



# Economic Survey

2019 / 3

Economic developments in Norway

© Statistics Norway, 2019

When using this material,  
Statistics Norway must be quoted as the source.

## Contents

<b>Economic developments in Norway .....</b>	<b>1</b>
Roughly cyclically neutral fiscal policy .....	4
The interest rate appears to have peaked.....	5
Consumption growth continues at a moderate rate.....	7
Weakly falling real house prices .....	8
Strong growth in petroleum investment this year.....	9
Moderate growth in business investment.....	9
Business investment is levelling off.....	12
Weaker external account outlook .....	13
The moderate cyclical upturn is nearing an end .....	14
Somewhat higher unemployment in the near term .....	15
Stable wage growth ahead.....	16
Inflation down to the target.....	17

## Box

1. How are projections affected by a stronger krone exchange rate? .....	6
2. Projections for petroleum investment.....	10

## Tables

1. Main macroeconomic aggregates. Accounts figures. Change from previous period. Per cent ...	1
2. Growth in mainland GDP and contributions from demand components. Percentage points, annual rate .....	2
3. Main economic indicators 2018-2022. Accounts and forecasts. Percentage change from previous year unless otherwise noted.....	3
4. National accounts: Final expenditure and gross domestic product. At constant 2017 prices. NOK million .....	19
5. National accounts: Final expenditure and gross domestic product. At constant 2017 prices. Percentage change from previous period .....	20
6. National accounts: Final expenditure and gross domestic product. Price indices. 2017=100....	21
7. National accounts: Final expenditure and gross domestic product. Price indices. Percentage change from previous period .....	21
<b>Main economic indicators 2007-2022. Accounts and forecasts. Percentage change from previous year unless otherwise noted .....</b>	<b>22</b>

Questions about economic trends

– in Norway: Thomas von Brasch, thomas.vonbrasch@ssb.no, tel. (+47) 93 89 85 24

– international: Roger Hammersland, roger.hammersland@ssb.no, tel. (+47) 40 90 24 77

Editing was finalised on Tuesday 3 September 2019

Published 5 September 2019

© Statistics Norway

When using this material, Statistics Norway must be quoted as the source.

<b>Explanation of symbols</b>	<b>Symbol</b>
Data not available	..
Not for publication	:
Zero	0
Provisional or preliminary figure	*

# Economic developments in Norway

The Norwegian economy remains in a moderate cyclical upturn. According to the preliminary quarterly national accounts figures (QNA), GDP growth for mainland Norway has been higher for almost three years than annual trend growth, estimated at just under 2 per cent. Marked growth in petroleum and manufacturing investment is contributing to the upturn continuing this year, but the acceleration of the trade conflict between the USA and China and an imminent Brexit are likely to dampen growth from 2020 onwards. According to our

projections, the Norwegian economy will nonetheless be close to cyclically neutral in the years up to 2022. Given these economic developments, we believe that Norges Bank will cancel the planned interest rate hikes, leaving the key policy rate at the current level until the end of the projection period.

We assume that fiscal policy will remain close to cyclically neutral. An expansionary fiscal policy was conducted in the years 2014 to 2016 to counterbalance

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

	2017	2018	Seasonally adjusted			
			18:3	18:4	19:1	19:2
<b>Demand and output</b>						
Consumption in households etc.	2.2	1.9	-0.1	0.4	0.5	0.4
General government consumption	1.9	1.4	0.1	0.2	1.0	1.0
Gross fixed investment	2.6	2.8	2.2	2.5	-2.3	2.8
Extraction and transport via pipelines	-5.4	1.9	3.0	4.4	-3.0	7.1
Mainland Norway	6.8	3.0	2.1	1.7	-2.1	1.6
Final domestic demand from Mainland Norway <sup>1</sup>	3.1	2.0	0.4	0.6	0.1	0.8
Exports	1.7	-0.2	0.3	-1.2	2.0	-0.3
Traditional goods	1.7	2.0	0.0	5.0	2.0	-1.7
Crude oil and natural gas	5.1	-4.8	0.6	-2.1	-2.5	-1.8
Imports	1.9	1.9	-1.0	1.4	3.3	0.4
Traditional goods	3.8	3.2	-0.0	1.4	6.8	-1.2
Gross domestic product	2.3	1.3	0.5	0.4	0.0	0.3
Mainland Norway	2.0	2.2	0.4	1.0	0.5	0.7
<b>Labour market</b>						
Total hours worked, Mainland Norway	0.3	1.8	0.5	0.7	0.4	0.5
Employed persons	1.2	1.6	0.5	0.5	0.5	0.4
Labour force <sup>2</sup>	-0.2	1.4	0.6	0.0	0.1	-0.4
Unemployment rate, level <sup>2</sup>	4.2	3.8	4.0	3.7	3.8	3.4
<b>Prices and wages</b>						
Annual earnings	2.3	2.8	..	..	..	..
Consumer price index (CPI) <sup>3</sup>	1.8	2.7	1.1	0.5	0.5	0.3
CPI adjusted for tax changes and excluding energy products (CPI-ATE) <sup>3</sup>	1.4	1.6	0.6	0.6	0.7	0.4
Export prices, traditional goods	5.2	5.9	0.2	0.0	-1.5	1.7
Import prices, traditional goods	3.5	4.5	1.3	0.5	-1.2	1.7
<b>Balance of payment</b>						
Current balance, bill. NOK <sup>4</sup>	186	285	94	47	68	..
<b>Memorandum items (unadjusted level)</b>						
Money market rate (3 month NIBOR)	0.9	1.1	1.1	1.2	1.3	1.5
Lending rate, credit loans <sup>5</sup>	2.6	2.7	2.7	2.7	2.8	2.9
Crude oil price NOK <sup>6</sup>	452	583	625	578	547	591
Importweighted krone exchange rate, 44 countries, 1995=100	104.5	104.6	103.7	104.7	106.7	106.0
NOK per euro	9.33	9.60	9.58	9.62	9.74	9.72

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

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

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

<sup>4</sup> Current account not adjusted for saving in pension funds.

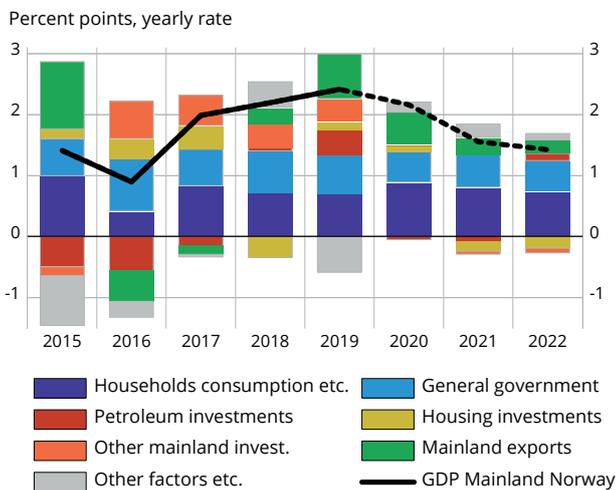
<sup>5</sup> Period averages.

<sup>6</sup> Average spot price, Brent Blend.

Source: Statistics Norway and Norges Bank.

reduced petroleum investment and the ensuing negative impulses. In 2017 fiscal policy became more neutrally oriented, and remained so in 2018. Although growth in public sector investment and consumption is expected to be somewhat below trend in the near term, the ageing of the population will mean higher spending on old-age pensions and other benefits. In total, these demand components are expected to increase by around 2 per cent annually. In light of the combination of cyclically neutral spending growth and small changes in the taxation level, the fiscal impetus is expected to remain almost constant through the projection period. Spending of petroleum revenue will thus be around 2.5 per cent of the value of the Government Pension Fund Global (the petroleum fund) in 2022, slightly below the upper level permitted by the fiscal rule.

**Figure 1. Contributions to growth in GDP Mainland Norway, import adjusted**



Source: Statistics Norway

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 1/2019, Box 3. All figures are seasonally adjusted and in constant prices.

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

Other factors are defined as changes in stock and statistical deviations.

Source: Statistics Norway.

Petroleum investment is contributing substantially to lifting the Norwegian economy in 2019. Whereas investment was almost halved from 2013 Q3 to 2018 Q1, it rose moderately through 2018. We expect pronounced investment growth in 2019, driven primarily by the fields Johan Sverdrup (Phase 2) and Johan Castberg. We expect a decline in investment in field development in 2020 and 2021 which, overall, will not be fully compensated for by growth in other investment categories. At the same time, we expect renewed growth in field development in 2022. We are therefore forecasting relatively flat developments in petroleum investment in the period 2020 to 2022. In Box 2, we decompose our projections into main categories and into different groups of future fields.

The current cyclical upturn has also been driven by strong growth in business investment, which increased by an annual average of 9.5 per cent from 2015 to 2018. In 2019, investment growth is again expected to remain well over what we regard as trend economic growth. In particular, companies in the food industry, repair and installation of machinery, and capital-intensive industries such as refined petroleum products, chemicals and pharmaceuticals manufacturing and basic metals report increased investment. From 2020, however, the global downturn will curb investment growth. As both wind farms and projects in petroleum refinement, chemicals and pharmaceuticals manufacturing will be completed in 2019, there are prospects of reduced manufacturing investment in 2020. On balance, our projections indicate that the level of business investment will remain roughly unchanged from 2020 to 2022.

Growth in housing investment appears likely to be weak in the years ahead. Housing investment began to rise again from mid-2018, after falling in 2017 Q4 and the first half of 2018. Growth has been moderate for the past four quarters. House prices have also risen moderately through 2019 and, according to Real Estate Norway's house price index, fell by 0.7 per cent in July. Even if the interest rate remains unchanged at the current low level, the rise in house prices looks likely to be modest in the years ahead owing to moderate income

**Table 2. Growth in GDP Mainland Norway and contributions from demand components.<sup>1</sup> Percentage points, annual rate**

	QNA				Projection			
	2015	2016	2017	2018	2019	2020	2021	2022
GDP Mainland Norway	1.4	0.9	2.0	2.2	2.4	2.2	1.6	1.4
with contributions from:								
Consumption by households and non-profit organisations	1.0	0.4	0.8	0.7	0.7	0.9	0.8	0.7
General government consumption and investment	0.6	0.9	0.6	0.7	0.6	0.5	0.5	0.5
Petroleum investment	-0.5	-0.6	-0.2	0.1	0.4	-0.0	-0.1	0.1
Housing investment	0.2	0.3	0.4	-0.3	0.1	0.1	-0.2	-0.2
Other mainland investment	-0.1	0.6	0.5	0.4	0.4	0.0	-0.0	-0.1
Exports from Mainland Norway <sup>1</sup>	1.1	-0.5	-0.1	0.3	0.7	0.5	0.3	0.2
Other factors etc. <sup>1</sup>	-0.8	-0.3	-0.0	0.4	-0.6	0.2	0.2	0.1

<sup>1</sup> See explanations to Figure 1.

Source: Statistics Norway.

**Table 3. Main economic indicators 2018-2022. Accounts and forecasts. Percentage change from previous year unless otherwise noted**

	Accounts 2018*	Forecasts										
		2019			2020			2021			2022	
		SN	NB	MoF	SN	NB	MoF	SN	NB	MoF	SN	NB
<b>Demand and output</b>												
Consumption in households etc.	1.9	1.9	2.0	2.3	2.4	2.3	2.9	2.2	2.1	..	2.0	2.3
General government consumption	1.4	2.2	1.7	1.7	1.8	1.3	..	1.9	1.1	..	1.7	1.2
Gross fixed investment	2.8	6.2	..	5.3	0.9	..	0.8	-1.3	..	..	-0.2	..
Extraction and transport via pipelines	1.9	15.4	14.0	13.0	-1.6	1.0	-3.3	-3.1	-3.0	..	4.2	-6.0
Industries	6.8	6.1	4.2	6.7	0.4	3.5	3.7	-0.8	0.8	..	-1.3	1.5
Housing	-6.2	2.6	0.3	0.9	1.9	1.0	0.8	-2.9	1.5	..	-3.9	1.7
General government	7.5	1.6	..	1.2	0.9	..	..	1.3	..	..	1.3	..
Demand from Mainland Norway <sup>1</sup>	2.0	2.4	2.0	2.4	1.9	2.0	2.1	1.4	1.6	..	1.2	1.8
Exports	-0.2	1.9	..	1.8	6.0	..	6.9	2.3	..	..	1.1	..
Traditional goods <sup>2</sup>	2.0	4.9	5.0	5.2	3.8	2.0	5.3	2.2	2.2	..	1.6	2.8
Crude oil and natural gas	-4.8	-2.3	..	-3.3	12.3	..	11.9	4.4	..	..	1.7	..
Imports	1.9	5.5	3.4	3.8	1.8	2.2	2.1	0.2	2.8	..	0.8	2.6
Gross domestic product	1.3	1.6	2.0	2.1	3.3	2.3	3.4	1.9	1.8	..	1.4	1.5
Mainland Norway	2.2	2.4	2.6	2.7	2.2	1.9	2.5	1.6	1.2	..	1.4	1.2
<b>Labour market</b>												
Employed persons	1.6	1.6	1.7	1.4	0.5	0.8	0.8	0.3	0.3	..	0.2	0.2
Unemployment rate (level)	3.8	3.6	3.5	3.7	3.7	3.3	3.6	3.7	3.4	..	3.8	3.5
<b>Prices and wages</b>												
Annual earnings	2.8	3.4	3.3	3.2	3.6	3.5	..	3.5	3.6	..	3.2	3.5
Consumer price index (CPI)	2.7	2.2	2.2	2.3	1.8	1.9	2.0	1.9	2.0	..	2.0	2.0
CPI-ATE <sup>3</sup>	1.6	2.3	2.4	2.6	2.0	2.1	2.2	2.0	2.0	..	2.0	2.0
Housing prices <sup>4</sup>	1.4	2.5	2.3	..	2.1	3.0	..	1.5	3.3	..	0.7	3.4
<b>Balance of payment</b>												
Current balance (bill. NOK) <sup>5</sup>	285	232	..	224	284	..	88	319	..	..	324	..
Current account (per cent of GDP)	8.1	6.5	..	6.1	7.6	..	..	8.2	..	..	8.0	..
<b>Memorandum items:</b>												
Money market rate (level)	1.1	1.5	1.6	1.5	1.6	2.0	1.7	1.6	2.1	..	1.6	2.0
Crude oil price NOK (level) <sup>6</sup>	583	552	..	559	507	..	556	496	..	..	494	..
Import weighted krone exchange rate (44 countries) <sup>7</sup>	0.1	2.6	0.8	2.0	1.5	-2.0	0.0	0.0	-0.4	..	0.0	-0.1

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

<sup>2</sup> 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.

<sup>3</sup> CPI adjusted for tax changes and excluding energy products (CPI-ATE).

<sup>4</sup> Norges Bank forecasts the housing price index published by Eiendom Norge.

<sup>5</sup> Current account not adjusted for saving in pension funds.

<sup>6</sup> Average spot price. Brent Blend.

<sup>7</sup> Increasing index implies depreciation. Ministry of Finance forecasts trade-weighted exchange rate.

Source: Statistics Norway (SN). Ministry of Finance. Meld.St.2. (2018-2019) (MoF). Norges Bank. Pengepolitisk rapport 2/2019 (NB).

growth and higher real interest after tax. As a consequence of weakly falling real house prices, developments in housing investment will be weak through the projection period.

Consumption growth looks set to remain at around trend growth in the Norwegian economy. Consumption is driven by developments in household income, wealth and interest rates. Growth in wage income, the most important source of household income, is expected to decline somewhat as a result of slowing employment growth. Public transfers will contribute positively to growth in real disposable income through the projection period, following weak growth in 2018. Weak developments in real house prices will curb consumption growth, however. The upshot will be consumption

growth in the years ahead of around trend growth for mainland Norway.

Wage growth has picked up through the economic upturn. Following record low growth in average annual wages of 1.7 per cent in 2016, wage growth rose to 2.8 per cent in 2018. We expect wage growth to rise further, to 3.4 per cent, in 2019. Although energy prices are falling, a factor that boosts enterprise profitability through lower costs, profitability for the next few years will be dampened by a weaker global economic situation. Scope for a further increase in nominal wage growth appears to be limited, and we assume that wage growth will remain at around 3.5 per cent in the years 2019–2021 before falling slightly in 2022.

The decline in unemployment appears to be over. According to Statistics Norway's labour force survey (LFS), unemployment has fallen almost continuously, from over 5 per cent at the beginning of 2016 to 3.6 per cent as an average from May to July 2019. In the latter half of the year, growth in numbers employed has been particularly strong in the construction industry and in several service industries, excluding general government. We expect unemployment to be 3.6 per cent as an annual average for 2019. Lower international demand will curb demand for labour in the years ahead and, according to our projections, the unemployment rate will increase to 3.8 per cent in 2022. In a historical perspective, this unemployment level is consistent with what we may regard as normal capacity utilisation.

The Norwegian krone has been weak since 2016, and weakened further through the summer of this year. At the beginning of September, the import-weighted krone exchange rate was around 5 per cent weaker than at the beginning of 2017, when the cyclical upturn commenced. We have forecast unchanged exchange rates through the projection period, but there is great uncertainty concerning movements in the exchange rate in the period ahead. Our projection implies that, on an annual basis, the import-weighted exchange rate index (I44) will weaken by 2.6 per cent in 2019 and 1.5 per cent in 2020, and that a euro will cost around NOK 10.0 up to 2022.

As a result of the weak krone, Norges Bank will very probably not need to cut the key rate in the next few years. Norges Bank's operational target is an annual rise in consumer prices of close to 2 per cent over time. Monetary policy shall also contribute to output and employment stabilising around the highest possible level that is consistent with price stability over time. Inflation has declined somewhat in recent months, and was 1.9 per cent in July, measured by the 12-month rise in the consumer price index. The weak krone will lead to higher imported price inflation going forward. A slower global rise in prices for import goods, attributable to a weaker global economic situation, will counteract this. Given weakly increasing productivity growth and approximately unchanged wage growth for the next few years, inflation is likely to remain close to the inflation target up to 2022. This scenario is based on Norges Bank keeping the key rate at the current level throughout the projection period. Although the global economic outlook has deteriorated, the prospects are that because of the weak krone, Norges Bank will not find it necessary to reduce the interest rate in the next few years. However, movements in the krone exchange rate are shrouded in uncertainty, and if the krone strengthens to a level regarded by Norges Bank as an equilibrium level for the real exchange rate, interest rate cuts may be necessary after all (see Box 1). If global economic developments should be more favourable than we have assumed, however, for example if trade tensions should abate and the consequences of Brexit be moderate, there may be scope for

Norges Bank to increase the interest rate in the near term.

The Norwegian economy is facing a change of pace. The cyclical upturn that has lasted since early 2017 will probably be over in the course of a year. The expected turnaround will be a consequence of a less favourable outlook on the part of our most important trading partners, as a result of escalation of the trade conflict between the USA and China, and the fact that Brexit is imminent. The consequences for the Norwegian economy of the global downturn are likely to be moderate. This is largely because the Norwegian authorities have fiscal scope for manoeuvre to allow growth in public consumption, investment and household transfers to slightly exceed trend economic growth. These three components of public spending account for more than half of mainland GDP. At the same time, the weak krone and low interest rate level continue to spur the Norwegian economy. Overall, output developments in Norway are expected to be consistent with normal capacity utilisation up to 2022.

### **Roughly cyclically neutral fiscal policy**

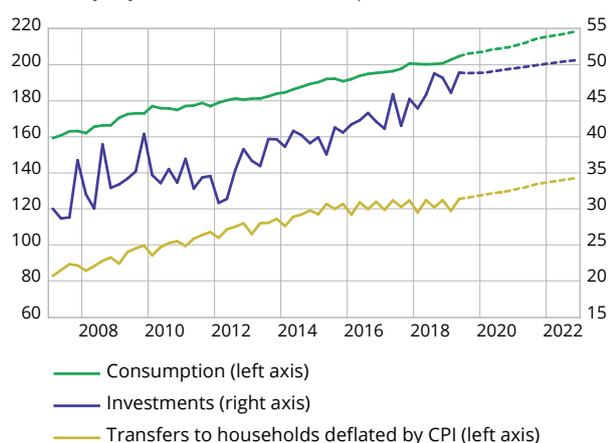
Revised national accounts figures show growth of 1.4 per cent in general government consumption in 2018, which is lower than the previous year. Overall, the volume of general government spending on goods and services has been revised up somewhat compared with the projection in the previous economic report. Gross general government investment increased by 7.5 per cent, which is markedly higher than in 2017. Real growth in public sector consumption, gross investment and transfers combined was about 2 per cent in both 2016 and 2017, close to estimated trend mainland economic growth. In 2018, the sum of these fiscal components increased by only 1.6 per cent, such that the most central expenses in government budgets generated markedly less impetus to the Norwegian economy than in the previous two years.

The fact that policy was weakly contractionary in 2018 can be partly attributed to unusually low growth in expenditure under the Norwegian National Insurance Scheme, an increased surplus from state-owned companies and lower subsidies to the municipalities. The tax rate on ordinary income for personal taxpayers and companies (excluding the financial sector) was reduced from 24 to 23 per cent in 2018. However, because of other adjustments in the taxation system, there was no appreciable change in overall tax revenue. The Revised National Budget 2019 (RNB 2019) shows that the structural non-oil budget deficit (SNOBD) as a share of trend mainland GDP fell in 2018 for the first time since 2011. SNOBD as a share of the Government Pension Fund Global fell to 2.5 per cent, from 2.9 per cent in 2017.

Our forecasts for fiscal policy in 2019 are based on projections published in RNB2019 and national accounts figures for growth in the first two quarters. Transfers

**Figure 2. General government**

Seasonally adjusted, billion 2017 NOK, quarter



Source: Statistics Norway

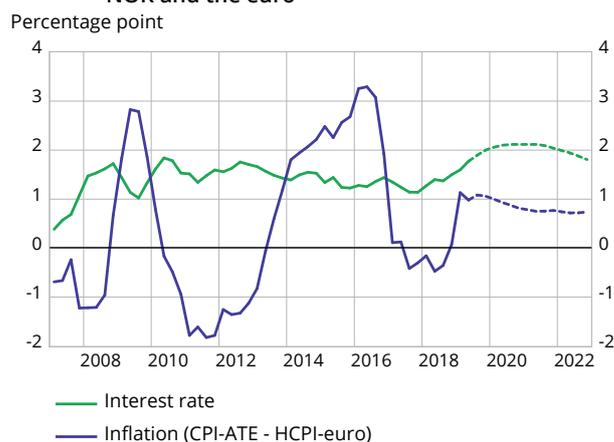
are expected to increase slightly in real terms in 2019 because real wage growth and the number of pensioners are increasing slightly. The higher-than-expected expenditure this year is partly due to the recovery of KNM Helge Ingstad. Another contributory factor is the increasing share of electric vehicles, and associated decline in revenue from vehicle taxes. In 2019, tax on ordinary income was reduced from 23 to 22 per cent, while bracket tax on personal income is being regulated so that there is little change in the effect on the household taxation level.

Overall real growth in spending on purchases of goods and services and household transfers will be 2.2 per cent in 2019, i.e. slightly higher than the previous year, and higher than estimated trend economic growth. We forecast that fiscal policy for 2018 and 2019 as a whole will be approximately cyclically neutral, with spending somewhat lower than expected in 2018, and likely to be somewhat higher than expected in 2019. The government forecasts in RNB 2019 that SNOBD as a share of trend GDP will increase from 2018 to 2019, ending up at about the same level as in 2017.

No fiscal policy has been adopted for the period 2020 to 2022. Our projections for growth in general government consumption and investment are therefore largely a continuation of growth rates that are a little lower than trend mainland economic growth. Transfers, on the other hand, are expected to increase more in real terms than trend mainland economic growth, which is a distinct change from the last few years. This is attributable partly to the ageing population and partly to increased real wages. The combined demand impulses generated by general government spending on goods and services and real transfers will thus increase by about 2 per cent annually from 2020 to 2022, and contribute to maintaining economic growth in the near term.

The value of the Government Pension Fund Global (GPSG) was around NOK 9 600 billion at the beginning

Statistics Norway

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

Source: Norges Bank and Statistics Norway

of September 2019. We expect exchange rates going forward to be unchanged from the current level, so that the value of the fund will not change as a result of exchange rate changes in our projection scenario. There is great uncertainty as to how the oil price will move in the near term. If the price adheres to the path indicated by forward rates, increased oil production in the next few years will yield revenue from petroleum activities that will contribute to further growth in the GPSG. Given a close to cyclically neutral fiscal policy, this indicates that SNOBD as a share of the value of the GPSG will remain at around 2.5 per cent up to 2022.

### The interest rate appears to have peaked

In June 2019, Norges Bank raised the key policy rate by 0.25 percentage point. This was the third increase in the key rate in less than one year. The key rate has thus increased from a record-low 0.5 per cent in September 2018 to the current level of 1.25 per cent, which must still be regarded as a low level. Money market rates have increased slightly less in the same period, from about 1.0 per cent in August 2018 to 1.6 per cent in August 2019.

Deposit and lending rates have also increased in recent years, partly as a result of the higher key rate. In 2016, the interest rate on loans secured on dwellings offered by banks and mortgage companies was 2.5 per cent. The rate had risen to 2.8 per cent by the end of 2018, and rose further to 3.0 per cent at the end of Q2 this year. The increase through the first half of the year came in the second quarter, and must be attributed to the March key rate hike. Deposit rates have increased less, from a level of 0.8 per cent in the period 2016 Q2 – 2018 Q3, to approaching 0.9 per cent at the end of 2018. The deposit rate remained at this level through Q1 this year, and had edged up to approaching 1 per cent at the end of Q2. The last key rate hike came so late that it is not yet reflected in the statistics for interest rates on current deposits and lending at the end of Q2.

### Box 1. How are projections affected by a stronger krone exchange rate?

We have again chosen to base our projections on the assumption of unchanged exchange rates going forward. This despite the fact that, in a historical perspective, the krone has been very weak in recent years, particularly in recent months. There is great uncertainty as to how the krone will move in the period ahead. In this box we therefore illustrate what our projections would have looked like with a stronger exchange rate in the years ahead. We use the KVARTS macroeconomic model in our calculations to compare the projection scenario with two alternative scenarios. In the first alternative scenario, the krone strengthens by 2 per cent in Q4, and then remains at this level for the remainder of the projection period. This corresponds to the movements in the krone exchange rate we used in our June economic report. In the second alternative scenario, we allow the import-weighted krone exchange rate to strengthen by around 0.5 per cent in each quarter from Q4 this year. As an annual average, the krone will then be just on 6 per cent stronger in 2022 than in 2019, and in line with what Norges Bank has estimated to be an equilibrium exchange rate (Monetary Policy Report 1/19).

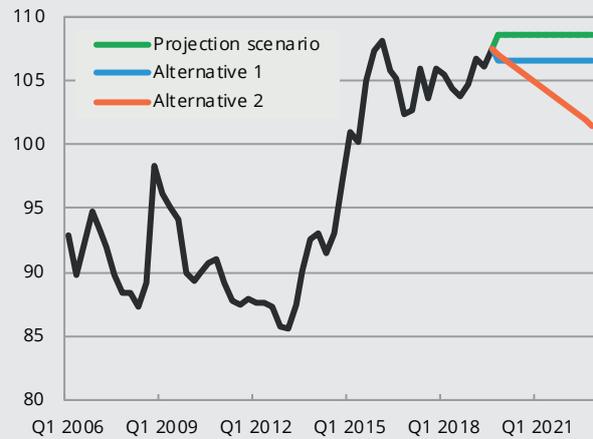
The exchange rate is an important variable in economic developments, and it affects activity through cost-competitiveness, amongst other factors. According to KVARTS, a stronger krone results in reduced exports and increased imports. A stronger krone also leads to lower inflation, which has a positive effect on household real disposable income, which in turn pushes up consumption. However, the deterioration in foreign trade dominates, resulting in reduced mainland GDP.

In the first alternative scenario, where the krone strengthens by 2 per cent, all these effects are relatively small, so our

**Table 1. Effects of a stronger krone, alternative 1.**  
Deviation from the projection scenario in per cent

	2019	2020	2021	2022
Mainland GDP	0.0	-0.1	-0.1	-0.1
- Manufacturing	0.0	-0.4	-0.8	-0.9
Mainland business investment	0.0	-0.1	-0.4	-0.4
Employment	0.0	-0.1	-0.1	-0.1
Wages	0.0	-0.1	-0.3	-0.4
Unemployment rate, % points	0.0	0.1	0.0	0.0
Consumption, household	0.0	0.1	0.2	0.3
Household real disposable income	0.1	0.3	0.3	0.3
Import-weighted krone exchange rate (I44)	-0.5	-2.1	-2.1	-2.1
Exports, traditional goods	-0.1	-0.4	-0.6	-0.7
Consumer price index	0.0	-0.3	-0.4	-0.5
House prices	0.0	-0.5	-0.7	-0.3
Money market rate, % points	0.0	-0.1	-0.2	-0.2

**Alternative scenarios for the future exchange rate. Import-weighted krone exchange rate (I44)**



Sources: Norges Bank and Statistics Norway.

projections have not been appreciably affected by the fact that we have changed our view of the krone exchange rate in the years ahead. In the scenario with a more pronounced strengthening of the krone, however, the implications for the Norwegian economy are greater. Mainland GDP is reduced by a total of 0.3 per cent in 2022, while unemployment rises by 0.1 percentage point compared with the projection scenario. Inflation is also markedly lower. According to the interest rate relationship in KVARTS, this will lead to lower key policy rates, so that the interest rate level at the end of 2022 will be 0.5 percentage point lower than today. Without this interest rate cut, the negative impact on the Norwegian economy would have been greater.

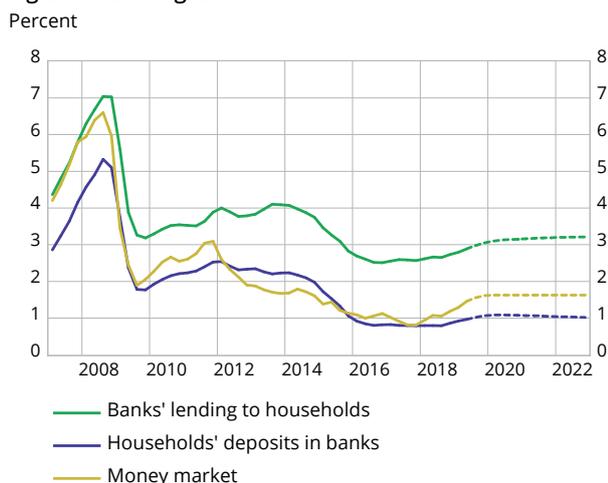
**Table 2. Effects of a stronger krone, alternative 2.**  
Deviation from the projection scenario in per cent

	2019	2020	2021	2022
Mainland GDP	0.0	-0.1	-0.2	-0.3
- Manufacturing	0.0	-0.4	-1.2	-1.9
Mainland business investment	0.0	-0.1	-0.4	-0.7
Employment	0.0	-0.1	-0.2	-0.3
Wages	0.0	-0.1	-0.4	-0.7
Unemployment rate, % points	0.0	0.1	0.1	0.1
Consumption, household	0.0	0.1	0.3	0.5
Household real disposable income	0.1	0.4	0.7	1.0
Import-weighted krone exchange rate (I44)	-0.4	-2.6	-4.4	-6.1
Exports, traditional goods	0.0	-0.4	-1.0	-1.6
Consumer price index	0.0	-0.3	-0.7	-1.1
House prices	0.0	-0.5	-1.2	-1.4
Money market rate, % points	0.0	-0.1	-0.3	-0.4

The krone has remained at a historically weak level in recent years, and has weakened further in the last few months. The krone/euro exchange rate has for the most part been over 9.0 since August 2015, and in 2018 the average value of one euro was NOK 9.6. So far this year the exchange rate has been between 9.6 and 10, and at the end of August it was 10.0. The price of a dollar rose to NOK 9.1 at the end of August, compared to an

average exchange rate of 8.1 in 2018. Measured against sterling, however, the krone is only slightly weaker than the annual average for 2018, while measured against the Swedish krona it was stronger at the end of August than the annual average for 2018. Measured by the import-weighted exchange rate, the krone has thus weakened less from 2018 to the present than indicated

Figure 4. Norwegian interest rates



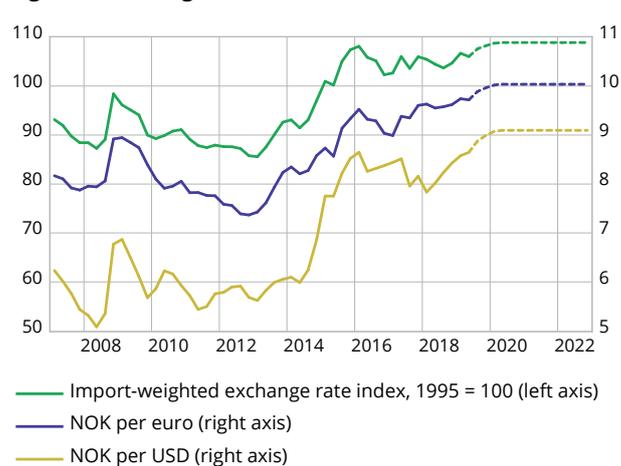
Source: Norges Bank and Statistics Norway

by the euro and dollar exchange rates, and the weakening in this period is about 4 per cent.

In its Monetary Policy Report of June this year, Norges Bank indicated that the key policy rate might also be raised in September this year, and that there might be a further hike in the next few years. This was roughly the same interest rate scenario we envisaged in our June projection. At the monetary policy meeting in August, Norges Bank's Executive Board concluded that the interest rate outlook had changed little since the Monetary Policy Report, but that the global risk picture implies greater uncertainty concerning interest rate movements going forward.

The economic picture on which we base ourselves in the near term no longer suggests that Norges Bank will increase the interest rate in September. It will probably wait and watch developments up to the monetary policy meeting in December. We have based our projections on markedly weaker global developments than in our previous report. This has resulted in lower projections for the outlook for the Norwegian economy, and indicates that GDP will remain at a lower level throughout the projection scenario than envisaged in the last report. At the same time, lower global inflation has prompted us to revise our inflation path downwards, despite a weaker krone and hence higher imported price inflation. If this projection proves correct, there will probably be no interest rate increase in December either. If our scenario for the global economy proves correct, the key policy rate is nonetheless likely to be kept unchanged after that, and money market rates will remain at approximately the current level. As international interest rates appear likely to fall in the period ahead, the interest rate differential between Norway and many other countries could widen. This, coupled with lower growth in 2021 and 2022, could lead to the interest rate being lowered towards the end of the projection period, but we have not based our projections on this assumption.

Figure 5. Exchange rates



Source: Norges Bank

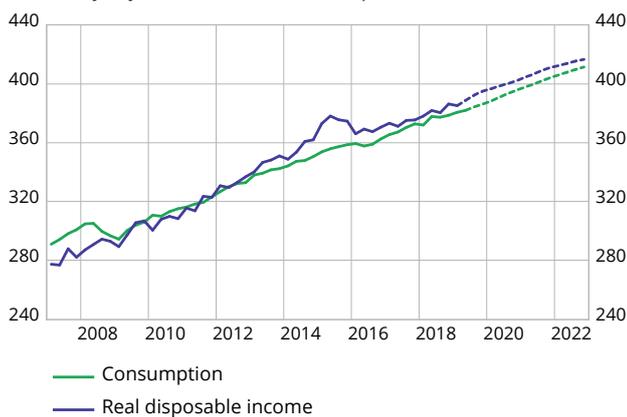
The krone is weak in a historical perspective, and only some of its weakness can be explained by higher inflation in Norway than in the euro area. In isolation, this points to the krone appreciating in the near term. On the other hand, the theory of uncovered interest rate parity implies a further weakening of the krone against the euro, as the interest rate level is higher in Norway than in the euro area. Our projections are based on an unchanged krone exchange rate. In annual terms, this implies a EUR-NOK exchange rate of 10.0 from now until the end of the projection period. Measured in terms of the import-weighted exchange rate, the krone will depreciate by an annualised average of 2.4 per cent from 2018 to 2019. As the krone was stronger earlier this year, unchanged exchange rates going forward will result in a further weakening of the krone of an annualised 1.5 per cent from 2019 to 2020. Unchanged exchange rates will therefore contribute to curbing the negative impulses to the Norwegian economy stemming from the global economic downturn. Box 1 shows how our projections are affected by a stronger krone.

### Consumption growth continues at a moderate rate

Consumption in households and non-profit organisations increased by a moderate 1.9 per cent in 2018, compared with 2.2 per cent the previous year. Seasonally adjusted QNA figures show that consumption continued to increase moderately in Q2 this year. Growth was 0.5 per cent, approximately the same as in the two previous quarters. Goods consumption edged up by a modest 0.3 per cent in the last quarter as a consequence of a fall in purchases of food products, beverages, pharmaceuticals and other health-related items, and zero growth in purchases of furniture and white goods. Conversely, purchases of vehicles and cultural and leisure activities, including sports and camping equipment, pushed up goods consumption in Q2. Electricity consumption increased in the same period, after falling in Q1 this year because of a mild winter.

**Figure 6. Income and consumption in households**

Seasonally adjusted, billion 2017 NOK, quarter



Source: Statistics Norway

The goods consumption index for July shows a seasonally adjusted fall of as much as 1.8 per cent. However, this decline must be viewed against the backdrop of high car purchases in June. Growth in goods consumption excluding car purchases was 1 per cent in July.

In contrast to consumption of goods, service consumption showed broad-based growth of 0.7 per cent in Q2, which is in line with average quarterly growth these past two years.

Developments in consumption are largely determined by changes in household income, wealth and interest rates. Growth in real disposable income, both including and excluding share dividend disbursements, picked up markedly from 1.4 per cent in 2017 to just under 2.5 per cent in 2018. Wage income, which is the primary source of household income, contributed by far the most to growth in real disposable income last year. Although growth in real wages was modest, high employment growth contributed to boosting wage income.

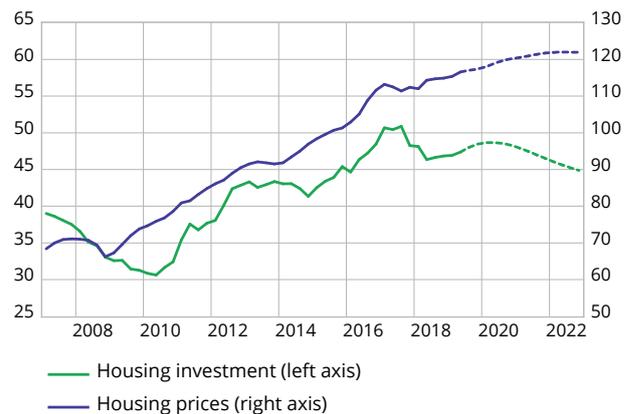
This year, higher growth in real wages coupled with employment growth of around 1.5 per cent will push up growth in real disposable income. Although growth in wage income in the years 2020 to 2022 is expected to slow somewhat as a result of falling employment growth, the contribution to growth in real disposable income will be large. Following weak growth in 2018, public transfers will also contribute positively to growth in real disposable income through the projection period, albeit to a lesser extent than wage income. Growth in transfers going forward is due to the higher number of old-age pensioners coupled with increased real wages. Conversely, net capital income will curb real income growth, as interest on household debt will be somewhat higher in the projection period than last year.

We now expect growth in real disposable income of about 3 per cent this year, up by around 0.5 percentage point on annual growth last year. Growth in real

**Figure 7. Housing market**

Seasonally adjusted. Left axis: billion 2017 NOK, quarter.

Right axis: index, 2015 = 100



Source: Statistics Norway

disposable income will subsequently decline gradually towards 1.5 per cent in 2022. Weak developments in real house prices and overall real wealth, particularly in the last two years of the projection period, will curb consumption growth going forward. Overall, consumption growth appears likely to be around 2 per cent this year, roughly the same as last year, about 2.5 per cent next year and about 2 per cent in the years 2021 and 2022.

Our projections for income, consumption and wealth imply that the level of the saving ratio, measured as saving as a share of disposable income, will remain at around 6.5 per cent, roughly the same level as last year, throughout the projection period. The saving ratio excluding share dividend disbursements will decline gradually, from around 2 per cent in 2018 to around 1.5 per cent in 2022. Our saving ratio projections are somewhat more uncertain than usual in the absence of an update on household income accounts.

### Weakly falling real house prices

House prices have picked up cautiously since the housing market reversal in 2017. According to Statistics Norway's quarterly house price index, the rise in house prices was about 1 per cent in Q2 this year, or 4.2 per cent measured as an annual rate. However, this rise followed a modest rise through Q1 this year and the second half of last year. Although the rise in prices in 2018 Q2 was also strong, the annualised average rise was no more than 1.4 per cent last year.

House prices thus rose only by 3 per cent from 2017 Q1, when the housing market reversal occurred, up to Q2 this year. By way of comparison, house prices were about 15 per cent higher in 2017 Q1 than in 2015 Q1, after a two-year period marked by high population growth and sharply falling mortgage rates.

The rise in house prices promises to be weak also in the third quarter of this year. According to Real Estate Norway's monthly house price statistics, seasonally

adjusted house prices fell as much as 0.7 per cent in July, despite a high level of housing market activity.

House prices are stimulated by an increase in real disposable income and lower real interest rates, and dampened by an increased supply of dwellings and lower population growth. In the short term, house prices are also influenced by changes in households' expectations regarding both their own financial situation and the Norwegian economy. Restrictions that lead to less borrowing will also rein in house prices. The new Mortgage Regulations, in force since 1 July 2018, largely continue the borrowing requirements in the Mortgage Regulations of 1 January 2017. The credit information register for consumer loans applying from 1 July this year might also have the effect of curbing borrowing for housing purposes, and hence also house prices going forward.

Real disposable income will increase in the near term compared with last year. However, the borrowing rates facing households will not increase very much through the projection period. Nonetheless, because of lower inflation, real interest rates as an annual average will change from negative in 2018 to positive this year and for the next three years. The higher real interest rates, coupled with tightening of bank lending as a consequence of the new credit information register, will bring about a decline in household debt growth from around 6 per cent in 2018 to around 5 per cent towards the end of the projection period. The most recent observation on Finance Norway's consumer confidence indicator shows greater optimism among households with respect to both their own financial situation and the national economy. This may provide some impetus to house prices in the immediate future.

As in our last economic report, we assume a continued cautious rise in nominal house prices through the projection period reflecting a good balance between housing demand and supply. Population growth, a factor that drives growth in housing demand, will increase less in the near term than in the years prior to the housing market downturn in 2017. As housing investment fell by as much as 6 per cent as an annual average in 2018, the supply of dwellings, i.e. the value of housing stock, will also increase less in the near term than in recent years. All in all, we forecast an average annual rise in house prices of just over 1.5 per cent in the period 2019–2022. As inflation appears likely to remain close to the inflation target of 2 per cent, real house prices will be falling weakly through the projection period.

Seasonally adjusted figures show that housing investment has reversed from a sharp fall through 2017 Q4 and first half of 2018 to a moderate upswing through the last four quarters. Although there has been a trend rise in housing starts for some months now, weak real house price developments will curb housing investment going forward. We envisage a fall in housing

investment through the projection period, albeit at a moderate pace. Our projections imply that the level of housing investment in 2022 will be about 8.5 per cent lower than the peak level in 2017.

### **Strong growth in petroleum investment this year**

After falling for four years, petroleum investment increased by 1.9 per cent in 2018. In the first half of 2019, petroleum investment was 15.6 per cent higher than the level in the first half of 2018. Preliminary seasonally adjusted Q2 figures show growth of about 7 per cent.

According to Statistics Norway's investment intentions survey, companies are expected to invest about NOK 182 billion in 2019. This represents a slight downward revision compared with the projection from the figures taken in the previous quarter. The projection is 16.3 per cent higher than the corresponding projection made for 2018. Realisation of this projection presupposes investment growth of about 20 per cent from the first to the second half of this year. Figures from the last 18 years show that, on average, investment has been 10 per cent higher in the second half of the year than in the first. As investment has increased by around 20 per cent from the first to the second half of the year in five of this years, realisation of the present projection for this year is within the realms of possibility.

The Norwegian Petroleum Directorate's figures for number of drilling days in the first two months of Q3 indicate a clear increase in drilling activity. As the costs of exploration and production drilling account for about 40 per cent of petroleum investment, drilling figures provide an indication of growth in overall petroleum investment in Q3 that is consistent with the projections in the survey.

We expect Plans for Development and Operation (PDOs) to be submitted for a couple of projects this autumn. A development project that requires a PDO is only included in the investment intentions survey once the plan has been submitted to the authorities. As investment tends to be lowest in the initial years of a development, we assume that investment in these projects will be modest this year.

Historical figures for the last 18 years show that the annualised projection in Q3 of the investment year has been 4 per cent higher, on average, than the final investment. This overestimation tends to be a result of planned investments being postponed until the following year. Only in one of the last 18 years was the final investment figure higher than the projection published in Q3; see Box 2.

In light of strong Q2 investment figures, high drilling activity so far in Q3 and expected additional investment in new developments, we assume that the overestimation will be less than usual this year. A 15.4 per cent

### Box 2. Projections for petroleum investment

In developing projections for petroleum investment in the period 2019–2022, we take as our starting point the investment intentions survey – Statistics Norway’s quarterly survey of investment in extraction and pipeline transport. This reports the total of the oil companies own investment projections for the current year and the next year. The operators’ total projections are collected in seven successive quarters, from and including Q2 of the year prior to the investment year. The projections are then updated by the companies each quarter, before the final amounts invested for the whole year are reported in Q1 after the expiry of the investment year. Figure 1 shows average investment projections published at various times for the years 1986–2018 as a percentage of final investment, and the spread around these represented by both a 50 and 80 per cent confidence interval and the range of all projections published at the different times.

Figure 1 shows that the average of the companies’ projections is lower than actual investment in the three surveys in the year before the statistics year (t-1). Forecast error is also declining in the year before the statistics year, and the November projection is virtually in line with expectations. One important source of underestimation of early phase investment is that the statistics do not capture all the development projects within the projection horizon of the survey. Projects are only included in the survey when companies submit a plan for development and operation (PDO) to the authorities. The extent of the underestimation depends largely on whether and when in the survey’s projection cycle development projects are included. The size of the projects is naturally also important. For example, a major development that is included in the survey in February of the investment year will have substantial investment that year, and thus in isolation lead to underestimation in the early projection stages. A small development will only make a modest contribution to underestimation.

There is also system in the investment projections at the different stages of the statistics year (t). In the first three projections of the projection year, investment has a history of being overestimated, and increasingly so up to the survey conducted in August in year t, before falling in the final

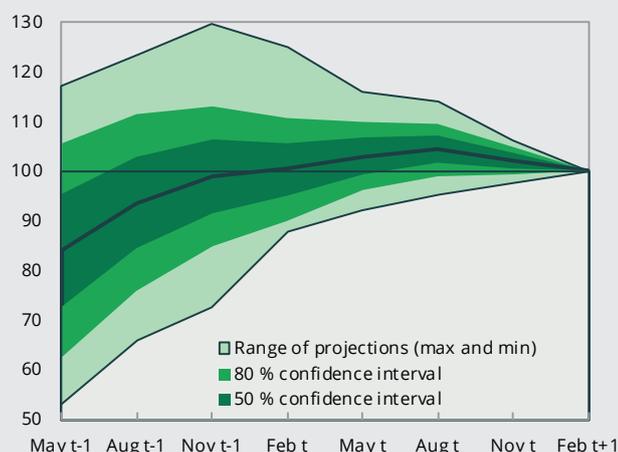
projection in November of year t. The main source of the overestimation in the investment year is that companies are over-optimistic in their views of what they will achieve before the end of the year. Not until August, or most commonly in November, do they tend to realise this. Then some of their investment plans are carried forward to the following year. Similarly, this carrying over of investment plans has also contributed to an increase in the projection for the following year in the surveys in August (Aug t-1) and November (Nov t-1).

We use these patterns when preparing our projections for the current and following year. As Figure 1 illustrates, there is a wide spread in the projections around the averages for the various projection stages. Uncertainty is naturally greatest in the early projection stages, and abates as we approach the ex post outturn in February the year after the statistics year. The spread makes it inadvisable to mechanically integrate these average patterns into our projections. In addition to taking coming development projects into account, we look at the market’s oil price expectations, the cost and capacity situation of suppliers, and the general sentiment in the extraction industry when we consider whether the historical average is too high or too low for the specific year for which we are going to estimate investment.

Figure 2 shows the whole projection path for 2017 and 2018, and developments in projections for 2019 and 2020 as they emerged in the last investment intentions survey, published in August. Investment for 2017 was overestimated in early projection phases. This is a break with the normal pattern, and must be viewed in light of the decline in investment that year. The projections for the years 2018–2020 are more in line with a normal projection pattern.

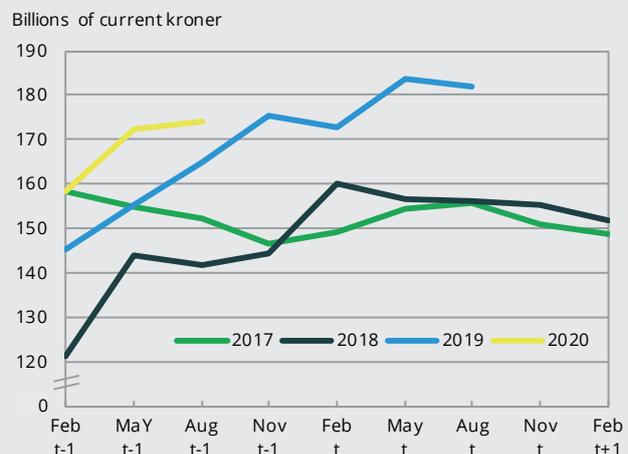
Investment in the first half of 2019 is 19 per cent higher than actual investment in the first half of 2018. Thus in the first half of the year we are on track, given that the current annual projection for 2019 indicates annual growth of 16.3 per cent. The projection for 2020 indicates growth of 5.4 per cent compared with that made for 2019 at the same time a year ago. As Figure 2 shows, the projection for 2019 has become substantially higher in later forecast rounds. The

Figure 1. Historical projections compared with final investment



Source: Statistics Norway

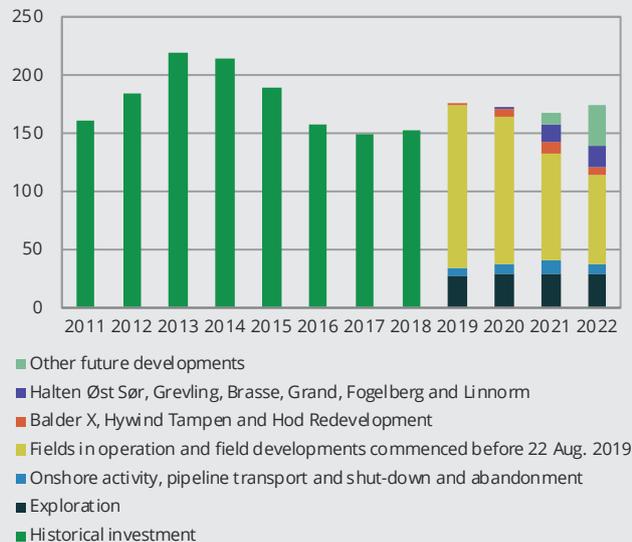
Figure 2. Investment. Extraction and pipeline transport Annual projections published at different times



Source: Statistics Norway.

**Figure 3. Petroleum investment. Historical figures and projections**

Billions of constant 2017 kroner



Source: Statistics Norway.

last projection for 2019 is 4.4 per cent higher than the last projection for 2020. There is therefore still great uncertainty as to which sign final investment growth in 2020 will have.

In Figure 3, we decompose our projections for petroleum investment into some main categories and into different groupings of future fields that we believe will come in the period 2019–2022. The historical figures for the period 2010–2018 are from the national accounts, and are in constant 2017 prices. The projections for the period 2019–2022 are based on the investment intentions survey in current prices, and have then been deflated into constant 2017 prices on the basis of our expectations of how prices for petroleum investment will develop. The national accounts figures for petroleum investment for which we publish projections differ somewhat in terms of definition from the figures in the investment intentions survey. Whereas the national accounts figures are based on gross investment, including R&D but excluding acreage fee, the survey uses new investment including acreage fee, but excluding R&D. This difference is taken into account in our projections, but over the years it has not been large. In our projections we also take account of the fact that it is very common in the final projection phases for investment plans to be transferred to the following year. In addition we use publicly available information from media, government institutions and oil companies to form a picture of probable times for the sanctioning of developments and the scope of future projects.

increase in the volume of petroleum investment is now expected this year.

The oil companies' most recent investment projection for 2020 is now estimated to be NOK 174 billion. This is a slight upward revision compared with the previous count in May. The field development projection for 2020 is appreciably lower than the most recent development projection for 2019, mainly because

The Norwegian Petroleum Directorate's fact pages have current information on drilling activity, both exploration and extraction, on the continental shelf. The number of drilling days in the first two months of Q3 indicate growth in investment in Q3 compared with Q2 that is approximately in line with the 12 per cent growth projected for Q3 in the investment intentions survey. The Balder X development project is also expected to be included in the survey this autumn. There will probably also be some investment this year in the upcoming projects Hod Redevelopment and Hywind Tampen. We assume that the combined investment in these projects will amount to NOK 1.7 billion this year. As a result of strong Q2 investment figures, high drilling activity so far in Q3 and expected additional investment in developments, we assume that the overestimation will be less than usual this year. A 15.4 per cent increase in the volume of petroleum investment is now expected this year. This estimate is based on prices for petroleum investment increasing by 2 per cent this year.

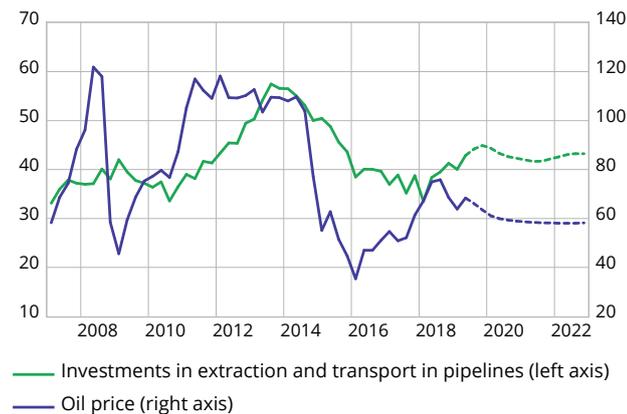
The investment growth of 2019 appears likely to come to a halt in 2020. We forecast that investment in Balder X, Hywind Tampen and Hod Redevelopment will amount to a total of about NOK 7 billion in 2020. We also assume that several new developments will be sanctioned next year. We project total investment of about NOK 1.6 billion in these in 2020. We assume that this growth, from projects that are not yet included in the survey, will not be sufficient to compensate for the fall in investment in 2020 from fields in operation and field developments initiated before 22 August 2019. The main reason for this fall is the phasing out of Johan Sverdrup Phase 1, which will come on stream late this year. On the other hand, we expect moderate investment growth for the category exploration, and considerable growth for the category shut-down and abandonment next year. All in all, we assume approximately unchanged petroleum investment from 2019 to 2020, in current prices. However, we expect slightly higher investment prices and a moderate fall in investment volume in 2020.

We calculate that investment from projects not included in the survey will total NOK 35 billion in 2021 and NOK 60 billion in 2022. Many of the developments now in the survey will be either phased down or completed in 2021, so that there will be an appreciable fall in investment in 2021 in fields in operation and field developments embarked upon before 22 August 2019. The further fall in investment in 2022 in fields in operation and field developments started before 22 August 2019 is relatively modest. Although we assume moderate growth in other categories in 2021 that will level off in 2022, this nonetheless implies that we are projecting a fall of about 3 per cent in investment volume in 2021 and growth of about 4 per cent in 2022.

Johan Sverdrup Phase 1 will be completed when the field comes on stream late this year. Although some new development projects are expected that will raise development investment beyond that now included in the survey, we foresee that investment in field development will fall appreciably in 2020. We expect investment growth in other categories that will result in total investment in 2020 of approximately the same level

**Figure 8. Petroleum investments and oil price**

Seasonally adjusted. Left axis: billion 2017 NOK, quarter.  
Right axis: USD per barrel



Source: Statistics Norway

as in 2019, in current value. On balance, this implies a moderate fall in the investment volume in 2020.

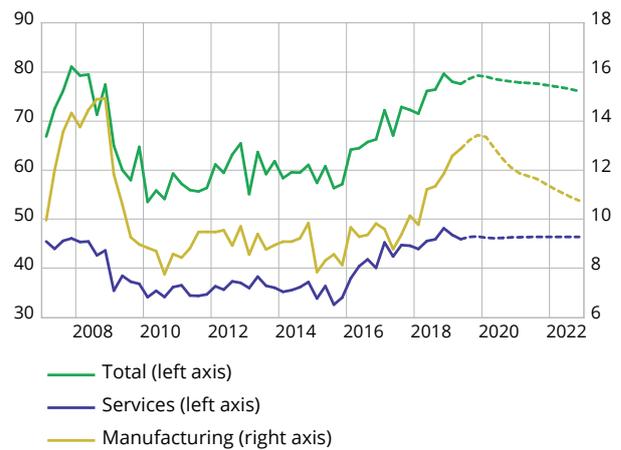
We expect several developments to start up in 2021. The largest of these is Wisting, in the Barents Sea. Many of the developments now in the survey will be phased down or out in 2021, so that they will have appreciably lower investment in 2021 than in 2020. The result will be lower development investment in 2021. Even if we assume somewhat higher investment in the other categories in 2021 than in the previous year, we expect petroleum investment to fall by about 3 per cent in 2021.

The developments that come in 2020 and 2021 will mean substantially higher investment in 2022 than in 2021. Some new developments will also start up in 2022. The large developments Johan Castberg and Johan Sverdrup Phase 2 will begin operating in the course of 2022, but will still entail considerable investment this year. We therefore assume considerable growth in development investment in 2022. We expect developments in the other investment categories to be relatively flat from 2021 to 2022. An approximately 4 per cent increase in the volume of petroleum investment is accordingly expected in 2022. Given this scenario, the volume of petroleum investment in 2022 will again be at about the same level as in 2019, after a moderate decline in 2020 and 2021.

According to the most recent quarterly national accounts, prices for capital goods and services have been revised upwards, from a fall of 0.2 per cent to a rise of 0.5 per cent for 2018. In 2019 Q1 these prices edged down 0.5 per cent compared with the same quarter the previous year, while preliminary figures show a 3.5 per cent price rise for Q2. We expect increased demand for capital goods and services in 2019 to push up prices, also in the second half of the year. We are therefore assuming a 2 per cent rise in prices this year as an annual average. Given a levelling off of demand for capital goods and services in 2020 and 2021,

**Figure 9. Investments, Mainland Norway**

Seasonally adjusted, billion 2017 NOK, quarter



Source: Statistics Norway

we expect somewhat lower inflation in these years, followed by a moderate increase in 2022 again.

In the first half of this year, oil and gas extraction, measured in energy equivalent, was 4.7 per cent lower than in the same period last year. Liquid production fell by 10.8 per cent, while gas production in the first half of the year was 0.7 per cent higher than in the same period in 2018. According to the Norwegian Petroleum Directorate, oil and gas extraction is expected to decline moderately this year. Extraction is expected to increase considerably in 2020 as a consequence of Johan Sverdrup coming on stream in November this year, according to plan. Growth is expected to remain positive, but more moderate, later in the projection period.

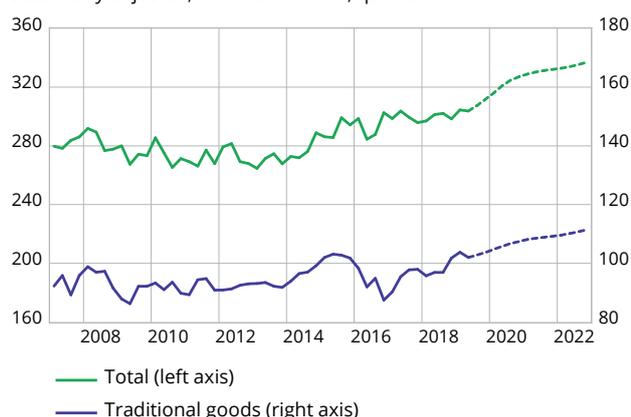
### Business investment is levelling off

In 2017 and 2018, total business investment increased by 9.2 and 6.8 per cent, respectively. Total business investment in 2019 Q1 was 9.4 per cent higher than the level in 2018 Q1. The 2019 Q2 figures show growth of about 2 per cent compared to the level for 2018 Q2. Of the sub-components, manufacturing investment had by far the strongest year-on-year growth in the first two quarters of the year, with growth rates of 30 and 15 per cent, respectively. Growth in services, including construction, was about 2 and 1 per cent for Q1 and Q2, respectively.

In Statistics Norway's August investment intentions survey, the manufacturing investment projections in 2019 are about 35 per cent higher than the corresponding projections for 2018 published in August last year. The projections are in current prices, so the survey implies somewhat lower growth, measured in constant prices, given rising investment prices. This upswing is attributable to the food industry and repair and installation of machinery in particular. Refined petroleum products, chemicals and pharmaceuticals manufacturing and basic metals are also contributing positively to the high level of investment activity in 2019. The projections for

**Figure 10. Exports**

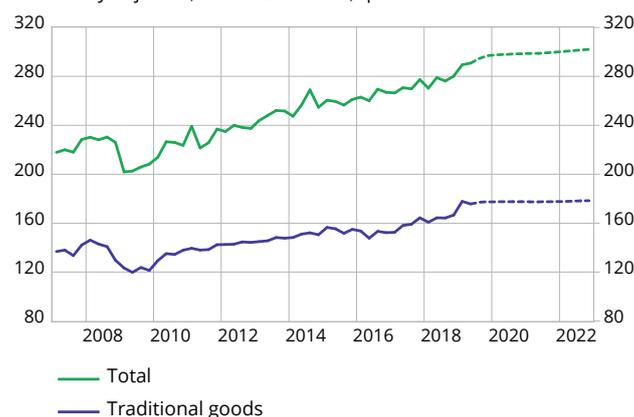
Seasonally adjusted, billion 2017 NOK, quarter



Source: Statistics Norway

**Figure 11. Imports**

Seasonally adjusted, billion 2017 NOK, quarter



Source: Statistics Norway

2020 are more uncertain, but indicate that manufacturing investment will level off, or fall slightly, compared with the level in 2019.

The survey shows a levelling off in power supply attributable to the fact that the high growth in connection with the installation of AMS meters is over. The 2019 projections from August indicated an investment decline of 4.3 per cent. This is partly because the August projection published in 2018 has been revised upwards. The positive impetus in the near term will come in the production phase and be associated with the development of wind farms. The survey now shows a clear decline, also for 2020, but the projections are uncertain, and may change if new wind farm projects are initiated.

Norges Bank's regional network maps economic developments in Norway, including expected investment, by compiling information from businesses throughout Norway. The report published in June shows that investment growth is expected in the next 12 months. All sub-components make positive contributions, but we now find a lower projection in manufacturing and suppliers to the petroleum industry, while there are somewhat higher projections in services, retail trade and the local government and hospital sectors.

We estimate growth in total business investment at approximately 6 per cent in 2019. Two quarters with positive contributions, and high reported investment from the investment intentions survey, show substantial investment in several sectors of the economy in 2019. Given weaker economic developments going forward, we foresee that investment will peak in early 2020, and then fall somewhat through the last two years of the projection period.

### Weaker external account outlook

Following growth through 2018 and 2019 Q1, exports of traditional goods fell in Q2 this year. The decline in Q2 was almost as large as the upswing in Q1, according

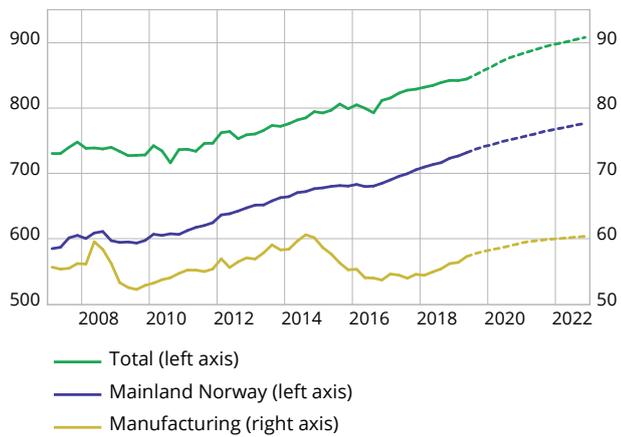
to seasonally adjusted QNA figures. A reduction in exports of engineering products contributed most to the decline, but the reduction took place from a high level after high growth in Q1. Similar developments were seen in exports of refined petroleum products. These two product groups together account for about 30 per cent of total traditional goods exports. Substantial contributions to Q2 growth came from exports of farmed fish which, after a slight decline in Q1 this year, appear to be continuing the growth of 2018. Exports of non-military ships and boats also increased.

The rise in prices for traditional goods exports was three times as high as the volume growth in 2018. In the course of the first six months of 2019, the price index, like the volume, has barely increased. If refined petroleum products, which fluctuate substantially in price, are excluded, there was an approximately zero price rise in both quarters. Prices for exports of food products and beverages, another large product group, have increased for five successive quarters. Prices for electricity exports have fallen for the last three quarters.

Production of crude oil and natural gas determines the volume of petroleum exports. Oil exports have fallen in recent years, while gas exports have increased. Total oil and gas exports have fallen in each of the last three quarters, by over 6 per cent in all. In Q2, maintenance work led to sharply reduced exports of crude oil, while gas exports increased. In the same period, the oil price rose slightly, while the gas price fell sharply. The price index for oil and gas exports has fallen in each of the last three quarters by a combined amount of close to 20 per cent. If the price fluctuations from quarter to quarter are ignored, the values of oil exports and gas exports have been approximately the same for several quarters, and hence also for the year 2018 and the first half of 2019.

Service exports continued to grow in both Q1 and Q2 of 2019. The service groups oil-related services,

**Figure 12. Gross domestic product**  
Seasonally adjusted, billion 2017 NOK, quarter



Source: Statistics Norway

foreigners' consumption in Norway, public transport services and information services all reported increased exports in both Q1 and Q2. Export prices fluctuate from quarter to quarter, even when seasonally adjusted. A decline in prices for service exports as a whole in Q1 this year reversed into a slight rise in Q2. The value of exports rose in both quarters.

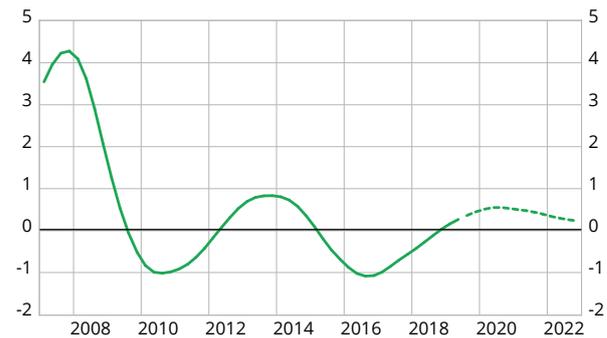
The recent trade tensions, coupled with weak or negative growth figures for many countries, including major trading partners such as Sweden, the UK and Germany, have led to us revising down our projections for global market growth compared with earlier projections. This implies reduced growth in demand for Norwegian export goods and services, and hence reduced growth in mainland exports. We expect nonetheless that Norwegian exports will gain market shares, aided by improved cost-competitiveness due in part to the weaker krone. Oil and gas exports will increase sharply in 2020, when the large new Johan Sverdrup Phase 1 field reaches normal production after start-up in Q4 this year.

Following moderate growth in 2018 and a large increase in 2019 Q1, traditional goods imports fell a little in Q2. Reduced imports of engineering products and cars pushed down imports, but from a very high level, following strong growth for both product groups in Q1. The import of three fighter aircraft contributed to overall goods imports increasing also in Q2, following substantial growth in Q1. A strong rise in prices for refined petroleum products and to a somewhat lesser extent for engineering products contributed most to a price rise in Q2 following a decline the previous quarter.

The growth in service imports continued from Q1 to Q2 this year. The growth was quite broad-based, but with a dominant contribution from the large information services group. Movements in prices for service imports as a whole have been virtually flat for the last three quarters. As a result of growth in imports of traditional goods and services in the first half of 2019, annual

**Figure 13. Output gap, Mainland Norway**

Deviation from estimated trend GDP in percent



Source: Statistics Norway

growth is expected to be high. Substantially lower growth rates are expected in the last three years of the projection period as a result of weaker demand growth in Norway.

The rise in prices for oil and gas exports contributed strongly to the substantial increase in the trade surplus in 2018. An expected fall in the oil price will negatively impact the trade surplus each year in the projection period, while volume growth, particularly in 2020, will have a positive effect. Net exports are also expected to provide positive growth impulses, so the trade surplus is projected to increase again after dipping in 2019. Increasing transfers from the petroleum fund coupled with a weakened krone in 2019 and 2020 will strengthen the balance of income and current transfers. The sum of the trade surplus and the balance of income and current transfers makes up the current account balance. The surplus expressed as a share of GDP is estimated to be between 6 and 9 per cent in the projection period.

### The moderate cyclical upturn is nearing an end

Mainland GDP increased by 0.7 per cent from Q1 to Q2 this year. This is marginally higher than the average increase from last year and the start of the current year. Q2 growth was also somewhat higher than estimated trend growth for the Norwegian economy of just under 2 per cent as an annual rate. The cyclical upturn that started almost three years ago thus continued through the first half of 2019.

Norwegian manufacturing is enjoying solid growth. Manufacturing was hard hit by the cyclical downturn that started in 2014, but since 2017 has benefited from the turnaround in the Norwegian economy. Manufacturing value-added rose by as much as 1.8 per cent in Q2, compared with 0.3 per cent in Q1. Second quarter growth was fairly well distributed among the different manufacturing segments. Growth was particularly good in several petroleum-related

manufacturing segments, such as shipbuilding and manufacturing of machinery, but also in the food industry. Manufacturing value added as a whole has now risen by a good 7 per cent from the trough in 2016 Q4. However, the level of activity is still 5 per cent lower than the peak in 2014.

Construction has been growing strongly for a long time, and has thus been an important force driving the cyclical upturn in the Norwegian economy. This high growth continued in Q2, and value added rose by 1 per cent. This is admittedly lower than average growth last year, but is still well over estimated trend growth for the economy in general.

Developments in other goods-producing industries are strongly affected by naturally occurring factors. Value added in fishing and aquaculture rose by a full 6.1 per cent in Q2, adding 0.1 percentage point to mainland GDP growth. The level of activity in agriculture and forestry fell by 1.2 per cent, while power production remained unchanged from Q1 to Q2.

Value added in service industries excluding general government edged up 0.6 per cent from Q1 to Q2, following first-quarter growth of 1 per cent. Growth in service production has been robust for a long time, and has also become steadily more broad-based as the Norwegian economic upturn has taken hold. Q2 growth was particularly strong in finance and insurance, and in professional, scientific and technical services. The hotel and restaurant industry also posted solid figures. This has been the case for a long time, and can be largely ascribed to the relatively weak krone, which prompts more foreign tourists to come to Norway, and Norwegians to spend more holidays at home.

The activity level in general government rose by 0.4 per cent in Q2. This growth is stronger than in Q1, but nonetheless somewhat less than estimated trend growth for the Norwegian economy as a whole.

The moderate cyclical upturn that the Norwegian economy has been in recently is expected to continue for a while. We expect solid growth in petroleum investment this year, which will generate demand impetus to the mainland economy as well, particularly to manufacturing. However, the positive impulses will reverse to negative next year already. Our projections show that this, combined with weak growth in activity among our trading partners, will push down manufacturing growth later in the projection period.

The construction industry has been growing strongly in recent years. Our projections indicate, as they have done for a while, that growth will decline going forward. Growth in housing investment is expected to be moderate in the next few years before becoming negative later in the projection period. At the same time, growth in public infrastructure investment will slow. We also foresee that the broad-based upswing

in service industries will continue, but at a decreasing rate, in pace with the slowing of the economy in general. Growth in general government is expected to remain fairly stable at slightly below trend growth for the Norwegian economy.

Overall, our projections indicate mainland GDP growth of 2.4 per cent for the current year, gradually falling to 1.4 per cent towards the end of the projection period. The main reasons for the slowing of the economy are weaker impetus from petroleum activities and the global economy. Given our estimated trend growth, these projections imply that developments in the Norwegian economy will be close to cyclically neutral in the period up to 2022.

### **Somewhat higher unemployment in the near term**

Employment increased by 0.4 per cent from Q1 to Q2 this year. This is somewhat weaker than growth the previous quarter, and about the same as average growth for 2018. The employment developments reflect the fact that the moderate cyclical upturn continued in the first half of 2019. This is also supported by unemployment developments. According to the Labour Force Survey (LFS), unemployment fell from 4.0 per cent to 3.3 per cent from 2018 Q3 to the beginning of 2019 Q2. Unemployment subsequently rose to 3.6 per cent, measured as the average for the period May–July this year. However, the statistics of the Norwegian Labour and Welfare Organisation (NAV) show flatter developments in the gross unemployment rate so far this year, after a slight fall through the second half of 2018.

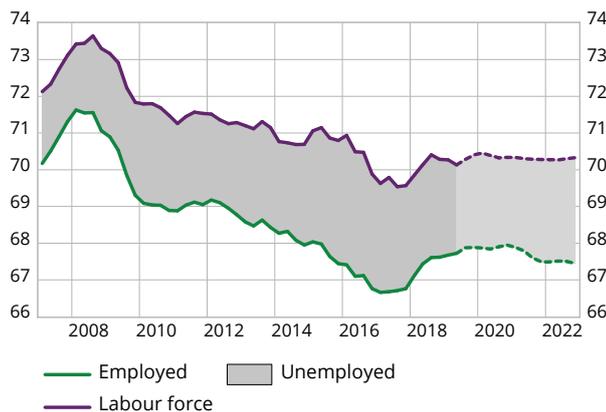
Construction employment has grown strongly through the cyclical upturn that started in early 2017. In 2018, employment rose by about 1 per cent per quarter on average, and growth increased to 1.1 per cent in Q1 this year. Q2 of this year stands out with growth of 0.6 per cent – the lowest growth rate since the beginning of 2017. Employment in business services, including employment activities such as temporary staff recruitment agencies, increased by 0.9 per cent in Q2. The growth rate was somewhat weaker than in recent years, but nonetheless higher than in Q1 this year and higher than the average for mainland Norway.

Employment in services associated with the petroleum industry has increased since 2018 Q3 after falling through the first half of 2018. Manufacturing employment has increased continuously since the latter half of 2017, and the growth rate has picked up since 2018 Q2. Growth in overall manufacturing employment was 1.0 per cent in 2019 Q2, with strong growth in the food industry contributing about 0.3 percentage point.

Developments in retail trade have quite a lot to say for overall employment, as large numbers are employed in this industry. Retail employment was approximately unchanged through 2018. This must be viewed in light

**Figure 14. Labour market status**

Percent of population in working age, LFS



Source: Statistics Norway

of weak developments in goods consumption last year, and the fact that productivity growth has been high in this industry for several years. This year employment dipped 0.6 per cent in Q1 before regaining 0.1 per cent in Q2.

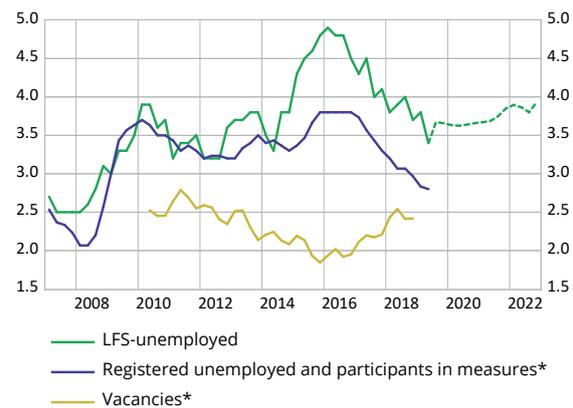
According to the LFS, unemployment fell from 5.1 per cent at the beginning of 2016 to 3.8 per cent at the beginning of 2019. This declining trend continued at the beginning of Q2 this year, when the average for the period from March to May was 3.3 per cent – the lowest level since the oil price fall in 2014. Unemployment, on the other hand, picked up somewhat through Q2 to 3.6 per cent, which is also the average so far this year. The economic upturn has contributed to high employment and low unemployment. Flatter developments in the labour force since the end of last year have also contributed to the low unemployment figures observed this year.

LFS figures indicate that surplus capacity in the labour market has not decreased as much as unemployment developments would imply. The number of man-weeks that the unemployed wanted to work was equivalent to 86 000 full-time jobs in 2019 Q2 – a reduction of 9 000 full-time jobs compared with the same quarter the previous year. However, the total number of unrealised man-weeks among the underemployed increased by an amount equivalent to 2 000 full-time jobs, from 24 000 in 2018 Q2 to 26 000 in 2019 Q2. The total number of unrealised man-weeks, compared with the same period the previous year, has fallen since 2018 Q4. The increase in unrealised man-weeks among the underemployed has curbed this decline, however.

NAV's seasonally adjusted statistics indicate more stable developments than the LFS in the unemployment rate through the current year. The sum of the fully unemployed and persons on labour market programmes accounted for 2.8 per cent of the labour force through the year. NAV's seasonally adjusted statistics show that the sum of the fully unemployed and persons on labour

**Figure 15. Unemployed and number of vacancies**

Percent of labour force and of the sum of occupied and vacant positions, seasonally adjusted and smoothed



\*Breaks in the statistics make the numbers incomparable before and after January 2013  
Source: The Norwegian Labour and Welfare Administration and Statistics Norway

market programmes fell by about 2 900 persons from January to June this year. By way of comparison, this total decreased by 5 900 persons over an equally long period, from July to December last year. Figures for July this year show an increase, followed by an approximately equally large decline in August. NAV's statistics accordingly indicate that the fall in unemployment is now slowing, and indicate that the unemployment rate is stabilising and will probably near a trough in the current economic cycle.

The moderate cyclical upturn will contribute to higher employment this year. Our calculations show that private service production, manufacturing and general government will push up aggregate employment. Weaker global economic developments will dampen growth in the Norwegian economy and cause a levelling off of demand for labour from 2020. Unemployment may then increase slightly compared with 2019, but nonetheless remain around a level that is usual when the economy is in a cyclically neutral situation.

### Stable wage growth ahead

Wage growth is still on the rise following the reversal of a long period of low wage growth at the end of 2018. A number of sectors report solid profitability. Wage growth has increased in the service industries in particular, but has been significant also in manufacturing over the last few quarters.

So far in 2019 there has been high wage growth in the financial services industry that can be partly attributed to a change in the pay system. There were previously 12.5 payments a year in this industry, with an extra half payment in December. With effect from this year, the number of payments is reduced to twelve, and the previous extra payment is distributed among all the months of the year. This means higher wage growth in the first three quarters of the year compared with the same quarters last year, which will be offset by lower wage growth in Q4 of this year.

Growth in average annual wages can be decomposed into carry-over, pay increases and wage drift. Carry-over is the difference between the annual wage level at the end of the previous year and the average annual wage level that year. The negotiated wage increase includes the wage increase arising from central negotiations. Wage drift is the sum of all other factors that affect annual wages, such as local wage negotiations, bonuses and changes in employee composition.

The Technical Reporting Committee on Income Settlements (TBU) has estimated the carry-over into 2019 for several areas of negotiations. The average carry-over for manufacturing workers into 2019 was 1.1 percentage points, approximately the same as in recent years. The carry-over for other areas varies from 0.7 percentage point for municipal employees to 1.5 percentage points for central government and financial industry employees.

The Confederation of Norwegian Enterprise (NHO), in agreement with the Norwegian Confederation of Trade Unions (LO), has estimated that wage growth in manufacturing that comes under the NHO will be 3.2 per cent in 2019. For manufacturing workers, this year's wage settlement means an increase of 0.8 percentage point. This consists of an increase of NOK 2.50 per hour and a low-wage supplement of a further NOK 2 per hour for employees on agreements with an average wage that is less than 90 per cent of manufacturing worker's wages in 2018. This, coupled with the carry-over of 1.1 percentage points, results in annual wage growth of 1.9 per cent before contributions from wage drift in 2019.

The negotiated increases for other parts of the private sector are equivalent to those for the wage leader, and are calculated to add 0.9 percentage point to annual wage growth. The contribution from the carry-over is 1 percentage point. Local government employees largely have centralised wage formation, and carry-overs into 2019 plus negotiated wage increases imply annual wage growth of 2.7 per cent before contributions from wage drift, somewhat higher than in the last few years.

The agreement between the Norwegian Federation of State Employees' Unions, the Confederation of Vocational Unions (central government employees) and the Confederation of Unions for Professionals (UNIO) implies an increase of 1.35 per cent to those with wages lower than salary grade 46 and higher than 64, and 1.55 per cent to those in between. Women are over-represented in salary grades 47 to 63, which gives the settlement an equal wage profile. In addition, 1.24 per cent of the wage pool was allocated to local negotiations. The central government and the Federation of Norwegian Professional Associations have agreed on 2.15 per cent of the wage pool for their local negotiations. The agreed increases result in a total contribution to annual wage growth of 1.5 percentage points which,

coupled with the wage carry-over, results in wage growth of 3 per cent before wage drift.

Towards the end of the year we expect further contributions from bonuses and wage drift. Bonuses help to push up wage growth, while the changed negotiated agreement for the financial services industry will push down wage growth in the last quarter.

Inward labour migration will be relatively low the next few years, which will increase pressure on wages. Unemployment has been falling in recent years. According to our projections, unemployment will not fall further in the near term, but will rather rise somewhat later in the projection period as a consequence of the global economic downturn. Despite the increase in unemployment, we still expect wage growth of around 3.5 per cent for the next few years. Towards the end of the period, wage growth is likely to be reduced to just over 3 per cent as a consequence of somewhat higher unemployment and weaker manufacturing profitability. Given inflation of close to 2 per cent, this means real wage growth of around 1.5 per cent in the years ahead.

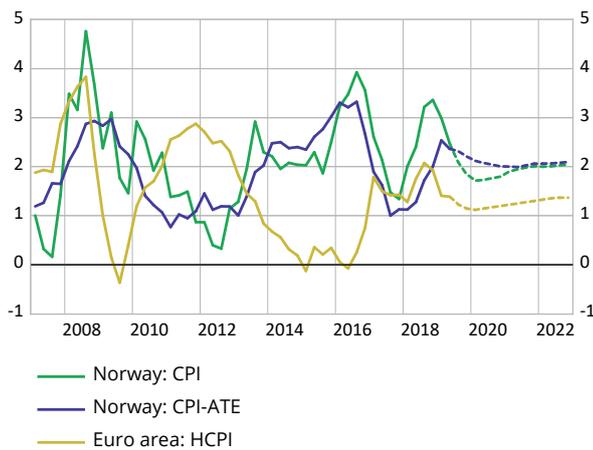
### **Inflation down to the target**

Underlying inflation measured by the 12-month change in the consumer price index adjusted for tax changes and excluding energy products (CPI-ATE), increased from summer 2018. Last winter, the inflation rate increased further, and the 12-month rise in the CPI-ATE was 2.6 per cent in both February and April, with a peak of 2.7 per cent in March. Slightly higher wage growth, a weak krone and indirect effects of high energy prices have contributed to higher CPI-ATE inflation. In the course of summer 2019, CPI-ATE inflation slowed somewhat, and in July had come down to an annualised 2.2 per cent. We now project CPI-ATE inflation of 2.3 per cent for 2019. Later in the autumn, the effects of a slightly weaker krone exchange rate may ease the fall of CPI-ATE inflation.

In 2018, the annual rise in the consumer price index (CPI) was a whole 1.1 percentage points higher than the CPI-ATE. The difference between the CPI and the CPI-ATE was due to developments in energy prices, particularly electricity prices, while tax changes had less impact. In January 2019, the 12-month rise in the CPI was as much as 3.1 per cent, and only in May did the year-on-year rise slow appreciably. Observations for both June and July this year show a year-on-year rise of 1.9 per cent. The decline was largely a result of a sharp fall in the electricity spot price from January to March. The fall in power prices continued up to the summer, and prices were then substantially lower than levels in 2018. Prices in the forward market indicate that power prices may rise a little towards the end of the year. Nevertheless, it is likely that electricity prices, including grid charges, will be lower than last year for the remainder of 2019. Prices for fuel rose substantially last year as a result of rising oil prices and a strong US dollar, before falling back somewhat at the turn of the

**Figure 16. Consumer price indices**

Percent growth from same quarter previous year



Source: Statistics Norway

year. In May, petrol prices had reverted to the peak level of last autumn, and remained high this summer, while the price at the pumps for diesel had risen less. We expect a lower oil price to push down inflation in the longer term. On an annual basis, we project that energy prices as a whole will increase a little less than general price inflation. Whereas the CPI-ATE is projected to increase by 2.3 per cent from 2018 to 2019, CPI inflation is now projected to be 2.2 per cent.

According to the sub-indices in the CPI-ATE, prices for the product group food and non-alcoholic beverages rose by 2.6 per cent in July this year compared with the same month the previous year, thereby pushing underlying inflation up a little. The CPI sub-index for the same product group showed an average rise of 1.8 per cent in the same period. The CPI index, which includes tax changes, reflects a virtual reversal this year, with effect from January 2019, of the increased sugar tax from 2017 to 2018. In May the agricultural organisations entered into an agreement with the central government whereby part of the income target is to be met by an increase in target prices. According to the Ministry of Agriculture and Food, such an increase, if realised, would in isolation provide a basis for a rise in the consumer price index for food of a moderate 0.15 percentage point. We assume that the underlying rise in prices for food and non-alcoholic beverages will be roughly in line with general inflation in the near term.

A breakdown of the CPI-ATE by supplier sector shows a relatively high rise in recent months in prices for services with important price components other than labour. Air travel prices contribute significantly to the higher 12-month rise in prices for services.

Rental prices (observed and imputed) have shown a surprisingly low increase so far this year, and have pushed CPI-ATE inflation markedly down. The 12-month rise in rentals was 1.5 per cent in July 2019 and almost unchanged through the year. This service

group has a weighting of more than 20 per cent in the CPI-ATE, and makes an important contribution to underlying inflation as a whole. Existing rentals are largely adjusted according to CPI inflation. CPI inflation will boost the rise in rental prices, but a large supply of new residences and slowing growth in household real income will result in the rise in rentals remaining lower than CPI inflation for the whole projection period.

Underlying inflation is largely driven by developments in labour costs, exchange rates, global inflation and productivity growth. The fundamental forces governing inflation have undergone little change in recent months, and the inflation projection presented here is close to that presented in the last economic analysis for the years ahead. A further weakening of the krone this summer will gradually lead to higher imported price inflation, while a slower global rise in prices for import goods as a consequence of a weaker global economic situation will counter this effect. Wage growth in Norway may increase somewhat in the short term, while higher productivity growth dampens the effect of higher wages on prices.

In light of forward prices in the power market, we forecast that the price of electricity including grid charges will decrease by about 3 per cent as an annual average from 2019 to 2020, as a consequence of carry-over from high power prices in 2019. This, coupled with the fall in oil prices, will contribute to reducing CPI inflation by 0.3 percentage point next year. On the basis of forward power prices and a somewhat lower oil price measured in NOK, we assume that energy prices as a whole will not change CPI inflation substantially in 2021 and 2022.

We forecast that real tax changes (the sugar tax) will reduce CPI inflation by 0.1 percentage point in 2019. The special tax rates have been adjusted for inflation for the years 2020–2022 so that they have a neutral effect on CPI inflation. Special taxes are decided on by the Storting when the government budget is presented, and there will probably be changes. It was announced in connection with last year's national budget that vehicle taxes are to be reviewed in light of the new emission norms, but we have no information now to cause us to deviate from an inflation-neutral adjustment of special taxes.

We now project that CPI inflation will fall from 2.3 per cent in 2019 to 2.0 per cent each year from 2020 to 2022. CPI inflation is projected to be 2.2 per cent this year, while the fall in energy prices means that CPI inflation will be 1.8 per cent next year. CPI inflation in 2021 and 2022 is projected to be close to CPI-ATE inflation.

**Table 4. National accounts: Final expenditure and gross domestic product. At constant 2017 prices. NOK million**

	Unadjusted		Seasonally adjusted							
	2017	2018*	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2
Final consumption expenditure of households and NPISHs	1 471 657	1 500 206	370 345	372 839	372 016	377 777	377 331	378 691	380 669	382 040
Household final consumption expenditure	1 392 635	1 417 981	350 625	352 838	351 741	357 173	356 707	357 708	359 571	360 751
Goods	635 541	640 205	160 453	162 254	159 891	162 786	160 946	160 872	161 895	162 372
Services	685 682	701 524	172 237	173 015	173 554	175 211	176 845	177 339	178 468	179 635
Direct purchases abroad by resident households	117 386	122 364	29 707	29 245	30 057	30 666	30 359	31 102	31 302	30 960
Direct purchases by non-residents	-45 974	-46 112	-11 772	-11 677	-11 761	-11 489	-11 443	-11 604	-12 095	-12 217
Final consumption expenditure of NPISHs	79 022	82 224	19 719	20 001	20 276	20 604	20 624	20 982	21 098	21 289
Final consumption expenditure of general government	791 090	801 937	197 769	200 714	200 432	200 308	200 449	200 760	202 805	204 763
Final consumption expenditure of central government	389 412	392 673	97 377	98 861	98 332	98 112	98 198	98 036	99 432	100 704
Central government, civilian	343 637	346 289	85 932	87 265	86 740	86 515	86 596	86 441	87 590	88 717
Central government, defence	45 775	46 385	11 444	11 596	11 592	11 598	11 602	11 595	11 842	11 987
Final consumption expenditure of local government	401 678	409 264	100 392	101 853	102 100	102 196	102 252	102 724	103 373	104 059
Gross fixed capital formation	809 386	832 088	202 115	204 837	197 605	206 714	211 181	216 447	211 494	217 462
Extraction and transport via pipelines	149 830	152 688	35 190	38 741	33 513	38 356	39 515	41 248	40 031	42 868
Ocean transport	944	763	1 628	310	486	16	-213	474	375	690
Mainland Norway	658 612	678 637	165 297	165 786	163 606	168 342	171 880	174 725	171 088	173 904
Industries	284 509	303 888	72 896	72 279	71 522	76 150	76 448	79 675	78 029	77 608
Service activities incidental to extraction	4 241	5 966	1 293	1 481	1 228	1 613	1 345	1 778	1 889	2 304
Other services	176 857	183 409	44 699	44 551	43 891	45 511	45 833	48 123	46 742	45 876
Manufacturing and mining	37 882	44 194	9 371	10 137	9 767	11 215	11 337	11 853	12 580	12 865
Production of other goods	65 529	70 318	17 532	16 110	16 636	17 811	17 933	17 922	16 818	16 562
Dwellings (households)	200 258	187 929	50 880	48 262	48 138	46 349	46 639	46 842	46 932	47 375
General government	173 845	186 820	41 521	45 245	43 947	45 842	48 793	48 207	46 127	48 921
Acquisitions less disposals of valuables	388	416	112	119	102	108	103	103	112	108
Changes in stocks and statistical discrepancies	107 471	110 952	27 339	32 037	34 927	27 320	23 996	28 013	32 011	26 908
Gross capital formation	917 245	943 456	229 566	236 992	232 635	234 142	235 281	244 563	243 618	244 477
Final domestic use of goods and services	3 179 992	3 245 599	797 680	810 545	805 083	812 228	813 061	824 014	827 092	831 280
Final demand from Mainland Norway	2 921 359	2 980 780	733 411	739 339	736 054	746 427	749 660	754 176	754 562	760 707
Final demand from general government	964 935	988 758	239 290	245 959	244 378	246 151	249 243	248 967	248 932	253 684
Total exports	1 197 311	1 194 483	299 400	295 820	296 937	301 244	302 162	298 418	304 532	303 754
Traditional goods	380 711	388 242	97 790	97 921	95 711	96 882	96 890	101 771	103 782	102 013
Crude oil and natural gas	459 695	437 789	115 716	110 359	109 736	110 070	110 688	108 329	105 579	103 723
Ships, oil platforms and planes	17 783	10 991	1 790	2 151	3 674	3 623	2 832	863	2 869	4 428
Services	339 122	357 461	84 105	85 389	87 817	90 670	91 752	87 455	92 302	93 591
Total use of goods and services	4 377 303	4 440 082	1 096 969	1 106 246	1 101 918	1 113 364	1 115 120	1 122 329	1 131 511	1 134 927
Total imports	1 081 921	1 102 205	269 793	277 382	270 238	278 907	276 120	280 083	289 458	290 746
Traditional goods	632 105	652 115	159 157	164 352	160 681	164 331	164 254	166 528	177 805	175 705
Crude oil and natural gas	13 742	19 101	3 260	4 087	4 667	4 900	4 500	4 796	3 871	3 892
Ships, oil platforms and planes	44 304	35 739	9 142	8 792	8 378	10 504	8 067	8 790	6 672	9 038
Services	391 770	395 250	98 234	100 150	96 512	99 173	99 298	99 969	101 111	102 111
Gross domestic product (market prices)	3 295 382	3 337 877	827 288	828 983	831 783	834 564	839 103	842 350	842 165	844 288
Gross domestic product Mainland Norway (market prices)	2 792 034	2 853 368	699 536	705 486	709 606	713 466	716 370	723 217	726 738	731 531
Petroleum activities and ocean transport Mainland Norway (basic prices)	503 348	484 509	127 752	123 497	122 177	121 098	122 733	119 133	115 427	112 757
Mainland Norway excluding general government	2 416 466	2 473 955	605 537	611 204	614 698	618 810	621 354	628 093	630 694	635 375
Manufacturing and mining	1 805 768	1 847 520	452 861	457 094	459 532	462 778	464 206	470 015	472 356	476 435
Production of other goods	216 101	217 915	53 931	54 528	54 387	54 908	55 368	56 181	56 351	57 248
Services incl. dwellings (households)	323 683	330 307	81 595	82 340	83 443	81 980	81 609	84 525	83 329	84 454
General government	1 265 984	1 299 299	317 335	320 225	321 702	325 890	327 229	329 309	332 676	334 734
Taxes and subsidies products	610 698	626 435	152 676	154 110	155 166	156 032	157 148	158 078	158 338	158 940
	375 568	379 413	93 999	94 282	94 908	94 656	95 016	95 124	96 043	96 155

Source: Statistics Norway.

**Table 5. National accounts: Final expenditure and gross domestic product. At constant 2017 prices. Percentage change from previous period**

	Unadjusted		Seasonally adjusted							
	2017	2018*	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2
Final consumption expenditure of households and NPISHs	2.2	1.9	0.8	0.7	-0.2	1.5	-0.1	0.4	0.5	0.4
Household final consumption expenditure	2.3	1.8	0.8	0.6	-0.3	1.5	-0.1	0.3	0.5	0.3
Goods	2.3	0.7	1.0	1.1	-1.5	1.8	-1.1	0.0	0.6	0.3
Services	2.3	2.3	0.8	0.5	0.3	1.0	0.9	0.3	0.6	0.7
Direct purchases abroad by resident households	2.1	4.2	1.3	-1.6	2.8	2.0	-1.0	2.4	0.6	-1.1
Direct purchases by non-residents	2.4	0.3	4.1	-0.8	0.7	-2.3	-0.4	1.4	4.2	1.0
Final consumption expenditure of NPISHs	1.7	4.1	0.5	1.4	1.4	1.6	0.1	1.7	0.6	0.9
Final consumption expenditure of general government	1.9	1.4	0.7	1.5	-0.1	-0.1	0.1	0.2	1.0	1.0
Final consumption expenditure of central government	1.9	0.8	0.5	1.5	-0.5	-0.2	0.1	-0.2	1.4	1.3
Central government, civilian	1.9	0.8	0.5	1.6	-0.6	-0.3	0.1	-0.2	1.3	1.3
Central government, defence	1.6	1.3	0.5	1.3	0.0	0.1	0.0	-0.1	2.1	1.2
Final consumption expenditure of local government	1.9	1.9	0.8	1.5	0.2	0.1	0.1	0.5	0.6	0.7
Gross fixed capital formation	2.6	2.8	0.0	1.3	-3.5	4.6	2.2	2.5	-2.3	2.8
Extraction and transport via pipelines	-5.4	1.9	-9.5	10.1	-13.5	14.5	3.0	4.4	-3.0	7.1
Ocean transport	-92.5	-19.1	-724.6	-81.0	56.9	-96.7	..	-322.5	-20.9	84.0
Mainland Norway	6.8	3.0	1.2	0.3	-1.3	2.9	2.1	1.7	-2.1	1.6
Industries	9.2	6.8	8.7	-0.8	-1.0	6.5	0.4	4.2	-2.1	-0.5
Service activities incidental to extraction	101.8	40.7	84.4	14.6	-17.1	31.3	-16.6	32.2	6.2	22.0
Other services	10.5	3.7	5.5	-0.3	-1.5	3.7	0.7	5.0	-2.9	-1.9
Manufacturing and mining	-0.5	16.7	6.9	8.2	-3.7	14.8	1.1	4.5	6.1	2.3
Production of other goods	8.4	7.3	15.1	-8.1	3.3	7.1	0.7	-0.1	-6.2	-1.5
Dwellings (households)	7.3	-6.2	0.9	-5.1	-0.3	-3.7	0.6	0.4	0.2	0.9
General government	2.6	7.5	-9.6	9.0	-2.9	4.3	6.4	-1.2	-4.3	6.1
Acquisitions less disposals of valuables	..	7.2	26.4	6.1	-14.0	5.5	-4.5	0.1	9.0	-4.2
Changes in stocks and statistical discrepancies	2.0	3.2	13.8	17.2	9.0	-21.8	-12.2	16.7	14.3	-15.9
Gross capital formation	3.1	2.9	1.5	3.2	-1.8	0.6	0.5	3.9	-0.4	0.4
Final domestic use of goods and services	2.4	2.1	1.0	1.6	-0.7	0.9	0.1	1.3	0.4	0.5
Final demand from Mainland Norway	3.1	2.0	0.9	0.8	-0.4	1.4	0.4	0.6	0.1	0.8
Final demand from general government	2.0	2.5	-1.3	2.8	-0.6	0.7	1.3	-0.1	0.0	1.9
Total exports	1.7	-0.2	-1.4	-1.2	0.4	1.5	0.3	-1.2	2.0	-0.3
Traditional goods	1.7	2.0	2.4	0.1	-2.3	1.2	0.0	5.0	2.0	-1.7
Crude oil and natural gas	5.1	-4.8	-2.6	-4.6	-0.6	0.3	0.6	-2.1	-2.5	-1.8
Ships, oil platforms and planes	5.0	-38.2	-56.2	20.2	70.8	-1.4	-21.8	-69.5	232.5	54.3
Services	-2.1	5.4	-1.5	1.5	2.8	3.2	1.2	-4.7	5.5	1.4
Total use of goods and services	2.2	1.4	0.3	0.8	-0.4	1.0	0.2	0.6	0.8	0.3
Total imports	1.9	1.9	-0.3	2.8	-2.6	3.2	-1.0	1.4	3.3	0.4
Traditional goods	3.8	3.2	0.6	3.3	-2.2	2.3	0.0	1.4	6.8	-1.2
Crude oil and natural gas	28.0	39.0	-4.7	25.4	14.2	5.0	-8.2	6.6	-19.3	0.5
Ships, oil platforms and planes	-12.0	-19.3	-20.6	-3.8	-4.7	25.4	-23.2	9.0	-24.1	35.5
Services	0.2	0.9	0.6	2.0	-3.6	2.8	0.1	0.7	1.1	1.0
Gross domestic product (market prices)	2.3	1.3	0.5	0.2	0.3	0.3	0.5	0.4	0.0	0.3
Gross domestic product Mainland Norway (market prices)	2.0	2.2	0.6	0.9	0.6	0.5	0.4	1.0	0.5	0.7
Petroleum activities and ocean transport Mainland Norway (basic prices)	1.9	2.4	0.6	0.9	0.6	0.7	0.4	1.1	0.4	0.7
Mainland Norway excluding general government	1.9	2.3	0.7	0.9	0.5	0.7	0.3	1.3	0.5	0.9
Manufacturing and mining	0.0	0.8	-0.8	1.1	-0.3	1.0	0.8	1.5	0.3	1.6
Production of other goods	2.9	2.0	1.8	0.9	1.3	-1.8	-0.5	3.6	-1.4	1.3
Services incl. dwellings (households)	2.0	2.6	0.7	0.9	0.5	1.3	0.4	0.6	1.0	0.6
General government	1.6	2.6	0.2	0.9	0.7	0.6	0.7	0.6	0.2	0.4
Taxes and subsidies products	2.9	1.0	0.5	0.3	0.7	-0.3	0.4	0.1	1.0	0.1

Source: Statistics Norway.

**Table 6. National accounts: Final expenditure and gross domestic product. Price indices. 2017=100**

	Unadjusted		Seasonally adjusted							
	2017	2018*	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2
Final consumption expenditure of households and NPISHs	100.0	102.2	99.8	100.7	101.2	101.7	102.4	103.2	103.8	103.9
Final consumption expenditure of general government	100.0	103.1	100.5	100.8	102.0	102.7	103.3	104.4	105.0	105.4
Gross fixed capital formation	100.0	102.3	99.7	100.1	101.5	101.8	102.6	103.3	103.3	104.5
Mainland Norway	100.0	102.7	100.5	100.9	101.7	102.4	103.2	103.6	104.1	105.0
Final domestic use of goods and services	100.0	102.5	99.5	101.3	101.6	101.8	102.8	103.6	104.0	103.8
Final demand from Mainland Norway	100.0	102.6	100.2	100.8	101.5	102.1	102.8	103.6	104.2	104.5
Total exports	100.0	113.6	98.3	103.2	108.5	112.7	117.3	116.3	111.5	108.4
Traditional goods	100.0	105.9	99.5	100.9	103.8	106.2	106.4	106.4	104.8	106.6
Total use of goods and services	100.0	105.5	99.2	101.8	103.5	104.8	106.7	107.0	106.0	105.1
Total imports	100.0	104.5	99.6	101.8	103.3	103.8	105.3	105.5	104.7	105.7
Traditional goods	100.0	104.5	99.7	101.7	103.2	103.9	105.2	105.7	104.4	106.2
Gross domestic product (market prices)	100.0	105.8	99.1	101.8	103.5	105.1	107.2	107.5	106.4	104.8
Gross domestic product Mainland Norway (market prices)	100.0	101.9	100.2	100.1	101.1	101.5	101.9	103.0	103.6	103.7

Source: Statistics Norway.

**Table 7. National accounts: Final expenditure and gross domestic product. Price indices. Percentage change from previous period**

	Unadjusted		Seasonally adjusted							
	2017	2018*	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2
Final consumption expenditure of households and NPISHs	2.0	2.2	0.0	0.9	0.5	0.5	0.7	0.8	0.5	0.1
Final consumption expenditure of general government	2.9	3.1	0.6	0.3	1.2	0.7	0.6	1.1	0.5	0.4
Gross fixed capital formation	1.0	2.3	-0.5	0.4	1.4	0.2	0.8	0.7	0.0	1.1
Mainland Norway	2.2	2.7	0.4	0.4	0.8	0.6	0.8	0.4	0.5	0.8
Final domestic use of goods and services	2.3	2.5	0.2	1.7	0.3	0.2	0.9	0.8	0.3	-0.1
Final demand from Mainland Norway	2.3	2.6	0.2	0.6	0.8	0.6	0.7	0.8	0.5	0.4
Total exports	7.2	13.6	-0.9	5.0	5.1	3.9	4.1	-0.9	-4.1	-2.8
Traditional goods	5.2	5.9	-0.7	1.4	2.9	2.3	0.2	0.0	-1.5	1.7
Total use of goods and services	3.6	5.5	-0.1	2.6	1.7	1.3	1.8	0.3	-0.9	-0.9
Total imports	2.4	4.5	-0.1	2.2	1.5	0.4	1.5	0.2	-0.8	1.0
Traditional goods	3.5	4.5	0.2	2.0	1.4	0.7	1.3	0.5	-1.2	1.7
Gross domestic product (market prices)	4.0	5.8	-0.1	2.7	1.7	1.6	2.0	0.3	-1.0	-1.5
Gross domestic product Mainland Norway (market prices)	1.7	1.9	0.1	-0.1	0.9	0.4	0.5	1.1	0.5	0.1

Source: Statistics Norway.

# Main economic indicators 2007-2022

Accounts and forecasts. Percentage change from previous year unless otherwise noted

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017*	2018*	Forecasts			
													2019	2020	2021	2022
<b>Demand and output</b>																
Consumption in households etc.	5.3	1.7	0.0	3.8	2.4	3.5	2.8	2.1	2.7	1.1	2.2	1.9	1.9	2.4	2.2	2.0
General government consumption	2.0	2.6	4.2	2.2	1.1	1.5	1.0	2.7	2.4	2.3	1.9	1.4	2.2	1.8	1.9	1.7
Gross fixed investment	12.3	1.1	-7.0	-6.4	7.5	7.5	6.3	-0.3	-4.0	3.9	2.6	2.8	6.2	0.9	-1.3	-0.2
Extraction and transport via pipelines	9.3	5.5	2.9	-8.0	11.4	14.6	19.0	-1.8	-12.2	-16.0	-5.4	1.9	15.4	-1.6	-3.1	4.2
Mainland Norway	14.2	1.0	-10.6	-6.4	5.0	7.4	2.9	0.4	-0.2	9.0	6.8	3.0	3.9	0.9	-0.8	-1.3
Industries	22.7	3.1	-18.7	-9.2	1.1	10.5	-3.2	-0.7	-2.8	12.6	9.2	6.8	6.1	0.4	-0.8	-1.3
Housing	2.7	-9.0	-8.1	-1.6	17.0	10.9	5.3	-1.4	3.2	6.6	7.3	-6.2	2.6	1.9	-2.9	-3.9
General government	8.9	7.4	7.1	-5.3	1.1	-1.8	11.8	4.5	0.2	6.4	2.6	7.5	1.6	0.9	1.3	1.3
Demand from Mainland Norway <sup>1</sup>	6.4	1.7	-1.4	1.2	2.5	3.7	2.3	1.9	2.0	3.1	3.1	2.0	2.4	1.9	1.4	1.2
Stockbuilding <sup>2</sup>	0.3	0.3	-1.6	1.3	0.2	-0.6	0.5	-0.4	0.0	-0.2	0.5	-0.1	0.0	0.0	0.0	0.0
Exports	1.4	0.1	-4.1	0.6	-0.8	1.7	-1.8	3.4	4.3	1.1	1.7	-0.2	1.9	6.0	2.3	1.1
Traditional goods	9.2	3.5	-8.0	3.3	-0.1	-0.2	1.3	3.1	6.9	-8.6	1.7	2.0	4.9	3.8	2.2	1.6
Crude oil and natural gas	-2.4	-1.3	-1.6	-6.9	-5.6	0.5	-5.5	2.7	2.1	4.9	5.1	-4.8	-2.3	12.3	4.4	1.7
Imports	10.0	3.2	-10.3	8.4	3.9	2.9	5.0	2.0	1.9	2.7	1.9	1.9	5.5	1.8	0.2	0.8
Traditional goods	7.2	1.2	-12.1	9.2	4.6	2.2	1.8	1.9	2.8	-0.2	3.8	3.2	6.3	0.6	-0.1	0.3
Gross domestic product	3.0	0.5	-1.7	0.7	1.0	2.7	1.0	2.0	2.0	1.1	2.3	1.3	1.6	3.3	1.9	1.4
Mainland Norway	5.7	1.8	-1.8	1.9	1.9	3.7	2.3	2.2	1.4	0.9	2.0	2.2	2.4	2.2	1.6	1.4
Manufacturing	3.8	2.7	-7.8	2.1	1.7	2.0	3.3	2.8	-4.6	-4.2	0.0	0.8	4.3	2.0	1.7	0.8
<b>Labour market</b>																
Total hours worked, Mainland Norway	4.4	3.4	-1.8	0.2	1.7	1.7	0.4	1.4	0.7	0.6	0.3	1.8	1.9	1.8	0.5	0.3
Employed persons	3.8	3.2	-0.4	-0.3	1.4	2.0	1.1	1.0	0.5	0.3	1.2	1.6	1.6	0.5	0.3	0.2
Labor force	2.5	3.0	0.2	0.6	1.3	1.6	1.2	0.7	1.5	0.2	-0.2	1.4	1.0	0.7	0.4	0.4
Participation rate (level)	72.6	73.5	72.5	71.7	71.5	71.4	71.2	70.7	71	70.4	69.7	70.2	70.5	70.6	70.6	70.6
Unemployment rate (level)	2.5	2.7	3.3	3.8	3.4	3.3	3.8	3.6	4.5	4.7	4.2	3.8	3.6	3.7	3.7	3.8
<b>Prices and wages</b>																
Wages per standard man-year	5.4	6.3	4.2	3.7	4.2	4.0	3.9	3.1	2.8	1.7	2.3	2.8	3.4	3.6	3.5	3.2
Consumer price index (CPI)	0.7	3.8	2.2	2.4	1.3	0.6	2.1	2.1	2.1	3.6	1.8	2.7	2.2	1.8	1.9	2.0
CPI-ATE <sup>3</sup>	1.4	2.6	2.6	1.3	1.0	1.3	1.5	2.5	2.7	3.1	1.4	1.6	2.3	2.0	2.0	2.0
Export prices, traditional goods	2.4	2.8	-6.0	4.5	5.8	-1.9	2.7	3.4	2.0	4.0	5.2	5.9	0.9	1.8	1.4	1.4
Import prices, traditional goods	3.7	3.9	-1.5	0.0	4.0	0.3	1.4	4.3	4.6	1.7	3.5	4.5	1.7	2.3	1.9	1.9
Housing prices	12.6	-1.1	1.9	8.2	8.0	6.8	4.0	2.7	6.1	7.0	5.0	1.4	2.5	2.1	1.5	0.7
<b>Income, interest rates and exchange rate</b>																
Household real income	5.6	3.4	3.0	2.1	4.2	4.4	4.0	2.9	5.5	-1.7	1.4	2.4	3.0	2.4	2.0	1.6
Household saving ratio (level)	0.9	3.8	5.2	4.0	5.9	7.1	7.5	8.5	10.3	7.3	6.7	6.5	6.7	6.9	6.7	6.4
Money market rate (level)	5.0	6.2	2.5	2.5	2.9	2.2	1.8	1.7	1.3	1.1	0.9	1.1	1.5	1.6	1.6	1.6
Lending rate, credit loans(level) <sup>4</sup>	5.0	6.8	4.0	3.4	3.6	3.9	4.0	3.9	3.2	2.6	2.6	2.7	2.9	3.1	3.2	3.2
Real after-tax lending rate, banks (level)	2.9	1.1	0.7	0.1	1.3	2.1	0.8	0.8	0.1	-1.6	0.1	-0.7	0.1	0.7	0.6	0.5
Importweighted krone exchange rate (44 countries) <sup>5</sup>	-1.8	0.0	3.3	-3.7	-2.4	-1.2	2.2	5.3	10.5	1.8	-0.8	0.1	2.6	1.5	0.0	0.0
NOK per euro (level)	8.02	8.22	8.73	8.01	7.79	7.47	7.81	8.35	8.95	9.29	9.33	9.60	9.85	10.04	10.04	10.04
<b>Current account</b>																
Current balance (bill. NOK) <sup>6</sup>	287	408	261	284	346	371	316	331	246	125	186	285	232	284	319	324
Current account (per cent of GDP)	12.2	15.7	10.7	11.0	12.4	12.5	10.3	10.5	7.9	4.0	5.7	8.1	6.5	7.6	8.2	8.0
<b>International indicators</b>																
Exports markets indicator	6.3	1.3	-10.4	11.3	6.0	1.1	1.9	4.8	5.2	3.8	5.3	3.2	2.0	1.6	1.4	1.3
Consumer price index, euro-area	2.1	3.3	0.3	1.6	2.7	2.5	1.4	0.4	0.2	0.2	1.5	1.8	1.2	1.1	1.2	1.3
Money market rate, euro(level)	4.3	4.6	1.2	0.8	1.4	0.6	0.2	0.2	0.0	-0.3	-0.3	-0.3	-0.3	-0.5	-0.5	-0.3
Crude oil price NOK (level) <sup>7</sup>	425	556	391	485	622	651	639	628	432	379	453	582	552	507	496	494

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

<sup>2</sup> Change in stockbuilding. Per cent of GDP.

<sup>3</sup> CPI adjusted for tax changes and excluding energy products.

<sup>4</sup> Yearly average. Lending rate, secured on dwellings.

<sup>5</sup> Increasing index implies depreciation.

<sup>6</sup> Current account not adjusted for saving in pension funds.

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

Source: Statistics Norway. The cut-off date for information was September 3 2019.