

# Economic trends

Following a period with positive signals from the global economy through 2013, there has been a tendency for weaker growth among several of Norway's most important trading partners recently. In the euro area in particular, growth in benchmark countries has been disappointing. The same is true of developments in Sweden. Nor are there any signals from the USA that economic growth is clearly on the way up in OECD countries. Developments in a number of emerging economies have also been characterised by low growth, but growth in China and India remains high. Unemployment may have passed its peak in the EU, but it is still very high, while unemployment has fallen appreciably in the USA. Inflation rates globally are moderate, and in the euro area only just above zero. This may prompt monetary stimuli from the European Central Bank, while monetary policy in the USA is moving in the opposite direction. The euro may weaken against the dollar in the near term as a result.

Developments in Norway so far in 2014 have been virtually the opposite of the global tendency, not least in relation to developments in the euro area. Mainland GDP growth has picked up somewhat, as has the inflation rate. However, we believe that much of the increased GDP growth rate is due to random factors that will not continue to provide as much impetus to the Norwegian economy going forward. The same applies to the inflation rate, the rise of which is largely due to the weakening of the krone through 2013 and into 2014. Unemployment in Norway has been quite stable for a while. We had expected the weak growth in 2014 to lead to higher unemployment, but so far moderate growth in the labour supply has caused unemployment to fall slightly instead.

In the autumn of 2013, many feared weak developments in the housing market that might translate into negative impulses to the rest of the Norwegian economy. However, household pessimism proved to be of short duration, and house prices have risen again. Housing investment moved on a weak trend last winter, but now shows signs of rising. The pessimism and uncertainty have now shifted to petroleum investment which, after climbing for a long period, is now exhibiting a falling tendency, and there are prospects of a fall leading up to 2015. Oil prices remain buoyant, and although we expect a decline in petroleum investment next year, in line with the petroleum companies' projections, there is reason to believe that the decline will be moderate, and that growth may resume in 2016. We therefore foresee some quarters during which mainland economic growth will remain at around two per cent. Expansionary fiscal policy and low interest rates will counter weaker impulses from petroleum activities to some extent. But with growth lower than trend, we believe unemployment will increase slightly from the current level. We believe that global growth will pick up from 2016 and, given slightly positive impulses from petroleum investment and continued expansionary fiscal policy, we expect growth in the Norwegian economy to be higher than trend growth.

The inflation rate (excluding energy products) has been somewhat higher in 2014 than for the past few years. This is attributed to the depreciation of the krone that occurred in the winter of 2013. The krone has strengthened recently, and we expect a moderate further strengthening in the near term. This will gradually lead to somewhat slower inflation. Wage growth, conversely, is quite stable, and will not generate different impulses to inflation in the near term. A slightly more moderate inflation rate may therefore result in slightly higher real wage growth next year and in subsequent years than in the current year.

# Economic developments in Norway

After a year and a half of relatively weak mainland economic growth, second-quarter mainland GDP climbed almost 5 per cent measured as an annual rate. Growth was especially high in industries affected by natural phenomena, such as electricity production and primary industries, including fish farming, and this growth rate is unlikely to persist. Even disregarding these industries, growth was high and appreciably above our projection of just under 2.5 per cent for trend economic growth. We do not believe that second-quarter growth implies the start of a distinct cyclical

upturn in Norway, but rather that for one year to come growth will be below rather than above trend. We project that a moderate cyclical upturn will take hold towards the end of 2015.

Despite the relatively moderate growth in activity up to the second quarter of 2014, unemployment measured by the labour force survey (LFS) showed no tendency to increase through 2013 and actually fell somewhat through the first half of this year. However, this has been driven more by low growth in the labour supply

Table 1. Macroeconomic indicators. Growth from previous period unless otherwise noted. Per cent

	2012*	2013*	Seasonally adjusted			
			13:3	13:4	14:1	14:2
<b>Demand and output</b>						
Consumption in households etc.	3.0	2.1	0.0	0.4	0.9	0.8
General government consumption	1.8	1.8	0.3	0.7	0.7	0.6
Gross fixed investment	8.3	8.4	1.4	-0.4	-3.1	1.4
Mainland Norway	4.5	4.4	-0.2	1.0	-2.1	1.3
Extraction and transport via pipelines	14.6	17.1	6.2	-3.1	-1.5	0.0
Final domestic demand from Mainland Norway <sup>1</sup>	2.9	2.5	0.0	0.6	0.3	0.8
Exports	1.1	-3.3	1.5	-2.3	0.4	-0.6
Crude oil and natural gas	0.7	-7.7	1.3	-5.2	2.2	-4.7
Traditional goods	1.7	0.4	-0.6	-0.3	0.6	3.5
Imports	2.3	2.9	3.4	-0.4	-2.4	0.9
Traditional goods	2.4	2.5	2.6	0.2	-1.5	-1.0
Gross domestic product	2.9	0.6	0.8	-0.2	0.2	0.9
Mainland Norway	3.4	2.0	0.6	0.5	0.5	1.2
<b>Labour market</b>						
Man-hours worked	2.0	0.6	0.5	0.4	0.4	0.6
Employed persons	2.2	1.2	0.4	0.3	0.2	0.3
Labour force <sup>2</sup>	1.8	1.0	0.6	0.3	-0.1	0.4
Unemployment rate, level <sup>2</sup>	3.2	3.5	3.5	3.5	3.5	3.2
<b>Prices and wages</b>						
Annual earnings	4.0	3.9	..	..	..	..
Consumer price index (CPI) <sup>3</sup>	0.8	2.1	3.0	2.3	2.1	1.8
CPI adjusted for tax changes and excluding energy products (CPI-ATE) <sup>3</sup>	1.2	1.6	2.0	2.0	2.5	2.4
Export prices, traditional goods	-3.6	3.4	0.7	2.6	0.8	-1.5
Import prices, traditional goods	0.6	2.1	2.5	1.5	1.1	0.5
<b>Balance of payment</b>						
Current balance, bill. NOK	417.2	333.6	76.0	93.6	111.0	68.8
<b>Memorandum items (unadjusted level)</b>						
Money market rate (3 month NIBOR)	2.2	1.8	1.7	1.7	1.7	1.8
Lending rate, credit loans <sup>4</sup>	3.9	4.0	4.1	4.1	4.1	4.0
Crude oil price NOK <sup>5</sup>	649	639	657	663	657	657
Importweighted krone exchange rate, 44 countries, 1995=100	87.1	89.0	90.1	92.6	93.1	91.5
NOK per euro	7.48	7.80	7.93	8.23	8.35	8.21

<sup>1</sup> Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in Mainland Norway.

<sup>2</sup> According to Statistics Norway's labour force survey (LFS).

<sup>3</sup> Percentage change from the same period the previous year.

<sup>4</sup> Period averages.

<sup>5</sup> Average spot price, Brent Blend.

Source: Statistics Norway and Norges Bank.

than by high employment growth. We expect unemployment to rise through the remainder of the current year and next year.

Petroleum sector investment provided strong growth impulses to the Norwegian economy for a long period, but revised quarterly national accounts figures (QNA) show that this has come to a halt, with some decline in or levelling off of the investment level in the past three quarters. This tendency is expected to continue for a while to come. Mainland business investment has also moved on a weak trend during this period, and this is expected to continue in 2015. Housing investment, which fell through the winter, rose slightly from the first to the second quarter, and is expected to pick up more. General government investment has increased sharply since 2012, and a marked increase is also expected for the next few years.

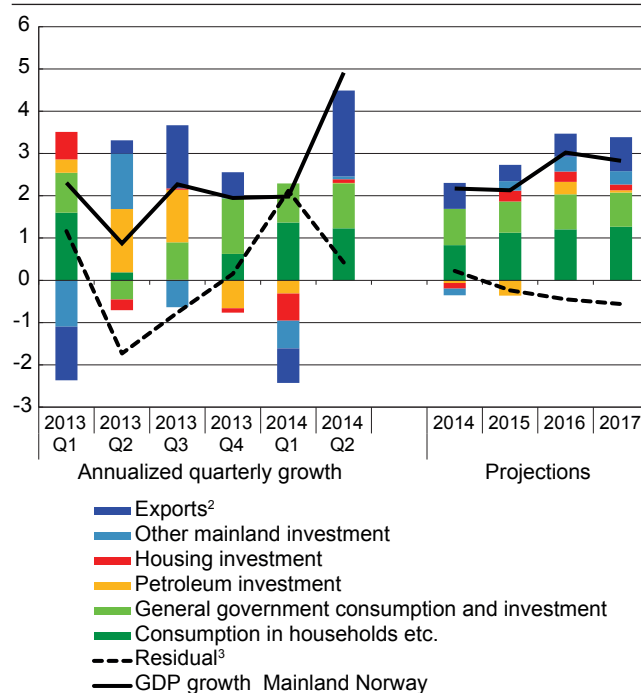
After remaining at a low level through much of 2013, growth in household consumption picked up markedly through the first half of this year. However, the goods consumption index for July, which showed a clear fall compared with previous months, may point to subdued consumption growth in the second half of the year. Steady, high real income growth, low interest rates and moderately rising house prices may in their turn contribute to somewhat higher consumption growth in the years ahead, however. At the same time, the saving ratio, which is historically high, may increase even more.

In addition to moderate investment developments apart from general government and low growth in household consumption, the weak global trend has dampened developments in Norwegian activity in recent years. In the second quarter, however, traditional exports increased by no less than 3.5 per cent on the previous quarter. The upswing in mainland economic output can be largely ascribed to this. As the global economic upturn still has not materialised and cost-competitiveness continues to fall following a temporary improvement attributable to the weakening of the krone through 2013, we expect very modest export growth in the coming year.

The Norwegian krone weakened appreciably through 2013, which is the reason inflation picked up through the year. So far in 2014, the 12-month rise in the consumer price index adjusted for tax changes and excluding energy products (CPI-ATE) is around 2.5 per cent, while lower electricity prices in 2014 than last year have caused a somewhat slower rise in prices overall. The krone exchange rate has strengthened so far this year, which will lead to slightly lower inflation in the near term. We expect wage growth to remain stable at around 3.5 per cent this year and for the next few years, which will imply annual real wage growth of around 1.5–2.0 per cent.

In light of the inflation outlook, the economic situation and the generally very low interest rates globally, we

Figure 1. GDP growth Mainland Norway and contribution by final demand components<sup>1</sup>. Percentage points



<sup>1</sup> Demand components are calculated as the change in each variable, adjusted for the direct and indirect import shares, relative to the level of GDP Mainland Norway in the preceding period. The import shares can be found in Economic Survey 1/2014. All variables are seasonally adjusted and at constant prices.

<sup>2</sup> Exports is defined as total exports minus exports of crude oil, natural gas, ships, oil platforms and planes.

<sup>3</sup> The residual is the sum of all the demand factors that are left out as well as changes in stocks and statistical discrepancies.

Source: Statistics Norway.

believe that Norwegian money-market rates will remain at about the current low level for a long while to come. However, banking market factors may result in the tendency to lower lending rates that we have seen in the last few quarters continuing a little longer.

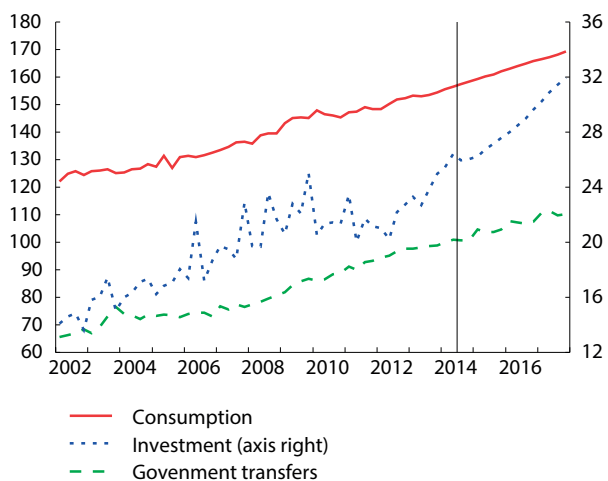
Fiscal policy has provided a clear stimulus to the economy in recent years. This is particularly true in 2014, where public sector demand continues to grow appreciably at the same time as tax cuts are made. We assume a relatively constant fiscal stance until the end of our projection period.

An improvement in the global economic situation is forecast to commence just over a year ahead. In 2016, when petroleum investment also increases, mainland business investment may gradually pick up a little, thereby contributing to a moderate Norwegian cyclical upturn from the end of 2015. Unemployment is thus expected to decline slightly in 2016 and 2017, and the slump may be over in 2017.

### Expansionary fiscal policy

Whereas general government spending increased by 1.8 per cent annually in 2012 and 2013, spending growth according to the QNA has been about an annualised 2.5 per cent for the past three quarters. Central government spending is higher, and the Defence Forces, in particular, are pushing up overall growth,

Figure 2. **General government. Seasonally adjusted, billion 2011-kr., quarterly**



Source: Statistics Norway.

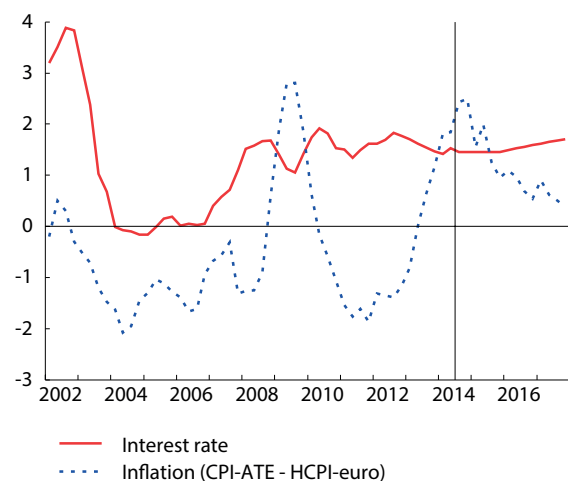
while growth in local government spending remains largely unchanged.

Gross general government investment increased considerably through 2013, and the growth has continued into 2014. The investment level in the first half of 2014, seasonally adjusted, was over 6 per cent higher than in the second half of last year, and almost 13 per cent higher than the level in the first half of 2013. Growth in central government spending is highest. Even given an unchanged investment level through the remainder of 2014, as we have assumed, annual growth from 2013 to 2014 will be about 10 per cent. This is double the growth we envisaged in our last projection, which was based on estimates in the Revised National Budget (RNB) 2014.

Growth in transfers to households appears likely to be about 3 per cent in constant prices this year. Overall real growth in public consumption, investment and transfers to households appears to be just under 3 per cent, which is in line with growth in 2013. In addition, taxation rates have been reduced across the board, and this is projected to amount to a real tax reduction of NOK 8 billion from 2013 to 2014. Measured in terms of these variables, the overall fiscal impulses are more expansionary in 2014 than the previous year. In RNB, the structural, non-oil budget deficit (SNOBD) was forecast to be NOK 141 billion in 2014. SNOBD as a share of trend GDP is projected to rise to 5.8 per cent, despite that fact that its value as a share of the Government Petroleum Fund Global may fall to 2.8 per cent. Measured in this way, fiscal policy in 2014 is the most expansionary since the financial crisis.

No fiscal policy has been adopted for the next few years. We have chosen to retain the main features we assumed earlier for fiscal policy in the next few years. General government consumption is expected to increase in the region of 2.0–2.4 per cent annually. We expect continued high growth in gross government

Figure 3. **Interest rate and inflation differential between NOK and the euro. Percentage points**



Source: Norges Bank and Statistics Norway.

investment, but because of the high growth in 2014 we have reduced the growth rate for next year somewhat. New fighter aircraft are to be delivered to Norway from 2017. This explains why our projections for growth in gross government investment increase again in 2017. Real growth in transfers is expected to continue at approximately the same rate as in recent years. Growth in old-age pensions will push up overall growth in transfers, while other transfers contribute less to growth.

The overall real increase in spending on consumption, investment and transfers is projected to be about 3 per cent annually going forward, which is in line with our earlier assumptions. This, coupled with annual tax reductions of approximately NOK 6 billion in the years up to and including 2017, means that the impulses generated by fiscal policy to stimulate mainland economic growth will be at least as strong as this year. The increase in SNOBD will be larger than trend mainland economic growth. SNOBD will therefore increase as a share of trend mainland GDP. Our projections imply nonetheless that SNOBD as a share of the Fund's value will remain less than 3 per cent during the period.

### Long-term interest rate trough

The key policy rate has remained unchanged at 1.5 per cent since a cut in March 2012 which rapidly caused a fall in the money-market rate to 2.3 per cent. The money market rate has fallen further since then, and for the past year has been around 1.75 per cent. Interest rates are even lower in a number of other countries. The money market rate in the euro area has been around 0.2 per cent for the past year, and in the USA for the past two years.

In August 2012 the krone was very strong, and the NOK-EUR exchange rate fell to 7.30, which is close to the record level in early 2003. The krone then depreciated up to February this year, when the exchange rate was up to more than 8.50. The krone has subsequently strengthened, apart from a transitory weakening this

Tabell 2. Main economic indicators 2013-2017. Accounts and forecasts. Percentage change from previous year unless otherwise noted

	Forecast											
	Accounts 2013*	2014			2015			2016		2017		
		SN	NB	MoF	SN	NB	MoF	SN	NB	SN	NB	
<b>Demand and output</b>												
Consumption in households etc.	2.1	2.1	2 1/4	2.0	2.9	3 1/2	..	3.1	3 1/4	3.2	2 3/4	
General government consumption	1.8	2.3	2 1/4	1.9	2.3	2 1/4	..	2.4	..	2.0	..	
Gross fixed investment	8.4	-0.4	..	1.7	1.0	..	..	5.0	..	3.7	..	
Extraction and transport via pipelines <sup>1</sup>	17.1	-1.3	2 1/2	3.0	-7.5	-10	..	6.8	0	1.2	5	
Mainland Norway	4.4	0.8	-1	..	3.2	4	..	4.6	..	5.0	..	
Industries	0.2	-1.1	..	2.0	0.4	..	..	3.4	..	4.4	..	
Housing	6.4	-2.6	..	-2.3	5.5	..	..	5.0	..	2.7	..	
General government	9.9	9.5	..	4.8	4.7	..	..	6.3	..	8.8	..	
Demand from Mainland Norway <sup>2</sup>	2.5	1.9	1 3/4	1.8	2.8	3 1/4	..	3.2	3 1/4	3.2	2 3/4	
Stockbuilding <sup>3</sup>	-0.2	0.5	..	..	0.2	..	..	0.0	..	0.0	..	
Exports	-3.3	1.6	..	1.9	1.3	..	..	1.8	..	2.5	..	
Crude oil and natural gas	-7.7	0.1	..	1.1	0.8	..	..	0.5	..	0.5	..	
Traditional goods <sup>4</sup>	0.4	2.6	2	2.4	1.1	2 1/2	..	3.2	3 3/4	5.0	4 1/2	
Imports	2.9	1.8	1/4	2.8	3.3	3 1/4	..	4.1	..	4.4	..	
Traditional goods	2.5	1.2	..	2.3	1.3	..	..	4.3	..	4.7	..	
Gross domestic product	0.6	1.9	1 1/2	1.5	1.7	1 3/4	1.8	2.4	2 1/4	2.3	2 3/4	
Mainland Norway	2.0	2.2	2	1.9	2.1	2 1/4	2.2	3.0	2 3/4	2.8	3	
<b>Labour market</b>												
Employed persons	1.2	1.2	1	0.8	0.6	3/4	..	1.0	1	1.4	1 1/4	
Unemployment rate (level)	3.5	3.4	3 1/2	3.7	3.7	3 3/4	3.8	3.6	3 3/4	3.5	3 1/2	
<b>Prices and wages</b>												
Annual earnings	3.9	3.5	3 1/2	3.3	3.5	3 1/2	..	3.5	4	3.6	4	
Consumer price index (CPI)	2.1	2.1	2	2.0	1.7	2	..	1.7	2 1/4	1.9	2 1/4	
CPI-ATE <sup>5</sup>	1.6	2.5	2 1/4	2.5	1.7	2	..	1.7	2 1/4	1.9	2 1/4	
Export prices, traditional goods	3.4	3.6	..	..	2.3	..	..	1.8	..	1.2	..	
Import prices, traditional goods	2.1	4.8	..	..	1.8	..	..	0.9	..	1.0	..	
Housing prices	3.9	2.5	..	..	3.7	..	..	2.6	..	3.2	..	
<b>Balance of payment</b>												
Current balance (bill. NOK)	333.6	321.0	..	..	318.0	..	..	307.2	..	311.7	..	
Current balance (per cent of GDP)	11.1	10.3	..	11.0	9.8	..	..	9.1	..	8.8	..	
<b>Memorandum items:</b>												
Household savings ratio (level)	9.0	9.6	..	9.2	10.1	..	..	10.6	..	10.7	..	
Money market rate (level)	1.8	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	2.1	2.2	
Lending rate, credit loans (level) <sup>6</sup>	4.0	4.0	..	..	3.8	..	..	3.8	..	3.8	..	
Crude oil price NOK (level) <sup>7</sup>	639	650	..	650	627	..	626	620	..	629	..	
Export markets indicator	1.2	3.6	..	..	3.8	..	..	5.3	..	6.1	..	
Importweighted krone exchange rate (44 countries) <sup>8</sup>	2.2	3.8	2.8	3.6	-0.2	-1.6	..	-0.5	-0.8	-0.5	-0.3	

<sup>1</sup> Forecasts from Ministry of Finance incl. service activities incidental to extraction.

<sup>2</sup> Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in Mainland Norway.

<sup>3</sup> Change in stockbuilding. Per cent of GDP.

<sup>4</sup> Norges Bank estimates traditional exports, which also includes some services.

<sup>5</sup> CPI adjusted for tax changes and excluding energy products (CPI-ATE).

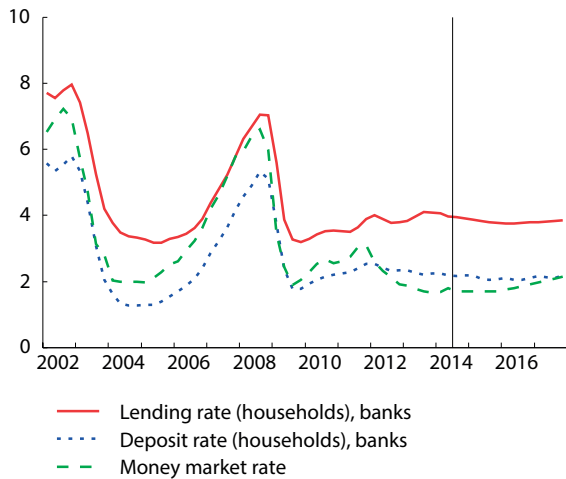
<sup>6</sup> Yearly average.

<sup>7</sup> Average spot price, Brent Blend.

<sup>8</sup> Increasing index implies depreciation. Ministry of Finance forecasts trade-weighted exchange rate.

Source: Statistics Norway (SN), Ministry of Finance, St.meld nr. 2 (2013-2014), (MoF), Norges Bank, Pengepolitisk rapport 2/2014 (NB).

Figure 4. Norwegian interest rates. Per cent



Source: Norges Bank and Statistics Norway.

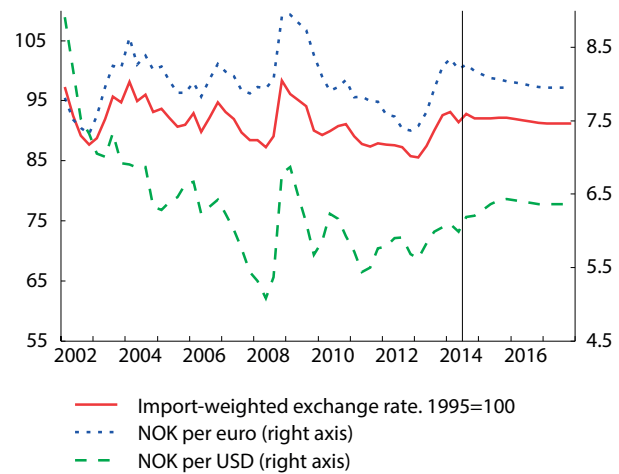
summer. At the end of August the EUR-NOK exchange rate was 8.15. Much of the recent appreciation of the krone occurred after surprisingly strong figures for CPI inflation and mainland GDP. Both contributed to dampening expectations of an interest rate cut.

A number of banks reduced their deposit and lending rates during the second quarter of this year. At the end of the second quarter, the average interest rate on credit loans secured on dwellings from banks and credit institutions was 3.9 per cent, down 0.2 percentage point from the previous quarter. Banks' average deposit rate was reduced from just under 2.3 per cent to 2.1 per cent in the same period.

Growth from the first to the second quarter of this year in private and municipal sector debt, measured as gross domestic debt (C2), was a seasonally adjusted, annualised 6.0 per cent. Debt growth has fluctuated around this level since the beginning of 2010. Growth in household debt was 6.4 per cent, which is approximately the same as in the previous quarter, but 0.8 percentage point lower than in the fourth quarter of 2013. Growth of debt in non-financial corporations was down to 2.2 per cent in the second quarter of this year. This is nonetheless higher than in the first quarter, when it was down to 0.8 per cent.

Prospects of moderate domestic economic growth and considerable surplus capacity, coupled with a continued very low interest rate level abroad are some of the reasons we believe, as in previous economic reports, that Norges Bank will keep the present low key policy rate unchanged through 2015. In 2016, GDP growth will pick up somewhat. We believe that the key rate will be raised then, but that the increases will still be moderate during the projection period. We project that the money market rate will shadow the key rate and reach 2.2 per cent by the end of 2017. This is only 0.5 percentage point higher than the present level. We assume that the premiums between lending rates and the

Figure 5. Exchange rates



Source: Norges Bank.

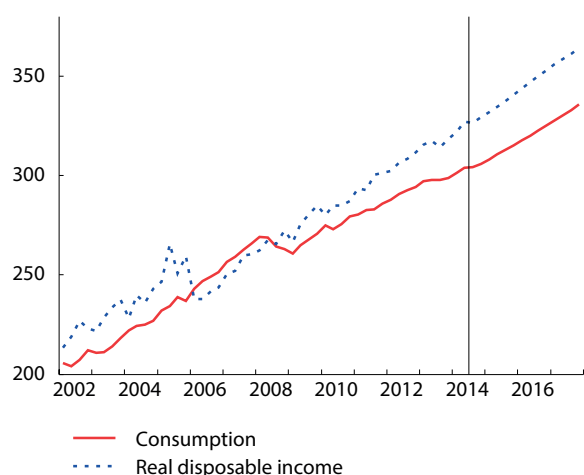
money market rate will be reduced as banks succeed in building up their capital, so that the interest rate on credit secured on dwellings will soon fall to 3.8 per cent and remain at this level through 2017.

Higher interest rates in Norway than in the euro area are expected to cause the krone to strengthen against the euro in the near term. We expect the exchange rate to move towards 7.95 by the end of 2016 and to remain at that level in 2017. At the same time, we assume that the euro will weaken against USD and a number of other important currencies this year and next. We assume in our calculations that the krone will also weaken against the dollar during this period. The value of the krone measured by the import-weighted krone exchange rate will remain more or less unchanged from the current level until the end of 2015. It will then strengthen somewhat through 2016.

### Growth in real income translates into consumption growth

According to seasonally adjusted QNA figures, consumption by households and non-profit organisations increased by 0.8 per cent in the second quarter of this year, roughly the same as in the previous quarter. Following almost zero growth through the last three quarters of 2013, consumption growth has thus picked up considerably in the course of the first half of 2014. Much of this increase can be attributed to developments in goods consumption. There was clear growth in most product groups, particularly food and clothing and footwear, so that goods consumption increased by 1.0 per cent in the second quarter of this year. A decline in purchases of vehicles dampened growth somewhat, but these purchases increased sharply in the first quarter. However, the goods consumption index for July shows a seasonally adjusted decline of 1.7 per cent, which deviates from the trend in the first half of the year. When looking at this figure, the large increase in June (1.1 per cent) must be borne in mind. Consumption of services has grown relatively steadily

Figure 6. Income and consumption in households. Seasonally adjusted, billion 2011-kr., quarterly



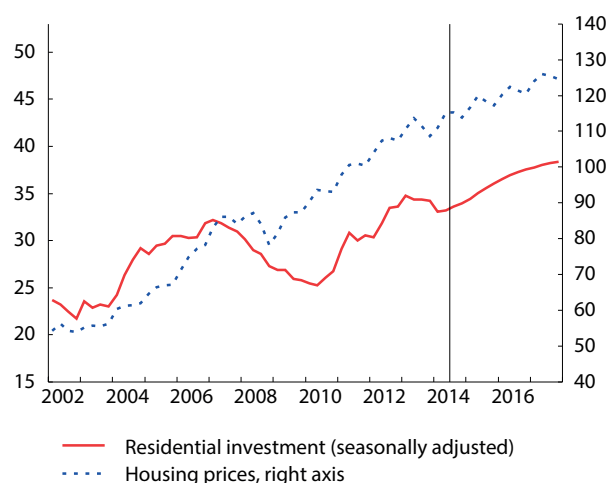
Source: Statistics Norway.

throughout 2013 and so far this year. The second quarter increase was 0.6 per cent, with relatively large contributions to growth from rents and financial services. Norwegians' consumption abroad grew strongly through 2013 for the fourth consecutive year. After remaining unchanged in the first quarter of this year, probably as a consequence of the depreciation of the krone through 2013 and into 2014, Norwegians' consumption abroad increased again by as much as 1.5 per cent in the second quarter.

Changes in consumption are largely determined by movements in household income, wealth and interest rates. Real disposable income rose by 3.1 per cent in 2013, approximately the same as the previous year. Wage income made a particular contribution to income growth last year, as a consequence of growth in both wages and employment. Increased government transfers, mainly attributable to increased disbursements of pensions and sick pay, also made a pronounced contribution, while a relatively high price rise of 2.7 per cent, measured by the national accounts consumption deflator, curbed the rise in real income. Net interest income also made a negative, albeit small, contribution to growth, as interest income on bank deposits increased somewhat less than interest expenses on loans.

Real disposable income rose by well over 1 per cent in both the first and the second quarter of this year, with clear contributions to growth from both wage income and government transfers in addition to tax cuts. We expect these developments to continue. Lower inflation will boost growth in real disposable income and accordingly also in consumption over the next few years. Net interest income, on the other hand, will not contribute significantly to growth. We expect annual growth in real disposable income of 3.0 per cent this year, and slightly higher in the next few years. Housing wealth will increase during the projection period as a result of both rising house prices and high housing investment. This will have the effect of stimulating consumption.

Figure 7. Residential market. Left axis adj. indices. 2011=100. Right axis per cent



Source: Statistics Norway.

Given our projections for income, housing wealth and interest rates, consumption growth this year will be over 2 per cent, like last year, and then increase to around 3 per cent for the remainder of the projection period.

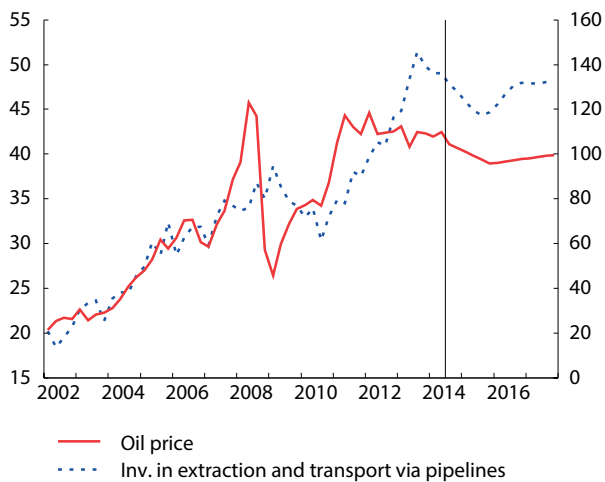
Household saving – calculated as a share of disposable income – has increased from a level of close to 4 per cent in 2008 to 9.9 per cent in the second quarter of 2014, according to seasonally adjusted QNA figures. We forecast that the saving ratio will increase even more in the projection period. This implies a saving level that has not been seen since 2005. The saving ratio was high that year as a result of tax-motivated disbursements of share dividends.

### Real property prices are rising slightly

House prices have picked up again, following a 1.6 per cent decline through the second half of 2013, according to monthly figures from the Association of Real Estate Agency Firms (Eiendom Norge). While seasonally-adjusted house prices were unchanged in January this year, they have later shown a positive monthly rise averaging around 0.5 per cent. House prices were 2.6 per cent higher in July 2014 than 12 months earlier. This development is in line with Statistics Norway's quarterly house price index, which shows a decline in four-quarter growth through 2013 and into 2014, from a 6 per cent increase in the first quarter of 2013 to zero growth one year later. Four-quarter growth in the second quarter of 2014 was 1.4 per cent.

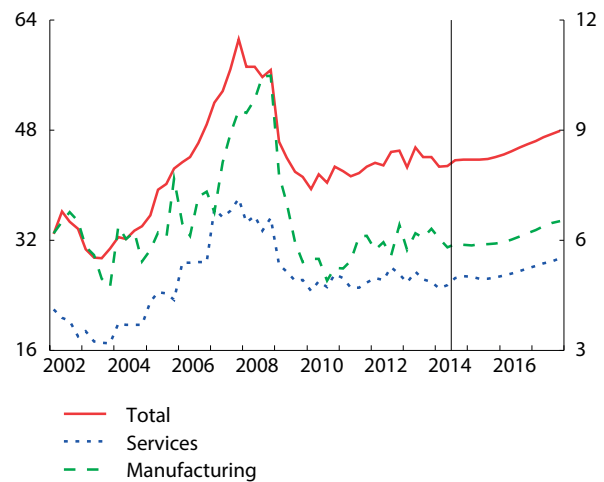
An increase in household disposable income and low interest rates have a positive impact on houses prices, while an increased supply of new dwellings curbs prices. At the same time, household borrowing and house prices mutually reinforce each other. Low housing investment during the first half-year provides a negative stimulus to the growth of gross household debt. For their part, the banks have indicated that they want to increase lending for housing purposes. Given a stable

Figure 8. Petroleum investments and oil price in USD. Seasonally adjusted, billion 2011-kr., quarterly



Source: Statistics Norway.

Figure 9. Investments. Mainland Norway. Seasonally adjusted, billion 2011-kr., quarterly



Source: Statistics Norway.

and low nominal interest rate level, we expect growth in gross household debt to be just under 7 per cent this year. We then expect credit growth to lie just under 8 per cent for the next three years. However, housing investment also has a direct effect on house prices, and a continued high level of investment in the near term will curb the increase in house prices.

In the short-term, house prices will be affected by changes in household expectations regarding developments in both their own financial situation and the national economy. Households have become more optimistic since the end of last year, and the relatively weak developments in the Norwegian consumer confidence indicator Norsk Trendindikator developed by TNS Gallup and Finance Norway through the autumn of 2013 have reversed, and shown an upswing in each of the first three quarters of the year.

We have assumed that household expectations will revert relatively quickly to a normal level, as has been the tendency after previous episodes of decline. This will provide positive, albeit moderate, impulses to the increase in house prices in the autumn of 2014 and into 2015. Given steady growth in household real disposable income and stimulus from increased credit, we expect house prices to rise by 2.5 per cent in 2014. Continued growth in real income and increasing growth in credit to households, coupled with lower real interest rates, will bring the annual rise in house prices up to just under 4 per cent in 2015. We then expect the growth rate to be reduced to about 3 per cent in 2016 and 2017. Real house prices will accordingly be more or less unchanged in 2014, while they will rise by 1–2 per cent for the remainder of the projection period.

In 2013, house prices reached a record high after rising since mid-2009. Growth levelled off through 2013, and housing investment fell by a seasonally-adjusted 3.3 per cent in the first quarter of 2014. The decline came

to a halt in the second quarter, and there is now a weak rising tendency in housing investment. This is largely consistent with housing starts, where the statistics for the months of May to July show an increase after a marked decline during the first four months of the year compared with the same periods last year. According to figures from the Norwegian Home Builders' Association, sales of new dwellings fell from January to May 2014, compared with the same period in 2013, without the number of completed dwellings showing an equally large decline. However, there was a slight increase in sales in June 2014 compared with June 2013. In the short term, we expect housing investment to pick up slightly in the second half of 2014, but as an annual average to be about 2.6 per cent lower than in 2013. Assuming higher real property prices, housing investment growth is projected to be just over 5 per cent in 2015 and 2016. According to these projections, investment will pass the 2013 level in 2015 already.

### Petroleum investment on the wane

According to preliminary QNA figures, petroleum investment peaked in the third quarter of 2013. It fell during the following two quarters, while there was zero growth in the second quarter of this year. The decline is in petroleum drilling, petroleum exploration and pipelines, while investment in platforms, modules and oil rigs is now at approximately the same level as in the third quarter of 2013.

Several major investment projects are nearing an end. This applies to fields that are already in operation, like Ekofisk, but also to new fields like Gudrun and Goliat. Several major discoveries have been made in recent years, but the fields have not been developed as quickly as previously assumed. This is one of the reasons why we expect a certain reduction in investment in platforms and modules in the second half of 2014 and next year. Several major projects will probably be started up well into 2015, so that investment picks up in 2016.



### Box 1: How can Statistics Norway's investment statistics be used for forecasting?

Each quarter, a broad range of Norwegian enterprises in the fields of oil and gas, mining, manufacturing and power supply are questioned about their investment plans for the current year and the following year. The combined results of these surveys are published as part of Statistics Norway's quarterly investment statistics.<sup>1</sup> The investments are recorded in running prices so that adjustment for inflation is necessary in order to arrive at developments in volume. Our investment forecasts are based on both information from the investment statistics and macroeconomic analyses. The KVARTS macroeconomic model plays a central part in this work.<sup>2</sup> In this box, we elaborate on how information from investment statistics can be used in forecasting.

In the sectors mining, power supply and manufacturing, the selection of enterprises covers about 80 per cent of total investment. In oil and gas production and pipeline transport, the whole population of enterprises is included, but development projects are not included in the investment intentions survey before a plan for development and operation has been submitted to the authorities. Fields that are at an early stage of the planning phase will accordingly be excluded. As a result, investment for coming years is often underestimated. For example, licensees on the Johan Sverdrup field expect to deliver a development and operation plan in the first quarter of 2015. The estimate for this big project will in the event be additional to the figure already included in the estimate for field development, and will accordingly lessen the decline from 2014 to 2015 that is now indicated.

The table shows the results of the August survey in 2011 and 2012 of manufacturing, power supply and oil and gas production including pipeline transport. One way of forecasting investment is to use the estimates from the investment survey directly. For example, in the August survey of manufacturing in 2011, investment in 2012 was projected to total NOK 16 476 million. When compared with actual investment in 2011, which amounted to NOK 18 849, the survey figures show an investment reduction of 12.6 per cent. Actual growth in investment from 2011 to 2012 was 3.3 per cent. In this case, using the investment survey figures directly proves in retrospect to result in a forecasting error of 15.9 percentage points.

One problem with using the investment survey's figures from manufacturing is that the estimates from the enterprises in the August survey were generally too low. Allowance can be made for this by using "the English method". This is based on the assumption that the forecasting error made

<sup>1</sup> See <http://www.ssb.no/en/energi-og-industri/statistikker/kis> and <http://www.ssb.no/en/energi-og-industri/statistikker/oljeinv>

<sup>2</sup> In KVARTS, demand for real capital is modelled and influenced by the investment price for capital, the price of other input factors, interest rates, a risk premium and output in the industry. This is described in more detail in Boug, P., Dyvi, Y. (2009), pp. 135–146).

#### Investment. Investment forecast from the August survey and actual investment<sup>1</sup>. In millions of NOK

	2011	2012
<b>Manufacturing</b>		
Investment forecast recorded previous year	15 999	16 476
Investment forecast recorded same year	19 758	19 787
Actual investment	18 849	19 463
<b>Power supply</b>		
Investment forecast recorded previous year	20 136	20 736
Investment forecast recorded same year	19 015	20 898
Actual investment	16 873	19 178
<b>Oil and gas production incl. pipeline transport</b>		
Investment forecast recorded previous year	148 787	171 958
Investment forecast recorded same year	151 706	184 942
Actual investment	147 680	173 482

<sup>1</sup> Recorded in the February survey the year following the statistics year.

the previous year will be repeated in the current year. By assuming that the same error is made in 2011 as in 2010, the English method implies that growth from 2011 to 2012 will be 3.0 per cent (because "Assumed investment recorded the previous year" rose by 3.0 per cent from 2011 to 2012). As actual growth in investment from 2011 to 2012 was 3.3 per cent, the English method would have resulted in a forecasting error of only 0.3 percentage point in this example. In an analysis by Skjerpen and Swensen in 1997, the English method performed well compared with more sophisticated alternatives.

The magnitude of forecast error varies from one industry to the next. While manufacturing enterprises consistently underestimate their investment, in recent years power suppliers have anticipated a higher level of investment in the August survey in the year prior to the investment year than the actual outcome level. Enterprises engaged in oil and gas production and pipeline transport also tend to underestimate the investment level. One reason for the underestimation is that new investment projects are constantly being initiated, and they are not always included in the enterprises' budgets at the time of reporting to Statistics Norway.

#### References

Boug, P. and Dyvi, Y. (2009). Modag – En makroøkonomisk modell for norsk økonomi. [A macroeconomic model of the Norwegian economy] Statistics Norway. Sosiale og økonomiske studier 111

Skjerpen, T. and Swensen, A. R. (1997). Forecasting Manufacturing Investment Using Survey Information. Statistics Norway, Reports 97/03

Exploration and production drilling have declined somewhat during the past six months. We expect this tendency to continue and contribute to the decline in overall oil investment this year and next. There is likely to be an increase in available drilling rigs. This may push down rig rates and, in isolation, prompt an increase in drilling in the long-term. We have assumed

that the oil price will gradually fall to USD 95 per barrel by the end of 2015. We expect the real price to remain unchanged subsequently. The relatively moderate decline in oil prices is unlikely to lead to a further decline in exploration and production drilling in 2016 and 2017.

Oil company investment projections reported to Statistics Norway's investment statistics for oil and gas operations in September indicate a clear decline in 2015. We expect the decline to be somewhat less than that shown in these statistics. One reason is that only fields that have submitted a plan for development and operation are included in the statistics, which in isolation means systematic underestimation of investment costs. See Box 1 for more details on how the information provided by the statistics is used in forecasting.

Oil and gas production, measured in energy equivalent, fell during the second quarter of 2014 compared with the same period last year. However, it was somewhat higher in the first quarter, so that production in the first half-year was marginally higher than in the same period last year. We expect a moderate increase in production in the near term. Boosted by relatively high oil and gas prices, the operating results of the industry will remain fairly buoyant and continue to contribute to keeping transfers to the Government Pension Fund Global substantial, albeit less so than in recent years.

### **Moderate developments in business investment**

According to preliminary QNA figures, investment in the second quarter of 2014 rose by 0.4 per cent compared with the previous quarter. This particularly applied to service sector investment. As the QNA does not contain information about investment in machinery and equipment for most services other than general government, developments in service industries are particularly uncertain.

Manufacturing investment figures in the QNA are based on quarterly investment statistics. Manufacturing investment fell by 4.0 per cent in the second quarter compared with the previous quarter. There was a decline in almost all manufacturing segments, except for the food industry, particularly in the production of metals, metal products and chemicals. Conversely, investment in the food industry, which accounts for about 25 per cent of total manufacturing investment, showed 25 per cent growth compared with the previous quarter.

Statistics Norway's survey of manufacturing companies' future investment points to a weak tendency. There is great uncertainty surrounding companies' investment projections, however, but when adjustments are made for common reporting errors, the forecasts indicate that investment will be more or less unchanged in both 2014 and 2015. See Box 1.

Growth in investment in electricity supply has been high for a long time. The investment level more than quadrupled from 2000 to 2013, and is now on a level with manufacturing investment. Reported projections from power companies in the third quarter indicate that investment growth will be reduced in the period ahead. We estimate that growth will decline from about 4 per cent in 2014 to 2 per cent in 2015. While investment in

electricity production has been important to the growth in power supply in previous years, future growth is mainly expected to be in electricity transmission and distribution.

Investment in the sale and management of property accounts for about 25 per cent of investment in services. Developments in this industry were a strong feature of business investment in earlier years, but the investment level has more than halved since peaking in the fourth quarter of 2007. The decline has levelled off, however, and investment in the second quarter was at approximately the same level as in the two previous quarters.

Moderate investment developments are expected in the near term. Business investment is projected to decline somewhat in 2014, and then pick up slightly. Growth in 2016 and 2017 is projected at between 3 and 5 per cent. This is very moderate compared with previous cyclical upturns, where double-digit investment growth was recorded. The development must be seen in the context of the feeble developments in the international economy, and lower growth in demand from the petroleum sector. See also Box 2.

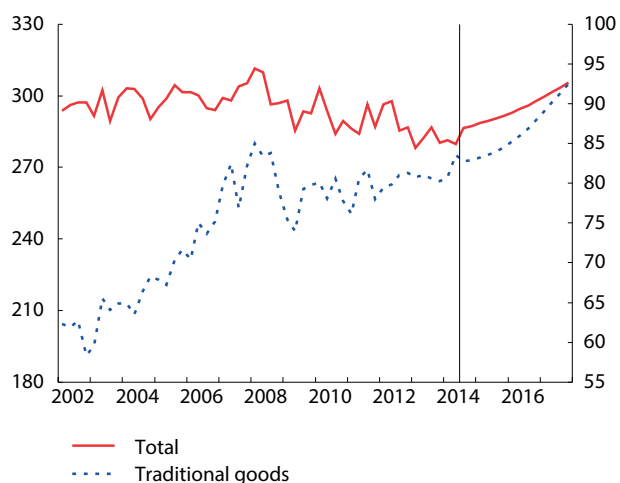
### **Higher growth in exports starting in 2016**

The QNA figures show that exports of services and traditional goods rose strongly in the second quarter on this year. High growth in exports of electricity, fish and fish products, and engineering products made a significant contribution to the growth in traditional exports. While traditional goods exports also rose in the first quarter, the sharp increase in exports of services – with substantial contributions from shipping, banking and financial services, and information services – must be viewed in light of a pronounced decline in the first quarter. Exports of natural gas increased in the second quarter, while exports of crude oil fell to an extent that caused a slight decline in the volume of overall Norwegian exports. Exports of services and traditional goods increased by 2–3 per cent in the first two quarters of the year compared with the first half of last year. The decline in petroleum exports led to the volume of overall exports not rising from the first half of last year to the first half of this year.

The increase in export prices for traditional goods and services through 2013 appears to have declined and reversed this year. This tendency applies to many groups of goods and services, and a moderate appreciation of the krone in the first half of 2014 was a factor in this decline. There has been relatively little change in the oil price, but export prices for natural gas fell by about 18 per cent in the first two quarters of the year.

In the near term, we foresee slightly higher and increasing growth in the global market than in the past two years. Higher cost inflation in Norway than among our competitors in the export markets, coupled with an anticipated appreciation of the krone, will aggravate generally unfavourable cost-competitiveness, and thus

Figure 10. Exports. Seasonally adjusted, billion 2011-kr., quarterly



Source: Statistics Norway.

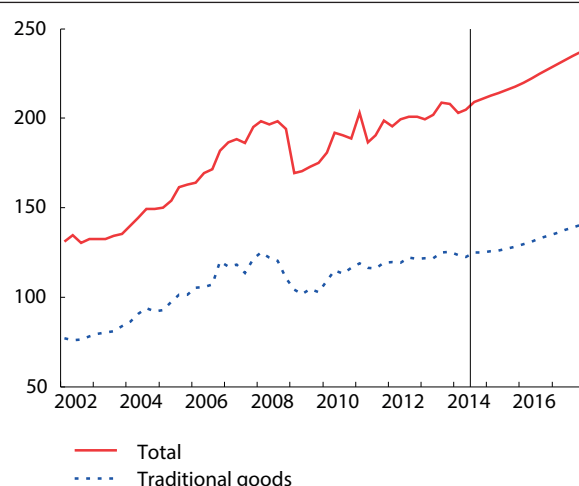
curb growth in demand for traditional Norwegian goods and services. Direct and indirect trade with Russia will also be negatively affected by the mutual sanctions resulting from the conflict regarding Ukraine. Even though Russia only receives a couple of per cent of overall exports, some sub-groups with larger shares may be hit harder. 10 per cent of fish exports go to Russia – at a value of just under half a billion kroner. The increase in exports of traditional goods is accordingly expected to be between 1 and 3 percentage points less than global market growth during the projection period. Norwegian exporters will thus continue to lose market shares through the projection period. Exports of oil and gas are not likely to change substantially in the next few years.

Traditional goods imports fell in the first and second quarters of this year, but if refined petroleum products are excluded, goods imports increased slightly. A broad-based increase in imports of services during the first half-year resulted in total imports also rising in the second quarter, following a decline in the previous two quarters. The rise in import prices has slowed through the past four quarters, and became negative for many groups of goods and services in the second quarter. The appreciation of the krone during the first half of this year may have been a contributing factor. However, the relatively high price level in the first quarter of this year compared with the same quarter last year, for both goods and services, means that the rise in prices this year as an annual average is expected to be higher than in 2013 and 2012.

Total imports are expected to increase more rapidly than total exports every year during the projection period. This year the rise in prices for total imports appears likely to be higher than for total exports. From next year, we foresee a weak, but slightly higher rise in prices for total exports than for total imports, albeit without significant terms-of-trade gains. The trade surplus is expected to be reduced from over NOK 300

Statistisk sentralbyrå

Figure 11. Imports. Seasonally adjusted, billion 2011-kr., quarterly



Source: Statistics Norway.

billion this year down to NOK 270 billion in 2017. The Government Pension Fund Global continues to grow and deliver rising returns which will ensure a larger net factor income and transfers surplus during the projection period. The current account surplus as a share of GDP may then fall from over 10 per cent in 2014 to less than 9 per cent in 2017.

### No cyclical upturn despite strong second-quarter growth

Mainland GDP increased by 1.2 per cent in the second quarter of 2014, which is the strongest quarterly growth since 2012. However, this was partly attributable to a very large increase in value added in electricity supply as well as in fishing and aquaculture, and these are industries that do not reflect the general economic situation. Mainland GDP excluding these industries increased in the second quarter by just 0.9 per cent, or an annualised 3.5 per cent. This, too, is higher than the growth rate during the past six quarters, and well above our projections for trend growth in the mainland economy.

Value added in manufacturing rose by 2.5 per cent from the first to the second quarter, which is more than 1 percentage point higher than the previous quarter. Just under half of manufacturing growth can be attributed to the food industry, where the increase in the second quarter must be seen in relation to an almost equally sharp decline in the previous half-year. The greatest contributors to manufacturing growth during the past three years have been manufacture of metal goods, electrical equipment and machinery, the shipbuilding industry, and repair and installation of machinery and equipment. In the second quarter, the joint contributions of these industries to GDP were approximately equal to that of the food industry. It is worth noting that the increase in value added for the shipbuilding industry in the past four quarters has been noticeably lower than in the previous four quarters.

## Box 2: Effects of normalising the investment level in mainland enterprises

According to our projections for the Norwegian economy, the slump will continue until 2016. If they prove correct, the Norwegian economy will have been in a slump in the period 2009–2016, i.e. 8 years. This is approximately the same length as the slump of 1989–1995. The latter came in the wake of deregulation of the credit market, a sharp fall in oil prices, restructuring of fiscal policy and a banking crisis which translated into a housing market crisis. The downturn was thus not only long, but also very deep. The downturn following the financial crisis of 2008 has lasted a long time, but has not been very deep, even compared with the slump of 2003–2004. This is true whether unemployment or developments in the output gap are used as an indicator.

The financial crisis of 2008 has affected our trading partners more severely than Norway. One question we ask ourselves is whether developments since 2008 have led to structural changes in the Norwegian economy that should cause us to revise our econometric models. An example of a possible structural break is the high household saving ratio since 2009, which was analysed in Economic Survey 1/2014, Box 2. Our KVARTS forecasting model overpredicts household consumption if we do not adjust the model. The investment behaviour of mainland enterprises presents a similar problem. According to our model, given the interest rate level that has prevailed for a long time, coupled with a number of other factors that the model contains to explain investment retrospectively, the investment level should be appreciably higher than we have observed in recent years. In our projection, we have largely perpetuated such a deviation from the normal level. In the following, we ask how the Norwegian economy might appear going forward if the mainland enterprises revert to investment behaviour that is "normal" according to the KVARTS model.

If the investment level increases, enterprises' stocks of real capital will be augmented over time. This means that the capital intensity of production will increase. This will normally lead to greater labour productivity, even if the productivity for all factors combined does not change (the implicit production functions in KVARTS have mainly constant returns to scale and exogenous total factor productivity). When labour productivity increases, production costs, and hence prices, fall. Increased productivity raises nominal wages, while lower prices have the opposite effect. The net effect on nominal wages is positive, and real wages therefore increase. In the labour market, an increase in real capital results, in isolation, in less need for labour as a result of factor substitution. On the other hand, higher investment requires increased deliveries from manufacturers of capital goods, who in turn demand goods and services from sub-suppliers. The latter effect proves to dominate. Higher real wages increase the labour supply slightly, so that unemployment, which declines

slightly for a few years, is virtually unchanged after 10 years. The higher capital intensity has then contributed to an increase in the labour supply almost as large as the increase in employment.

A higher activity level will improve the government budget balance, since public sector consumption and gross investment do not change, while transfers are assumed to increase in pace with developments in wages, given the general lines upon which the Norwegian national insurance system is designed. However, the external account has weakened somewhat because investment is a particularly import-intensive demand component. Exports do increase a good deal as a result of improved competitiveness, but not enough to finance the imports that are necessary to meet higher demand for consumption, capital and intermediate goods, and services. In our calculations, we have assumed unchanged nominal interest rates and exchange rates, which is not unreasonable since the pressures in the economy measured by the unemployment rate barely change and the inflation rate only falls marginally. Moreover, both unemployment and inflation also decline, and these are normally included in the central bank's reaction function with the opposite sign. One important reason for exports not increasing much, despite the positive supply-side effects, is that a large portion of Norwegian exports consists of oil and gas. An increase in mainland enterprises' real capital makes very little difference to exports of petroleum products.

We find that a normalisation of the investment level pushes up growth in the mainland economy by about a quarter of a percentage point each year up to and including 2025. This also causes an increase in the underlying growth – often called trend growth – in the mainland economy. When account is taken of a change in trend, there is little effect on the cyclical situation measured by the output gap.

### Macroeconomic effects of normalising investment adjustment Deviation from baseline scenario unless otherwise indicated. Per cent

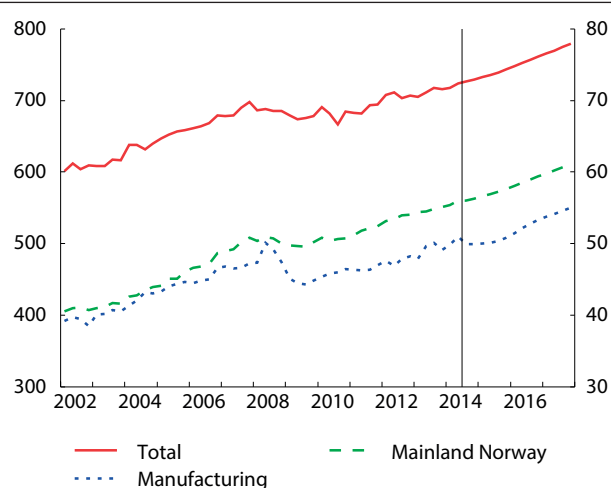
	2015	2016	2020	2025
Household consumption	0,1	0,2	0,7	1,5
Gross mainland business investment	9,4	15,6	20,1	33,9
Exports, traditional goods	0,0	0,1	0,4	0,9
Imports	0,7	1,3	1,8	3,1
Mainland GDP	0,5	0,8	1,4	2,7
Manufacturing output	0,7	1,4	3,4	6,5
Employment	0,1	0,2	0,2	0,3
Unemployment, percentage points	-0,1	-0,1	-0,1	0,0
Wages	0,1	0,1	0,5	1,2
Consumer price index	0,0	-0,1	-0,3	-0,6

Other goods production mainly consists of electricity production, primary industries, aquaculture and construction. Value added increased substantially in both of the first two categories. This was also true of aquaculture (fish farming) in both of the past two quarters, following a fall in value added in 2013. Activity growth in construction picked up from zero in the first quarter to 2.0 per cent in the second quarter.

Most market-oriented service industries also recorded some growth in the second quarter. Value added for commercial services increased by 1.3 per cent, while the increase in retail trade was 0.9 per cent following a flat tendency for four consecutive quarters.

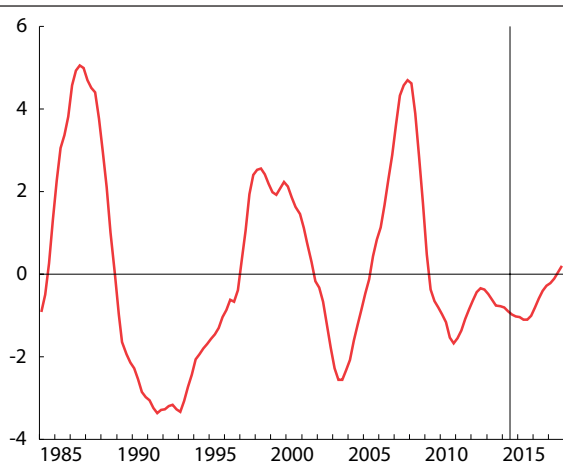
In the period up to 2015 we expect manufacturing growth to be somewhat lower than in the most recent

Figure 12. **Gross domestic product. Seasonally adjusted , billion 2011-kr., quarterly**



Source: Statistics Norway.

Figure 13. **Output gap. Mainland Norway. Deviation from trend. Per cent**



Source: Statistics Norway.

quarters. One reason for this is that the activity level in fish processing has been temporarily high. It is of even greater importance that we foresee a decline in petroleum investment through 2014 and 2015, which will curb activity in the shipbuilding industry and in repair and installation of machinery and equipment. We expect growth to pick up again from 2016, as petroleum investment rises slightly, at the same time as the market situation for exporters improves.

The sharp growth in petroleum investment during the past few years has also been important to several service industries; see Box 4 in Economic Survey 1/2014. Investment growth is expected to level off, and this may then curb the level of activity in market-oriented services. One example is professional, scientific and technical services, where value added fell by 0.1 per cent in the second quarter. This is even more noticeable for services associated with production, which are classified as a non-mainland industry. Value added there

fell during both of the first two quarters of the year. We expect these tendencies to continue to push down growth in several market-oriented service industries this year and next year.

Our projections for the rest of the economy generally show a steadier outlook. Retail trade will continue to show relatively moderate growth, but will be stimulated by consumption growth picking up. In construction, we expect value added to increase at a fairly steady pace throughout the projection period. This is related to substantial growth in public sector investment and increased business investment in the coming years, in addition to housing investment picking up from 2015.

The conflict in Ukraine has led to sanctions from both Europe and Russia. For Norway, the most visible effect has been that Russia has introduced a ban on the import of Norwegian salmon. Our projections are based on the assumption that this will have little direct effect on the Norwegian economy. This is because fish farming only represents 0.5 per cent of mainland GDP, and sales to the Russian market in 2013 only constituted about 10 per cent of total Norwegian salmon exports. The industry has also indicated that it can manage for a while, partly because the authorities are allowing slightly higher numbers of salmon in pens. The indirect effects of the sanctions in the form of lower growth in Europe are probably more important to the Norwegian economy.

On balance, the second-quarter figures show that growth in the mainland economy rose clearly through the first half of 2014, but that much of this can be attributed to temporary factors. At the same time, several factors will curb growth through the rest of this year and next year. We therefore do not expect the past quarter to denote a change in the economic situation, but that a very moderate cyclical downturn will continue for a while longer.

Our projection for mainland GDP growth in 2014 has been revised up to 2.2 per cent, while we expect the growth rate to be slightly lower in 2015. Lower petroleum investment in particular will push down the growth rate during these two years. Our projections show that growth will then be about 3 per cent in 2016. The output gap for mainland GDP indicates that the Norwegian economy will continue to remain in a moderate cyclical downturn for almost two more years, but that it will turn to a cyclical upturn at the end of 2015. In 2017, mainland GDP will exceed its trend level, which is the technical criterion for a boom. See Box 3 for details of how we calculate the output gap.

### Slight rise in unemployment

There was stable quarterly growth in employment of about 0.3 per cent through 2013, and the tendency has continued so far this year. According to the LFS, during the second quarter, employment increased somewhat more strongly than in the QNA. So far this year, the

**Box 3: Estimating the output gap**

The cyclical situation of an economy is generally assessed by comparing actual GDP with its trend level. The difference is the output gap. In Norway, it is most relevant to use mainland GDP as the starting point. If GDP is higher than trend, we speak of an economic boom, and if GDP grows faster than trend, of a period of expansion or cyclical upturn. Similarly, GDP lower than trend is an economic slump, and GDP growth slower than trend is a period of contraction or cyclical downturn. This is illustrated in Figure 1.

Figure 2.13 in the main text shows the output gap for mainland Norway. The Norwegian economy has been in a slump since 2009, and the current cyclical downturn started towards the end of 2012. If our forecasting is accurate, it will change to an upturn at the end of 2015, while the boom will not arrive until the end of our projection period in 2017.

The trend level is an unobservable variable, and there are various ways of identifying it. We have used the so-called Hodrick-Prescott (HP) filter. One feature of this method is that it allows trend growth to vary over time. A well-known challenge presented by the HP filter is the end-point problem, however. The reason for this is that the estimated trend level for GDP in a particular period depends on what the GDP was in the periods both preceding and following it. Thus the trend level for the very last observations will normally change substantially when the data set is extended or the last observations are revised.

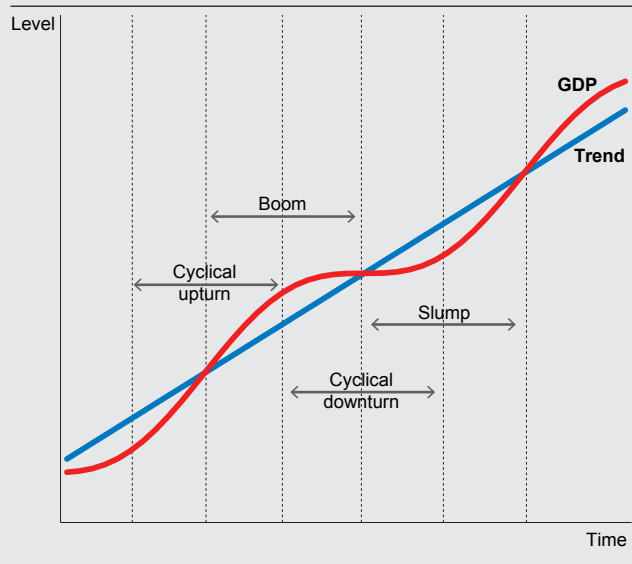
In order to reduce the end-point problem when we estimate the output gap for the period up to and including 2017, we base our trend calculations on simple projections of the economic situation up to 2025. With the aid of the extended series for mainland GDP, we calculate a trend level. Our preferred method implies that if the economic situation for the whole period up to 2025 follows a path close to our projection, the estimate for trend will undergo little change as developments proceed. Trend growth of less than 2.5 per cent has been used to estimate the output gap for the current year and the remainder of the projection period.

The trend that emerges from the HP filter depends on the value of a smoothing coefficient,  $\lambda$ , and this parameter determines how much trend growth is allowed to vary over time. If we choose  $\lambda=0$ , trend will always be the same as GDP, and the output gap will therefore be zero for all periods. If, on the other hand, we set  $\lambda = \text{infinite}$ , we get a linear trend. The output gap in Figure 2.13 in the main text is based on a calculation in which  $\lambda = 40\ 000$ . This is a relatively high value compared with the convention in (primarily American) macroeconomic literature, where the standard choice is  $\lambda = 1\ 600$ .

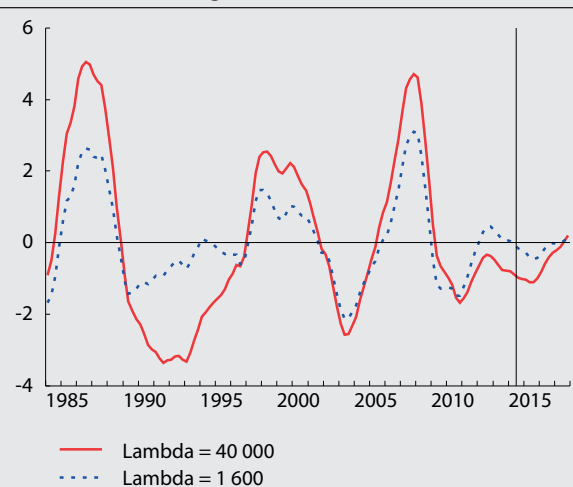
In Fig. 2 we compare the output gap from the main text (based on  $\lambda = 40\ 000$ ) with the result of a calculation with  $\lambda = 1\ 600$ . We see that the timing of the cyclical turnarounds is approximately the same (with the early 1990s as an important exception), but that different values of  $\lambda$  result in very large differences in the magnitude of the output gaps. Since a low  $\lambda$  value results in trend largely adjusting to data, the output gap will appear more moderate in this case.

The choice of a value for  $\lambda$  is a matter of discretion. We believe that in the case of Norway,  $\lambda = 40\ 000$  results in a more appropriate description of the cyclical situation. With such a "stiff" trend, temporary, but prolonged changes in the economy's output capacity are reflected more strongly in the output gap than in the trend level. As a result, we get an output gap which, for example during the slump in the 1990s, fits with developments in house prices and unemployment, among other things. At the same time, this shows that estimates of the output gap should be interpreted with caution. They are useful because they provide an illustration of the business cycle, but less weight should be attached to the exact estimate of the size of the output gap.

**Figure 1. Cyclical phases**



**Figure 2. Mainland GDP. Deviations from calculated trend for two different smoothing coefficients. Per cent**



Source: Statistics Norway.

number of both immigrants and emigrants has been lower than in the same period last year.

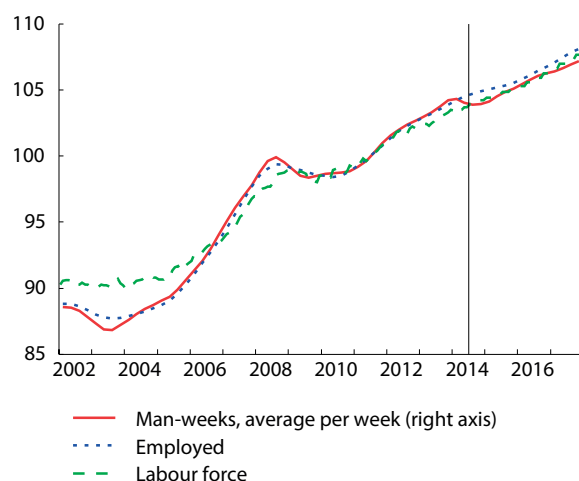
In recent years, there have been considerable differences in employment growth rates across industries. So far this year, employment growth in crude oil and natural gas production services has been twice as high as the average for all industries, while employment has declined in retail trade. Employment growth in construction has picked up considerably following relatively weak developments through 2013. In manufacturing, employment rose by 0.2 per cent in the first quarter and 0.5 per cent in the second quarter of this year. There are also substantial differences across manufacturing segments. There was a sharp increase in manufacturing that primarily deliver to the petroleum industry, like the shipbuilding and transport equipment industry, and repair and installation of machinery and equipment. However, employment in production of pulp and paper products declined in both the first and second quarters. In the public sector, employment rose by 0.4 per cent in the first quarter and 0.1 per cent in the second quarter.

Labour force participation averaged 70.9 per cent for the period of May to July this year, and is virtually unchanged compared with the previous three-month period. Labour force participation declined for people aged 15 to 24. There is also underlying trend growth in both women's and men's labour force participation in the group aged 60 to 64, while labour force participation for the group aged 65 to 74 is unchanged. Higher labour force participation among the elderly probably reflects a rise in educational levels among the post-war cohorts, effects of the pension reform and generally improved health. The work to promote an inclusive working life may also have had an effect.

According to the LFS, unemployment increased towards the end of 2012, and the unemployment rate varied between 3.3 and 3.7 per cent through 2013. Unemployment levelled off at 3.5 per cent towards the end of last year. Unemployment has declined slightly so far this year, and averaged 3.3 per cent during the period of May to June. The statistics for registered unemployment and the total number of persons registered as unemployed or on labour market programmes from the Norwegian Labour and Welfare Administration (NAV) showed a steady increase through 2013, but have been fairly stable this year. At the end of August this year, over 87 500 persons were either on labour market programmes or registered as unemployed. Unemployment among several occupational groups has increased, and the increase in the number of unemployed is greatest in engineering and ICT. Unemployment also rose in construction.

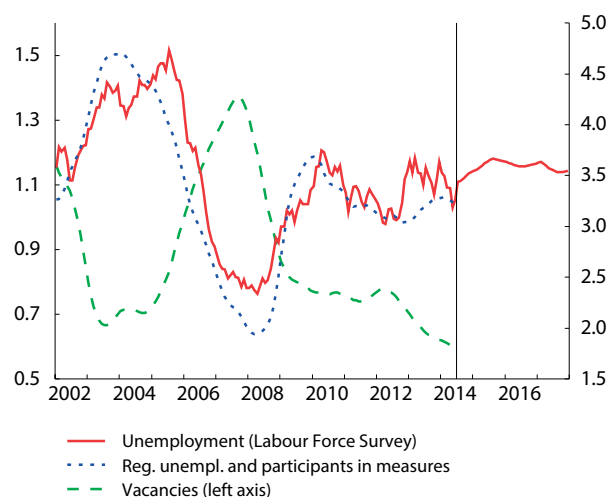
Persons who have been out of work for over 26 weeks, including persons who have participated in labour market programmes and who are still unemployed, represented about half of the unemployed in August

Figure 14. **Labour force, employment and number of man-hours. Seasonally adjusted and smoothed indices. 2011=100**



Source: Statistics Norway.

Figure 15. **Unemployment and number of vacancies. Per cent of labour force. Seasonally adjusted and smoothed**



Source: The Norwegian Labour and Welfare Service and Statistics Norway.

2014. This is an increase of about 2 percentage points compared with the same time last year.

The number of vacancies in the public and private sectors, as announced in the media or reported to NAV, has declined so far this year, with the greatest decline taking place at the beginning of the year. Statistics Norway has been publishing figures for vacancies in relation to the total number of positions since 2010. In the first quarter of 2014, the share of vacancies declined by 0.3 percentage point compared with the same period the previous year. A decline in the share of vacancies indicates that the job prospects of the unemployed have worsened during the past year. The greatest decline in the number of advertised vacancies was in personal and commercial services.

Growth in the number of man-hours worked was somewhat higher than employment growth in both the

first and second quarters. The LFS shows an increase in the number of persons employed in full-time positions. A decline in labour force participation among younger workers also pushes up the average number of man-hours worked per employee as this group generally holds relatively small percentages of a full-time position. A decline in temporary lay-offs points in the same direction.

Employment growth is projected to be weak for the next two years, and then increase somewhat in 2017. Employment growth often shadows output developments with a time lag. Developments in construction output will lead to somewhat lower employment growth this year and next year, even though activity is projected to increase again this year. However, employment in export-oriented enterprises is expected to increase this year. Activity in the petroleum industry is important to manufacturing, and the impulses generated by this industry to Norwegian manufacturing are expected to be much weaker going forward than in previous years. We assume clear growth in both central and local government employment.

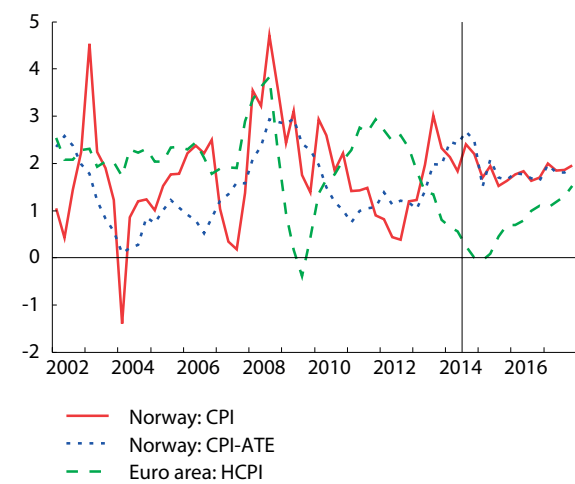
We expect the labour supply to increase more than employment, so that LFS employment increases slightly during the remainder of 2014, and further to 3.7 per cent as an annual average in 2015. Unemployment is then expected to remain at about this level until 2017, when employment will pick up in earnest in line with a stronger economic situation, so that unemployment falls to 3.5 per cent.

### Stable wage growth

The average annual wage has shown stable growth of from 3.7 to 4.2 per cent for the past five years. In 2013, annual wage growth was 3.9 per cent. During this period, two factors that pulled in opposing directions had a great impact on value added in manufacturing, which is important to the ability to pay of manufacturing enterprises. A weak global economic situation led to unfavourable price developments and little demand for Norwegian products, at the same time as high petroleum investment stimulated manufacturing segments that supply the domestic market. On balance, these factors had little effect on the ability to pay. With unemployment of between 3.2 and 3.5 per cent as an annual average for the past five years, the labour market has not contributed either to major fluctuations in wage growth.

Costs in Norway are high from an international perspective, and the collaboration on incomes policy led the parties to seek to curb wage growth in this year's wage settlement. The wage settlements in the exposed industries ended with agreement on estimated wage growth of 3.3 per cent for manufacturing as a whole. Both public and private sectors have mainly followed the guidance of the wage leader. The teacher's strike has now ended, although the solution recommended has not yet been put to the vote. As the disagreement

Figure 16. Consumer price indices. Percentage growth from the same quarter previous year



Source: Statistics Norway.

related primarily to working hours, we assume that the conflict has not had much effect on public sector wage growth, and even less on overall wages.

In line with the moderate settlement, the quarterly wage index shows that growth in average monthly wages has declined in several industries so far this year. The estimated wage growth from the parties is based on the wage growth of white-collar workers in manufacturing not being higher than the wage growth of blue-collar manufacturing workers. Normally the wage growth of white-collar workers is substantially higher, and the average deviation for the past five years has been 0.5 percentage point. White-collar workers negotiate their wages locally, and much of their wage growth comes in the second half of the year. This year activity growth in the shipbuilding industry has slowed appreciably, and wage growth has declined in both oil and gas production and professional, scientific and technical services. This may point to lower pay increases in petroleum-related activities. At the same time, manufacturing profitability is fairly good, which reflects the considerable depreciation of the krone through the year. Wage growth outside manufacturing may also be somewhat higher. Our projection for annual wage growth, which applies to the economy as a whole, is 3.5 per cent this year.

Developments in manufacturing profitability are a major factor in our projections for wage growth going forward, and we foresee fairly stable wage growth also for the next few years. Growth in the global market will pick up through the projection period, and generate increased demand for Norwegian manufacturing products. Greater demand will be reflected in improved productivity in a number of manufacturing segments where growth has been subdued for a long period of time. At the same time, petroleum investment will move on a weaker trend than previously. This may result in a reversal of the impulses boosting



manufacturing profitability that we have seen in recent years. In isolation, a stronger krone exchange rate will have an unfavourable effect on prices for Norwegian manufacturers in export markets. Together with higher unemployment, this will curb wage growth. However, it will take time before the effect of higher unemployment is clearly reflected in reduced wage growth. This is part of the reason why wage growth is not expected to rise significantly during the projection period, even if impulses from the global markets increase and Norwegian economic activity picks up.

### **Slightly lower inflation in the near term**

Underlying inflation has been stable and relatively high this year, after rising through much of last year and into 2014. The 12-month rise in the consumer price index, adjusted for tax changes and excluding energy products (CPI-ATE) has remained in the interval of 2.3 to 2.6 per cent so far this year, with the highest observations in March and July. By way of comparison, in 2013 growth as an annual average was 1.6 per cent, and even lower in the preceding two years. The increase in hourly labour costs and productivity has been fairly stable during the past few years, and has thus provided little impetus to changes in inflation. The rise in inflation may to a great extent be attributed to a depreciation of the krone almost throughout 2013. The krone has since appreciated through several periods this year, most recently in August. However, exchange rate changes are gradually reflected in consumer prices, and it takes a long time before the effects are exhausted.

The CPI-ATE by supplier sector shows that it is imported consumer goods and other goods produced in Norway excluding semi-processed agricultural and fisheries products that have increased the inflation rate during the past few months. From the beginning of 2013 and up to the present, the inflation rate has increased for all of the main groups. The exchange rate affects the prices of products and services produced in Norway through the price of imported material inputs, and the movements in the exchange rate have thus affected all product groups. The prices of certain products manufactured in Norway are also determined to a great extent by the global market.

We expect time-lagged effects of the strengthening of the krone, which has taken place in fits and starts through the first eight months of the year, to help check inflation in the near term. This will be reinforced after a while by the krone appreciating slightly more up to the end of 2016, according to our projections. Developments in Norwegian wage costs and productivity are expected to generate relatively moderate impulses to inflation, also in the near term. After declining up to the summer of next year, CPI-ATE inflation is thus expected to remain fairly stable at just below 2.0 per cent. The projections contain a tendency to increased inflation towards the end of the projection period, as the krone ceases to appreciate.

Lower electricity prices than the previous year have led to the overall consumer price index (CPI) for the whole year remaining somewhat lower than the rise in the CPI-ATE. The year-on-year rise in the CPI was 2.2 per cent in July. In our projections, we assume that the rise in electricity prices is slightly less than general inflation, also in the years ahead. Oil prices are expected to fall slightly through the remainder of the current year and 2015, while our projections show that CPI and CPI-ATE inflation in the years ahead will be almost the same at just below 2 per cent, after this year when the CPI appears likely to rise by about 0.4 percentage point less than the CPI-ATE.

The uncertainty in the projections for consumer price inflation is primarily linked to the exchange rate and electricity prices. Electricity represents just over 3 per cent of the overall consumption expenses of Norwegian households. The climate has led to great fluctuations in electricity prices, and during the past 10 years, inflation as an annual average has moved in the interval of -20 to +20 per cent. Exchange rate fluctuations in the same period have also been fairly large, in the range +/- 4 per cent as an annual average, and have been much greater than the fluctuations in wage growth. This results in great variation in the prices of both imported consumer goods and manufacturing inputs used in domestic production. In the CPI-ATE, the weighting of imported consumer goods is just over 31 per cent, but as the consumer price index measures prices in Norwegian shops, Norwegian cost components and mark-ups are also of great importance to developments in the prices of these goods as well as the import price measured in kroner. Calculations using Statistics Norway's macroeconomic model KVARTS show that a permanent 4 per cent appreciation of the krone will raise inflation by 0.7 percentage point the first year and 0.4 percentage point the next.

Table 3. National accounts: Final expenditure and gross domestic product. At constant 2011 prices. Million kroner

	Unadjusted		Seasonally adjusted								
	2012	2013	12.2	12.3	12.4	13.1	13.2	13.3	13.4	14.1	14.2
Final consumption expenditure of households and NPISHs	1 163 689	1 188 533	290 769	292 780	294 341	297 319	297 676	297 707	298 891	301 485	303 833
Household final consumption expenditure	1 109 433	1 132 871	277 292	279 251	280 729	283 614	283 760	283 681	284 832	287 510	289 799
Goods	554 323	559 588	139 450	139 558	139 996	142 089	141 271	139 485	139 899	141 364	142 817
Services	509 682	522 976	126 731	128 256	128 836	129 391	130 255	131 276	131 985	133 198	133 966
Direct purchases abroad by resident households	76 268	82 188	18 845	19 148	19 593	19 890	20 111	20 965	21 139	21 110	21 423
Direct purchases by non-residents	-30 841	-31 882	-7 735	-7 711	-7 696	-7 757	-7 877	-8 044	-8 192	-8 161	-8 406
Final consumption expenditure of NPISHs	54 256	55 662	13 477	13 529	13 612	13 705	13 916	14 026	14 059	13 975	14 034
Final consumption expenditure of general government	602 683	613 623	150 120	151 872	152 169	153 133	152 931	153 381	154 449	155 504	156 373
Final consumption expenditure of central government	304 762	309 127	75 938	76 723	77 066	77 378	76 949	77 115	77 953	78 567	79 122
Central government, civilian	266 268	270 829	66 367	67 084	67 360	67 742	67 371	67 520	68 465	68 898	69 338
Central government, defence	38 493	38 298	9 571	9 639	9 706	9 636	9 578	9 595	9 487	9 669	9 784
Final consumption expenditure of local government	297 921	304 495	74 182	75 149	75 103	75 755	75 981	76 266	76 496	76 937	77 251
Gross fixed capital formation	583 849	632 879	141 746	148 014	152 949	151 375	159 314	161 466	160 819	155 882	158 003
Extraction and transport via pipelines	166 092	194 533	41 300	40 952	44 095	44 852	48 432	51 417	49 813	49 051	49 068
Service activities incidental to extraction	2 765	2 489	331	958	1 081	-474	1 182	737	1 044	354	669
Ocean transport	23 724	27 350	5 269	5 619	6 436	6 377	7 271	7 096	6 676	5 329	5 832
Mainland Norway	391 268	408 506	94 847	100 486	101 336	100 620	102 429	102 216	103 286	101 148	102 433
Mainland Norway excluding general government	305 178	313 894	74 623	78 321	78 615	77 327	79 764	78 420	78 308	75 721	76 027
Industries	175 817	176 223	42 813	44 852	44 973	42 566	45 432	44 032	44 101	42 643	42 795
Manufacturing and mining	23 515	24 352	5 939	5 583	6 416	5 739	6 180	6 058	6 317	6 043	5 801
Production of other goods	44 573	46 439	10 626	11 210	11 559	10 953	11 854	11 633	11 890	11 632	11 516
Services	107 729	105 431	26 249	28 059	26 998	25 874	27 398	26 340	25 894	24 967	25 478
Dwellings (households)	129 361	137 671	31 810	33 469	33 642	34 762	34 331	34 388	34 207	33 078	33 232
General government	86 090	94 612	20 224	22 165	22 720	23 293	22 665	23 796	24 978	25 427	26 406
Changes in stocks and statistical discrepancies	110 659	105 355	30 070	25 870	21 830	24 316	21 030	26 929	29 397	26 330	31 141
Gross capital formation	694 507	738 234	171 817	173 885	174 778	175 692	180 344	188 395	190 216	182 213	189 144
Final domestic use of goods and services	2 460 880	2 540 390	612 706	618 536	621 288	626 144	630 951	639 483	643 556	639 201	649 350
Final demand from Mainland Norway	2 157 640	2 210 663	535 736	545 137	547 845	551 072	553 035	553 304	556 626	558 137	562 639
Final demand from general government	688 773	708 235	170 344	174 037	174 889	176 426	175 596	177 177	179 427	180 931	182 779
Total exports	1 165 804	1 127 310	297 746	285 401	286 724	278 085	282 552	286 789	280 178	281 356	279 641
Traditional goods	321 677	323 053	79 869	81 054	81 295	80 723	81 060	80 549	80 286	80 765	83 562
Crude oil and natural gas	572 367	528 537	149 042	137 125	137 995	130 641	134 126	135 906	128 794	131 596	125 437
Ships, oil platforms and planes	8 765	8 882	3 144	2 331	1 389	1 954	1 693	2 478	2 732	3 417	1 304
Services	262 994	266 838	65 691	64 891	66 046	64 766	65 673	67 856	68 365	65 578	69 337
Total use of goods and services	3 626 684	3 667 700	910 452	903 937	908 012	904 228	913 503	926 272	923 734	920 558	928 991
Total imports	796 233	818 945	199 531	201 035	200 918	199 327	202 133	208 932	208 031	203 116	204 928
Traditional goods	482 523	494 525	119 362	122 057	121 561	121 952	121 931	125 142	125 447	123 613	122 420
Crude oil and natural gas	14 206	15 858	5 350	2 985	3 066	3 549	3 781	4 760	3 201	3 343	3 061
Ships, oil platforms and planes	26 330	24 957	6 441	6 595	7 134	6 263	6 099	7 578	5 062	3 856	4 747
Services	273 174	283 606	68 379	69 398	69 158	67 563	70 322	71 452	74 321	72 304	74 700
Gross domestic product (market prices)	2 830 451	2 848 756	710 921	702 902	707 094	704 902	711 370	717 339	715 703	717 441	724 063
Gross domestic product Mainland Norway (market prices)	2 146 145	2 188 127	534 125	539 060	540 799	543 892	545 076	548 143	550 790	553 496	560 170
Petroleum activities and ocean transport	684 305	660 629	176 795	163 842	166 295	161 010	166 294	169 197	164 913	163 945	163 893
Mainland Norway (basic prices)	1 842 887	1 878 628	458 524	461 986	463 864	466 256	468 041	470 770	473 458	475 500	481 239
Mainland Norway excluding general government	1 403 632	1 432 165	349 162	351 863	353 055	355 061	356 635	359 085	361 267	362 742	367 884
Manufacturing and mining	190 639	196 869	46 867	47 845	48 230	47 875	49 641	50 132	49 089	49 794	51 026
Production of other goods	243 959	248 232	61 142	60 884	60 656	61 954	61 218	61 947	62 933	63 221	66 152
Services incl. dwellings (households)	969 034	987 063	241 153	243 134	244 169	245 231	245 776	247 005	249 245	249 726	250 706
General government	439 255	446 463	109 361	110 123	110 809	111 195	111 406	111 685	112 191	112 758	113 355
Taxes and subsidies products	303 258	309 498	75 602	77 073	76 935	77 636	77 035	77 373	77 331	77 996	78 931

Source: Statistics Norway

Table 4. National accounts: Final expenditure and gross domestic product. At constant 2011 prices. Percentage change from the previous period

	Unadjusted		Seasonally adjusted								
	2012	2013	12.2	12.3	12.4	13.1	13.2	13.3	13.4	14.1	14.2
Final consumption expenditure of households and NPISHs	3.0	2.1	1.0	0.7	0.5	1.0	0.1	0.0	0.4	0.9	0.8
Household final consumption expenditure	3.0	2.1	1.1	0.7	0.5	1.0	0.1	0.0	0.4	0.9	0.8
Goods	2.1	0.9	1.5	0.1	0.3	1.5	-0.6	-1.3	0.3	1.0	1.0
Services	3.1	2.6	0.7	1.2	0.5	0.4	0.7	0.8	0.5	0.9	0.6
Direct purchases abroad by resident households	9.7	7.8	0.8	1.6	2.3	1.5	1.1	4.2	0.8	-0.1	1.5
Direct purchases by non-residents	3.7	3.4	0.7	-0.3	-0.2	0.8	1.5	2.1	1.8	-0.4	3.0
Final consumption expenditure of NPISHs	1.9	2.6	-1.2	0.4	0.6	0.7	1.5	0.8	0.2	-0.6	0.4
Final consumption expenditure of general government	1.8	1.8	1.2	1.2	0.2	0.6	-0.1	0.3	0.7	0.7	0.6
Final consumption expenditure of central government	1.8	1.4	1.4	1.0	0.4	0.4	-0.6	0.2	1.1	0.8	0.7
Central government, civilian	2.0	1.7	1.6	1.1	0.4	0.6	-0.5	0.2	1.4	0.6	0.6
Central government, defence	0.5	-0.5	-0.1	0.7	0.7	-0.7	-0.6	0.2	-1.1	1.9	1.2
Final consumption expenditure of local government	1.8	2.2	0.9	1.3	-0.1	0.9	0.3	0.4	0.3	0.6	0.4
Gross fixed capital formation	8.3	8.4	0.4	4.4	3.3	-1.0	5.2	1.4	-0.4	-3.1	1.4
Extraction and transport via pipelines	14.6	17.1	4.1	-0.8	7.7	1.7	8.0	6.2	-3.1	-1.5	0.0
Service activities incidental to extraction	-411.4	-10.0	-16.3	189.8	12.9	-143.8	-349.3	-37.7	41.7	-66.1	89.3
Ocean transport	14.6	15.3	-19.1	6.6	14.5	-0.9	14.0	-2.4	-5.9	-20.2	9.4
Mainland Norway	4.5	4.4	0.3	5.9	0.8	-0.7	1.8	-0.2	1.0	-2.1	1.3
Mainland Norway excluding general government	5.9	2.9	1.4	5.0	0.4	-1.6	3.2	-1.7	-0.1	-3.3	0.4
Industries	4.9	0.2	-0.9	4.8	0.3	-5.4	6.7	-3.1	0.2	-3.3	0.4
Manufacturing and mining	3.1	3.6	3.6	-6.0	14.9	-10.5	7.7	-2.0	4.3	-4.3	-4.0
Production of other goods	5.1	4.2	-3.5	5.5	3.1	-5.2	8.2	-1.9	2.2	-2.2	-1.0
Services	5.2	-2.1	-0.8	6.9	-3.8	-4.2	5.9	-3.9	-1.7	-3.6	2.0
Dwellings (households)	7.3	6.4	4.8	5.2	0.5	3.3	-1.2	0.2	-0.5	-3.3	0.5
General government	-0.4	9.9	-3.6	9.6	2.5	2.5	-2.7	5.0	5.0	1.8	3.9
Changes in stocks and statistical discrepancies	-3.0	-4.8	1.6	-14.0	-15.6	11.4	-13.5	28.0	9.2	-10.4	18.3
Gross capital formation	6.3	6.3	0.6	1.2	0.5	0.5	2.6	4.5	1.0	-4.2	3.8
Final domestic use of goods and services	3.6	3.2	0.9	1.0	0.4	0.8	0.8	1.4	0.6	-0.7	1.6
Final demand from Mainland Norway	2.9	2.5	0.9	1.8	0.5	0.6	0.4	0.0	0.6	0.3	0.8
Final demand from general government	1.5	2.8	0.6	2.2	0.5	0.9	-0.5	0.9	1.3	0.8	1.0
Total exports	1.1	-3.3	0.5	-4.1	0.5	-3.0	1.6	1.5	-2.3	0.4	-0.6
Traditional goods	1.7	0.4	0.6	1.5	0.3	-0.7	0.4	-0.6	-0.3	0.6	3.5
Crude oil and natural gas	0.7	-7.7	0.3	-8.0	0.6	-5.3	2.7	1.3	-5.2	2.2	-4.7
Ships, oil platforms and planes	-35.6	1.3	66.8	-25.9	-40.4	40.7	-13.4	46.4	10.3	25.1	-61.8
Services	3.0	1.5	-1.1	-1.2	1.8	-1.9	1.4	3.3	0.8	-4.1	5.7
Total use of goods and services	2.8	1.1	0.8	-0.7	0.5	-0.4	1.0	1.4	-0.3	-0.3	0.9
Total imports	2.3	2.9	2.1	0.8	-0.1	-0.8	1.4	3.4	-0.4	-2.4	0.9
Traditional goods	2.4	2.5	-0.2	2.3	-0.4	0.3	0.0	2.6	0.2	-1.5	-1.0
Crude oil and natural gas	4.6	11.6	67.4	-44.2	2.7	15.8	6.5	25.9	-32.7	4.4	-8.4
Ships, oil platforms and planes	-17.9	-5.2	4.0	2.4	8.2	-12.2	-2.6	24.3	-33.2	-23.8	23.1
Services	4.4	3.8	3.0	1.5	-0.3	-2.3	4.1	1.6	4.0	-2.7	3.3
Gross domestic product (market prices)	2.9	0.6	0.4	-1.1	0.6	-0.3	0.9	0.8	-0.2	0.2	0.9
Gross domestic product Mainland Norway (market prices)	3.4	2.0	0.6	0.9	0.3	0.6	0.2	0.6	0.5	0.5	1.2
Petroleum activities and ocean transport	1.3	-3.5	-0.1	-7.3	1.5	-3.2	3.3	1.7	-2.5	-0.6	0.0
Mainland Norway (basic prices)	3.5	1.9	0.4	0.8	0.4	0.5	0.4	0.6	0.6	0.4	1.2
Mainland Norway excluding general government	4.0	2.0	0.4	0.8	0.3	0.6	0.4	0.7	0.6	0.4	1.4
Manufacturing and mining	2.7	3.3	-1.6	2.1	0.8	-0.7	3.7	1.0	-2.1	1.4	2.5
Production of other goods	8.2	1.8	-0.2	-0.4	-0.4	2.1	-1.2	1.2	1.6	0.5	4.6
Services incl. dwellings (households)	3.2	1.9	0.9	0.8	0.4	0.4	0.2	0.5	0.9	0.2	0.4
General government	2.2	1.6	0.4	0.7	0.6	0.3	0.2	0.3	0.5	0.5	0.5
Taxes and subsidies products	2.8	2.1	1.9	1.9	-0.2	0.9	-0.8	0.4	-0.1	0.9	1.2

Source: Statistics Norway

Table 5. National accounts: Final expenditure and gross domestic product. Price indices. 2011=100

	Unadjusted		Seasonally adjusted								
	2012	2013	12.2	12.3	12.4	13.1	13.2	13.3	13.4	14.1	14.2
Final consumption expenditure of households and NPISHs	101.1	103.9	100.4	100.6	101.6	102.2	103.1	104.4	104.6	105.1	105.5
Final consumption expenditure of general government	103.0	107.2	102.7	102.7	104.1	106.0	106.5	107.8	108.5	109.2	110.7
Gross fixed capital formation	103.3	107.7	102.9	103.4	104.7	106.1	107.0	107.9	109.7	110	110.8
Mainland Norway	103.2	107.9	102.6	103.6	104.8	106.1	107.0	108.3	109.7	110.2	110.8
Final domestic use of goods and services	102.5	105.8	102.1	102.5	103.1	104.9	104.6	106.6	107.3	107.5	108.5
Final demand from Mainland Norway	102.0	105.5	101.5	101.7	102.9	104.0	104.7	106.1	106.7	107.2	107.9
Total exports	102.0	103.9	101.7	101.5	100.9	100.2	102.1	105.2	107.8	105.5	102.9
Traditional goods	96.4	99.7	96.6	95.1	95.7	97.0	99.1	99.8	102.4	103.2	101.6
Total use of goods and services	102.3	105.2	102.0	102.2	102.4	103.5	103.8	106.2	107.4	106.9	106.8
Total imports	100.7	103.5	100.5	101.2	101.0	101.1	101.7	105.0	106.7	108.1	106.3
Traditional goods	100.6	102.7	100.6	100.9	100.7	100.3	101.3	103.8	105.4	106.6	107.2
Gross domestic product (market prices)	102.8	105.7	102.4	102.5	102.8	104.1	104.4	106.5	107.7	106.5	106.9
Gross domestic product Mainland Norway (market prices)	102.1	105.8	101.7	102.1	103.2	104.5	105.2	106.4	106.9	106.7	107.6

Source: Statistics Norway

Table 6. National accounts: Final expenditure and gross domestic product. Price indices. Percentage change from previous period

	Unadjusted		Seasonally adjusted								
	2012	2013	12.2	12.3	12.4	13.1	13.2	13.3	13.4	14.1	14.2
Final consumption expenditure of households and NPISHs	1.1	2.7	-0.8	0.1	1.0	0.7	0.8	1.3	0.2	0.5	0.3
Final consumption expenditure of general government	3.0	4.1	0.5	0.0	1.4	1.8	0.4	1.3	0.7	0.6	1.4
Gross fixed capital formation	3.3	4.3	0.8	0.5	1.2	1.4	0.8	0.8	1.6	0.3	0.8
Mainland Norway	3.2	4.5	0.6	0.9	1.2	1.2	0.8	1.2	1.3	0.5	0.5
Final domestic use of goods and services	2.5	3.3	0.0	0.4	0.6	1.7	-0.4	2.0	0.6	0.2	0.9
Final demand from Mainland Norway	2.0	3.4	-0.2	0.3	1.1	1.1	0.7	1.3	0.5	0.5	0.7
Total exports	2.0	1.8	-2.1	-0.2	-0.6	-0.7	2.0	3.0	2.4	-2.1	-2.4
Traditional goods	-3.6	3.4	-1.9	-1.5	0.6	1.3	2.2	0.7	2.6	0.8	-1.5
Total use of goods and services	2.3	2.8	-0.7	0.2	0.3	1.0	0.3	2.3	1.2	-0.5	-0.1
Total imports	0.7	2.8	0.1	0.7	-0.1	0.1	0.5	3.3	1.6	1.4	-1.7
Traditional goods	0.6	2.1	0.2	0.3	-0.2	-0.4	1.0	2.5	1.5	1.1	0.5
Gross domestic product (market prices)	2.8	2.9	-0.9	0.1	0.4	1.2	0.3	2.0	1.1	-1.0	0.4
Gross domestic product Mainland Norway (market prices)	2.1	3.6	0.4	0.4	1.0	1.3	0.7	1.1	0.5	-0.2	0.9

Source: Statistics Norway