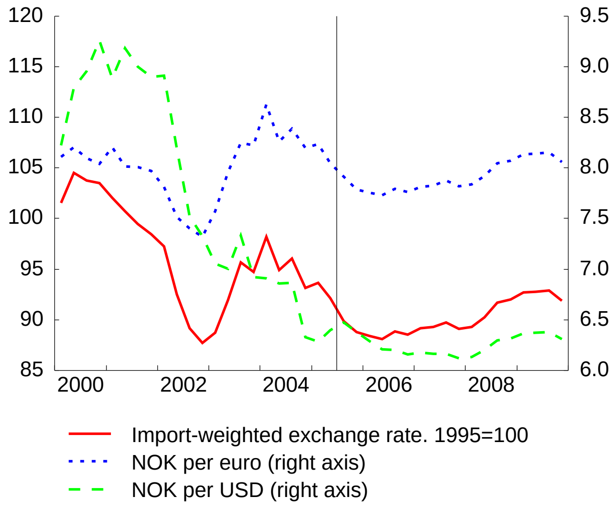
	No interest rate change				Inflation-neutralizing interest rate response			
	2006	2007	2008	2009	2006	2007	2008	2009
Consumption in households etc.	0.3	0.9	1.4	1.9	0.3	0.8	1.0	1.2
General government consumption	1.3	3.2	3.2	3.1	1.3	3.2	3.2	3.2
Investment, Mainland Norway	0.4	1.2	1.8	2	0.4	1.1	1.0	0.8
Exports	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.2	-0.3
Traditional goods	0.0	0.0	-0.1	-0.2	0.0	-0.2	-0.5	-0.6
Imports	0.4	1.1	1.5	1.8	0.4	1.1	1.4	1.5
GDP, Mainland Norway	0.5	1.2	1.4	1.6	0.5	1.1	1.0	1.0
Manufacturing	0.2	0.5	0.5	0.4	0.2	0.2	-0.3	-0.8
Employed persons	0.5	1.3	1.4	1.5	0.5	1.2	1.2	1.2
Unemployment rate, difference in percentage points	-0.3	-0.7	-0.6	-0.6	-0.3	-0.7	-0.5	-0.4
Wages per standard man-year	0.3	0.8	1.1	1.7	0.3	0.7	0.9	1.2
CPI-ATE	0.1	0.3	0.5	0.7	0.1	0.1	0.0	0.0
Importweighted exchange rate	0.0	0.2	0.4	0.6	0.0	-1.0	-2.1	-2.7
Money market rate, difference in percentage points	0.0	0.0	0.0	0.0	0.0	0.25	0.5	0,75

Norwegian interest rates
Per cent



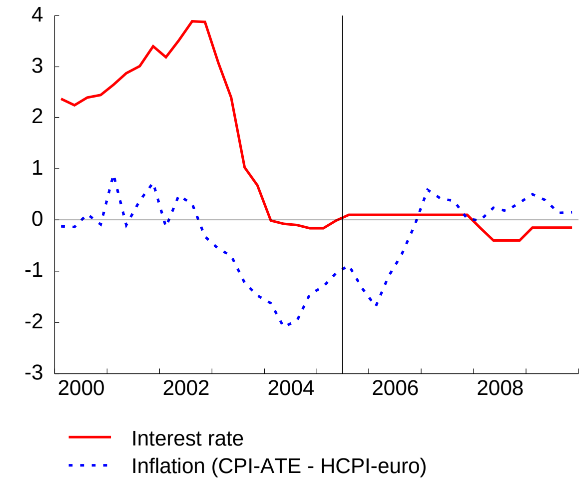
Sources: Norges Bank and Statistics Norway.

Exchange rates



Sources: Norges Bank and Statistics Norway.

Interest rate and inflation differential between NOK and the euro
Percentage points



Sources: Norges Bank and Statistics Norway.

Interest rate steady in 2008?

At its monetary policy meeting on 30 June 2005, Norges Bank raised the key rate by 0.25 percentage point to 2.00 per cent. The sight deposit rate had remained unchanged since March 2004. In the June *Inflation Report*, Norges Bank expected the interest rate to range between 1.75 and 2.75 per cent up to November this year. The interest rate increase was justified in the light of the objective of achieving balance between bringing inflation back to the target of 2.5 per cent and stabilising output growth. The CPI-ATE rose by 1.3 per cent in the year to August 2005, which is still more than 1 percentage point lower than the inflation target.

The Norwegian economy is still in an expansionary phase. In August, 12-month growth in the credit indicator C2, which measures total credit to households and enterprises from domestic sources, was 11.2 per cent. We still assume that the key rate will not be increased in the period ahead. This could lead to a money market rate of around 2.2 per cent in the course of the year, which is lower than the rate priced into the FRA market at the beginning of September, where an interest rate increase to about 2.5 per cent has been priced in. The krone exchange rate has been relatively strong in recent months, and a wider, positive interest rate differential against other countries may lead to a further appreciation of the krone, which adversely affects enterprises exposed to international competition and leads to lower inflation. Lower growth in the international economy and moderating petroleum investment will bring the Norwegian economy into a cyclical downturn in 2006, with slower growth in output. In the course of 2007, the Norwegian economy will move into a downturn. Against this background, we do not expect any further interest rate increases in 2008, when a renewed upturn is expected both in Norway and internationally. We assume that interest rates in Norway will follow interest rate increases in the euro area with some lag.

The krone has remained strong since the previous report. As measured by the import-weighted krone exchange rate, the krone has strengthened by 3 per cent this year. The exchange rate against the euro has varied between 7.80 and 8.40 in the same period. The krone is expected to remain around 7.80 against the euro to end-2007. This is clearly stronger than we assumed in our previous report. A positive interest rate differential against the euro area and high oil prices are underpinning the krone exchange rate at this high level. Towards the end of the projection period, however, the interest rate differential will turn negative and oil prices will fall, which will lead to a weaker krone in 2008. The import-weighted krone exchange rate is assumed to appreciate by about 3.8 per cent from its 2004 level during the projection period. The exchange rate assumptions are discussed further in a separate box.

Explanatory factors behind developments in the krone exchange rate in recent years

In March 2001, Norway's monetary policy was revised with the introduction of an inflation target rather than an exchange rate target. Even though monetary policy was still to make a contribution to stability in the exchange rate and the activity level in the economy, Norges Bank was, in accordance with the operational objective of monetary policy, to set interest rates with view to achieving an inflation rate of 2.5 per cent over time. The revision led to wider fluctuations in the exchange rate. Changes in the exchange rate have a considerable impact on the Norwegian economy, both through its effect on Norwegian manufacturing's international competitiveness and through changes in import prices in krone terms (see article by Boug, et al., in this issue of *Economic Survey* for calculations that illustrate the implications of exchange rate changes). Consequently, it became important to shed light on the factors that influence the exchange rate under the new monetary policy regime.

Over the past years, we have tested the exchange rate equation in Bjørnland and Hungnes (2003) in our work on the KVARTS model. The equation shows the relationships between the krone and the euro and its explanatory factors, and is empirically quantified using data between the first quarter 1983 and the second quarter 2002. With the exception of the second quarter of 2002, the equation satisfies that statistical requirements that normally apply to such equations. As the exchange rate target was interpreted as an implicit inflation target by Norges Bank in the period from January 1999 up to the revision in March 2001, the equation's good statistical properties were interpreted as explaining exchange rate developments satisfactorily – also under the existing monetary policy regime.

Developments following the estimation period have shown, however, that the equation no longer satisfies the most important statistical requirements as to stability and predictive power. There are two aspects the equation has problems explaining. First, its seems that the short-term effects of interest rate changes in the period with an inflation target have been very different from the effects in the period with an exchange rate target. Second, the equation has predicted a weaker krone than actual developments.

We have now quantified a new exchange rate equation using the data for the period from the first quarter of 1983 to the second quarter of 2005. The period now includes 17 quarters with an explicit inflation target for monetary policy, which provides us with a better basis for testing whether the effects of interest rate changes are different in the period after the first quarter of 2001 from the effects in the preceding period. The results show a clear and distinct change in the effects of interest rate changes on the exchange rate. While the previous equation first predicted a weaker krone and thereafter a gradual appreciation after an interest rate increase – a pattern that can be more easily explained under a monetary policy regime with an exchange rate target – the new results show that an interest rate increase leads to a sharp appreciation of the krone in the short term, but that the krone then gradually depreciates. The new equation provides a good explanation for the wide variations in the exchange rate after 2001.

Moreover, the new equation assumes that the long-term relationships between the exchange rate and its explanatory factors are independent of the monetary policy regime. As in the previous equation, it is assumed that long-term real exchange rate depends on the interest rate differential against the euro area. For a given interest rate differential, the long-term real exchange rate will be determined by the foreign exchange market's perception of what the equilibrium real exchange rate is and the risk premium on investing in Norway is. The equilibrium rate exchange rate indicates the real exchange rate level that is consistent with long-term balance in the balance of payments. In the previous equation we had not incorporated other variables that might change the real exchange rate in the long term. In the new equation, the long-term real exchange rate also depends on oil prices so that a higher oil price leads to a krone appreciation – both in the short and long term. The interpretation may be that a (persistently) higher oil price leads both to an appreciation of the equilibrium real exchange rate (because future imports are then financed to a larger extent by oil revenues than by other exports) and to reducing the risk premium required by investors for investing in Norway. Our equation shows that a doubling of the oil price will result in an appreciation of the krone by about 7 per cent over four quarters, and keep the krone at that level as long as the oil price does not change again.

The equation that describes the relationship between the oil price, interest rate changes and the exchange rate is shrouded in uncertainty. First, the period with an explicit inflation target for monetary policy is still short. Moreover, exchange rate stability may have been given more weight in the conduct of monetary policy after the krone appreciation in 2002. Norges Bank has also changed the horizon for reaching the inflation target from two to three years. Second, oil prices are important for Norway's balance of payment, but actual and future oil production is equally important. It can be argued that the remaining value of petroleum wealth could be substituted for the oil price in the exchange rate equation. However, there is considerable uncertainty surrounding the expected size of this value, while oil prices are more directly observable at all points in time.

In the baseline scenario in the June 2005 issue of *Economic Survey*, we let the previous exchange rate equation determine the exchange rate. Even if the krone/euro exchange rate was about 7.90 at that time, the exchange rate equation predicted that the krone would rapidly depreciate to around 8.60. The background for this was that the exchange rate would, according to the equation, always revert to its long-term real exchange rate in the estimation period. This path for the exchange rate also implied that Norges Bank would reach the inflation target two years ahead. However, we were uncertain about this path and therefore presented an alternative estimation where we held krone/euro echange rate at 8.00. With this path, inflation stabilized at about 2 per cent and never moved up to the inflation target.

In the baseline scenario in this report, we let the new equation determine the exchange rate. With an inflation rate and an interest rate approximately on a par with the euro area and with an oil price that remains high throughout the projection period, the krone/euro exchange rate will remain stable at about the 7.8 in the period to 2008. An expected international cyclical upturn as from 2008 will gradually lead to higher interest rates in the euro area. This results in a depreciation of the krone in 2008 and 2009. Towards the end of 2009, the krone/euro exchange rate will then be about 8.10.

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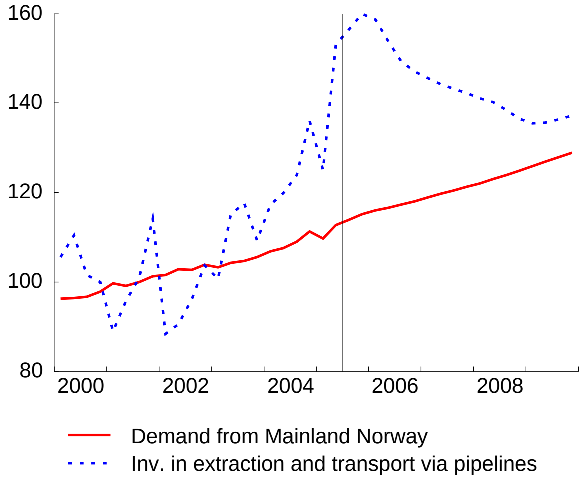
Domestic demand
Seasonally adjusted volume indices, 2002=100



Source: Statistics Norway.

Petroleum investment is expected to remain at a high level

Seasonally adjusted QNA figures indicate a sharp increase in investment linked to extraction and pipeline transport between the first and second quarter of 2005. The year 2005 started with what seemed to be a weak investment level in the first quarter compared with the previous quarter. However, investment was close to 17 per cent higher than in the same quarter one year earlier. Statistics Norway's most recent investment intentions survey shows an investment volume of NOK 89 billion for 2005, which is slightly lower than indicated in the previous survey primarily owing to lower investment linked to fields in operation. The survey also shows that the estimate for 2006 is considerably higher, partly as a result of more comprehensive and updated reporting.

Our projections are based on a further increase in investment volumes during the latter half of 2005, bringing the volume for the year as a whole to almost 22 per cent above the level recorded in 2004. This is a modest downward revision of the estimate in the previous report, and is in line with the survey findings. Investment is then projected to show a moderate decline throughout the projection period, bringing the level in 2009 to about 12 per cent below the level projected for 2005. Our projections are partly based on oil price developments. On the basis of our oil price assumptions for the period ahead, investments linked to exploration and fields in operation are expected to remain high. This will to a large extent offset the phasing out of investments linked to Snøhvit in 2006 and Ormen Lange in 2007. Investments linked to exploration are expected to be close to twice the level in 2005 compared with 2004, and to remain at that level through 2006. Contracting of new rigs is expected to increase exploration capacity as from 2007 so that this type of investment will pick up further. Investment in on-shore installations is expected to fall markedly with the phasing out of Ormen Lange and Snøhvit. There are few signs of a pick-up in this type of investment within our projection horizon. Investment in pipeline transport is expected to show a marked increase this year compared with 2004, and is then expected to fall next year partly because it now seems that investment linked to the Skarv pipeline system will not start until 2007. This is expected to contribute to buoyant pipeline investments in 2005 and subsequent years.

Since summer 2004, the total production volume of crude oil and natural gas has declined. Seasonally adjusted QNA production figures show that production fell by close to 7 per cent between the second and third quarter of 2004 and has since remained at about this level. The rate of extraction edged up between the first and second quarter of this year. This picture has primarily been dominated by oil extraction, which has been moving on a downward trend since the peak observed in 2001. In the second quarter of 2005, crude oil production was close to 15 per cent lower than in the second quarter of 2001, while natural gas production was clearly expanding, limiting the fall in total production.

Our oil and gas production projections are primarily based on the estimates in the RNB for 2005, but must also be seen in connection with our expectation of a markedly higher investment level in the industry. Crude oil production is projected to be somewhat higher through the latter half of 2005 and in 2006 than the levels observed so far this year, but production will subsequently continue to fall. Gas production is expected to rise steadily throughout the projection period. Given this path, gas production will reach close to 35 per cent of total petroleum production towards the end of 2009, compared with a little more than 20 per cent in 2004. For 2005, total production of crude oil and natural gas is projected to be a good 4 per cent lower than in 2004, followed by a rise of more than 5 per cent in 2006. Production is projected to hold steady at this rate in 2007 and to edge up in 2008 and 2009.

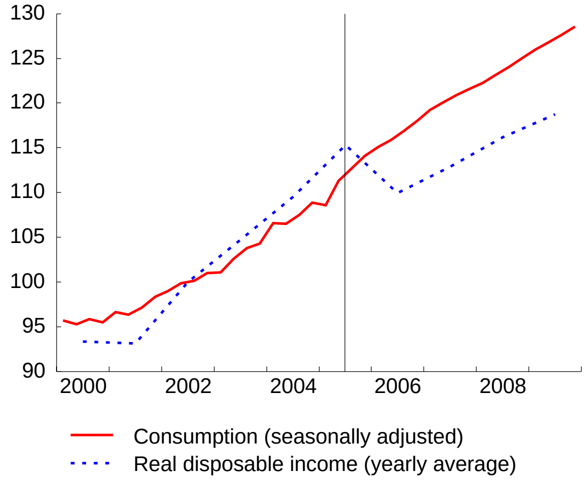
Strong consumption growth up to 2007

According to preliminary national accounts figures, growth in consumption for households and non-profit institutions was as high as 4.4 per cent between 2003 and 2004. The strong rate of growth in consumption in 2004 reflects the fall in interest rates through last year and high income growth, even when excluding record-high dividend payments (see table). The abnormally high dividend payments, which have probably had a limited stimulatory effect on consumption, are partly related to adaptations to the introduction of dividend tax in 2006. Seasonally adjusted QNA figures show that consumption increased by 2.5 per cent between the first and second quarter of this year, after falling by 0.3 per cent in the previous quarter. The marked increase between the first and second quarter may be ascribable to difficulties in adjusting for seasonal effects, but may also be due to an acutal catch-up from the weak level of consumption in the first quarter. The wide variations reflect developments in goods consumption, while services consumption is showing far more stable growth. Overall household consumption was 2.6 per cent higher in volume terms in the first half of 2005 compared with the first half of 2004. Underlying consumption growth therefore seems to be relatively moderate so far this year.

Growth in household real disposable income will probably moderate through the projection period compared with 2004, also when excluding a tax-motivated decline in dividend payments and in spite of somewhat stronger growth in wage earnings and government transfers through the period. Higher consumer price inflation in the latter half of 2005 and into 2006 will push down growth in household real disposable income somewhat during the period. From the end of 2005 and further ahead in the projection period, household debt will increase relatively markedly in relation to household assets, bringing households close to a negative net asset position (including insurance claims) towards the end of the projection period. This will result in negative net capital income as early as in 2006, which will push down growth in disposable income. Owing to the planned introduction of dividend tax, and adaptations to the tax, the estimates for dividend payments to households are highly uncertain. Growth in real disposable income is projected to range between 2-3 per cent in the period 2007-2009. This will push down growth in consumption. On the other hand, low real interest rates after tax will restrain the fall in consumption. The real after-tax interest rate is expected to be about 0.5 per cent in 2006, and around 1 per cent through the remainder of the projection period. A fall in real interest rates implies in itself that consumption during the current period will be relatively cheaper than consumption in the next period, inducing households to move forward consumption to the current period at the expense of consumption in later periods. The combination of income and real interest rate developments results in a path for consumption where the fall in consumption growth from 2004 through 2005 continues into 2008 when consumption growth will again start to edge up.

Against this background, the saving ratio will fall from the record-high levels of 10.3 and 10.9 per cent in 2004 and 2005, respectively, to 3.2 per cent in 2006 and to between 2 and 3 per cent in the period 2007-2009. The sharp fall in the saving ratio is reflected in a marked fall in household net lending. In nominal terms, household net lending is projected to fall from about NOK 53 billion in 2004 to about -25 billion in 2009. However, around half of the decline can be ascribed to estimated changes in dividend payments. The decline in the level of saving is not the only factor behind the fall in net lending. The composition of saving seems to be shifting away from financial investments to fixed capital such as housing, which is reflected in the high level of housing investment.

Income and consumption in households
Volume indices, 2002=100



Source: Statistics Norway.

Residential market
Left axis adj. indices, 2002=100, right axis per cent

Source: Statistics Norway.

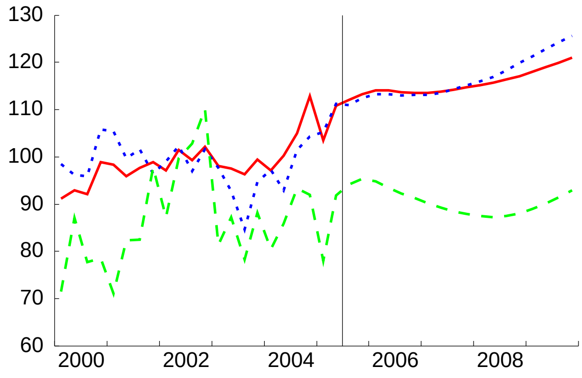
Household real disposable income. Percentage growth from the previous year

	2004	2005	2006	2007	2008	2009
Real disposable income incl. dividends	4.6	5.3	-4.7	2.7	2.9	2.2
Real disposable income excl. dividends	3.8	4.3	2.2	2.3	2.5	1.8

Housing investment flattens out

According to preliminary national accounts figures, housing investment increased by as much as 12.4 per cent in 2004 and housing starts came to a little less than 29 500, or an increase of around 31 per cent. Seasonally adjusted QNA figures show that housing

Investment, Mainland Norway
Seasonally adjusted volume indices, 2002=100



Source: Statistics Norway.

investment expanded by 1.1 per cent between the first and second quarter of this year, after growing by 3.7 per cent in the previous quarter. Housing investment rose by as much as 17 per cent between the first half of 2004 and the first half of 2005. Housing start statistics for the first half of this year compared with the same period last year also indicated that the underlying trend in housing investment observed since the end of 2003 is continuing through 2005. Housing investment is projected to expand by as much as 11.6 per cent in 2005, reflecting low real interest rates and a continued rise in real prices for resale homes.

Growth in housing investment is projected to slow in the course of 2006, and remain at the 2006 level in 2007 and 2008. Growth is then projected to pick up somewhat in 2009. As a result of the strong expansion in housing investment since the end of 2003, which has been fuelled by strong growth in real income and low real interest rates, housing wealth is reaching a high level. Resale home prices are expected to increase by a little more than 10 per cent in 2005, i.e. a continued strong rise in real prices. The high level in housing capital should bring house price inflation down to a more moderate level over the projection period.

Moderate investment growth in mainland industries

Gross investment in mainland industries expanded by 6 per cent in 2004, after having passed a cyclical trough in the summer of 2003. Growth is projected to continue at about the same pace in 2005 as in 2004. Investment growth has been somewhat stronger in the first half of the year than the average projected for 2005. In line with normal business cycle developments, we expect lower growth in business investment in the coming years. Our projections point to a small decline in mainland business investment during the moderate downturn in 2007 and 2008 before a renewed cyclical upturn contributes to an upswing in business investment in the latter half of 2008.

New figures for manufacturing investment plans show that manufacturing enterprises are planning to increase their investments further in 2005 in relation to 2004. The plans for 2006 indicate that the high level of investment in 2005 will continue next year in spite of a decline in investment in the latter half of the year. Manufacturing investment is projected to show a clear cyclical decline through 2007 and 2008, before a turnaround occurs with renewed growth in investment towards the end of the projection period. Investment in the electricity production industry showed strong growth in 2004, but growth is expected to remain more or less constant in 2005. It now seems that a number of plans to develop gas plants may be realized. The industry's own investment plans for 2006 point to strong growth so far, even though the estimates for 2006 in the most recent investment intentions survey were revised down to a considerable extent. Investment growth is now projected at close to 20 per cent between 2005 and 2006. This investment level is expected to hold up in 2007, but a moderate decline is expected in 2008.

Gross investment in private service industries is growing at a strong pace. Vacancy rates for commercial property have fallen and are fuelling investment growth. In distributive trades, investment has been buoyant and we expect continued growth in the period ahead, albeit at a slower pace than in 2005. Investment in the banking and insurance industry is expected to show somewhat higher growth in the period ahead as a result of the general upturn in the Norwegian economy and profitability gains in the industry. Against the background of previous experience, the upturn in the Norwegian economy should increase the need for fixed investment with an attendant increase in gross investment in 2005 and 2006. Our projections show that growth in the Norwegian economy will be low in 2007, which also implies lower growth in business investment as the need for fixed investment is reduced. In 2008, a renewed upturn will gradually lead to new investment projects. We do not believe that higher interest rates from the end of 2008 and thereafter will restrain the upswing in mainland business investment to any significant extent.

On the whole, the variations in investment are fairly moderate in the years ahead, taking into account that gross investment is traditionally a volatile demand component. This must be seen in connection with our projection of relatively moderate cyclical fluctuations ahead.

Lower export growth as a result of international slowdown

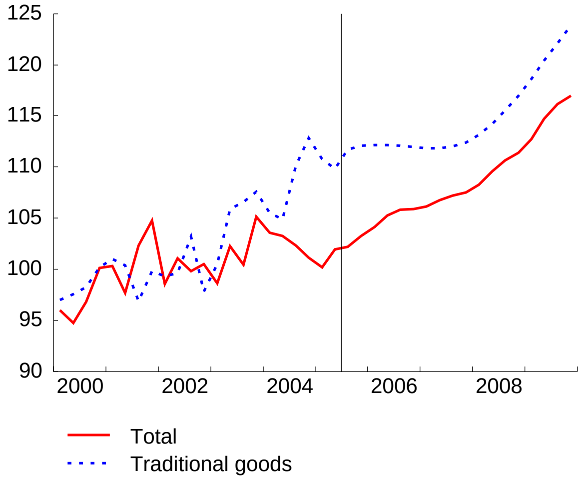
Traditional merchandise exports grew by 3 per cent in 2004 compared with the previous year, against 5.1 per cent in 2003. Thus far in 2005, the volume of exports has fallen in relation to the level recorded in the fourth quarter of 2004, when adjusting from normal seasonal variations. In the first quarter, the decline primarily reflected a fall in exports of refined petroleum products, which was matched by a fall in imports of the same goods. In the second quarter, the volume of traditional exports showed a seasonally adjusted decline of 0.8 per cent, primarily reflecting a fall in exports of metals and engineering products. A marked appreciation of the krone since the beginning of 2004 may have contributed to dampening growth in traditional goods exports. The decline must also be seen against the background of a sharp increase in exports in the fourth quarter of 2004.

Prices for traditional export goods rose markedly through last year, i.e. by 7.5 per cent from the first quarter of 2003 to the same quarter in 2004. This is in line with normal developments during an international expansion. The krone depreciation through 2003 also made a contribution. In the first half of this year, the rise in prices was more moderate at 1.2 per cent. Since the beginning of 2004, the krone has appreciated markedly, which has restrained the rise in prices in recent months. The rise in chemical and metal prices was particularly sharp in 2004. The rise in prices for these goods has been relatively moderate this year.

Against the background of a projected slowdown in global growth through 2006 and into 2007, growth in traditional goods exports is expected to weaken from about 3.5 per cent in 2005 to less than 1 per cent in 2006. Growth is projected to pick up markedly in 2008 and 2009 in line with our projection of a renewed international upswing in the latter part of the projection period. Export growth is expected to be somewhat lower than market growth throughout the projection period, which implies declining market shares for export industries.

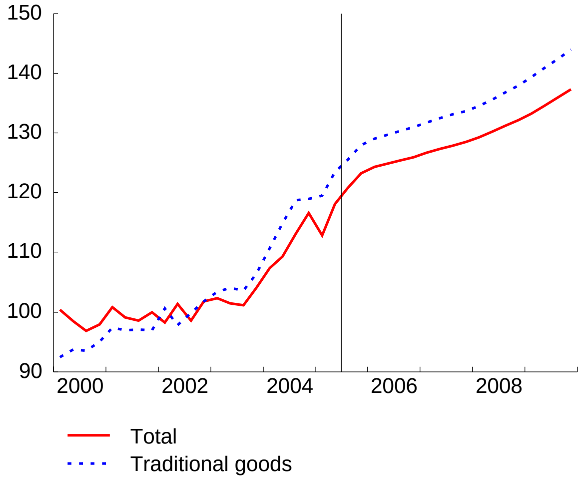
Slower international growth over the next few years is expected to lead to a fall in commodity prices, particularly chemical and metal prices. Prices for refined petroleum products such as petrol, diesel and heating oil remain at a high level during the international downturn, but decline somewhat from the end of next year in line with a moderate fall in oil prices through 2006. All in all, prices for traditional goods are expected to decline through 2006 and into 2007. Prices move up again towards the end of the projection period in line with the assumption of a pick-up in international growth. A somewhat weaker krone will also make a contribution after a period.

Exports
Seasonally adjusted volume indices, 2002=100



Source: Statistics Norway.

Imports
Seasonally adjusted volume indices, 2002=100



Source: Statistics Norway.

Slower growth in imports

Import growth has been buoyant over the past two years. On an annual basis, imports grew by 9.1 per cent in 2004 and by as much as 11.0 per cent for traditional goods. Developments during the first half of this year point to slower growth, and we expect annual growth of 7-8 per cent both for traditional imports and total imports. The high level of import growth partly reflects strong activity growth in Norway and developments in the composition of demand. Brisk investment growth, particularly in the petroleum sector, is boosting import growth. Several years' of deteriorating cost competitiveness in import-competing industries is also contributing to this.

Lower activity growth ahead, in particular weaker investment activity, will curb import growth in the coming years. Import growth picks up again towards the end of the projection period as a result of the projected cyclical upturn. However, a decline in petroleum investment is expected to have a dampening impact on imports for a long period ahead.

Main economic indicators 2004-2009. Accounts and forecasts. Percentage change from previous year unless otherwise noted

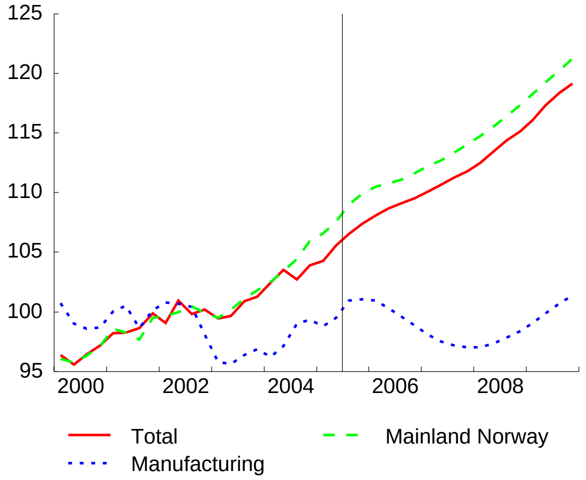
	Accounts	Forecasts										
		2005			2006			2007		2008		2009
	2004	SN	MoF	NB	SN	MoF	NB	SN	NB	SN	NB	SN
Demand and output												
Consumption in households etc.	4.4	4.2	4.1	4	3.9	3.0	3 3/4	3.5	2 3/4	2.6	2 1/4	2.8
General government consumption	2.3	2.1	1.7	1 3/4	2.3	1.0	1 1/2	2.5	1 1/2	4.1	1 1/2	4.0
Gross fixed investment	9.1	11.8	9.4	..	1.3	-2.6	..	-1.3	..	0.6	..	1.5
Extraction and transport via pipelines[1]	12.3	21.8	21.7	25	-1.9	-15.0	-5	-4.8	-2 1/2	-2.8	0	-2.6
Mainland Norway	6.1	7.0	5.6	7 1/2	2.3		6	0.1	2 3/4	1.8	1 1/2	3.0
Industries	6.0	6.9	4.6	..	2.2	3.6	..	-0.6	..	0.9	..	4.0
Housing	12.3	11.6	11.0	..	2.5	-0.1	..	1.1	..	1.1	..	2.6
General government	-0.6	1.2	1.0	..	2.0	0.3	..	0.6	..	5.2	..	1.0
Demand from Mainland Norway[2]	4.1	4.1	3.7	4	3.2	2.3	3 3/4	2.7	2 1/2	2.9	2	3.2
Stockbuilding[3]	1.1	0.3		..	0.0		..	0.0	..	0.0	..	0.0
Exports	0.9	-0.3	1.9	..	4.2	4.5	..	1.2	..	3.0	..	5
Crude oil and natural gas	-0.5	-3.3	-0.2	..	5.7	4.7	..	0.1	..	1.2	..	1.8
Traditional goods	3.0	3.3	4.9	5 1/2	0.7	4.2	3 1/2	-0.3	3 1/2	2.7	3 1/2	5.6
Imports	9.1	7.3	5.4	8	4.8	2.5	3 1/2	2.0	2 1/4	2.5	1 3/4	3.4
Traditional goods	11.0	7.2	4.8	..	4.8	3.2	..	2.0	..	2.7	..	3.9
Gross domestic product	2.9	2.6	3.2	3	2.8	2.2	3 1/2	1.8	2 1/2	2.7	2	3.5
Mainland Norway	3.5	3.9	3.6	3 3/4	2.2	2.0	3	1.9	2 1/2	2.7	2 1/4	3.2
Labour market												
Employed persons	0.2	0.5	0.8	1	1.1	0.6	1 1/2	0.6	1	0.9	1/2	1.5
Unemployment rate (level)	4.5	4.5	4.3	4 1/4	4.1	4.1	3 3/4	4.1	3 3/4	3.9	4	3.4
Prices and wages												
Wages per standard man-year	3.8	3.7	3 1/4	3 1/2	3.5	3 3/4	4 1/2	3.7	4 1/2	3.9	4 1/2	3.7
Consumer price index (CPI)	0.4	1.6	1 1/4	1 1/4	2.2	1 3/4	1 3/4	1.7	2	1.7	2 1/2	2.2
CPI-ATE[4]	0.3	1.0	1	1	1.5	1 1/2	1 1/2	1.9	2	1.8	2 1/2	2.2
Export prices, traditional goods	7.9	2.6	..	..	- 2.1	..	..	- 1.2	..	1.8	..	2.0
Import prices, traditional goods	3.8	- 0.8	..	..	- 2.7	..	..	- 0.7	..	1.9	..	2.5
Housing prices[5]	10.1	10.2	..	..	4.2	..	..	4.0	..	0.8	..	5.1
Balance of payment												
Current balance (bill. NOK)	227.8	319.4	248.9	..	416.1	260.8	..	366.3	..	356.2	..	369.6
Current balance (per cent of GDP)	13.5	16.9		..	20.3		..	17.9	..	16.9	..	16.7
Memorandum items:												
Household savings ratio (level)	10.3	10.9	8.5	..	3.2	4.1	..	2.4	..	2.7	..	2.2
Money market rate (level)	2.0	2.1	2.3	2 1/4	2.2	3.2	2 3/4	2.2	3 1/2	2.4	4 1/4	3.0
Lending rate, banks (level)[6]	4.2	4.0	..	..	3.7	..	..	3.5	..	3.6	..	4.1
Crude oil price NOK (level)[7]	257	356	300	..	368	285	..	311	..	312	..	318
Export markets indicator	5.8	4.0	..	..	3.2	..	..	1.2	..	3.6	..	7.2
Importweighted krone exchange rate (44 countries)[8]	3.0	-4.7	..	-3 3/4	-2.9	..	- 1	1.0	1/2	1.7	3/4	1.9

[1] Forecasts from Ministry of Finance incl. service activities incidential to extraction.
[2] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in Mainland Norway.
[3] Change in stockbuilding. Per cent of GDP.
[4] CPI adjusted for tax changes and excluding energy products (CPI-ATE)
[5] Freeholder.
[6] Households' borrowing rate in private financial institutions. Yearly average.
[7] Average spot price, Brent Blend.
[8] Increasing index implies depreciation.
Sources: Statistics Norway (SN), Ministry of Finance, St.meld. nr.2 (2004-2005), (MoF), Norges Bank, forecasts based on forward interest and exchange rates, Inflasjonsrapport 2/2005 (NB).

Cyclical turnaround in 2006

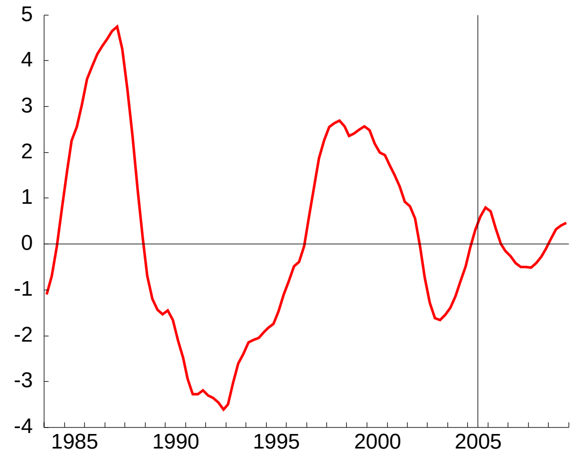
After an upturn that has lasted a good two years, there are few signs that the expansion is coming to an end. According to seasonally adjusted QNA figures, mainland GDP growth edged up between the first and second quarter of this year. Private services production, which accounts for over half of mainland GDP, increased through the first half of this year at an annual growth rate of 3.8 per cent. Manufacturing production edged down in the first quarter, but moved up again in the second quarter. Other goods production showed strong growth during the first half of the year, expanding at an annual growth rate of close to 14 per cent. Activity in the construction and electricity production industries dominate, but other industries are also making a contribution to growth. Production in the public sector showed modest growth during the first half-year.

Gross domestic product
Seasonally adjusted volume indices, 2002=100



Source: Statistics Norway.

Output gap, Mainland Norway
Deviation from trend, per cent



Source: Statistics Norway.

Recently observed activity growth rates are expected to continue into next year. Growth in mainland GDP is projected at 3.9 per cent in 2005, with electricity production contributing about ¼ percentage point to growth. In 2006, we expect a moderate cyclical turnaround in the Norwegian economy against the background of lower growth in our export markets, some deterioration in cost competitiveness, a decline in petroleum investment, markedly slower growth in housing investment and somewhat lower growth in household consumption. Our projections are also based on the assumption of a moderate fiscal policy tightening. On an annual basis, mainland GDP growth is projected at 2.2 per cent in 2006 and 1.9 per cent in 2007. With negative impulses from petroleum investment, Norwegian export markets and competitiveness, manufacturing production is not likely to show particularly strong growth in the two years ahead.

Somewhat weaker growth in mainland demand also means that other industries should expect somewhat lower growth. In particular, we expect a sharp turnaround in the building and construction industry, where activity growth has been very high in 2004 and 2005.

Cyclical conditions are expected to shift as early as in 2008. At the same time, there will be room for a distinctly more expansionary fiscal stance in line with the fiscal rule, and we expect a cyclical upswing in the world economy. However, activity growth in the Norwegian economy is expected to be restrained by a somewhat tighter monetary policy. On the whole, our projections indicate that the Norwegian economy will enter into a moderate expansionary phase in 2009.

A box under the section on fiscal policy presents the calculations that illustrate the effects of alternative economic policy assumptions. If the fiscal rule is not adhered to, activity may be stimulated in the short term. Assuming constant interest rates, the effects on the composition of production in the private sector will be limited. With an interest rate response that counteracts the attendant inflationary impulses, manufacturing production will show weaker growth than in the baseline scenario.

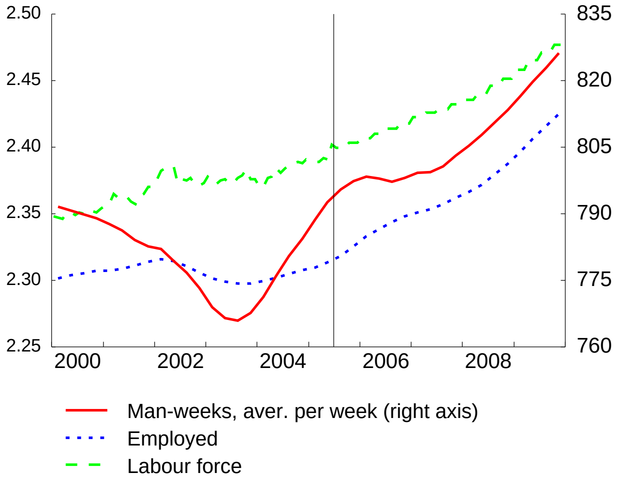
Pause in the unemployment decline in 2007

According to seasonally adjusted preliminary national accounts figures, employment increased by close to 3000, or 0.1 per cent between the first and second quarter of this year. Employment has thus increased by close to 13 000 since the cyclical trough in the third quarter of 2003. By comparison, the working age population increased by 54 000 from the second quarter of 2003 to the second quarter of 2005. According to preliminary national accounts figures, employment measured as a percentage of the population declined by 0.8 per cent in the same period and stood at 69.9 per cent in the second quarter of 2005.

So far during this cyclical upturn, the rise in demand for labour has been met by an increase in the number of person-hours per employee. Sickness absence has declined, but an increase in overtime has also contributed to the increase in average working hours, as reflected in productivity growth. National accounts figures show that productivity measured by gross production per person-hour in mainland Norway rose by 1.5 per cent between the first half of 2004 and the first half of 2005. As measured per employed person, productivity increased by 3.4 per cent in the same period.

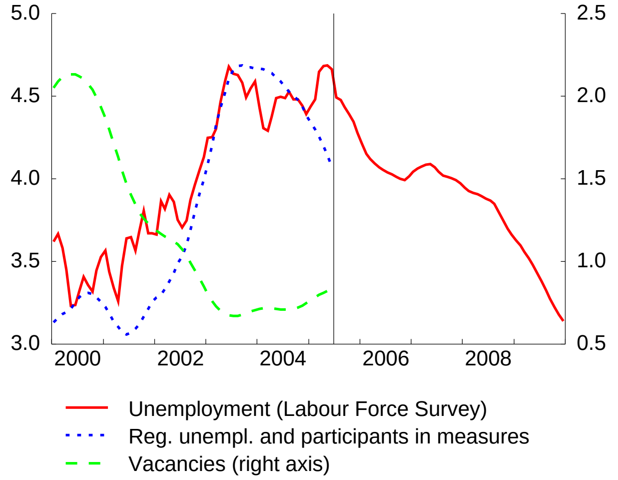
According to the Labour Force Survey (LFS), unemployment has increased so far this year. Seasonally adjusted figures for the average for May-July show that 112 000 persons were unemployed, or 4.7 per cent. At the beginning of the year, seasonally adjusted unemployment was around 4.4 per cent. On the other

Labour force, employment and number of man-hours
Millions. Seasonally adjusted and smoothed indices



Source: Statistics Norway.

Unemployment and number of vacancies
Seasonally adjusted and smoothed
Per cent of labour force



Sources: The Directorate of Labour and Statistics Norway.

hand, the seasonally adjusted number of unemployed persons registered with Directorate of Labour has fallen by 4000 from the beginning of January to the end of July this year.

The difference between these two measures of unemployment must be seen in connection with the increase in the number of occupationally disabled persons in work retraining programmes. Persons in work retraining programmes may consider themselves as job-seekers, and will thus be included as unemployed in the LFS if they satisfy the requirements to be qualified as job-seekers. Persons in work retraining programmes are not included in the unemployment figures of the Directorate of Labour. The increase in the number of persons in work retraining programmes must be seen in the light of stricter disability benefit requirements. Moreover, work retraining shall now be considered at an earlier stage of illness.

The number of person-hours per employee now seems to have stabilized. A further increase in labour demand will thus lead to a stronger increase in employment ahead compared with developments so far in this cyclical upturn. Moreover, growth in public employment will edge up this year and next, resulting in a further fall in unemployment. Average LFS unemployment is projected at 4.5 per cent in 2005, falling to 4.1 per cent in 2006.

Against the backdrop of an international downturn, lower petroleum investment and a strong krone, manufacturing employment is projected to fall through 2006 and 2007. Rising growth in public employment from 2007 will have the opposite effect. On balance, we expect weaker growth in employment in 2006 and 2007. Unemployment is projected to remain unchanged at 4.1 per cent in 2007. Unemployment is projected to fall to 3.4 per cent in 2009 as a result of a renewed upswing in the world economy in 2005 and clear employment growth in the public sector.

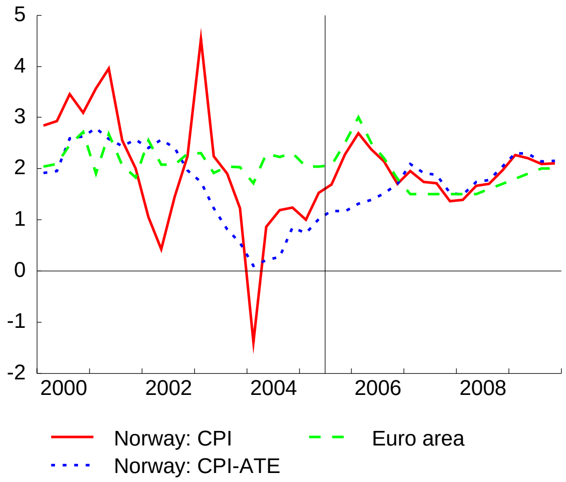
Strong krone, international downturn and low inflation keep wage growth at a low level

This year's wage settlement points to wage growth of about 3½ per cent. Wide variations in the number of person-hours worked have resulted in discrepancies between the various measures of wage growth published by Statistics Norway. In 2001 and 2002, the increase in the number of vacation days contributed to higher growth in wages per person-hour than in wages per standard person-year. In 2003, higher sickness absence and reduced overtime had the same effect. A sharp decline in sickness absence through 2004 had the opposite effect and resulted in a clear increase in the number person-hours per standard person-year. While wages per person-hour grew by 1.7 per cent between 2003 and 2004, growth in wage per standard person-year was 3.8 per cent in the same period. From the first half of 2004 to the first half of 2005, wages per standard person-year increased by 3.7 per cent.

In theory, a decline in long-term sickness absence results in a virtually proportionate increase in total wage disbursements and the number of person-hours worked so that wages per person-hour is broadly unaffected. However, it is uncertain whether the national accounts have fully captured the effect of reduced sickness absence on overall wage disbursements in the private sector. There is reason to believe that the decline in sickness absence is reflected in the figures for person-hours worked. This may then explain the low rate of growth in wages per person-hour in 2004. If that is the case, growth in wages per standard person-year should also be higher.

Continued high unemployment, labour immigration from the new EU member states, higher labour costs as a result of the private occupational pension scheme from 1 January 2006, low inflation and weak profitability in some manufacturing sectors due to a strong krone, an international downturn and reduced petroleum investment are all factors that contribute to moderate wage growth in the baseline scenario up to and including 2008. Admittedly, unemployment is projected to fall and inflation to rise, but this is not sufficient to compensate for the wage-moderating effects of lower profitability in the business sector during the period.
The krone is assumed to depreciate somewhat through 2008, and the international downturn will probably shift into an upturn. However, this is not expected to have any considerable impact on the interim settlements in 2009. Positive developments in the Norwegian economy as from 2008 are not expected to make a noteworthy contribution to wage growth before the main settlement in 2010. Annual wage growth per standard person-year is projected to range between 3½ - 4 per cent throughout the projection period.

Consumer price indices
Percentage growth from the same quarter previous year



Sources: Norges Bank and Statistics Norway.

Energy-driven consumer price inflation, but continued low inflation

Underlying inflation, as measured by the 12-month rise in the consumer prices index adjusted for tax changes and excluding energy products (CPI-ATE), remained stable at 0.7 per cent in the first quarter of 2005. Indirect tax increases from the beginning of the year contributed to somewhat higher CPI inflation. Through summer, underlying inflation edged up and stood at 1.3 per cent in August. House rent inflation has been stable at a low level so far this year, while the rise in prices for other services (e.g. transport services) has accelerated. The rate of increase in prices for domestically produced agricultural and fish products has also moved up, while domestically produced goods excluding energy have shown a gentle falling tendency. Prices for imported consumer goods have shown a relatively stable rate of deceleration of around 1 per cent up to August, but the downward movement has come to a halt. The increase from July to August reflects a modest increase in clothing and footwear prices on the previous month, while in the previous year these prices fell in line with the normal tendency.

Developments in energy prices have pushed up CPI inflation slightly during the first 8 months of the year, bringing inflation up to 1.9 per cent in August. This tendency will continue. High crude oil prices and refinery margins led to a sharp increase in petrol prices through August and the beginning of September. Moreover, while electricity prices remained relatively stable through the latter half of 2004, these prices are now set to show a marked increase through autumn and next year. Given broadly unchanged underlying inflation, this will result in CPI inflation of 2.3 per cent in the fourth quarter of 2005 and 2.7 per cent in the first quarter of 2006. In line with energy prices in the forward market, electricity prices are expected to fall in spring next year, unlike this year when they increased. We assume that crude oil prices will peak this winter, followed by a modest fall through the remainder of 2006. Combined with relatively stable underlying inflation, this will lead to a clear fall in CPI inflation later in the year, down to about 1.5 per cent in the fourth quarter of 2006. Annual CPI inflation is projected at 2.2 per cent in 2006, with energy prices contributing 0.7 percentage point. CPI-ATE inflation is projected at 1.5 per cent in 2006.

Higher energy prices imply higher production costs, which will exert upward pressure on underlying inflation a few months into next year. This tendency will then gradually reverse. The krone appreciation since February 2004, in conjunction with moderate external price impulses, point to falling import prices for a number of consumer goods. With a moderate appreciation of the krone into next year, followed by only a moderate weakening, the rise in prices for imported goods is likely to be very low also in 2006. Somewhat higher growth in unit labour costs may, nevertheless, lead to a small rise in underlying inflation.

Given a krone depreciation through the remainder of the projection period, our calculations show that import price developments will have a steadily diminishing downward impact on underlying inflation as from 2007. CPI-ATE inflation will thus pick up and is projected to reach a year-on-year rate of almost 2 per cent in 2007 and 2008. A few months into 2008, the Norwegian krone shows a more marked depreciation and the attendant price impulses from imports will push up inflation to 2.2 per cent.

A key assumption underlying this path for inflation is the path for the Norwegian krone exchange rate. Calculations that illustrate the effects of alternative paths for the exchanges rate are presented in an article[3] in this issue of *Economic Survey*.

Balance-of-payments surplus reaches new highs

Norway's current account surplus came to NOK 228 billion in 2004, i.e. an increase of NOK 26 billion on 2003. Last year's surplus can be decomposed into a goods balance of NOK 217 billion, a services balance of NOK 21 billion and an interest and transfers balance with a deficit of NOK 10 billion. All the components moved in favourable direction on the previous year. A sharp increase in oil prices of 25 per cent in 2005 made a substantial contribution to the increase in the surplus on the goods balance. A higher rise in prices for other Norwegian export goods (13 per cent) than for goods imported to Norway (5 per cent) generated terms-of-trade gains that virtually offset the sharp rise in the volume of imports (9 per cent) in relation to the volume of exports (1 per cent).

The favourable balance-of-payments developments in 2004 have continued in 2005. Export volumes have shown little change this year, while prices for Norwegian export goods are still on the rise. Imports increased in volume terms, while import prices have fallen. The trade surplus for the first half-year came to NOK 149 billion, of which the surplus on the goods balance accounted for NOK 136 billion and the surplus on the services balance accounted for NOK 13 billion. Only the interest and transfers balance is in deficit by NOK 11 billion. Net dividends showed a rising surplus, but this was offset by net interest expenditure and foreign transfers.

As a result of high oil prices, the trade surplus is now expected to reach a record-high level of NOK 330 billion in 2005, i.e. an increase of as much as 39 per cent on the previous year. The services balance remains in surplus, while the interest and transfers balance will continue to show a deficit.

In the years ahead, the current account surplus is projected to remain at a high level, peaking at NOK 416 billion in 2006 (or 25 per cent of GDP), followed by a decrease to NOK 356 billion in 2008 and a renewed increase thereafter. The surplus falls because lower oil prices are not fully offset by higher export volumes and because the rise in prices and volume growth for other Norwegian export goods will be lower than for import goods.

[3] P. Boug, Å. Capplen and T. Eika: Hvor raskt og sterkt er valutakursgjennomslaget I norsk økonomi? (Exchange Rate Pass-through in a Small Open Economy) *Økonomiske anlalyser 4/2005,* Statistisk sentralbyrå

National accounts: Final expenditure and gross domestic product. At fixed 2002 prices. Million kroner

	Unadjusted		Seasonally adjusted					
	2003	2004	04.1	04.2	04.3	04.4	05.1	05.2
Final consumption expenditure of households and NPISHs	700 911	731 886	181 297	181 187	182 883	185 266	184 706	189 346
Household final consumption expenditure	670 511	699 551	173 298	173 234	174 760	176 995	176 393	180 733
Goods	370 473	389 670	96 640	96 327	96 988	98 600	97 170	100 538
Services	289 095	296 947	73 562	73 882	74 535	74 768	75 222	75 549
Direct purchases abroad by resident households	29 451	33 041	8 073	8 100	8 189	8 754	9 124	9 768
Direct purchases by non-residents	-18 507	-20 107	-4 977	-5 075	-4 951	-5 126	-5 124	-5 122
Final consumption expenditure of NPISHs	30 400	32 336	7 999	7 953	8 123	8 270	8 313	8 613
Final consumption expenditure of general government	343 136	350 879	87 272	87 958	87 696	88 024	88 988	89 324
Final consumption expenditure of central government	182 469	188 440	46 812	47 295	47 132	47 254	47 591	47 461
Central government, civilian	152 825	158 940	39 398	39 883	39 792	39 921	40 317	40 244
Central government, defence	29 644	29 500	7 414	7 412	7 340	7 333	7 274	7 216
Final consumption expenditure of local government	160 667	162 439	40 460	40 664	40 565	40 770	41 397	41 863
Gross fixed capital formation	269 218	293 758	68 429	70 062	73 770	81 482	73 916	81 977
Extraction and transport via pipelines	62 411	70 070	16 533	16 902	17 466	19 170	17 616	21 578
Service activities incidential to extraction	-2 003	916	39	65	74	738	168	122
Ocean transport	1 878	3 174	473	95	693	1 913	1 402	1 625
Mainland Norway	206 931	219 598	51 383	53 000	55 537	59 662	54 729	58 652
Mainland Norway excluding general government	160 540	173 469	41 136	41 803	44 294	46 376	45 039	47 652
Industries	108 146	114 607	27 604	27 233	29 235	30 614	28 698	31 135
Manufacturing and mining	18 916	19 901	4 571	4 878	5 299	5 222	4 429	5 216
Production of other goods	22 214	22 974	5 416	5 528	5 556	6 501	5 198	5 769
Services	67 015	71 732	17 618	16 827	18 380	18 891	19 071	20 151
Dwellings (households)	52 394	58 862	13 532	14 570	15 059	15 762	16 341	16 517
General government	46 391	46 130	10 246	11 197	11 243	13 286	9 690	11 000
Changes in stocks and statistical discrepancies	3 365	17 309	2 243	6 554	3 883	3 240	9 305	4 117
Gross capital formation	272 582	311 071	70 672	76 616	77 652	84 722	83 221	86 094
Final domestic use of goods and services	1 316 630	1 393 832	339 240	345 762	348 232	358 012	356 915	364 764
Final demand from Mainland Norway	1 250 978	1 302 364	319 951	322 146	326 117	332 951	328 423	337 322
Final demand from general government	389 527	397 009	97 518	99 155	98 939	101 310	98 678	100 324
Total exports	634 110	640 028	161 719	161 171	159 694	157 875	156 426	159 109
Traditional goods	192 944	198 825	48 420	48 120	50 544	51 784	50 825	50 408
Crude oil and natural gas	272 223	270 986	70 897	69 386	67 113	63 926	65 054	66 278
Ships and oil platforms	17 075	9 125	2 744	3 314	1 760	1 307	519	1 465
Services	151 868	161 092	39 658	40 351	40 276	40 858	40 028	40 957
Total use of goods and services	1 950 740	2 033 860	500 960	506 933	507 926	515 887	513 341	523 873
Total imports	425 921	464 721	111 830	113 850	117 824	121 368	117 469	122 975
Traditional goods	279 071	309 827	73 990	76 798	79 420	79 563	79 910	82 584
Crude oil and natural gas	1 796	1 723	185	373	709	523	750	522
Ships and oil platforms	12 255	12 620	3 144	2 497	3 047	3 932	1 351	1 785
Services	132 799	140 552	34 512	34 182	34 648	37 349	35 458	38 083
Gross domestic product	1 524 818	1 569 186	389 129	393 082	390 102	394 519	395 873	400 898
Mainland Norway (market prices)	1 221 253	1 264 361	310 621	313 520	316 507	321 123	322 977	325 912
Petroleum activities and ocean transport	303 565	304 825	78 509	79 563	73 595	73 396	72 896	74 986
Mainland Norway (basic prices)	1 069 674	1 106 220	272 113	274 533	277 465	280 896	283 392	286 097
Mainland Norway excluding general government	824 210	855 804	209 801	212 095	214 728	217 936	220 131	222 848
Manufacturing and mining	145 667	148 107	36 401	36 760	37 467	37 596	37 380	37 657
Production of other goods	111 257	117 269	28 823	29 025	29 443	29 824	30 987	31 833
Services	567 286	590 427	144 577	146 311	147 817	150 516	151 763	153 359
General government	245 464	250 416	62 312	62 438	62 738	62 960	63 262	63 248
Correction items	151 580	158 141	38 508	38 987	39 042	40 227	39 585	39 816

Source: Statistics Norway.

National accounts: Final expenditure and gross domestic product. At fixed 2002 prices. Percentage change from the previous period

	Unadjusted		Seasonally adjusted					
	2003	2004	04.1	04.2	04.3	04.4	05.1	05.2
Final consumption expenditure of households and NPISHs	3.0	4.4	2.1	-0.1	0.9	1.3	-0.3	2.5
Household final consumption expenditure	2.8	4.3	2.1	0.0	0.9	1.3	-0.3	2.5
Goods	3.5	5.2	2.9	-0.3	0.7	1.7	-1.5	3.5
Services	1.4	2.7	0.8	0.4	0.9	0.3	0.6	0.4
Direct purchases abroad by resident households	7.7	12.2	6.3	0.3	1.1	6.9	4.2	7.1
Direct purchases by non-residents	1.3	8.6	4.5	2.0	-2.4	3.5	0.0	0.0
Final consumption expenditure of NPISHs	7.1	6.4	3.0	-0.6	2.1	1.8	0.5	3.6
Final consumption expenditure of general government	1.4	2.3	1.5	0.8	-0.3	0.4	1.1	0.4
Final consumption expenditure of central government	1.0	3.3	2.4	1.0	-0.3	0.3	0.7	-0.3
Central government, civilian	1.6	4.0	2.8	1.2	-0.2	0.3	1.0	-0.2
Central government, defence	-1.9	-0.5	0.3	0.0	-1.0	-0.1	-0.8	-0.8
Final consumption expenditure of local government	1.8	1.1	0.4	0.5	-0.2	0.5	1.5	1.1
Gross fixed capital formation	-2.0	9.1	6.3	2.4	5.3	10.5	-9.3	10.9
Extraction and transport via pipelines	16.9	12.3	7.4	2.2	3.3	9.8	-8.1	22.5
Service activities incidential to extraction	-	-	-101.3	65.5	13.7	896.6	-77.2	-27.2
Ocean transport	-50.7	69.0	-180.0	-79.9	629.7	176.1	-26.7	15.9
Mainland Norway	-2.2	6.1	-2.3	3.1	4.8	7.4	-8.3	7.2
Mainland Norway excluding general government	-5.0	8.1	1.2	1.6	6.0	4.7	-2.9	5.8
Industries	-4.9	6.0	0.7	-1.3	7.4	4.7	-6.3	8.5
Manufacturing and mining	-16.6	5.2	-8.7	6.7	8.6	-1.5	-15.2	17.8
Production of other goods	19.4	3.4	3.0	2.1	0.5	17.0	-20.0	11.0
Services	-7.5	7.0	2.7	-4.5	9.2	2.8	1.0	5.7
Dwellings (households)	-5.3	12.3	2.3	7.7	3.4	4.7	3.7	1.1
General government	9.2	-0.6	-14.3	9.3	0.4	18.2	-27.1	13.5
Changes in stocks and statistical discrepancies	-81.1	414.4	161.2	192.2	-40.8	-16.5	187.2	-55.8
Gross capital formation	-6.8	14.1	8.3	8.4	1.4	9.1	-1.8	3.5
Final domestic use of goods and services	0.4	5.9	3.2	1.9	0.7	2.8	-0.3	2.2
Final demand from Mainland Norway	1.6	4.1	1.2	0.7	1.2	2.1	-1.4	2.7
Final demand from general government	2.2	1.9	-0.5	1.7	-0.2	2.4	-2.6	1.7
Total exports	1.6	0.9	-1.4	-0.3	-0.9	-1.1	-0.9	1.7
Traditional goods	5.1	3.0	-1.9	-0.6	5.0	2.5	-1.9	-0.8
Crude oil and natural gas	-0.6	-0.5	5.1	-2.1	-3.3	-4.7	1.8	1.9
Ships and oil platforms	33.2	-46.6	-65.6	20.8	-46.9	-25.8	-60.3	182.3
Services	-1.5	6.1	0.9	1.7	-0.2	1.4	-2.0	2.3
Total use of goods and services	0.8	4.3	1.7	1.2	0.2	1.6	-0.5	2.1
Total imports	2.2	9.1	3.3	1.8	3.5	3.0	-3.2	4.7
Traditional goods	4.3	11.0	4.0	3.8	3.4	0.2	0.4	3.3
Crude oil and natural gas	9.9	-4.1	-51.7	101.6	89.9	-26.2	43.3	-30.3
Ships and oil platforms	-18.6	3.0	21.5	-20.6	22.0	29.1	-65.6	32.1
Services	0.1	5.8	0.9	-1.0	1.4	7.8	-5.1	7.4
Gross domestic product	0.4	2.9	1.2	1.0	-0.8	1.1	0.3	1.3
Mainland Norway (market prices)	0.7	3.5	0.6	0.9	1.0	1.5	0.6	0.9
Petroleum activities and ocean transport	-1.0	0.4	3.4	1.3	-7.5	-0.3	-0.7	2.9
Mainland Norway (basic prices)	0.6	3.4	0.5	0.9	1.1	1.2	0.9	1.0
Mainland Norway excluding general government	0.8	3.8	0.4	1.1	1.2	1.5	1.0	1.2
Manufacturing and mining	-3.9	1.7	-0.7	1.0	1.9	0.3	-0.6	0.7
Production of other goods	-3.5	5.4	2.2	0.7	1.4	1.3	3.9	2.7
Services	3.0	4.1	0.3	1.2	1.0	1.8	0.8	1.1
General government	-0.1	2.0	0.8	0.2	0.5	0.4	0.5	0.0
Correction items	1.6	4.3	1.8	1.2	0.1	3.0	-1.6	0.6

Source: Statistics Norway.

National accounts: Final expenditure and gross domestic product. Price indices. 2002=100

	Unadjusted		Seasonally adjusted					
	2003	2004	04.1	04.2	04.3	04.4	05.1	05.2
Final consumption expenditure of households and NPISHs	102.6	103.3	103.1	103.2	103.3	104.0	103.8	103.7
Final consumption expenditure of general government	103.8	105.8	104.1	105.3	106.6	107.3	107.4	108.7
Gross fixed capital formation	100.7	103.6	101.6	103.2	104.3	104.9	104.8	105.2
Mainland Norway	100.3	103.5	101.5	103.3	104.2	104.6	104.6	104.7
Final domestic use of goods and services	102.5	104.0	103.8	103.7	104.9	104.3	103.9	107.1
Final demand from Mainland Norway	102.5	104.0	103.1	103.8	104.4	105.0	104.9	105.2
Total exports	101.7	115.1	109.0	110.7	117.2	123.3	126.5	128.8
Traditional goods	97.8	105.5	104.7	103.4	106.3	107.5	108.5	108.8
Total use of goods and services	102.3	107.5	105.5	106.0	108.8	110.1	110.8	113.7
Total imports	101.7	107.3	106.8	106.5	107.4	108.2	108.6	107.9
Traditional goods	100.4	104.2	104.5	104.0	104.4	104.0	104.3	104.2
Gross domestic product	102.4	107.6	105.1	105.8	109.2	110.7	111.5	115.5
Mainland Norway (market prices)	102.0	103.3	102.6	103.2	104.1	104.1	103.4	107.0

Source: Statistics Norway.

National accounts: Final expenditure and gross domestic product. Price indices. Percentage change from previous period

	Unadjusted		Seasonally adjusted					
	2003	2004	04.1	04.2	04.3	04.4	05.1	05.2
Final consumption exp. of households and NPISHs	2.6	0.7	0.5	0.1	0.1	0.7	-0.2	-0.1
Final consumption expenditure of general government	3.8	2.0	-0.4	1.1	1.3	0.6	0.1	1.3
Gross fixed capital formation	0.7	2.9	-0.3	1.6	1.1	0.6	-0.1	0.4
Mainland Norway	0.3	3.2	0.2	1.8	0.8	0.4	0.0	0.1
Final domestic use of goods and services	2.5	1.4	1.0	-0.1	1.2	-0.6	-0.3	3.0
Final demand from Mainland Norway	2.5	1.5	0.2	0.7	0.6	0.6	-0.1	0.3
Total exports	1.7	13.1	3.7	1.6	5.9	5.2	2.5	1.8
Traditional goods	-2.2	7.9	4.7	-1.2	2.8	1.1	1.0	0.2
Total use of goods and services	2.3	5.1	1.9	0.4	2.7	1.2	0.6	2.6
Total imports	1.7	5.4	2.2	-0.3	0.8	0.7	0.4	-0.7
Traditional goods	0.4	3.8	1.9	-0.4	0.4	-0.4	0.4	-0.2
Gross domestic product	2.4	5.0	1.7	0.7	3.2	1.4	0.7	3.6
Mainland Norway (market prices)	2.0	1.3	0.3	0.6	0.9	-0.1	-0.7	3.5

Source: Statistics Norway.