Economic Survey

Statistics Norway

Statistisk sentralbyrå

- Economic developments in Norway
- Forecasts 2018-2021

2/2018

Economic trends

Growth in the global economy has picked up a little in the past couple of years, and we expect slightly higher growth this year and next than in the last few years. Inflation is generally low, but some commodity prices are rising, not least the price of crude oil. In consequence, the growth outlook for commodity-based economies has improved. The shift in the fiscal policy of most OECD countries from markedly contractionary to expansionary has contributed to the upturn. This is because the need of many countries to consolidate their fiscal policy is no longer as pronounced. The change is also due to many countries now finding that the effects on growth of tightening fiscal policy are negative, in the short term at least. However, as OECD unemployment has fallen to quite a low level compared with the last 40 years, it is a little surprising that economic policy generally is as expansionary as it actually is in 2018. The inflationary impulses that will follow in the wake of this upturn must be expected to place some constraints on growth in the near term. The expansionary monetary policy will probably also be modified gradually, as already seen in the USA. Although the growth outlook for the global economy appears fairly bright, GDP growth appears unlikely to pick up in the euro area and among Norway's most important trading partners. We therefore assume that market growth for Norwegian exporters of traditional goods and services will peak in 2018 and then moderate somewhat going forward.

Many observers point to the possibility of a weaker economic tendency in the near term than the prevailing consensual view. One long-standing fear is that normalisation of the interest rate level may create crises triggered by states, companies and households with a heavy debt burden. Recently, however, it is the fear that global trade may suffer as a result of an increasingly protectionist climate that is making the growth outlook less favourable. Given that less importance than previously appears to be attached to international trade agreements, a situation may develop in which many countries use instruments that may benefit the individual country, but which ultimately will have a negative impact on the global economy. This is particularly true of small countries like Norway, where the general income level is very closely linked to international division of labour and specialisation.

The cyclical upturn in Norway has now lasted for over a year, but growth is very moderate. The upturn has been stimulated by both fiscal and monetary policy. This, in conjunction with a reversal to a weak increase in petroleum investment and solid global growth, means that growth is expected to continue, although the contributions to growth attributable to economic policy will be appreciably weaker going forward. Fiscal policy in 2018 is providing no substantial new impetus to the upturn, and the question is when monetary policy will be tightened. We assume that Norges Bank will raise the key policy rate in the second half of the year. Underlying inflation measured by the CPI-ATE remains low, but there is reason to believe that it will gradually gather pace as the economic upturn matures, in part as a consequence of increased domestic costs. The fall in house prices is probably also over. Higher interest rates in Norway may lead to an appreciation of the krone, and have the effect of curbing inflation, but it will also weaken exposed sector competitiveness and dampen growth in the real economy, thereby weakening the upturn.

The significant rise in the oil price this spring is good news for the Norwegian economy. It means that the terms of trade will contribute appreciably to the national income in 2018, provided that the oil price does not again fall substantially. Most of this increase in income will accrue to the government and be invested in the Government Pension Fund Global. The expansionary effects of this increase in income are therefore moderate, and may even prove contractionary in the short term if increased energy prices push up overall inflation and depress growth in real household income. However, should the rise in oil prices cause petroleum activity in Norway to expand beyond the level currently assumed in the oil companies' plans, the upturn could be stronger than is envisaged now.

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Economic developments in Norway

The Norwegian economic downturn bottomed out just over a year ago. According to preliminary seasonally adjusted figures from the quarterly national accounts (QNA), average quarterly mainland GDP growth in the last five quarters was 0.7 per cent. This is equivalent to annual growth of 2.7 per cent, which is somewhat higher than estimated trend growth of just under 2 per cent. Construction activity has long been an important driver of the upturn. Going forward, it is global growth and the expected upswing in petroleum investment that will lift the Norwegian economy. That the upturn in Norway appears likely to be moderate nonetheless is due to the facts that the global upturn is modest compared with previous upturns, the krone is appreciating, and housing investment will fall in the short term.

After being markedly expansionary since 2014, fiscal policy is now roughly cyclically neutral. In the period from 2014 to 2017, the fiscal impulse, measured as the change in the structural, non-oil budget deficit

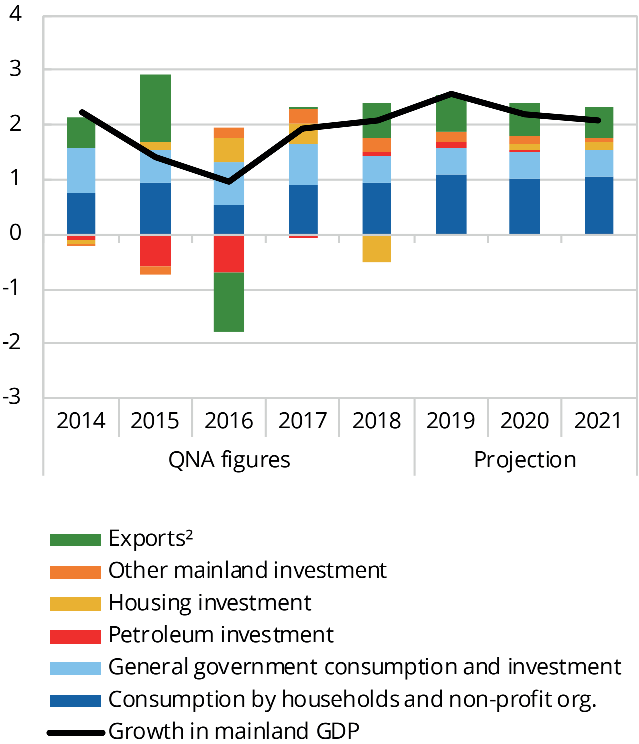
Table 1. Main macroeconomic aggregates. Accounts figures. Change from previous period. Per cent

	2016*	2017*	Seasonally adjusted			
			17:2	17:3	17:4	18:1
Demand and output						
Consumption in households etc.	1.5	2.5	0.6	0.7	0.9	0.0
General government consumption	2.1	2.2	0.6	0.5	0.5	0.6
Gross fixed investment	-0.2	4.9	0.8	-1.0	1.2	-5.1
Extraction and transport via pipelines	-16.9	-2.0	0.1	-7.0	9.3	-11.1
Mainland Norway	6.1	5.5	2.6	0.3	0.1	-3.5
Final domestic demand from Mainland Norway[1]	2.6	3.1	1.0	0.6	0.6	-0.6
Exports	-1.8	1.1	3.0	-0.5	-2.8	0.4
Traditional goods	-8.2	2.1	2.4	1.3	0.3	1.7
Crude oil and natural gas	4.3	2.0	3.8	0.5	-8.9	0.3
Imports	2.3	2.8	1.6	-2.5	4.1	-1.3
Traditional goods	-0.4	3.3	1.7	-0.6	2.2	0.6
Gross domestic product	1.1	1.9	1.0	0.7	-0.3	0.6
Mainland Norway	1.0	1.9	0.6	0.7	0.7	0.6
Labour market						
Man-hours worked	0.7	0.3	0.2	0.4	0.5	0.6
Employed persons	0.2	1.1	0.3	0.3	0.5	0.5
Labour force[2]	0.2	-0.2	0.4	-0.1	0.1	0.6
Unemployment rate. level[2]	4.7	4.2	4.5	4.1	4.0	3.9
Prices and wages						
Annual earings	1.7	2.3	..	..	..	..
Consumer price index (CPI)[3]	3.6	1.8	2.1	1.5	1.3	2.0
CPI adjusted for tax changes and excluding energy products (CPI-ATE)[3]	3.1	1.4	1.6	1.0	1.1	1.2
Export prices. traditional goods	3.5	5.0	2.4	-0.4	1.4	1.2
Import prices. traditional goods	1.4	3.7	2.2	-0.3	2.5	1.1
Balance of payment						
Current balance. bill. NOK[4]	118.3	182.0	42.9	48.3	34.5	51.4
Memorandum items (unadjusted level)						
Money market rate (3 month NIBOR)	1.1	0.9	0.9	0.8	0.8	0.9
Lending rate. credit loans[5]	2.6	2.6	2.6	2.6	2.6	2.5
Crude oil price NOK[6]	378	445	433	414	473	439
Importweighted krone exchange rate. 44 countries. 1995=100	105.4	104.6	106.0	103.6	106.0	105.5
NOK per euro	9.29	9.33	9.38	9.35	9.60	9.63

[1] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in Mainland Norway.
[2] According to Statistics Norway›s labour force survey(LFS).
[3] Percentage change from the same period the previous year.
[4] Current account not adjusted for saving in pension funds.
[5] Period averages.
[6] Average spot price. Brent Blend.
Source: Statistics Norway and Norges Bank.

(SNOBD) as a share of trend mainland GDP, averaged 0.6 percentage point, but it is expected to be only 0.1 percentage point in 2018, according to figures from the Revised National Budget 2018 (RNB2018). The reduction of the fiscal impulse is due to lower public consumption and investment, and comes about despite the lowering of the tax rate on corporate ordinary income from 24 to 23 per cent. In the near term, the fiscal scope for manoeuvre is expected to be considerably reduced, and we expect growth in both public consumption and investment to be lower than in previous years. Conversely, growth in transfers will probably pick up as a result of the ageing population, and as a result fiscal policy will be approximately neutral on balance, in that SNOBD as a share of trend mainland GDP is expected to remain almost constant through the projection period.

Figure 1. Growth in mainland GDP and contributions from demand components.[1] Percentage points, annual rate



[1] The demand contributions are calculated by finding the change in each variable, extracting the direct and indirect import shares, and then dividing by the mainland GDP level for the previous period. The import shares used are documented in Economic Survey 1/2018, Box 3. All figures are seasonally adjusted and in constant prices.

[2] The export variable is defined as total exports excluding exports of crude oil, gas and shipping.

Source: Statistics Norway.

The krone is expected to appreciate. The weakening of the krone from 2014, in pace with the falling oil price, has counteracted the impact of reduced petroleum investment on the real economy. The krone has strengthened since the beginning of 2018, and we assume that it will continue to strengthen moderately for the next few years. The appreciation of the krone moderates the cyclical upturn by weakening the cost-competitiveness of internationally exposed activities. In 2021, the last year of our projection period, we assume that a euro will cost around NOK 9.0, compared with close to NOK 9.5 today.

Housing market developments also exert downward pressure on the upturn. After several years of strong growth, house prices fell through most of 2017. The fall must be viewed in light of the very high level that house prices had reached, the very extensive residential construction, and the revised mortgage regulations that were enforced on 1 January 2017. One of the conditions that was tightened was that as a general rule total debt cannot exceed five times gross annual income. From the end of last year and through the first few months of 2018, we see clear signs that the fall in house prices has now reversed, and we expect a moderate rise in prices in the near term. The rise in house prices is driven by higher income and a still low interest rate level, but is being contained by a large supply of dwellings, somewhat lower population growth and an imminent rise in interest rates. The end of the fall in house prices means that the decline in housing investment through the last two quarters will soon level off. We project that housing investment in 2018 will be approximately 9 per cent lower than last year, and will remain almost unchanged in 2019. It is expected to rise subsequently, but still not to exceed a level approximately 4 per cent lower than that in the peak year of 2017.

Table 2. Growth in mainland GDP and contributions from demand components.[1] Percentage points, annual rate

	QNA				Projection			
	2014	2015	2016	2017	2018	2019	2020	2021
Consumption by households and non-profit organisations	0.7	0.9	0.5	0.9	0.9	1.1	1.0	1.1
General government consumption and investment	0.8	0.6	0.8	0.7	0.5	0.5	0.5	0.5
Petroleum investment	-0.1	-0.6	-0.7	-0.1	0.1	0.1	0.0	0.0
Housing investment	-0.1	0.2	0.4	0.4	-0.5	0.0	0.1	0.1
Other mainland investment	0.0	-0.1	0.2	0.2	0.3	0.2	0.1	0.1
Exports	0.6	1.2	-1.1	0.0	0.6	0.7	0.6	0.6
Growth in mainland GDP	2.2	1.4	1.0	1.9	2.1	2.6	2.2	2.1

[1] See footnotes to Figure 1.
Source: Statistics Norway.

The decline in petroleum investment appears to be over for this time. A higher oil price and lower investment prices are making more petroleum investments profitable. Operators on the Norwegian continental shelf plan to increase investment over the next few years. However, the projected increase in petroleum investment has been revised down since the previous Economic Survey, as some projects have been rescheduled for later. The expected upswing in petroleum investment in 2018 and subsequent years will nonetheless be pronounced and contribute to the cyclical upturn.

Mainland business investment will continue to grow moderately. This year investment in power supply in the form of both windpower development and electricity distribution is expected to increase. Increased investment in manufacturing is expected, particularly in refined petroleum products, chemicals and pharmaceuticals. Norges Bank's regional network also reports increased investment in services. Investment growth of around 5 per cent is forecast for the current year. Growth is then expected to fall back slightly as a result of higher interest rates, a stronger krone and business cycle maturity.

Household consumption growth is expected to pick up after a weak first quarter that must be viewed primarily against the backdrop of weak developments in vehicle purchases through the first three months of the year. Increasing growth in real income will raise consumption slightly going forward, but weak developments in wealth and higher interest rates will contribute to keeping annual growth at well below 3 per cent in the years ahead. This will nonetheless be enough to keep mainland economic growth higher than trend.

Wage growth will be higher in the near term. Annual wage growth in 2016 was only 1.7 per cent, which meant a 1.8 per cent decrease in real wages. This was the lowest wage growth in Norway for 70 years. However, wage growth picked up again in 2017, also in real terms. We expect nominal wage growth to rise further in pace with the improved economic situation. In 2018, however, growth in real wages will be moderated by the fact that higher energy prices increase inflation. Given relatively stable inflation of just under 2 per cent in subsequent years, real wage growth will pick up from around 0.5 per cent in 2018 to around 2 per cent in 2021.

Most of the fall in unemployment has probably already taken place. After peaking at over 5 per cent in early 2016, unemployment has now fallen back to 3.9 per cent according to Statistics Norway's Labour Force Survey (LFS). The decline in unemployment applies to much of the country. We expect unemployment as an annual average to be 3.9 per cent in 2018, and then to edge down gradually to 3.7 per cent in 2021. In a historic perspective, this must be regarded as close to a normal unemployment level.

The fall in the labour force participation rate seems to have come to a halt. The participation rate has been falling in recent years. This can be ascribed partly to the ageing population and partly to the economic downturn we have just been through, which led to many people withdrawing from the labour market. There was a levelling off of the participation rate through 2017, and it is expected to increase somewhat going forward, largely because of the improvement in the economic situation.

The key rate will probably be raised in the autumn. Although the key rate has been kept unchanged at a record low 0.5 per cent since March 2016, the three-month money market rate has risen somewhat so far in 2018, and at the beginning of June was almost 0.2 percentage point higher than at the beginning of the year. If our projections prove accurate, the Norwegian economy will have been in a cyclical upturn for six or seven quarters before the key rate is raised. The key rate will be raised gradually, in pace with the cyclical upturn, but no more than suffices for money market rates to increase by just over one percentage point over the next three years. The lending rate for home equity lines of credit is expected to be 3.7 per cent in 2021. Real interest rates will thus remain at historically low levels, also well into the coming expansion.

The current economic upturn is being driven largely by global developments and increased petroleum investment, but is being moderated by reduced housing investment, a stronger exchange rate, increasing wage growth and weakly increasing interest rates. The economic upturn will be moderate and we forecast that the Norwegian economy will be in a roughly cyclically neutral position in 2020.

Cyclically neutral fiscal policy this year

Fiscal policy has been providing a clear impetus to the Norwegian economy since 2014. RNB2018 estimates that SNOBD as a share of trend mainland GDP increased by 2.3 percentage points from 2013 to 2017. According to RNB2018, if SNOBD as a share of trend mainland GDP is used as an indicator, fiscal policy will only generate marginally increased impulses to the economy in 2018. Energy prices have increased since RNB2018 was submitted, and inflation will very likely be higher than previously projected, which will reduce the expansionary effect of the budget. We therefore describe fiscal policy as roughly cyclically neutral this year.

General government consumption increased by over 2 per cent from 2016 to 2017, and quarter-on-quarter growth through 2017 and into 2018 has been stable. Gross general government investment increased by 4.4 per cent from 2016 to 2017. This was a little lower than previously forecast, but on the other hand growth in general government consumption has been revised up correspondingly for 2017. Growth in general government investment varies considerably from one quarter

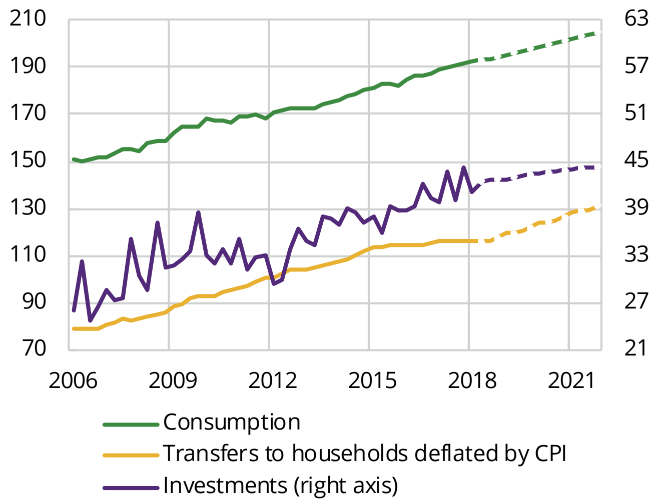
Table 3. Main economic indicators 2017-2021. Accounts and forecasts. Percentage change from previous year unless otherwise noted

	Accounts 2017*	Forecasts.									
		2018			2019			2020		2021	
		SN	NB	MoF	SN	NB	MoF	SN	NB	SN	NB
Demand and output											
Consumption in households etc.	2.5	2.5	2.6	2.6	2.8	2.0	2.9	2.9	1.8	2.8	1.8
General government consumption	2.2	1.6	1.5	1.4	1.7	1.6	..	1.7	1.3	1.7	1.0
Gross fixed investment	4.9	0.1	..	3.3	2.2	..	3.4	2.0	..	1.1	..
Extraction and transport via pipelines	-2.0	2.4	7.4	5.2	3.8	8.2	8.0	1.4	2.9	-1.0	-1.7
Mainland Norway	5.5	-0.1	..	..	1.6	..	..	2.2	..	1.7	..
Industries	4.9	5.5	7.2	5.6	3.0	3.2	5.6	2.8	1.1	1.4	-0.3
Housing	7.1	-8.8	-6.0	-5.2	-0.1	-2.5	-1.7	2.5	-0.1	2.8	0.5
General government	4.4	1.6	..	1.6	1.3	..	..	1.2	..	1.2	..
Demand from Mainland Norway[1]	3.1	1.7	2.0	2.2	2.2	1.7	2.3	2.4	1.4	2.3	1.3
Stockbuilding[2]	-0.3	0.2	..	..	-0.1	..	..	0.0	..	0.0	..
Exports	1.1	1.6	..	2.5	2.6	..	2.2	4.3	..	3.8	..
Traditional goods3	2.1	3.9	4.8	4.6	4.4	4.8	4.9	4.4	3.8	4.2	3.5
Crude oil and natural gas	2.0	-1.3		-2.3	0.3		-3.0	5.3	..	4.5	..
Imports	2.8	2.2	3.3	4.0	2.5	3.3	3.8	3.2	2.4	2.9	1.8
Traditional goods	3.3	1.7	..	..	3.1	..	..	3.9	..	3.5	..
Gross domestic product	1.9	1.6	1.9	1.9	2.2	1.4	1.9	2.7	2.3	2.3	1.9
Mainland Norway	1.9	2.1	2.6	2.5	2.5	2.0	2.6	2.3	1.7	2.1	1.4
Labour market											
Employed persons	1.1	1.0	1.3	1.3	0.9	0.9	1.1	1.0	0.7	0.8	0.4
Unemployment rate (level)	4.2	3.9	3.8	3.8	3.8	3.5	3.7	3.7	3.3	3.7	3.2
Prices and wages											
Annual earnings	2.3	2.9	2.9	2.8	3.2	3.4	..	3.8	3.8	3.9	3.9
Consumer price index (CPI)	1.8	2.5	2.1	2.1	1.5	1.7	1.7	1.9	1.8	2.1	2.0
CPI-ATE[4]	1.4	1.6	1.5	1.6	1.7	1.8	2.0	1.9	1.8	2.0	2.0
Export prices, traditional goods	5.0	4.4	..	..	-0.1	..	..	-0.9	..	-0.2	..
Import prices, traditional goods	3.7	3.9	..	..	0.6	..	..	0.1	..	0.6	..
Housing prices[5]	5.0	0.0	-0.7	..	0.3	2.0	..	0.9	2.6	1.2	2.9
Balance of payment											
Current balance (bill. NOK)	182	281	..	192	340	..	..	369	..	390	..
Current account (per cent of GDP)	-5.5	8.1	..	3.9	9.3	..	4.5	9.6	..	9.7	..
Memorandum items:											
Household real income	2.4	2.4	..	..	2.9	..	..	2.8	..	2.6	..
Household savings ratio (level)	7.1	7.2	..	..	7.7	..	..	8.2	..	8.6	..
Money market rate (level)	0.8	1.1	1.1	1.1	1.4	1.5	1.4	1.9	2.0	2.3	..
Lending rate, credit loans (level)[6]	2.6	2.7	..	..	3.1	..	..	3.4	..	3.7	..
Crude oil price NOK (level)[7]	445	561	..	519	593	..	484	581	..	576	..
Export markets indicator	4.8	5.1	..	..	5.0	..	..	4.8	..	4.6	..
Importweighted krone exchange rate (44 countries)[8]	-0.8	0.0	-0.8	0.9	-2.5	-2.4	1.0	-2.0	-0.7	-1.0	-0.2

[1] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in Mainland Norway.
[2] Change in stockbuilding. Per cent of GDP.
[3] Norges Bank forecasts exports of traditional goods and services from Mainland Norway. Ministry of Finance forecasts exports of goods exclusive of oil and natural gas.
[4] CPI adjusted for tax changes and excluding energy products (CPI-ATE).
[5] Norges Bank forecasts the housing price index published by Eiendom Norge.
[6] Current account not adjusted for saving in pension funds.
[7] Yearly average.
[8] Average spot price, Brent Blend.
[9] Increasing index implies depreciation. Ministry of Finance forecasts trade-weighted exchange rate.
Source: Statistics Norway (SN), Ministry of Finance, Meld.St.2. (2017-2018) (MoF), Norges Bank, Pengepolitisk rapport 1/2018 (NB).

Figure 2. General government

Seasonally adjusted, billion 2015 NOK, quarter



Source: Statistics Norway

to the next, depending on deliveries of military fighter aircraft. There was no delivery in the first quarter of 2018, but there is in the current quarter. We assume that annual growth in general government consumption and investment will be just over 1.5 per cent from 2017 to 2018. This is consistent with our last projection and the projections in RNB2018.

Transfers to households increased nominally by only 3.1 per cent in 2017, and real growth was thus 1.3 per cent. RNB2018 projects that growth in transfers will be 3.3 per cent in 2018, which is appreciably lower than earlier projections, partly because of a reduction in sickness benefit costs. Given a somewhat higher rise in consumer prices this year due to a sharp increase in energy prices, real growth in transfers could thus be almost halved compared to last year. Real growth in consumption, gross investment and transfers combined was about 2 per cent in both 2016 and 2017, close to estimated trend growth in the mainland economy. The sum of these fiscal components only increased by just over 1 per cent in 2018, so that the most central expenses on public budgets are generating appreciably reduced impulses to the Norwegian economy compared with the preceding two years.

The tax rate on the ordinary income of companies (excluding the financial sector) and personal taxpayers has been reduced from 24 to 23 per cent in 2018. The petroleum and electricity taxation system has been adjusted so that these two industries are not appreciably affected by the tax change. Bracket tax on high personal income has been increased, so that most of the revenue loss on personal taxpayers due to reduced tax on ordinary income will be recouped through other income taxes. There are no major changes in the tax rules in RNB2018 compared to those passed by the Storting last autumn. The budgeted tax changes will affect the difference between CPI and CPI-ATE inflation by 0.2 percentage point in 2018.

Fiscal policy in the period 2019–2021 is based on projections for growth in general government consumption and investment that are a little lower than trend growth in the mainland economy, while transfers will increase slightly more in real terms. Higher growth in real wages will add to growth in real transfers. In addition, the number of old-age pensioners will increase a little more going forward than in the immediate past for demographic reasons. As a result, the overall demand from general government purchases of goods and services and real transfers will generate slightly expansionary impulses from 2020. We assume unchanged tax rates in real terms with the exception of slightly increased indirect taxes in the form of higher environmental taxes equivalent to revenue of NOK 1.5 billion in 2020 and 2021. Increased prices for crude oil and electricity will give rise to a contractionary effect but without tax increases as large as those in our earlier projections. At the same time, large portions of the increased energy revenue will accrue to the government. On balance, the projections imply a roughly cyclically neutral fiscal policy in the projection period, in line with the fiscal rule.

The current value of the Government Pension Fund Global (GPFG) is about NOK 8 400 billion. The krone is still weak, and is expected to appreciate a little overall in the near term. The crude oil price has increased substantially thus far in 2018, and price movements in the time ahead are shrouded in uncertainty. If the oil price should remain at the level at the beginning of June this year for a few years to come, increased oil production in the next few years would result in a substantial increase in the Norwegian governments's cash flow from petroleum activities. This would result in a larger increase in the GPFG than has been seen for some time.

Gradual increase in interest rates

The key policy rate has now been at a record low 0.5 per cent for two years, since the last cut in March 2016. The money market rate as an annual average was less than 0.9 per cent in 2017, 0.2 percentage point lower than the previous year and 0.4 percentage point lower than the annual average in 2015. The money market rate fell on the whole through 2017, from almost 1.2 per cent at the beginning to 0.8 per cent at the end of the year. Since the beginning of this year, the money market rate has increased again, to close to 1.2 per cent at the end of March, before falling to almost 1.0 per cent at the end of May.

After strengthening from a weak level through 2016, the krone depreciated through 2017. It appreciated again through the first quarter, by about 3 per cent, measured by the import-weighted krone exchange rate, and in the second quarter has remained at about the same level.

Interest rates on forward rate agreements, FRA rates, have shadowed developments in money market rates. At the end of May, three-month FRA rates in September

2018 were around 1.1 per cent, while the three-month FRA rate in December this year is 1.2 per cent. Both these FRA rates have fallen by 0.1 percentage point since end-February. This means nonetheless that an interest rate increase at the end of 2018 is still priced into the FRA market.

Yields on Norwegian government bonds have remained more or less unchanged for the past three months. The yield on government bonds with a 3-year residual maturity was 1.1 per cent at the end of May, roughly unchanged from the end of February, but 0.3 per cent higher than at year-end. The yield on government bonds with a 5-year residual maturity had fallen from 1.5 per cent at end-February to 1.3 per cent at end-May.

In its March 2018 Monetary Policy Report, Norges Bank forecast that the money market rate would rise to 2.0 per cent in the second half of 2020. This is consistent with our projections. We believe the first rise in the key policy rate will come in autumn this year. This is the same interest rate path as we forecast in the previous Economic Survey, except that we have brought the first interest rate increase forward a little, because both house prices and the oil price have risen higher than previously assumed. Growth in mainland GDP has been higher than trend growth for the past five quarters, and we expect growth to remain above trend this year and next, so that we are out of the economic downturn in 2020. According to our projections, unemployment will fall from 3.9 per cent in March this year to an annual average of 3.7 per cent in 2021. Given the interest rate hikes in our projections, inflation will remain close to the new inflation target of 2 per cent on the whole, while house prices will only change weakly in nominal terms going forward. Interest rates are also rising a little abroad, so the interest rate differential between Norway and the EU will remain almost unchanged over the next few years. Despite the interest rate hikes, real interest rates appear likely to remain at a low level for the next three years.

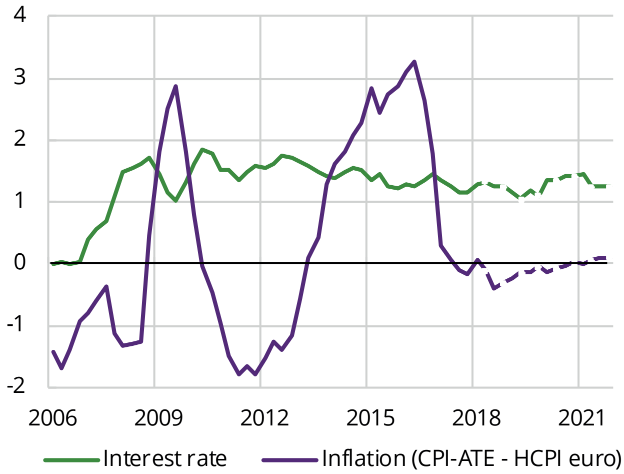
We forecast that the krone will strengthen somewhat in the near term. We assume the annualised value of the krone, measured by the import-weighted krone exchange rate, will remain unchanged from 2017 to this year. We expect a 2.5 per cent appreciation in 2019, before the krone appreciates by 2 per cent and 1 per cent in 2020 and 2021, respectively. In 2021 the krone will then be back at about 9.0 against the euro. The current weak krone and an oil price that is assumed to remain at around USD 75 per barrel point to this strengthening of the krone in the near term.

Moderate consumption growth

After weak growth through the first half of 2016, consumption in households and non-profit organisations rose markedly through the next six quarters. Consumption of goods, including vehicles and furniture and white goods, made a particular contribution. Consumption increased by an annual average of 2.5

Figure 3. Interest rate and inflation differential NOK and the euro

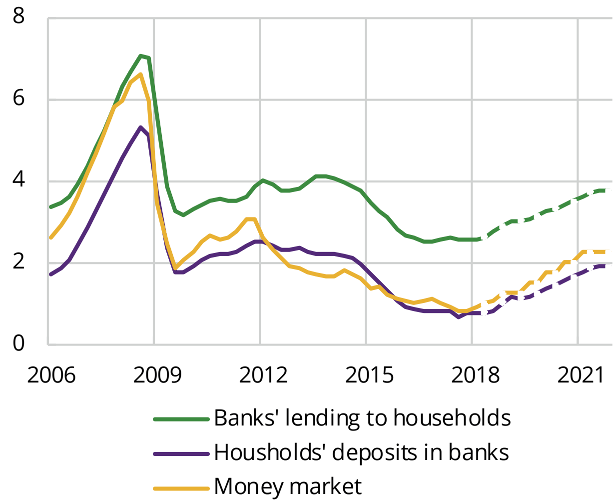
Percentage point



Norges Bank and Statistics Norway

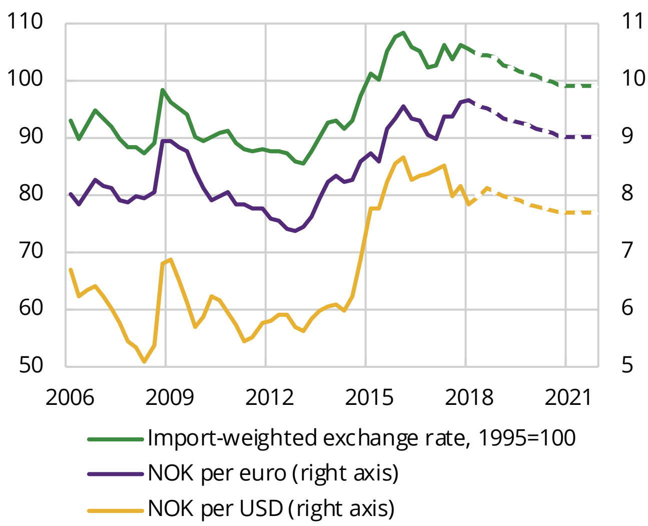
Figure 4. Norwegian interest rates

Percent



Norges Bank and Statistics Norway

Figure 5. Exchange rates



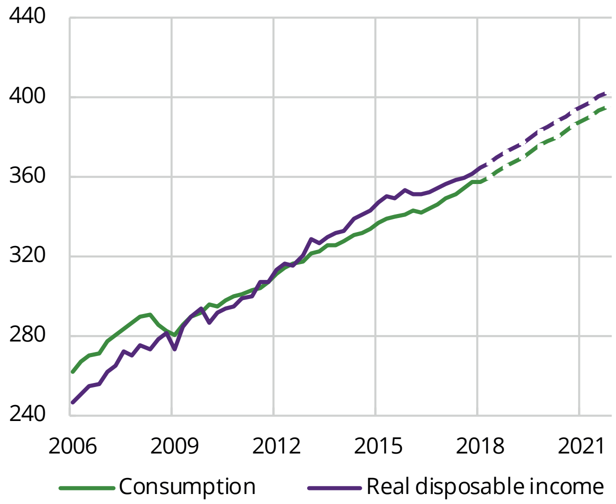
Source: Norges Bank

Table 4. Real disposable income by households and non-profit organisations. Percentage growth compared with previous year

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total	6.0	3.4	3.2	2.3	4.1	4.4	3.9	2.9	5.5	-1.5	2.4	2.4	2.9	2.8	2.6
Excl. share dividends	4.8	2.6	3.4	1.8	4.1	4.3	3.8	2.4	2.4	0.6	2.5	2.1	2.9	2.8	2.7

Source: Statistics Norway.

Figure 6. Household income and consumption
Seasonally adjusted, billion 2015 NOK, quarter



Source: Statistics Norway

per cent in 2017, compared with 1.5 per cent in 2016. However, according to the QNA, seasonally adjusted consumption remained unchanged in the first quarter of 2018, compared with average quarterly growth of 0.8 per cent last year. Goods consumption fell by as much as 1.1 per cent in the first quarter of the year. Most of this fall is attributable to a sharp decline in vehicle purchases, which must be viewed in light of the very high purchases through the second half of last year as a result of the expected tax increases in 2018. Purchases of food and non-alcoholic beverages also fell markedly in the first quarter, probably as a result of the increased tax on sugar.

Goods consumption continued to fall by a seasonally adjusted 0.3 per cent from March to April this year. Although there was strong growth in most product groups, electricity consumption made a particular contribution to this fall. The sharp fall in electricity consumption in April must be viewed in light of the very cold weather that resulted in high consumption in March.

Quarterly growth in consumption of services has been relatively stable, remaining for the most part between 0.5 and 1.0 per cent for the past three years. Service consumption increased by 0.6 per cent in the first quarter as against 1.0 per cent the previous quarter, with strong contributions from hotel and restaurant and post and telecommunications services. If total consumption should remain unchanged at the level of the first quarter for the next three quarters, consumption growth this year will be around 1 per cent as an annual average.

Developments in consumption are largely determined by changes in household income and wealth and interest rates. If we exclude disbursements of share dividend, which fell from 2015 to 2016 because of increased taxation of this income, real disposable income increased by 2.5 per cent in 2017, against 0.6 per cent the previous year. Wage income, which is the most important source of household income, contributed about 1.5 percentage points to growth in real disposable income last year. This was a result of growth in real wages, weak though it was in a historical perspective, and employment growth of just over 1 per cent. Last year, public transfers contributed around 0.5 percentage point to growth in real income, while net capital income made no contribution of any significance. We assume increased growth in real wages, particularly from 2019, and that the increase in employment through 2017 will continue as a result of an improved economic situation, so that wage income as an annual average will continue to push up growth in real disposable income. Public transfers, boosted by increased old-age pensions, will also push up growth in real disposable income through the projection period, following weak growth in 2018. Conversely, net capital income will detract somewhat from growth in real income, as the interest rates facing households will increase in the next few years.

We now expect average annual growth in real disposable income, both overall and excluding share dividends, of around 2.7 per cent in the projection period. The stronger growth in real income will have the effect of stimulating consumption. Weak developments in real house prices on an annual basis throughout the projection period will dampen consumer growth going forward, however. On balance, we envisage moderate consumption growth of around 2.5 per cent this year, approximately the same as last year, and slightly higher as an annual average the following three years. During the cyclical upturn prior to the financial crisis, consumption increased by about 5 per cent annually, i.e., about double what we envisage in the current cyclical upturn.

Household saving in the form of financial and real capital increased substantially in the years following the financial crisis, probably as a result of precautionary saving and the pension reform that was introduced in January 2011. Saving as a share of disposable income increased from just over 3.5 per cent in 2008 to over 8 per cent in 2014. Because of the high share dividend disbursements, the saving ratio increased further to around 10.5 per cent in 2015. The saving ratio excluding share dividends increased by about 3.5 percentage points from 2008 to 2015. However, as a consequence of the fall in income and smoothing of consumption that year, the saving ratio both including and excluding share dividends fell through 2016, to annual averages of around 7 and 3 per cent, respectively. The saving ratio remained at about this level in 2017 too. Our projections for income, consumption and wealth imply that the saving ratio will gradually rise by about 1.5 percentage points through the projection period. This increase in the saving ratio is attributable to increased real interest rates and weak developments in wealth.

Cautious rise in house prices

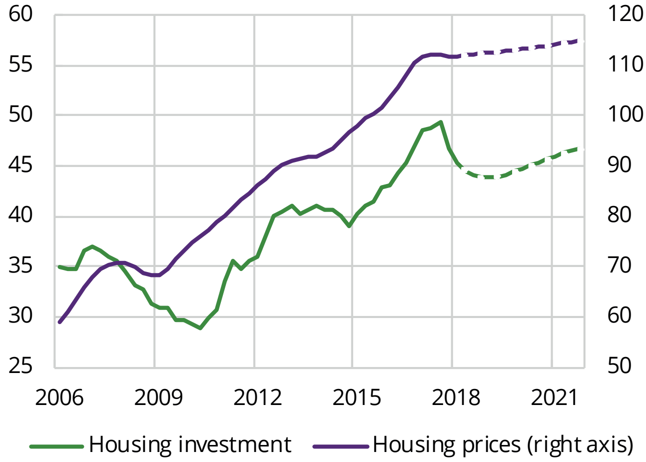
After rising strongly for several years, house prices for Norway as a whole underwent a clear reversal through 2017. There were several contributory factors. Housing investment and the supply of dwellings had reached a record high level. Demand for dwellings was checked by the fact that house prices had reached a high level, and that population growth was slowing as a result of lower immigration. The tightening of the mortgage regulations from 1 January 2017 probably also had a dampening effect on house prices last year. According to Statistics Norway's house price index, house prices as an annual average were 5 per cent higher in 2017 than in 2016, nonetheless.

Seasonally adjusted figures show that the average quarterly rise in house prices of 2.4 per cent in 2016 was followed by a rise of 1.4 per cent in the first quarter last year, and falls of 0.4 per cent and 1.2 per cent in the second and the third quarters, respectively. In the fourth quarter of last year, house prices rose again, by 0.7 per cent. There were fairly large regional differences in house price movements, with by far the largest fall in prices in Oslo through the second and third quarter of last year. House prices for Norway as a whole dipped again by 0.3 per cent in the first quarter of this year. According to Statistics Norway's index, the outcome of these developments is that house prices fell by 1.1 per cent through four quarters. The monthly house price statistics of Real Estate Norway show that on balance seasonally adjusted house prices fell by almost 3 per cent from March 2017 to January this year. From January to May this year, these statistics show an overall rise in house prices of almost 3 per cent. According to Real Estate Norway's index, house prices are therefore at about the same level as the peak in March last year.

Our projections are based on the assumption that house prices are stimulated in the long term by an increase in household real disposable income and by lower real interest rates, and dampened by an increase in the supply of new dwellings. At the same time, household borrowing and house prices mutually influence one another, so that measures that curb borrowing also restrain house price inflation. In the short term, house prices are also influenced by changes in households' expectations regarding developments in both their own financial situation and the Norwegian economy. While growth in real disposable income will pick up going forward, lending rates will increase somewhat in pace with higher money market rates. This may check household borrowing for housing-related purposes. The consumer confidence indicator of Kantar TNS and Finance Norway for the second quarter of this year reveals roughly unchanged optimism among households concerning both their own financial situation and the Norwegian economy. Our projections are based on the assumption that this indicator will remain unchanged from the current level for the next few years.

Figure 7. Housing market

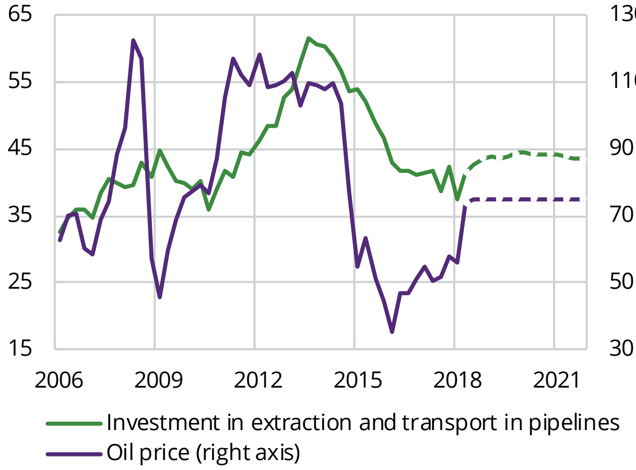
Seasonally adjusted. Left hand axis: billion 2015 NOK, quarter. Right hand axis: index, 2015=100



Source: Statistics Norway

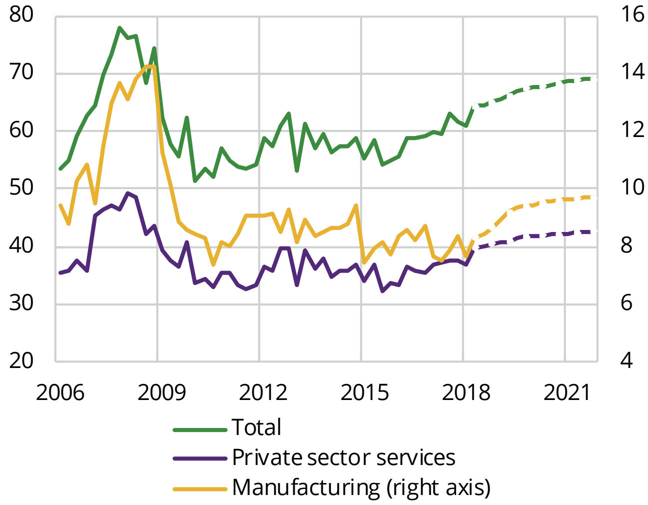
We assume that the fall in house prices is over for this time, and that prices will edge up very cautiously through the second half of this year and for the remainder of the projection period. One important reason that the fall in house prices is probably over is that housing investment has now fallen fairly sharply. According to the QNA, housing investment rose 7.1 per cent as an annual average in 2017, compared with 9.0 per cent the previous year. Seasonally adjusted figures show that growth in housing investment declined through 2017 in line with a slowing trend in housing starts, measured in terms of area, since March last year. Housing investment fell by as much as 5.1 per cent in the fourth quarter of 2017, and a similar fall in housing investment has not been seen since the financial crisis in 2008. Housing investment fell again in the first quarter of this year by a clear 3.3 per cent. Given continued weak developments in both real house prices and housing starts, housing investment is likely to fall further through 2018. We now forecast an annualised average fall in housing investment of almost 9 per cent this year. After close to zero growth next year, housing investment will again rise at a moderate rate through the last two years of the projection period. Our projections indicate that the level of

Figure 8. Petroleum investments and oil price
Seasonally adjusted. Left hand axis: billion 2015 NOK, quarter. Right hand axis: USD per barrel



Source: Statistics Norway

Figure 9. Investments in mainland industries
Seasonally adjusted, billion 2015 NOK, quarter



Source: Statistics Norway

housing investment in 2021 will be around 4 per cent lower than the level in the peak year of 2017.

Petroleum investment is increasing

Petroleum investment has fallen markedly since the third quarter of 2013. However, 7 new plans for the development and operation of oil and gas fields, for a total of NOK 125 billion, were submitted in December 2017. This marked a turning point after the decline in petroleum investment since the end of 2013. Revised QNA figures show that somewhat over NOK 153 billion was invested in the industries pipeline transport and oil and gas extraction in 2017. This implies an upward revision of over NOK 3 billion, and our downward revised projection for growth from 2017 to 2018 must be viewed bearing this in mind.

According to Statistics Norway's investment intentions survey, investment for about NOK 155 billion, measured in current prices, is expected in 2018. This year, too, several new plans are expected to be delivered. The plans for the Johan Sverdrup field in particular are expected to contribute about NOK 45 billion in new investment in the period 2018–2022. The investment intentions survey's projections for 2018 have been revised down somewhat compared with earlier reporting. The downward revision in 2018 is due partly to more effective drilling, and hence lower costs, and partly to some projects being rescheduled for later. Moreover, in earlier measurements the oil companies reported overly high figures for a couple of fields. Consequently, the projection for 2018 is now only about 1 per cent higher, in current prices, than in 2017.

According to the latest QNA figures, the fall in investment since 2014 has now reversed, and we assume a moderate rise in prices later in the projection period. As prices also fell considerably through the second half of last year, this probably implies a reduction in investment prices from 2017 to 2018 nonetheless. As a consequence of somewhat lower investment prices, we expect petroleum investment measured in constant prices to increase by between 2 and 3 per cent this year.

In the period 2018–2020, investment in new field developments will increase most. The downward revision of the projections for 2018 is driven by a decline in the projections for fields in operation, but from 2019 investment in fields in operation is expected to remain at approximately the same level as in 2018. New projections from the petroleum companies also show increased investment in exploration activity in 2019. We expect investment growth, measured in constant prices, to rise to around 4 per cent in 2019. Although somewhat increased investment in permanent shutdowns, onshore activities and pipeline transport is expected at the end of the period, this is not enough to stop a fall in investment growth later in the projection period as a consequence of the completion of developments begun before 2018.

In 2017, oil extraction was two per cent lower than the previous year. This is largely due to non-planned shutdowns in connection with maintenance on some oil fields. However, oil production is expected to increase in the years ahead and peak in 2023. The main reason for this is the anticipated production from Johan Sverdrup. Gas production is expected to remain unchanged for the next few years.

Declining investment growth in the near term

On an annual basis, mainland business investment grew in both 2016 and 2017. However, this investment fell by 1.5 per cent in the fourth quarter of 2017, and the fall continued, albeit more moderately, in the first quarter of this year. Nevertheless, mainland business investment in the first quarter of 2018 was 2.2 per cent higher than in the same quarter the previous year. Despite its moderate size, investment in the production of petroleum-related services contributed a substantial 1.7 percentage points to this growth. However, other goods production, i.e., goods production other than manufacturing and mining, made an important contribution to growth, while all services except service activities incidental to oil and gas extraction pushed down four-quarter growth.

The manufacturing investment projection published in May in Statistics Norway's investment intentions survey for 2018 is about 8 per cent higher than the corresponding projections for 2017 made in May last year. The projections are in current prices, so the survey implies somewhat lower growth in manufacturing investment, measured in constant prices. Refined petroleum products, chemicals and pharmaceuticals manufacturing, machinery and equipment and the pulp and paper industry are contributing most to the rise in manufacturing investment for 2018. Among industries that are curbing the upswing we find basic metals, the metal goods industry, shipbuilding and construction of offshore platforms.

In the May investment intentions survey, companies also reported estimates for investment next year. The manufacturing investment projections published in May in Statistics Norway's investment intentions survey for 2019 is about 15 per cent higher than the corresponding projections for 2018 made in May last year. The upturn in 2019 is largely due to an investment surge of 40 per cent in the industrial grouping refined petroleum products, chemicals and pharmaceuticals manufacturing compared with 2018. Some of this is probably attributable to planned investment in Mongstad and Kårstø to ready the facility to receive oil and gas from the Johan Sverdrup field.

The investment intentions survey for power supply also indicates a sharp increase in investment this year. The projections for this year are 15 per cent higher than the projections for 2017 made one year ago. Growth in electricity production is making a particular contribution to the upswing. This is due to a further increase in windpower development. Investment in power supply is expected to level off in 2019. Investment in electricity production will increase next year as a result of windpower development, while investment in electricity distribution will decline following the completion of the installation of AMS meters in the course of 2018.

Norges Bank's regional network surveys economic developments in Norway, including expected investment, by compiling information from businesses throughout Norway. The March report also shows increased manufacturing investment. The report additionally indicates investment growth in the service industries.

Growth in overall investment in mainland industries is expected to increase to by 5.5 per cent this year, driven mainly by the cyclical upturn among our most important trading partners and continued low interest rates in Norway. As the business cycle in Norway reaches maturity and interest rates increase, investment growth is expected to slow to close to 1 per cent in 2021. Despite the near-term investment growth, our projections indicate that business investment in 2021 will still be about 5 per cent lower than the level in the peak year of 2008.

Exports on the rise

According to seasonally adjusted QNA figures, growth in the volume of traditional goods exports declined through 2017, but growth in the first quarter of this year was 1.7 per cent higher than the previous quarter. Exports of refined petroleum products contributed substantially to growth through 2017 and in the first quarter of this year. The largest contribution to first quarter growth in overall traditional exports came from engineering products, which also constitute the largest group of traditional export products. First-quarter growth in the traditional export groups was otherwise broad-based. A large rise in prices for refined petroleum products made a major contribution to a marked rise in prices for traditional goods exports in the last two quarters.

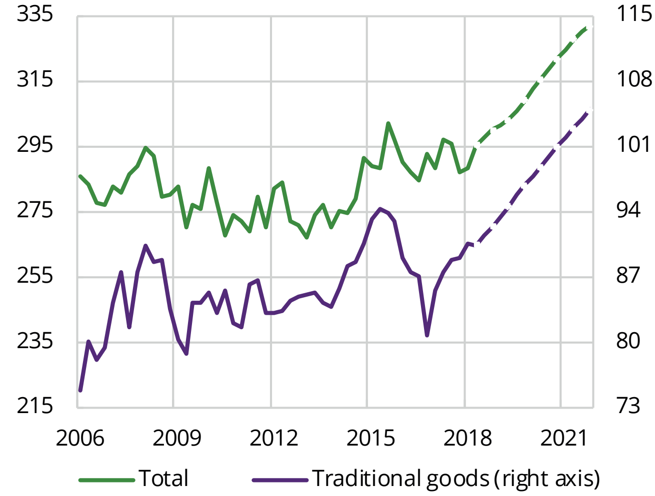
The combined volume of oil and gas exports increased in both 2016 and 2017. Growth in early 2018 was weak, particularly in light of the fact that temporary maintenance work reduced production and exports in the fourth quarter of 2017. A sharp rise in prices led to the value of oil and gas exports in the first quarter of 2018 reaching its highest level for three years.

Large reductions in exports of petroleum-related services and financial and business services caused overall service exports to fall in the first quarter of the year. The volume of service exports has fluctuated around a virtually constant level for many quarters, and this also applies to many of the sub-components. The rise in prices for overall service exports in the first quarter can be attributed to a rise in prices for shipping service exports.

Given a still relatively weak krone, improved competitiveness and high growth among Norway's trading partners, mainland exports are expected to increase at a faster rate for the next few years than in the last few years. The oil price is assumed to hover around the relatively high current level for the remainder of the projection period, which will stimulate exports of goods and services related to global petroleum activities. The volume of oil and gas exports is only expected to increase substantially in 2019/2020, with the start of production on the big Johan Sverdrup field.

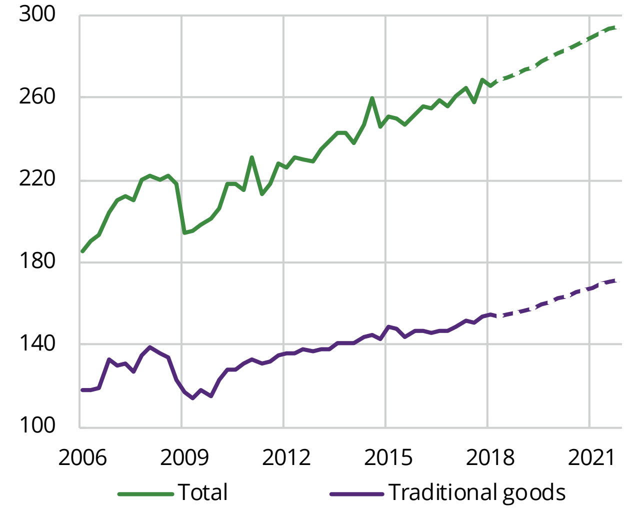
Preliminary QNA figures reveal weak growth in imports of traditional goods in the first quarter of this year. The growth can largely be attributed to imports of metals and engineering products. Service imports are particularly difficult to estimate. Preliminary figures show a large decline in the first quarter, which should be viewed in light of an equally large increase the previous

Figure 10. Exports
Seasonally adjusted, billion 2015 NOK, quarter



Source: Statistics Norway

Figure 11. Imports
Seasonally adjusted, billion 2015 NOK, quarter



Source: Statistics Norway

quarter. Imports of petroleum-related and business services fell more in the first quarter of this year than they increased in the fourth quarter of 2017. Norwegians' consumption abroad increased in the first quarter of 2018 – as it did in the six previous quarters.

Weak domestic demand growth and a weak krone will contribute to moderate growth in imports this year. Stronger demand growth and an appreciation of the krone are subsequently expected to lift growth in imports for the remainder of the projection period.

Following a decline in 2015 and 2016, the trade surplus increased sharply in 2017, boosted primarily by a higher oil price and weaker krone. As a result of a larger volume of oil and gas exports at higher prices, coupled with a reduced volume of overall service imports at lower prices, the trade surplus grew strongly in the first quarter of this year. We expect a further increase in the trade surplus in 2018. Growth is then expected to slow through the projection period, due inter alia to the krone appreciating.

The balance of income and current transfers has increased markedly in recent years. A growing pension fund and moderate growth in the Norwegian economy – and hence in payments to other countries – is expected to result in continued growth in the surplus through the projection period. The current account surplus will thus receive large contributions from both the trade surplus and the balance of income and current transfers for the next few years. The surplus expressed as a share of GDP is expected to be between 8 and 10 per cent in the projection period.

Continued cyclical upturn

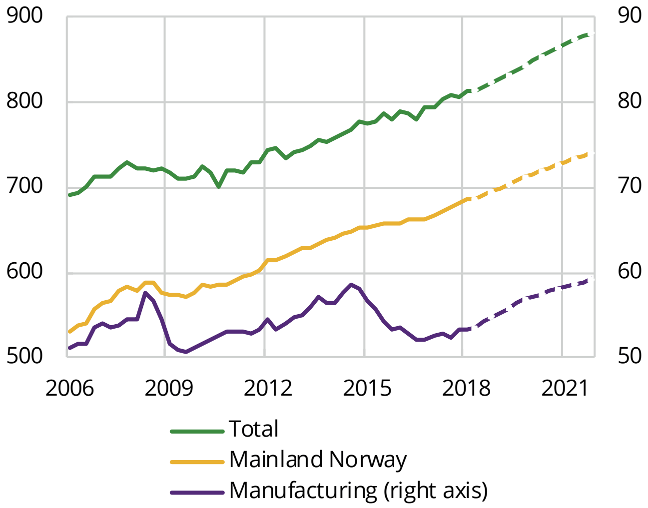
Mainland GDP grew by 0.6 per cent from the fourth quarter of last year to the first quarter of this year. This is approximately the same as average growth in 2017, and implies underlying annual growth of about 2.3 per cent, compared with estimated trend growth of just under 2 per cent. The Norwegian economy is thus still in a moderate cyclical upturn.

Manufacturing has benefited from the turnaround in the economy. Although value added fell back 0.2 per cent in the first quarter, the underlying tendency appears to be positive, with average quarterly growth of around 0.5 per cent for the past five quarters. The activity level is nonetheless a good way off that at the end of 2014, which marked a peak before manufacturing production fell uninterruptedly right up to the beginning of last year. In the first quarter of this year, petroleum-related manufacturing segments like shipbuilding pushed up production, while food products, production of industrial chemicals and refined petroleum products had a countering effect.

The construction industry has been exhibiting strong growth for a long time and has thus been an important force driving growth in the Norwegian economy. The prolonged upturn can be attributed to the low interest rate level, which has stimulated house prices, and large public investment projects in buildings and infrastructure. However, construction growth came to a halt in the first quarter of this year. This was to be expected, as activity was already at a very high level, the temperature in the housing market subsided through the winter, and growth in infrastructure investment levelled off.

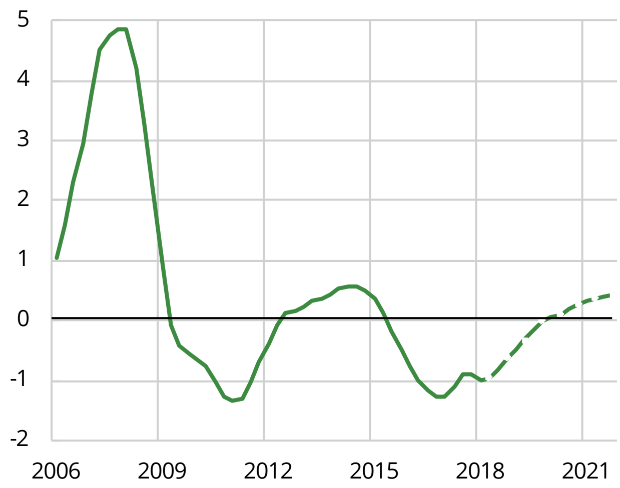
Developments in other goods-producing industries, which are all to some extent subject to naturally occurring factors, were mixed in the first quarter. Power production increased by almost 3 per cent, after a slight decline in the fourth quarter of last year, while value added for fishing and aquaculture rose by a full 5.8 per cent, after almost equally strong growth through the

Figure 12. Gross domestic product
Seasonally adjusted, billion 2015 NOK, quarter



Source: Statistics Norway

Figure 13. Output gap. Mainland Norway
Deviation from estimated trend GDP in percent



Source: Statistics Norway

second half of last year. These two industries combined pushed up mainland GDP growth by 0.1 percentage point.

Value added in service industries excluding general government increased by 0.6 per cent from the fourth quarter of last year to the first quarter of this year. This is consistent with average growth through 2017, and also with first-quarter growth in the mainland economy as a whole. Growth in the service industries appears to be fairly broad-based, but has been particularly strong in business services and the hotel and restaurant industry. Growth in the latter must probably be viewed bearing in mind the relatively weak krone exchange rate, which encourages foreign tourists to visit Norway, and leads to Norwegians spending more holidays at home in Norway.

The level of general government activity picked up in the first quarter, with value added growth of 0.9 per cent. This is appreciably higher than growth through 2017, and also higher than estimated trend growth for the Norwegian economy as a whole.

We expect growth in economic activity to remain at a high level in the near term. The negative demand impulses from the petroleum sector are now waning, and the sector is likely to generate moderately positive growth impulses this year already. Manufacturing, which has reported moderate growth recently, will benefit appreciably from this turnaround.

The construction industry has been growing strongly in recent years. Our calculations indicate that growth will abate appreciably going forward, mainly as a result of falling residential construction, but also because growth in public investment in fixed assets is expected to be lower. Increased mainland business investment will have a countering effect, and may offset some of the reduction in demand.

We also expect the upswing in the service industries to continue, as the overall economic upturn becomes more firmly established. Growth in general government is expected to remain fairly stable at slightly below trend growth for the Norwegian economy. In sum, we forecast mainland GDP growth of 2.1 per cent this year and somewhat higher in the next two years. We estimate trend growth at just under 2 per cent, and our projections therefore imply that the moderate cyclical upturn we are now in will persist through the projection period and to 2021. Our projections indicate that the Norwegian economy will be out of the downturn in 2020. Box 1 provides a more detailed look at the effects on the Norwegian economy of the oil price rapidly reverting to just over USD 60 per barrel.

Somewhat tighter labour market

As a result of the moderate economic upturn, the labour market became somewhat tighter through 2017, and this tendency has continued so far this year. Employment growth remained at 0.5 per cent in the first quarter of 2018, as in the previous quarter, but this time unassisted by the petroleum-related industries. Unemployment, calculated as the average for February–April, fell to 3.9 per cent from a peak of 5.0 per cent in summer 2016. Persistent growth in employment and in vacancies, coupled with somewhat lower unemployment, point to a tighter labour market going forward.

Construction, the hotel and restaurant sector and general government have shown persistent positive employment growth and contributed to increasing overall employment these past few years. In addition, business services, driven partly by higher demand for temporary personnel through recruitment agencies, have made a substantial contribution to employment growth for several successive quarters. The positive development in these industries continued in the first quarter of this year, with general government making a particularly large contribution.

Box 1. Effects of a lower oil price

This time we have assumed in our projections an oil price of USD 75 per barrel from the second half of this year and for the remainder of the projection period, which extends up to 2021. There is naturally substantial uncertainty associated with these projections. This box analyses the effects of the oil price falling to USD 63 per barrel in the course of the summer and then remaining at that level through 2021. As an average for the projection period, this is in line with the price level that was assumed in Økonomisk utsyn, Reports 2018/9.

In order to analyse the effects on the Norwegian economy of a lower oil price, a number of assumptions must be made. First, we assume that the lower oil price is associated with supply side factors in the oil market. This seems most relevant now as a result of OPEC's production restrictions. A lower oil price impacts the Norwegian economy through a number of channels. Many of these channels, such as the exchange rate and the monetary policy response from the central bank, are incorporated in our KVARTS model of the Norwegian economy. Other key factors, such as effects on the global economy, are exogenous to the model, however. We must therefore make some assumptions about mechanisms that are not modelled. Specifically, we assume that:

Growth in Norwegian export markets as a whole increases by 0.1 percentage point each year from and including 2019 as a result of lower oil prices.

A lower oil price reduces inflation abroad. We assume that CPI inflation abroad will be about 0.1 percentage point lower in both 2018 and 2019 than in the projection scenario. This corresponds approximately to the effects of the fall in the oil price on the CPI in Norway if the exchange rate is not affected.

The calculations show that a weaker oil price leads to a weaker krone. At the end of 2021, the import-weighted krone exchange rate is just over one per cent weaker than in the projection scenario, which boosts cost-competitiveness. This, coupled with stronger demand from abroad, therefore lifts Norwegian goods exports somewhat, so that Norwegian manufacturing production also increases.

In the short term, inflation in Norway is pushed down by the lower oil price, but in the slightly longer term the effect of the weaker krone predominates, so that inflation is higher than in the projection scenario. Higher import prices lead in their turn to a rise in prices for capital and intermediate inputs for consumers, which depresses business investment. Investment is also lower than in the projection scenario because share prices on the Oslo Stock Exchange fall. It thus becomes more expensive and more difficult for Norwegian companies to finance investment via the stock market.

As a result of the increased cost inflation, the central bank raises the interest rate somewhat more than in the projection scenario. A monetary policy response of this kind will lead to house prices in 2021 being just under one per cent lower than in the projection scenario. The fall in household consumption is due partly to less real wealth and partly to a slightly higher interest rate.

All in all, the analysis shows that a lower oil price reduces the level of activity in the Norwegian economy, but in 2021 mainland GDP is only 0.2 per cent lower than in the projection scenario. However, there are factors that are not incorporated in the analysis that point to the effects being more negative. First, some Norwegian exports are linked to petroleum activities in other countries, and a lower oil price may conceivably reduce demand from these markets. Second, it is reasonable to assume that a lower oil price will also lead to lower petroleum investment after a while. This is another factor that has not been incorporated in the calculations so far. If, for example, we assume that the lower oil price will reduce growth in petroleum investment by 4 percentage points annually from and including 2019, the calculations show that mainland GDP will be 0.6 per cent (instead of 0.2 per cent) lower in 2021 than in the projection scenario (see Table 2). This would be enough to cancel the expected Norwegian economic expansion in our projection scenario.

On the other hand, a weaker krone will increase the value of the Government Pension Fund Global in terms of Norwegian kroner. A few years ahead, this exchange rate effect will be stronger than the effect on the GPFG of deposits being lower as a result of lower oil revenue (see Economic Survey 2/2017). If the fiscal rule is adhered to, the fiscal scope for manoeuvre will therefore increase in the short term, which could conceivably lead to a somewhat more expansionary fiscal policy than we have assumed. This would then have dampened the negative effects of a lower oil price on the Norwegian economy.

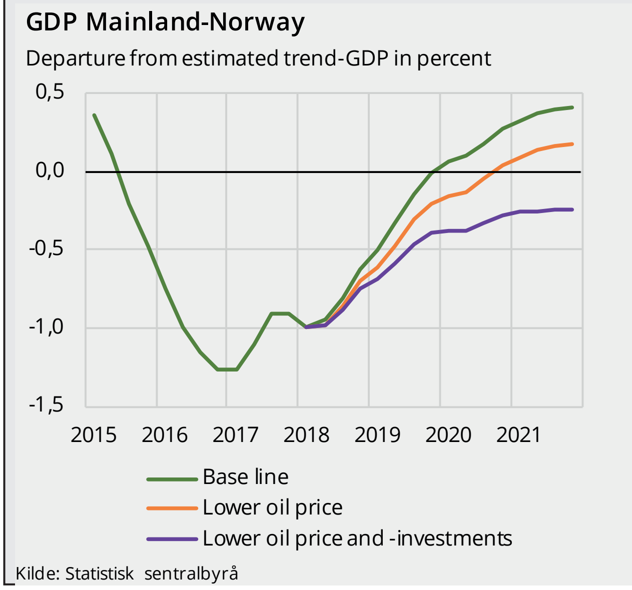


Table 1. Effects of a lower oil price. Deviation from baseline scenario in per cent unless otherwise indicated

	2018	2019	2020	2021
Mainland GDP	0.0	-0.2	-0.2	-0.2
- Manufacturing	0.1	0.6	0.8	0.9
Mainland business investment	-0.3	-0.9	-1.3	-1.3
Employment	0.0	-0.1	-0.1	-0.1
Wages	0.0	0.0	0.0	0.1
Unemployment rate, percentage points	0.0	0.0	0.1	0.1
Household consumption	0.0	-0.2	-0.4	-0.4
Import-weighted krone exchange rate	0.4	0.6	0.8	1.0
Exports, traditional goods	0.1	0.1	0.2	0.3
Consumer price index	0.0	0.0	0.0	0.1
Money market rate, percentage points	0.0	0.1	0.1	0.1
Assumptions				
Oil price, USD/barrel	-8.6	-16.0	-16.0	-16.0
Export market indicator	0.0	0.1	0.2	0.3
Consumer price index abroad	-0.1	-0.2	-0.2	-0.2

Table 2. Impact of a lower oil price and lower investment. Deviation from baseline scenario in per cent unless otherwise indicated

	2018	2019	2020	2021
Mainland GDP	0.0	-0.3	-0.5	-0.6
- Manufacturing	0.1	-0.7	-1.2	-1.5
Mainland business investment	-0.3	-1.1	-1.5	-1.7
Employment	-0.1	-0.1	-0.2	-0.3
Wages	0.0	0.0	0.0	0.0
Unemployment rate, percentage points	0.0	0.1	0.1	0.1
Household consumption	0.0	-0.2	-0.4	-0.6
Import-weighted krone exchange rate	0.4	0.6	0.8	1.0
Exports, traditional goods	0.1	0.1	0.2	0.3
Consumer price index	-0.1	-0.1	0.0	0.1
Money market rate, percentage points	0.0	0.1	0.1	0.1
Assumptions				
Oil price, USD/barrel	-8.6	-16.0	-16.0	-16.0
Export market indicator	0.0	0.1	0.2	0.3
Consumer price index abroad	-0.1	-0.2	-0.2	-0.2
Petroleum investment	0.0	-4.0	-7.5	-11.1

Slightly higher petroleum sector activity in the second half of 2017 contributed to employment growth in services associated with extraction of crude petroleum and natural gas, and to temporarily stopping the decline in employment in this sector. This tendency reversed in both industries to a decline in employment in the first quarter of this year. The same applied to manufacturing segments that primarily supply the petroleum industry, such as the shipbuilding and other transport equipment industry, and metal goods and installation and repair of machinery and equipment. Manufacturing employment dipped 0.6 per cent in the first quarter of the year after two quarters of positive growth. Higher demand for labour in some manufacturing segments that are less closely associated with petroleum activities helped to curb the decline, but in the first quarter of this year employment growth also appears to have declined somewhat in these segments.

Job prospects for the unemployed are improving. According to Statistics Norway's seasonally adjusted vacancy statistics, the number of vacancies increased by 2.7 per cent in the first quarter of this year, following positive growth through the whole of last year. Such a steady rise in vacancies has not been seen since the economic upturn prior to the financial crisis. This tendency, coupled with positive employment growth, indicates increased growth in demand for labour.

Unemployment measured by the LFS fell by 4.5 per cent in May (average for April–June) last year to 4.0 per cent in September (average for August–October) last year. It has remained fairly stable since. In the first quarter of this year (average for January–March), unemployment was 3.9 per cent, the same as for March (average for February–April). Employment of persons aged over 25 has increased in pace with the increase in their share of the labour supply. In contrast, the labour supply of those aged between 15 and 24 has declined, but it has declined more than employment. This has contributed to the fall in the aggregate unemployment rate.

The economic downturn and ageing population have contributed to weak labour force developments for the last few years. In the first quarter of 2018 the labour force picked up, edging up a bare 0.6 per cent. If the level remains unchanged from the first quarter, annual growth will be just over 0.7 per cent. By way of comparison, the growth rates in 2016 and 2017 were 0.2 and -0.2 per cent respectively, and this was a period during which a number of people withdrew from the labour market and net immigration was moderate. Developments in net immigration must be viewed bearing in mind that job prospects in Norway were somewhat more adverse than in earlier years, and that the fall in the krone exchange rate has reduced the wage differentials with other countries. On the other hand, immigration is being maintained at a high level through the registration as immigrants of more citizens from countries in conflict, but it takes time before they enter the labour force. On balance, we expect growth in the labour force to be slightly higher than population growth in the projection period, prompting some rise in labour force participation.

According to the Norwegian Labour and Welfare Organisation (NAV), the seasonally adjusted sum of the wholly unemployed and persons on labour market programmes declined through 2017. This same tendency has continued so far this year. In the first four months, 2.4 per cent of the labour force was totally unemployed, and the share fell further to 2.3 per cent in May. The sum of the wholly unemployed and persons on labour market programmes was 3.0 per cent of the labour force from January to April, and 2.9 per cent in May. Broken down by county, the figures show that the sum of the wholly unemployed and persons on labour market programmes fell for all counties from the first quarter of 2017 to the first quarter of this year.

Employment is forecast to pick up in 2018 and continue rising in the near term. Employment in private service production will increase as a share of total employment during the projection period, boosted by higher consumption of private services. In line with a more neutral fiscal policy, the share of persons employed in the public sector is expected to fall. The improved economic situation will also prompt an increase in the labour force, and unemployment will therefore not fall as much from the current level. According to our calculations, unemployment will be 3.9 per cent this year and will fall to around 3.7 per cent towards the end of the projection period.

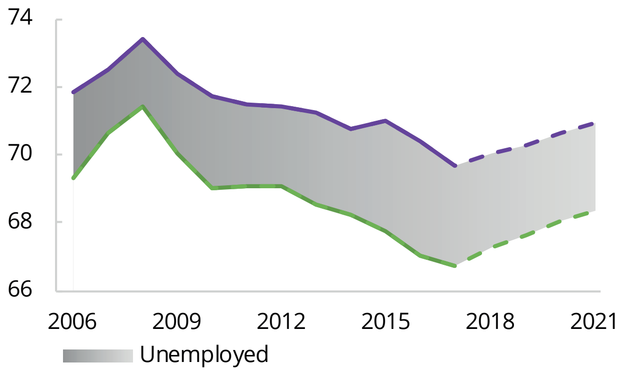
Higher wage growth

The low annual wage growth of recent years has reflected the weak petroleum sector developments since 2014. Employment in petroleum-related industries has pushed down average wage growth through composition effects. In addition, reduced petroleum activity led to lower average wage growth through a lower call on the rest of the economy and a slacker labour market. We assume that the negative impulses from the petroleum industry will wane in the period ahead. As the cyclical upturn becomes entrenched, a tighter labour market is expected and concurrent wage growth, up to around 4 per cent in 2021.

Growth in average annual wages can be decomposed into carry-over, negotiated wage increase and wage drift. The carry-over indicates the difference between the annual wage level at the end of the previous year and the average annual wage level for that year, and the negotiated wage increase includes the pay increase resulting from central negotiations. The last component, wage drift, is the sum of all other factors that influence annual wages, such as local wage negotiations and changes in the composition of those employed.

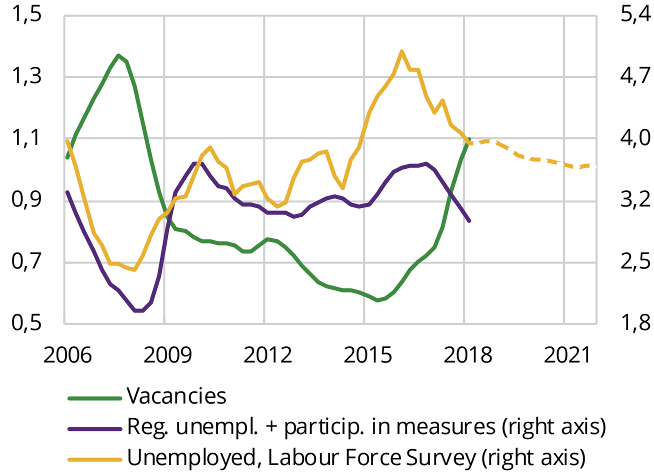
The Technical Reporting Committee on Income Settlements (TBU) has calculated the carry-over into 2018 for several areas of negotiations. The average

Figure 14. Share of population by labor market status
Percent of population in working age, based on AKU, year



Source: Statistics Norway

Figure 15. Numbers unemployed and vacancies
Percent of labour force, seasonally adjusted and smoothed



Source: The Norwegian Labour and Welfare Service and Statistics Norway

carry-over for manufacturing is approximately the same as last year, at 1.2 percentage points, and varies in the other areas from 0.6 to 1.4 percentage points. The carry-over for retailers in the Enterprise Federation of Norway (Virke) is 0.8 percentage point, and the carry-overs in central and local government are 0.7 and 1.4 percentage points, respectively. The carry-over for the past two years has been relatively low compared with previous years, due to low wage growth.

In advance of the wage negotiations this year, the main organisations, Norwegian Confederation of Trade Unions (LO) and Norwegian Confederation of Norwegian Enterprise (NHO), decided that there should be a coordinated wage settlement with adaptations at union level. In this type of settlement, all collective wage agreements are negotiated by the main organisations, and the parties prefer this type if important matters other than wages also have to be negotiated. One reason for coordinated wage settlements was that contractual pensions (AFP) had to be negotiated, as they were in 2008, the last time wage settlements were coordinated.

The social partners have now largely reached agreement on this year's settlement. NHO and LO estimated a norm of 2.8 per cent for this year's wage settlement. The norm is based on a carry-over of 1.2 percentage points. For blue collar workers in manufacturing firms represented by NHO, the contribution from the negotiated wage increase is around 0.5 percentage point. The remaining contribution to annual wage growth in manufacturing as a whole is estimated wage drift. After mediation in April, NHO and LO reached agreement on the negotiated wage increase for the year and on contractual pensions. Other parts of the private sector have adopted the same solutions for contractual pensions, and have reached agreement on norms that are in line with that of the wage leader segment. In the municipal sector, the Confederation of Vocational Unions (YS) and the Norwegian Association of Local and Regional Authorities (KS) agreed on the same norm as manufacturing and on an extension of the Basic Agreement until the end of 2019. The mediation between the Norwegian state as employer and the employee organisations LO, YS and UNIO lasted until the end of May because of disagreement regarding the distribution of the pay increase to central and local pay increases. The parties have now agreed on a recommended draft agreement that entails equal distribution between local and central pay increases. The proposal has now been submitted for voting.

Because of a tighter labour market, we forecast higher wage growth this year than in the previous two years. Expected higher activity in petroleum-related activities, lower unemployment and lower inward labour migration will contribute to a further increase in wage growth in the coming years. The labour market is expected to become tighter in pace with the cyclical upturn, and real wage growth is forecast to rise towards 2 per cent in the course of the projection period. Given these wage developments, the wage share will be higher at the end of the projection period, but viewed in a historical perspective it will still be moderate according to our projections.

High energy prices push up the CPI

Despite increasing wage growth and higher energy prices, underlying inflation in the Norwegian economy remains low. The year-on-year rise in the consumer price index, adjusted for tax changes and excluding energy products (CPI-ATE) was 1.3 per cent in April and in line with the average rise in prices for the first four months of the year compared with the same period in 2017. Underlying inflation fell sharply and almost continuously from July 2016 and up to August 2017, when the inflation rate levelled off at a low level. The low CPI-ATE inflation can largely be attributed to developments in prices for imported consumer goods, where the rise in prices has been low since the summer of 2017.

High energy prices and tax increases from the beginning of this year have led to the rise in the consumer price index (CPI) being appreciably higher than the rise in the CPI-ATE, and the difference between these inflation measures increased through the first months of the year. In April the year-on-year rise in the CPI was 2.4 per cent, compared with 1.6 per cent in January. A cold winter followed by hot, dry weather has led to high prices for Nordic power so far this year. Higher oil prices and a high USD/NOK exchange rate have also brought about a considerable increase in prices for fuel at the pumps. Inflation measured by the CPI excluding energy products (CPI-AE) was 1.6 per cent in April. Higher energy prices thus contributed 0.8 percentage point to the difference between CPI and CPI-ATE inflation last month.

Splitting up the year-on-year rise in the CPI-ATE by delivery sector shows that there has been a tendency through the past few months for a rise in prices for goods produced in Norway, while the change for imported goods excluding agricultural products has been weak and even negative. So far, the temporary weakening of the krone in November and December has not contributed to a higher rise in prices for this product group. Prices for imported agricultural products have increased, and this increase is particularly related to a rise in prices for fruit. The year-on-year rise in prices for services as a whole fell from March to April, from 2.0 per cent to 1.8 per cent. The underlying sub-indices in the CPI-ATE show that this fall is largely due to developments in rents, with the year-on-year rise declining from 1.7 per cent to 1.5 per cent. Actual and imputed rent have a combined weight of over 20 per cent in the CPI-ATE, and thus play a considerable part in developments in the CPI as a whole. Another important contributor to the low year-on-year rise in service prices was prices for air travel, which fell by 8.4 per cent compared with the same period in 2017. The year-on-year fall in prices for air travel in April is due to prices being particularly high in April last year in connection with Easter.

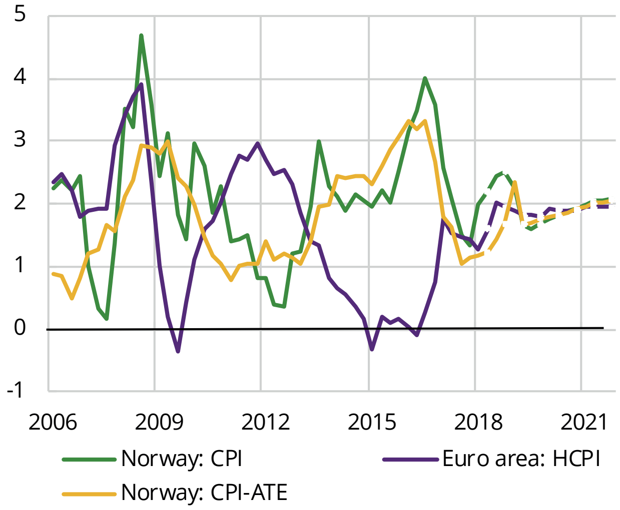
In addition to higher energy prices, prices for food products and alcoholic beverages also contributed to a higher year-on-year rise in the CPI for April. CPI-ATE inflation for this product group rose from 0.4 per cent in March to 2.6 per cent in April, but this price rise, too, must be seen in connection with Easter, where special offer activity was in March this year, as opposed to April last year. In May the agricultural organisations made an agricultural agreement with the state with a frame of NOK 1.1 billion which presupposes that some of the income target be met by increasing target prices. The income target presupposes good market adaptation, and the state has met the organisations halfway on the requirement for measures to curb the current overproduction of milk, pork, mutton and chicken. If the target prices are realised, this may result in an increased rise in food prices going forward.

Whereas CPI-ATE inflation has been low and stable recently, the increase in electricity prices has caused CPI inflation to rise far more. A cold winter and spring have caused electricity prices on the Nordic power exchange to be considerably higher so far this year than in the same period last year. The Nordic countries are a part of the European power market, and according to the Norwegian Water Resources and Energy Directorate (NVE), higher prices for gas, coal and CO2 quotas in the European market have contributed to the high electricity prices. The sharp change in weather in May and record heat led to an accelerated thaw. The effect of this year's spring flood on power prices was of short duration, and spot prices rapidly reverted to the same level as the weeks prior to the flood. According to NVE, the stocks of stored power are normal for the year, while the high temperatures have resulted in the quantity of snow in the mountains now being lower than normal. Given forecasts of hot weather and little precipitation, the inflow to the water reservoirs is expected to slow. A tighter resource situation and prospects of high future prices for coal and CO2 quotas on the European market have led to a considerable rise in forward prices in the Nordic power market. Prices in the power market indicate that electricity prices will remain high until after the winter, with a softening towards the summer of 2019. On the basis of forward prices in the power market, we expect the price of electricity, including grid charges, to increase by just over 16 per cent as an annual average from 2017 to 2018, but that some of the price rise will be reversed in 2019 and will then lead to a reduction in CPI inflation. For the remainder of the projection period, we assume that electricity prices including grid rental will mirror CPI inflation.

Our projections for the oil price and USD/NOK exchange rate also mean that the rise in prices for refined petroleum products will be high for the remainder of the year. In sum, we project that developments in energy prices will contribute to pushing up CPI inflation by 0.7 percentage point in 2018. Although the average price for refined petroleum products will increase from 2018 to 2019, the assumed fall in electricity prices will result in energy prices pushing down CPI inflation by 0.2 percentage point in 2019. In 2020 and 2021 overall energy prices are assumed to roughly mirror general inflation.

Underlying inflation is largely a product of developments in unit labour costs, the exchange rate and international developments in prices for import goods. Our calculations suggest an increase in underlying inflation through 2018 for both goods and services. Higher labour costs and the high energy prices point in this direction. Developments in unit labour costs are central to developments in the underlying inflation rate. If we assume that costs can be passed through to prices, the importance of wage developments for inflation increases in proportion to the labour intensiveness of companies' production. The same applies to energy prices, where the transport sector and goods

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



Source: Statistics Norway

distribution in particular are affected by higher prices for refined products. For goods that are classified as imports in the consumer price index, there are generally significant inputs of Norwegian production through logistics, transport margins and retail margins, from the time the product crosses the border until it is sold. Prices for imported consumer goods, like prices for goods and services produced in Norway, are influenced by increased prices for domestic factor inputs such as labour and energy. Higher productivity growth in 2018 is dampening the effects of increased labour and energy costs. Like increased productivity growth, a stronger krone exchange rate is exerting downward pressure on the rise in domestic prices and costs. We have assumed in our calculations that the import-weighted krone exchange rate will strengthen by 2.5 per cent from 2018 to 2019. In our projection, the import-weighted krone exchange rate appreciates through 2018 from a weak level at the end of 2017. Since there is a considerable lag in the repricing of import goods and services, the appreciation of the krone will mainly contribute to pushing down inflation from 2019.

In the period 2019 to 2021, wage growth may increase further while productivity growth slows. In isolation, this will push inflation up further. However, the strengthening of the krone further along the projection pathway will substantially weaken import price inflation, despite rising inflation abroad. The direct and indirect effects of a low rise in import prices and reduced inflationary impulses from energy prices will contribute to dampening inflation for the remainder of the projection period.

Tax changes from the beginning of the year on sugar products and non-alcoholic beverages, coupled with an increase in the lowest VAT rate, will push up CPI inflation this year. A shift in vehicle sales from cars using fossil fuel to electric cars will push down the overall tax add-on for vehicle purchases, given the way in which they are weighted in the CPI. The effect of combined real tax changes on the CPI is projected to be 0.2 percentage point for 2018. In our previous projection, we assumed an increase in special taxes associated with greenhouse effects and the environment at 0.2 percentage point of the CPI for the years 2019 to 2021. As energy prices have increased considerably since the winter, we now assume that the need for a further increase in energy prices is limited. We do not anticipate any real tax increases in 2019, and have only adjusted rates for special taxes in line with general inflation for this year. In 2020 and 2021 we assume that increased environmental taxes will push the CPI up by 0.1 percentage point.

Given our assumptions concerning developments in energy prices and special taxes, CPI inflation will be 2.5 per cent in 2018, which is 0.9 percentage point higher than CPI-ATE inflation. Given our assumptions concerning developments in import prices, wages and productivity growth, underlying inflation is expected to gradually rise somewhat higher in the years ahead. In 2019, CPI-ATE inflation is projected to be 1.7 per cent, and to rise to 2.0 per cent in 2021, which is in line with Norges Bank's inflation target. CPI inflation is expected to be 1.5 per cent in 2019, and then lie a little over CPI-ATE inflation in subsequent years.

Table 10. National accounts: Final expenditure and gross domestic product. At constant 2015 prices. Millions NOK

	Unadjusted		Seasonally adjusted							
	2016*	2017*	16.2	16.3	16.4	17.1	17.2	17.3	17.4	18.1
Final consumption expenditure of households and NPISHs	1 374 069	1 408 883	342 118	344 170	345 973	349 566	351 519	354 103	357 193	357 037
Household final consumption expenditure	1 300 126	1 333 909	323 298	325 419	327 444	330 806	333 039	335 248	338 354	338 261
Goods	591 644	600 899	147 642	147 447	148 397	149 506	150 846	151 504	152 818	151 189
Services	641 144	661 745	159 200	161 278	161 989	163 649	164 421	165 905	167 588	168 639
Direct purchases abroad by resident households	109 815	113 848	27 072	27 688	27 650	27 788	28 475	28 776	28 724	29 325
Direct purchases by non-residents	-42 477	-42 583	-10 616	-10 993	-10 592	-10 137	-10 702	-10 937	-10 776	-10 892
Final consumption expenditure of NPISHs	73 943	74 974	18 821	18 751	18 528	18 761	18 480	18 855	18 838	18 776
Final consumption expenditure of general government	744 881	760 969	186 188	186 836	187 057	188 657	189 867	190 775	191 692	192 856
Final consumption expenditure of central government	377 100	381 506	94 163	94 489	94 519	94 794	95 180	95 504	96 050	96 569
Central government, civilian	333 554	337 975	83 252	83 651	83 678	83 954	84 302	84 618	85 122	85 677
Central government, defence	43 546	43 531	10 911	10 838	10 841	10 840	10 878	10 886	10 927	10 892
Final consumption expenditure of local government	367 781	379 463	92 025	92 347	92 538	93 864	94 687	95 272	95 642	96 287
Gross fixed capital formation	739 701	775 712	183 630	187 531	186 942	193 139	194 758	192 878	195 166	185 182
Extraction and transport via pipelines	167 624	164 332	41 838	41 711	41 122	41 583	41 644	38 742	42 331	37 634
Ocean transport	-1 698	6 320	-715	-360	-408	3 396	1 090	1 689	195	235
Mainland Norway	573 776	605 060	142 507	146 180	146 228	148 160	152 024	152 446	152 640	147 313
Industries	232 305	243 656	58 816	58 768	59 050	59 730	59 542	62 988	61 505	61 002
Service activities incidential to extraction	2 010	2 586	387	234	498	653	330	813	790	1 602
Other services	138 859	146 740	36 029	35 764	34 799	36 112	36 970	36 833	36 931	35 351
Manufacturing and mining	33 794	31 409	8 574	8 204	8 701	7 680	7 544	7 843	8 375	7 671
Production of other goods	57 642	62 921	13 826	14 566	15 052	15 286	14 699	17 500	15 409	16 377
Dwellings (households)	180 689	193 544	44 315	45 226	46 937	48 599	48 873	49 300	46 797	45 248
General government	160 783	167 860	39 377	42 186	40 241	39 831	43 609	40 158	44 338	41 063
Acquisitions less disposals of valuables	358	368	92	85	94	94	90	86	98	95
Changes in stocks and statistical discrepancies	162 296	151 779	42 871	36 716	37 679	36 211	35 125	34 175	44 693	54 179
Gross capital formation	902 355	927 859	226 501	224 247	224 621	229 350	229 883	227 053	239 859	239 361
Final domestic use of goods and services	3 021 305	3 097 711	754 808	755 252	757 650	767 574	771 269	771 932	788 744	789 255
Final demand from Mainland Norway	2 692 726	2 774 912	670 814	677 186	679 257	686 384	693 411	697 325	701 525	697 207
Final demand from general government	905 663	928 829	225 565	229 022	227 298	228 488	233 476	230 934	236 030	233 920
Total exports	1 154 865	1 167 426	287 049	284 327	292 825	288 373	296 989	295 637	287 261	288 277
Traditional goods	343 695	350 915	87 578	86 958	80 790	85 564	87 611	88 721	88 966	90 456
Crude oil and natural gas	464 491	474 008	115 198	112 161	119 321	117 780	122 267	122 933	111 970	112 297
Ships, oil platforms and planes	16 755	13 183	2 735	2 927	9 021	6 857	2 710	1 577	2 029	3 006
Services	329 923	329 320	81 538	82 281	83 693	78 172	84 402	82 407	84 296	82 517
Total use of goods and services	4 176 169	4 265 136	1 041 856	1 039 579	1 050 475	1 055 947	1 068 259	1 067 569	1 076 005	1 077 532
Total imports	1 024 020	1 052 504	254 709	258 742	255 960	260 759	264 943	258 252	268 903	265 352
Traditional goods	585 418	604 511	145 281	147 109	146 419	148 906	151 390	150 541	153 816	154 719
Crude oil and natural gas	9 793	12 284	2 262	2 671	1 905	2 563	3 390	2 945	3 617	3 944
Ships, oil platforms and planes	44 122	48 538	10 446	13 229	11 861	16 015	12 938	9 491	10 117	11 222
Services	384 688	387 171	96 719	95 733	95 775	93 275	97 225	95 274	101 353	95 468
Gross domestic product (market prices)	3 152 149	3 212 632	787 147	780 837	794 516	795 188	803 316	809 318	807 102	812 179
Gross domestic product Mainland Norway (market prices)	2 646 221	2 696 970	661 651	662 131	663 317	667 946	672 149	677 131	681 593	685 470
Petroleum activities and ocean transport	505 928	515 662	125 496	118 706	131 198	127 241	131 167	132 187	125 510	126 709
Mainland Norway (basic prices)	2 295 067	2 336 559	573 683	574 317	575 124	578 449	582 110	586 071	590 831	595 028
Mainland Norway excluding general government	1 715 599	1 745 406	429 186	428 999	429 487	431 753	434 583	437 921	442 048	444 896
Manufacturing and mining	210 217	210 761	52 728	52 087	52 084	52 559	52 787	52 379	53 261	53 216
Production of other goods	284 358	293 114	70 660	70 974	71 376	72 037	72 744	73 710	74 648	75 533
Services incl. dwellings (households)	1 221 024	1 241 530	305 797	305 939	306 028	307 156	309 052	311 833	314 139	316 147
General government	579 468	591 153	144 497	145 318	145 637	146 696	147 527	148 150	148 783	150 132
Taxes and subsidies products	351 154	360 411	87 968	87 814	88 193	89 498	90 039	91 059	90 761	90 442

Source: Statistics Norway.

Table 11. National accounts: Final expenditure and gross domestic product. At constant 2015 prices. Percentage change from previous period

	Unadjusted		Seasonally adjusted							
	2015*	2016*	16.2	16.3	16.4	17.1	17.2	17.3	17.4	18.1
Final consumption expenditure of households and NPISHs	1,5	2,5	-0,1	0,6	0,5	1,0	0,6	0,7	0,9	0,0
Household final consumption expenditure	1,5	2,6	-0,4	0,7	0,6	1,0	0,7	0,7	0,9	0,0
Goods	-0,1	1,6	-1,1	-0,1	0,6	0,7	0,9	0,4	0,9	-1,1
Services	3,1	3,2	0,6	1,3	0,4	1,0	0,5	0,9	1,0	0,6
Direct purchases abroad by resident households	3,6	3,7	-1,1	2,3	-0,1	0,5	2,5	1,1	-0,2	2,1
Direct purchases by non-residents	8,1	0,2	3,9	3,5	-3,6	-4,3	5,6	2,2	-1,5	1,1
Final consumption expenditure of NPISHs	1,9	1,4	5,5	-0,4	-1,2	1,3	-1,5	2,0	-0,1	-0,3
Final consumption expenditure of general government	2,1	2,2	0,7	0,3	0,1	0,9	0,6	0,5	0,5	0,6
Final consumption expenditure of central government	2,3	1,2	0,2	0,3	0,0	0,3	0,4	0,3	0,6	0,5
Central government, civilian	2,6	1,3	0,3	0,5	0,0	0,3	0,4	0,4	0,6	0,7
Central government, defence	-0,1	0,0	-0,4	-0,7	0,0	0,0	0,4	0,1	0,4	-0,3
Final consumption expenditure of local government	2,0	3,2	1,3	0,3	0,2	1,4	0,9	0,6	0,4	0,7
Gross fixed capital formation	-0,2	4,9	1,8	2,1	-0,3	3,3	0,8	-1,0	1,2	-5,1
Extraction and transport via pipelines	-16,9	-2	-2,6	-0,3	-1,4	1,1	0,1	-7,0	9,3	-11,1
Ocean transport	95,9	-472,2	581,0	-49,7	13,3	-932,4	-67,9	55,0	-88,5	20,5
Mainland Norway	6,1	5,5	3,6	2,6	0,0	1,3	2,6	0,3	0,1	-3,5
Industries	4,1	4,9	5,6	-0,1	0,5	1,2	-0,3	5,8	-2,4	-0,8
Service activities incidential to extraction	-58	28,7	-56,6	-39,6	113,0	31,2	-49,5	146,3	-2,7	102,7
Other services	5,3	5,7	11,3	-0,7	-2,7	3,8	2,4	-0,4	0,3	-4,3
Manufacturing and mining	8,1	-7,1	2,6	-4,3	6,0	-11,7	-1,8	4,0	6,8	-8,4
Production of other goods	4,5	9,2	-1,7	5,4	3,3	1,5	-3,8	19,1	-12,0	6,3
Dwellings (households)	9	7,1	2,9	2,1	3,8	3,5	0,6	0,9	-5,1	-3,3
General government	5,9	4,4	1,6	7,1	-4,6	-1,0	9,5	-7,9	10,4	-7,4
Acquisitions less disposals of valuables	2,8	2,9	5,0	-7,7	10,6	0,6	-4,2	-4,8	13,5	-2,6
Changes in stocks and statistical discrepancies	37,6	-6,5	-7,6	-14,4	2,6	-3,9	-3,0	-2,7	30,8	21,2
Gross capital formation	5	2,8	-0,1	-1,0	0,2	2,1	0,2	-1,2	5,6	-0,2
Final domestic use of goods and services	2,7	2,5	0,1	0,1	0,3	1,3	0,5	0,1	2,2	0,1
Final demand from Mainland Norway	2,6	3,1	0,9	0,9	0,3	1,0	1,0	0,6	0,6	-0,6
Final demand from general government	2,8	2,6	0,9	1,5	-0,8	0,5	2,2	-1,1	2,2	-0,9
Total exports	-1,8	1,1	-1,1	-0,9	3,0	-1,5	3,0	-0,5	-2,8	0,4
Traditional goods	-8,2	2,1	-1,5	-0,7	-7,1	5,9	2,4	1,3	0,3	1,7
Crude oil and natural gas	4,3	2	-1,5	-2,6	6,4	-1,3	3,8	0,5	-8,9	0,3
Ships, oil platforms and planes	45,6	-21,3	33,1	7,0	208,2	-24,0	-60,5	-41,8	28,7	48,1
Services	-4,4	-0,2	-0,9	0,9	1,7	-6,6	8,0	-2,4	2,3	-2,1
Total use of goods and services	1,4	2,1	-0,2	-0,2	1,0	0,5	1,2	-0,1	0,8	0,1
Total imports	2,3	2,8	-0,3	1,6	-1,1	1,9	1,6	-2,5	4,1	-1,3
Traditional goods	-0,4	3,3	-0,8	1,3	-0,5	1,7	1,7	-0,6	2,2	0,6
Crude oil and natural gas	-10,2	25,4	-23,5	18,1	-28,7	34,6	32,3	-13,1	22,8	9,0
Ships, oil platforms and planes	26,4	10	21,5	26,6	-10,3	35,0	-19,2	-26,6	6,6	10,9
Services	4,8	0,6	-0,7	-1,0	0,0	-2,6	4,2	-2,0	6,4	-5,8
Gross domestic product (market prices)	1,1	1,9	-0,2	-0,8	1,8	0,1	1,0	0,7	-0,3	0,6
Gross domestic product Mainland Norway (market prices)	1,0	1,9	0,5	0,1	0,2	0,7	0,6	0,7	0,7	0,6
Petroleum activities and ocean transport	1,8	1,9	-3,6	-5,4	10,5	-3,0	3,1	0,8	-5,1	1,0
Mainland Norway (basic prices)	0,7	1,8	0,3	0,1	0,1	0,6	0,6	0,7	0,8	0,7
Mainland Norway excluding general government	0,2	1,7	0,3	0,0	0,1	0,5	0,7	0,8	0,9	0,6
Manufacturing and mining	-4,1	0,3	-1,3	-1,2	0,0	0,9	0,4	-0,8	1,7	-0,1
Production of other goods	2,7	3,1	-0,9	0,4	0,6	0,9	1,0	1,3	1,3	1,2
Services incl. dwellings (households)	0,4	1,7	0,9	0,0	0,0	0,4	0,6	0,9	0,7	0,6
General government	2,3	2	0,3	0,6	0,2	0,7	0,6	0,4	0,4	0,9
Taxes and subsidies products	2,5	2,6	1,3	-0,2	0,4	1,5	0,6	1,1	-0,3	-0,4

Source: Statistics Norway.

Table 12. National accounts: Final expenditure and gross domestic product. Price indices. 2015=100

	Unadjusted		Seasonally adjusted							
	2016*	2017*	16.2	16.3	16.4	17.1	17.2	17.3	17.4	18.1
Final consumption expenditure of households and NPISHs	103,2	104,7	103,3	103,3	103,5	103,7	104,7	104,8	105,4	105,8
Final consumption expenditure of general government	101,7	104,1	100,6	101,1	104,4	103,3	103,2	103,9	106,3	106,1
Gross fixed capital formation	101,5	102,4	101,7	101,7	101,5	101,5	102,8	102,5	102,8	104,1
Mainland Norway	102,4	104,9	102,2	102,6	103,4	103,5	105,0	104,8	106,0	106,5
Final domestic use of goods and services	102,3	103,9	102,1	102,2	102,9	102,8	104,2	103,8	105,1	104,7
Final demand from Mainland Norway	102,6	104,7	102,4	102,6	103,8	103,6	104,4	104,5	105,8	106,0
Total exports	92,1	100,2	91,3	92,8	95,7	100,1	98,7	98,2	104,0	106,9
Traditional goods	103,5	108,7	102,8	104,3	107,5	106,6	109,2	108,8	110,3	111,6
Total use of goods and services	99,5	103,0	99,2	99,6	100,9	102,1	102,7	102,3	104,8	105,3
Total imports	101,3	103,6	101,9	101,2	101,3	101,2	104,7	103,7	106,1	106,1
Traditional goods	101,4	105,2	101,5	101,6	101,6	103,0	105,3	105,0	107,6	108,8
Gross domestic product (market prices)	98,9	102,7	98,3	99,1	100,8	102,3	102,0	101,8	104,4	105,1
Gross domestic product Mainland Norway (market prices)	102,7	103,9	102,3	102,5	104,0	103,6	103,8	103,8	104,4	104,5

Source: Statistics Norway.

Table 13. National accounts: Final expenditure and gross domestic product. Price indices. Percentage change from previous period

	Unadjusted		Seasonally adjusted							
	2016*	2017*	16.2	16.3	16.4	17.1	17.2	17.3	17.4	18.1
Final consumption expenditure of households and NPISHs	3,2	1,5	1,1	0,0	0,2	0,2	1,0	0,1	0,6	0,4
Final consumption expenditure of general government	1,7	2,4	0,0	0,5	3,3	-1,1	-0,1	0,7	2,3	-0,2
Gross fixed capital formation	1,5	0,9	0,9	0,0	-0,2	0,0	1,3	-0,3	0,3	1,3
Mainland Norway	2,4	2,4	1,1	0,4	0,8	0,1	1,4	-0,2	1,1	0,5
Final domestic use of goods and services	2,3	1,6	0,6	0,1	0,7	-0,1	1,4	-0,4	1,3	-0,4
Final demand from Mainland Norway	2,6	2,0	0,9	0,2	1,2	-0,2	0,8	0,1	1,2	0,2
Total exports	-7,9	8,8	3,4	1,6	3,1	4,6	-1,4	-0,5	5,9	2,8
Traditional goods	3,5	5,0	3,3	1,5	3,1	-0,8	2,4	-0,4	1,4	1,2
Total use of goods and services	-0,5	3,5	1,4	0,4	1,3	1,2	0,6	-0,4	2,4	0,5
Total imports	1,3	2,3	0,7	-0,7	0,1	-0,1	3,5	-1,0	2,3	0,0
Traditional goods	1,4	3,7	0,5	0,1	0,0	1,4	2,2	-0,3	2,5	1,1
Gross domestic product (market prices)	-1,1	3,8	1,7	0,8	1,7	1,5	-0,3	-0,2	2,6	0,7
Gross domestic product Mainland Norway (market prices)	2,7	1,2	1,0	0,2	1,5	-0,4	0,2	0,0	0,6	0,1

Source: Statistics Norway.

Table 2.C. Main economic indicators 2006-2021. Accounts and forecasts. Percentage change from previous year unless otherwise noted

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Forecasts 2018	2019	2020	2021
Demand and output																
Consumption in households etc.	5.0	5.3	1.7	0.0	3.8	2.3	3.5	2.8	2.1	2.6	1.5	2.5	2.5	2.8	2.9	2.8
General government consumption	1.9	2.0	2.4	4.1	2.2	1.0	1.6	1.0	2.7	2.4	2.1	2.2	1.6	1.7	1.7	1.7
Gross fixed investment	9.1	12.2	1.1	-6.8	-6.4	7.5	7.6	6.3	-0.3	-4.0	-0.2	4.9	0.1	2.2	2.0	1.1
Extraction and transport via pipelines	3.2	9.3	5.5	2.9	-8.0	11.4	14.6	19.0	-1.8	-12.2	-16.9	-2.0	2.4	3.8	1.4	-1.0
mainland Norway	9.3	14.2	0.9	-10.4	-6.4	5.0	7.4	2.9	0.4	-0.2	6.1	5.5	-0.1	1.6	2.2	1.7
Industries	12.7	22.7	3.1	-18.4	-9.5	1.1	10.5	-3.2	-0.7	-2.8	4.1	4.9	5.5	3.0	2.8	1.4
Housing	4.0	2.7	-9.0	-8.1	-1.6	17.0	10.9	5.3	-1.4	3.2	9.0	7.1	-8.8	-0.1	2.5	2.8
General government	8.4	8.7	7.2	7.7	-4.8	1.1	-1.8	11.8	4.4	0.2	5.9	4.4	1.6	1.3	1.2	1.2
Demand from Mainland Norway[1]	5.1	6.4	1.7	-1.4	1.2	2.5	3.7	2.3	1.9	2.0	2.6	3.1	1.7	2.2	2.4	2.3
Stockbuilding[2]	1.0	0.5	-0.2	-2.1	3.7	-0.3	-0.3	0.3	-0.1	-0.5	1.4	-0.3	0.2	-0.1	0.0	0.0
Exports	-0.8	1.4	0.1	-4.1	0.6	-0.8	1.6	-1.7	3.1	4.7	-1.8	1.1	1.6	2.6	4.3	3.8
Traditional goods	6.1	9.2	3.5	-8.0	3.3	-0.1	-0.2	1.3	3.1	6.9	-8.2	2.1	3.9	4.4	4.4	4.2
Crude oil and natural gas	-6.6	-2.4	-1.3	-1.6	-6.9	-5.6	0.5	-5.5	2.7	2.1	4.3	2.0	-1.3	0.3	5.3	4.5
Imports	9.1	10.0	3.2	-10.3	8.4	3.9	3.0	5.0	2.4	1.6	2.3	2.8	2.2	2.5	3.2	2.9
Traditional goods	11.6	7.2	1.2	-12.1	9.2	4.6	2.6	2.3	2.1	3.2	-0.4	3.3	1.7	3.1	3.9	3.5
Gross domestic product	2.4	3.0	0.5	-1.7	0.7	1.0	2.7	1.0	2.0	2.0	1.1	1.9	1.6	2.2	2.7	2.3
Mainland Norway	5.0	5.7	1.8	-1.7	1.9	1.9	3.7	2.3	2.2	1.4	1.0	1.9	2.1	2.5	2.3	2.1
Manufacturing	2.6	3.8	2.7	-7.8	2.1	1.7	2.0	3.3	2.8	-4.6	-4.1	0.3	2.1	4.2	2.8	2.0
Labour market																
Total hours worked, Mainland Norway	3.5	4.8	3.6	-2.0	0.2	1.7	1.8	0.3	1.4	0.7	0.7	0.3	0.2	1.4	1.2	1.1
Employed persons	3.4	4.1	3.2	-0.5	-0.5	1.5	2.1	1.1	1.2	0.4	0.2	1.1	1.0	0.9	1.0	0.8
Labor force[3]	1.6	2.5	3.4	0.0	0.5	1.0	1.8	1.0	1.1	1.4	0.2	-0.2	1.1	0.9	0.9	0.7
Participation rate (level)[3]	72.0	72.8	73.9	72.8	71.9	71.4	71.5	71.2	71.0	71.2	70.4	69.7	70.0	70.3	70.7	71.0
Unemployment rate (level)[3]	3.4	2.5	2.6	3.2	3.6	3.3	3.2	3.5	3.5	4.4	4.7	4.2	3.9	3.8	3.7	3.7
Prices and wages																
Wages per standard man-year	4.1	5.4	6.3	4.2	3.7	4.2	4.0	4.0	3.1	2.8	1.7	2.3	2.9	3.2	3.8	3.9
Consumer price index (CPI)	2.3	0.8	3.8	2.1	2.5	1.2	0.8	2.1	2.0	2.1	3.6	1.8	2.5	1.5	1.9	2.1
CPI-ATE[4]	0.8	1.4	2.6	2.6	1.4	0.9	1.2	1.6	2.4	2.7	3.0	1.4	1.6	1.7	1.9	2.0
Export prices, traditional goods	11.2	2.5	2.8	-5.9	44.0	5.8	-1.9	2.6	3.4	2.0	3.5	5.0	4.4	-0.1	-0.9	-0.2
Import prices, traditional goods	3.9	3.8	4.0	-1.5	-0.1	4.0	0.3	1.5	4.4	4.7	1.4	3.7	3.9	0.6	0.1	0.6
Housing prices	13.7	12.6	-1.1	1.9	8.2	8.0	6.8	4.0	2.7	6.1	7.0	5.0	0.0	0.3	0.9	1.2
Income, interest rates and excange rate																
Household real income	-6.6	6.0	3.4	3.2	2.3	4.1	4.4	3.9	2.9	5.5	-1.5	2.4	2.4	2.9	2.8	2.6
Household saving ratio (level)	-0.4	0.9	3.8	5.2	4.0	5.9	7.1	7.4	8.2	10.3	7.1	7.1	7.2	7.7	8.2	8.6
Money market rate (level)	3.1	5.0	6.2	2.5	2.5	2.9	2.2	1.8	1.7	1.3	1.1	0.9	1.1	1.4	1.9	2.3
Lending rate, credit loans(level)[5]	4.3	5.0	6.8	4.0	3.4	3.6	3.9	4.0	3.9	3.2	2.6	2.6	2.7	3.1	3.4	3.7
Real after-tax lending rate, banks (level)	0.2	2.9	1.1	0.7	0.1	1.3	2.1	0.7	0.8	0.1	-1.6	0.1	-0.4	0.8	0.7	0.8
Importweighted krone exchange rate (44 countries)[6]	0.6	-1.7	0.0	3.3	-3.8	-2.4	-1.2	2.2	5.3	10.4	1.9	-0.8	0.0	-2.5	-2.0	-1.0
NOK per euro (level)	8.1	8.0	8.2	8.7	8.0	7.8	7.5	7.8	8.4	9.0	9.3	9.3	9.5	9.3	9.1	9.0
Current account																
Current balance (bill. NOK)[7]	357.7	287.4	408.3	260.9	284.0	346.0	370.7	315.5	330.9	246.0	118.3	182.0	281.5	339.7	369.1	389.5
Current account (per cent of GDP)	16.1	12.2	15.7	10.7	10.9	12.4	12.5	10.3	10.5	7.9	3.8	5.5	8.1	9.3	9.6	9.7
International indicators																
Exports markets indicator	9.8	6.6	1.8	-9.6	11.1	6.5	1.4	2.0	5.2	5.1	4.0	4.8	5.1	5.0	4.8	4.6
Consumer price index, euro-area	2.2	2.1	3.3	0.3	1.6	2.7	2.5	1.4	0.4	0.0	0.2	1.5	1.7	1.8	1.9	2.0
Money market rate, euro(level)	3.1	4.3	4.6	1.2	0.8	1.4	0.6	0.2	0.2	0.0	-0.3	-0.3	-0.2	0.3	0.5	1.0
Crude oil price NOK (level)8	423	422	539	388	485	621	650	639	622	431	378	445	561	593	581	576

[1] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in mainland Norway.
[2] Change in stockbuilding. Per cent of GDP.
[3] According to Statistics Norway›s labour force survey(LFS). Break in data series in 2006.
[4] CPI adjusted for tax changes and excluding energy products.
[5] Yearly average. Lending rate, banks until 2006
[6] Increasing index implies depreciation.
[7] Current account not adjusted for saving in pension funds.
[8] Average spot price Brent Blend.
Source: Statistics Norway. The cut-off date for information was 5 June.

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