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OVERVIEW



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Executive Summary

Wellbeing is high, but must be sustained

Norway continues to enjoy among the highest living standards in the OECD area but faces challenges in sustaining them for the future.

OECD wellbeing indicators put Norway alongside the top-ranking countries. Reported well-being, jobs and earnings, work-life balance and the distribution of income are very favourable compared with most countries.

However, sustaining the high levels of economic output and comprehensive public services that are key to Norway's wellbeing is a challenge. There is no longer scope for rapid public spending growth from fast growth in the wealth fund. It is tougher to fund public services and develop new projects. Continued weak productivity growth, relatively high labour costs, plus weakening labour-force participation are lessening economic capacity to support good outcomes in wellbeing.

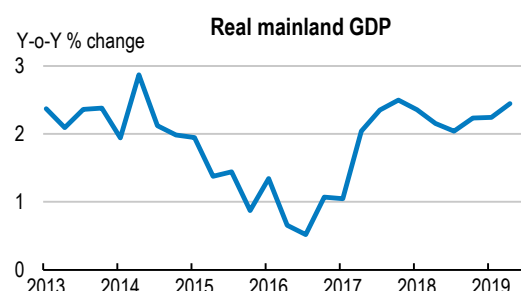
Norway will need to substantially reduce transport-related greenhouse-gas emissions to achieve targets. Thanks to extensive hydropower, Norway has comparatively low baseline emissions, but substantial emission reduction is needed to hit targets. Around half of emissions are outside the European Trading Scheme and a large share of these relate to transport. Wide differences in carbon pricing mean policy is inefficient.

The economy is vulnerable to trade and property-market risks

Growth in real mainland GDP has recovered from the 2014 oil-price shock and remains robust. However, external risks are substantial.

Mainland GDP growth remains sufficiently strong to drive further declines in unemployment. Also, wage growth has picked up. Mainland output growth is projected to ease over the projection horizon.

Figure 1. GDP growth is robust



Source: OECD Economic Outlook database.

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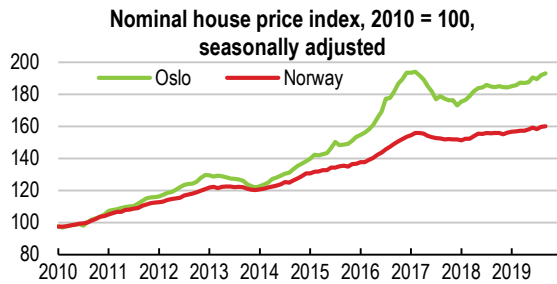
Monetary and fiscal policy stances are appropriate given current economic conditions. Following four hikes, the first in September 2018, the policy rate is now on hold, reflecting slowing output growth prospects and external risks. Government budgets have been aiming for a neutral stance.

Table 1. Mainland GDP growth will be around 2% in 2020 and 2021

(Annual growth rates, unless specified)	2018	2019	2020	2021
Mainland GDP	2.2	2.5	2.0	1.7
Private consumption	1.9	1.8	1.9	1.9
Government consumption	1.4	2.2	1.9	1.8
Gross fixed capital formation	2.8	4.3	3.3	2.1
Exports of goods and services	-0.2	1.6	2.6	3.1
Imports of goods and services	1.9	5.45	1.	2.0
Unemployment rate (% of labour force)	3.8	3.4	3.2	3.2
Consumer price index	2.7	2.3	2.0	2.2

Source: OECD Economic Outlook 106 database.

External-demand risks remain elevated. The global slowdown in trade and investment, together with faltering business and consumer confidence in the euro area, is a risk to Norway's predominantly European trade.

Figure 2. House prices remain elevated

Source: Calculations based on Real Estate Norway (Eiendom Norge) data.

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Property markets and related credit appear to be heading for a soft landing but risks remain. House-price growth has resumed at a subdued rate following some downward correction, suggesting demand for housing remains robust. Household debt continues to increase faster than disposable incomes, signalling a continued build-up of risk. Estimated selling prices of commercial real estate have been rising rapidly, which has previously foreshadowed wider economic difficulties.

The impact from any further housing market correction is most likely to come via consumption. Debt servicing remains high, implying a greater cutback in consumption in the event of an economic downturn. Thanks to mortgage-lending regulation, the quality of credit is sound and direct risks to banks via mortgage default appear well contained by their strong capitalisation.

The high share of wholesale bank funding is a concern. The scale of this funding, which is largely through covered bonds, is equivalent to just under 70% of GDP. Substantial cross holding of these bonds within the Norwegian financial sector increases inter-connectedness risks.

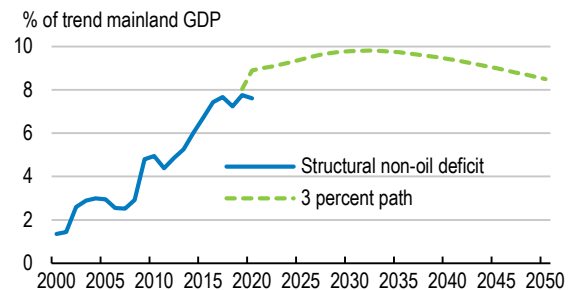
Fiscal space is set to increase more slowly in the coming years

Due to a likely slowdown in wealth-fund growth, fiscal non-oil deficits in the coming years will only be able to increase marginally under the fiscal rule.

Fiscal pressures will also come from additional spending commitments. These commitments are estimated to cost at least 0.3 percentage points of GDP each year on average. Rising health care and pension costs from population ageing are a significant component. A proposal in early 2019 to fund some public spending through an off-budget channel has illustrated the strong temptation to circumvent the fiscal rule; such proposals should be avoided.

Figure 3. Non-oil deficits can no longer increase rapidly

Non-oil deficit under 3% rule for wealth fund spending



Source: Ministry of Finance, 2020 budget.

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Managing public finances within the fiscal rule should be achieved primarily through higher labour supply and increased value for money in public spending. There is scope for better public spending in many areas, as identified in the current, and past, *Surveys*, including through greater influence of cost-benefit analysis on investment decisions. Meanwhile, the tax burden is among the highest in the OECD.

Reforms to eliminate tax distortions and reduce burdens have been a central pillar of economic policy and good progress has been made. The headline rate of corporate-income tax has been reduced, value-added tax is now more uniform and efforts to tackle base erosion and profit shifting (BEPS) continue. However, tax concessions for owner-occupied property remain too generous and some revenue-raising policies have been reversed. For instance, the government reduced road tolls in response to popular protests.

Productivity growth is low and labour force participation has been slipping

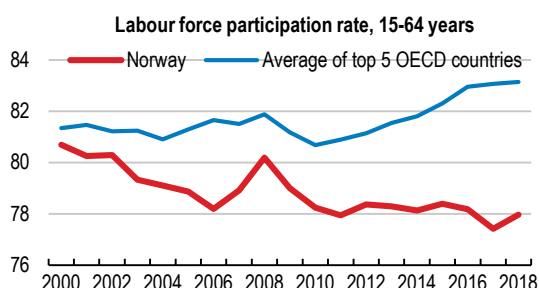
The “Nordic” socio-economic model requires a high productivity business sector and high labour-force participation.

Sustaining high levels of wellbeing requires a high-productivity business sector, which is competitive in a high-wage, high-tax environment. Norway is generally well placed to harness the next generation of digital technology and research and development (R&D) activity is picking up pace. However, policy improvements are still needed, including in insolvency arrangements and sectoral support, notably the extensive support for agriculture.

Norway’s labour market achieves low unemployment, high incomes and good job quality. A narrow wage distribution and high labour-force participation of women are primary drivers of the low levels of income inequality. The system of coordinated annual wage negotiations generally delivers wage awards consistent with macroeconomic conditions.

However, labour-force participation has been declining and Norway is no longer among the top-ranking countries. This is weakening its good record on economic inclusiveness and raises concerns for future growth as the population ages. Employment is a central focus of this *Survey’s* in-depth examination of labour markets.

Figure 4. Labour force participation has been falling



Source: OECD Employment database, www.oecd.org/employment/database

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High rates of sickness absence among workers and large numbers on disability benefits remain problems that are not yet fully addressed. A government-appointed commission has made promising proposals for reform. These head in the direction of OECD recommendations, in particular proposing to strengthen employee and employer incentives for a return to work, including on a part-time basis.

Old-age pension reform is improving retirement choices but issues remain. Recent reforms have made retirement incentives more balanced for public-sector employees. However, reform of special retirement schemes for those working in areas such as police and defence is overdue, pension arrangements for those on disability benefits need adjusting and there is scope for more life-expectancy adjustment in the mainstream pension system. Introduction of the “sliterordningen” (early retirement scheme) is a sign of some backtracking on earlier reform.

The labour-market integration of low-skilled immigrants requires further attention. Migrants with low education and skills are now more numerous, partly due to an increased share of refugees. This has deepened the challenges for labour-market integration policy, especially as demand for low-skill workers is limited in Norway.

Improving education and training is part of the solution to the productivity-growth slowdown and weakening labour-force participation.

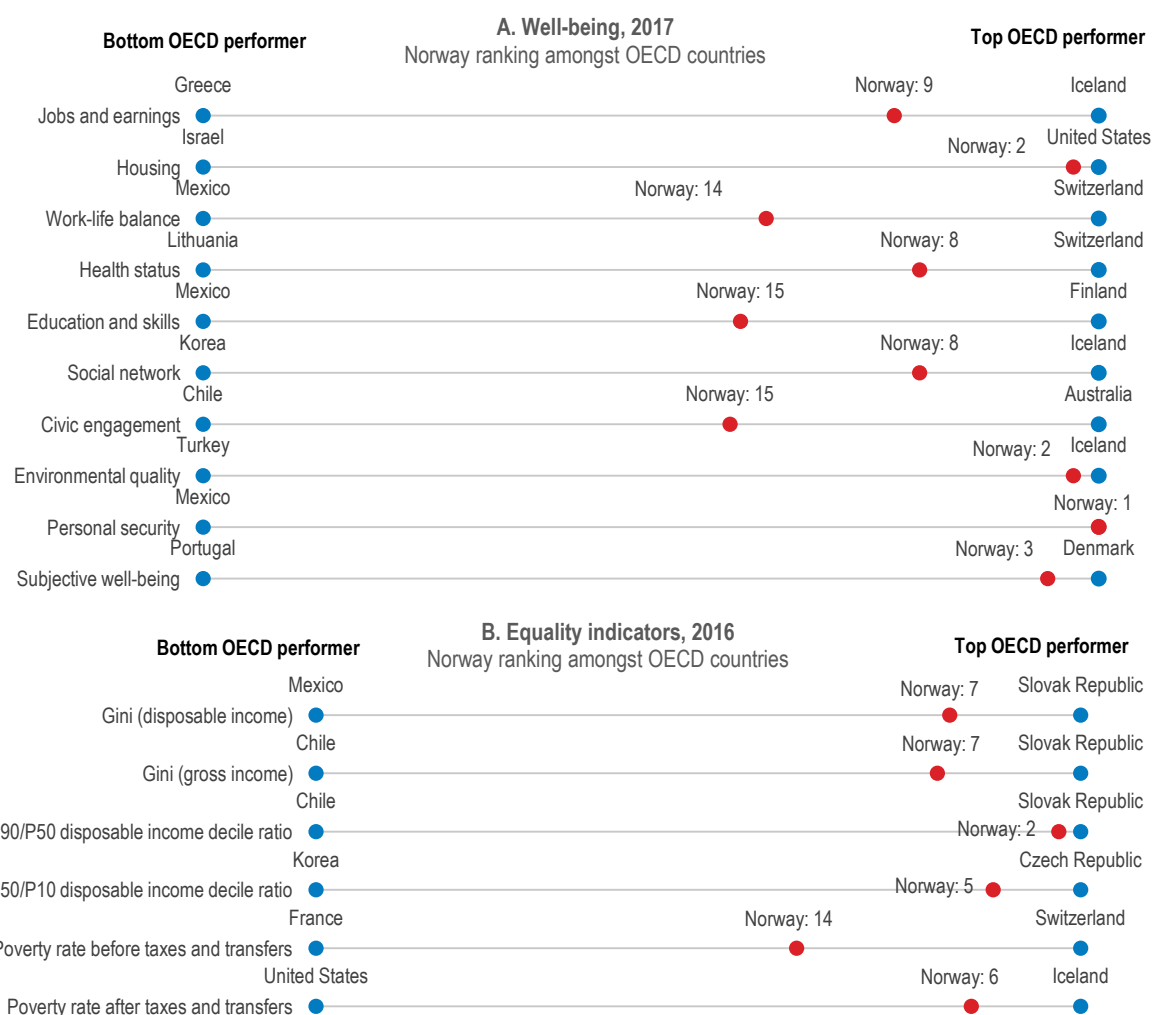
Norway’s education system provides substantial support and encouragement for learning. Yet, PISA scores of secondary-school student skills are only around the OECD average and boys’ academic performance in school has been declining relative to girls. In post-secondary education, non-completion of vocational courses is high and many students in higher education do not graduate until their mid-to-late 20s.

MAIN FINDINGS	KEY RECOMMENDATIONS
Macroeconomic stability and managing property-market risks	
External demand risks remain elevated, output-growth prospects have diminished. Vulnerabilities stemming from property markets remain a risk, despite some correction in the housing market.	<p>Keep the policy rate on hold, while remaining vigilant to changing circumstances.</p> <p>Maintain close monitoring of financial market and housing risks, renew macroprudential mortgage regulations when they expire, consider removing time limitations.</p> <p>Reduce tax concessions on homeownership. Either gradually phase out mortgage-interest relief or introduce implicit rental income while paying attention to symmetries in the tax system.</p>
Fair access to resource wealth across generations, value for money in public spending	
Slower expected growth in the wealth fund implies a substantial narrowing of fiscal space for the foreseeable future.	<p>Apply the fiscal rule conservatively over the longer term, keeping structural deficits below the 3% path in the near term.</p> <p>Strengthen value for money in public spending. Improve outcomes and lower costs through more extensive use of cost-benefit analysis and productivity enhancing measures in public services.</p>
Diversification to non-oil activities, seizing opportunities from globalisation and digitalization	
<p>The rapid growth in research and development activity suggest stronger engagement at the frontiers of technology and know-how. However, policy improvements are still needed.</p> <p>Low productivity growth remains a concern for future living standards.</p>	<p>Strengthen business dynamics through better routes to recovery for businesses in difficulty, including lighter penalties for failed entrepreneurs.</p> <p>Continue to tackle weak points in business efficiency, including by paring back the extensive support for the agricultural sector.</p>
Raising employment levels and skills	
Sick leave absence is high and numbers on disability benefits remain elevated.	<p>Strengthen incentives to contain sick-leave absences, including through lowering sick-leave compensation and by extending employers' participation in funding.</p> <p>Intensify management efforts to address sick leave in sectors facing elevated levels of absence due to illness, in particular in the public sector.</p> <p>In disability benefits, strengthen treatment and rehabilitation requirements and apply eligibility rules in general more strictly.</p> <p>Make early interventions that encourage and facilitate return to work a strong theme of future reforms to sickness leave compensation and disability benefits.</p> <p>Tighten medical assessment for both sick leave and disability benefit systems.</p>
Early retirement remains common.	<p>Align special pension provisions for certain occupational groups such as nurses, national defence and the police with the mainstream pension system.</p> <p>Index age-dimensions of the pension system to life expectancy, such as the retirement-age range of 62 to 75 years.</p> <p>Diminish the financial attractiveness of early retirement via disability benefits by putting the compensation for life-expectancy adjustment in pensions on hold.</p>
In education, PISA test results are only around the OECD average, many vocational upper-secondary students fail to complete courses, apprenticeship places are in short supply and students taking degree-level courses graduate comparatively late.	<p>Press ahead with primary- and secondary-school curriculum reforms.</p> <p>Reduce apprentice remuneration to make it more attractive for employers to offer additional places.</p> <p>Link part of the employer subsidy to course completion by apprentices.</p> <p>Strengthen higher-education students' incentives for timely course completion.</p> <p>Ensure that higher education institutions provide comprehensive study guidance and support services.</p>
Some immigrant groups struggle to get and keep jobs.	Introduce subsidised apprenticeship-like programmes as part of efforts to raise immigrants' skills and work experience.
Moving towards green growth	
Under current policies, programmed measures for reducing domestic non-ETS emissions will need to be combined with non-ETS reductions purchased from EU-countries for goals to be met.	<p>Pursue cost efficiency across sectors and borders in fulfilling Norway's Paris 2030-goal within the EU climate framework.</p> <p>Intensify greenhouse-gas reduction measures in particular in transport and agriculture. Review and reform road pricing and vehicle taxation, giving weight to social, fiscal and environmental considerations.</p>

1 Key policy insights

Norway has among the highest standards of living in the world. Scores across most indicators of wellbeing rank well compared with other countries (Figure 1.1, Panel A). The high rankings in subjective wellbeing along with jobs and earnings, and low inequality (Figure 1.1, Panel B) reflect broad success in achieving Nordic-model societal goals. GDP per capita, at around USD 65 000 annually (Figure 1.2), exceeds that in most other advanced countries. However, education and skills outcomes notably falls short of top performers and this is among the issues tackled in this *Survey*'s in-depth chapter on labour market issues.

Figure 1.1. Norway scores highly on many dimensions of wellbeing

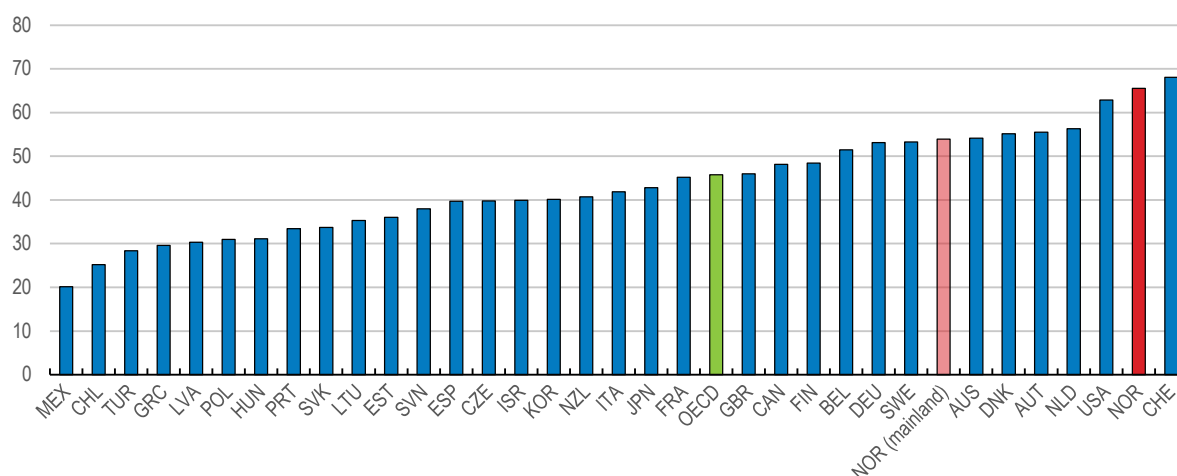


Source: OECD Better Life Index 2017; and OECD Income and Distribution database.

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Figure 1.2. GDP per capita is among the highest in the OECD

2018, thousand USD PPP



Source: OECD National Accounts (database) and OECD Economic Outlook (database).

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Economic growth remains robust. In addition, there has been welcome downward adjustment in house prices, after several years of rapid growth, though modest increases have resumed in recent quarters (Figure 1.3). There have been four central-bank policy rate increases since September 2018. Comparatively low global oil prices since 2014 have been a key influence on the economy, including via impact on the exchange rate.

Future wealth-fund developments, including diminishing oil- and gas-related inflows, are likely to mean there is no longer scope for ever-wider structural deficits, marking a substantial change for government budgeting. Tax reform, including reducing rates and eliminating distortions, is a key element in the government's economic policies (Box 1.1). Ensuring value for money in spending on the comprehensive public services and investment that are integral to Norway's socio-economic model is of increased prominence given emerging fiscal constraints. Health care and pension spending pressures continue to mount with population aging, and revenue shrinkage from taxation on cars is sizeable.

Box 1.1. The current government's economic policies

Parliamentary elections in September 2017 resulted in a coalition government initially comprising the Conservative Party (*Høyre, H*) and Progress Party (*Fremskrittspartiet, Frp*). The Liberal Party (*Venstre, V*) joined the coalition in January 2018 and the Christian Democratic Party (*Kristelig Folkeparti, KrF*) joined in 2019. As of October 2019 the coalition had 87 seats in the 169-seat parliament. The next parliamentary election is in September 2021.

In fiscal policy the governing coalition's budgets have put a strong emphasis on a prudent application of Norway's fiscal rule, which in practice means aiming for fiscal neutrality. The budget proposal for 2020 aims for a small reduction in the structural budget deficit.

Fiscal policy priorities have been emphasising: tax reform towards more business-friendly settings, and reallocation towards infrastructure and education and research. Tax reform has included a series of cuts in the rate of tax on corporate income, for instance. Road and rail allocations have been increased substantially as has spending on research and education. Increased allocations have been accompanied by structural reform, for instance road and rail sectors have been restructured.

Efforts to increase public-sector efficiency have included the pruning of expenditure through "efficiency dividends" (see main text), and reforms in specific areas, including: reduction in the number of municipalities and reforms to the police service, university sector and the tax authorities.

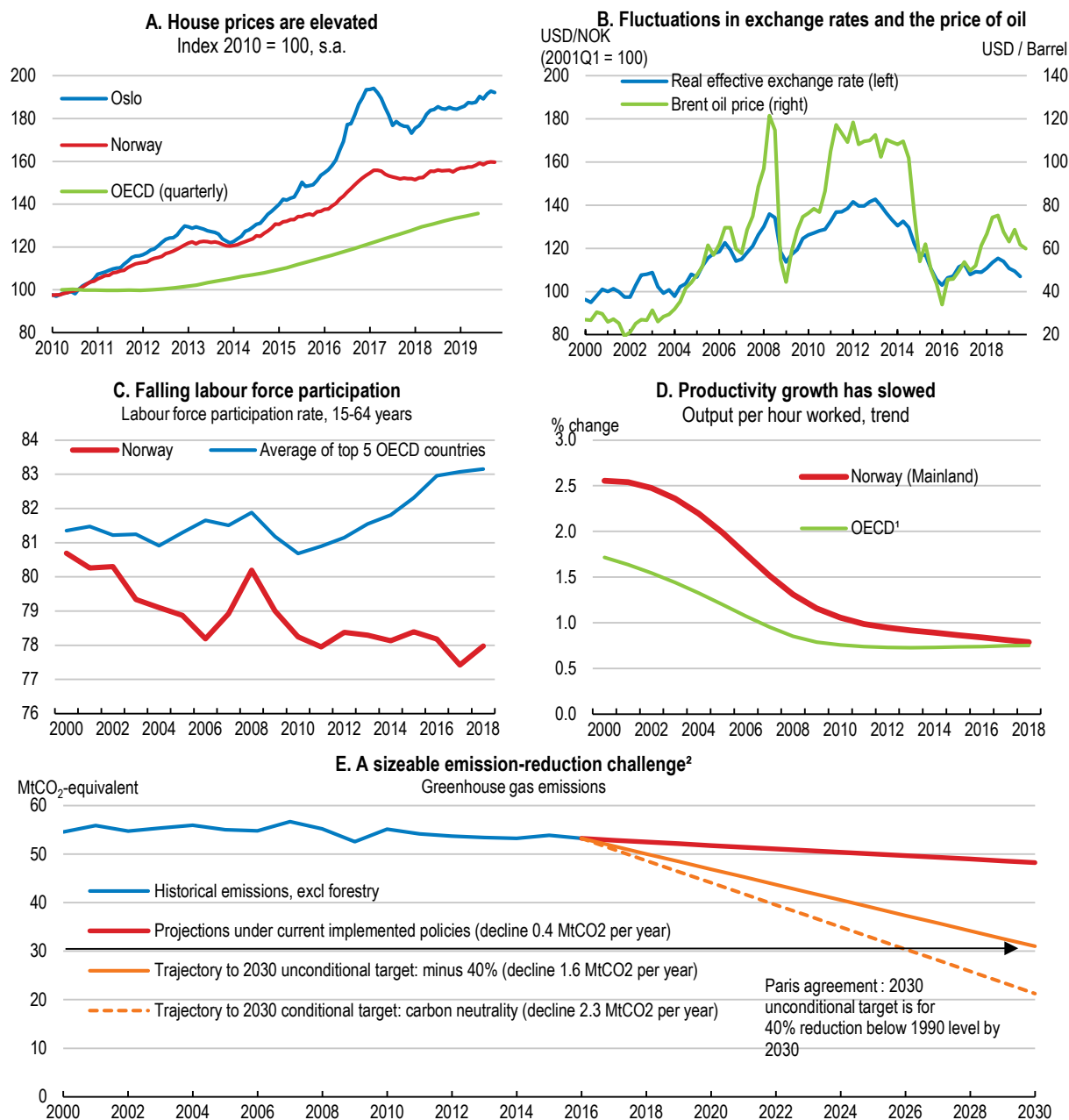
Increasing employment has also been a theme of policy. Labour-market reforms are aimed at strengthening work incentives and a better inclusion of groups at the margins of the labour markets, as immigrants, youngsters, and low-skilled workers. A major reform of occupational pensions for public employees has been agreed, which strengthens incentives to stay in work longer. An Employment Commission is looking how to improve Norway's sick leave compensation and disability benefit system.

Low productivity growth (Figure 1.3) and maintaining cost competitiveness remain concerns for the economy and future living standards. In addition, the business sector's capacity to adjust to changing circumstances is of increased importance given the opportunities and challenges of digitalisation and the need for economic diversification away from resource-related activity, as oil and gas production opportunities diminish.

There are challenges for social and labour-market policies that need to be addressed if high levels of wellbeing are to be sustained. Labour-force participation has been declining (Figure 1.3). This partly links to a longstanding problem of early retirement via disability benefit, which is itself connected to high rates of sickness absence. Other influences on labour-force participation include education and skills. This *Survey's* examination of the labour market in the light of the OECD *Jobs Strategy* (Chapter 2) covers these issues.

Norway's greenhouse-gas emissions are comparatively low, largely due to extensive hydropower, yet achieving abatement targets will be challenging. It is estimated that under current implemented policies, emissions of carbon-dioxide-equivalent greenhouse gases will fall by 0.4 million tonnes each year (Figure 1.3), while the most ambitious target (close-to carbon-neutrality by 2050, see environment section below) requires annual declines averaging 2.3 million tonnes. Given that climate policy should be cost effective, fulfilling the targets implies that domestic measures must be complemented by cooperation with the EU on emission reductions.

Figure 1.3. Norway is facing a number of important challenges

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The main messages of this *Survey* are:

- Macroeconomic policy faces uncertainty on oil prices and other external influences due to geopolitical and economic developments globally, including risks to the Norwegian economy from Brexit, along with risks from the housing market and related household borrowing.
- Managing narrower fiscal space requires better value for money in public spending across the board, including spending on supporting business, welfare payments, pensions and health care, as well as on climate-change policy. Increasing value for money can also create space for reducing tax burdens on households and businesses. Furthermore, greater focus on value for money can help with necessary reforms that involve spending reductions.
- Policy needs to better facilitate and motivate employment among those with weak labour-market attachment so as to increase inclusiveness and economic potential.

Macroeconomic prospects, risks and policy responses

In recent years, Norway's economic activity has principally reflected the impact and subsequent recovery from the 2014 oil-price decline, when the price fell sharply from around USD 110 to less than 40 per barrel (Figure 1.3). Mainland GDP growth subsequently slowed to around 1% and the rate of unemployment increased (Figure 1.4). By late 2016, recovery was underway. Elevated house prices and related borrowing remain a source of risk, as forewarned in the previous *Survey*, and external risks have been growing.

Robust, but slowing, output growth is projected

Mainland GDP volume growth has remained robust in recent quarters at around 2.5% per year (Figure 1.4), which is sufficient to drive further narrowing of capacity constraints. Continuing rebound in oil-sector investment (Box 1.2), strong growth in non-oil business investment and a return to growth in housing investment have supported GDP in particular. Continued momentum in the labour market is helping the economy, with further decline in the unemployment rate and pick up in wage growth. However, monthly data point to little growth in mainland export volumes in recent months. Headline inflation has been heading downwards and is just below the 2% target, however this trend may be reversed in light of recent currency depreciation. The currency depreciation observed in recent months has been somewhat surprising given tightening monetary policy; one possible explanation is that demand has shifted away from smaller currencies in light of the increased uncertainty in the global economy.

OECD projections envisage mainland output growth remaining above potential but easing from 2.5% in 2019 to around 2% in 2020 and 1.7% 2021 (Table 1.1). Diminishing growth in investment and mainland exports will drive output growth slowdown. As supply constraints will still bind, wage growth will continue to strengthen somewhat and there will be some mild inflationary pressure on consumer prices.

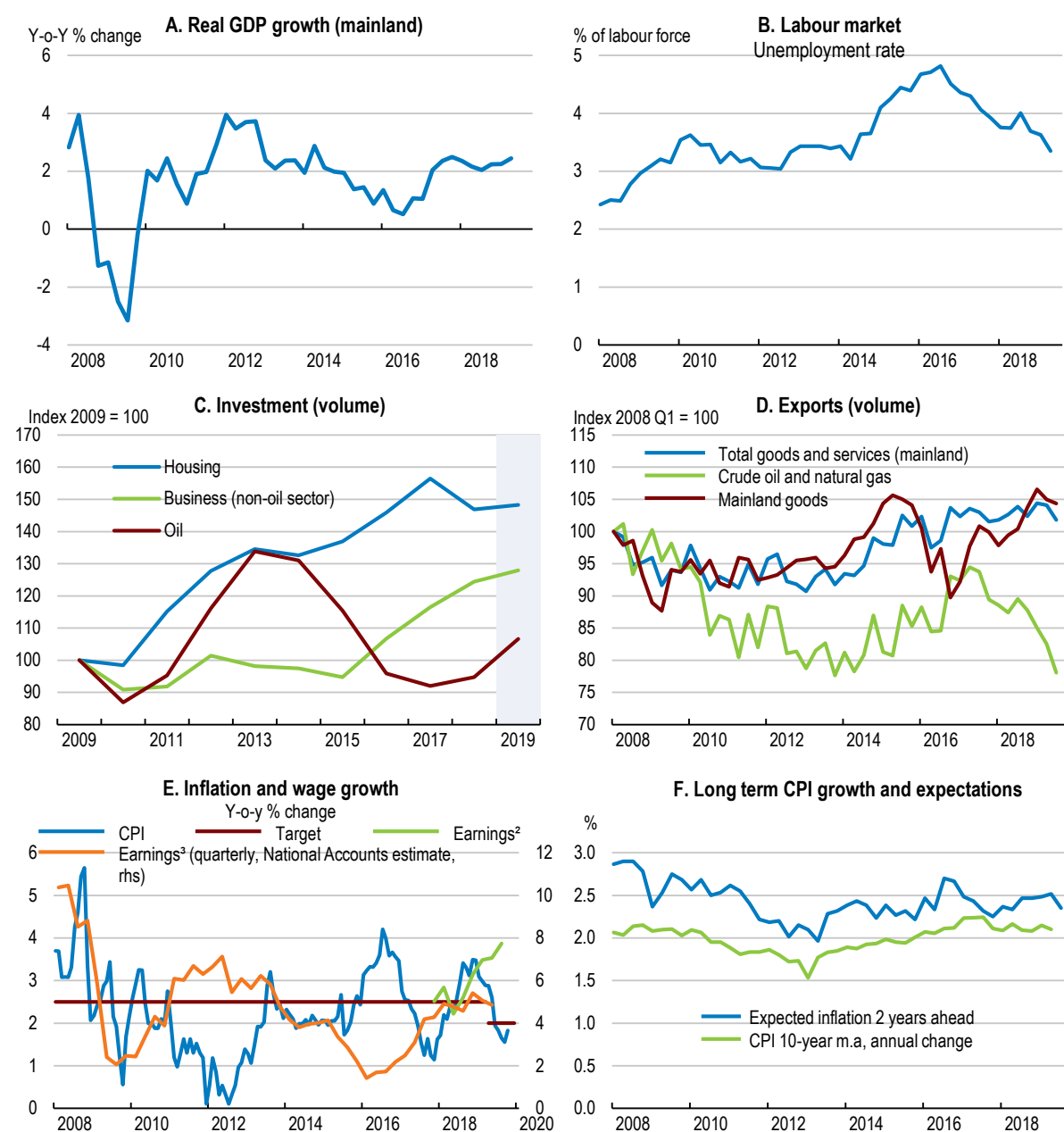
Box 1.2. Norway's petroleum sector: its role in the economy

Oil-dependency in the Norwegian economy has come down significantly in recent years. Norway's petroleum sector ("petroleum" covers both oil and natural gas) comprises offshore production facilities, and exploration activities plus supply services, which account for most of the sector's employment. Growth in petroleum investment and employment was particularly strong from the mid-1970s to mid-1980s and from 2005 to 2013, prior to the 2014 global-oil price fall. The supply sector is not solely linked to Norway's offshore fields, providing services to other North Sea fields and elsewhere in the world. Offshore activity according to the national accounts definition (this covers oil and gas extraction, transport via pipelines and ocean transport) is around 15% of total economic activity. In recent years, demand from the petroleum sector economy has declined substantially, with a reduction from 14% of mainland GDP in 2013 to 8% in 2018. Direct employment in petroleum production only accounts for about 1% of employment but, according to Statistics Norway, 6% of total employment in 2017 was directly or indirectly associated with the petroleum sector, a reduction from 9 % before the oil-price drop. Norway's south-west coast is particularly dependent on petroleum-related activity.

The petroleum sector makes a sizeable contribution to fiscal revenues. Net extraction revenues from production largely accrue to the state due to resource taxation and state ownership in production (the government has a 67% stake in the oil company Equinor). In addition, corporate tax revenues are generated by the petroleum supply industry.

The prospects for petroleum-related activity depend on several factors. A renewed increase in production in Norwegian fields is expected in the coming years as the Johan Svedrup and Johan Castberg fields come on stream. However, the long-term trend in production is clearly downward. Even so, estimates based on current knowledge of output and developments in reserves suggest production will continue well into the latter part of this century. New large finds are possible. In addition, as the sector is not solely dependent on Norwegian offshore production, developments in global production and exploration will also influence how the petroleum sector evolves in the coming years. Norway is also involved in decommissioning activity, which tends to run countercyclically to developments in production and exploration.

Figure 1.4. Recent macroeconomic developments: economic growth remains robust



1. Share of contacts reporting that output is constrained by labour supply.

2. Average monthly earnings, quarterly figures.

3. Earnings per employee based on dividing aggregate earnings by the total number of employees. Trends in part-time and full-time employment, overtime etc. therefore affect the outcome.

Source: OECD Economic Outlook database; Norges Bank; and Statistics Norway.

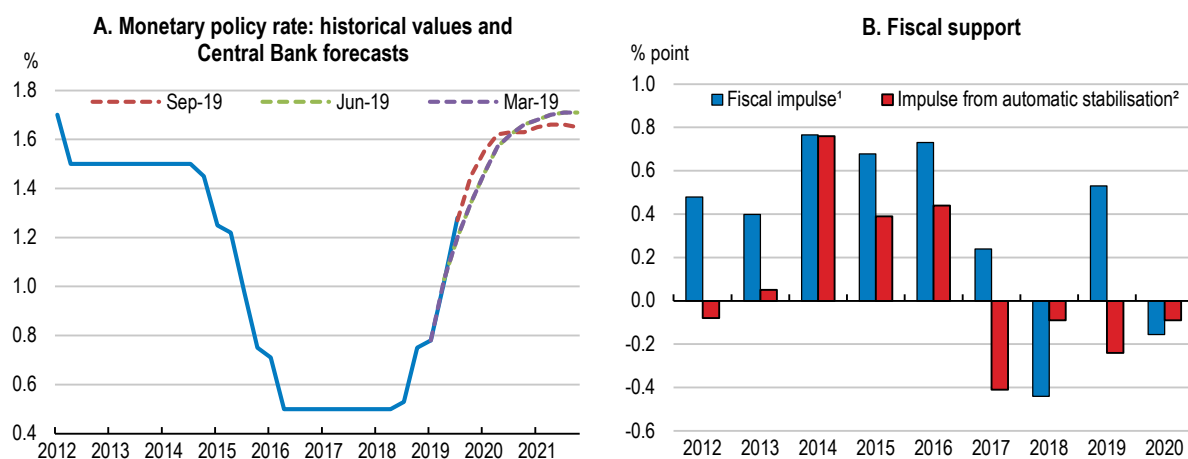
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Monetary policy is tightening and fiscal policy is broadly neutral

Monetary and fiscal policies responded to the 2014 oil-price shock with interest-rate cuts, and active tax and spending measures to support the economy (“fiscal impulse”) (Figure 1.5). In addition, automatic stabilisers supported the economy further, via weakened tax revenues and rising benefit payouts. Fiscal policy has endeavoured to maintain a neutral fiscal stance, i.e. constant structural deficits as a percentage

of GDP, in recent years. This is appropriate given the cyclical position of the economy and the evolution of the deficit path according to the fiscal rule (discussed further below).

Figure 1.5. Reflecting the upturn, monetary and fiscal support are being reduced



1. Annual change in the structural non-oil deficit.

2. Automatic stabilisation data are calculations supplied by the Ministry of Finance.

Source: Central Bank of Norway; and Ministry of Finance.

StatLink  <https://doi.org/10.1787/888934071498>

In monetary policy, four rate hikes, the first in September 2018 and the last in September 2019 brought the policy rate to 1.5% (Figure 1.5, Norges Bank, 2019). This tightening appropriately reflected the context of above-potential output growth and narrowing output gap and the need to ensure that price inflation remains on target, which has been centred on 2% inflation since March 2018 (Box 1.3). Norges Bank has signaled that the policy rate is most likely to remain on hold for the coming quarters. Inflation expectations remain well-anchored (Figure 1.4, Panels F). The introduction of a separate monetary policy committee following the new central bank act should further ensure sound rate-setting decisions.

Box 1.3. Changes to the inflation targeting regime and in Norges Bank's legislation and structure

In March 2018, the authorities lowered the inflation target for annual consumer price inflation over time from 2.5% to 2%. This brought the target closer to those elsewhere, notably that for the euro Area, which aims for “inflation rates of below, but close to 2% over the medium term”. The authorities’ reasoning was that the case for the 2.5% target had dwindled because the phase-in of oil and gas revenue into the economy is now largely over, and therefore no longer a source of upward pressure on prices. Inflation targeting is forward-looking and flexible so that it can contribute to high and stable output and employment and counteract the build-up of financial imbalances.

The reduction in the inflation target was accompanied by a renewal of monetary policy legislation with a view to clarification and alignment with monetary policy practice (for an overview of the inflation targeting regime, see Norges Bank, 2017). In addition, a re-structuring of Norges Bank is planned following a decision that it should retain management of the main wealth fund (Government Pension Fund Global, GPF). In particular, a separate policy committee will be established, whose duties will include policy-rate decisions. This move aims to allow Norges Bank’s Board greater focus on other tasks, including management of the Fund (Ministry of Finance, 2018a).

Table 1.1. Macroeconomic indicators and projections (autumn 2019 Economic Outlook)

Annual percentage change (unless otherwise indicated), volume (2017 prices)

	2016 Current prices (billion NOK)	2017	2018	2019	2020	2021
GDP volume (A)	3,076	2.3	1.3	1.0	2.4	2.3
Potential GDP		1.8	1.7	1.6	1.5	1.5
Output gap (% of potential GDP)		-1.9	-1.5	-0.6	-0.1	0.1
GDP volume, mainland (B)	2,423	2.0	2.2	2.5	2.0	1.7
Petroleum-production contribution to GDP volume growth (A minus B)		0.3	-0.9	-1.4	0.3	0.6
GDP volume components						
Private consumption	1,234	2.2	1.9	1.8	1.9	1.9
Government consumption	652	1.9	1.4	2.2	1.9	1.8
Gross fixed capital formation	724	2.6	2.8	4.3	3.3	2.1
Housing	152	7.3	-6.2	0.9	2.0	1.6
Business ¹	440	0.7	5.1	6.0	3.7	2.3
Non-oil sector	219	9.2	6.8	2.8	2.0	2.0
Oil sector ²	226	-4.0	3.0	12.6	4.1	0.7
Government	132	2.6	7.5	3.7	3.6	2.0
Final domestic demand	2,611	2.3	2.0	2.6	2.3	1.9
Stockbuilding (percentage-point contribution to GDP volume growth)	133	0.2	0.1	0.0	-0.1	0.0
Total domestic demand	2,744	2.4	2.1	2.4	2.1	1.9
Exports of goods and services	1,204	1.7	-0.2	1.6	2.6	3.1
<i>of which crude oil and natural gas</i>	374	5.1	-4.8
Imports of goods and services	872	1.9	1.9	5.4	1.9	2.0
Net exports (percentage-point contribution to GDP volume growth)	332	0.0	-0.7	-1.2	0.3	0.5
Labour-market and households						
Employment		0.2	1.6	0.9	0.7	0.4
Unemployment rate, %		4.2	3.8	3.4	3.2	3.2
Household saving ratio, net (% of disposable household income)		6.7	6.5	6.7	6.8	7.0
Deflators, prices						
GDP deflator		4.0	5.8	-0.6	1.5	2.2
Consumer price index		1.9	2.7	2.3	2.0	2.2
Core consumer prices		1.7	1.2	2.5	2.0	2.2
Trade and current account balances						
Trade balance (% of GDP)		6.2	8.7
Current account balance (% of GDP)		4.7	7.2	4.2	4.3	4.8
Money market rates and bond yields						
Three-month money market rate, average, %		0.9	1.1	1.6	1.9	1.9
Ten-year government bond yield, average, %		1.6	1.9	1.5	1.7	2.0
General-government fiscal indicators (OECD)						
General government financial balance (% of GDP) ³		5.0	8.1	8.8	9.1	9.0

General government net debt(% of GDP)		-309.0	-282.0	-289.5	-287.8	-284.2
Central-government fiscal indicators (Ministry of Finance)⁴						
Structural non-oil balance ^{5, 6}		-7.7	-7.2	-7.8	-7.6	..
Non-oil balance ⁵		-7.8	-7.4	-7.6	-7.5	..
Government Pension Fund Global (% of GDP)		256.9	233.4	288.7
Structural non-oil balance (as a % GPFG)		-2.9	-2.5	-2.9	-2.6	..
Memorandum items						
Non-mainland GDP (petroleum and shipping)	652	4.6	-3.6	-4.9	-0.5	0.0

1. Also includes shipping sector.

2. Following the approach taken by the Norwegian authorities, oil-sector investment is included in mainland GDP as most of the investment activity takes place on the mainland.

3. Norway's general-government account notably incorporates offshore-sector tax revenues and income from the Government Pension Fund Global.

4. Figures published in the government's latest budget proposals.

5. The central-government non-oil balances notably exclude offshore-sector tax revenues and income from the Government Pension Fund Global. These balances are percentage of trend mainland GDP.

6. The "Structural Non-oil Balance" is the focus of government budgeting. "Structural" refers to adjustment for the business cycle made by the Ministry of Finance.

Source: OECD Economic Outlook 106 database ; Statistics Norway; Norwegian Ministry of Finance; and Norwegian Ministry of Petroleum and Energy.

External risks to the economic outlook are on the downside

Norway's chief external risks generally stem from fluctuation in oil prices and the state of play in its markets for non-oil goods and services exports ("external demand"). Exchange-rate movement typically provides a sizeable offset to the impact of shocks. Oil prices react to a range of economic and political influences, often rapidly, making for a high degree of uncertainty (Table 1.2). Norway's vulnerability to downward price shocks has diminished as, following the 2014 oil-price fall, producers have considerably reduced costs in exploration. For instance, the current back-stop price in the Castberg field is less than half what it was before the 2014 oil-price drop. Meanwhile, however, with increased action on climate-change globally, including through advances in substitute technologies, uncertainties in demand and prices for fossil fuels are mounting. The expected returns on long-term projects requiring heavy investment are more uncertain, with the prospect of "stranded assets" if, for instance, there is accelerated decline in demand for fossil fuels, including crude oil (for a general discussion, see OECD, 2015).

In the current conjuncture the external-demand risks have become more weighed on the downside. As underscored in the autumn 2019 *Economic Outlook*, policy developments undermining international trade have already had some material effects on the global economy, including Europe, with sharp slowdown in trade and investment and faltering business and consumer confidence. While such developments are not yet echoed strongly in the Norwegian economy, the substantial trade with the rest of Europe means developments in the region are a source of risk. Furthermore, tail-risk scenarios could develop should trade tensions rise further (Table 1.2). Norway is exposed to Brexit risks largely via demand from other European countries. Global financial shocks also potentially have strong effects in Norway through stock-market valuations of the oil fund. This can influence the size of the "allowable" government deficit under the fiscal rule (see below), though offsetting exchange-rate movement may limit this effect. Hold-ups in oil supply from the middle east and consequent oil-price hikes in autumn 2019 have illustrated the potential for upside surprises for the Norwegian economy via the oil sector.

Property markets remain the principal domestic vulnerability

As underscored in the previous *Survey*, house prices and related borrowing have increased substantially in recent years (Box 1.4). Norway is not alone in this regard. Among the other Nordic countries, Sweden

has experienced rapid house-price growth (Figure 1.6), and household indebtedness is elevated in both Sweden and Denmark. While Norway's housing-market developments to date mainly suggest an orderly correction, risk of a disorderly unwinding of the market remains. As interest rates remain comparatively low, there is risk prices continue to be propelled upwards, raising the prospect of a more dramatic correction later on. Furthermore, the scale of household credit remains a concern (Figure 1.6). Household credit predominantly comprises mortgage borrowing, and is an important driver of banks' funding requirements. The latter are partially met through a wholesale funding market in which there are substantial cross-holdings between financial institutions (discussed further below).

Box 1.4. Influences on Norway's house prices

Persistent rises in house prices, do not necessarily imply a house bubble. House prices are determined by numerous demand and supply factors, including income, demographics, macroeconomic conditions and institutional features. The pace at which supply of housing responds to demand pressures also determines how quickly and strongly prices react. An empirical paper accompanying this *Survey* (Sila, 2020) uses a cross-country panel framework to assess what influences Norway's house prices.

The results show that high and rising house prices in Norway are principally driven by market fundamentals – high household incomes, wealth, low interest rates and growing population. For instance, the results suggest that a 1% rise in household disposable income per capita raises house prices by 1.0-1.3 %. Likewise, a one-percentage point increase in population growth increases house prices by 0.4-0.6%. Yet, despite strong fundamentals, by comparing predicted house prices as estimated by the model and observed house prices, Sila (2020) notes that house prices in Norway seem to have been overvalued to a degree.

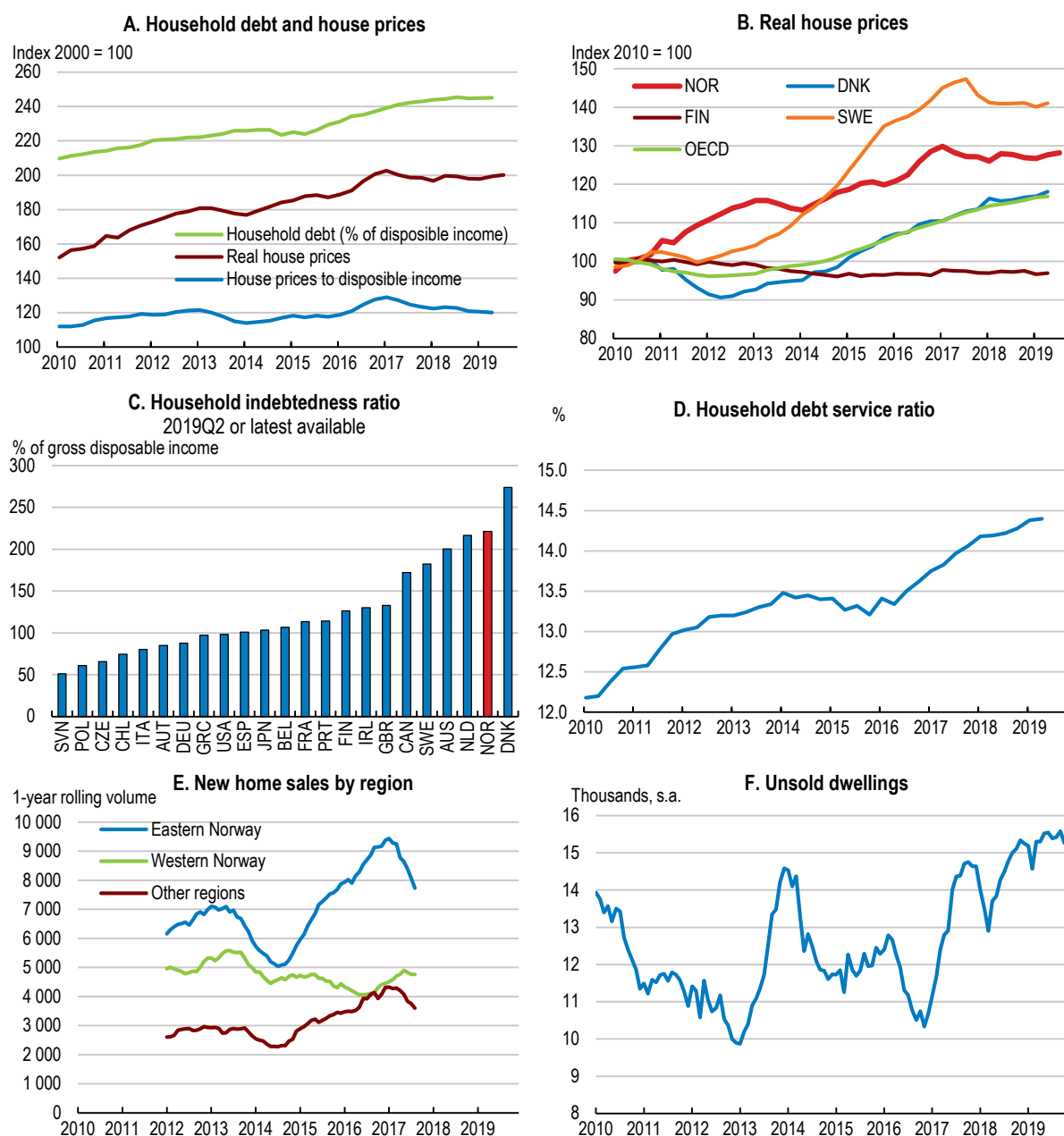
Some structural and regulatory features of the Norwegian housing market also put upward pressure on prices: the favourable tax treatment of home ownership and relatively rigid housing supply. Sila (2020) argues that regulations on rent increases and tenant-landlord regulations are also playing a role. Norway could therefore help take some steam from the housing market by structural reform, as discussed in the main text.

The resumption of nominal house-price growth at a subdued pace, (Figure 1.3), essentially flat prices in real terms (Figure 1.6), a moderate unwinding fall off in new home sales from peak levels (Figure 1.6) and a bottoming out of dwelling construction activity suggest a “soft landing” so far. However, the comparatively large stock of unsold houses compared with previous years points to remaining tensions (Figure 1.6). Although the growth of credit to households is easing, it is still greater than increase in disposable income, so the household debt ratio continues to grow.

In the event of renewed downward correction in house prices, any wider economic impact would most likely occur via household consumption. Similar to a number of other OECD countries with high rates of home ownership, house-price correction would directly damp consumption through negative wealth effects, precautionary saving responses and reduced expenditures related to the purchase and sale of housing (such as spending on renovation and interior decoration) (OECD, 2019a). Negative impact on business of weakening household consumption could, inter alia, prompt business-loan losses for banks and an increase in mortgage borrowers encountering financial difficulty in the event of reduced income (for instance through redundancy).

The elevated level of household debt amplifies the risks from an economic downturn, whether stemming from house-price correction or otherwise. Direct risk to banks via mortgage default appear reasonably well contained in Norway by their capitalisation and safeguards in mortgage lending (see below). However, debt-servicing commitments remain high, implying a greater cutback in consumption in the event of downturn. Interest-rate increases have widespread impact on households debt servicing costs as most mortgages are variable-rate and have more impact when debt levels are high.

Figure 1.6. Some housing-market cooling but household debt burdens remain elevated



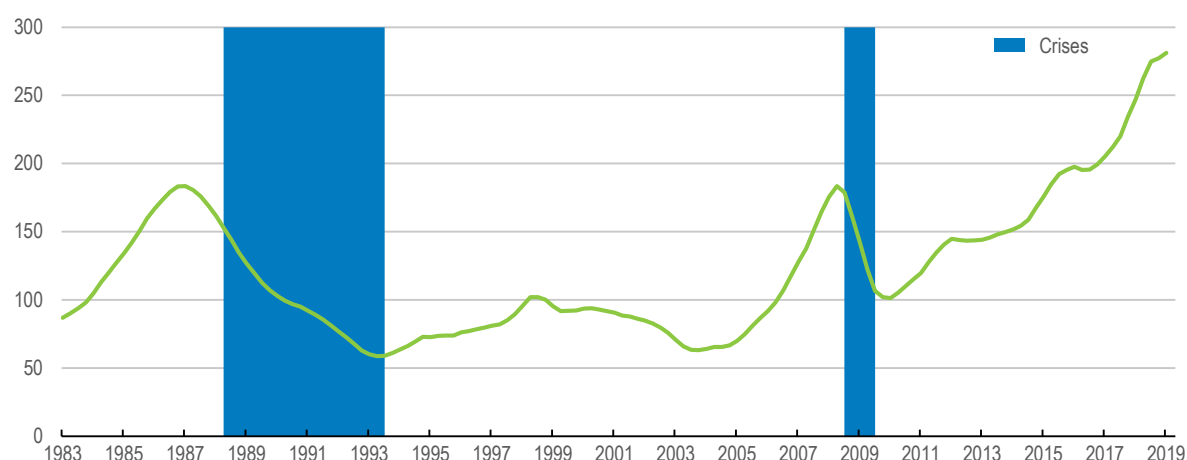
Source: Central Bank of Norway; OECD Economic Outlook database; OECD dashboard of household statistics; and Refinitiv Datastream database.

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Developments in commercial real estate are also a potential source of financial vulnerability (Norges Bank, 2018). Estimated selling prices of commercial real estate have been rising rapidly (Figure 1.7). Sharp rises in the past have been a prelude to substantial corrections and wider economic difficulties, in part because about half of banks' exposures to the Norwegian corporate sector are in commercial real estate. Given the importance of the commercial real estate sector, additional data collection for a more detailed assessment of selling prices would be welcome.

Figure 1.7. Commercial real estate prices have reached new highs

Estimated real selling prices per square metre for prime office space in Oslo
Index 1998 = 100



Note: Deflated by GDP deflator for mainland Norway. Average selling price for the previous four quarters.

Source: CBRE, Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank.

Table 1.2. Events that could lead to major changes in the outlook

Vulnerability	Possible outcome	Policy response options
Large (and sustained) upward or downward oil-price shift.	Low price scenario (e.g. because of breakthrough in substitute technologies or significantly lower world demand). Collapse of petroleum-related activities. Large job losses and falls in income and output, particularly in certain regions.*	Monetary and fiscal support, especially the latter. Targeted support for regions.
	High-price scenario. Increased wealth and incomes but a deepening of the challenges in managing oil wealth.*	Intensified efforts to improve the environment for non-oil business.
	*Oil-price fluctuation (in either direction) generally prompts an automatic fiscal response and countervailing exchange-rate movement due to the wealth fund and fiscal rule.	
External (non-oil) demand shocks, e.g. accelerated weakening of growth in Europe due to trade tensions.	Downside: weak demand for non-oil goods and services exports, aquaculture sector in particular could be affected. Upside: surge in non-oil exports.	Macroeconomic support, targeted assistance for sectors most affected, efforts to ease underlying problems (e.g. trade tensions).
Global equity price correction.	A global stock market collapse would reduce the wealth fund's value*, inter alia implying smaller fiscal deficits than may be inappropriate if the economy is in downturn. * Exchange-rate depreciation may dilute this effect.	Leeway in the fiscal rule means inappropriate tightening (or loosening) brought, for instance, by global stock market developments can be avoided.
Large house-price correction and household debt deleveraging.	Large house-price falls (a "hard landing") could lead to falling household consumption and rising non-performing loans.	Monetary and fiscal support, targeted support to those most affected by the housing downturn. Support to the financial sector, as appropriate.

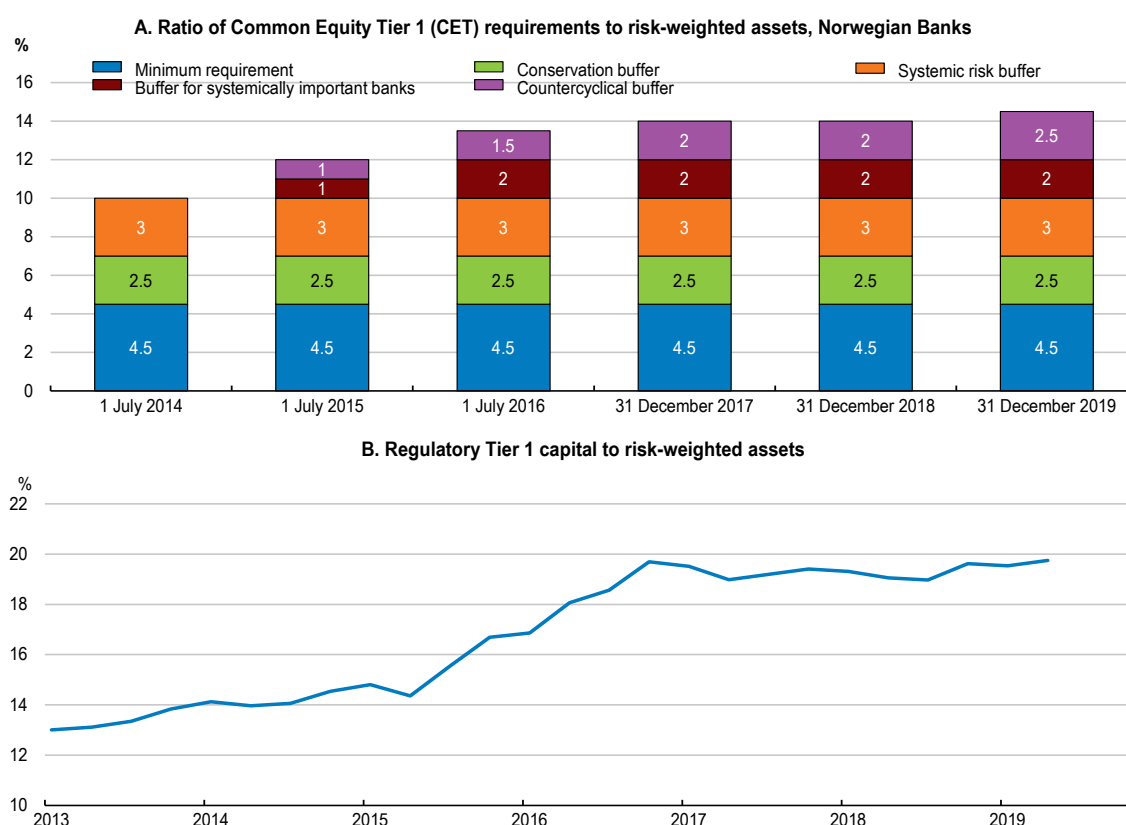
Financial stability: vigilance by financial-market regulators is still required

The substantial increase in house prices and credit growth in recent years has received considerable policy attention, including the increase in the small but rapidly growing consumer credit segment. In general however, Norway's financial system appears in good shape to address tensions and handle shocks should they occur. Nevertheless, continued vigilance is required.

Banking-sector resilience has been shored-up by stronger capital requirements following the Global Financial Crisis (Figure 1.8), including a countercyclical capital buffer operating since 2013. Stronger requirements have been echoed in actual capital adequacy, including the ratio of capital to the unweighted value of assets (leverage ratio, Figure 1.8). In the housing-loan segment, “full recourse” mortgages, where banks have rights to collect assets and pursue legal action in the event of non-payment, help protect banks in a stressed situation. Recent prudential measures include new rules regarding deposit guarantees rules, as well as bank recovery and resolution as part of adoption of an EU directive, and a tightening of consumer credit rules (Table 1.3).

The strong presence of foreign banks in the mortgage market means the impact of a shock may be widely spread and without critical consequences. However, a strong foreign presence entails policy challenges as branches of foreign banks are partially governed by the regulation of their country of origin. Efforts to strengthen reciprocal regulatory agreements and harmonise regulation with foreign banks’ domicile countries should continue. The European capital adequacy framework (CRR/CRD IV) and memorandums of understanding signed by Nordic authorities facilitate reciprocity for national macro-prudential measures. A recent draft proposal from the Ministry of Finance is in part intended to achieve reciprocity from other European Economic Area members with regard to an adjusted systemic risk buffer requirement and temporary risk weight floors for real estate exposures.

Figure 1.8. Further increase in the counter-cyclical buffer in bank capital requirements



Source: Norges Bank (2018), Norway's financial system 2018, Ministry of Finance; and OECD Resilience database.

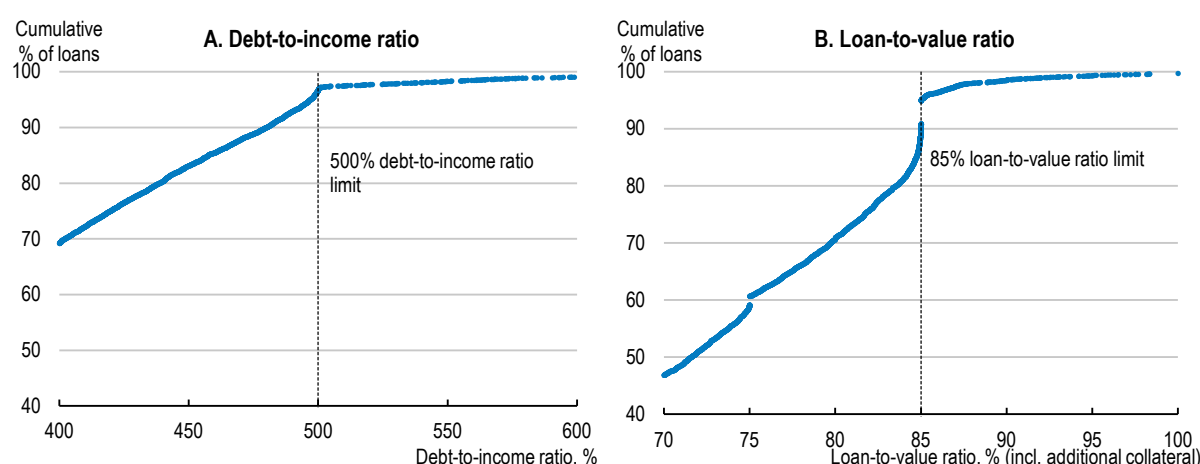
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As in a number of countries, macroprudential measures have been introduced to help cool the housing and mortgage markets and limit their risk to the financial sector and wider economy. Concern about growth in interest-only loans several years ago was addressed by minimum down-payment requirements in 2015.

Measures introduced also include a limit on a borrower's total debt to five times annual gross income and changes to loan-to-value ratios. The regulations also feature some regional differentiation and special regulations for secondary homes (see previous *Survey*). The standard loan-to-value ratio is currently 85%, which is similar to those elsewhere (OECD, 2019a). Figure 1.9 shows that both these measures are having impact. The macroprudential rules allow a small share of lending outside the limits, so some data points are beyond the boundaries in Figure 1.9. This aside, many data points in Figure 1.9 are on, or just below the limits, implying that they are indeed having impact. The mortgage regulation is time-limited (18 months). The next renewal is due in end-December 2019. The regulation should be renewed, with parametric adjustment as required. Furthermore, an end to time limits on the regulation should be considered.

Figure 1.9. Debt-to-income and loan-to-value limits are having impact

Distribution of around 8 000 new loans according to debt-to-income and loan-to-value ratios

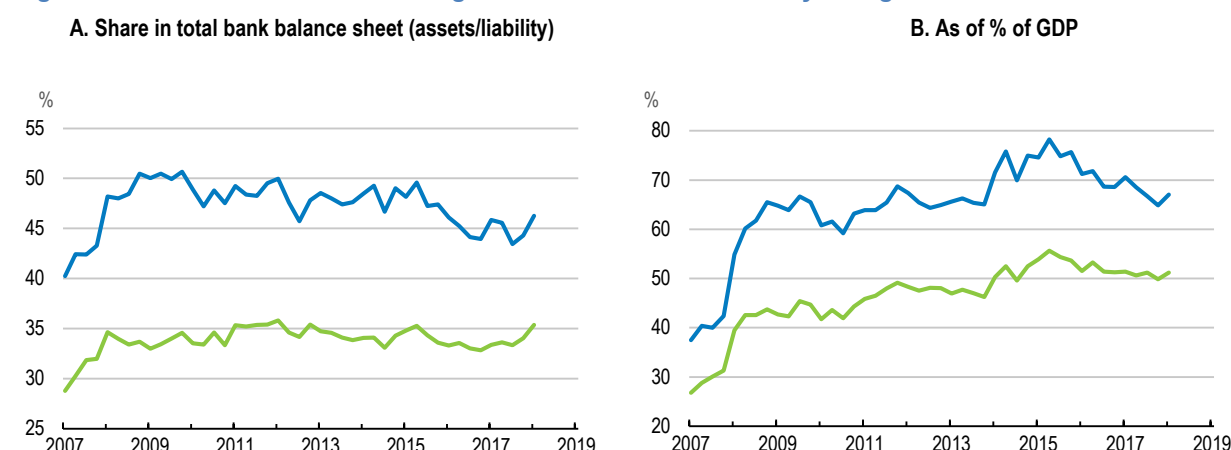


Note: Some loans exceed the limits because for a small share of mortgage lending (8% in the Oslo area, 10% elsewhere) banks do not have to adhere to the limits (referred to as a "speed limit").

Source: Finanstilsynet (2018), Risk Outlook December 2018. Distribution of around 8 000 new loans according to debt-to-income and loan-to-value ratios.

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Elevated household debt has raised banks' funding requirements, including a substantial increase in wholesale funding. While the share of this funding in banks' balance sheets, and as a percentage of GDP, has declined slightly in recent years, it remains elevated (Figure 1.10). Much of the wholesale funding is via "covered bonds", bonds collateralised against mortgages. Covered bonds help provide cheap and stable funding through sharing risk, but potentially bring rollover risk and make balance sheets less flexible. There is substantial cross holding of these bonds within the Norwegian financial sector; over half the value of covered bonds is held by banks and mortgage institutions. This interconnectedness increases risks. For instance, a liquidity problem could amplify if banks simultaneously sell off covered bond holdings (Norges Bank 2018, IMF 2018). As these bonds and their regulatory framework were introduced in 2007, and Norway's economy did not suffer a huge shock in the 2008-9 crisis, the resilience of the covered bond market is yet to be strongly tested.

Figure 1.10. Bank wholesale funding has increased substantially alongside bank balance sheets

Source: Norges Bank.

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Structural changes to the housing market that lessen price tensions should continue. As flagged in previous *Surveys*, tax advantages for home ownership stoke housing demand and facilitation of housing supply through lighter planning regulation and procedures is needed. With low mortgage interest rates it is an opportune moment to start phasing out mortgage interest relief or to introduce implicit rental income to the tax system. However, any lightening of planning needs to dovetail with other policies, in particular the encouragement for the construction of a more environmentally friendly housing stock, for instance via the government's subsidy scheme for municipal climate measures, Klimasats.

Table 1.3. Past recommendations on macroeconomic and financial stability

Recommendations	Action taken since the previous Survey (January 2018)
Should house-price growth remain uncomfortably high, consider additional macroprudential measures while closely monitoring and reviewing their effectiveness.	<p>Implementation of the EU's Bank Recovery and Resolution Directive (in force from January 2019). These rules, for instance, mean that if capital adequacy is threatened, investors in bank bonds can be forced to accept conversion of part of their debt claim to shares or equity certificates (bail-in).</p> <p>The counter-cyclical capital buffer rate will be increased to 2.5% as of December 2019.</p> <p>Mortgage regulations were renewed for a further 18 months in June 2018 (next renewal decision, December 2019). The regulation applies to both Norwegian and foreign banks operating in Norway.</p> <p>New consumer credit regulation includes: i) collection and distribution of information on borrowers' unsecured debt ("credit registries", legislation adopted in November 2017, information services operational in July 2019); ii) higher deposit-guarantee fees for riskier banks (effective from 2019); iii) a new regulation on consumer lending practices modelled on the mortgage regulation including a debt-to-income limit, a debt service and amortization requirements (in force from May 2019); iv) higher capital requirements (Pillar 2 add-ons) for most consumer-credit banks (set by the FSA as part of regular reviews of individual banks' risks and capital needs).</p> <p>Other relevant measures:</p> <p>New regulation clarifying the monetary policy mandate was adopted March 2018.</p> <p>A new central bank act that includes establishment of a separate committee for monetary policy decisions will enter into force January 2020.</p> <p>Improvements in banks' reporting on corporate lending is under consideration.</p>
Facilitate more responsive housing supply. In particular, lighten rules on release of land for development.	No major reform. However, the government introduced a revised Housing Market Strategy in June 2018.

Fiscal policy, tax and public spending reform

Norway's public spending and the taxation to fund it are comparatively high, reflecting commitment to comprehensive public services and welfare support that are integral to the socio-economic approach of Nordic countries (Figure 1.11). Central-government non-oil deficits are guided by a fiscal rule based on the expected real rate of return to the fund (Box 1.5) that allows a sizeable non-oil deficit, currently around 8% of mainland GDP (Box 1.5, Figure 1.12). The oil wealth in effect means that households and business benefit from lighter taxation and more public spending on services and investment than would otherwise be the case. If the rule is followed, future generations also benefit. This guarantee to future generations is further strengthened if projection of the value of the wealth fund is made on a prudent basis, especially in light of the heightened uncertainties in the current climate for investment globally.

Box 1.5. Norway's fiscal system and the shift to the "3% rule"

Revenues from offshore petroleum production have enabled Norway to accumulate a large wealth fund (the Government Pension Fund Global, GPF) while also financing fiscal deficits in the mainland economy. Inflows to the fund comprise: *i*) net cash flow from the petroleum sector (i.e. revenue from the state's direct financial interest plus tax revenues); *ii*) net financial transactions related to the petroleum sector; and, *iii*) returns on the fund's assets. Under the fiscal framework, withdrawal from the fund covers the non-oil budget deficit. The fund is invested entirely in foreign assets, which helps offset the currency appreciation arising from petroleum exports.

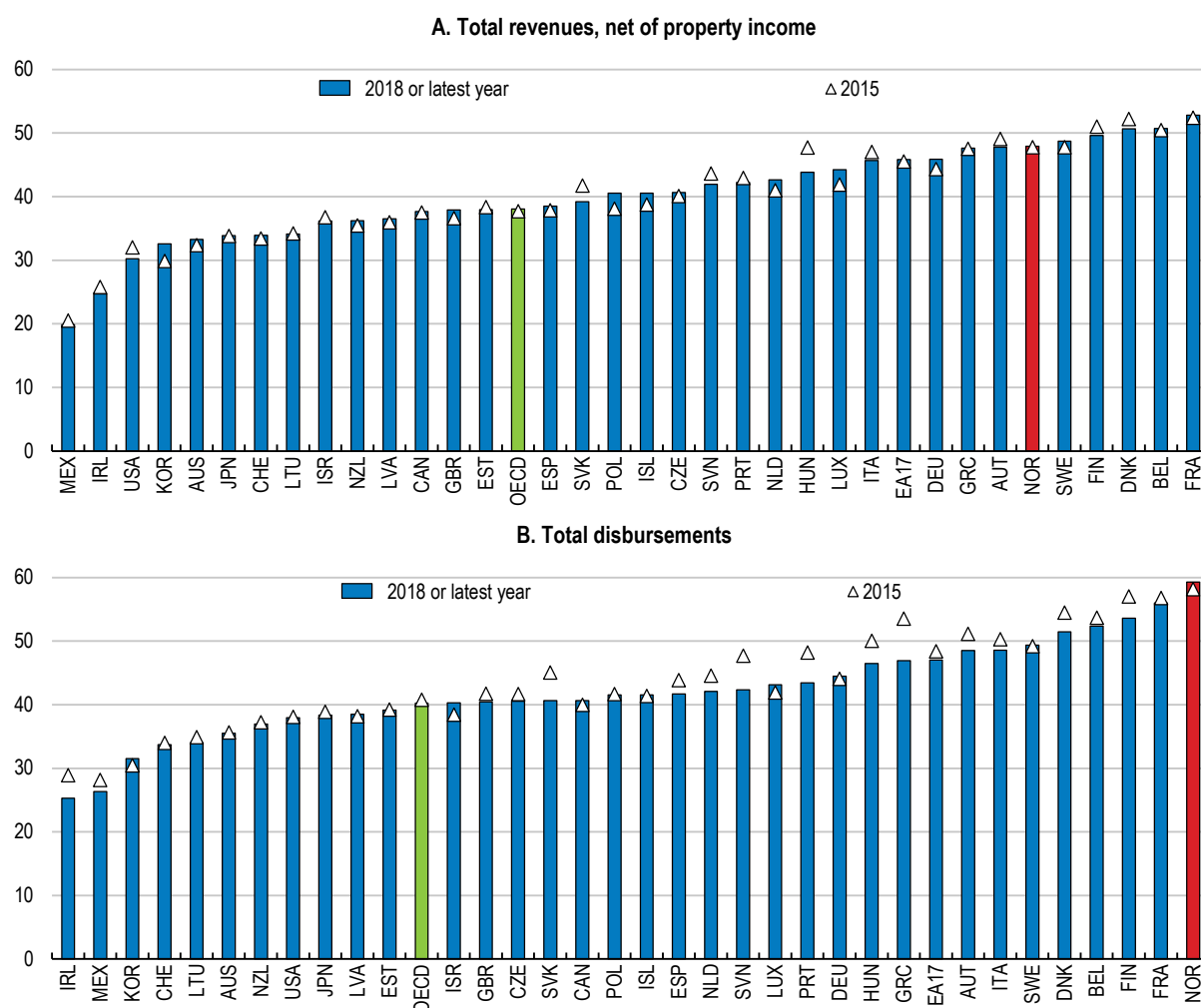
Norway's fiscal rule states that the cyclically adjusted non-oil deficit (the "structural non-oil deficit") should, over time, be equal to the expected real return on the Fund. The rule implies an intergenerationally fair use of oil wealth because spending the real returns implies leaving the real value of the Fund intact for future generations. The rule also accommodates counter cyclical fiscal stimulus. Actual deficits fluctuate around the structural deficit ("automatic stabilisation") and the structural deficit itself is allowed to move around the expected return over the business cycle, reflected in the "over time" wording of the rule.

In 2017, the government announced that budgeting would be based on a 3% expected return instead of 4%. The "3% rule" more strongly assures intergenerational equity in the wealth fund, as the fund's returns are likely to be lower looking forward. Global rates of return have declined, especially fixed-income yields, and are expected to remain low. Under these circumstances, it was unrealistic to expect that the Fund would keep on generating 4% returns. The rule alteration was also timely given the cyclical situation. Under the "4% rule" and with rapid growth in the wealth fund (Figure 1.12, Panel A), the target deficits had become expansionary. Expansionary budgets were welcome in the wake of the 2008-9 crisis and the 2014 oil-price shock but became an issue once the need for fiscal support waned. In the decade 2007-2016, the structural non-oil deficit increased by 0.5 percentage points of GDP each year on average (Figure 1.12, Panel B).

Ministry of Finance projections of the Fund's value, which are based on prudent estimates of future oil revenues, imply that substantial expansion of structural non-oil budget deficits will no longer be feasible. The projections indicate scope for only modest deficit increases until 2030, and decline thereafter (Figure 1.12, Panel C). This marks a substantial shift for government budgeting, which had become accustomed to the extra fiscal space afforded by expanding structural deficits.

Figure 1.11. Government spending remains substantial and similar to other Nordic countries

% of GDP

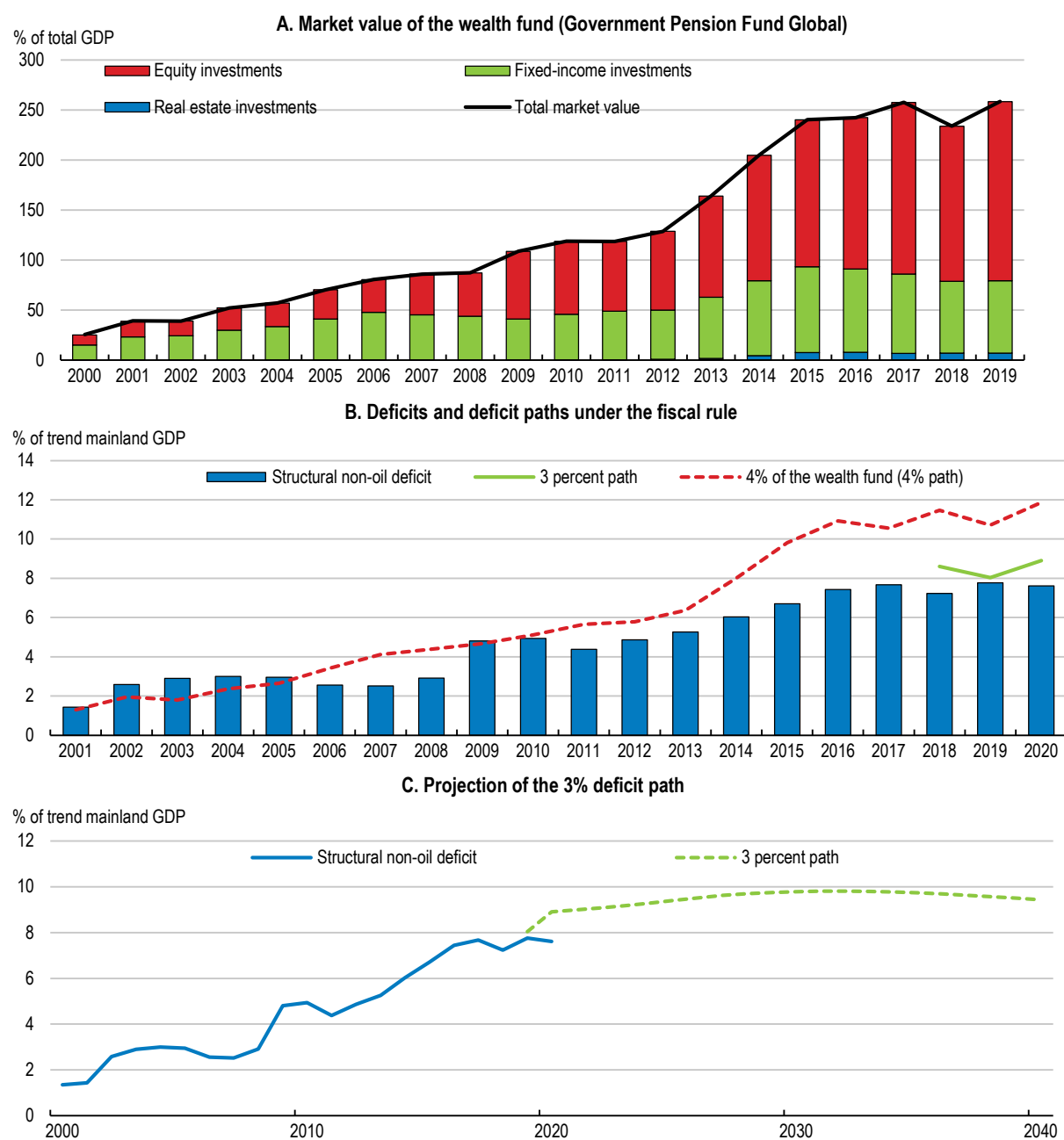


Note: Norway total general government mainland receipts minus mainland property income received, as % of mainland GDP; and total general government disbursements as % of mainland GDP.

Source: OECD Economic Outlook database.

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Figure 1.12. Slowing growth in the value of the wealth fund and structural non-oil deficits



Note: "3% deficit path", 3% of projected wealth-fund as a percentage of trend mainland GDP.

Source: Norges Bank Investment Management (MBIM); and Ministry of Finance, 2020 budget.

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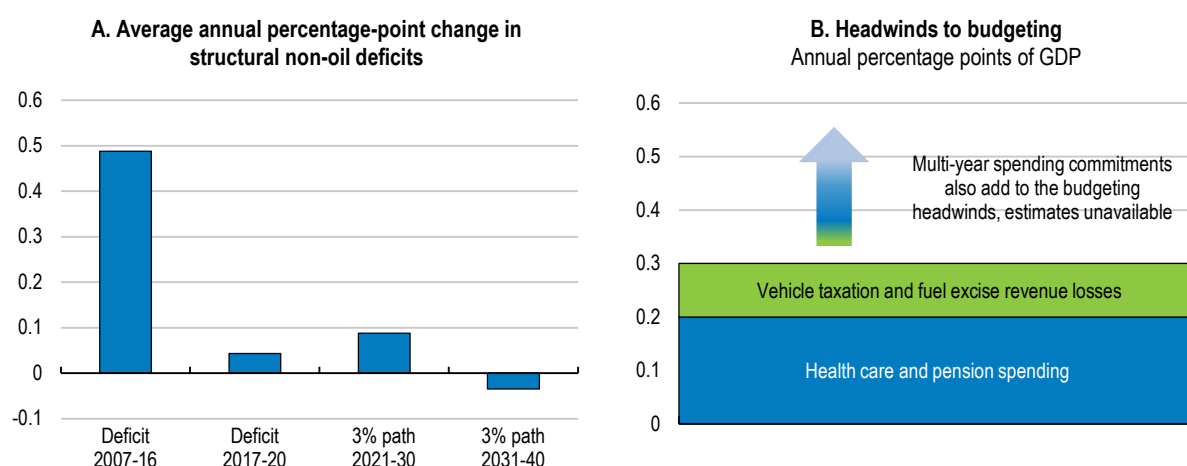
Government budgeting: coping with less favourable fiscal conditions

Though in an advantageous fiscal position compared with many economies, Norway has entered a challenging phase for government budgeting. Shifting to the 3% rule, coupled with an expected slowdown in wealth-fund growth, has significantly narrowed fiscal space for the foreseeable future (Box 1.5 and Figures 1.12 and 1.13). Deficit-widening processes and commitments that must be absorbed under this more constrained fiscal environment notably include:

- Continuing population-ageing effects. OECD estimates of Norway's future health care and pension spending suggest an increase of about 7.5 percentage points of GDP by 2060, which is equivalent to around 0.2 percentage points of GDP each year (Figure 1.14). The demographics of population aging also means comparatively slow growth in the working-age population, with implications for revenues.
- Ongoing revenue weakening from car taxes as the shift to more environmentally friendly vehicles continues. To date, data suggest the revenue losses are equivalent to about 0.1 percentage points of GDP each year and this is likely to continue for the coming years.
- Multi-year spending commitments. For instance, in the next few years, commitments to expand defense spending and investment in transport may add sizeable expenditures to the government budget (precise estimates of the scale of these expenditures are not available).

The shift to a tighter budget environment has already begun. For 2017 to 2020 (estimated outcomes for 2019 and 2020), the change in the structural non-oil deficit looks set to average well below 0.1 percentage points (Figure 1.13), substantially lower than the average of 0.5 percentage-points over 2007-2016 (Box 1.5). Technical items have largely explained variations in the budget over this three-year period. For instance, the increase in the deficit expected to occur between 2018 and 2019 is largely due to downward revision of the 2018 deficit outcome and from underestimation of the revenue costs from electric-vehicle tax concessions (Ministry of Finance, 2019). The 2020 Budget (Ministry of Finance, 2019) envisages a reduction in the structural non-oil deficit of 0.2 percentage points, therefore retaining the broadly neutral stance for the period 2017-2020 as a whole.

Figure 1.13. Deficit constraints and budgeting headwinds are sizeable



Note: Health care and pension spending headwind is based on an annual average of OECD estimated increase in spending as a share of GDP between 2020 and 2060.

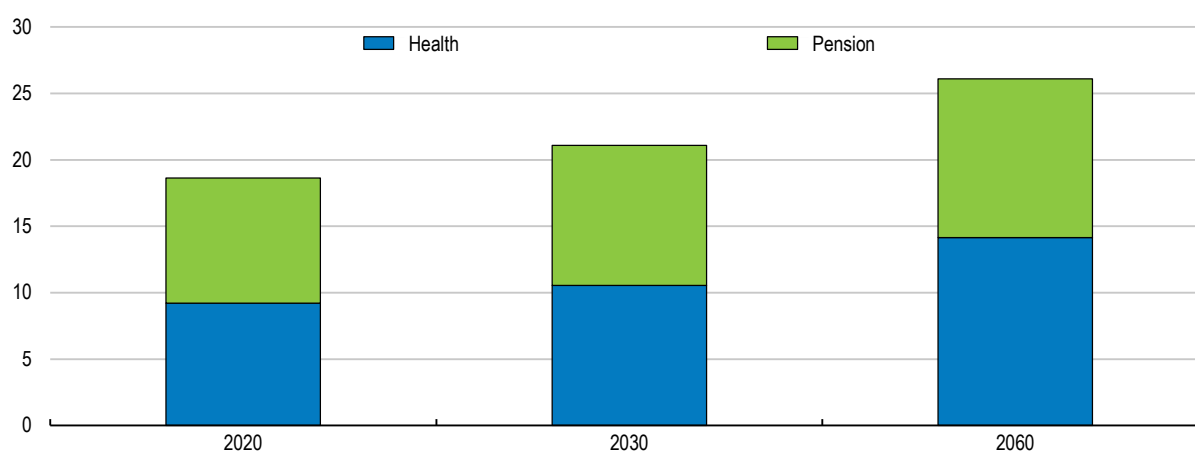
Vehicle taxation and fuel excise revenue is declining in Norway. An increasing share of electric vehicles, which benefit from tax concessions and no fuel excise, plus increasing fuel efficiency among petrol and diesel fuelled vehicles are key drivers.

Source: Ministry of Finance, National Budget 2020.

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Figure 1.14. Steady rise in public pension and health-care costs lie ahead

Past and projected public spending, in % of GDP

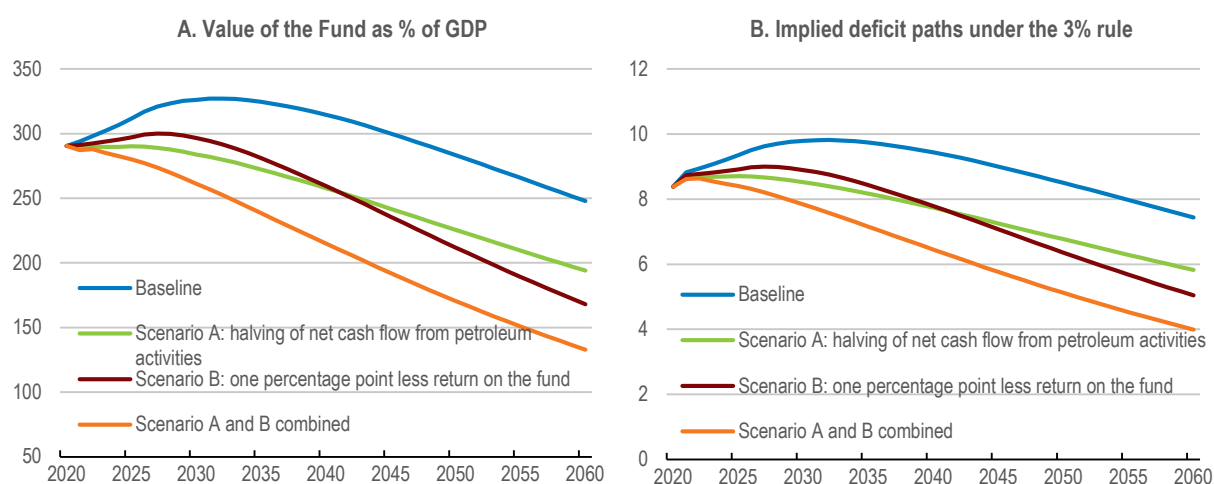


Source: Simulations from OECD Economics Department long-term model.

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The presence of downside risks in the fund's growth rate further underscores the merits of a conservative application of the fiscal rule. Figure 1.15 illustrates paths the wealth fund and deficit could take if net cash inflow from petroleum activities were to halve (for instance due to a push to accelerate decarbonisation) or if the nominal return to the fund were one percentage point lower. In both cases, the near-term leeway for budget-deficit increase is curtailed and trend decline in deficits sets in earlier than in the baseline scenario.

Figure 1.15. Fiscal sustainability: illustrative scenarios



Note: The baseline scenario is from Ministry of Finance estimations. The same nominal GDP growth is assumed in all scenarios.

Source: Calculations based on Ministry of Finance data.

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Special “off-rule” funding arrangements should not be employed

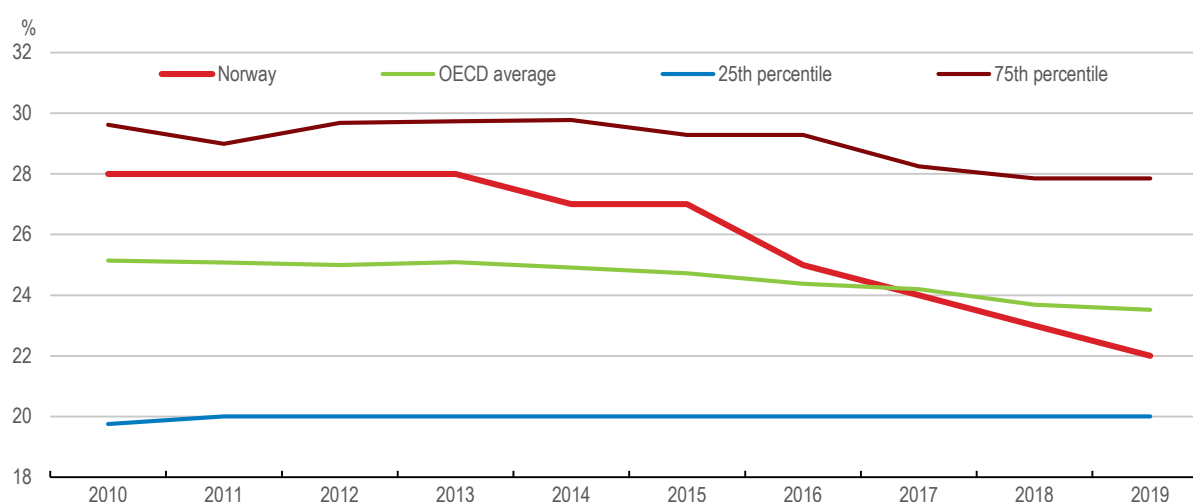
Keeping budgeting within the rules and intentions of the fiscal framework is especially critical in Norway given the size of the wealth fund. Upholding this requires policymakers to resist the temptation to create special channels for public spending that are outside the fiscal rules. Illustrating this issue, in 2019 the government considered funding the rebuilding of government headquarters in Oslo and a new warship through an off-budget expenditure channel funded by public borrowing. In this instance, the scheme was not pursued, which is welcome. Interestingly, the majority of the press were highly critical of the government's proposed funding approach, an encouraging sign that key influencers and the public at large understand the importance of maintaining the integrity of the fiscal system.

Tax reform remains a central pillar of economic policy

Recent tax reform in Norway has been geared, rightly, towards more growth friendly policies, while retaining a high priority on inclusiveness. As in other Nordic countries, taxation is high to fund the comprehensive public services that are integral to the socio-economic model. Redistribution through taxation also helps achieve low levels of inequality. However, there is scope in Norway for tax reform that reduces distortions and lowers burdens in ways that improve the environment for economic growth, without undermining the funding of public services, raising income inequality or compromising the high levels of inclusivity.

The rate of “ordinary tax”, which applies to most forms of income -- including corporate income -- has been reduced from 27% to 22%. For employees this has mostly been offset through increases in the progressive tax that applies to wage earnings, so the cuts principally apply to businesses (Ministry of Finance, 2018b). The reductions mean the corporate tax rate is now below the OECD average (Figure 1.16). A reduction in the net wealth tax may, in principle, also have encouraged investment. Recent OECD work (OECD, 2018a) finds cross-country evidence that wealth-tax reduction brings gains across the income distribution. However, the gains are greater for better-off households, confirming that such wealth-tax reduction generally makes tax systems less progressive. Aside from the question of the overall burden of the tax, there remain wide differences in the valuation of assets. As these distort investment decisions, more uniform valuation should be considered.

Figure 1.16. Norway's statutory corporate tax rate now compares more favourably



Note: Combined statutory corporate tax rate, ie includes surtax and sub-national tax as well as central-government corporate tax rates.
Source: OECD Tax Database.

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Other tax reforms have included increasing the low VAT rate, which applies notably to transport, from 8% to 12%, helping consolidate the VAT tax base (the standard rate of VAT is 25%). An expert committee appointed by the Ministry of Finance has considered how the VAT system could be simplified with fewer rates. In the 2020 Budget, the government stated that it will present its considerations of the proposals from the committee in later budgets. Introduction of a financial activity tax has helped address the lack of VAT on financial services due to challenges in measuring value added in the sector. The tax, introduced in 2017 imposes an extra 5% payroll tax and the rate of corporate income taxation applied to financial-sector enterprises has been left unchanged at 25%.

As regards other areas of taxation, efforts to tackle base erosion and profit shifting (BEPS) continue. Limitations on interest deductibility have been extended (Table 1.3) and amendments to corporate-tax rules have been proposed to widen the definition of tax-residency. On other fronts, a report from a commission on taxation of fish farming was presented in November 2019. Substantial profits in the aquaculture sector in recent years and increasing awareness of negative environmental impacts from aquaculture have raised interest in such a tax, not only in Norway (KPMG, 2019).

Some useful policies that improve sustainability and efficiency of the revenue system have been reversed in the face of political pushback. For instance, the government reduced road tolls in response to popular protests. In addition, ceilings on the property tax rates that municipalities can impose have been lowered. This limits leeway for raising revenues through this channel and potentially reduces tax progressivity. It also adds to the overly favourable tax treatment of home-ownership, which, as underlined in previous *Surveys*, is a prominent weak spot in economic policy. The core problem is that household taxation allows tax relief on mortgage-interest payments without, in parallel, the inclusion of imputed rent in taxable income. This unhelpfully adds to the demand for housing and a contributory factor to high house prices.

Making public spending more efficient

Given the already high tax burden, the narrowing fiscal space due to slower wealth-fund growth implies that value for money in public spending will be increasingly important to support stronger growth and inclusion. Despite mechanisms aiming to ensure sound public spending, more expensive options tend to be chosen and reform to existing systems is often slow. Past *Surveys* have for instance identified scope to improve spending in higher education (OECD, 2016) and agricultural support (OECD, 2016). Cost-benefit analysis is extensively undertaken in transport-infrastructure spending, but has not been given sufficient priority in investment selection decisions (OECD, 2018b). This *Survey* examines the longstanding issues in sick-leave compensation and disability benefits (see Chapter 2).

Policymakers recognise the need for better value for money in public spending, and action has been taken, albeit often skirting around tougher issues. Recent reforms in transport services, policing, higher education and local/regional government will – at least in principle - generate some efficiency gains. In addition, a series of spending reviews using a flexible project-based approach continues (Table 1.4).

Public procurement is also receiving welcome policy attention. Spending amounts to around NOK 500 billion each year (equivalent to around 20% of mainland GDP). As elsewhere, procurement is a complex area. There are an estimated 3 000 contracting agencies and departments in national and sub-national government. Furthermore, procurement is increasingly an instrument in structural policy objectives, for instance regarding social inclusion, green growth and support for small-and-medium enterprises (SMEs), so the policy objectives have become more complex. A simplified procurement regulation was introduced in 2017 and a recent government white paper identifies measures to ensure good implementation, in particular by increasing the capacities and competencies of contracting agencies and departments (Government of Norway, 2018).

Mechanisms embedded in the budget process can be effective in promoting better value for money in public spending. In Norway, these have notably included “efficiency dividends”; small reductions to baseline budget allocations (usually a 0.5% reduction on baseline in budget proposals) to ministries and agencies. The proceeds of the reductions are pooled to fund new policy reforms or high-priority tax or spending measures. The concept is that the allocation reductions prompt public-sector management to exploit headroom for efficiency gains, while also providing fiscal room for new spending measures. In a similar vein, past *Surveys* have suggested introduction of medium-term expenditure frameworks (MTEFs) and/or a cap on aggregate growth in public spending. The authorities have given these detailed consideration but, as yet, have not seen them as suitable. A commonly expressed concern is that in the Norwegian context multi-year spending paths for ministries and agencies or a path for aggregate public spending growth may in practice act as floors, rather than ceilings on expenditure.

Table 1.4. Past recommendations on fiscal policy, public spending and taxation

Recommendations	Action taken since the previous Survey (January 2016)
Public spending	
Restrain government spending and improve public-service efficiency to tackle the narrowing fiscal space. Intensify regular spending reviews. For transport-infrastructure investment, strengthen the influence of cost-benefit analysis in project selection and improve checks against cost inflation after projects are selected.	“Efficiency dividends” continue to feature in budgeting. Spending reviews continue, the latest cover public property construction and property management, support schemes to promote business and administration relating to identity. Mergers of municipalities are nearing completion that will reduce the number of municipalities from 428 to 356 and the number of regions from 19 to 11.
Taxation	
Complete the programme of income-tax cuts, and consider further reductions. Reduce the tax distortions in housing. Either phase out mortgage-interest relief or increase property taxes on housing as a proxy for implicit rental income. Consider further wealth tax reduction given its substantial impact on the returns to saving in the current low-return environment, while paying attention to inequalities.	Reductions in the “ordinary income” tax have continued. This tax, which covers most forms of income, has been reduced further in 2018 to 22%. No progress in reforming tax treatment of housing in personal income tax. Concessional VAT rate (items covered include transport) was raised once again in 2018, the rate is now 12%. This narrows the gap with other rate categories, which are 15% (foodstuffs) and 25% (standard rate). BEPS measures include an extension in 2019 of limitations on interest deductibility that reduce incentives to create intra-group debt to exploit deductibility rules to also cover profit shifting involving third-party debt.

Box 1.6. Quantifying the fiscal impact of structural reforms

The following estimates roughly quantify the fiscal impact of ambitious medium-term reforms and are illustrative.

Table 1.5. Illustrative fiscal impact of recommended reforms

Policy	Scenario	Additional fiscal space, long-run, percentage points of GDP
Reforming sick leave and disability	Halving disability benefit recipients, from 10% of working age population to 5% and halving of sickness absence from around 22 to 11 days per employee per year: <ul style="list-style-type: none"> assumes i) no first-round fiscal gain from sick-leave reform (cost neutrality) ; ii) only half of those leaving disability benefit go into work (the rest are assumed to move into retirement or similar; and, iii) the potential impact of the sick leave reduction is halved because employment among those vulnerable to sick leave is reduced. most of fiscal saving arises from the increase in labour supply boosting tax savings (model-based calculation). 	3.75 pts
Public-spending efficiency improvements	10% productivity gain in the provision of public goods and services: <ul style="list-style-type: none"> implies a direct impact of about 2.8 percentage points of GDP in extra fiscal space. fiscal gains also arise via the implied boost to economy-wide productivity from the increase in public-sector efficiency but these are comparatively small. 	3 pts
Improved education	Half-year additional increase in average years of schooling by 2060 compared to the baseline scenario (equivalent to fully catching up with the best performing country in 2060).	0.5 pts

Note: The calculations of impact are based on a long-run, production-function based model.

Source: OECD calculations.

Box 1.7. Potential impact of structural reforms on per capita GDP

The following estimates roughly quantify the fiscal impact of ambitious medium-term reforms scenarios and are illustrative.

Table 1.6. Illustrative GDP impact of recommended reforms

Policy	Scenario	Long-run Impact on per capita GDP, %
Reforming sick leave and disability Rebalancing taxation	Halving disability benefit recipients from 10% of working age population to 5% and halving of sickness absence from around 22 to 11 days per employee per year <ul style="list-style-type: none"> assumes: i) only half of those leaving disability benefit go into work (the rest are assumed to move into retirement or similar and ii) the potential impact of the sick leave reduction is halved because employment among those vulnerable to sick leave is reduced. the boost to GDP per capita arises from the boost the labour supply (around 2 percentage-point boost to employment-population ratio from sick leave reduction and 2.5 percentage-points for disability-benefit reduction, this is equivalent to around 6% increase the level of employment, hence the substantial impact on GDP). 	7%
Public-spending efficiency improvements	10% productivity gain in the provision of public goods and services <ul style="list-style-type: none"> implies the equivalent of 2.8% boost to economy-wide productivity calculation assumes introduced over 5 years, much of the impact is within this period. 	2.5%
Improved education	Half-year additional increase in average years of schooling by 2060 compared to the baseline scenario (equivalent to fully catching up with the best performing country in 2060)	5%

Notes: The calculations of impact are based on a long-run, production-function based model

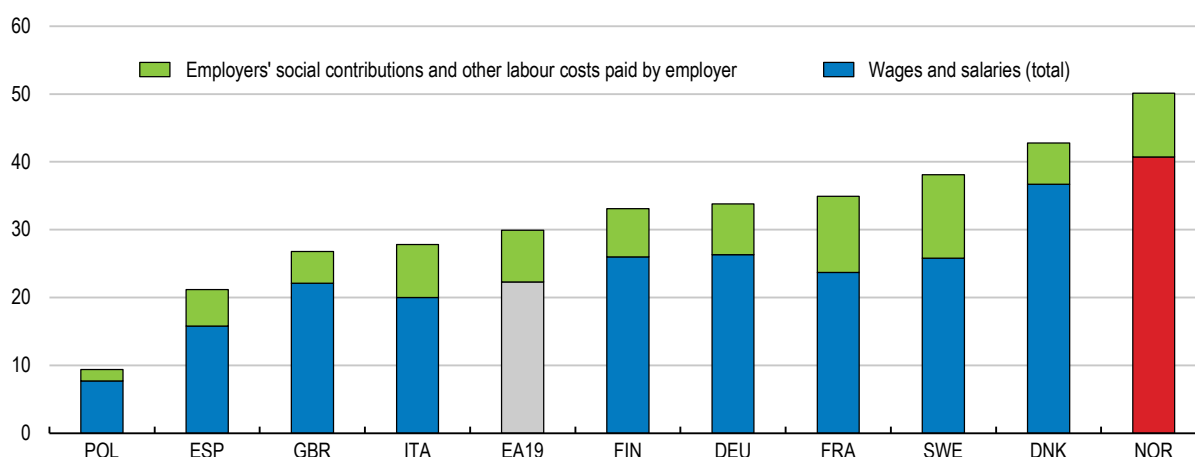
Source: OECD calculations.

Towards higher productivity in the business sector

The Nordic socio-economic model requires a business sector that is economically viable and internationally competitive, in a comparatively high-wage, high-tax environment (Figure 1.11, Figure 1.17). For Norway, this challenge is complicated by the large role of the resource-sector in the economy (Figure 1.18). As well as helping the country benefit from the broad trends in globalisation and technological change, policy must also facilitate evolution away from oil-sector activity as the scope for economically and environmentally viable exploration, development and production of Norwegian-owned fields diminishes. Evolution away from oil sector will most likely be gradual, but as flagged above, it could accelerate if there are rapid developments in decarbonisation (“stranded assets” risk).

Figure 1.17. Norwegian business faces high labour costs

Hourly labour costs, 2018, EUR



Note: Industry, construction and services (except public administration, defence, compulsory social security). A measure that also takes account of productivity differences, such as unit labour costs, would in principle better focus on cost differences. However comparison of aggregate unit labour costs in level terms using national accounts data is problematic, typically only indexed time series are available.

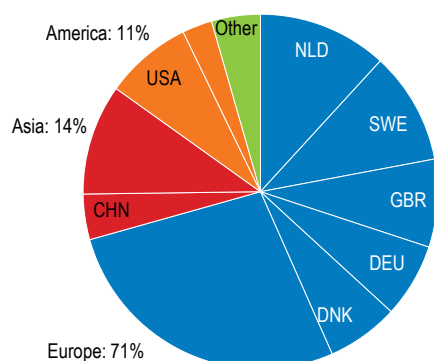
Source: Eurostat.

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Figure 1.18. Around 70% of goods exports are bound for other European countries

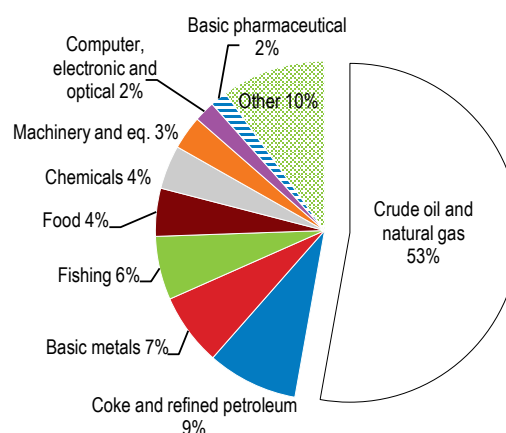
2018

A. Mainland goods exports by destination



Source: Statistics Norway.

B. Goods exports, mainland and offshore



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Norway's regulatory landscape for business is good in most dimensions. Much regulation is derived from EU policy as Norway either adopts regulation voluntarily or is obliged to do so as a member of the European Economic Area. Norway's overall score in the OECD's Product Market Regulation (PMR) index is better than the OECD average and close to the average of the top five countries (Figure 1.19). According to the OECD's *Going Digital* project (OECD, 2018c), digital access is good in Norway for most households and businesses, implying that in this dimension the country is well placed to embrace the next generation of digitalisation. However, broadband access in remote areas is an issue.

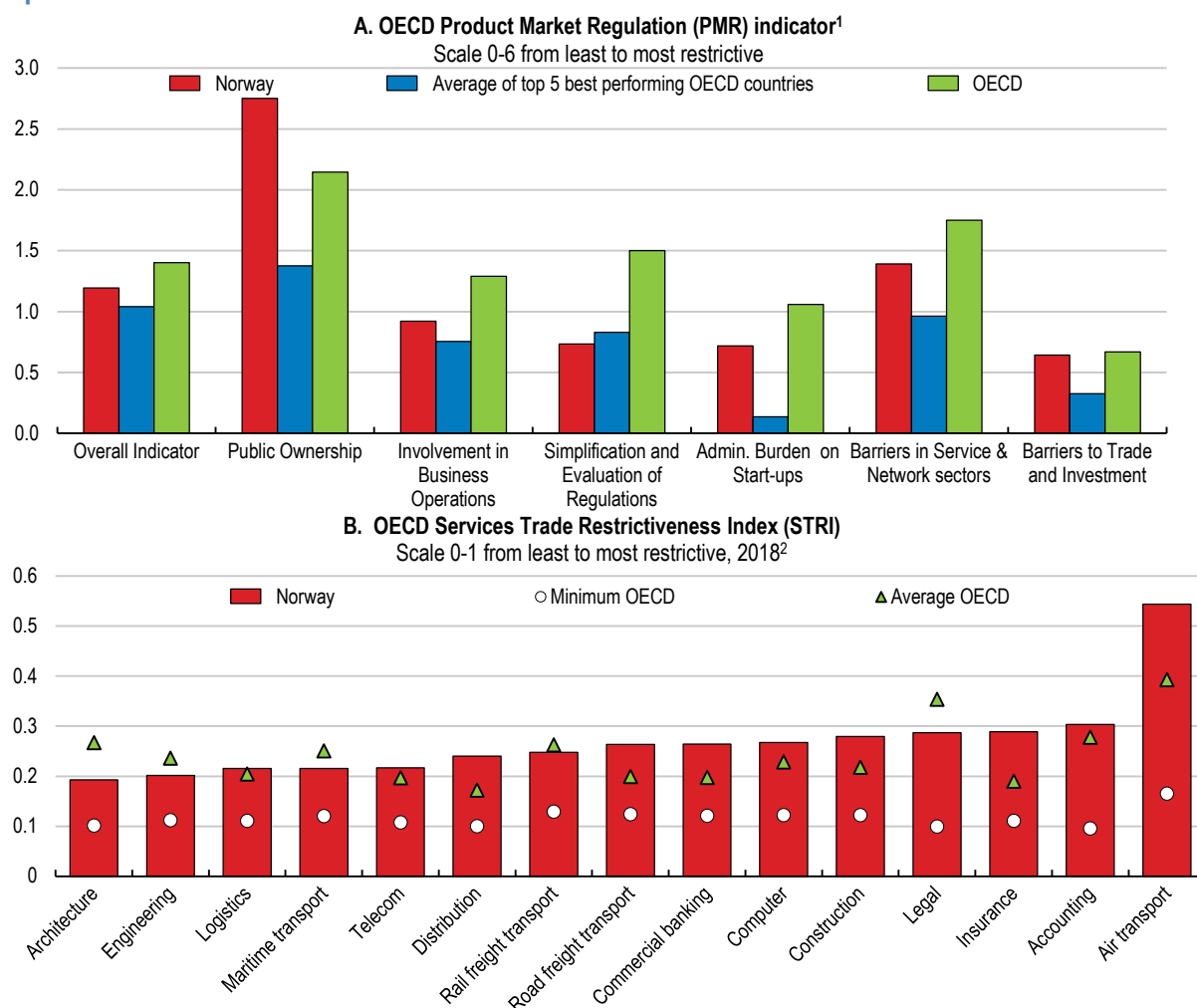
Norway continues to have greater state ownership than is the OECD norm. Indeed, the PMR indicator on public ownership is the only sub component above the OECD average. There are instances of significant ownership outside the network sectors, notably a 67% state stake in the oil and gas conglomerate, Equinor ASA (Ministry of Trade, Industry and Fisheries, 2017). As underscored in the 2018 *Survey*, frameworks for administering state-ownership are in many respects exemplary, aligning with good practice in governance. Nevertheless, the case for continued state ownership should be considered, especially in companies operating in markets that are competitive and are well-functioning in other respects and where evidence of inefficiencies arises.

The creation of new firms, the expansion and contraction of existing ones ("firm dynamics") is an important process for driving competition and aggregate productivity. In general, Norway's policies influencing firm dynamics are in reasonable shape. As in many countries, red-tape burdens for establishing a business are now low—Norway has a score of 0.75 on the 0 to 6 scale of administrative burdens for start-ups in the PMR indicator (Figure 1.19). Nevertheless, Norway's score remains a margin above the lowest scoring countries, suggesting scope for even lower administrative burdens. Business insolvency arrangements need better routes to recovery for business in difficulty. As detailed in the 2018 *Survey*, OECD data capturing the efficiency of insolvency processes indicates room for improvement. Time to discharge (i.e. the number of years a bankrupt person must wait until they are discharged from pre-bankruptcy indebtedness) is relatively long. Also, there are shortfalls in tools for prevention and restructuring. So far, measures have focused on increasing the efficiency of processes.

The OECD's Services Trade Restrictiveness Index, points to marginally worse scores for Norway across a number of services sectors (also echoed in the less than favourable score in Barriers in Service and Network sectors in the PMR index). As discussed in the 2018 *Survey*, state stakes (discussed above) partly account for this, along with some technical items. For instance at least half of company boards must be residents of Norway or the European Economic Area (EEA).

The agriculture sector remains tightly protected and restricted. According to OECD (2019b), Norwegian agricultural producers receive the highest rate of support among OECD countries (61% of farm receipts in 2016-18). As detailed in the 2016 *Survey*, substantial protection remains through numerous import tariffs on raw ingredients and processed food and cash subsidies for farmers. There are around 100 cash support mechanisms, many providing payments directly linked to output or inputs. A welcome phase-out of export subsidies is underway (Table 1.7), but financial support remains substantial. Also, legislation gives farmer-controlled processing and distribution co-operatives (for instance a single co-operative dominates dairy-product distribution) special powers in market regulation. The agricultural sector is exempt from standard competition legislation.

Figure 1.19. Generally good settings in product-market regulation but with some room for improvement



1. These values are based on the methodology 2018 and cannot be compared with previous vintages. The United States and Estonia have not completed the data collection; hence, these two OECD member countries are not included in the PMR database.

2. The index includes regulatory transparency, barriers to competition, other discriminatory measures, restrictions on movement of people and restrictions on foreign entry. The STRI methodology takes into account different market and trade cost structures across sectors to ensure that they reflect the relative restrictiveness of each sector. Nevertheless, the indices may not be perfectly comparable across sectors. The indicators are for 2016 or the most recent year available.

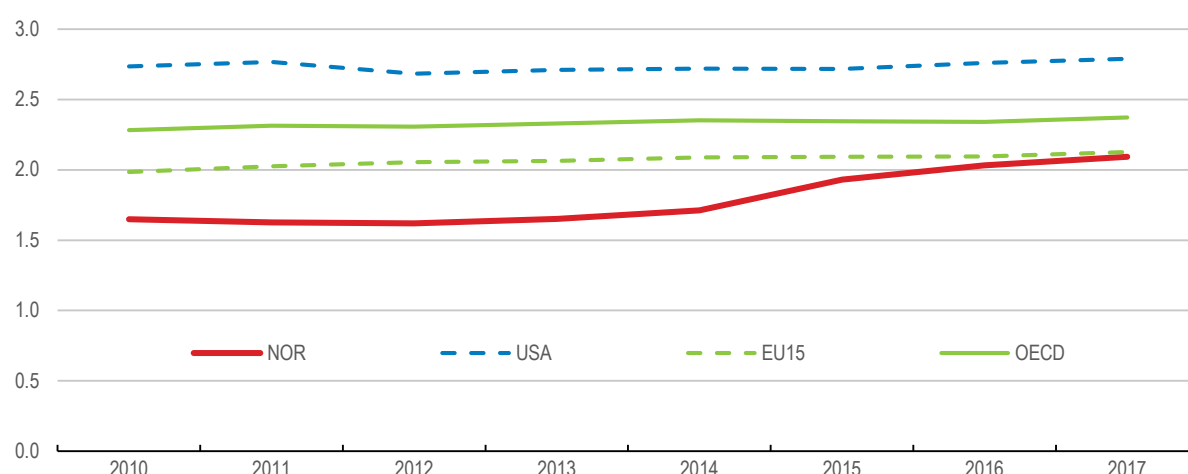
Source: OECD 2018 PMR database; and OECD Services Trade Restrictiveness Index (STRI).

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Much of Norway's technology-driven productivity increase is "imported" from global advances, yet domestic innovation is important, as it strengthens absorptive capacity for global knowledge (see 2018 *Survey*). Norway has long been below par in R&D spending compared with other countries with much of it concentrated in the petroleum sector. However, R&D activity is picking up pace. Since 2014, R&D expenditure as a share of GDP has risen substantially: it now equals the EU-15 average (Figure 1.20). However, this is still some way below other Nordic countries and the United States and some of the upswing may be due to weak GDP growth in the wake of the 2014 oil-price fall.

Figure 1.20. Expenditure on R&D has risen

Gross expenditure in R&D, in percentage of GDP



Source: OECD Main Science and Technology Indicators (database).

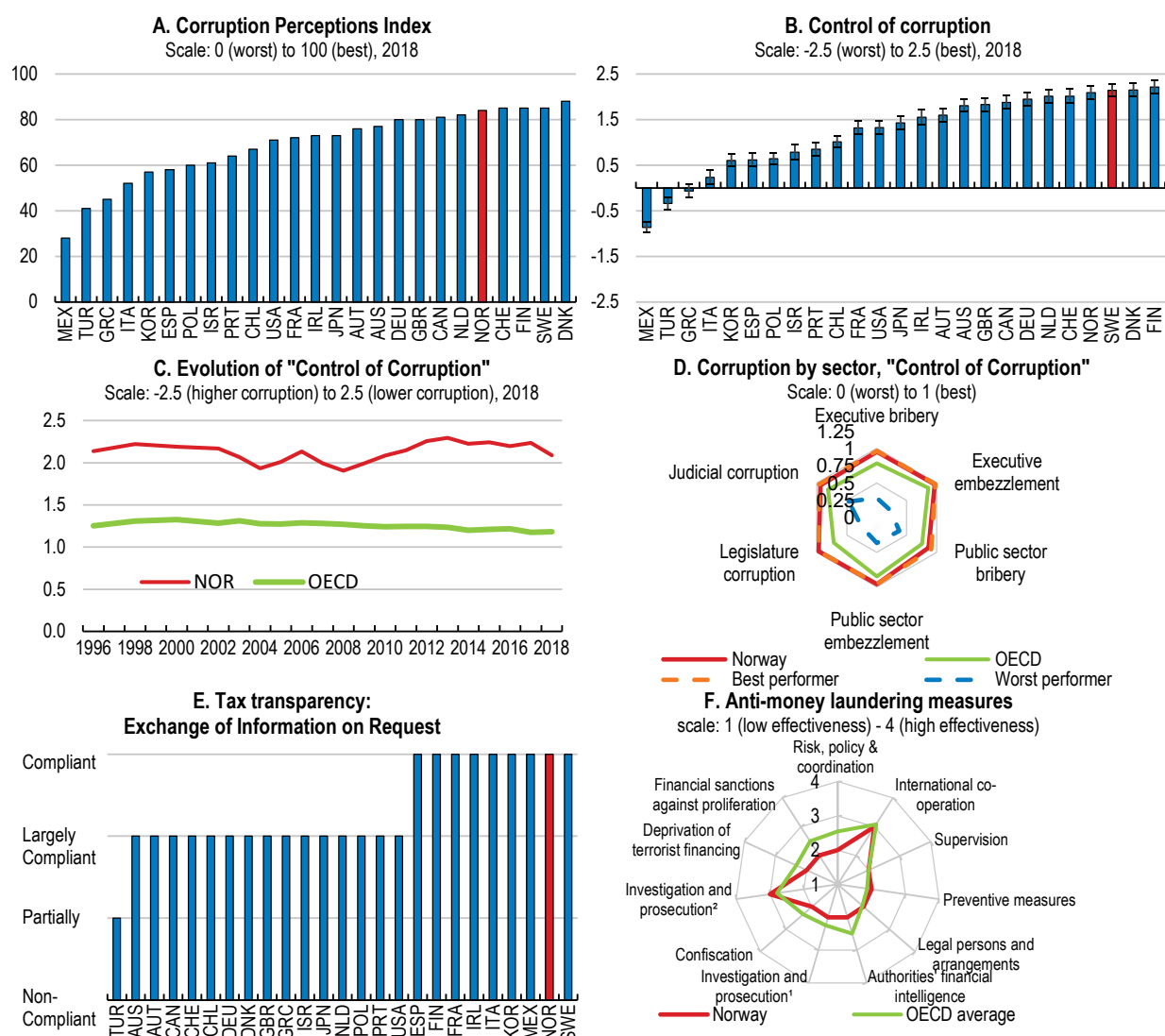
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A tax break on R&D activity (Skattefunn) is a key element of Norway's innovation policy, along with more targeted innovation programmes and support for teaching and research in the higher education system (see 2018 *Survey*). Ensuring impact on R&D activity from tax breaks can be challenging as they are less targeted than subsidies. A recent review of Skattefunn commissioned by the Ministry of Finance (Samfunnsøkonomisk Analyse, 2018) is generally positive about Skattefunn's effectiveness. For instance, it estimates that R&D expenditures increases by more than NOK 2 for every 1 NOK of R&D tax credit. However, the review does suggest various adjustments to the scheme, including a welcome proposal to remove the remaining differences in the tax credit between large and small firms (an issue discussed in the 2018 *Survey*). Following the review, the government has proposed adjustments to the scheme as part of the 2020 Budget, including setting the tax credit to 19 per cent irrespective of firm size.

A very good record on corruption but not without challenges

Norway scores favourably on indicators of domestic corruption. It ranked 6th best in the 2018 edition of Transparency International's Corruption Perceptions Index, and scores well in the World Economic Forum's Executive Opinion Survey (Figure 1.21). However, Norway is not without corruption risk. According to an annual survey (the Norwegian Crime and Security Survey, KRISINO), around 10% of respondents state they are aware of corruption within their industry over the course of the previous 12 months. Interestingly, the recent threat risk assessment by the National Authority for Investigation and Prosecution of Economic and Environmental Crime (ØKOKRIM, 2018) flags the corruption risk in local administrations, particularly as regards procurement and planning permissions.

Figure 1.21. Corruption is well controlled and viewed as very low compared with other countries



Note: Panel B shows the point estimate and the margin of error. Panel D shows sector-based subcomponents of the "Control of Corruption" indicator by the Varieties of Democracy Project. Panel E summarises the overall assessment on the exchange of information in practice from peer reviews by the Global Forum on Transparency and Exchange of Information for Tax Purposes. Peer reviews assess member jurisdictions' ability to ensure the transparency of their legal entities and arrangements and to co operate with other tax administrations in accordance with the internationally agreed standard. Panel F shows ratings from the FATF peer reviews (the latest update for Norway was in 2019) of each member to assess levels of implementation of the FATF Recommendations. The ratings reflect the extent to which a country's measures are effective against 11 immediate outcomes.

Source: Panel A: Transparency International; Panels B & C: World Bank, *Worldwide Governance Indicators*; Panel D: *Varieties of Democracy Institute*; University of Gothenburg; and University of Notre Dame; Panels E & F: OECD Secretariat's own calculation based on the materials from the Global Forum on Transparency and Exchange of Information for Tax Purposes; and OECD, Financial Action Task Force (FATF).

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Norway has an export-oriented economy, with companies operating in corruption-exposed jurisdictions and sectors, such as oil and gas, shipping, and telecommunications. Media focus on corruption, as well as recent foreign-bribery enforcement actions by ØKOKRIM have reportedly deterred corruption and encouraged companies to develop anti-corruption compliance programs. The Working Group on Bribery's latest evaluation of Norway's progress in implementing the OECD Anti-Bribery Convention (OECD, 2018d)

underscores several areas of good practice: proactive pursuit of foreign bribery investigations, ØKOKRIM's integrated approach to law enforcement, a robust framework for whistle-blower protection and corruption-risk management in official development assistance. However, the report finds scope for greater clarity regarding corporate liability for offences committed within the operations of related entities (e.g. subsidiaries or joint ventures) and calls for more transparency when foreign bribery matters are resolved out of court. Shortfalls in clarity hinder the business community's understanding of the law and may dissuade prosecution. The report also concludes the new Penal Code's jurisdictional provisions could unduly limit Norway's ability to prosecute foreign bribery committed abroad. As regards anti-money laundering measures, Financial Action Task Force (FATF) follow-up reports have pointed to improvement, however indicators continue to suggest Norway is below par on some fronts (Figure 1.21, Panel F).

Table 1.7. Past recommendations on improving business conditions

Recommendations	Action taken since the previous Survey (January 2018)
Improve framework conditions for business activity	
Address innovation and technology issues, including through: promotion of entrepreneurial skills and STEM skills encouraging Technology Transfer Offices in universities stronger evaluations of business-support programmes (notably innovation and R&D schemes).	
Strengthen routes to recovery in the insolvency regime for businesses in difficulty including though lighter penalties for failed entrepreneurs, better prevention and streaming mechanisms and more restructuring tools.	Efficiency improvements are underway through further digitalisation of process, instruments to rapidly freeze assets and collect information from banks, automated process using public registries.
Improve transport services by more focus on selecting the most profitable projects.	No major reform since reforms in 2016-17 that included establishment of a new road and rail infrastructure companies.
Ensure strong market competition	
Adjust competition legislation and enforcement, including through increasing the competition authority's regulatory power. Strengthen competition in network industries (especially postal and rail services). Reduce barriers to entry in the retail sector. Replace the taxi-licensing system with less restrictive regulation to address availability and consumer protection.	No major reform of competition legislation. No major recent initiative in network industries. Major reform in the rail sector continues. Taxi licensing is due to change in July 2020 following legislative changes. Notable changes include: <ul style="list-style-type: none"> No upper limit on the number amount of licenses that can be issued. Everyone satisfying certain criteria can apply for licences. However, exceptionally county authorities may issue exclusive rights to drive taxis in municipalities with less than 20 000 inhabitants and a population density of less than 80 inhabitants per square kilometre (these criteria apply to of 384 out of 422 municipalities). Taxis are no longer obliged to be connected to a taxi central. Lighter criteria for getting a taxi licence but more criteria for driving a taxi (e.g. a test in first aid).
Regarding state stakes in business: reduce the scope and size of stakes improve state-owned activities governance.	
Reduce state aid and subsidies	
Reduce support for agriculture, including through: reduced import tariffs and direct subsidies to farmers removal of legislative biases that favour agriculture encouraging diversification of economic activity in rural areas by improving general framework conditions.	Phase out export subsidies for agricultural products is due by 2020 under WTO-regulations.

Employment levels need strengthening

Norway's labour market achieves high levels of employment and wage income and good job quality. High employment among women and comparatively narrow gender wage gaps are key factors in low income inequality across households that has high priority in the Nordic socio-economic model. The system of collective bargaining based on coordinated annual wage increases works well, providing top-level guidance on wage increases that is anchored in macroeconomic realities. Evidence suggests the resulting

wage compression does not undermine the ability of high-performing firms to attract workers (Hijzen et al., forthcoming). However, policy approaches in some other areas prompt many in older cohorts to either take up pensions early, or effectively retire early through sickness and disability benefit. In addition, Norway's record on employment among young and middle-aged cohorts has been slipping. Labour-force participation has trended down and is no longer among the top-ranking countries. This flagging employment performance is taking the edge off Norway's good record on inclusiveness and raises concern for future economic growth as the population ages.

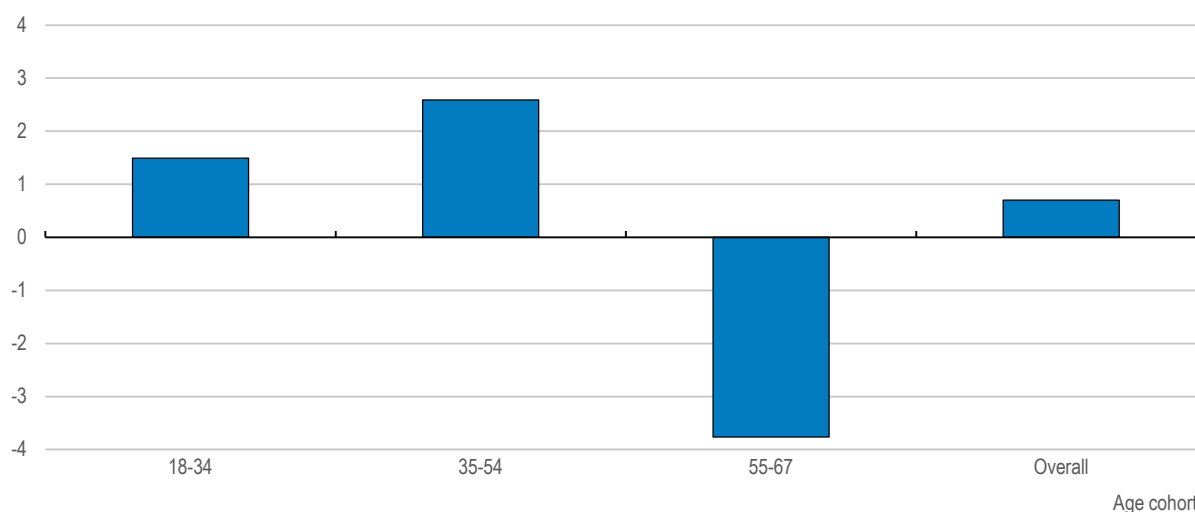
Need to reverse this deteriorating employment performance has been recognized by policymakers. In 2018, the government appointed a commission to conduct an investigation of employment levels and related policies (the Employment Commission). An initial report was released in March 2019 with recommendations that aim for a more work-oriented social security system, improved health-related benefits and stronger demand for workers from vulnerable groups. A follow-up report will be released in June 2020. This review process provides a welcome opportunity for substantive reform.

Sick-leave compensation and disability: major reform is required

Norway's system of sick-leave compensation and disability benefits has long been a significant route to early retirement among older cohorts, compromising labour supply and economic inclusiveness. While there has been welcome progress in reducing the number of claimants (Figure 1.22), nearly one quarter of 55 to 67 year-olds are on the permanent disability benefit. Furthermore, increasing numbers of young and middle-age people are receiving permanent disability benefits (Figure 1.22), (Chapter 2). Among these cohorts, a significant proportion of claims for disability benefit are based on mental health issues. On the other hand, partly due to reforms, the number of people receiving the temporary benefit for those with disabilities, the Work Assessment Allowance (AAP), has declined substantially. The government has proposed changes in the AAP for young people to encourage labour force participation (Ministry of Finance, 2019). The problems in the sick leave and disability system are also relevant for Norway's challenges in public expenditure because much of the compensation is publicly funded. In addition, the substantial numbers retiring via health related benefits undermines the efforts of pension reforms to encourage people to work longer as life expectancy increases.

Figure 1.22. Disability benefit rates are falling in pre-retirement cohorts, but rising for younger people

Change between 2010 and 2019 in the share of recipients of Disability Benefit in the population, percentage point



Source: Norwegian Labour and Welfare Administration (NAV).

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A major reform effort is required. Changes to the system have endeavoured make it better facilitate and encourage return to work. There has been a degree of success, but there is need for much more. Little progress has been made on reducing sick leave via a series of agreements struck between the government, employers and unions (the Inclusive Working Life (IA) Agreements). In particular, the sick-leave system has seen no substantial change to the financial incentives for workers and employers. Employees continue to receive full salary throughout the duration leave (which can extend up to one year). Employers are only involved in compensating the first two weeks of sick leave, which limits incentives take preventative measures or facilitate return to work (though some make top-up payments, which implies some longer term incentive). Other countries, such as the Netherlands, Sweden and Switzerland, have demonstrated that reforms incorporating a toughening of incentives are achievable and have shown some successes in reducing sick leave absence and disability-benefit reciprocity impact (Chapter 2 and Hemmings and Prinz, 2019).

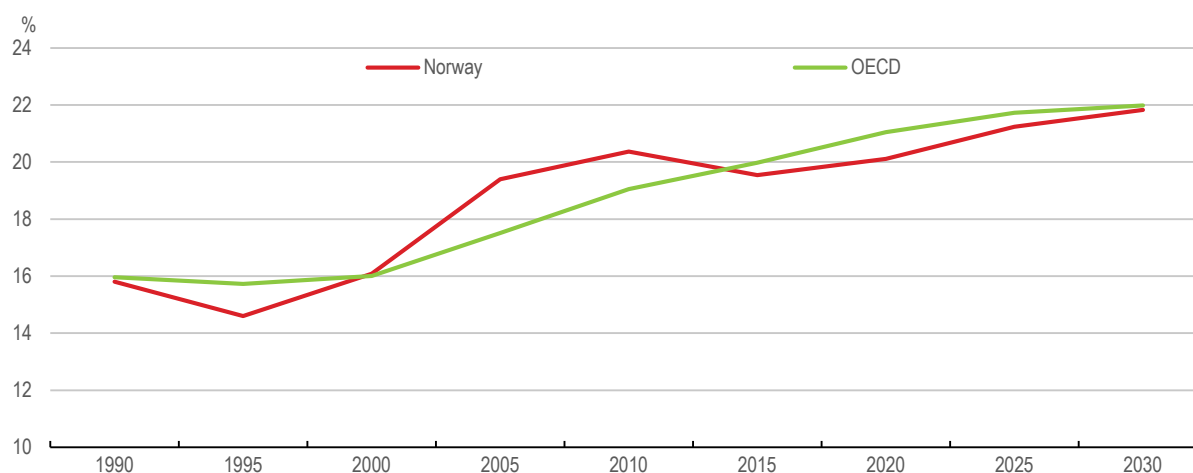
The on-going Employment Commission provides an opportunity for major reform. The initial report puts welcome emphasis on reducing the generosity of benefits and extending employer contributions in sick-leave compensation, which have also been key recommendations in past OECD assessment (for instance, OECD, 2018b). Such reform is necessary but unlikely to be sufficient. In particular, a focus on those sectors with comparatively high sick leave is needed, particularly in the public sector where government can have more influence on management incentives to address sick leave. In disability benefit there is a case for strengthening treatment and rehabilitation requirements. Eligibility rules in general could be applied more strictly. For both sick leave and disability benefit, medical assessment remains predominately carried out by the claimant's own practitioner. The absence of other medical opinion implies only weak checks against instances where claimants favour remaining on benefit as long as possible. Also, additional steps to address mental illness will be required. Past in-depth OECD assessment has recommended that more preventative mental health services are provided by the Employment Support Services of the NAV, and that these are well integrated with other supports needed to overcome employment barriers (OECD, 2013).

Old-age pensions and the age of retirement: sound public-sector pension reform but issues remain

Population ageing has brought increasing numbers heading for retirement. For instance, those aged 55 to 64, a critical time for retirement decisions, currently represent around one fifth of the working age population (Figure 1.23). Ensuring decisions on what age to retire are well informed and that financial incentives embedded in pensions systems are not biasing decisions is all the more important.

Figure 1.23. Numbers heading for retirement continue to increase

Share of 55-64 year-olds in the population aged 20-64



Source: Calculations based on United Nations/DESA (2019), World Population Prospects 2019.

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Biases favouring early retirement and inflexibilities in retirement-age rules have been a core concern of Norway's old-age pension system; they have a bearing on employment levels, and the economic impacts of population ageing. Public-sector pension reform was agreed on in 2018 (similar to one finalized in 2011 for the private sector), representing the final major step towards a more actuarially neutral pension system. Under this new system, individuals with an occupational pension can retire from age 62 up to 75 years with pension payouts adjusted on an actuarial basis, including adjustment over time as life expectancy increases (the age-range for retirement will remain fixed). A guaranteed basic pension from age 67 years remains in place. The new system thus brings a flexible approach to retirement, without strong financial biases on the choice of retirement age.

Although the reform marks substantial improvement, challenges remain:

- Implicit regressivity, risk of poverty in old age among low-earners who retire early, and risk of substantial differences in pension incomes arise from the wide range of possible retirement-age and because high-earners are concentrated in occupations where working longer is feasible and have higher life expectancy. Increasing the age-dimensions of the pension system, such as the retirement-age range, to reflect increases in life expectancy would help; limiting the risk of poverty in old age and more generally ensuring the system remains in step with increasing health and longevity. In 2018, unions and employers agreed on a scheme that tops-up the incomes of low-earners taking early retirement to address this issue. Though a small scheme, it brings back bias towards early retirement.
- Co-ordination with other benefits. In particular, pension payout arrangements for those on disability benefits contribute to making early retirement via health-related benefits financially more attractive than via the pension system. This financial incentive could be eroded by putting on hold a scheme that compensates disability-benefit retirees for about half of the effect of life-expectancy adjustment (the case for compensation arises because, unlike other retirees, those transitioning from disability benefit to pension, have no option to compensate for life-expectancy adjustment by retiring later).
- Little progress on reforming the job-specific mandatory retirement-age arrangements that apply to groups such as police, national defence and nurses. These arrangements originate, at least in part,

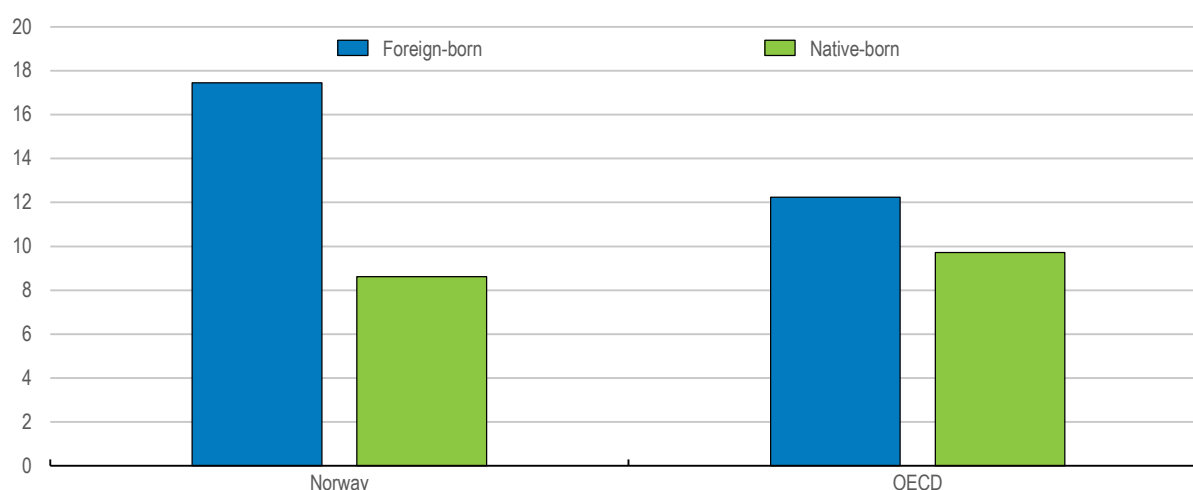
because of heavy physical demands. Norway has yet to reform these arrangements in light of these professions now having fewer roles where physical capacity is an issue. Across-the-board statutory retirement ages still apply, for instance.

Raising the labour-market integration of immigrants

Norway has long been a net immigration country and this process has intensified over the last two decades, notably after enlargement of the common European labour market in 2007. In addition, refugee intakes rose sharply in 2015 with the humanitarian refugee crisis that saw large number of migrants arriving in Europe, many with low skills as regards European labour markets. This poses challenges for labour-market integration, especially as Norway's market for low-skill jobs is limited due to comparatively high wages. An absence of Norwegian language skills among many new arrivals compounds the barriers to accessing the labour market. The consequences of these disadvantages are seen in the data. Employment rates among immigrants – especially those from outside Europe – are significantly lower than those of natives, and unemployment rates higher (Figure 1.24). Moreover, those with jobs tend to be in lower quality firms and are more prone to lay-offs. The chances of finding a new employment following job loss are lower. Over time, many end up out of the workforce and reliant on social benefits (Bratsberg et al., 2018).

Figure 1.24. The unemployment rate of low-education immigrants is high

Unemployment rates of 15-64-year-olds having less than primary and lower secondary education level, % of labour force, 2017



Source: OECD (2018), Indicators of Immigrant Integration 2018: Settling In.

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Considerable policy effort has gone into immigrant integration in Norway, at both the state and local-government level. In particular, language and culture courses, run by municipal governments and funded by central government, are mandatory for some groups of immigrants. However, immigrant integration is a policy area where comprehensive success in outcomes is difficult to achieve, even if considerable resources are devoted to it (Nordic Council of Ministers, 2019). In 2018, the government launched a new integration strategy for 2019-2022, "Integration through education and competence". It aims to accelerate labour-market integration through occupational training for trades with strong labour demand and through more attention to Norwegian language skills. A new immigrant integration law aiming to strengthen labour-force attachment is currently progressing through parliament.

Current policy focuses on skills and employment in the first two years following arrival in Norway, which is welcome and necessary, but attention to the longer-term is also required. The framework for integration needs to align financial incentives (for immigrants, employers and with respect to social benefits), education and training, and societal integration for the whole immigrant family so that employment is sustained for the longer term. Chapter 2 recommends expanding subsidised apprenticeship-type programs for immigrants to ensure work experience leads to qualification.

Improving education and skills

Improving education and training is part of the solution to slow productivity growth and to tapping into the opportunities from digitalization. Strengthening skills among those vulnerable to intermittent, low-wage employment, or complete disengagement from employment is important for reversing Norway's weakening employment levels. Furthermore, as education absorbs a substantial share of public spending, ensuring a better correspondence between inputs and outcomes is important for government efficiency.

Norway's education system provides substantial support and encouragement for learning. Participation and educational attainment are high. Norway has close-to universal enrolment of 3-year olds in early childhood education and care (ECEC), and students are strongly encouraged to pursue post-secondary education, whether degree-level or otherwise. For most tertiary-education courses, Norway remains among the few countries where students are not generally charged tuition fees and receive financial support for living expenses. Moreover, participation in adult learning courses is high, including among those with low education and skills. Skills to harness digitalization are in reasonable shape. The OECD's PIACC data show strong proficiency in technology rich environments, uptake of government digital services is high and firm-based training is common (OECD, 2018b).

Despite education spending that is among the highest in the OECD, the emphasis on employment and need for high-value-adding jobs to support high wages, there are sizeable weaknesses in Norway's educational outcomes. As underscored in Chapter 2, Norway remains around the OECD average in the PISA tests of student skills, while PIACC tests of adult skills are above the OECD average but lag behind top performers. Although most students begin post-secondary education, a large proportion do not complete their courses, typically those in Vocational education and training (VET). Meanwhile, many students in higher education do not graduate until their mid-to-late 20s; only around 65% of degree-level courses are completed within 5 years (2016 Survey). Thus, new graduates typically start on career paths at an older age compared with other countries, which could imply somewhat reduced lifetime earnings and less high-skill capacity in the workforce overall.

Reform efforts currently underway in primary and secondary education aim to improve in-depth learning, the quality of teaching and to bring more systematic curriculum renewal to ensure the relevance of skills learned. These policy measures should help equip students with the flexible skills that are important for today's labour markets. Norway was among the first countries to see a decline in boys' academic performance in primary and secondary education relative to girls. This will likely have negative consequences for boys' later success in the labour market. Research has yet to identify with certainty the reasons for this development, but it is very likely the solution partly lies in changing teaching methods and better early intervention for underperforming students.

VET is key for providing job-relevant skills to those vulnerable to low-wage, intermittent employment. Shortages in apprenticeship places are one reason for the high dropout from courses. In Norway, apprentice pay is set through wage bargaining, and includes a substantial, and largely unconditional, pay increase from the first to the second year of apprenticeship (Chapter 2). Subsidies to employers that offer apprenticeships are quite generous, but government could link part of the subsidy to successful completion of courses by apprentices.

In tertiary education, motivation for timely and successful completion of studies should be strengthened. There is little appetite to introduce tuition fees in Norway. However, living-expenses support could be altered further to incentivise course completion. Policy could also increase providers' incentives by, for example, putting greater weight on graduation rates into the formulas that determine public funding of higher education. As more and more students with varying performance in prior learning enter higher education, the higher education institutions should strengthen student support services, including the monitoring of student progress and early intervention for struggling students.

Table 1.8. Past recommendations on human capital, jobs and welfare

Recommendations	Action taken since the previous Survey (January 2018)
Improve education	
<p>In primary and secondary education reform, consider:</p> <ul style="list-style-type: none"> • reduction in the number of schools • making more data on school performance publically available • reform of the teaching profession including: stricter selection and graduation criteria, more training, better structured career paths and wider use of performance-related pay. 	<p>Roll out of a programme to improve the status and quality of teachers continues. This includes increased support for teachers' continued education and the introduction of 5-year master's-level degree for new entrants to the profession.</p> <p>Curriculum overhaul is underway in primary and secondary schooling. The reform, inter alia, aims to clarify values, expectations and school responsibilities, and facilitate in-depth learning.</p> <p>School-management reform is underway. A white paper, sanctioned by parliament, includes recommendations for a system of in-service teacher training, stronger support for underperforming schools and enhanced early intervention for pupils.</p>
In vocational education raise the number of apprenticeship places.	No major reform, however there are continuous efforts among social partners to increase the number of apprenticeship places.
<p>In higher education:</p> <ul style="list-style-type: none"> • continue to promote mergers among providers • include the graduation rates in the formula for performance-based provider funding • incentivise students to complete courses on time • steer student choices, for instance, via loan discounts for subjects with high demand. 	<p>Most of the intended mergers in higher education have been completed.</p> <p>A performance-agreement process continues: agreements were made in five institutions in 2017, a further five in 2018 and agreements in remaining institutions are due to be struck in 2019.</p> <p>Policy efforts to improve the quality of higher education teaching have intensified with publication of a white paper in early 2017.</p> <p>A skills campaign is underway, including launch of the Strategy for Skills Policy 2017-21 in early 2017, which has widespread support from ministries and stakeholders.</p>
Encourage labour-market participation	
Reduce sick leave and tighten disability schemes including through an extension of employer-funded sick leave, less generous sick-leave pay out and reform of medical assessment.	<p>Sickness leave: a new Inclusiveness Agreement covering 2019-2022 was struck in December 2018.</p> <p>Work Assessment Allowance (AAP): Changes implemented from January 2018 aimed to increase the transition back to work. Measures included shortening of the maximum period of receiving the benefit from four to three years and closer follow-up of recipients, shortening of the maximum duration on extension beyond the standard duration (two years) and stricter rules on extension beyond the standard duration. Changes to the Allowance for young people have been proposed in the 2020 Budget with a view to encouraging labour participation.</p> <p>Disability Benefit: no further reform since the major changes of 2015.</p> <p>The Employment Commission currently underway focuses sick leave compensation and disability benefit.</p>
Remove biases favouring early retirement the old-age pension system.	Agreement for major public-sector pension reform was reached in 2018, the reform echoes past reform to private-sector pensions.

Norway should build on its relatively good policies for environmental sustainability

Norway's economy is less CO₂ intensive than the OECD average, thanks to lower energy intensity and substantial renewable energy supply from hydroelectric power (Figure 1.25, panels A to C). Also, it has made some progress in demand-based CO₂ intensity and energy efficiency. However, it has made little progress in production-based emission intensity. An agreement in co-operation with the EU is being developed on how to meet Paris Agreement commitment for 2030. In addition, Norway has a climate-neutral goal for 2030 and a low-emission goal for 2050 (Box 1.8).

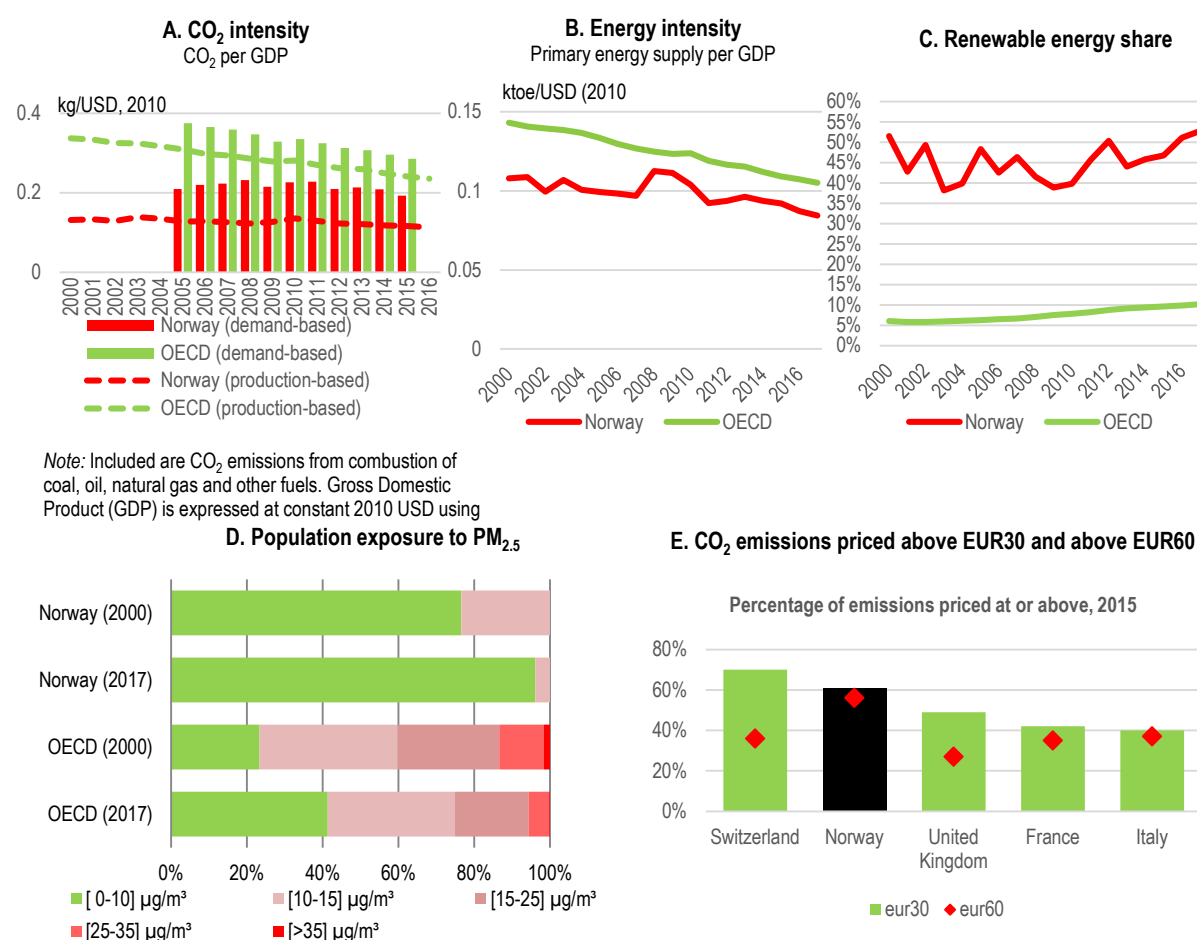
With comparatively high marginal costs of domestic greenhouse gas (GHG) reduction, it makes economic sense for Norway to contribute to emission reduction through the purchase of foreign emission credits. However, commitment to domestic GHG reduction is also required.

Box 1.8. Norway's greenhouse gas emission reduction targets

Norway's key commitments on climate change policy comprise:

- A conditional target of at least 40% GHG reduction from the 1990 level by 2030 under its nationally determined contribution (NDC) to the Paris Agreement; this is the same target as the European Union (EU). Norway will cooperate with the EU on fulfilling the commitment and already participates in the Emission Trading Scheme (EU-ETS). With an agreement, Norway will for the period 2021 to 2030, participate in the EU's Effort Sharing Regulation and the regulation on land use and forestry (LULUCF).
- "Climate neutrality" from 2030 was adopted in 2016 by the Norwegian parliament. Specifically, this implies that from 2030, Norwegian GHG emissions must be offset by climate action in other countries through Norway's engagement with the EU-ETS and through international cooperation on emission reduction, emission trading and project-based cooperation.
- "Low-emission society" by 2050, with provisions embodied in the Climate Change Act. The Act describes a low-emission society as one where, on the basis of scientific knowledge, global emission trends and national circumstances, GHG emission are reduced by 80% to 95% from 1990 levels. The effect of Norway's participation in the EU-ETS will be taken into account in assessing progress towards this target (Ministry for Climate and Environment, 2017).

Figure 1.25. Green growth indicators for Norway



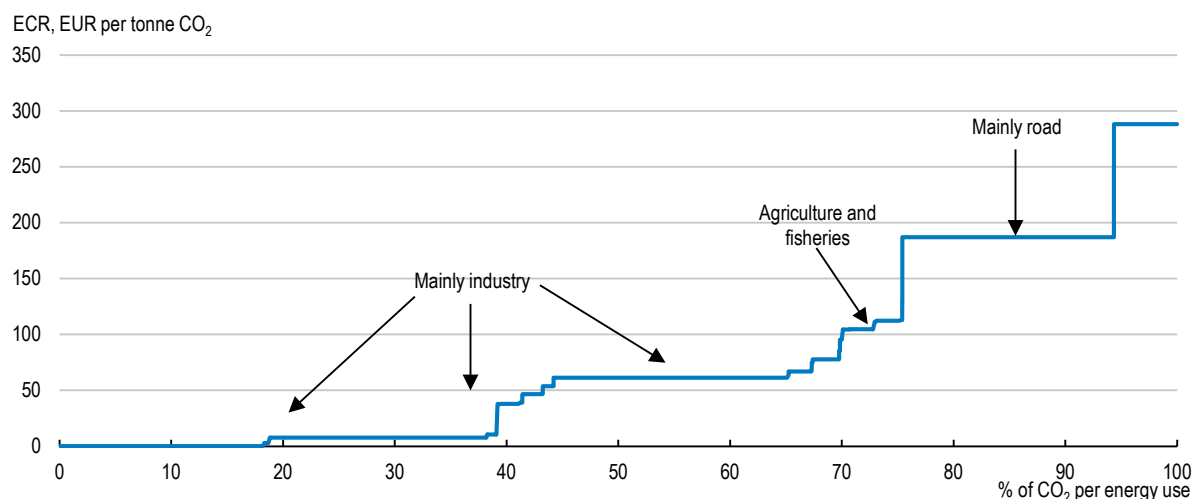
Source: OECD Green Growth Indicators database; OECD Environment Statistics database; OECD National Accounts database; IEA World Energy Statistics and Balances database; OECD Exposure to air pollution database; and OECD Effective Carbon Rates database.

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Norway has a stronger track record in pricing greenhouse-gas emissions than most OECD countries (Panel E), but there is room for improvement. Most emissions are priced above EUR 60 (EUR 60 is a mid-range estimate of the climate cost of CO₂ emissions in 2020). However, as previous *Surveys* have underscored, emission pricing and taxation could be more even (an issue faced by many countries). For instance, around 20% of emissions are not priced by tax or by ETS, notably emissions of methane and nitrous oxides in agriculture and emissions of methane and CO₂ from waste management (Ministry for Climate and Environment, 2017). Overall, as shown in Figure 1.26, carbon prices vary considerably. Proposals in the 2020 Budget make progress on carbon taxation, including an increase in the rate of tax and abolition of exemptions and concessions (see Table 1.9, below).

Figure 1.26. Effective carbon rates (ECR)

Proportion of CO₂ emissions from energy use subject to different levels of effective carbon rates in Norway in 2015



Note. The effective carbon rate in Norway consists of permit prices from the EU ETS, explicit carbon taxes on fossil fuels and specific taxes on energy. The figure includes emissions from the combustion of biomass in the emission base, and a substantial share of unpriced emissions in Norway are from the combustion of biomass. Some specific taxes on energy are targeted at other external costs than CO₂ emissions, like congestion, noise, accidents and local air pollution from the use of vehicles, explaining the higher taxes on motor fuels (to the right).

Source: OECD Center for Tax Policy and Administrations.

StatLink  <https://doi.org/10.1787/888934071878>

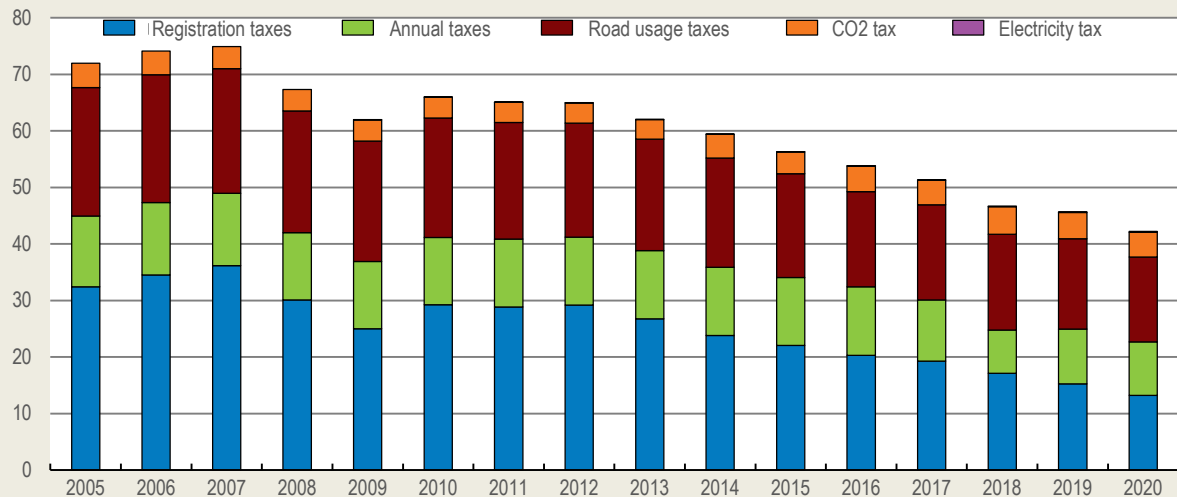
Much of Norway's non-ETS emission reduction (non-ETS emissions are about half of total emissions) must come from transport, nearly 60% of domestic non-ETS are from this sector, mostly road transport (Ministry for Climate and Environment, 2017). This should be achieved in a cost-efficient way. Norway intends to reduce emissions partly by curbing car use in urban areas, increasing the obligatory biofuel quota and quantitative targets for zero-emission vehicles. Norway has long been encouraging zero-emission vehicles (Box 1.9). In addition to further development of public transport, innovative new approaches to transport should be considered. One option is massed ride sharing, in which most individual private car rides are replaced by rides in shared taxis or shared minibuses and facilitated by digital platforms. Modelling of such a system for Dublin shows promising results in terms of CO₂ emissions, congestion, electrification costs and public transport costs (ITF, 2018). Furthermore, ride sharing intensifies car use, which means the comparatively high purchase prices of electric vehicles is more strongly offset by the gains from low-marginal running cost (ITF, 2016). Policy actions to achieve massed ride sharing could include support for digital platforms, adaptations to metropolitan infrastructure, for example access routes for shared rides to rail stations, alongside demand-side measures to encourage and/or enforce shared rides replace individual car rides.

Box 1.9. Norway's experience with electric vehicle incentives

Policy lessons and challenges continue to emerge from Norway's wide-ranging electric-vehicle incentives. The incentives include exemptions from value-added tax and vehicle registration tax, along with cheaper access to toll roads and parking. Certainly, outcomes appear impressive. Norway has the highest number of electric vehicles per-capita in the world. As of September 2019, 45% of new passenger cars purchased were electric. However, the cost of CO₂ abatement implied by the incentives is very high. Bjertnæs (2016), for instance, estimates an abatement cost of NOK 5 000 (i.e. around EUR 500) per tonne based on the differences in taxation and emissions between an electric car and a fossil fuel car. Also, these policies have contributed to a sizeable revenue decline from car-related excise duties, from NOK 75 billion in 2007 to an estimated NOK 46 billion in 2019. This equates to an average revenue loss of about 0.1 percentage-points of mainland GDP each year. Losses of a similar magnitude will probably continue in the coming years. Norway's electric-vehicle policy experience illustrates the need to revise electric-vehicle support as adoption scales up, especially support that potentially worsens congestion and compromises other forms of transport. Provisions allowing free use of bus lanes have already been scaled back, for instance. Electrification of vehicles strengthens the case for moving towards distance, location and time-contingent road pricing, as this could help reframe vehicle taxation around congestion and related externalities. As elsewhere, there is a potentially compromising social dimension to electric-vehicle incentives; the comparatively high vehicle purchase price means the tax breaks and other benefits principally go to better-off households. Indeed, in Norway the advantages for electric-vehicle owners may have contributed to the popular protests around road tolls.

Figure 1.27. Revenue from car related taxation is declining

Vehicle-related tax revenue, billions NOK



Note: Adjusted for inflation, estimated 2020 NOK values.

Source: Ministry of Finance.

StatLink  <https://doi.org/10.1787/888934071897>

Climate change and other environmental considerations are increasingly a factor in debate on licencing new offshore fields for oil and gas development. For instance, shifts in stance from the political parties mean it is now very unlikely oil exploration will be permitted off the Lofoten islands in northern Norway.

Norway has also recognised the need to halt biodiversity loss. Norway's large remote areas and extensive coastline present particular challenges in monitoring and tackling biodiversity loss. The 2009 Nature Diversity Act consolidated a new and innovative framework. However, aquaculture, land use planning and built-up coastal areas pose implementation challenges (OECD, 2011). Co-operation by Norway with other countries on maritime issues and the Arctic region has been substantial. For instance, this has resulted a global convention on mercury and more ambitious global targets on persistent organic pollutants. However, the extension of oil-sector exploration into fragile environments (including the Arctic region), raises biodiversity risks OECD (2011).

Norway's substantial aquaculture industry, which principally comprises salmon farming, also brings particular biodiversity issues. Wild fish populations are being diminished by lice infections, the concentration of which is increased by aquaculture. Efforts to tackle these issues are being made. A new system for regulating growth in the salmon farming industry was first introduced in 2015 and fully implemented in 2019. Production areas are evaluated biannually using environmental indicators (principally sea lice indicators) and regulated capacity allowances are increased or decreased accordingly. A natural resources rent tax for the aquaculture sector has been proposed and could help address these issues. Also, escapees of salmon from aquaculture can have a negative impact on wild salmon genetics, reducing overall fitness. Since 2016, Norway has increased the efforts of removing escaped farmed fish from the salmon rivers.

Table 1.9. Past recommendations on tackling environmental challenges

Recommendations	Action taken since the previous Survey (January 2018)
Reforms should include: <ul style="list-style-type: none"> • further limiting carbon-dioxide (CO₂) emissions, and greater uniformity in CO₂ taxation • more systematic inclusion of environmental considerations in cost-benefit analysis (e.g. by using an explicit shadow price for Greenhouse gas (GHG) emissions. 	Climate change: a community inventory model (including LULUCF) is being implemented with the aim of increasing awareness on land use. <p>The 2020 Budget includes several proposals regarding climate change, including a 5% increase taxation on mineral products and taxes on other greenhouse-gas emissions, the abolition of reduced rates and exemptions from CO₂ tax, and increase in the biofuel sales requirement from 12 to 20%.</p>

Bibliography

- Bjertnæs (2016), Kva koster egentlig elbilpolitikken [what does electric car policy really cost]?, (2016) Samfunnsøkonomen No 2.
- Bratsberg, B., Raaum, O., and Røed, K. (2018), Job Loss and Immigrant Labor Market Performance, [Economica](#), vol 85(337), 124-151.
- Economist Intelligence Unit (2019), *Norway Country Report*, June 2019.
- Government of Norway (2018), *Smartere innkjøp – effektive og profesjonelle offentlige anskaffelser* [approximately, “The need to streamline and professionalize public procurement”], Meld. St. 22 white paper, 2018.
- IMF (2018), “Article IV Consultation, Staff Report, Norway”, Country Report No. 18/279.
- ITF (2016), “Shared Mobility: Innovation for Liveable Cities”, *International Transport Forum, Policy Papers*, No. 21, OECD Publishing, Paris,
- ITF (2018), “Shared Mobility Simulations for Dublin”, International Transport Forum Policy Papers, No. 58, OECD Publishing, Paris, <https://dx.doi.org/10.1787/e7b26d59-en>.
- KPMG (2019), *Taxation of Aquaculture, 2019*, KPMG Law, 2019.
- Ministry for Climate and Environment (2017), *Norway’s Climate Strategy for 2030: a transformational approach within a European Cooperation Framework*, Oslo, 2017
- Ministry of Finance (2019), *The National Budget, 2020, A Summary*, October 2019.
- Ministry of Finance (2019), *The Revised National Budget, 2019*, May 2019.
- Ministry of Finance (2018a), “The Norwegian Government recommends that the asset management of the Government Pension Fund Global (GFPG) remains in Norges Bank” Press release, October, 2018.
- Ministry of Finance (2018b), *The National Budget, 2019*, October 2018.
- Ministry of Trade, Industry and Fisheries (2017), *State Ownership Report*, 2016, Oslo.
- Norges Bank (2019), *Monetary Policy Report with Financial Stability Assessment*, 2/19 June, 2019.
- Norges Bank (2018), *Financial Stability Report, 2018*.
- Norges Bank (2017), “Experience with the monetary policy framework in Norway since 2001”, *Norges Bank Papers*, No. 1, 2017.
- OECD (2019a), “Housing markets and Macroeconomic Risks, OECD *Economics Department Working Paper*, No. 1555.
- OECD (2019b), [Agricultural Policy Monitoring and Evaluation 2019](#), OECD Publishing, Paris,
- OECD (2018a), “Public Finance Infrastructure and Inclusive Growth”, OECD *Economic Policy Paper*, December 2018, No. 25.
- OECD (2018b), *OECD Economic Surveys: Norway 2018*, OECD Publishing, Paris.
- OECD (2018c), *Going Digital project: Shaping Policies, Improving Lives*, OECD Publishing, Paris.
- OECD (2018d), *Implementing the OECD Anti-Bribery Convention: Phase 4 Report, Norway*, OECD Publishing, Paris.
- OECD (2016), *OECD Economic Surveys: Norway 2016*, OECD Publishing, Paris.
- OECD (2015), *Divestment and Stranded Assets in the Low-carbon Transition*, Background Paper to the 32nd Round Table on Sustainable Development, OECD, October 2015.
- OECD (2011), *Environmental Performance Review of Norway*, OECD Publishing, Paris.
- ÖKOKRIM (2018), *Trusselvurdering* [Threat Assessment], 2018. National Authority for Investigation and Prosecution of Economic Crime (ÖKOKRIM), 2018.
- Samfunnsøkonomisk Analyse (2018), *Evaluation of SkatteFUNN*, July 2018.