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Economic developments in Norway

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– in Norway: Thomas von Brasch, thomas.vonbrasch@ssb.no, tel. (+47) 93 89 85 24
– international: Roger Hammersland, roger.hammersland@ssb.no, tel. (+47) 47 29 32 89

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Economic developments in Norway

Prior to the outbreak of the Covid pandemic in 2020, the Norwegian economy was close to cyclically neutral. The entire downturn following the pandemic in 2020 was recouped in the autumn of 2021, but the omicron variant and subsequent infection control measures resulted in a new fall in mainland GDP in December 2021 and January 2022. The reopening of society in late January and early February this year boosted activity sharply in March. Since then, the upturn has continued at a more moderate pace, and in September mainland GDP was 4.4 per cent higher than in February 2020. Given underlying annual trend growth of around 1.5 per cent, this means that the activity level in September was near trend. Higher interest rates, high inflation and lower demand from our trading

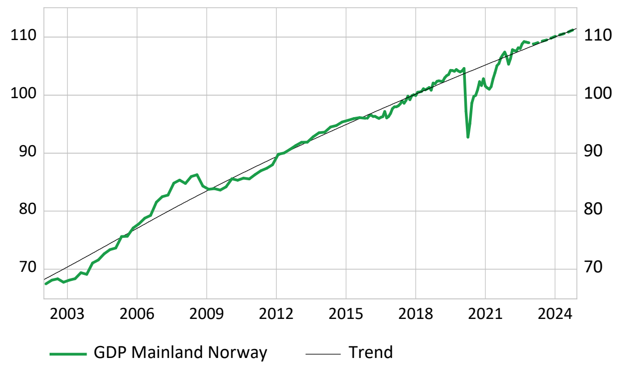
Table 1. Main macroeconomic aggregates. Accounts figures. Change from previous period. Per cent

	2020	2021	Seasonally adjusted			
			21:4	22:1	22:2	22:3
Demand and output						
Consumption in households etc.	-6.2	4.5	4.6	-4.2	3.7	0.5
General government consumption	-0.5	4.9	0.1	-1.9	0.1	-0.1
Gross fixed investment	-4.1	-1.2	0.5	3.4	0.2	0.4
Extraction and transport via pipelines	-3.3	-2.1	-1.1	-9.7	4.1	0.4
Mainland Norway	-3.1	1.1	0.8	6.4	-0.6	0.5
Final domestic demand from Mainland Norway[1]	-3.9	3.8	2.5	-1.2	1.7	0.3
Exports	-2.3	5.5	-1.2	-4.4	2.8	5.7
Traditional goods	-0.8	4.6	-2.7	-3.0	2.1	6.2
Crude oil and natural gas	10.5	2.9	-6.7	-3.5	1.1	5.3
Imports	-9.9	1.7	4.6	-1.9	5.7	2.9
Traditional goods	-2.7	5.7	-1.5	-1.8	3.5	2.2
Gross domestic product	-1.3	3.9	0.4	-0.7	1.3	1.5
Mainland Norway	-2.8	4.1	1.3	-0.5	1.2	0.8
Labour market						
Total hours worked. Mainland Norway	-2.1	2.5	1.3	0.6	0.9	0.6
Employed persons	-1.5	1.2	1.5	0.9	0.6	0.5
Labour force[2]	0.4	1.2	0.2	0.5	0.3	-0.1
Unemployment rate. level[2]	4.7	4.4	3.6	3.3	3.2	3.2
Prices and wages						
Annual earnings	3.1	3.5	..	..	..	..
Consumer price index (CPI)[3]	1.3	3.5	1.2	1.3	2.1	1.9
CPI adjusted for tax changes and excluding energy products (CPI-ATE)[3]	3.0	1.7	0.5	1.1	1.4	1.7
Export prices. traditional goods	-3.5	13.2	13.3	12.8	2.2	0.9
Import prices. traditional goods	4.3	5.3	2.7	7.4	5.3	4.1
Balance of payment						
Current balance. bill. NOK[4]	38	566	226	379	322	571
Memorandum items (unadjusted level)						
Money market rate (3 month NIBOR)	0.4	0.1	0.3	0.5	0.8	1.5
Lending rate. credit loans[5]	0.6	0.5	2.1	2.3	2.5	2.9
Crude oil price NOK[6]	407	609	695	864	1 052	973
Importweighted krone exchange rate. 44 countries. 1995=100	114.9	108.8	107.7	107.1	109.8	110.8
NOK per euro	10.72	10.16	9.97	9.92	10.04	10.06

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

Figure 1. GDP Mainland Norway and estimated trend

Seasonally adjusted, index 2020 = 100

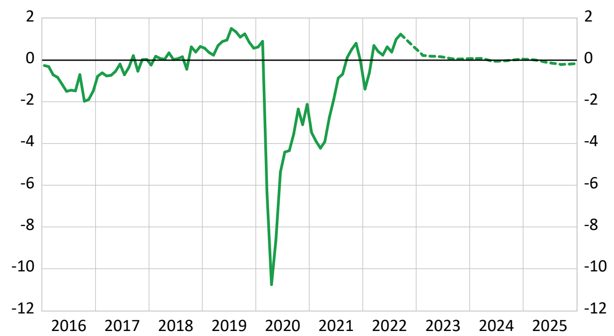


* Quarterly figures before 2016, monthly after. The trend is estimated by an HP-filter (lambda = 40 000 quarterly), but such that the trend is not directly affected by the developement of economic activity in 2020 and 2021

Source: Statistics Norway

Figure 2. Output gap, Mainland Norway

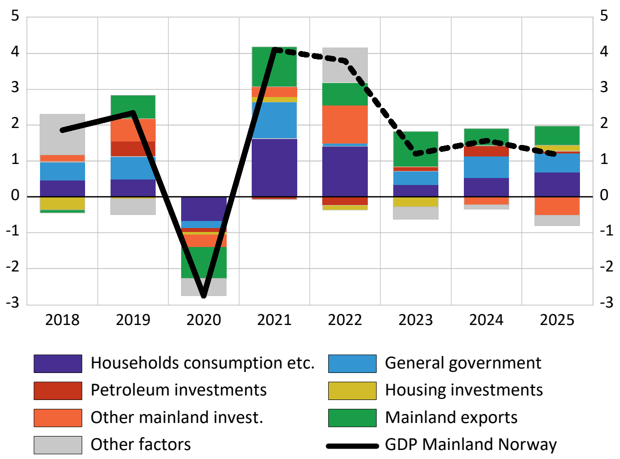
Deviation form estimated trend GDP in percent, monthly frequency



Source: Statistics Norway

Figure 3. Contributions to growth in GDP Mainland Norway, import adjusted

Change from previous year in percent



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 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.

partners is having a dampening effect on activity, however, and we forecast substantially lower growth going forward compared with developments so far this year. Our projections indicate a moderate decline in the short term, but developments are expected to be roughly cyclically neutral for the next few years.

The complete national accounts for 2020 have been published since our previous report, in Chapter 3 of the Norwegian version of this report. This has led to changes in some important variables, but little change in the general picture of developments in the Norwegian economy. Growth in mainland GDP through 2022 has been revised slightly up, however, raising the projection for growth in 2022 by around 0.4 percentage point. Third quarter growth has also been higher than assumed in our previous report, lifting the projection by a further 0.2 percentage point. The result is that activity in the Norwegian economy is now slightly higher than, but nonetheless close, to the estimated trend level. We forecast that mainland GDP growth will be 3.8 per cent in 2022. As a consequence of a weak global trade outlook, the estimated trend has been revised down slightly since our previous report.

Inflation has been surprisingly high this year, and gathered pace markedly through the spring and autumn. Inflation in recent months, measured in terms of underlying inflation (the CPI-ATE), is the highest ever recorded in these statistics, and a broad-based rise in prices is reported for most groups of goods and services. As a result of high energy prices, the rise in overall inflation (the CPI) has remained markedly higher than CPI-ATE inflation throughout the year. Overall, we expect annual CPI inflation to be 5.8 per cent in 2022, and the peak appears likely to be reached early in 2023. The rise in prices for a number of intermediate goods and services has already come to a halt, and some prices have fallen recently. Higher interest rates will also apply downward pressure on prices. In 2023 we expect CPI-ATE inflation to be around 4.4 per cent, but with a clear falling tendency through the year, and then to decline further towards the inflation target of 2 per cent towards the end of 2023. Somewhat higher taxes and electricity prices next year will cause the CPI to increase more than the CPI-ATE.

Table 2. Growth in GDP Mainland Norway and contributions from demand components[1]. Percentage points. Annual rate

	QNA				Projection			
	2018	2019	2020	2021	2022	2023	2024	2025
GDP Mainland Norway	1.9	2.3	-2.8	4.1	3.8	1.2	1.6	1.2
with contributions from:								
Consumption by households and non-profit organisations	0.5	0.5	-0.7	1.6	1.4	0.3	0.5	0.7
General government consumption and investment	0.5	0.6	-0.2	1.0	0.1	0.4	0.6	0.5
Petroleum investment	0.0	0.4	-0.1	-0.1	-0.2	0.1	0.3	0.1
Housing investment	-0.4	-0.1	-0.1	0.2	-0.1	-0.3	0.0	0.2
Other mainland investment	0.2	0.6	-0.3	0.3	1.1	0.0	-0.2	-0.5
Exports from mainland Norway	-0.1	0.7	-0.9	1.1	0.6	1.0	0.5	0.5
Other factors etc.	1.1	-0.4	-0.5	0.0	1.0	-0.3	-0.1	-0.3

[1] See explanation under Figure 3.
Source: Statistics Norway.

The key policy rate, which was 0 per cent during the pandemic, is currently 2.5 per cent, after being raised several times since September last year. A further interest rate hike will prompt a faster reduction in inflation. At the same time, a higher interest rate will dampen activity in the Norwegian economy, leading to higher unemployment in the short to medium term. The central bank must weigh these considerations against one another, but the overriding goal is to bring down inflation. This means that the policy rate is likely to be raised to 3.0 per cent in the course of 2023 Q1. Mortgage rates will then increase to around 4.5 per cent from the middle of next year. As inflation falls towards the target, the policy rate will presumably be reduced somewhat, towards 2 per cent in 2024.

Growth in public consumption and investment will probably be somewhat lower than trend growth this year. Recipients of benefits have also lost considerable purchasing power as a result of the high inflation. In the National Budget, calculations using the KVARTS and NORA macroeconomic models show that the long-term effects of the support measures in 2020 and 2021 will probably compensate for this making the overall effect of fiscal policy expansionary nonetheless. The budget indicator for 2023 is negative, and growth in public consumption and investment seems likely to remain below trend. In the longer term, the forward market indicates that the high gas prices will continue to increase fiscal scope for manoeuvre. The Fiscal Rule is intended to ensure the distribution of petroleum revenue over several generations, and to smooth economic fluctuations. Our projections indicate that if spending of petroleum revenue increases somewhat over the next year, it will not necessarily have a major effect on the interest rate level (see Box 1 in *Economic Survey* 3/2022).

The effect of increased use of petroleum revenue on activity in the Norwegian economy, prices and interest rates depends on how the money is spent. For example, a more pronounced effect on interest rates results from increasing local government employment than from personal tax relief. An increase in development aid that goes in its entirety to beneficiary countries is not likely to result in higher interest rates in Norway. Irrespective of how the money is spent, the aim of long-term fiscal sustainability will be important for determining the use of petroleum revenue going forward. We assume that spending will remain within 3 per cent of the value of the petroleum fund through the projection period.

Household consumption has picked up this year, despite a high rise in prices for a number of goods and services. Growth through the last two quarters has been driven by consumption of services and consumption abroad in particular. Overall, we expect consumption to grow by just under 7 cent this year. Higher interest rates, high inflation and falling real house prices will contribute to curbing consumption going forward, but there will be growth of between 1 and 2 per cent nonetheless. The saving ratio adjusted for disbursements of share dividend will fall from just over 5 per cent in 2021 to around 1 per cent this year and 0.5 per cent next year, and then rise to between 2 and 3 per cent in 2024 and 2025. By way of comparison, the average annual saving ratio excluding share dividend payments was 2.9 per cent in the 10-year period 2010–2019.

Although almost half the deliveries of capital goods in the petroleum industry are imported from abroad (see Box 3 in *Economic Survey* 1/2022), these deliveries also mean substantial demand

Table 3. Main economic indicators 2021-2025. Accounts and forecasts. Percentage change from previous year unless otherwise noted

	Accounts 2021	Forecasts										
		2022			2023			2024			2025	
		SN	NB	MoF	SN	NB	MoF	SN	NB	MoF	SN	NB
Demand and output												
Consumption in households etc.	4.5	6.8	5.8	5.9	0.8	-1.1	1.4	1.4	0.3	2.3	2.1	1.9
General government consumption	4.9	0.1	-0.1	0.0	1.3	0.9	1.3	1.7	1.8	..	1.6	1.5
Gross fixed investment	-1.2	4.7	..	2.3	0.3	..	0.3	1.3	..	3.5	-1.3	..
Extraction and transport via pipelines	-2.1	-7.5	-6.0	-4.5	4.0	4.0	-2.2	10.0	15.0	7.8	2.0	2.0
Industries	4.3	16.6	5.4	6.8	0.2	3.5	0.3	-3.1	3.9	4.1	-7.6	3.8
Housing	3.0	-2.6	0.0	-0.7	-6.0	1.0	1.6	0.2	1.4	0.3	3.9	2.1
General government	-5.7	1.5	..	3.2	0.8	..	0.8	3.8	..	..	2.7	..
Demand from Mainland Norway[1]	3.8	5.0	3.3	3.7	0.5	0.2	1.3	1.0	1.3	2.1	1.0	2.0
Exports	5.5	3.2	..	2.1	5.7	..	5.6	1.6	..	2.3	1.1	..
Traditional goods[2]	4.6	0.4	3.4	1.5	5.8	5.0	4.1	3.1	2.2	3.5	3.0	3.0
Crude oil and natural gas	2.9	-1.4	..	1.6	9.0	..	8.3	1.7	..	2.0	-2.0	..
Imports	1.7	12.0	10.7	8.3	2.6	3.3	1.1	1.2	3.6	3.2	1.3	1.1
Gross domestic product	3.9	3.3	2.2	2.7	1.8	0.8	2.8	1.5	0.8	1.9	0.9	0.3
Mainland Norway	4.1	3.8	2.8	2.9	1.2	-0.3	1.7	1.6	0.4	2.0	1.2	1.1
Labour market												
Employed persons	1.2	3.8	3.5	3.3	0.0	-0.4	0.8	0.2	-0.1	0.3	-0.2	0.5
Unemployment rate (level)	4.4	3.3	3.6	3.2	3.7	..	3.2	3.7	..	3.4	4.1	..
Prices and wages												
Annual earnings	3.5	3.9	4.0	3.9	4.7	4.6	4.2	3.8	4.5	..	3.5	4.2
Consumer price index (CPI)	3.5	5.8	5.4	4.8	4.9	4.5	2.8	1.1	3.1	2.4	1.8	2.5
CPI-ATE[3]	1.7	3.9	3.7	3.2	4.4	4.8	3.1	1.9	3.5	2.8	2.0	2.6
Housing prices[4]	10.5	4.9	5.5	..	-5.0	-2.4	..	-1.6	1.3	..	2.3	4.1
Balance of payment												
Current balance (bill. NOK)[5]	566	1563	..	1662	955	..	1 690	733	..	..	663	..
Current account (per cent of GDP)	13.5	27.8	..	29.7	18.4	..	29.6	14.4	..	..	12.9	..
Memorandum items:												
Money market rate (level)	1.9	2.0	..	2.1	3.3	..	3.7	2.7	..	3.6	2.4	..
Crude oil price NOK (level)[6]	609	943	..	986	797	..	912	766	..	845	741	..
Import weighted krone exchange rate (44 countries)[7]	-5.3	1.2	1.2	2.1	1.9	0.1	3.7	0.0	-1.8	3.6	0.0	-1.4

[1] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in Mainland Norway.

[2] 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.

[3] CPI adjusted for tax changes and excluding energy products (CPI-ATE).

[4] Norges Bank forecasts the housing price index published by Eiendom Norge.

[5] Current account not adjusted for saving in pension funds.

[6] Average spot price. Brent Blend.

[7] Increasing index implies depreciation. Ministry of Finance forecasts trade-weighted exchange rate.

Source: Statistics Norway (SN). Ministry of Finance. Meld.St.1. (2022–2023) (MoF). Norges Bank. Monetary Policy Report 3/2022 (NB).

directed at mainland Norway. Developments so far this year indicate a fall in investment for the year as a whole. Investment is expected to pick up going forward, mainly because the oil tax package prompts the launch of a number of field developments at the same time. As this results in a tight supplier market with higher costs, it has been decided to postpone the Wisting project, among others. We are therefore assuming more moderate investment growth for the years ahead now than in our previous report. Investment is expected to increase by about 4 per cent in 2023 and 10 per cent in 2024, thereby boosting mainland GDP by 0.1 and 0.3 percentage point, respectively, in these years. Investment is expected to only rise slightly in 2025, to a level about 2 per cent higher than in 2019.

Business investment increased slightly last year and markedly in Q1 this year, and has since fallen back somewhat. Growth in manufacturing investment has been especially high, with some large individual projects in computer and electrical equipment and basic metals making a particular contribution to the upswing. On balance, mainland business investment looks set to increase by just under 17 per cent this year. Next year only moderate growth is expected, however, except in power supply, where increased investment in the distribution network is planned. High construction costs, lower global demand and increased interest rates are curbing investment in the near term, and the investment level in 2025 is expected to be only 1 per cent higher than in 2019.

House prices have begun to fall. According to seasonally adjusted figures from Real Estate Norway, house prices were 3 per cent lower in November than in August. A similar fall in prices has not been seen since 2008. According to our projections, house prices will continue to fall through the remainder of 2022 and for much of next year. A higher cost of living and higher interest rates may explain the fall. Nonetheless, the house price level in 2024 will still be higher than that prior to the pandemic. The weak house price movements and high prices for basic metals, for example, make housing construction less profitable. Sales of new homes also fell after the summer. As a result housing investment is expected to fall by around 6 per cent from 2021 to 2023.

The economy is currently characterised by high prices, for oil and gas among others. The large and increasing trade surpluses of the past seven quarters can be ascribed entirely to price movements. A record-high trade surplus this year is expected to shrink in the years ahead as a result of falling energy prices and weaker economic developments among our trading partners.

This year wage growth looks set to be 3.9 per cent, a bare 2 percentage points lower than inflation. Many workers would undoubtedly like compensation for the decline in purchasing power, but it is the profitability of the wage leaders that sets the limits for how high next year's wage settlement can be. Although parts of the wage leader segment are struggling with high prices for factor inputs, high producer prices, particularly in the consumer goods industry, mean that overall profitability remains good. The share represented by labour costs, which is a reverse measure of profitability, therefore looks likely to fall substantially this year. There is thus scope for higher wage growth going forward, while at the same time the labour share will remain lower than the average for the period 2014–2021. However, even given projected wage growth of around 4.7 per cent next year, the high inflation means that wages will fall a little in real terms, while the labour share rises. As inflation falls, growth in real wages is expected to pick up, to around 2 per cent annually in 2024 and 2025.

There are currently strong pressures in the labour market. Unemployment measured by the labour force survey (LFS) was close to 3.4 per cent in the months August–October. Unemployment has thus remained at a stable low level since April this year, after falling from a peak of 5.5 per cent in August 2020. Similarly low unemployment figures have not been recorded since the financial crisis in 2008. Many workers have also entered the labour market, and labour force participation was 72.6 per cent in August–October, more than 1 percentage point higher than in 2019. In addition the number laid off has fallen to a low level, and foreign commuters have largely returned after the pandemic. Given weaker global growth prospects and lower demand in many industries, labour market pressures will ease. Activity in construction and in general government in particular looks set to be lower next year than it has been in 2022. According to our projections, unemployment will increase gradually in the years ahead to just over 4 per cent in 2025.

Although the level of the Norwegian economy is close to estimated trend, the situation is not normal at present. The Norwegian state is earning record-high revenue from petroleum activities, inflation is far higher than Norges Bank's target, and labour market pressures are high. Historically, a tight labour market has often accompanied an expansion. In 2022, however, weak productivity developments have meant that Norwegian economic activity is close to the estimated trend level, while at the same time there are high pressures in the labour market; see Box 1. Going forward, we expect productivity to pick up and labour market pressures to ease. Inflation will also gradually fall towards the inflation target, and current petroleum revenue will decrease. Thus a number of economic factors will normalise, while the Norwegian economy will remain cyclically neutral until 2025.

Box 1 Cyclically neutral situation in the Norwegian economy?

Our projections show that mainland GDP was close to the estimated trend level in September this year. We therefore describe economic activity as close to cyclically neutral. At the same time, there are high pressures in the labour market, which is often the case during expansions. Unemployment has been low this year, and according to the Labour Force Survey, was around 3.2 per cent up to the summer. Similarly low unemployment figures have not been seen since the expansion preceding the financial crisis. How can the situation in the Norwegian economy be cyclically neutral while labour market pressures are high?

In order to answer this question, we decompose developments in the output gap for mainland GDP into cyclical contributions. The contributions are calculated using the production function method, whereby each variable is decomposed into a trend and a cyclical component, and where the contribution is the difference between the two. Table 1 shows that the labour market is an essential driver of the output gap, while real capital has little effect. The remainder of the gap is explained by total factor productivity.

In 2022, the gap is being increased by the highly pressurised labour market and reduced by weak productivity. The latter may be due to composition effects or indicate that economic resources are not being fully utilised, and explains why the output gap provides a nearly cyclically neutral picture of the Norwegian economy in 2022, despite the strong labour market pressures.

Figures 1 and 2 show that the empirical relationship between the output gap on the one hand and the employment and unemployment gaps on the other are different in size. A 1 per cent increase in the output gap is associated with an increase of around 0.8 per cent in the employment gap. The relationship between the unemployment gap and the output gap, often called “Okun's law” is much lower: a 1 per cent increase in the output gap is associated with a decrease of around 0.3 per cent in the unemployment gap. For 2022, these two empirical relationships exhibit large deviations.

In order to shed light on why the slopes in the figures are different and why deviations from Okun's law can arise, we carry out computations using the KVARTS macroeconomic model.[1] We have calculated the effects on mainland GDP, employment and the unemployment level of different Norwegian economic scenarios, such as a change in policy or economic shocks. In the scenarios, the changes have a duration of one year, and Table 2 presents the average effects over five years. Several of these scenarios were analysed in Statistics Norway’s report for the Corona Commission (in Norwegian).

The scenarios affect economic activity and the labour market differently. In Table 2, for example, exchange rate weakening can be compared with an increase in public investment. The scenarios result in the same reduction in the unemployment rate, but if the change in the relationship between the unemployment rate and mainland GDP is considered, the change in the unemployment rate correlates with a relatively smaller change in GDP for a weaker krone than for an increase in investment. It is the effect of the factor prices that results in the different outcomes, and the weakening of the krone makes imports of both intermediate inputs and capital goods more expensive. Enterprises will tend more to shift their use of factors to labour when the exchange rate weakens than when public investment is increased, and unemployment is thereby reduced more (for a given change in mainland GDP). The same effects apply in the scenario with reduced global prices. On average, the change in the ratio is -0.36 for all scenarios, and amounts to about the same level as the

[1] A large and growing body of literature has investigated the stability of Okun's law over time across countries, econometric specifications and cyclical states; see for example Lee (2000), Dixon et al. (2017), Donayre (2022) and Foroni and Furlanetto (2022). Ball et al. (2017) find support for Okun's law in the majority of the 21 OECD countries analysed in the study.

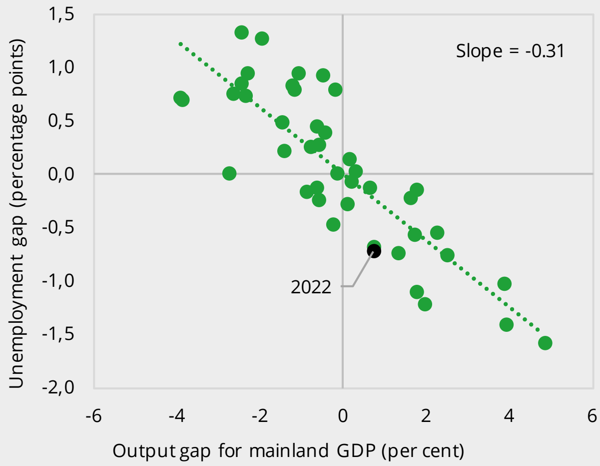
Table 1. Decomposing the output gap, mainland GDP

					Projection			
	2018	2019	2020	2021	2022	2023	2024	2025
Output gap	-0.11	0.66	-3.92	-1.52	0.63	0.24	0.30	0.02
Contribution from:								
Total factor productivity	0.47	0.64	-1.58	-0.60	-1.16	-0.53	-0.32	-0.17
Real capital	-0.10	-0.02	0.03	0.02	0.08	0.16	0.16	0.16
Hours worked	-0.48	0.03	-2.38	-0.94	1.71	0.61	0.46	0.02
Average number of working hours per employee	-0.22	-0.24	-0.76	0.19	0.32	-0.30	-0.28	-0.31
Employed	-0.26	0.27	-1.62	-1.13	1.39	0.91	0.73	0.32
Unemployment rate	-0.02	0.07	-0.59	-0.32	0.64	0.34	0.34	0.11
Labour force participation rate	-0.72	-0.41	-0.47	0.38	0.96	0.83	0.49	0.34
Population	0.32	0.17	-0.04	-0.42	-0.27	-0.11	-0.05	-0.05
Short-term immigration	-0.03	0.12	-0.25	-0.54	-0.12	-0.03	0.09	0.06
Adjustment for hours worked in petroleum-related industries	0.03	0.01	0.00	0.04	0.05	-0.01	-0.03	-0.04
Misc. deviations in hours worked	0.16	0.31	-0.27	-0.27	0.13	-0.11	-0.11	-0.10

[1] A projection path that extends to 2035 is used for calculating the trend. The trend is estimated with the aid of the Hodrick-Prescott filter, but in such a way that it is not directly affected by developments in the Covid years 2020 and 2021. A smoothing coefficient for years that is equivalent to a quarterly value of 40 000 is used for all calculations . See Box 3 in *Economic Survey* 2018/4. Information about the production function method can be found in Sørensen and Whitta-Jacobsen (2010), for example.

Figure 1. Relationship between the employment gap and the output gap

Figure 2. Relationship between the unemployment gap and the output gap



slope of the estimated curve in Figure 2. The average effect of the ratio between employment and mainland GDP is 0.96, slightly higher than the estimated curve in Figure 1. Common to all the scenarios is that it is easier to get a job, and more workers enter the labour market when demand for labour increases and unemployment decreases. When the output gap increases, the unemployment gap therefore does not decrease as much as the employment gap increases.

In order to be able to conduct effective cyclical management, it is important to look at several macroeconomic indicators. One of Norges Bank's goals is to contribute to high and stable output and employment. However, research does not provide an unambiguous answer to which indicator, the output gap or the unemployment gap, should be given most weight; see Faia (2008), Gali (2010) and Rhee and Song (2020). Developments in the labour market and in output are not necessarily correlated, and deviations from Okun's law may arise when economic shocks or policy measures affect different parts of the economy in different ways, as the scenarios above illustrate. Foroni and Furlanetto (2022) argue that disruptions in the labour supply or technological changes may also cause deviations from Okun's law. In 2022 there is a substantial deviation of this kind in the Norwegian economy, and Figure 2 shows that unemployment is around 0.5 percentage point lower than Okun's law would indicate. It is the weak productivity developments that are making the Norwegian economy almost cyclically neutral at the same time as there are strong labour market pressures.

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Table 2. Different scenarios and effects on mainland Norway, unemployment and employment. Average over 5 years[1]

The scenario affects:	Mainland GDP	Unemployment[2]	Employment	Unemployment/ Mainland GDP	Employment/ Mainland GDP
Public intermediates	0.19	-0.06	0.17	-0.32	0.89
Public sector employment	0.33	-0.12	0.42	-0.36	1.27
Public sector investment	0.29	-0.08	0.23	-0.28	0.79
Transfers	0.17	-0.06	0.13	-0.35	0.76
Indirect taxes (reduced)	1.49	-0.43	1.13	-0.29	0.76
Subsidies	0.10	-0.02	0.05	-0.20	0.50
Payroll tax	0.07	-0.01	0.04	-0.14	0.57
Money market rate (reduced 1 p.p.)	0.33	-0.10	0.24	-0.30	0.73
Exchange rate (weakening, 10 per cent)	0.11	-0.08	0.20	-0.73	1.82
GDP trading partners (increased 10 per cent)	0.06	-0.02	0.06	-0.33	1.00
Petroleum investment	0.18	-0.08	0.20	-0.44	1.11
Global prices (reduced 10 per cent)	0.25	-0.13	0.32	-0.52	1.28
Average				**-0.36**	**0.96**

[1] The shifts are scaled such that the temporary impulses are equivalent to 1 per cent of mainland GDP unless otherwise indicated in parentheses.
[2] Percentage points.

Fiscal policy with measures to tackle high prices

In 2022 Q3, developments in general government featured increased activity in state-owned health trusts. Central government consumption rose by 0.8 per cent in Q3 after growing 1.3 per cent the previous quarter. The rise was mainly due to growth in health, educational and care services. Local government consumption fell by 1.0 per cent in 2022 Q3 after a fall of 1.1 per cent in Q2. The fall is largely due to a decline in public administration, public transport and health services. Gross general government investment rose by 4.3 per cent in 2022 Q3, while gross central government investment climbed by as much as 12.4 per cent. The sharp rise in investment must be viewed bearing in mind the low investment levels in the previous quarters. Following strong growth earlier this year, gross local government investment fell by 6.0 per cent in Q3. The decline is due to reduced investment in public administration, care services, daycare centres and pre- and after-school care, and in educational services.

Unemployment is now low, while inflation is extraordinarily high. The Government has expressed clearly that spending of petroleum revenue is to be reduced in 2023. The rationale is mainly that contractionary fiscal policy will curb inflation, thereby reducing the need for interest rate hikes. This in turn will reduce the probability of high unemployment a little further on. At the same time, the Government wants a strong welfare state, and redistribution from those who have most to those with low and ordinary incomes.

Underlying growth in central government expenditure is expected in both 2022 and 2023. The growth will occur in areas such as national insurance, the continuation of the household energy support scheme, reception and integration of Ukrainian refugees and ongoing construction projects. These expenditure items are projected to grow by NOK 100 billion in 2023 compared with the Final Budget Bill for 2022. Defence expenses are also being increased, while the discontinuation of temporary corona-related expenses will reduce spending growth. In Labour's agreement with the Socialist Left, support for those who have least is also being increased. High electricity prices and higher wage and price inflation are also translating into growth in state revenues from mainland Norway, but far less than the increase in expenditure. Against this backdrop, the Government proposes a budget for 2023 that entails an overall increase in revenue to the state of NOK 46.1 billion booked, and NOK 33.6 billion accrued.

It is proposed extending the temporary energy support scheme for households and housing cooperatives through 2023. The Government assumes 90 per cent support in January–March 2023, 80 per cent in April–September and 90 per cent in October–December. Energy support for agriculture and cultivation under glass and to NGOs is to be extended through the first half of 2023. Other schemes include housing support, support to students and a limited support scheme for the business sector. Energy support schemes are estimated to amount to about NOK 50 billion in all in 2023. The Government also proposes reducing income tax for those with income of under NOK 750 000 by changing the basic deduction and adjusting bracket tax. The rates for financial social assistance are also being increased for 2023 in line with projected inflation.

A proposal to step up taxation of revenue based on shared natural resources entails among other things a high-price tax on hydropower and windpower, yielding an estimated NOK 16 billion in tax revenue in 2023. It is proposed increasing tax on economic rent from hydropower, with projected book revenue of NOK 11.2 billion, and tax on economic rent from land-based windpower, with projected accrued revenue of NOK 2 billion. Tax on economic rent from aquaculture comes in addition, with accrued revenue of NOK 2.15 billion. Other tax increases include a 5 per cent increase in payroll tax on earnings in excess of NOK 750 000 per year. The upward adjustment factor for tax on share dividend is being increased from 1.6 to 1.72. At the same time wealth tax is being increased by raising wealth tax for bracket 1 from 0.95 to 1 per cent, and by increasing the valuation of shares and commercial property. The proposed changes in taxation of natural resources are substantial compared with the proposed income tax changes. A number of minor adjustments are also proposed in the National Budget for 2023.

The National Budget for 2023 forecasts consumption of petroleum revenue, measured in terms of the structural, non-oil budget deficit, of NOK 316.8

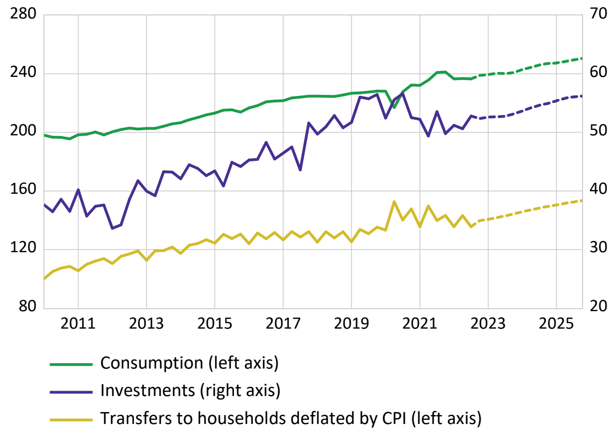
billion in 2023. In order to achieve better congruence between the effects of high energy prices and energy support on the income and expenditure sides, respectively, of the structural budget balance, the Ministry of Finance has adjusted the calculation of the structural deficit. In isolation, the correction contributes to reducing the structural deficit by NOK 40.4 billion in 2022, and by NOK 34.9 billion in 2023. These corrections were not incorporated in the Revised National Budget 2022, which estimated the structural, non-oil deficit for 2022 at NOK 352.2 billion. In the National Budget 2023, use of petroleum revenue is projected to be NOK 323.7 billion which, measured in 2023-kroner, amounts to NOK 335.1 billion. The corrections reduced the forecast for spending of petroleum revenue, while higher spending on energy support increased it. The budget agreement with the Socialist Left means that spending will increase by about NOK 5 billion. The bulk of the increase will go to higher minimum pensions, housing support, child benefit of various kinds, and support for food banks. The settlement also entails adjustments to the taxation system that mainly affect the wealthy. The budget balance is maintained by financing the bulk of the increase in expenses through an unexpected increase in earnings from the wholly owned state power company Statkraft. However, in the Final Budget Bill (Prop. 33 S) the estimate for the structural non-oil budget deficit for 2022 is increased to NOK 337.2 billion.

Increased taxation of economic rent in the power industry, and a high-price tax on hydropower and windpower, imply that a substantial portion of these revenues will be called in by the state. However, this extra tax revenue will be largely offset by reductions in the power companies' after-tax surplus. Reductions in after-tax surplus mean loss of revenue for the government because about 80 per cent of power production in Norway is publicly owned; see Box 2 in *Economic Survey* 3/2022. Taxation of economic rent and high-price tax are therefore not as contractionary as the increased tax revenues might suggest. The fiscal impulse becomes more expansionary if account is taken of loss of revenues associated with lower surpluses in publicly-owned power companies.

In the Government's budget bill for 2023, withdrawals from the Government Pension Fund Global (the petroleum fund) are forecast to be

Figure 4. General government

Seasonally adjusted, billion 2020 NOK, quarter



Source: Statistics Norway

2.5 per cent of the value of the fund at the beginning of 2023. Nonetheless, spending of the fund's capital, measured in kroner and as a share of the mainland economy, has increased substantially in recent years. The 2023 projection of about NOK 66 billion 2023-kroner is higher than in the period 2016–2019. The petroleum fund is forecast to be worth NOK 12 500 billion at the beginning of 2023. Turbulence in financial markets led to considerable losses in 2022, while contributions from petroleum activities have been substantial. Net cash flow from petroleum activities is projected in the National Budget for 2023 to be about NOK 1 384 billion in 2023. However, falling gas prices will result in lower net cash flow. In the projections for 2024–2025 we assume that spending of petroleum revenue will remain under 3 per cent, measured by the structural non-oil budget deficit as a share of the value of the petroleum fund. We have assumed that the real return on the fund will be 3 per cent, and that oil and gas prices will shadow forward prices.

We forecast percentage changes in general government consumption and gross investment of 0.1 and 1.5 per cent, respectively, in 2022, and increases of 1.3 and 0.8 per cent in 2023. In the National Budget for 2023, changes in consumption and gross investment in 2022 are forecast to be 0 and 3.2 per cent, respectively, while the projections for 2023 are 1.3 and 0.8 per cent, respectively. Our projections for consumption growth in 2022 have been revised up, while the investment projection has been revised down, partly as a consequence of revisions of figures. Our growth projections for 2023 are virtually identical to the projections for

2023 in the National Budget. Countercyclical policy that applies the brakes to the downturn pushes up our projections, while higher inflation that reduces the real value of public consumption and investment pushes them down. The fiscal impulses in 2023 are forecast to have an approximately neutral effect on the activity level, according to computations for the National Budget made using the KVARTS and NORA macroeconomic models. The growth projections for the period 2024–2025 are extrapolations of previous projections, with assumptions of stable deliveries of fighter aircraft. Transfers are expected to fall by 1.9 per cent in 2022, roughly the same as in the last projection, but are expected to increase by 2.0 per cent in 2023.

Interest rate peak in sight

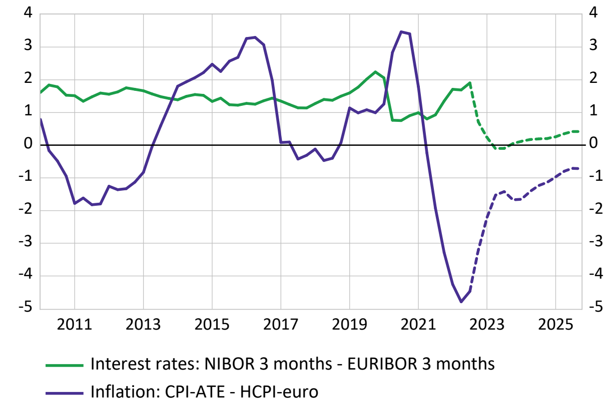
In September 2021, Norges Bank began to raise the key policy rate from a historically low level of 0 per cent. After the monetary policy meeting in November this year, the policy rate had risen to 2.5 per cent. It was raised by 0.5 percentage point at each of the monetary policy meetings from June to September. The interest rate hike in November was 0.25 percentage point.

The money market rate shadows the policy rate with an added premium. The 3-month money market rate was down to 0.2 per cent in summer 2021, but by the beginning of December this year had risen to just under 3.5 per cent. The high premium in relation to the policy rate indicates that further interest rate hikes by Norges Bank in the near term have been priced in.

Deposit and lending rates have also increased from record low levels in Q2 and Q3 last year. At the end of 2022 Q3, the average interest rate on loans secured on dwellings was 3.2 per cent, which represents an increase of just over 1.2 percentage points compared with the end of both Q2 and Q3 of 2021. The average deposit rate was 0.3 per cent at the end of 2021 Q2, but rose to 1.3 per cent at the end of Q3 this year. By the end of the quarter, the hikes in the policy rate in the second half of Q3 had not fed through into bank interest rates. There has also been one policy rate hike so far in Q4. Even without further increases in the policy rate, bank interest rates will therefore increase further in Q4.

Figure 5. Interest rate and inflation differential between NOK and euro

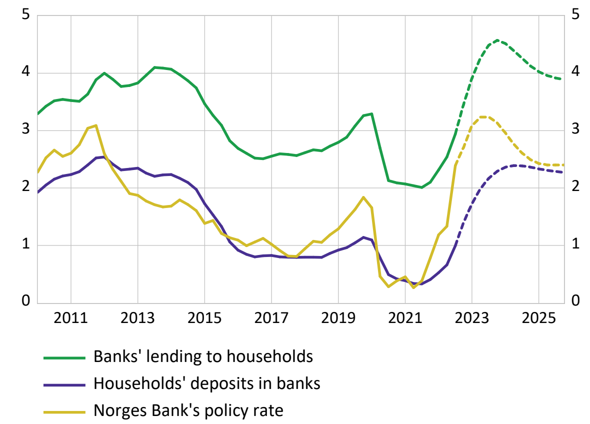
Percentage point



Source: Norges Bank and Statistics Norway

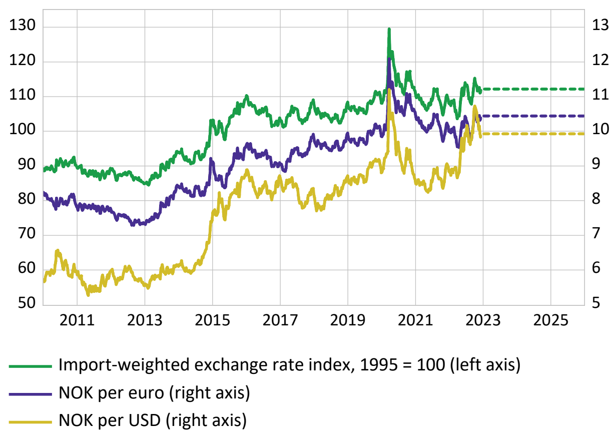
Figure 6. Norwegian interest rates

Percent



Source: Norges Bank and Statistics Norway

Figure 7. Exchange rates



Source: Norges Bank

As we wrote in our last economic report, Norges Bank now faces a clear need to strike a balance in its setting of interest rates. On the one hand, there are fears that high inflation will persist, which in isolation points to higher policy rates going forward. On the other, a pronounced slowing of economic growth, both in Norway and among our trading partners, may result in increased unemployment the next few years. This, in isolation, points to lower policy rates going forward. We believe that when striking a balance between these objectives, Norges Bank will initially place greatest emphasis on curbing inflation. Norges Bank and other central banks fear that the high inflation we have seen will lead to higher inflation expectations going forward, which may be self-fulfilling, in that agents base themselves on these expectations when adjusting their prices. Norges Bank therefore wishes to reduce the likelihood of higher inflation expectations, and will thus probably continue to raise the interest rate this year. In our previous report we envisaged that the policy rate hikes would stop when the rate was raised to 2.75 per cent in December. However, we have revised upward our inflation projection for next year. This may indicate that there will be further interest rate increases in 2023. We now forecast one interest rate hike next year, bringing the policy rate up to 3.0 per cent. Given a normalisation of the spread between the policy rate and the money market rate, we forecast that the latter will be 3.3 per cent as an annual average for next year.

We forecast that inflation, measured as the 12-month rise in the CPI, will abate in the course of next year, and that the risk of high inflation taking hold will be smaller. This will reduce the need for new interest rate hikes. At the same time, economic growth will probably be low, partly as a result of the higher interest rate level. A less restrictive monetary policy may therefore soon be needed, and we believe that Norges Bank will cut the interest rate at the end of 2023 and in 2024. We have based our projections on four such rate cuts. The result will be a money market rate of 2.4 per cent in 2025. The average interest on loans secured on dwellings will then rise to just over 4.2– 4.3 per cent in 2023 and 2024 before falling back a little in 2025.

Saving ratio back to a low level

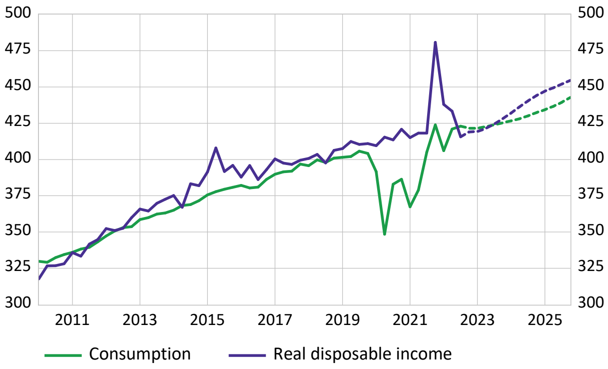
Growth in real disposable income for households and non-profit organisations is estimated in the non-financial sector accounts to be 4.4 per cent in 2021. If we disregard disbursements of share dividend, which were record high at around NOK 95 billion towards the end of last year, probably because of higher dividend tax with effect from 2022, growth in real disposable income was close to zero per cent.[1]

Preliminary non-financial sector accounts figures show a seasonally adjusted fall in real disposable income from 2021 Q4 to 2022 Q3 of around 14 per cent, while income adjusted for share dividend payments grew by around 1.5 per cent in the same period. These growth projections are largely based on higher wage income due to employment growth, increased net interest expenses due to higher lending rates, normalisation of share dividend payments, and large price increases for energy and a number of other goods.

According to the quarterly national accounts, total consumption by households and non-profit organisations increased by 4.5 per cent in 2021 after a record fall of 6.5 per cent the previous year. Since the reopening of society last winter, aggregate consumption has picked up despite the fact that high inflation, viewed in isolation, has reduced household purchasing power. Following a fall of just over 4 per cent in Q1 this year, overall consumption grew by 3.7 per cent in Q2 and by 0.5 per cent in Q3. Growth through the last two quarters has been driven by consumption of services and consumption abroad in particular. Whereas service consumption increased by roughly 5.5 per cent, with large contributions from accommodation and leisure services, consumption abroad increased by a good 50 per cent. Although consumption abroad has increased strongly since February this year, the level is still lower than prior to the Covid pandemic.

[1] The non-financial sector accounts do not correct for higher taxes associated with dividend disbursements last year. This is because the figures for tax on wage income and share dividends paid to households are combined in a single tax item from the Norwegian Tax Administration, and are therefore difficult to distinguish from one another in the non-financial sector accounts.

Figure 8. Income and consumption in households
Seasonally adjusted, billion 2020 NOK, quarter



Source: Statistics Norway

While consumption of services was at a very low level during the corona pandemic, goods consumption was record high. So far this year, however, goods consumption has declined, sliding by 2.1 per cent in Q3 following falls of 6.6 per cent and 0.2 per cent in Q1 and Q2, respectively. Goods consumption was particularly low in July, but picked up somewhat in August and September. The fall in Q3 was fairly broad-based, with particularly large contributions from consumption of furniture, clothing and footwear. Households also bought less food and beverages, while an increase in car purchases slowed the decline. According to the monthly national accounts figures, the large change in the ratio between goods and service consumption during the pandemic has now normalised as a result of the reopening of society. The goods consumption index for October shows a further seasonally adjusted increase of 0.7 per cent on the previous month. Purchases of food and beverages declined, while purchases of cars and other goods increased. The fact that food and beverages fell in October is probably attributable to a particularly high rise in prices for these goods.

The saving ratio, measured as saving as a share of disposable income, increased from an already high level of 12.9 per cent in 2020 to 13.3 per cent in 2021. Such a high annual saving ratio has not previously been recorded in the non-financial sector accounts. The saving ratio adjusted for share dividend disbursements fell from 8.7 per cent in 2020 to 5.2 per cent in 2021. By way of comparison, the average annual saving ratios including and excluding dividend payments were 6.8 per cent and 2.9 per cent, respectively, in the 10-year period 2010–2019.

According to preliminary non-financial sector accounts figures, the seasonally adjusted saving ratio fell from around 16 per cent in 2021 Q4 to around 11.5 per cent in 2022 Q1, while the ratio excluding share dividend payments rose from around -4.5 per cent to around 6.5 per cent in the same period. However, these large changes in the saving ratio through two quarters must be viewed in light of the extraordinary changes in share dividend payments, which are probably due to the higher tax on dividend introduced this year. The saving ratio including and excluding share dividend payments then fell in the following two quarters to levels of around 2.5 per cent and -3 per cent in Q3.

We forecast that growth in real disposable income adjusted for share dividend payments will be around 2.5 per cent this year. This is an upward adjustment of about 1 percentage point on the growth projection in our previous report, and is largely attributable to stronger developments in wage income in Q4 this year and weaker growth in the national accounts private consumption deflator in Q3 than previously envisaged. Growth in real disposable income has been revised down by 1 percentage point in 2023, to a decline of around 1.5 per cent. This growth for 2023 is primarily attributable to higher inflation than assumed in our previous publication. Given our assumptions, average annual growth in real disposable income in the years 2024 and 2025 will be around 3.5 per cent. This is approximately 0.5 percentage point lower than forecast in our previous report. Both wage income and public transfers will pick up in real terms in pace with substantially lower inflation in the last two years of the projection period, albeit at a lower pace than envisaged previously. Net interest expenses will also contribute to growth in real income through 2024 and 2025, when mortgage rates fall in pace with cuts in the policy rate. The level of the household interest burden, measured as after-tax interest expenses as a share of disposable income, will be an annual average of close to 7 per cent during the projection period. By way of comparison, the interest burden was around 5.5 per cent on average in the 10-year period 2010–2019.

We forecast that consumption growth in 2022 will be just under 7 per cent, approximately the same as in the last report. This implies fairly strong seasonally adjusted growth through the last quarter, partly as a consequence of a further upswing in car purchases prior to the introduction in the new year of a weight tax on electric cars and VAT on the portion of the purchase price of electric cars that exceeds NOK 500 000. The total consumption level in 2022 could thus be about 4.5 per cent higher than in 2019. Consumption growth for the years 2023–2025 as a whole will be moderate and somewhat lower than assumed in our previous publication. This must be viewed bearing in mind that growth in real income during these years has been revised down, and that the fall in real wealth has been revised up since our last report. That the downward revision of consumption is not larger than now shown in our projections is partly attributable to a significantly lower real after-tax interest rate through 2023 and 2024.

Given our projections for developments in income and consumption, the saving ratio will fall to around 6 per cent this year and next, and then rise to around 7.5 per cent in both 2024 and 2025. The saving ratio excluding share dividend disbursements will fall to around 1 per cent this year and 0.5 per cent next year, before rising again to around 2.5 per cent in 2024 and 3 per cent in 2025. These last projections imply an average annual saving ratio in the projection period of just under 2 per cent, which is roughly 1 percentage point lower than the annual average for the 10-year period 2010–2019.

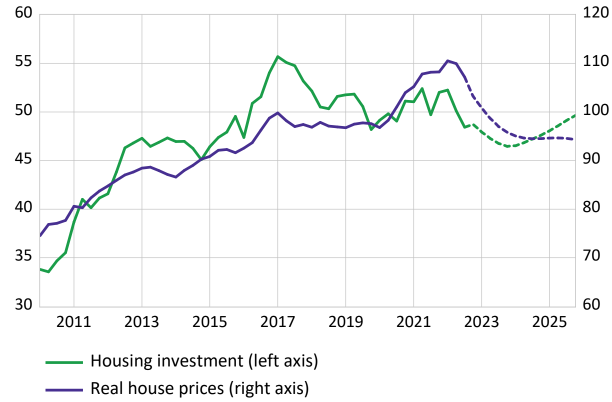
Change of direction for the housing market

Following a strong rise in house prices in 2021 and the first half of 2022, the housing market exhibited a distinct change in direction in the course of the autumn. Statistics Norway's house price index for Q3 shows a seasonally adjusted zero rise in house prices from the previous quarter. This development must be viewed in light of the increased cost of living for households.

Real Estate Norway's monthly seasonally adjusted house price index shows that house prices fell in September and October by 1.0 and 0.8 per cent, respectively. This is the steepest fall in house prices seen since October 2008. In November house prices fell by a further 0.9 per cent. Through the first half of 2022 there were extraordinarily few resale homes for sale. In August the market changed, and the number of dwellings for sale increased sharply compared with the same month in 2021.

Figure 9. Housing market

Seasonally adjusted. Left axis: billion 2020 NOK, quarter
Right axis: index, 2020 = 100



Source: Statistics Norway

This tendency continued through September and October, but levelled off in November. The historic trend is for the supply of dwellings to fall significantly towards the end of the year, but this year the fall appears likely to be weaker than normal. By the end of the year, the number of dwellings for sale could therefore reach the level seen prior to the pandemic. Turnover time for dwellings is still far shorter than normal, but November was the first month in 2022 in which it took longer to sell a dwelling than in the same month in 2021. There is thus still considerable demand for resale homes, but there is much to indicate that it may be abating. One reason may be that banks are becoming more restrictive with regard to both mortgage amounts and access to bridging finance. This latter factor may lead to a shortage of buyers in the market because buyer's own home has to be sold before another dwelling can be bought.

Seasonally adjusted quarterly national accounts figures show that in 2022 Q3 housing investment fell by 3.3 per cent. The Norwegian Homebuilders' Association maintains statistics on new home sales and housing starts, and their figures largely support those in the national accounts. The number of new housing-project starts slackened off in June, but picked up to some extent in September. Sales of new dwellings in 2022 are at the lowest level since the Homebuilders' Association began to record statistics in 2010. The level of new dwelling sales for 2022 up to and including October is 22 per cent lower than for the same period in 2019 and 2021. The declining sales coupled with higher prices for building materials and energy indicate that housing investment may remain low in the near term. The industry reports a generally low level of activity throughout the country, and limited orders on hand. In a survey conducted by the Homebuilders' Association, the industry is asked about their expectations regarding the market and their own enterprise the coming year, and the responses show general pessimism, with prospects of staff cutbacks and layoffs. We are therefore revising down the investment projections in the previous report for 2022 and 2023 by 1.9 and 6.7 percentage points, respectively, to -2.6 and -6.0 per cent.

The KVARTS macroeconomic model, which forms the basis for our projections, forecasts a fall in house prices next year. In the model, house prices are influenced by the interest rate level, household borrowing, disposable income and housing investment. The projection scenario indicates a fall in real disposable income excluding share dividend payments of around 1.5 per cent in 2023. The costs associated with servicing mortgages, and hence growth in household credit, are closely linked to the interest rate level. In our projections we assume that mortgage rates will remain high through 2023, but begin to fall in 2024. We are revising down our forecasts for growth in household gross debt in 2022 and 2023 to about 4 per cent. The general uncertainty associated with increased energy prices, global turbulence and the war in Ukraine has implications for the housing market going forward. The consumer confidence indicator published by Finance Norway shows that in Q4 Norwegians still have a pessimistic view of their own financial situation next year. Households expect to postpone investments and purchases of consumer durables, and to save more. Overall, these factors point to the negative house price movements observed in the second half of 2022 continuing into 2023. On the other hand, lower housing investment, viewed in isolation, will push up house prices in the longer term.

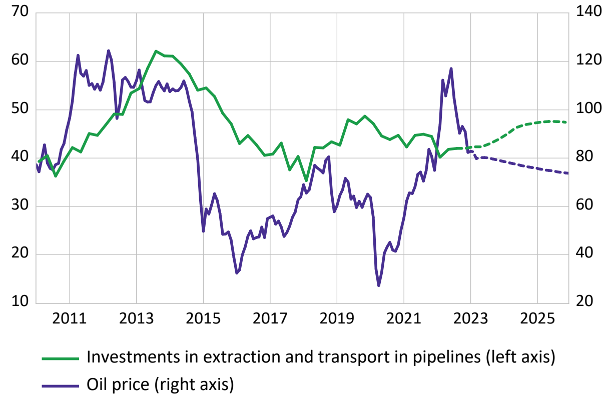
Our projection for the rise in house prices in 2022 is 4.9 per cent. This is a downward revision of 0.8 percentage point compared with our previous rapport. We now expect house prices to continue falling for the remainder of 2022 and in 2023 and 2024. In our previous report we forecast a continued sharp fall in prices in 2024 too, but some of this fall has now been moved forward to 2023, so that the projections for 2023 and 2024 are -5.0 and -1.6 per cent, respectively. On the basis of these nominal projections we expect real house prices to fall by 9.3 and 3.0 per cent in 2023 and 2024, respectively. Such a fall in real house prices has not been observed since the crisis years of the early 1990s. However, it is worth noting that the price fall in our projections is from a high level. When the trough in the projection path is reached towards the end of 2023, seasonally adjusted house prices will have fallen by about 7.5 per cent from the peak in 2022 Q2. They will still be far higher than those observed before the pandemic

Downwardly revised petroleum investment projections

After falling in early 2022, petroleum investment picked up somewhat in Q2 and then levelled off in Q3. In the first three quarters of this year, it was 6.1 per cent lower than in the same period last year. While investment prices only increased by 0.3 per cent in 2021, the rise in prices in the first three quarters of 2022 was 5.2 per cent higher than in the same period last year. The higher rise in prices this year is attributable to the appreciably higher global prices for key capital goods coupled with a weaker Norwegian krone in relation to the US dollar. As the oil companies pay for much of their capital goods in USD, investment prices measured in NOK rise when the krone depreciates against the dollar.

Statistics Norway compiles quarterly overviews of running investment costs, and reviews the oil companies' investment plans in the investment intentions survey (KIS), with projections for the current year and the following year. The nominal projection for 2022 in the last survey is approximately NOK 175 billion. This is 1.5 per cent higher than the projection published in the previous survey, but still 3.8 per cent lower than the projection for 2021 published at the same time last year. Development projects are not included in the investment survey until a plan for development and operation (PDO) is submitted to the authorities. The interim tax rules adopted by the Storting in June 2020 also provide for favourable taxation of all developments for which PDOs are delivered to the authorities before the end of 2022. PDOs for a large number of projects are therefore expected to be submit-

Figure 10. Petroleum investments and oil price
Seasonally adjusted. Left axis: billion 2020 NOK, quarter
Right axis: USD per barrel



Source: Statistics Norway

ted towards the end of the year. Overall, we expect some NOK 2 billion to accrue for these projects this year, which in isolation will increase investment by about 1.2 per cent. On the other hand, figures for the last 20 years show that the annualised projection published in Q4 of the investment year has been 2.6 per cent higher, on average, than the final investment. The main source of the overestimation is that companies tend to be overoptimistic in their assessments of what they will achieve before the end of the year. We accordingly forecast that nominal investment will fall by 2.3 per cent in 2022. Given a 5.2 per cent rise in investment prices, the volume will then fall by 7.5 per cent this year, which is roughly consistent with the projection published in the last economic report.

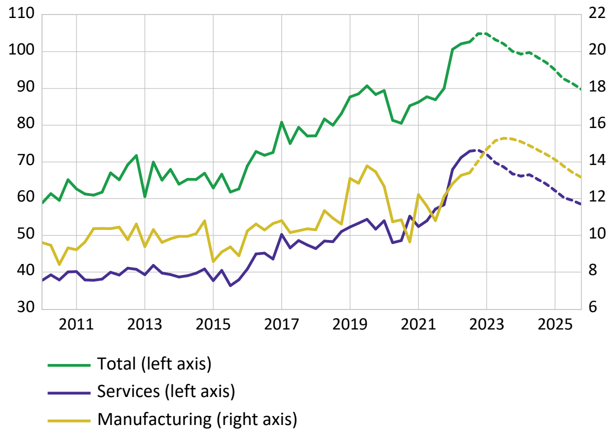
In the intentions survey for 2023, investment is now forecast to be about NOK 150 billion, which is 11 per cent higher than in the previous survey. The high figure is mainly due to substantially higher costs than previously assumed being reported for several development projects. This is additional investment which will probably not contribute to increasing future production capacity substantially more than previously planned. The forecast indicates a nominal fall of 3 per cent in 2023 compared with the corresponding forecast made for 2022. The many developments that will be launched this year will entail significant investment in 2023, which will substantially raise development investment compared with that now included in the survey. Investment in these projects tends to be highest in the second or third year of the development. These will therefore give rise to even higher investment in 2024 and 2025. However, since the last report, it has been decided to postpone some of the expected projects. The largest of these is Wisting. The main reason given for the postponements is high costs for capital goods and prospects of a somewhat tighter supplier market. Because of the strong demand focused on the supplier industry coupled with the government's proposal to reduce the tax benefits of the oil tax package by reducing uplift somewhat, we assume in our projections that more projects will be postponed. We are therefore revising down our investment projections for the next few years. We now forecast more moderate growth next year, followed by a higher growth rate in 2024 before it levels off more again in 2025. The new projections point to investment in 2025 being approximately 2 per cent higher than in 2019.

Oil and gas extraction in the first three quarters of this year was 1.0 per cent higher than in the same period last year. Gas production increased by a full 9.9 per cent during this period, while production of liquid was 7.3 per cent lower than in the same period last year. Norwegian operators have given priority to producing gas at the expense of oil this year in order to be able to replace as much as possible of the European gas imports from Russia, which have fallen sharply through 2022. Far higher prices for gas than for oil have also motivated petroleum companies to prioritise the production of gas over oil. In October the Norwegian Petroleum Directorate forecast that petroleum production will increase by 1.7 per cent this year. Petroleum production is expected to increase by 6.7 per cent in 2023 and by 1.2 per cent in 2024 before gradually falling in the second half of this decade.

Weak near-term trend in business investment

Preliminary quarterly national accounts figures for 2022 Q3 show that seasonally adjusted growth in mainland investment was 0.5 per cent, including growth in business investment of 0.5 per cent. Of the sub-groups making up business investment, services associated with extraction of crude oil and natural gas are estimated to have had seasonally adjusted Q3 growth of 15.5 per cent, other services 2.4 per cent, manufacturing and mining 1.1 per cent and other goods production -9.3 per cent. The tendency from Q2 to Q3 was thus a slight decline, and growth is levelling off. The exception is services associated with extraction, where growth appears to have been good in Q3.

Figure 11. Investments Mainland Norway
Seasonally adjusted, billion 2020 NOK, quarter



Source: Statistics Norway

Our previous projection for business investment was based on the quarterly national accounts figures available up to and including 2022 Q2. In the figures published for 2022 Q3, investment in services was substantially revised up. As service investments account for the largest share of overall business investment, this pushes up our annual projections for business investment compared with our previous projection.

The revision resulted in seasonally adjusted quarterly growth in manufacturing and mining in 2022 Q1 being increased from -1.9 per cent to 5.7 per cent. The Q2 figures for the same industry were revised down from 6.9 to 3.5 per cent. Investment in other goods production also underwent some upward revision in Q1 and downward revision in Q2. When the final figures for 2020 were incorporated, some units were moved from shipping to services associated with extraction. This has affected both the level and the course of investment in services for the petroleum industry. These changes are naturally reflected in the annual growth forecasts in both 2021 and 2022.

According to figures reported to Statistics Norway's investment intentions survey in Q4, investment in 2022 measured in nominal NOK will be somewhat lower than forecast by the enterprises at the same time last year. The most recent forecast for overall manufacturing investment in 2022 is NOK 36 billion, a 35 per cent increase on the corresponding figure for 2021. However, reporting by the industry indicates that several projects are being postponed until next year. These will come in addition to already planned projects, which will mean further growth in manufacturing investment in 2023 from an already high level in 2022. There are still large individual projects pushing up manufacturing investment, particularly projects in the computer and electrical equipment industry and in basic metals.

The most recent figure for 2022 for total investment in power supply is NOK 25.7 billion measured in current value. This is a decline of as much as 21 per cent compared with the corresponding forecast for 2021. The decline is attributable mainly to a fall in investment associated with production, but also to windpower projects being completed without new ones commencing. However, the forecast reported for 2023 is 14.2 per cent higher than for 2022. Investment associated with distribution is making by far the greatest contribution to this increase.

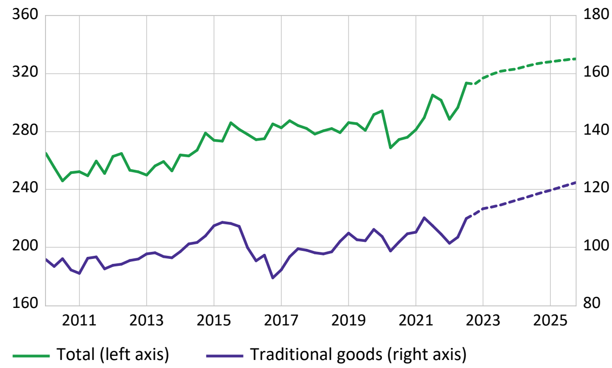
Major operators have recently indicated that they will postpone planned investments as a consequence of the introduction and tightening of tax on economic rent on the salmon and power industries. We assume that taxation of economic rent will be introduced, but that it will not influence the investment level appreciably in the projection period.

According to Regional Network 4/2022, enterprises report that high price and cost inflation, higher interest rates and fewer new public sector assignments will depress activity for the next twelve months. They report that activity growth has declined through the autumn. A far smaller share of enterprises than previously report capacity problems, and fewer have difficulty getting hold of qualified labour. The overall investment level is expected to remain stable for the next twelve months, with some growth among suppliers to the petroleum industry and in manufacturing and somewhat reduced investment for other industries, particularly wholesale and retail trade.

Broadly speaking, we forecast that the large groups that constitute business investment, including manufacturing and mining, services associated with extraction, other goods production and other services, will see flat or weakly negative developments in Q4. We forecast that manufacturing growth will pick up later in 2023 and that power production in particular will see strong growth next year. In the light of the new quarterly accounts figures and enterprises' reported plans, we are revising up the annual growth projection for business investment compared with the previous projection from around 5 per cent to just under 17 per cent for 2022. For 2023 we forecast that growth in business investment will be close to 0 per cent, a substantial downward revision from our previous report, where we forecast that growth would be up towards 9 per cent in 2023. Higher interest rates and lower international demand will exert downward pressure on investment in the years ahead. In 2024 and 2025 investment is expected to fall by 3 and 8 per cent, respectively. However, this will still leave the investment level in 2025 higher than in 2021.

Figure 12. Exports

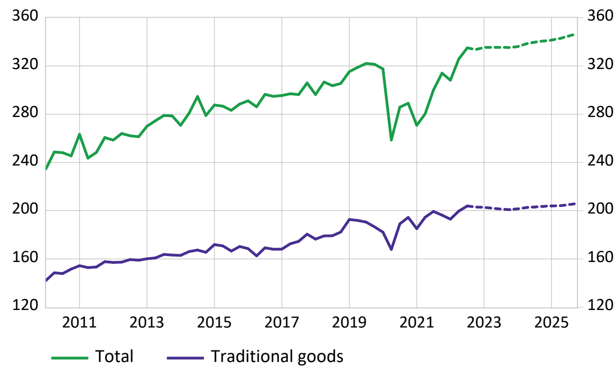
Seasonally adjusted, billion 2020 NOK, quarter



Source: Statistics Norway

Figure 13. Imports

Seasonally adjusted, billion 2020 NOK, quarter



Source: Statistics Norway

Large current account surpluses persist

Prices for important Norwegian export goods have risen far more than prices for import goods since the pandemic broke out in 2020 Q1 and Q2. Export prices for energy products such as natural gas, crude oil, refined petroleum products and electricity have risen most and largely contributed to an increasing terms of trade gain through the past two years. Measured in constant prices (based on volume), however, exports of both traditional goods and services have developed more weakly than the corresponding imports. The large and growing foreign trade surpluses over the past seven quarters can thus be attributed in their entirety to price movements, particularly for energy products. Foreign trade excluding crude oil and natural gas has been running at a deficit every year since 1978, measured in terms of both volume (constant prices) and value (current prices). It is uncertain how long the very high energy prices will persist. A record-high trade surplus this year is expected to shrink in the years ahead as a result of falling energy prices and weaker economic developments among Norway's trading partners.

Mainland exports consist partly of energy products such as refined petroleum products and electricity. The high rise in their prices, together with a considerable rise in prices for basic metals, fish and the product group basic chemicals, chemical and mineral products, contributed substantially to the increase in the value of traditional mainland goods exports over the past eight quarters. Developments in volume, on the other hand, have been more moderate. In Q3 as in Q2, there was an increase in exports of traditional goods, adjusted for normal seasonal variation. Large product groups such as engineering products, basic metals, refined petroleum products and fish contributed most to the growth in the volume of exports. The strong rise in prices for traditional goods exports through 2021 and into the current year has since slowed. In Q3 there was a decline in export prices for refined petroleum products, basic metals and farmed fish.

While the volume of combined oil and gas exports has increased little since the pandemic shock in 2020, the value of total oil and gas exports has increased more than seven-fold because of the enormous rise in the price of natural gas. Overall exports of services have risen in the last two years, and are now at the pre-pandemic level. Transport services and services associated with transport have increased substantially, but it is consumption by foreigners in Norway, which is regarded as export of services, that has increased most. Developments in export prices for these service groups also contributed considerably to a marked rise in the value of overall service exports in the past six quarters.

Imports of both goods and services grew in Q2 and Q3 this year. Engineering products, cars and refined petroleum products contributed most to the growth in goods imports. Growth in service imports was broad-based, with clearly the highest growth in Norwegians' consumption abroad, which is regarded as an import. The price index for total goods imports has risen more than the index for total service imports these past four quarters.

There are no major changes in projections for exports and imports compared with the previous report. Global and national demand have been revised up slightly for the current year, and hence mainland exports and imports have also been adjusted. This year services have made pronounced contributions to growth in both exports and imports. We forecast that in the next three years goods will contribute more to this growth. The rise in prices through the past two years has lifted import prices, and in particular export prices, to new levels. We expect more moderate price movements going forward and possibly a decline in prices for several energy products and commodities.

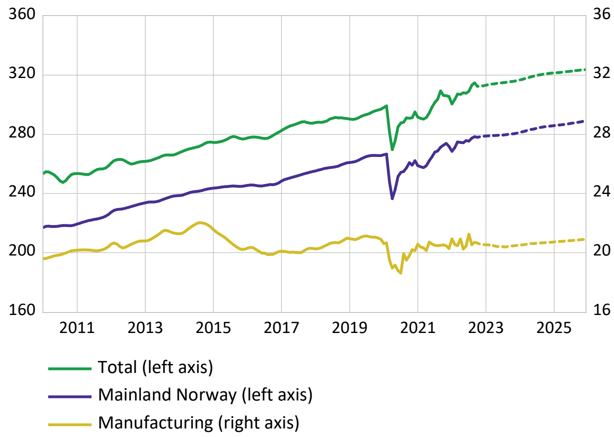
The strong developments in export prices, particularly for natural gas, will result in a record high trade surplus this year. This surplus is expected to be reduced by about two-thirds, to a more normal level, in the course of the next three years. When an increased surplus on income and current transfers is added, the total, i.e. the current account balance, is projected to reach a good quarter of GDP this year. The current account balance as a share of GDP is then expected to be halved over the next three years.

Norwegian economy almost cyclically neutral

The final infection control measures against the coronavirus were lifted early in 2022. A period of strong growth in mainland GDP followed that lasted until March. Since then economic developments have been more subdued. Monthly developments in mainland GDP were virtually flat through Q2. However, the most recent national accounts figures for August and September showed relatively high growth. Overall, mainland GDP increased by 0.8 per cent from Q2 to Q3. The Q3 growth places mainland activity above the estimated trend path. The inclusion of petroleum activities and shipping brought overall GDP growth to 1.5 per cent. As the gas price reached yet another historical peak in August, overall GDP measured in current prices grew by 12.5 per cent from an already historically high level.

Figure 14. Gross domestic product

Seasonally adjusted, billion 2020 NOK, month



Source: Statistics Norway

An upswing in service industries in Q3 accounted for most of the growth in mainland volume. Value added increased further in the service industries that were hardest hit by the pandemic, including administrative and support service activities and passenger transport. However, a lot of lost activity has been recouped in these industries, and the growth rate was more subdued than earlier this year. Value added also grew in the public health services following a period during the pandemic when a lot of normal activity was postponed or reduced. Retail trade has fallen through 2022, including in Q3. New figures from the index of wholesale and retail sales show that the decline continued in October. Nevertheless, wholesale and retail trade made one of the largest contributions to the upturn in the mainland economy in Q3. This is largely attributable to high goods exports pushing up wholesale trade. There was also increased activity in information services, the financial industries and professional, scientific and technical services. These service industries have seen fairly steady growth through 2022.

Some segments of goods production also contributed to growth in Q3. The mackerel fishing came earlier than usual in 2022, thereby increasing the seasonally adjusted fishing volume. Of course an equivalent decline can be expected later this year when the mackerel fishing usually occurs. Box 2 in *Konjunkturtendensene* 2021/4 (Norwegian text) describes in more detail how the volatility associated with fishing and electricity production has major effects at times on the monthly and quarterly national accounts figures. On balance, value added in manufacturing rose. The backdrop to this result is that planned shutdowns by some enterprises constrained manufacturing production in Q2. The largest contribution to manufacturing growth is attributable to fish processing, however. At the same time, value added declined in some goods-producing industries. Low reservoir levels led to a seasonally adjusted reduction in the volume of power production. Construction activity fell for the second consecutive quarter.

Underlying the overall mainland growth in Q3 is a mixed economic picture. Following the reopening of society, consumption of services and consumption abroad have increased, while domestic goods purchases have declined. This has boosted activity in several service industries, but resulted in a decline in retail trade and in the inflow of VAT in Norway. Norwegians' consumption abroad is still lower than prior to the pandemic, and is expected to grow through the projection period. As a result, trade leakage is likely to continue increasing in the near term and depress demand for domestic goods and services.

The high rise in prices for intermediate goods has made production and investment more expensive in many industries. In addition, the tight labour market has created recruitment challenges. Much of the rise in costs has been passed through to product prices, reducing household purchasing power. So far, the wage level has not increased as much as consumer prices. The high prices coupled with the recent interest rate increases are likely to dampen demand in the economy going forward. National accounts figures for Q2 and Q3 show a decline in the volume of households' housing investment and in construction activities. This may mean that the interest rate hikes have begun to constrain purchases of dwellings. In the most recent publications of Statistics Norway's Business tendency survey for manufacturing, mining and quarrying and Norges Bank's Regional Network, enterprises report generally lower expected demand and weaker developments in activity going forward.[2]

In our projections, annual growth in mainland GDP is nonetheless expected to be 3.8 per cent in 2022. This is 0.6 percentage point higher than previously published. However, the projections for coming years have been revised down. The upward revision for 2022 is due both to growth earlier in 2022 being revised up by 0.4 percentage point, and to higher than expected growth in Q3. Nevertheless, the bulk of overall annual growth in 2022 is due to the negative carryover from 2021, and the recovery that took place early this year. In the years ahead, we forecast that the growth rate will slow from the high level in 2022 and gradually approach trend. Further on in the projection scenario we thus expect the situation in the Norwegian economy to be close to cyclically neutral.

Labour market remains tight

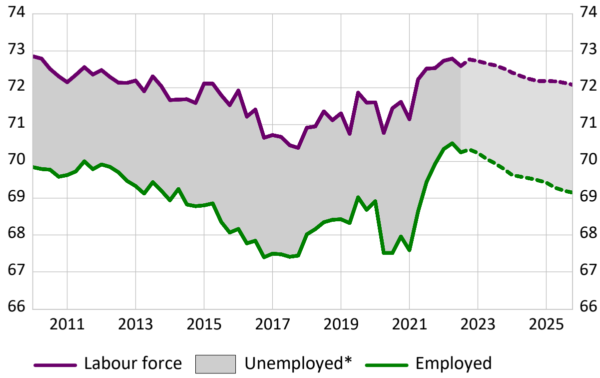
Despite increased interest rates and indications of weaker economic developments going forward, the labour market remains tight. Labour force participation and employment are high and unemployment is low. Employment in service industries and the number of non-resident wage-earners are back at pre-pandemic levels. Going forward to 2025, we expect weak growth in employment and a slight rise in unemployment.

According to the Labour Force Survey (LFS), seasonally adjusted unemployment in 2022 Q2 and Q3 was at the lowest level since the end of 2008, with a figure of 3.2 per cent for both quarters. The seasonally adjusted 3-month moving average for September, based on the months August-October, was 3.4 per cent, up 0.2 percentage point on the previous 3-month period. In addition to the 3-month moving average, monthly trend figures are now also published. The trend figures represent the long-term tendency of the monthly figures.[3]

The seasonally adjusted registered unemployment figure published by the Norwegian Labour and Welfare Organisation (NAV) also fell to a historically low level but has levelled off in recent months. The

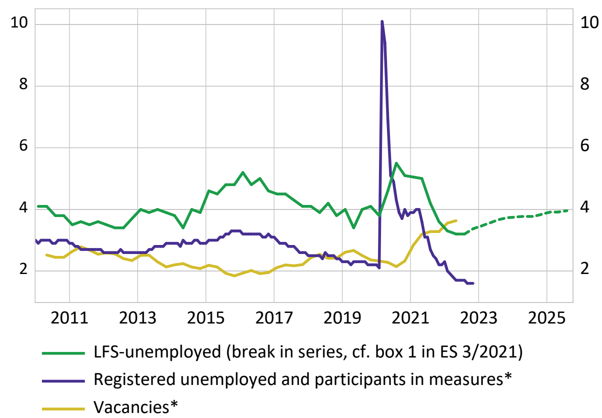
[2] Norges Bank›s Regional Network 4/ 2022.
[3] Statistics Norway also publishes seasonally adjusted and non-seasonally adjusted monthly figures. These figures have a high volatility and should be interpreted with care.

Figure 15. Labour market status
Percent of population in working age, LFS



* Unemployment is measured as share of population in working age
Source: Statistics Norway

Figure 16. Unemployed and number of vacancies
Percent of labour force and of the sum of occupied and vacant positions, seasonally adjusted and smoothed



level was 1.7 per cent from June to August and 1.6 per cent from September to October 2022, the lowest since the financial crisis in 2008. The number laid off has moreover fallen back to the low levels we saw prior to the pandemic.

According to the LFS, seasonally adjusted employment from 2022 Q2 to Q3 was virtually flat, edging down only 0.2 per cent. In Q3 it was 1.9 per cent higher than a year ago and 3.0 per cent higher than in 2019 Q3, the year before the pandemic struck. In 2022 Q3, 70.5 per cent of the adult population was employed, which is a slight decline from 70.7 per cent in Q2. These employment rates are the highest observed since 2009. They are attributable to the employment rate among persons aged 15–24 being at a historically high level since March 2022. In September the employment rate for this age group was 57.9 per cent (3-month moving average).

The seasonally adjusted labour force in 2022 Q2 was at the highest level ever measured. It was almost as high in Q3, dipping only 0.1 per cent to a level 1.9 per cent higher than in 2021 Q3. The participation rate, i.e. the labour force as a share of the population, was 72.6 per cent in September 2022, calculated as a 3-month moving average. This is somewhat lower than the level in March and April 2022, when it was 72.9 per cent, the highest level observed since 2010.

Demand for labour has remained at a high level since the beginning of 2021, but has now fallen somewhat. According to NAV, the supply of new jobs in May was the highest observed for the past 5 years, while the supply of jobs since July has remained at roughly the level observed in previous years. The supply in October 2022 was somewhat lower than in the same month last year, but about the same level as in October 2019, the year before the pandemic struck. According to Statistics Norway, the share of vacancies, seasonally adjusted, edged down 0.2 per cent from 2022 Q2 to Q3, to 3.2 per cent. The level in Q2 was the highest recorded since 2010.

The national accounts show growth in both employment and hours worked. Both are higher than pre-pandemic figures, and for the past two quarters the distribution of employment by industry has been approximately the same as before the pandemic. Seasonally adjusted employment and hours worked increased by 0.5 and 0.6 per cent, respectively, from 2022 Q2 to Q3. Employment was 3.3 per cent higher than a year ago, and hours worked were 3.6 per cent higher. Developments were particularly strong in accommodation and food service activities, where hours worked increased by 2.1 per cent from 2022 Q2 to Q3, and in culture, entertainment and other services, where hours worked increased by 2.4 per cent. Hours worked in administrative and support service activities, which include employment services, also increased, but in 2022 Q3 were still 1.6 per cent lower than in 2019 Q4. Employment in this industry is back at the pre-pandemic level, however.

The number of foreign commuters (non-resident wage-earners) was 94 500 in 2022 Q3, which is on a par with the average for the third quarter in the period 2016–2019. It is nonetheless lower than the highest observed level of 104 000 persons in 2019 Q3. The number of immigrant workers (residents born abroad with foreign parents and grandparents) increased to 487 000 persons in 2022 Q3, which is 8.6 per cent higher than the same quarter in 2021 and 14.3 per cent higher than in 2019 Q3. Since the outbreak of the pandemic there has been a particularly strong increase in employment among persons aged 15–24 and among immigrants, two groups often assumed to potentially have problems in the labour market, with high unemployment and low labour force participation.

The labour market is very tight at present, but we expect the global downturn to dampen demand for export-oriented activities, which will result in weaker labour market developments through the projection period. We foresee unemployment of 3.3 per cent in 2022, the same level we expected in our previous economic report. High inflation and an exacerbation of the global situation will then cause an increase in unemployment to 3.7 per cent in 2023 and 2024 and 4.1 per cent in 2025, approximately the same as we forecast last time. By way of comparison, average unemployment in the period 2010–2019 was 4.2 per cent.

From 2021 to 2022 we forecast growth in mainland employment of 3.8 per cent and in hours worked of around 4.0 per cent. These figures are stronger than envisaged in the previous economic report. The upward revision is due to stronger than expected developments from Q2 to Q3. Because of the global situation and higher interest rates, we expect weaker developments in 2023, but no change in employment and some decline in hours worked because there are 2 fewer working days in 2023. Weak growth in employment and hours worked is expected in 2024 and 2025. The labour force will grow strongly in 2022, by 1.5 per cent, followed by 0.6 per cent in 2023. After that there will be no growth for the remainder of the projection period.

Good wage growth, but low labour share

Average monthly pay for 2022 Q3 was 4.1 per cent higher than in the same quarter in 2021. This is a substantial increase compared with 2022 Q2, where the rise was 3.3 per cent. Average wage growth was pushed up by wholesale and retail trade and construction activities, with figures of 4.2 and 4.3 per cent, respectively. On the other hand, wage growth in manufacturing of 3.7 per cent in 2022 Q3 pushed down average wage growth, as did educational services, with growth of 3.8 per cent.

Like the growth rates for average monthly basic earnings in 2021 Q3, the growth rates for 2022 Q3 must be interpreted with some caution. 2021 Q3 saw an increase in the number of jobs in accommodation and food service activities and in personal services, two industries that were hard hit by the coronavirus pandemic (see E*conomic Survey* 2021/4). This contributed to pushing down the average wage level in 2021 Q3 compared with Q2 the same year. Since then, the effect of the pandemic on the composition of wage-earners has been reversed. This reversal pushed up growth in average monthly basic earnings in 2022 Q3.

However, the rising wage growth in 2022 Q3 cannot be ascribed exclusively to composition effects associated with the pandemic. For wage-earners in the same job as last year, growth in their monthly basic earnings in 2022 Q3 was 5.4 per cent.[4] This is higher than the corresponding growth for this group in 2022 Q1 and Q2, of 4.8 and 5.0 per cent, respectively. This group accounts for 2.2 million jobs, about 73 per cent of all jobs in the economy, which suggests that underlying wage growth is rising. A still tight labour market, with a persistently high number of listed vacancies and continued low unemployment, also indicates a pressure that may push up wage growth this year.[5,6]

The wage leader model, which forms the basis for Norwegian wage formation, implies that the share of labour costs in exposed manufacturing will be relatively stable over time, but with some cyclical fluctuations.[7] The labour share is a measure of

4 Bye, K. S. and Bakke, S. (2022): "Lønnsveksten tar seg opp" [Wage growth is picking up], https://www.ssb.no/arbeid-og-lonn/sysselsetting/statistikk/antall-arbeidsforhold-og-lonn/artikler/lonnsveksten-tar-seg-opp.

5 Johansen, M. B. and Horgen, E. (2022): "Fortsatt stabilt arbeidsmarked" [Labour market still stable], https://www.ssb.no/arbeid-og-lonn/sysselsetting/statistikk/arbeidskraftundersokelsen/artikler/fortsatt-stabilt-arbeidsmarked.

6 Gading, R. and Rothe, J. S. (2022): "Framleis over 100 000 ledige stillingar" [Still more than 100 000 vacancies], https://www.ssb.no/arbeid-og-lonn/sysselsetting/statistikk/ledige-stillingar/artikler/framleis-over-100-000-ledige-stillingar.

7 Benedictow, A., Kordt, A. and Nymoen, R. (2022): "Naturlig ledighet og den norske modellen for lønnsdannelse" [Natural unemployment and the Norwegian wage formation model], *Samfunnsøkonomen* 3/2022, and Chapter 4 i NOU 2022:4 (Norwegian text).

the percentage of wealth creation in the economy that accrues to workers, with the remaining share accruing to the investors. In the period 2014–2021, the labour share in manufacturing was relatively stable, averaging just over 84 per cent, while the average for the first three quarters of this year was about 79 per cent.[8] The lower labour share must now be viewed against the backdrop of high operating results in manufacturing, particularly in consumer goods, in 2022 Q3. We forecast that the labour share in manufacturing will be about 78 per cent in 2022, before increasing to about 81 per cent in 2023. The estimated labour share in 2023 is driven by a partial reversal of the high forecast operating profit for manufacturing this year. We also forecast that the operating profit for manufacturing will stabilise at a high level in 2024 and 2025, and that the labour share will stabilise at a lower level than in the period 2014–2021.

Our projection for annual wage growth in 2022 is being revised from 3.8 per cent in the previous economic report up to 3.9 per cent, as a consequence of rising wage growth. The projection is shrouded in uncertainty with respect to the extent of wage settlement disbursements that will only appear in the Q4 figures, and any adjustments to the change in payroll tax presented in the Government's National Budget proposal.[9] Even with the upwardly revised projection for annual wage growth, the projection for consumer price inflation in 2022 indicates that real wages will fall by just under 2 per cent in 2022. We forecast a reduction in real wages in 2023 followed by growth in real wages of about 2 per cent in 2024–2025.

CPI inflation reflects higher prices for energy and food

Prices for metals, packaging, building products and shipping rose substantially through 2021, peaking after the outbreak of war in Ukraine. This, coupled with higher energy prices, has imposed substantial costs on business. Because of the time lag in the setting of consumer prices, whereby enterprises price in their cost increases over time, underlying inflation, measured by the consumer price index adjusted for tax changes and excluding energy products (CPI-ATE) has risen through the year. At the beginning of the year, the 12-month rise in the CPI-ATE was 1.3 per cent. In July it had risen to 4.5 per cent, while a peak of 5.9 per cent was measured in October. The rise in the inflation rate in the past few months is the highest recorded since the introduction of this measure of underlying inflation. A broad-based rise in prices is reported for most groups of goods and services.

The increase in the inflation rate in recent months must also be viewed against the backdrop of a sharp rise in prices for food and non-alcoholic beverages. According to the CPI-ATE, the 12-month rise in prices for food and non-alcoholic beverages rose from 5.5 per cent in June to 10.4 per cent in July and 13 per cent in October. This escalating rise is due to higher prices for agricultural products, both produced in Norway and imported. Prices for these product groups normally rise far less between the two main dates when grocery suppliers adjust their prices to retailers, i.e. 1 February and 1 July. The global price of fertiliser tripled between the beginning of 2021 and the outbreak of the conflict in Ukraine. In early December, the global price for fertiliser is still high, and coupled with high prices for concentrate feed and energy, is contributing to high food production costs. During this year's agricultural settlement there was a special focus on the supply situation in connection with the ongoing conflict in Ukraine. In order to encourage increased domestic production, target prices for grain were adjusted substantially up from last year's. The target price for wheat for consumption increased by NOK 100, to NOK 480 per 100 kilos for the 2022/23 season. According to the most recent forecast from market regulator Felleskjøpet, this year's grain harvest looks set to be 20 per cent higher than the average for the past five years, and a shortage of grain is not expected in the Norwegian market. Because of the rise in costs in the production and processing of food products, we have assumed in our projection that food prices will remain high in the near term, but that the rise in prices will probably abate later in 2023. The rise in prices in the second half of the year will depend in part on next year's agricultural settlement.

So far this year, the annual rise in the consumer price index (CPI) has been markedly higher than

[8] For details of the national accounts' revisions of the labour cost share in manufacturing, see Chapter 4.3 of *Økonomiske analyser* (Norwegian text).

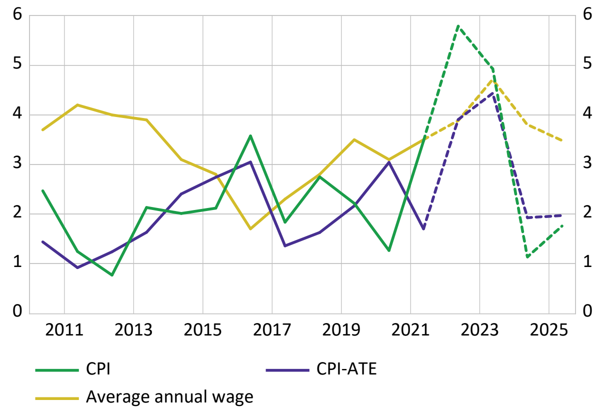
[9] Grini, H. and Røv, V. (2022): "De fleste jobber i oljeindustrien får økt arbeidsgiveravgift" [Higher payrolll tax on most jobs in the petroleum industry], https://www.ssb.no/arbeid-og-lonn/sysselsetting/statistikk/antall-arbeidsforhold-og-lonn/artikler/de-fleste-jobber-i-oljeindustrien-far-okt-arbeidsgiveravgift.

the rise in the CPI-ATE. The difference between the two is attributable to high energy prices, while tax changes have contributed little to the difference. The reversal of the low VAT rate from 6 per cent to 12 per cent from 1 October 2021 was fully phased into the October figures. The 12-month rise in the consumer price index excluding energy products (CPI-AE) is accordingly expected to be almost the same as the rise in the CPI-ATE in November and December. The current energy support rate for households of 90 per cent on spot prices over 70 øre/kWh dampens the effect of the increased electricity prices. Energy support for households was introduced in December 2021, then at a rate of 55 per cent. We forecast that CPI and CPI-ATE inflation will be 5.8 and 3.9 per cent, respectively, for 2022. High prices for energy products add an annualised 1.8 percentage points to CPI inflation, while the net effect of tax hikes on goods other than energy products is projected to add 0.1 percentage point to the CPI. The projection for the CPI this year has been revised slightly up compared to the figure in the last report, while the projection for the CPI-ATE is unchanged. Both figures have been revised substantially upward from the projections published early this year.

Actual and imputed rent increased by 2.5 and 2.4 per cent, respectively, in the year to 15 October 2022. The inflation rate for these important groups has thus picked up considerably from Q1, when it was under 2 per cent. For households that rent their homes, actual rent is measured at market rates obtained from the Rental Market Survey. In addition to changes in prices for existing rental contracts, the survey captures the price level of new rental contracts. Imputed rent for owner-occupiers is derived from market rents using rental equivalence principles. Existing rentals are largely regulated by means of the CPI. In connection with the Government's National Budget proposal, the Norwegian Association of Local and Regional Authorities conducted a questionnaire survey among Norwegian municipalities to which all municipalities that responded state that charges for water supply and waste water are to be increased substantially next year. Increased interest rates and higher charges, like the higher consumer price index, feed through into higher rents. In total, rents account for about 20 per cent of the basis for the CPI. A substantial portion of our upwardly revised

Figure 17. Consumer price indices and annual wage

Change from previous year in percent



Source: Statistics Norway

consumer price projection for next year can be attributed to an increased rise in rents.

With prospects of lower global growth, prices for basic metals, building materials and shipping fell sharply on international commodity exchanges. Prices are listed in USD. A strong dollar exchange rate and costs associated with processing and distribution of commodities dampen the decline in prices measured in NOK. Good harvests in Brazil have pushed down the price of coffee on the world market recently. Inflationary impulses from this type of product are expected to decline some way into next year. In our model, fuel prices largely shadow oil prices, with add-ons of special taxes. This year the price of diesel was especially high at times. Diesel is one of the primary substitutes for natural gas in Europe, and can be used to generate electricity. This has led to increased demand and high prices for diesel in periods when electricity prices were particularly high. With prospects of high electricity prices through the winter, we have assumed that the price of diesel will rise again from the low price we are observing at the beginning of December. We forecast that next year annual average fuel prices will be approximately unchanged from this year. We are assuming that prices at the pump will largely shadow the oil price in 2024 and 2025, and then fall to some extent. The greatest uncertainty associated with consumer price developments next year appears to be related to the wage growth level, and the direction taken by energy prices.

This autumn has been marked by very windy weather in Europe and in Norway, and by heavy precipitation. This has led to high production of unregulated run-of-river hydropower and renewable windpower. This, coupled with mild weather and associated low energy consumption, led to a substantial fall in spot prices on the Nord Pool power exchange in both October and November compared with the peaks for 2022 recorded in August and September. The autumn precipitation has increased reservoir levels considerably, and the system operator of the Norwegian power system, Statnett, now regards the power situation as normal throughout Norway. In late November/early December power prices in the Nordic countries and Europe surged again. In early December prices were high in all price areas in the Nordic countries, including the northern parts, which so far this year have had substantially lower electricity prices than the price areas further south. The upturn appears to be related to meteorological long-term forecasts which forecast a colder type of weather for northern Europe and the Nordic countries. Cold winter weather is often accompanied by high pressure, which results in low windpower production, while at the same time electricity consumption increases. In this situation, Europe has to replace renewable windpower with coal and gas power. As a result of power exchange with other countries, Norwegian power prices largely mirror prices in neighbouring countries and Europe.

In early December, Nordic futures contracts for the coming year have a high price in the financial market. Contracts for Q1 and Q2 are being traded at about 340 and 260 EUR/MWh respectively. Prices fall back somewhat in Q3 next year, but contracts are then traded at high levels also for the winter of 2024, and in 2024 Q1 they are priced at just under 175 EUR/MWh. The high price for next winter reflects uncertainty as to whether European gas stocks can be replenished in the absence of Russian gas. A sharp fall in prices does not occur until 2024 Q2, but futures prices up to 2026 indicate that electricity prices will not be lower than realised average spot prices in 2021.

The Norwegian Energy Regulatory Authority (RME) has stipulated income limits for distribution companies that increase from NOK 19.4 billion this year to NOK 28.3 billion next year. The distribution companies' income is required to cover the expenses of investing in the grid, and transmission losses. In order to avoid substantial increases in grid charges, the new scheme that redistributes extraordinary bottleneck income from Statnett to areas with high power prices is being extended.

The Government proposes to continue household energy support next year with a 90 per cent deduction on spot prices over 70 øre/kWh, with a monthly consumption cap of 5 000 kWh in the period January–March and October–November next year. The rate for the period April–September is set at 80 per cent in the National Budget proposal. Next year it is again proposed reducing excise on electricity in the period January–March. In our projection we have assumed for technical reasons that these schemes will be continued through the projection period. Given these assumptions, the average household electricity price will increase to some extent next year, with assumed higher prices in Central and North Norway contributing to the rise, but will then fall in 2024 and 2025 in line with an expected fall in the spot price.

The Government proposes changing taxation of economic rent on long-term power contracts, which will eliminate tax risk for the power producers, making it easy for them to offer fixed-price contracts to the business sector. The proposal is based on the assumption that fixed price contracts for 3, 5 and 7 years will be offered, and that there will be a maximum add-on in the intermediary between production company and end-users. Statkraft and Fjordkraft are preparing offers for fixed-price contracts for the corporate market now in December, with delivery from 1 January 2023. Fixed-price contracts for enterprises will then be offered regularly on market terms. Favourable fixed price contracts may ease the energy costs of businesses in the short term.

In the Government's Budget proposal most of the special taxes are adjusted by just under 3 per cent. Higher carbon taxes on fuel are offset by reduced road taxes. It is proposed introducing a new weight component into the one-off tax on private cars which will also apply to electric cars. The CO_2 component in the one-off tax on fossil fuel-based cars is being increased and the weight deduction in the one-off tax on rechargeable hybrids is being reduced. It is also proposed abolishing the reduced rate for re-registration of electric cars. It is proposed introducing VAT on electric cars, with a basic deduction of NOK 500 000, and discontinuing the VAT exemption for electronic news services. In addition, as the result of a budget agreement with the Socialist Left, the reintroduction of the air passenger tax from 1 July this year will only be fully phased in by 1 July next year, and this tax will increase somewhat from 1 January for travel outside the EEA area. We forecast that tax increases on products other than energy products will increase CPI inflation by 0.2 percentage point next year. For the years 2024 and 2025 we have adjusted special tax rates for inflation, and assume that these will have a neutral effect on CPI inflation.

Given all the uncertainty surrounding future developments in energy prices, it is difficult to forecast both the domestic cost picture and global inflationary developments. In the longer term, we assume that the global cost picture will normalise, and that the rise in import prices will gradually revert to more normal levels of around 2 per cent. Our projections for annual wage growth are relatively unchanged since the last report, and together with a lower rise in import prices, will help to stabilise inflation going forward in the projection period. The indirect effects of high prices for energy products and a weaker krone, coupled with an assumption that rents will rise, has led to a substantial upward revision of the inflation path for next year since the projections we published in September. Average CPI-ATE inflation is now projected to be 4.4 per cent in 2023, and is expected to come down as an annual average to 2 per cent in 2024 and 2025, in line with Norges Bank inflation target. Somewhat higher taxes and an estimated increase in households' average electricity prices next year will result in CPI inflation being 0.5 percentage point higher than CPI-ATE inflation and ending at 4.9 per cent. An expected fall in energy prices will lead to CPI inflation being considerably lower than CPI-ATE inflation in 2024.

Table 4. National accounts: Final expenditure and gross domestic product. At constant 2020 prices. NOK million

	Unadjusted		Seasonally adjusted							
	2020	2021	20:4	21:1	21:2	21:3	21:4	22:1	22:2	22:3
Final consumption expenditure of households and NPISHs	1 503 954	1 571 900	386 337	367 340	378 897	405 114	423 827	406 031	421 020	422 950
Household final consumption expenditure	1 418 834	1 486 262	364 487	348 966	359 212	381 731	399 731	383 252	397 212	398 571
Goods	731 521	773 663	195 860	187 077	195 210	197 607	198 318	185 325	184 998	181 060
Services	671 351	698 371	169 966	163 096	164 916	179 639	188 797	187 878	195 787	198 499
Direct purchases abroad by resident households	33 088	30 449	2 952	1 863	1 566	9 086	20 886	18 829	26 250	29 588
Direct purchases by non-residents	-17 126	-16 221	-4 291	-3 069	-2 480	-4 602	-8 270	-8 780	-9 824	-10 577
Final consumption expenditure of NPISHs	85 120	85 638	21 850	18 375	19 685	23 383	24 096	22 779	23 808	24 379
Final consumption expenditure of general government	904 650	949 404	232 359	232 048	235 674	240 909	241 158	236 498	236 719	236 532
Final consumption expenditure of central government	449 755	473 508	116 139	114 673	116 724	120 037	122 418	117 206	118 704	119 681
Central government, civilian	396 335	418 662	102 592	101 101	103 102	106 313	108 485	103 102	104 546	105 533
Central government, defence	53 420	54 847	13 547	13 572	13 622	13 724	13 933	14 103	14 157	14 148
Final consumption expenditure of local government	454 895	475 895	116 221	117 375	118 950	120 871	118 740	119 293	118 016	116 851
Gross fixed capital formation	949 737	938 658	237 473	233 402	234 078	234 958	236 169	244 280	244 854	245 884
Extraction and transport via pipelines	180 158	176 328	44 708	42 294	44 723	44 956	44 466	40 160	41 819	41 994
Ocean transport	16 515	1 126	3 872	1 535	-160	-168	-83	70	153	1
Mainland Norway	753 064	761 204	188 892	189 572	189 515	190 170	191 786	204 050	202 881	203 890
Industries	336 575	350 959	85 274	86 284	87 749	86 928	89 990	100 614	102 154	102 673
Service activities incidential to extraction	6 326	6 002	1 294	1 007	1 397	1 441	2 174	1 491	1 171	1 353
Other services	205 695	221 756	55 227	52 382	53 956	57 176	58 321	67 947	71 163	72 899
Manufacturing and mining	44 003	46 798	9 644	12 218	11 592	10 797	12 117	12 811	13 266	13 411
Production of other goods	80 551	76 403	19 109	20 677	20 804	17 514	17 379	18 364	16 554	15 010
Dwellings (households)	199 082	205 137	51 104	51 051	52 399	49 705	52 011	52 243	50 104	48 429
General government	217 407	205 108	52 513	52 237	49 367	53 536	49 785	51 193	50 624	52 788
Acquisitions less disposals of valuables	166	161	23	10	30	65	55	73	79	77
Changes in stocks and statistical discrepancies	135 375	125 742	38 010	29 322	25 932	28 321	29 111	44 119	49 246	53 085
Gross capital formation	1 085 278	1 064 562	275 438	262 734	260 040	263 344	265 334	288 472	294 178	299 046
Final domestic use of goods and services	3 493 882	3 585 866	894 102	862 121	874 610	909 366	930 319	931 001	951 917	958 527
Final demand from Mainland Norway	3 161 668	3 282 507	807 588	788 960	804 086	836 192	856 770	846 579	860 620	863 371
Final demand from general government	1 122 057	1 154 512	284 872	284 285	285 041	294 445	290 942	287 691	287 343	289 319
Total exports	1 114 985	1 175 965	276 094	281 287	289 668	305 239	301 629	288 497	296 667	313 564
Traditional goods	410 625	429 579	104 672	105 241	110 173	107 424	104 533	101 373	103 514	109 944
Crude oil and natural gas	369 020	379 606	89 370	90 887	95 088	101 128	94 373	91 073	92 037	96 881
Ships, oil platforms and planes	9 605	20 368	1 292	1 783	3 461	8 716	6 409	1 612	577	659
Services	325 734	346 400	80 760	83 373	80 942	87 969	96 311	94 435	100 536	106 077
Total use of goods and services	4 608 867	4 761 831	1 170 188	1 143 408	1 164 278	1 214 606	1 231 947	1 219 498	1 248 584	1 272 091
Total imports	1 147 292	1 166 966	289 120	270 777	280 212	300 076	314 021	308 195	325 710	335 026
Traditional goods	737 032	779 268	194 400	185 095	194 536	199 389	196 346	192 908	199 587	203 940
Crude oil and natural gas	17 191	15 218	4 164	3 474	6 019	2 542	3 094	2 755	2 687	2 753
Ships, oil platforms and planes	44 118	36 807	8 303	6 825	7 231	11 257	11 494	8 119	6 413	6 096
Services	348 951	335 673	82 253	75 383	72 425	86 888	103 086	104 414	117 023	122 237
Gross domestic product (market prices)	3 461 575	3 594 865	877 206	872 631	884 066	914 530	917 927	911 302	922 874	937 065
Gross domestic product Mainland Norway (market prices)	3 067 339	3 193 195	782 150	774 424	785 602	807 929	818 299	814 415	824 575	831 335
Petroleum activities and ocean transport	394 236	401 670	95 056	98 207	98 464	106 601	99 628	96 887	98 299	105 730
Mainland Norway (basic prices)	2 663 415	2 773 689	678 071	672 742	682 456	701 339	710 803	708 747	718 268	725 693
Mainland Norway excluding general government	1 969 992	2 045 466	500 482	495 311	502 385	516 714	524 732	525 614	532 992	539 076
Manufacturing and mining	234 527	243 407	60 135	61 265	61 422	61 456	61 270	61 951	61 605	62 470
Production of other goods	332 493	342 760	84 165	84 546	85 600	85 659	85 954	88 007	87 580	88 053
Services incl. dwellings (households)	1 402 972	1 459 299	356 182	349 500	355 363	369 600	377 507	375 657	383 807	388 553
General government	693 423	728 222	177 588	177 431	180 071	184 625	186 071	183 133	185 276	186 617
Taxes and subsidies products	403 924	419 506	104 080	101 682	103 146	106 589	107 496	105 668	106 307	105 643

Source: Statistics Norway.

Table 5. National accounts: Final expenditure and gross domestic product. At constant 2020 prices. Percentage change from previous period

	Unadjusted		Seasonally adjusted							
	2020	2021	20:4	21:1	21:2	21:3	21:4	22:1	22:2	22:3
Final consumption expenditure of households and NPISHs	-6.2	4.5	0.9	-4.9	3.1	6.9	4.6	-4.2	3.7	0.5
Household final consumption expenditure	-6.4	4.8	1.0	-4.3	2.9	6.3	4.7	-4.1	3.6	0.3
Goods	7.2	5.8	2.4	-4.5	4.3	1.2	0.4	-6.6	-0.2	-2.1
Services	-11.6	4.0	1.1	-4.0	1.1	8.9	5.1	-0.5	4.2	1.4
Direct purchases abroad by resident households	-74.9	-8.0	-34.4	-36.9	-15.9	480.2	129.9	-9.8	39.4	12.7
Direct purchases by non-residents	-67.5	-5.3	41.8	-28.5	-19.2	85.6	79.7	6.2	11.9	7.7
Final consumption expenditure of NPISHs	-3.7	0.6	-0.6	-15.9	7.1	18.8	3.0	-5.5	4.5	2.4
Final consumption expenditure of general government	-0.5	4.9	2.1	-0.1	1.6	2.2	0.1	-1.9	0.1	-0.1
Final consumption expenditure of central government	0.3	5.3	2.5	-1.3	1.8	2.8	2.0	-4.3	1.3	0.8
Central government, civilian	0.0	5.6	2.7	-1.5	2.0	3.1	2.0	-5.0	1.4	0.9
Central government, defence	2.8	2.7	0.8	0.2	0.4	0.7	1.5	1.2	0.4	-0.1
Final consumption expenditure of local government	-1.3	4.6	1.7	1.0	1.3	1.6	-1.8	0.5	-1.1	-1.0
Gross fixed capital formation	-4.1	-1.2	1.0	-1.7	0.3	0.4	0.5	3.4	0.2	0.4
Extraction and transport via pipelines	-3.3	-2.1	2.0	-5.4	5.7	0.5	-1.1	-9.7	4.1	0.4
Ocean transport	-17.7	-93.2	-23.5	-60.3	..	..	..	..	118.2	-99.6
Mainland Norway	-3.1	1.1	1.4	0.4	0.0	0.3	0.8	6.4	-0.6	0.5
Industries	-5.3	4.3	5.9	1.2	1.7	-0.9	3.5	11.8	1.5	0.5
Service activities incidential to extraction	45.3	-5.1	-0.1	-22.2	38.8	3.1	50.9	-31.4	-21.4	15.5
Other services	-2.8	7.8	13.7	-5.2	3.0	6.0	2.0	16.5	4.7	2.4
Manufacturing and mining	-17.3	6.4	-11.1	26.7	-5.1	-6.9	12.2	5.7	3.5	1.1
Production of other goods	-6.6	-5.1	-3.5	8.2	0.6	-15.8	-0.8	5.7	-9.9	-9.3
Dwellings (households)	-1.6	3.0	4.2	-0.1	2.6	-5.1	4.6	0.4	-4.1	-3.3
General government	-1.1	-5.7	-7.2	-0.5	-5.5	8.4	-7.0	2.8	-1.1	4.3
Acquisitions less disposals of valuables	-60.7	-3.0	-55.2	-56.2	196.1	119.2	-15.2	31.8	7.9	-1.9
Changes in stocks and statistical discrepancies	5.2	-7.1	3.2	-22.9	-11.6	9.2	2.8	51.6	11.6	7.8
Gross capital formation	-3.2	-1.9	1.2	-4.6	-1.0	1.3	0.8	8.7	2.0	1.7
Final domestic use of goods and services	-3.9	2.6	1.3	-3.6	1.4	4.0	2.3	0.1	2.2	0.7
Final demand from Mainland Norway	-3.9	3.8	1.4	-2.3	1.9	4.0	2.5	-1.2	1.7	0.3
Final demand from general government	-0.6	2.9	0.2	-0.2	0.3	3.3	-1.2	-1.1	-0.1	0.7
Total exports	-2.3	5.5	0.6	1.9	3.0	5.4	-1.2	-4.4	2.8	5.7
Traditional goods	-0.8	4.6	2.8	0.5	4.7	-2.5	-2.7	-3.0	2.1	6.2
Crude oil and natural gas	10.5	2.9	-4.5	1.7	4.6	6.4	-6.7	-3.5	1.1	5.3
Ships, oil platforms and planes	-32.5	112.1	-48.6	38.0	94.1	151.8	-26.5	-74.9	-64.2	14.2
Services	-19.1	6.3	5.5	3.2	-2.9	8.7	9.5	-1.9	6.5	5.5
Total use of goods and services	-3.5	3.3	1.1	-2.3	1.8	4.3	1.4	-1.0	2.4	1.9
Total imports	-9.9	1.7	1.1	-6.3	3.5	7.1	4.6	-1.9	5.7	2.9
Traditional goods	-2.7	5.7	2.8	-4.8	5.1	2.5	-1.5	-1.8	3.5	2.2
Crude oil and natural gas	-7.3	-11.5	8.5	-16.6	73.3	-57.8	21.7	-11.0	-2.5	2.5
Ships, oil platforms and planes	13.0	-16.6	-31.6	-17.8	6.0	55.7	2.1	-29.4	-21.0	-4.9
Services	-23.5	-3.8	1.7	-8.4	-3.9	20.0	18.6	1.3	12.1	4.5
Gross domestic product (market prices)	-1.3	3.9	1.2	-0.5	1.3	3.4	0.4	-0.7	1.3	1.5
[Gross domestic product Mainland Norway (market prices)	-2.8	4.1	2.0	-1.0	1.4	2.8	1.3	-0.5	1.2	0.8
Petroleum activities and ocean transport	7.3	1.9	-5.5	3.3	0.3	8.3	-6.5	-2.8	1.5	7.6
Mainland Norway (basic prices)	-2.9	4.1	2.1	-0.8	1.4	2.8	1.3	-0.3	1.3	1.0
Mainland Norway excluding general government	-3.1	3.8	2.2	-1.0	1.4	2.9	1.6	0.2	1.4	1.1
Manufacturing and mining	-5.7	3.8	3.6	1.9	0.3	0.1	-0.3	1.1	-0.6	1.4
Production of other goods	0.4	3.1	3.3	0.5	1.2	0.1	0.3	2.4	-0.5	0.5
Services incl. dwellings (households)	-3.6	4.0	1.8	-1.9	1.7	4.0	2.1	-0.5	2.2	1.2
General government	-2.5	5.0	1.7	-0.1	1.5	2.5	0.8	-1.6	1.2	0.7
Taxes and subsidies products	-1.6	3.9	1.7	-2.3	1.4	3.3	0.9	-1.7	0.6	-0.6

Source: Statistics Norway.

Table 6. National accounts: Final expenditure and gross domestic product. Price indices. 2020=100

	Unadjusted		Seasonally adjusted							
	2020	2021	20:4	21:1	21:2	21:3	21:4	22:1	22:2	22:3
Final consumption expenditure of households and NPISHs	100.0	102.9	100.2	102.1	102.1	103.2	104.0	104.2	106.4	109.2
Final consumption expenditure of general government	100.0	102.4	98.9	102.1	102.1	101.0	103.9	107.4	108.4	109.5
Gross fixed capital formation	100.0	103.8	101.5	101.8	102.6	104.1	106.5	107.4	110.1	111.2
Mainland Norway	100.0	104.6	101.4	102.2	103.2	105.0	107.8	108.2	110.9	112.2
Final domestic use of goods and services	100.0	102.3	96.8	99.1	101.7	110.5	97.0	102.6	109.9	116.7
Final demand from Mainland Norway	100.0	103.1	100.1	102.1	102.4	103.0	104.8	106.0	108.0	110.0
Total exports	100.0	149.1	111.3	128.2	133.9	124.7	206.3	252.0	245.8	273.0
Traditional goods	100.0	113.2	98.2	106.2	108.0	112.0	126.9	143.1	146.3	147.6
Total use of goods and services	100.0	113.9	100.2	106.2	109.7	114.0	123.7	137.9	142.2	155.2
Total imports	100.0	104.0	99.4	101.5	102.8	104.2	107.0	113.1	117.5	121.9
Traditional goods	100.0	105.3	98.9	102.5	103.0	106.1	109.0	117.1	123.3	128.3
Gross domestic product (market prices)	100.0	117.1	100.9	107.7	111.9	117.3	129.5	146.3	150.9	167.1
Gross domestic product Mainland Norway (market prices)	100.0	102.9	99.8	101.9	102.2	102.6	105.0	107.0	108.1	109.0

Source: Statistics Norway.

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

	Unadjusted		Seasonally adjusted							
	2020	2021	20:4	21:1	21:2	21:3	21:4	22:1	22:2	22:3
Final consumption expenditure of households and NPISHs	1.6	2.9	0.3	1.9	0.0	1.0	0.8	0.1	2.2	2.6
Final consumption expenditure of general government	4.9	2.4	-1.1	3.2	0.0	-1.1	2.8	3.3	0.9	1.1
Gross fixed capital formation	3.4	3.8	1.4	0.3	0.9	1.4	2.3	0.9	2.5	1.0
Mainland Norway	3.1	4.6	1.2	0.8	1.0	1.7	2.7	0.4	2.6	1.2
Final domestic use of goods and services	3.5	2.3	-8.5	2.4	2.7	8.6	-12.2	5.8	7.2	6.2
Final demand from Mainland Norway	2.9	3.1	0.1	2.0	0.3	0.6	1.8	1.1	1.9	1.8
Total exports	-13.4	49.1	48.6	15.2	4.5	-6.9	65.5	22.1	-2.5	11.1
Traditional goods	-3.5	13.2	4.2	8.1	1.7	3.8	13.3	12.8	2.2	0.9
Total use of goods and services	-1.1	13.9	1.7	6.0	3.3	3.9	8.5	11.5	3.1	9.2
Total imports	3.3	4.0	0.9	2.2	1.2	1.4	2.6	5.7	3.8	3.7
Traditional goods	4.3	5.3	-0.5	3.6	0.6	2.9	2.8	7.4	5.3	4.1
Gross domestic product (market prices)	-2.5	17.1	2.0	6.7	3.9	4.8	10.4	13.0	3.2	10.7
Gross domestic product Mainland Norway (market prices)	2.8	2.9	-0.2	2.1	0.3	0.3	2.4	1.9	1.0	0.9

Source: Statistics Norway.

Table 8. Main economic indicators 2013-2025. Accounts and forecasts. Percentage change from previous year unless otherwise noted

										Forecasts			
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Demand and output													
Consumption in households etc.	2.8	2.1	2.7	1.1	2.2	1.4	1.0	-6.2	4.5	6.8	0.8	1.4	2.1
General government consumption	1.0	2.7	2.4	2.3	1.9	0.6	1.1	-0.5	4.9	0.1	1.3	1.7	1.6
Gross fixed investment	6.3	-0.3	-4.0	3.9	2.6	2.2	9.5	-4.1	-1.2	4.7	0.3	1.3	-1.3
Extraction and transport via pipelines	19.0	-1.8	-12.2	-16.0	-5.4	0.7	14.3	-3.3	-2.1	-7.5	4.0	10.0	2.0
Mainland Norway	2.9	0.4	-0.2	9.0	6.8	1.5	6.3	-3.1	1.1	7.4	-1.2	-0.5	-2.1
Industries	-3.2	-0.7	-2.8	12.6	9.2	3.1	10.3	-5.3	4.3	16.6	0.2	-3.1	-7.6
Housing	5.3	-1.4	3.2	6.6	7.3	-6.5	-1.1	-1.6	3.0	-2.6	-6.0	0.2	3.9
General government	11.8	4.5	0.2	6.4	2.6	8.1	7.5	-1.1	-5.7	1.5	0.8	3.8	2.7
Demand from Mainland Norway[1]	2.3	1.9	2.0	3.1	3.1	1.2	2.3	-3.9	3.8	5.0	0.5	1.0	1.0
Exports	-1.7	3.8	3.9	0.4	1.6	-1.5	2.1	-2.3	5.5	3.2	5.7	1.6	1.1
Traditional goods	2.5	4.2	6.5	-11.2	0.9	2.0	5.1	-0.8	4.6	0.4	5.8	3.1	3.0
Crude oil and natural gas	-5.5	3.0	1.3	5.4	5.2	-4.6	-2.9	10.5	2.9	-1.4	9.0	1.7	-2.0
Imports	5.0	2.2	1.9	1.9	1.8	1.4	5.3	-9.9	1.7	12.0	2.6	1.2	1.3
Traditional goods	2.4	2.1	2.7	-1.4	3.5	2.8	6.2	-2.7	5.7	3.0	0.4	0.7	0.7
Gross domestic product	1.0	2.0	1.9	1.2	2.5	0.8	1.1	-1.3	3.9	3.3	1.8	1.5	0.9
Mainland Norway	2.3	2.2	1.4	0.9	2.2	1.9	2.3	-2.8	4.1	3.8	1.2	1.6	1.2
Manufacturing	3.0	2.7	-4.4	-4.1	-0.1	1.6	2.1	-5.7	3.8	1.8	-1.5	1.5	0.8
Labour market													
Total hours worked. Mainland Norway	0.4	1.4	0.6	0.6	0.5	1.6	1.5	-2.1	2.5	4.0	-0.8	0.3	-0.1
Employed persons	1.1	1.0	0.4	0.3	1.1	1.6	1.6	-1.5	1.2	3.8	0.0	0.2	-0.2
Labor force	1.2	0.7	1.5	0.2	-0.2	1.4	1.0	0.4	1.2	1.5	0.6	0.0	0.2
Participation rate (level)	72.1	71.7	71.9	71.3	70.6	71.1	71.4	71.3	72.1	72.7	72.6	72.3	72.2
Unemployment rate (level)	3.9	3.8	4.7	4.9	4.4	4.0	3.9	4.7	4.4	3.3	3.7	3.7	4.1
Prices and wages													
Wages per standard man-year	3.9	3.1	2.8	1.7	2.3	2.8	3.5	3.1	3.5	3.9	4.7	3.8	3.5
Consumer price index (CPI)	2.1	2.0	2.1	3.6	1.8	2.7	2.2	1.3	3.5	5.8	4.9	1.1	1.8
CPI-ATE[2]	1.6	2.4	2.7	3.0	1.4	1.6	2.2	3.0	1.7	3.9	4.4	1.9	2.0
Export prices, traditional goods	2.9	2.7	2.6	4.5	4.7	5.1	0.1	-3.5	13.2	28.5	-2.6	-7.0	0.6
Import prices, traditional goods	1.9	4.1	5.0	2.5	3.2	4.1	2.5	4.3	5.3	17.1	0.3	0.8	0.7
House prices	4.0	2.7	6.1	7.0	5.0	1.4	2.5	4.3	10.5	4.9	-5.0	-1.6	2.3
Income, interest rates and excange rate													
Household real disposable income	4.0	2.4	5.3	-1.6	2.0	0.9	2.0	1.1	4.4	-1.8	-0.6	3.8	2.7
Household saving ratio (level)	7.2	7.8	9.8	6.9	6.6	5.9	7.1	12.9	13.3	5.7	5.9	7.5	7.7
Money market rate (3 month NIBOR) (level)	1.8	1.7	1.3	1.1	0.9	1.1	1.6	0.7	0.5	2.0	3.3	2.7	2.4
Lending rate, credit loans (level)[3]	4.0	3.9	3.2	2.6	2.6	2.7	3.0	2.6	2.1	2.8	4.3	4.3	3.9
Real after-tax lending rate, banks (level)	0.7	0.8	0.1	-1.6	0.1	-0.7	0.2	0.7	-1.8	-3.4	-1.5	2.2	1.3
Importweighted krone exchange rate (44 countries)[4]	2.2	5.3	10.5	1.8	-0.8	0.1	2.9	6.7	-5.3	1.2	1.9	0.0	0.0
NOK per euro (level)	7.81	8.35	8.95	9.29	9.33	9.60	9.85	10.72	10.16	10.10	10.44	10.44	10.44
Current account													
Current balance (bill. NOK)[5]	347	374	282	163	210	320	136	38	566	1563	955	733	663
Current account (per cent of GDP)	11.2	11.8	9.0	5.2	6.3	9.0	3.8	1.1	13.5	27.8	18.4	14.4	12.9
International indicators													
Exports markets indicator	2.1	4.7	5.3	3.8	5.6	4.3	3.3	-7.5	8.9	7.9	1.6	3.4	3.9
Consumer price index. euro-area	1.4	0.4	0.2	0.2	1.5	1.8	1.2	0.3	2.6	8.4	5.0	2.5	2.0
Money market rate, euro (level)	0.2	0.2	0.0	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	0.5	3.5	2.5	2.0
Crude oil price US dollar (level)[6]	109	100	53	45	55	72	64	43	71	99	80	77	75
Crude oil price NOK (level)[6]	639	627	431	379	452	583	564	407	609	943	797	766	741

[1] Consumption in households and non-profit organizations + general government consumption + gross fixed capital formation in mainland Norway.

[2] CPI adjusted for tax changes and excluding energy products.

[3] Yearly average. Credit lines, secured on dwellings.

[4] Increasing index implies depreciation.

[5] Current account not adjusted for saving in pension funds.

[6] Average spot price Brent Blend.

Source: Statistics Norway. The cut-off date for information was 7 December 2022.