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Foreword

This *Survey* is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Norway were reviewed by the Committee on 12 January 2022. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 3 February 2022.

The Secretariat's draft report was prepared for the Committee by Philip Hemmings (Senior Economist) and Ben Conigrave (Economist), under the supervision of Isabelle Joumard (Head of Division). The Survey also benefitted from contributions by the staff of the Ministry of Finance and Ministry of Local Government and Regional Development in Oslo and Boris Cournède and Volker Ziemann from the OECD's Horizontal Project on Housing. Statistical research assistance was provided by Béatrice Guérard and editorial assistance by Michelle Ortiz and Heloise Wickramanayake.

The previous Survey of Norway was issued in December 2019.

Information about the latest as well as previous Surveys and more information about how Surveys are prepared is available at www.oecd.org/eco/surveys.

Table of contents

Foreword 3

Executive Summary 10

1 Key Policy Insights 15

Widespread vaccination has helped limit the impact of COVID-19 19
The economy continues to strengthen, but risks remain 21
Financial stability: costs, prices and wages on watch, household debt still high 29
Recent energy-price increases are most likely temporary, but more persistent wider price pressure is a risk 29
House prices and related debt remain a potential source of financial instability 32
Fiscal policy: keeping on track with the fiscal rule 36
Norway's fiscal system worked well during the pandemic 37
Diminishing fiscal space ahead 40
Making public services more efficient and ensuring wise public investment choices 42
Recent years have seen progress in tax reform 44
Options for fixing Norway's tax treatment of homeownership 45
Important developments in environmental and natural resource taxation 46
Supporting productivity and ensuring good governance 48
Policy needs to facilitate business-sector productivity growth 48
Helping business start-up and ensuring good insolvency processes 50
Improving the responsiveness of residential construction to housing demand 50
Reform to agricultural-sector support remains slow 51
Enhancing government integrity and combatting financial crime 53
Labour and social issues: tackling cost-of-living growth, ensuring high employment 55
Addressing rising costs of living, including housing expenses 57
Sickness and disability support still need reform to help ensure high levels of employment 57
Further progress on pension reform but more can be done 59
The environment: pressing ahead with green transition 60
Proposals for carbon price increases should be followed through 64
There is scope to make housing construction greener 65
Supporting green technologies 65
Main findings and recommendations: excluding those relating to the in-depth chapter 69
References 70

2 Making housing more affordable and sustainable 72

Recent developments in housing affordability in Norway 73
Homeownership has become less accessible despite low borrowing costs 74
Housing cost burdens are heavy for low-income renters 76
Sluggish supply responses have driven up house prices and rents 77

Reforms to relieve pressure on demand for homebuying 79
Tax settings support strong demand for owner-occupied housing 79
Tax concessions on housing assets are inefficient and unfair 82
Reducing distortive income-tax concessions on owner-occupied housing 83
Introducing capital gains tax and reducing wealth tax concessions on primary dwellings 86
Ceilings on municipal property tax should be raised 86
Reducing document tax to support geographic mobility 87
Complementary reforms should reduce tax on labour income 87
Tax reform should start now and be phased in gradually 89
Improving the functioning of rental markets 90
Ensuring adequate affordable housing for low-income households 91
Private markets will not supply enough affordable housing on their own 91
Norway is successful in providing shelter and support services for the homeless 92
Homebuyer support should be re-targeted over time 92
Allowances provide cost-effective support to poor renters, but income cut-offs are low 95
There is a need for more investment in social rental housing 96
Avoiding problems tied to socio-economic segregation 98
Reforms to improve the responsiveness of private housing supply 99
Land-use regulation must manage trade-offs between housing and other objectives 100
Progress has been made to soften land-use restrictions – more is needed 101
National building standards also affect density and influence construction costs 104
Making planning and zoning quicker, cheaper and more predictable 104
Doing more to stamp out abuses of the objections system 108
Reducing the environmental impact of housing 109
Norway's high energy-efficiency standards are already near the frontier 110
There is scope for greener housing construction and building materials 111
Making regulation more conducive to efficient use of building materials 112
Using market-based instruments to speed the shift to greener construction 112
Trade-offs between affordability and other objectives need to be re-examined 113
References 116

Tables

Table 1. Strong growth in 2022 despite the Omicron wave 11
Table 1.1. Government support for households during the COVID-19 crisis, selected measures 25
Table 1.2. Government support for businesses during the COVID-19 crisis, selected measures 26
Table 1.3. Macroeconomic indicators and projections 27
Table 1.4. Events that could lead to major changes in the outlook 29
Table 1.5. Details of Norway's macroprudential rules on mortgages and consumer loans 35
Table 1.6. Past recommendations on macroeconomic and financial stability 36
Table 1.7. Estimated spending on special measures to support households and businesses during the pandemic 38
Table 1.8. Past recommendations on fiscal policy, public spending and taxation 47
Table 9. Illustrative fiscal impact of recommended reforms 47
Table 1.10. Illustrative GDP impact of recommended reforms 48
Table 1.11. Past recommendations on improving business conditions 55
Table 1.12. Key proposals made in Phase Two of the Employment Commission 59
Table 1.13. Past recommendations on human capital, jobs and welfare 59
Table 1.14. Key elements of Norway's policies encouraging electric vehicle purchase 68
Table 1.15. Past recommendations on tackling environmental challenges 68
Table 2.1. International comparison of the tax treatment of owner-occupied housing 79
Table 2.2. Net-wealth tax valuation discount rates by asset type 81
Table 2.3. Value of debt interest deductions by income quintile 82
Table 2.4. Examples of phased implementation periods for major housing-tax reforms 89
Table 2.5. Minimum lease durations for rental housing 91

Table 2.6. Managing trade-offs in housing-related policy interventions 113
Table 2.7. Policy recommendations from this chapter 114

Figures

Figure 1. Norway's per capita COVID-19 fatalities remain below the OECD average 11
Figure 2. The Omicron wave led to a pause in recovery 11
Figure 3. House prices surged during the pandemic 12
Figure 4. The 2022 deficit has been budgeted to be below the fiscal rule's guideline value 12
Figure 1.1. Norway's pandemic output and employment losses have been comparatively small 16
Figure 1.2. Norway faces challenges in government budgeting, house prices, labour-force participation, productivity and greenhouse gas emissions 17
Figure 1.3. Norway's COVID-19 fatalities remain comparatively low, most of the population is vaccinated 20
Figure 1.4. A similar downshift in use of workplaces and public transport as other countries 21
Figure 1.5. Output is close to its pre-crisis trend 22
Figure 1.6. Most sectors hit hard by the pandemic are recovering, though not all 23
Figure 1.7. Normalisation of monetary and fiscal support is underway 24
Figure 1.8. Norway's package of fiscal support relied more on income support than on support through equity, loans and guarantees 24
Figure 1.9. Bankruptcies have so far been lower during the pandemic 28
Figure 1.10. Norway's headline consumer price inflation has been pushed up by large energy-price increases 30
Figure 1.11. Remuneration and vacancies increased markedly in hospitality in 2021 32
Figure 1.12. Quarterly data indicate a more general increase in wage growth may be underway 32
Figure 1.13. House prices and debt are elevated 33
Figure 1.14. Bank capital buffers are being expanded now the crisis is receding 35
Figure 1.15. Norway's socio-economic model involves high government spending and taxation 37
Figure 1.16. The structural non-oil deficit will have to trend downwards over the long term 40
Figure 1.17. Scope for new spending will diminish in the coming years 41
Figure 1.18. Fiscal sustainability: illustrative scenarios 42
Figure 1.19. Public spending on social protection is particularly high in Norway and the other Nordic countries 44
Figure 1.20. The tax system favours owner occupation of housing 46
Figure 1.21. Crude oil and natural gas account for around 40% of the value of goods exports 49
Figure 1.22. Some scope to reduce the administrative burden in starting businesses 50
Figure 1.23. Producer support in agriculture remains among the highest in the OECD 52
Figure 1.24. Corruption is viewed as very low compared with other countries 53
Figure 1.25. Indicators of economic crime 54
Figure 1.26. Norway's labour market still contributes to low inequality but employment is no longer top-ranking 56
Figure 1.27. The rate of sickness absence has increased only marginally during the pandemic 58
Figure 1.28. Norway has considerable renewable energy resources 61
Figure 1.29. Effective carbon tax rates in Norway range from zero to around EUR 100 per tonne 65
Figure 1.30. Revenue from car related taxation is declining 68
Figure 2.1. House prices have risen significantly 73
Figure 2.2. Mortgage burdens for low-income households are relatively low 74
Figure 2.3. Deposits and household debt have increased 75
Figure 2.4. Homeownership rates have fallen among low-income households 76
Figure 2.5. The private rental market is underdeveloped and rent burdens are significant 77
Figure 2.6. Housing supply lags demand in some Norwegian cities 78
Figure 2.7. The tax system favours owner-occupation of housing 83
Figure 2.8. Removing mortgage interest deductibility would improve homeownership accessibility 85
Figure 2.9. Recurrent taxes on immovable property are underutilised 87
Figure 2.10. Housing-related tax expenditures are significant 88
Figure 2.11. Subsidised loans are a key tool of Norwegian housing policy 93
Figure 2.12. Homeownership rates are falling among lower-income households 94
Figure 2.13. Housing-allowance cut-offs leave many households exposed to high rent burdens 95
Figure 2.14. Pressure on the social housing stock will grow 97
Figure 2.15. Loans for rental housing for the disadvantaged have declined 98
Figure 2.16. More mid-sized buildings are being constructed, but few small apartments 102
Figure 2.17. Labour and material costs account for only part of past house-price increases 105
Figure 2.18. Average planning application review times are typically below the statutory limit 106

Figure 2.19. Illustrative timeline for a typical apartment project in an urban area 107
Figure 2.20. Residential energy use is similar to other cold countries but CO_2 emissions are low 110

Boxes

Box 1.1. The new coalition government's economic policies 18
Box 1.2. Norway's engagement in accelerating global vaccination 19
Box 1.3. Special measures to support households and businesses during the pandemic 25
Box 1.4. Norway's temporary electricity-bill compensation scheme for households 31
Box 1.5. Norway's macroprudential measures on mortgages and consumer loans 35
Box 1.6. Norway's fiscal system 39
Box 1.7. Public spending reviews in Norway 43
Box 1.8. Norway's budget "efficiency dividends" 44
Box 9. Quantifying the fiscal impact of ambitious structural reforms 47
Box 1.10. Quantifying the GDP impact of structural reforms 48
Box 1.11. Norway's petroleum sector: its role in the economy 49
Box 1.12. The current Norwegian government's agricultural policies 51
Box 1.13. Sickness absence among Norwegian employees during the pandemic 58
Box 1.14. The OECD's upcoming *Environmental Performance Review* of Norway 61
Box 1.15. Norway's national climate goals 62
Box 1.16. Economic considerations in bans on new oil and gas exploration 63
Box 1.17. Norway's plan for climate action measures 64
Box 1.18. Norway's Longship project 66
Box 1.19. Norway's electric vehicle incentives 66
Box 2.1. Historical perspective on pro-homeownership policies in Norway 76
Box 2.2. The relationship between taxes, homeownership and affordability 80
Box 2.3. Mortgage deductions and Norway's dual income tax 81
Box 2.4. Machine-learning methods for enhancing holiday-home valuations 84
Box 2.5. Illustrative affordability impact of phasing out mortgage interest relief 85
Box 2.6. Housing tax reform in other countries: phase-out of mortgage interest relief in the Netherlands 89
Box 2.7. Main instruments of Norwegian Social Housing Policy 94
Box 2.8. Broader approaches to social housing: the experiences of the Netherlands and Austria 96
Box 2.9. Measuring disadvantage for social housing purposes 99
Box 2.10. Institutional framework for Norwegian housing policy 100
Box 2.11. Relaxing land-use rules: the cases of New Zealand and California 103
Box 2.12. Planning milestones in residential development projects 107
Box 2.13. Main policy instruments for lifting energy efficiency in Norwegian homes 111
Box 2.14. Greener public procurement and social housing 112

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BASIC STATISTICS OF NORWAY, 2020

(Numbers in parentheses refer to the OECD average)

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	5.4		Population density per km²	14.7	(38.6)
Under 15 (%)	17.3	(17.8)	Life expectancy at birth (years, 2019)	82.9	(80.2)
Over 65 (%)	17.5	(17.4)	Men (2019)	81.2	(77.6)
International migrant stock (% of population, 2019)	16.1	(13.2)	Women (2019)	84.7	(82.9)
Latest 5-year average growth (%)	0.7	(0.6)	Latest general election	September 2021	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	362.9		Agriculture, forestry and fishing	2.1	(2.7)
In current prices (billion NOK)	3 410.4		Industry including construction	29.4	(26.2)
Latest 5-year average real growth (%)	0.9	(0.8)	Services	68.5	(71.1)
Per capita (thousands USD PPP)	62.8	(46.3)			
GENERAL GOVERNMENT (Per cent of GDP)					
Expenditure	58.1	(48.5)	Gross financial debt (OECD: 2019)	53.8	(109.0)
Revenue	55.0	(38.1)	Net financial debt (OECD: 2019)	-370.1	(68.1)
EXTERNAL ACCOUNTS					
Exchange rate (NOK per USD)	9.40		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	10.10		Mineral fuels, lubricants and related materials	48.8	
In per cent of GDP			Food and live animals	14.3	
Exports of goods and services	32.2	(50.6)	Machinery and transport equipment	10.6	
Imports of goods and services	33.1	(47.2)	Main imports (% of total merchandise imports)		
Current account balance	0.7	(0.0)	Machinery and transport equipment	39.5	
Net international investment position	314.4		Miscellaneous manufactured articles	14.7	
			Manufactured goods	14.1	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	61.0	(55.1)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	4.4	(7.1)
Men	62.5	(63.0)	Youth (aged 15-24, %)	11.3	(15.1)
Women	59.5	(47.7)	Long-term unemployed (1 year and over, %)	0.9	(1.3)
Participation rate (aged 15 and over, %)	63.8	(59.5)	Tertiary educational attainment (aged 25-64, %)	45.3	(39.0)
Average hours worked per year	1 369	(1 687)	Gross domestic expenditure on R&D (% of GDP, 2018)	2.1	(2.6)
ENVIRONMENT					
Total primary energy supply per capita (toe)	5.3	(3.7)	CO2 emissions from fuel combustion per capita (tonnes, 2019)	4.9	(8.3)
Renewables (%)	51.1	(11.9)	Water abstractions per capita (1 000 m³, 1985)	0.5	
Exposure to air pollution (more than 10 µg/m³ of PM 2.5, % of population, 2019)	0.8	(61.7)	Municipal waste per capita (tonnes, 2019)	0.8	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2019, OECD: latest available)	0.261	(0.317)	Education outcomes (PISA score, 2018)		
Relative poverty rate (%, 2019, OECD: 2018)	8.4	(11.7)	Reading	499	(485)
Median disposable household income (thousand USD PPP, 2018, OECD: 2017)	39.7	(24.2)	Mathematics	501	(487)
Public and private spending (% of GDP)			Science	490	(487)
Health care (OECD: 2019)	11.3	(8.8)	Share of women in parliament (%)	41.4	(31.5)
Pensions (2017)	9.2	(8.6)	Net official development assistance (% of GNI, 2017)	1.0	(0.4)
Education (% of GNI, 2019)	6.6	(4.4)			

[1] The year is indicated in parenthesis if it deviates from the year in the main title of this table.

[2] Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.

Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, United Nations, World Bank.

Executive Summary

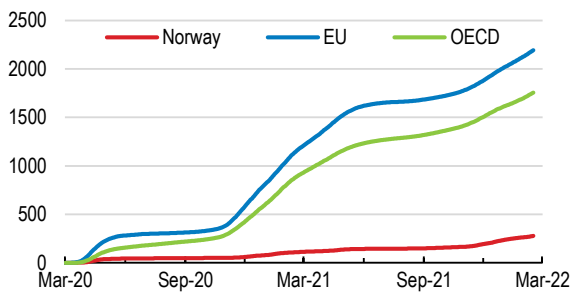
Consolidating economic recovery

Spread of the Omicron variant of COVID-19 temporarily damped economic activity, which was hitherto recovering strongly, and led to further fiscal support. In the absence of renewed deterioration in the health and economic situation, fiscal deficit reduction should resume as planned and the withdrawal of monetary stimulus should continue. A close watch on price and cost developments is needed given recent energy-price and wage increases.

Though the Omicron variant affected Norway more than previous waves of the pandemic, the cumulative cases and fatalities from COVID-19 remain substantially below the OECD average on a per capita basis. A high rate of vaccination has helped limit increase in hospitalisations and fatalities. However, outbreaks and need for further social distancing measures remain a risk.

Figure 1. Norway's per capita COVID-19 fatalities remain below the OECD average

COVID-19 cumulative deaths per million inhabitants, 7-day moving average



Source: Our World in Data.

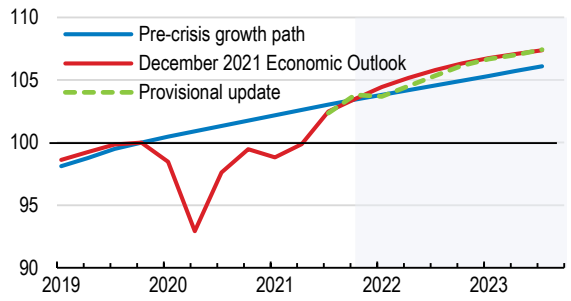
StatLink https://stat.link/mwjezh

Following a bounce-back from the phase-out of the latest restrictions, the level of economic output will run slightly above trend over the next two years. Annual economic growth is expected to turn out at 3.7% in 2022 and 2.2% in 2023. Household consumption will contribute significantly, helped by the pent-up spending power from savings accumulated during the initial phases of the pandemic.

Strong headline consumer price inflation in recent quarters has been driven by large electricity price increases. Global supply bottlenecks in computer chips, lumber and shipping are also putting pressure on inflation. Furthermore, there are tentative signs of higher wage inflation. Some of these price and cost rises will most likely ease in the coming quarters. However, there is clear risk that a wage-price spiral could emerge.

Figure 2. The Omicron wave led to a pause in recovery

Mainland real GDP, index 2019 Q4 = 100, s.a.



Note: The pre-crisis growth path is based on the November 2019 OECD Economic Outlook projection, with linear extrapolation.
Source: OECD Economic Outlook 106 and 110 (databases); and provisional updates.

StatLink https://stat.link/0y16v4

Table 1. Strong growth in 2022 despite the Omicron wave

(Annual growth rates, unless specified)	2020	2021	2022	2023
Mainland GDP (December 2021)	**-2.3**	**4.2**	**4.2**	**1.7**
Mainland GDP	**-2.3**	**4.2**	**3.7**	**2.2**
Private consumption	-6.6	5.0	6.6	3.1
Government consumption	1.8	3.9	2.2	1.2
Gross fixed capital formation	-5.6	-0.3	3.7	3.0
Exports of goods and services	-1.2	4.8	7.2	3.0
Imports of goods and services	-11.9	2.0	8.4	2.7
Unemployment rate (% of labour force)	4.6	4.3	3.5	3.2
Consumer price index (December 2021)	**1.3**	**3.4**	**2.0**	**1.4**
Consumer price index	**1.3**	**3.5**	**2.5**	**1.5**

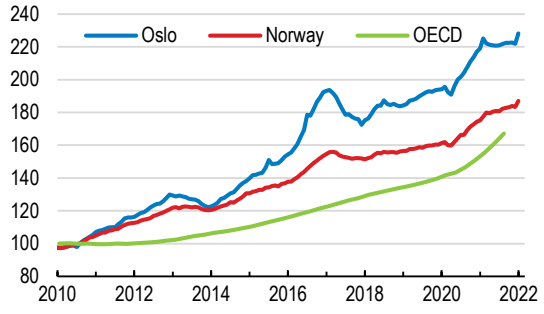
Note: Unless otherwise stated, these projection numbers are from a provisional economic forecast by the OECD in February 2022.
Source: OECD Economic Outlook 110; and OECD calculations.

Withdrawal of macroeconomic stimulus should continue as the health situation improves. Fiscal revenues have grown and spending on government transfers has diminished since the initial large downturn in economic activity. Norges Bank began raising its key policy rate in September 2021 with an increase from zero to 0.25% and a further increase to 0.50% in December. The Bank forecasts a gradual rise to a rate of 1.75% towards the end of 2024. Thus far, the fiscal and monetary response to changing health and economic conditions has been appropriate.

House prices and mortgage debt are a concern for financial stability. Steep rises in house prices in the first year of the pandemic added to past price surges. Steady tightening of monetary policy has contributed to a moderation in price growth. However, prices remain elevated, and this and associated high levels of mortgage borrowing add to risks of a significant house-price correction with impacts on the wider economy.

Figure 3. House prices surged during the pandemic

Index 2010 = 100, s.a.



Source: Calculations based on Real Estate Norway (Eiendom Norge) data; OECD (2021), Analytical house prices database.

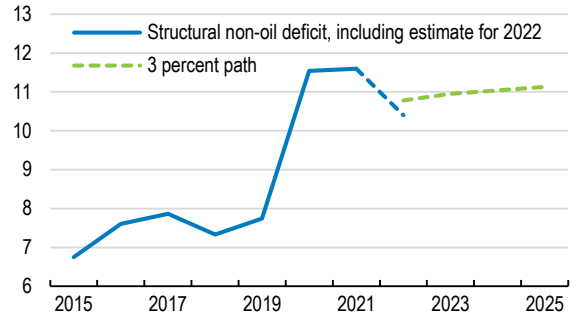
StatLink https://stat.link/akcmjr

A decline in the mainland fiscal deficit has been budgeted for 2022. The central government's core deficit (adjusted for petroleum revenues and oil fund revenues) is estimated at 11.6% of mainland GDP for 2021. For 2022 a deficit of 9.5% was planned, though it is estimated to turn out at 10.4% due to the new COVID measures plus compensation for high electricity prices. This nevertheless continues to represent an appropriately prudent policy; the budgeted deficit will be below the guideline value according to the fiscal rule.

Scope for public spending on new policy measures is set to shrink in the coming years due to slower wealth-fund growth, multi-year spending commitments and population ageing. Unlike in previous years, there will be limited scope within the fiscal rule for new spending initiatives, unless these are accompanied by revenue-raising or cost-saving measures. There will be even less fiscal space if cash flow from petroleum activities or returns to the fund turn out weaker than expected. Public-spending policy needs to focus on strengthening value for money.

Figure 4. The 2022 deficit has been budgeted to be below the fiscal rule's guideline value

Projection of the 3% deficit path, % of trend mainland GDP



Note: The mainland structural deficit is the cyclically-adjusted total budget surplus excluding petroleum and oil fund revenues. The "3 percent path" is the deficit implied by the rule for wealth fund spending that stipulates a guideline spending of 3% of the value of the wealth fund.
Source: Ministry of Finance, National Budget 2022.

StatLink https://stat.link/e19a2b

Strengthening sustainable productivity and employment

Business-sector productivity growth has been picking up but remains below historical levels. The employment rate is no longer among those of top-ranking countries.

Policy needs to ensure good conditions for business innovation and technology adoption. It also needs to address the opportunities and challenges of green transition. Financial

pressure on businesses during the pandemic has underscored the important role of insolvency procedures in giving struggling businesses a chance to turn around. Resources need to be reallocated to more promising sectors and firms, including those related to faster digitalisation and green transition. Meanwhile, some areas of business support require reform, notably there is a need to reorient agricultural support away from economically distorting subsidies.

Norway's generous sick leave and disability compensation systems, in addition to the pension system, remain major challenges for labour participation. Sick leave compensation remains more generous than necessary and disability pension systems could do more to facilitate return to work. Though good progress has been made on pension reform, there remains scope to improve linkage to life expectancy and there are challenges in some occupational pensions in the public sector.

Ensuring enough affordable housing

Rising house prices during the pandemic have further reduced housing affordability for first-time homebuyers. Deteriorating accessibility of homeownership and high rent burdens underscore the need for structural reforms to lift new housing supply and temper demand for home buying.

Altering regulation affecting land use, and more efficient planning processes around residential construction are key to making housing supply more responsive. More leeway is needed for the construction sector to respond to housing demand while retaining high standards on other fronts. Scope for adjustment lies in land-use rules, building standards, and planning processes, especially in the largest cities.

Tax concessions for homeowners remain unusually generous compared with other OECD countries. These boost demand for housing, divert resources from more productive investments and inflate house prices, particularly in supply-constrained cities. The tax subsidies also favour current owners at the cost of new homebuyers.

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Social-housing shortages have emerged in high-cost cities, while households in private rental dwellings face heavy housing-cost burdens. Beyond targeted assistance for low-income homebuyers, support needs to be bolstered for renters. Increased investment in social rental housing can alleviate cost pressures for disadvantaged households, backed with means-tested allowances for private rental accommodation.

Housing affordability could be improved by reducing labour income tax on low income. Raising disposable income through tax cuts can broadly help households tackle housing affordability. It can also help resolve the welfare issues emerging from other cost increases, for instance those related to climate change measures. Lighter labour taxes can also strengthen labour supply.

Tackling climate change

Norway's CO_2 emissions are low but are generated in sectors where cutting them is challenging. Norway has raised its ambition on emission reduction and is combining market-based instruments with regulation and support for green technology.

There has been a welcome proposal to increase the price of carbon as part of a new climate action plan. Nevertheless, gaps in the coverage of carbon taxation remain, mainly on emissions of nitrous oxide and methane from the agricultural sector.

Norway is making good progress in the adoption and development of green technologies. Electric vehicle adoption has matured to a point where tax concessions and other advantages can gradually be withdrawn. Substantial green-technology initiatives are underway, notably a flagship carbon-capture and storage programme (*Longship*). However, there is more ground to cover, including clearing regulatory obstacles to greater materials recycling and extending the service life of residential and other buildings.

MAIN FINDINGS	KEY RECOMMENDATIONS
Handling post-recovery challenges	
Following a short downturn due to the Omicron wave, the level of economic output will run slightly above trend over the next two years. Economic recovery is well-advanced and vaccination rates are high. However, as the Omicron wave demonstrated, risk of renewed outbreaks and social distancing measures remains. Recent strong price and cost increases will most likely ease in the coming quarters but there is a risk of sustained higher inflation. Vulnerabilities stemming from property markets remain a risk.	Maintain a close watch on price and wage inflation and continue to normalise monetary and fiscal conditions. Stand ready to tighten macroprudential tools if strong house-price growth resumes.
The deficit for 2022 is expected to turn out below the long-term guideline value under the fiscal rule, despite new temporary COVID measures and compensation for high electricity prices. Fiscal space will narrow in the coming years due to slower wealth-fund growth, multi-year spending commitments and population ageing.	Retain a prudent approach to fiscal budgeting in the coming years. Use more productivity enhancing measures in public services, including spending reviews. Use cost-benefit analysis more extensively in public investment and retain the pruning of budget allocations through "efficiency dividends".
Strengthening productivity and employment	
Post-pandemic, policy should nurture stronger business-sector productivity. One strand should be to ensure businesses are easy to establish and have good paths to recovery when running into financial difficulty. Another strand should be to ensure sectoral business support encourages long-term economic and environmental sustainability, notably in agriculture.	Improve insolvency procedures through better routes to recovery for businesses in difficulty, including lighter penalties for failed entrepreneurs. Continue to tackle weak points in business efficiency including through re-orienting agriculture support away from the most economically distorting forms of support, including import tariffs.
The pandemic demonstrated the value of comprehensive sick leave compensation and disability support, but nevertheless reforms are needed to enhance labour-force attachment. Norway has a record high incidence of sick leave compared to other countries.	Strengthen incentives to reduce sick-leave absences, including through lowering sick-leave compensation and by extending employers' participation in funding. In disability benefits, in addition to retraining and other support, apply eligibility rules more strictly and strengthen treatment and rehabilitation requirements.
Ensuring the pension system adjusts as people live longer is important to ensure balanced retirement decisions. Special pensions provisions for some public occupations mean early retirement remains common and pension provisions do not appropriately adjust payouts when individuals decide to retire early.	Index age dimensions of the pension system to life expectancy, such as the retirement-age range of 62 to 75 years. Continue to align special pension provisions for groups such as nurses, national defence and the police with the mainstream pension system.
Ensuring enough affordable housing	
Concessions on the taxation of owner-occupied dwellings are inefficient and contribute to wealth inequality and higher housing prices.	Gradually phase in imputed rents to owner-occupied dwellings in income tax or gradually phase out mortgage-interest deductibility. Introduce tax on capital gains from sales of owner-occupied dwellings, eliminating exemptions based on periods of ownership and occupancy. Reduce disparities in wealth-tax discount rates applied to owner-occupied homes and other assets.
Social-housing shortages have emerged in high-cost cities.	Increase loans for building social rental housing, particularly in cities such as Oslo with currently constrained supply. Consider reducing labour income tax on low-income households, as a broad means of addressing housing affordability and other cost-of-living issues.
The residential construction sector requires more leeway to respond swiftly to housing demand while retaining high standards on other fronts. Shorter, cheaper and more predictable planning processes would improve the scale and responsiveness of housing supply, especially in the largest cities.	Ease national restrictions on land use. Allow more small apartments in inner-city neighbourhoods. Enable streamlined approval processes for small urban-infill projects.
Tackling climate change	
Norway has initiated a schedule of carbon-price increases and has recently launched large-scale publicly-supported projects for carbon-capture and storage. Achieving greenhouse gas emission goals in Norway requires reducing gross domestic emissions from the current 50 million tonnes of CO_2 equivalent to around 25 million tonnes in 2030 and close to zero by 2050 (90-95% reduction).	Ensure continued follow through on the schedule of carbon-price increases. Augment this with additional greenhouse-gas reduction measures via regulation and investment, in particular in transport and agriculture. Develop carbon pricing on emissions of methane and nitrous oxide in the agricultural sector. Make electric vehicles gradually subject to VAT and the motor vehicle registration tax.
Measures for more efficient use and re-use of CO_2-intensive building materials, such as steel and concrete, can significantly reduce greenhouse gas emissions associated with the construction and replacement of dwellings.	Push ahead with proposals to remove regulatory impediments to increased use of second-hand building materials.

1 Key Policy Insights

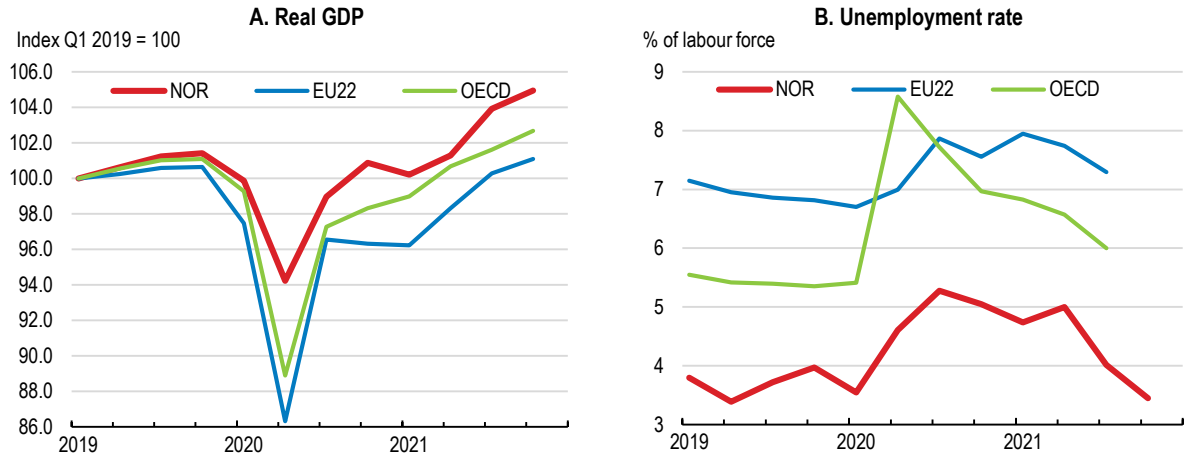
Norway's high rate of vaccination has helped limit the impact of COVID-19 on the population and economy. GDP per capita remains among the highest in the OECD and output growth is expected to be solid over the next two years. Nevertheless the country faces challenges to sustain its strong socio-economic outcomes. This chapter looks at the increases in consumer-price inflation, Norway's ever more expensive housing and the rising pressures on government budgets. It also examines how to strengthen labour force participation and productivity, as well as how to deliver on green transition.

Norway has been more successful than many countries in limiting the spread and the health impact of COVID-19. Furthermore, the downturns in the economy during the pandemic have been comparatively mild (Figure 1.1). Substantial fiscal and monetary policy support has helped households and businesses through the crisis. As elsewhere, vaccination has been key to reopening of the economy. Following a short downturn due to the Omicron wave, the level of economic output will run slightly above trend over the next two years. Norway's policymakers can now principally focus on ensuring macroeconomic stability in the wake of recovery and on addressing structural challenges.

Fiscal support during the pandemic has brought necessary relief to businesses and households and generated non-oil deficits considerably above the long-term guideline set by Norway's fiscal rule (Figure 1.2). Phase out of most extraordinary measures was almost completed when the Omicron wave hit and renewed temporary measures were introduced. However, from spring 2022, fiscal spending is once again expected to return to more sustainable territory, below the guideline value in Norway's fiscal rule. As in many other countries, headline consumer-price inflation has been pushed up significantly; in Norway, mainly due to large increases in electricity prices. Housing in Norwegian cities has become still more expensive with a new surge in prices during the pandemic (Figure 1.2). This has further raised risks to macro-financial stability from mortgage debt.

Norway continues to have good outcomes on many economic and social dimensions. GDP per capita remains among the highest in the OECD. Also, the country is broadly successful in its prioritisation of low inequality and the universal provision of core public services, including health and education. The gap between the highest and lowest incomes is among the smallest in the OECD area and rates of poverty are low. The gender wage gap is small. Norway generally scores well in subjective indicators of well being. Furthermore, survey data suggest Norway has among the highest levels of trust in the civil service and in government in comparison with other OECD countries.

Figure 1.1. Norway's pandemic output and employment losses have been comparatively small



Source: OECD (2021), OECD Economic Outlook (database).

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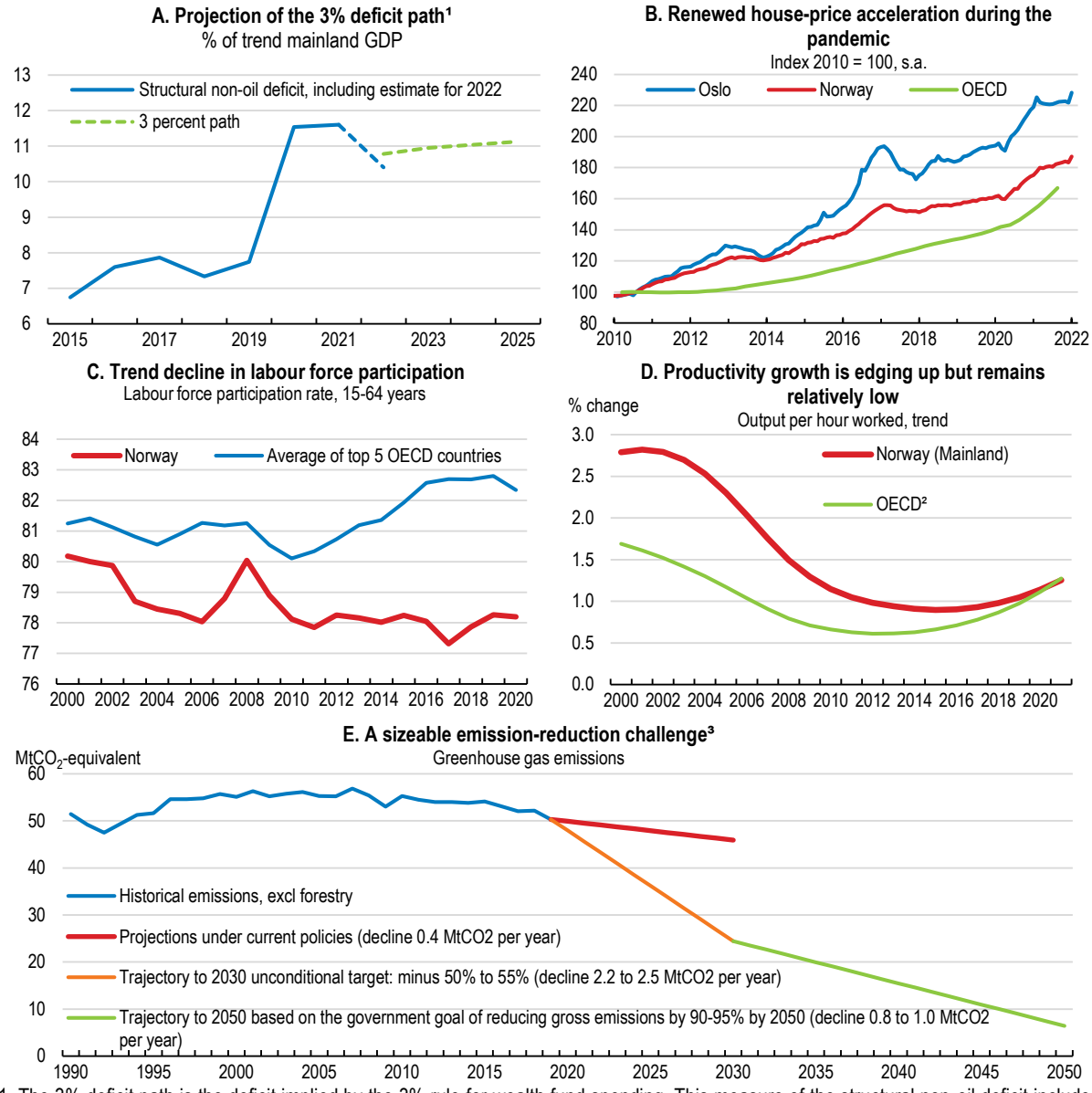
However, there are challenges in ensuring Norway's good outcomes are sustained amid post-pandemic economic adjustment, continued population aging and the greater urgency in tackling climate change. Labour force participation needs to increase to ensure the high levels of employment that are a key pillar of Norway's socio-economic model. Twenty years ago, Norway's labour force participation rate was around one percentage point below the average of the top-five OECD participation rates. In 2019 it was around four percentage points below (Figure 1.2). Trend productivity growth has been picking up but remains below the rapid growth of the early 2000s (Figure 1.2). Higher private-sector productivity growth is needed to help businesses remain competitive. Improved public-sector productivity can strengthen the quality and

efficiency of public services. The house-price surge has made it harder for young and low-income households to save for a deposit, weakening homeownership accessibility. Many low-income households devote a substantial proportion of their income to rents. Meanwhile, economic activity needs to adjust to obtain faster decline in net greenhouse-gas emissions; Norway is committed to approximately halving net emissions from current levels by 2030 and to achieving very low gross emissions by 2050 (Figure 1.2).

Figure 1.2. Norway faces challenges in government budgeting, house prices, labour-force participation, productivity and greenhouse gas emissions



1. The 3% deficit path is the deficit implied by the 3% rule for wealth fund spending. This measure of the structural non-oil deficit includes the additional spending from discretionary measures to support the economy during the COVID-19 pandemic, but not the effect of automatic stabilisers.
2. Labour productivity for the OECD is measured as output per worker instead of per hour worked.
3. Projections under current implemented policies do not include reductions that are intended via participation in the EU-ETS. Norway's emissions targets are in "gross" terms, meaning notably that the CO_2 absorption from forestry is not included.
Source: Ministry of Finance, National Budget 2022; Calculations based on Real Estate Norway (Eiendom Norge) data; OECD (2022), Analytical house prices database; OECD (2021), Employment and Labour Market Statistics (database); OECD (2021), OECD Economic Outlook (database); and Climate Action Tracker, Country Assessments 2020 - http://climateactiontracker.org.

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The main messages of this Survey are:

- Sustained economic recovery from the pandemic is increasingly assured, despite setback due to the Omicron wave. Widespread vaccination in Norway has reduced the impact of COVID-19 on the economy. Withdrawal of monetary stimulus should continue. Reduction of fiscal stimulus should recommence as health conditions improve. Tax and public spending policies need to create room for new initiatives while remaining within the fiscal rule. A close watch on price and cost developments is needed given the sharp price increases in recent quarters.
- Structural policy should focus more fully on ensuring higher levels of productivity and employment, and on green transition. Insolvency processes for business require attention to help boost productivity growth. Further reduction in disincentives to remain in work, notably in sickness leave compensation and disability benefit, would help to boost employment. Climate change policy is sound on many fronts, however additional action is needed to ensure a large decline in emissions.
- Improving housing affordability requires enabling the construction sector to respond faster to changes in demand and ensuring a good level of targeted support to vulnerable low-income households. Demand for home buying needs to be re-balanced through reducing tax biases favouring owner-occupied housing over investments in other assets.

Box 1.1. The new coalition government's economic policies

A new coalition government is in office following the September 2021 election. It comprises the Labour Party (*Arbeiderpartiet*, AP) and the Centre Party (*Senterpartiet*, Sp) whose origins lie in representing Norway's rural communities and farmers. The Labour Party has 48 seats and the Centre Party 28, so the coalition has 76 seats, falling short of a majority (85 seats are required for a majority in the 169 seat parliament). The Socialist Left Party (*Sosialistisk Venstreparti*, SV) (13 seats) is likely to play an important role supporting the government.

The new government is prioritising distributional, regional and climate policies. Themes of the government's economic policy agenda include:

- Increasing the tax burden born by high-income and wealthy households (i.e. more "progressivity" in the tax system), while keeping the overall tax burden on labour income constant. The wealth tax has been increased. The difference in income taxation between those with incomes below NOK 750 000 per year (roughly EUR 75 000) and those with income above this threshold has been widened. Furthermore, a temporary support scheme to compensate households for 80% of the electricity prices above a threshold of NOK 0.70 per kWh) and a cut in the electricity tax have been introduced in response to higher electricity prices.
- Advancing green transition, including through increasing the price of carbon. Some offsetting policy adjustments have been introduced, including reduced taxation of vehicle use and ownership.
- Encouraging full-time and permanent contracts over part-time and temporary work.
- Greater support to households for childcare. For instance, the supplementary Budget for 2022 (published in November 2021) announced a reduction in the price ceiling for child care services, and this has been decided in the Parliament.
- More support for rural communities. Government intentions include narrowing the gap between incomes in the agricultural sector and the rest of the economy and a pilot scheme of "rural growth agreements" for municipalities. The supplementary Budget for 2022 included proposals to increase support for agriculture, the fishing industry, and rural broadband.

Widespread vaccination has helped limit the impact of COVID-19

Though recent surges in infections brought new peaks in case numbers and fatalities, the cumulative case and fatality rates from COVID-19 have remained below the OECD average throughout the pandemic (Figure 1.3). Since the start of the pandemic Norway has experienced around 250 COVID-related deaths per million persons, compared with over 1 500 deaths per million in the OECD as a whole. A large proportion of the population has been vaccinated.

Early introduction of containment measures is thought to have contributed to Norway's comparatively good outcomes. In particular, early implementation of international travel restrictions probably helped avoid the much higher number of cases seen in many other countries. Also, Norway's comprehensive welfare support (bolstered by additional measures during the pandemic) reduced the risk of contagion -- for instance because individuals with symptoms were well supported financially if they did not work. The comprehensive public health care system has played a central role towards an effective response in treatment, testing and vaccination. Contextual factors that may have contributed towards relatively good outcomes include Norway's low population density, a culture of following regulation and high trust in government. Furthermore, extensive broadband coverage has facilitated teleworking.

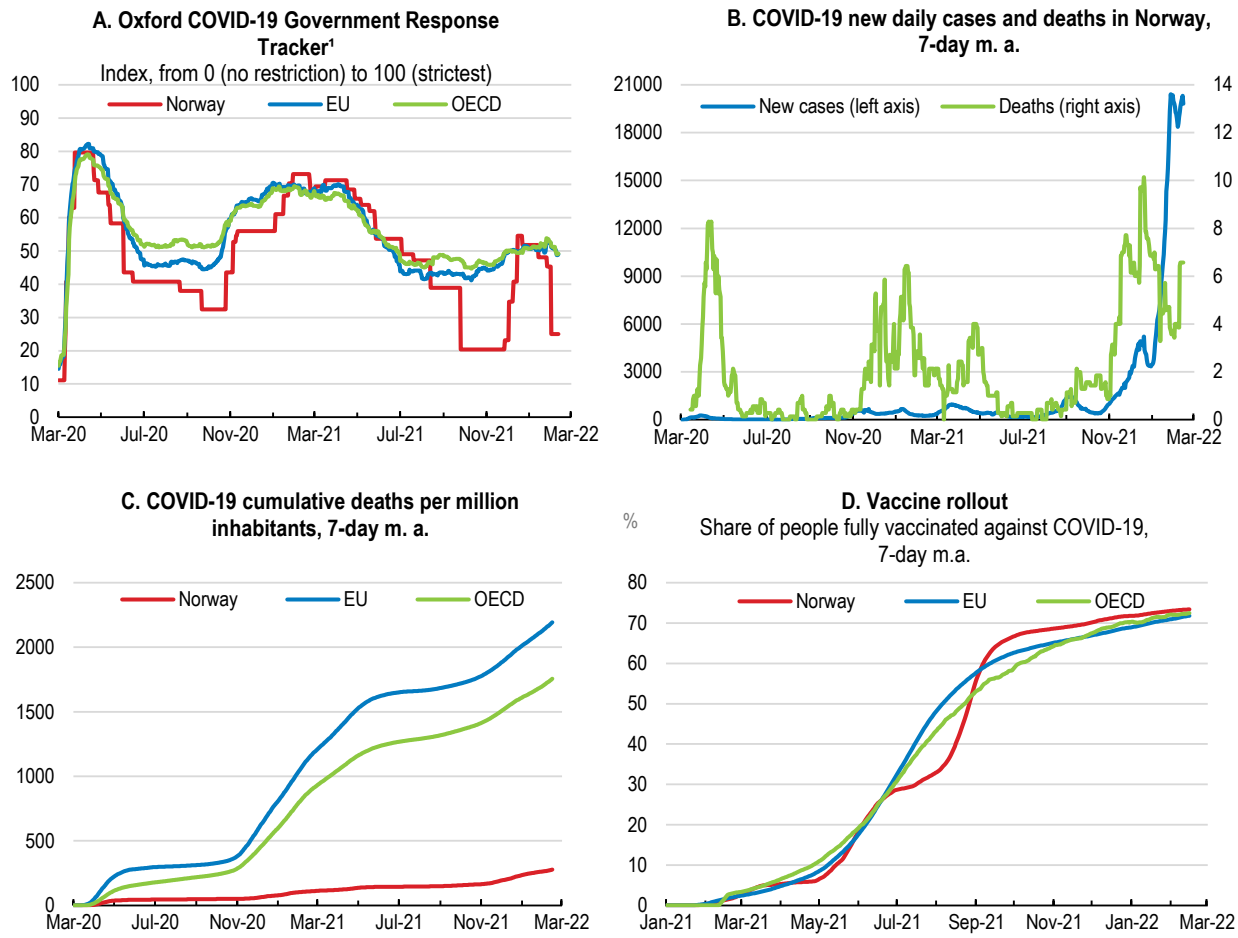
Risks to the economy from further COVID-19 outbreaks remain, as demonstrated by the emergence of the Omicron wave at the end of 2021. Countries with a substantial share of the population vaccinated, such as Norway, have been better able to withstand new waves of COVID-19 cases. Instances of serious illness are much lower, meaning less risk to individuals and less pressure on the health care system. The slow pace of vaccination in many developing countries, principally due to challenges in supply and distribution, raises global risks of new variants of COVID-19 emerging; travel to and from many countries remains restricted (Box 1.2).

Box 1.2. Norway's engagement in accelerating global vaccination

Norway is engaged in international cooperation to mitigate the COVID-19 pandemic and to improve the multinational architecture for future pandemic preparedness and response. Norway co-leads the Facilitation Council for the Access to COVID-19 Tools – Accelerator (ACT-A) together with South Africa and is engaged in the international dialogue on future health security cooperation including establishing a new global financing mechanism for better pandemic preparedness. Norway has so far granted around NOK 6.5 billion to combat COVID-19 under the ACT-A. In addition, Norway has donated 5 million vaccine doses for low and lower-middle income countries under the vaccine pillar of ACT-A, COVAX.

Sources: The Access to COVID-19 Tools (ACT) Accelerator (who.int); Remarks by Jonas Gahr Støre, Prime Minister, Norway at the 8th ACT-Accelerator Facilitation Council (who.int).

Figure 1.3. Norway's COVID-19 fatalities remain comparatively low, most of the population is vaccinated



1. The Oxford COVID-19 Government Response Tracker index is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, and is scaled from 0 (no restrictions) to 100 (highest category of restrictions). The unweighted OECD average covers all OECD countries where data are available for all components.
Source: Oxford University and Our World in Data.

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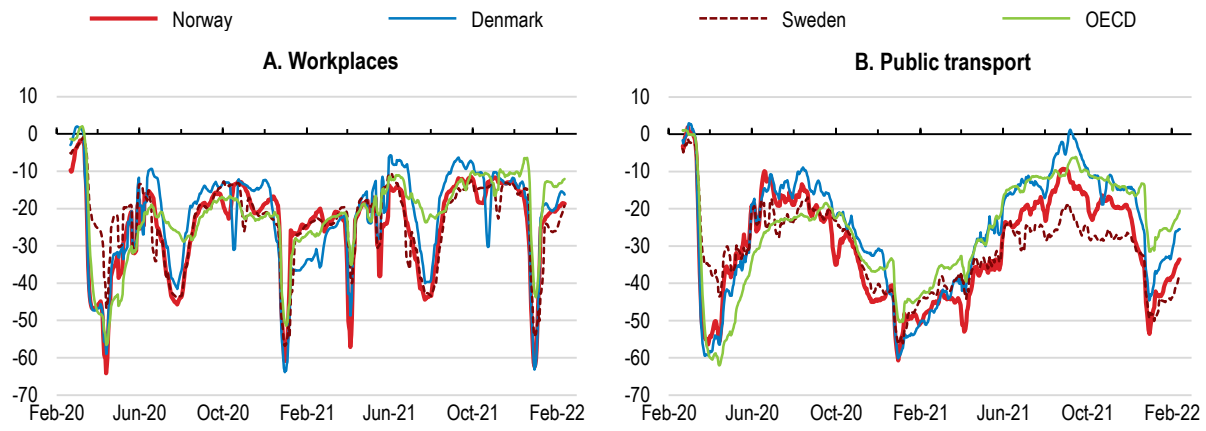
Several indicators are suggesting enduring shifts in work habits and changes in where people want to live in the wake of the pandemic. As elsewhere, the crisis has led to a realisation that for many occupations teleworking is more feasible than previously thought possible. A lasting shift in work habits looks likely, though the magnitude of it is uncertain. Norwegian mobile phone data show that in October 2021, when there were very few restrictions, presence at work places was around 10% below pre-pandemic levels (Figure 1.4). A permanent reduction in the frequency of travel to workplaces would suggest:

- Shifts in the geography of housing demand. Norges Bank research using property register transactions has found evidence of reduced demand for large flats and greater demand for detached houses (Lindquist et al., 2021[1]). There has reportedly also been strong increase in the demand for leisure homes.
- Less use of public transport systems. Mobile phone data indicate that use of public transport systems is still below pre-pandemic levels, despite the return of aggregate economic activity and employment to pre-pandemic trend (Figure 1.4).

- Reduced demand for work spaces, particularly office space, as employers adjust to more employees teleworking (though this could be offset by need for increased space per worker if distancing rules are maintained).
- Lower demand for goods and services provided in business districts, and greater demand in residential areas. For instance, shrinkage in services linked to eating, entertainment and exercise in or near work places would seem likely.

Figure 1.4. A similar downshift in use of workplaces and public transport as other countries

Percentage change in the number of visits recorded on mobile devices relative to early 2020, 7-day moving average



Note: This dataset from Google measures visitor numbers to specific categories of location (e.g. grocery stores; parks; train stations) every day and compares this change relative to baseline a day before the pandemic outbreak. Baseline days represent a normal value for that day of the week, given as median value over the five-week period from January 3rd to February 6th 2020. Measuring it relative to a normal value for that day of the week is helpful because people obviously often have different routines on weekends versus weekdays. The data are not seasonally adjusted.
Source: Google COVID-19 Community Mobility Reports via Our World in data (https://ourworldindata.org/grapher/visitors-transit-covid).

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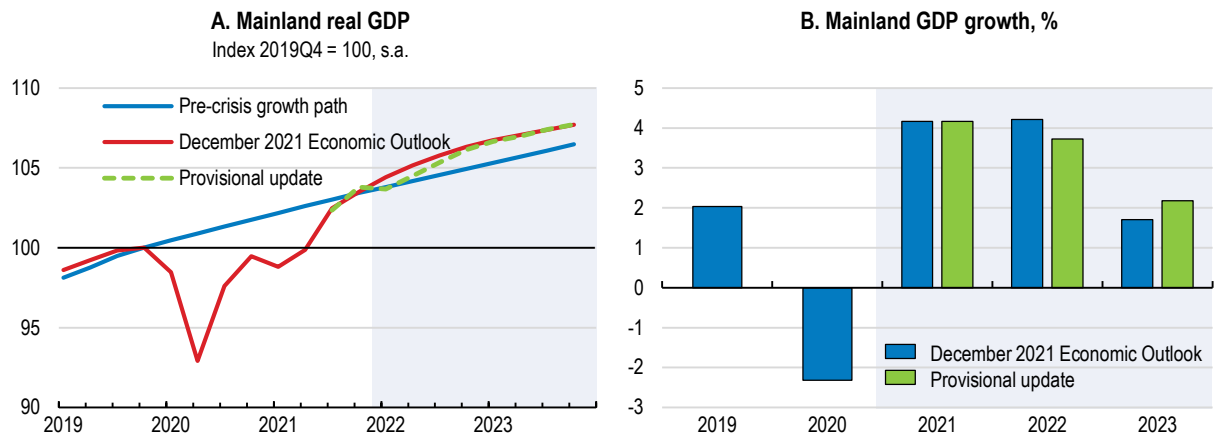
The economy continues to strengthen, but risks remain

Norway's aggregate economic output is close to pre-pandemic trend, despite a temporary slowdown in activity from the Omicron wave. The OECD's latest Economic Outlook (published December 2021) envisaged mainland output growth of 4.2% in 2022 and 1.7% in 2023. Due to the Omicron wave mainland output growth is expected to be weaker than previously forecast in 2022 but stronger in 2023; provisional estimates are for real mainland GDP growth of 3.7% in 2022 and 2.2% in 2023 (Table 1.3) (note, mainland output excludes oil and gas production and shipping). The level of real mainland GDP is still expected to run slightly above estimates of the pre-pandemic trend over the next two years (Figure 1.5). Household consumption will continue to contribute significantly, helped by the additional spending power from savings accumulated during the initial phases of the pandemic. Norges Bank lending surveys suggest the savings accumulated during lockdowns were not widely used to make additional mortgage payments, or towards down payments (Norges Bank, 2021[2]). So it would appear considerable savings are indeed available for further consumption.

Some sectors have been severely affected by the pandemic (Figure 1.6). Some experienced very large drops in activity in the initial months of the pandemic. Notably activity in accommodation and food services dropped by around 50% in the second quarter of 2020. This and other hard-hit industries had since seen significant recovery, before renewed tightening of containment measures in mid-December 2021. Meanwhile some sectors have seen increased activity over the pandemic. Retail has broadly fared well, reflecting substitution in spending from services to goods. In terms of specific sectors, predictably, activity in home delivery services grew rapidly. Also output increase in furniture manufacture and the manufacture of wood products has been large. These developments may link to surges in spending on interior decoration and home office equipment when rates of teleworking were high.

Figure 1.5. Output is close to its pre-crisis trend



Note: Panel A: The pre-crisis growth path is based on the November 2019 OECD Economic Outlook projection, with linear extrapolation for 2022 and 2023 based on trend growth in 2021. The December 2021 Economic Outlook projection was finalised end-November 2021 and the provisional projection was made in February 2022.
Source: OECD (2019), OECD Economic Outlook 106 and OECD (2021), OECD Economic Outlook 110 (databases); and provisional updates.

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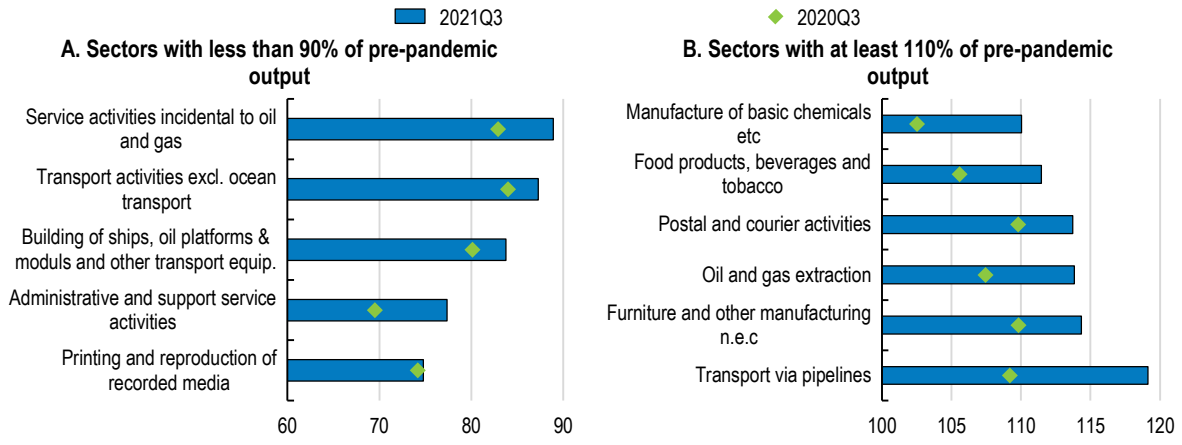
Figure 1.6. Most sectors hit hard by the pandemic are recovering, though not all

Output volume relative to pre-pandemic output Q4 2019, in %



Note: Calculations are based on national accounts value added data at 2018-prices, seasonally adjusted.
Source: Calculations based on data from Statistics Norway.

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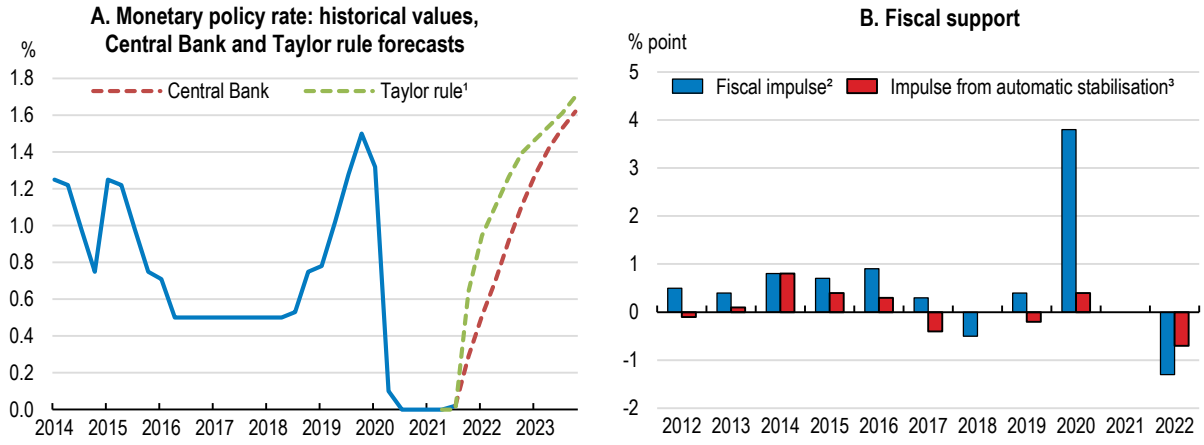
Given the prospect of total output running slightly above pre-pandemic trend when the economic impact of the Omicron wave has passed, macroeconomic stimulus should continue to be withdrawn (Figure 1.7). Prior to the recent surge in infections, fiscal revenues had grown and spending on government transfers had diminished as households and businesses returned to normal levels of economic activity. The government has been able to withdraw most of the temporary support programmes, though some support was reintroduced to combat the Omicron wave (Box 1.3). Norges Bank has begun raising its key policy rate, partly due to the rising price pressures. A first increase was made in September 2021, with a hike from zero to 0.25% and a second increase to 0.5% in December. The policy rate forecast indicates the rate will rise to 1.75% towards the end of 2024 (Norges Bank, 2021[2]). Thus far, the pace of stimulus withdrawal, both fiscal and monetary, appears appropriate. Norway's fiscal support has mostly come through subsidies (as opposed to loans, guarantees and deferrals of tax liability), which reduces the risk of debt overhang and bankruptcies going forward, also making investment prospects brighter. According to IMF data, the total value of support has been relatively small in international comparison (Figure 1.8). Despite the improving economic outlook, the authorities must remain vigilant and responsive to any shift in circumstances, as proved necessary in mid-December 2021.

Figure 1.7. Normalisation of monetary and fiscal support is underway



1. Taylor-rule estimates are based on a backward-looking monetary-policy reaction function and OECD economic projections.
2. Annual change in the structural non-oil deficit. Estimated to be zero in 2021.
3. Automatic stabilisation data are calculations supplied by the Ministry of Finance. Estimated to be zero in 2021.
Source: Norges Bank; Statistics Norway and OECD calculations; and Ministry of Finance.

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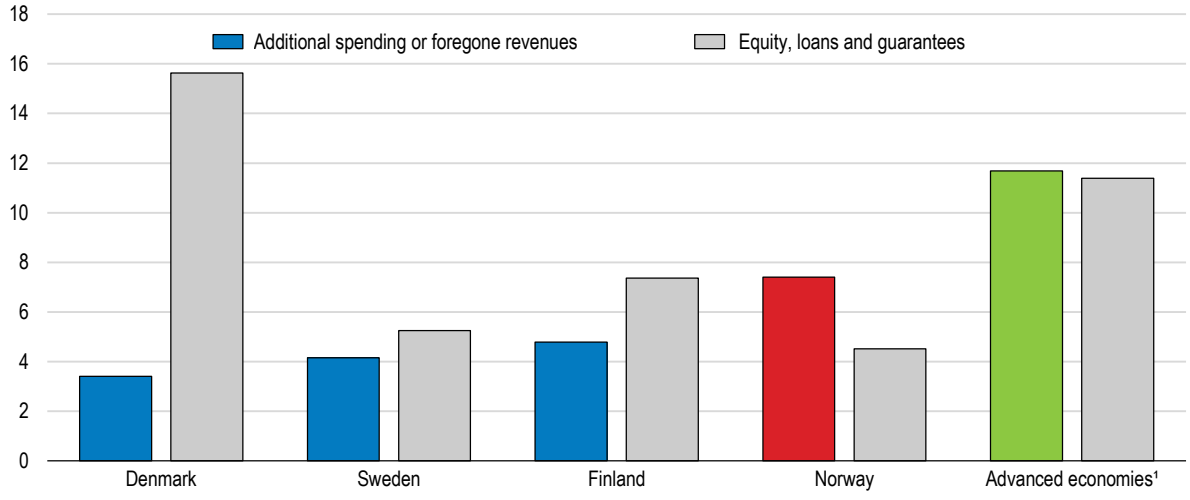
Figure 1.8. Norway's package of fiscal support relied more on income support than on support through equity, loans and guarantees

Discretionary fiscal response to the COVID-19 crisis, % of GDP



Note: Estimates as of September 27th, 2021. Data include COVID-19 related measures since January 2020 and cover measures for implementation in 2020, 2021, and beyond.
1. According to the classification of economies in the IMF Database of fiscal policy responses to COVID-19, i.e. : Australia, Canada, France, Germany, Italy, Japan, Korea, Spain, United Kingdom, United States, Belgium, Czech Republic, Denmark, Finland, The Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland.
Source: IMF (2021), Database of fiscal policy responses to COVID-19.

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Box 1.3. Special measures to support households and businesses during the pandemic

With an already comprehensive welfare system, existing benefit schemes could be adapted to provide much of the additional support to households during the pandemic. For instance, unemployment benefit was made more widely available and more generous in length and pay out (Table 1.1). As shown in later sections on fiscal policy, outlays on extensions to schemes in 2020 were equivalent to around 0.5% of GDP (regular outlays on the schemes also increased substantially). Many other measures were extended or introduced. These targeted specific groups and circumstances, such as compensation for parents having to remain at home due to school closures (an extension of existing parental benefits). In addition, some of the support for businesses was, in effect, also support for households, such as the wage subsidy for employers to re-employ temporary lay-offs. Most additional support had been withdrawn by the end of 2021, however some was re-introduced following the emergence of the Omicron wave in December 2021. This recent support included a new temporary wage subsidy for businesses. Norway's extra support to businesses has been wide-ranging. It has included subsidies, reductions in employer contributions, tax deferrals, loan assistance and targeted support for a wide range of specific sectors (Table 1.2). Most measures were planned to be withdrawn during the last part of 2021, including the most prominent scheme, a subsidy which covered a proportion of fixed business costs for companies facing losses as a result of the pandemic (businesses had to pass criteria demonstrating at least 30% loss of income). This scheme was prolonged for November-December 2021 and the first two months of 2022. The scheme was introduced rapidly, and was subsequently adjusted in light of experience to make it better targeted. For example, a deductible was removed during the first months. Furthermore, the scheme was scaled up and down according to the health situation. In the scheme's latter stages the alterations notably included substantial reduction in support for medium turnover losses partly due to concern about adverse effects around the threshold of 30%. As the economic emergency diminished, there was concern that the scheme was holding back economic recovery with businesses calculating it better to remain closed and eligible for subsidies than reopening in an uncertain economic environment. This is, in part, why the subsidy was tightened in times of economic improvement. In light of the spread of the omicron variant, the scheme was made more generous for November-December 2021.

Table 1.1. Government support for households during the COVID-19 crisis, selected measures

Measure	Selected detail
Augmentation of unemployment benefit *Introduced March 2020.*	Extended duration, increased compensation, wider coverage, three-day waiting time waived. Special rules for seasonal workers in agriculture and fishing industry, cab-drivers, apprentices. A new rule allowing those receiving unemployment benefit to engage in study introduced (permanent change).
Augmentation of temporary lay-off scheme *Augmentation introduced March 2020.*	Reduced employer payment to 2 days (from 15 days) in March 2020, then 10 days from September 2020. Normally a compensation rate of 62.4%, however increased to 80% for income up to around NOK 300 000 and gradually scaled down to 62.4% for income up to around NOK 600 000, which is the maximum income that is compensated. The duration of access to compensation has once again been extended.
Extended right to sickness benefits	Sickness benefits can be granted to patients infected by (suspected) COVID-19 infection.
Extended period for Work Assessment allowance *Due to terminate June 2022.*	The benefit period for persons receiving Work Assessment Allowance (AAP) has been extended.
Labour migration measures *Terminated September 2021.*	Compensation scheme for EEA-workers with a job in Norway who were blocked from entering Norway due to restrictions.
Other support (selected).	Compensation for parents (care benefits) remaining at home due to children in quarantine and closure of schools and kindergartens. Facilities for laid-off employees to remain on company pension schemes. Comparatively small-scale support for a wide range of groups and activities, including students and apprentices.

Source: OECD

Table 1.2. Government support for businesses during the COVID-19 crisis, selected measures

Measure	Selected detail
Fixed-cost subsidy scheme *Introduced March 2020*	A subsidy covering a portion of the fixed cost for companies facing a turnover decrease related to COVID- 19.
Labour-cost subsidy scheme. *Introduced December 2021*	The amount of wage-bill support depends on how much a firm's sales income declines. Payouts are capped at a maximum of NOK 40 000 per employee and must not exceed 80% of former wage costs (thus remaining in line with EU competition rules).
Labour-cost subsidy scheme *Introduced July 2020, terminated 31 August 2021*	Grants to cover labour costs for employers who take back laid-off workers. Pay-outs were up to NOK 15 000 per month per employee.
Temporary cut in employer contribution *in May and June 2020*	A cut in the employers' social insurance contributions by 4 percentage points for the equivalent of 2 months.
Reduced pay-out obligations for temporary layoffs and sick leave *Introduced March 2020*	Reduction in the number of days that employers are obliged to pay salary to workers at temporary lay-offs (see Table 1.1). Reduced employer contribution period when sickness due to (suspected) COVID-19 infection. Employer contribution in case of covid-related sickness absences reduced from 16 days to 3 days in March 2020, increased in September 2021 to 10 days, and reduced again in December to 5 days.
Credit and loan guarantee support *Introduced March 2020, terminated October 2021. Reintroduced January 2022*	State guarantees for enterprises, initially for firms with less than 250 employees, later extended to all enterprises (in total up to NOK 50 billion). Reinstatement of the Government Bond Fund that purchases company bonds (in total up to NOK 50 billion).
Other tax measures	Temporary reduction in the low VAT rate from 12 to 6%. Measures to help lossmaking companies that i) enabled lossmaking companies to re-allocate their loss in 2020 towards previous taxed surplus in 2019 and 2018, and ii) enabled the owners of lossmaking companies to postpone payments of wealth tax. - temporary tax concessions for the oil and gas sector (see main text).
Sectoral support *Some measures remain in place Due to terminate June 2022*	Various support for air travel sector including: a special aviation-sector guarantee, temporary suspension of the tax on air passengers, aviation charges. A range of supports for innovative and research-oriented businesses, including: grants for young growth companies, innovation loans, interest-payment support, grants for private innovation groups, business-oriented research support, capital for funding and matching investments, increased basic support for research institutes. Support for a wide range of other sectors, including culture, sport and voluntary sectors; the brewery industry; fuel industry; horse racing and reindeer herding.
Other measures	Lighter share-price rules in the event of a change of control in listed companies, with a view to facilitating acquisition and restructuring. Strengthened support for skills upgrade and in-house training for companies through increased grants to the counties.

Source: OECD

One concern for the outlook is that the business sector may be weaker than appears in the data. Businesses and employment have been supported by various programmes, and thus the true state of economic recovery may be less robust than it appears. Activity in some sectors, though much recovered, remains below pre-pandemic levels and the increase in electricity costs will be weighing on many businesses. Furthermore, indicators on the health of the business sector have not always worked well in the wake of the pandemic downturn. For instance, bankruptcy filings temporarily stopped being a guide to the extent of business failure, inter alia due to less bankruptcy filings from the tax authorities during the pandemic and the introduction of a temporary scheme for tax deferrals (Figure 1.9). Further business failures may emerge, particularly in sectors hard hit by the crisis. Some evidence suggests risk of this materialising into a serious threat to economic recovery looks to be small. Norges Bank research finds that collecting deferred VAT will hardly trigger a wave of bankruptcies (Norges Bank, 2021[2]). Also, under a temporary scheme businesses are able to pay deferred tax debt bills in monthly instalments. Nevertheless, the risk of a destabilising wave of weak business performance, including bankruptcies, should not be discounted completely.

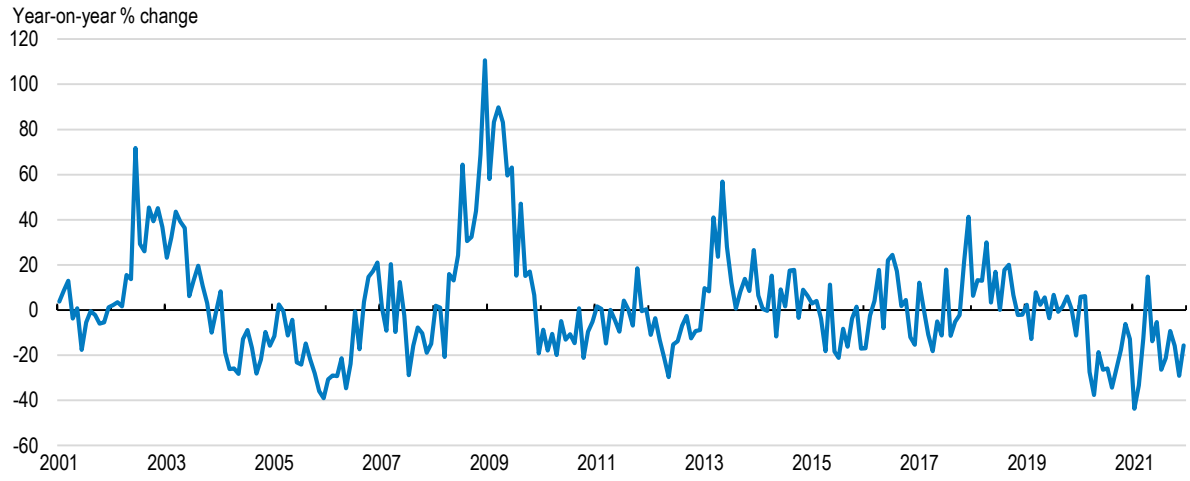
Table 1.3. Macroeconomic indicators and projections

	2018	2019	2020	2021	2022	2023
	Current prices (NOK billion)	Percentage change, volume (2018 prices)				
Total GDP at market prices (A)	3554	0.7	-0.7	3.9	4.5	2.7
Mainland GDP[1] at market prices (B)	**2935**	**2.0**	**-2.3**	**4.2**	**3.7**	**2.2**
Mainland GDP[1] at market prices (Economic Outlook, December 2021)		2.0	-2.3	4.2	4.2	1.7
Petroleum-production contribution to GDP volume growth (A minus B)		-1.3	1.6	-0.2	0.8	0.5
Potential GDP (based on mainland GDP)	. .	1.5	1.4	1.2	1.2	1.2
Output gap (% of potential mainland GDP)	. .	0.3	-3.4	-0.5	1.9	2.8
Total GDP volume components						
Private consumption	1,527	1.1	-6.6	5.0	6.6	3.1
Government consumption	826	1.3	1.8	3.9	2.3	1.2
Gross fixed capital formation	850	9.5	-5.6	-0.3	3.7	3.0
Housing	194	-1.1	-4.0	2.6	0.5	1.8
Business[2,3]	463	14.8	-8.0	-0.3	4.3	3.8
Government	194	7.5	-1.1	-3.1	5.3	2.0
Final domestic demand	3,203	3.4	-4.2	3.2	4.6	2.6
Stockbuilding[4,5]	147	-1.1	-0.4	0.1	0.1	0.0
Total domestic demand	3,350	2.1	-4.5	3.0	4.6	2.4
Exports of goods and services	1349	1.1	-1.2	4.8	7.2	3.0
of which crude oil and natural gas	569	-0.1	4.4	..	..	..
Imports of goods and services	1,146	5.1	-11.9	2.0	8.4	2.7
Net exports[4]	204	-1.2	3.7	0.9	0.4	0.5
Other indicators (growth rates, unless specified)						
Labour-market and households						
Employment[6]	. .	1.1	-0.6	1.5	2.0	0.9
Unemployment rate (% of labour force)	. .	3.7	4.6	4.3	3.5	3.2
Household saving ratio, net (% of disposable income)	. .	7.6	14.5	13.5	9.1	8.1
Deflators, prices						
GDP deflator	. .	-0.5	-3.6	16.9	5.9	1.3
Consumer price index	. .	2.2	1.3	3.5	2.5	1.5
Consumer price index (Economic Outlook, December 2021)	. .	2.2	1.3	3.4	2.0	1.4
Core consumer price index[7]	. .	2.6	3.1	1.4	1.5	1.5
Trade and current account balances						
Trade balance (% of GDP)	. .	1.5	-0.8	12.5	12.9	12.9
Current account balance (% of GDP)	. .	2.9	0.7	14.6	14.5	14.5
Money market rates and bond yields						
Three-month money market rate, average	. .	1.6	0.7	0.5	1.4	2.0
Ten-year government bond yield, average	. .	1.5	0.8	1.5	2.2	2.6
General-government fiscal indicators (OECD)						
General government fiscal balance[8] (mainland, % of mainland GDP)	. .	-0.2	-5.3	-5.1	-3.2	-2.3
General government net debt (% of GDP)	. .	-331.2	-370.1	..	..	..
Central-government fiscal indicators (Ministry of Finance)[9]						
Structural non-oil balance [10, 11] (% trend mainland GDP)		-7.7	-11.5	-11.6	-10.4	..
Government Pension Fund Global (% of mainland GDP)[12]		-268.7	-331.5	-337.1	..	..
Structural non-oil balance[11] (as a % GPFG)		-2.9	-3.6	-3.5	-2.9	..

Note, unless otherwise stated, these projection numbers are from a provisional economic forecast by OECD Secretariat completed in February 2022.
1. GDP excluding oil, gas and shipping.
2. Also includes shipping sector.
3. 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.
4. Contributions to changes in real GDP, actual amount in the first column.
5. Including statistical discrepancy.
6. Employment growth includes an adjustment to take account of a break in the data between 2020 and 2021.
7. Consumer price index excluding food and energy.
8. Year-on-year changes in this balance roughly equate to year-on-year changes in the Central-government structural non-oil balance.
9. Figures published in the government's latest budget proposals.
10. 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.
11. 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.
12. At the beginning of the year.
Source: OECD (2021), OECD Economic Outlook 110 (database); Statistics Norway; and Ministry of Finance.

Figure 1.9. Bankruptcies have so far been lower during the pandemic

New bankruptcy proceeding started, s.a.



Source: Statistics Norway and OECD calculations.

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Uncertainty about the future global price of oil, and more broadly the future of the petroleum sector, is a perennial source of upside and downside risk for activity and incomes relating to the industry. Dramatic fall in the oil price in the initial months of the pandemic contributed to a decline in investment activity in the sector. With intensifying global awareness of climate change, it is possible that Norway's transition away from oil and gas activities may be faster than previously expected, while the current high gas prices may point in the other direction. As discussed in previous *Surveys*, it is the speed of the transition from petroleum to other activity that will determine whether there are critical macroeconomic consequences for the Norwegian economy. If labour and capital resources can be reallocated away from the oil and gas sector and related industries at a speed that avoids substantial increase in unemployment or stranded assets, then the transition will be comparatively benign. Already, the Norwegian economy is less oil dependent than only a few years ago and has proven its strong ability to adjust. Oil companies have gone through a cost-cutting process, lifting profitability even at low prices. Employment in petroleum related activity has fallen by a third. Gas is becoming an increasingly large part of Norwegian petroleum-sector production. Furthermore, natural gas has a key role in the global energy transition. It enables increased and faster phasing out of coal for some European countries. Natural gas with carbon capture and storage might also be an important source for hydrogen production. The current energy crisis in Europe and geopolitical risks also illustrate the importance of stable and reliable gas deliveries to the European market.

Table 1.4. Events that could lead to major changes in the outlook

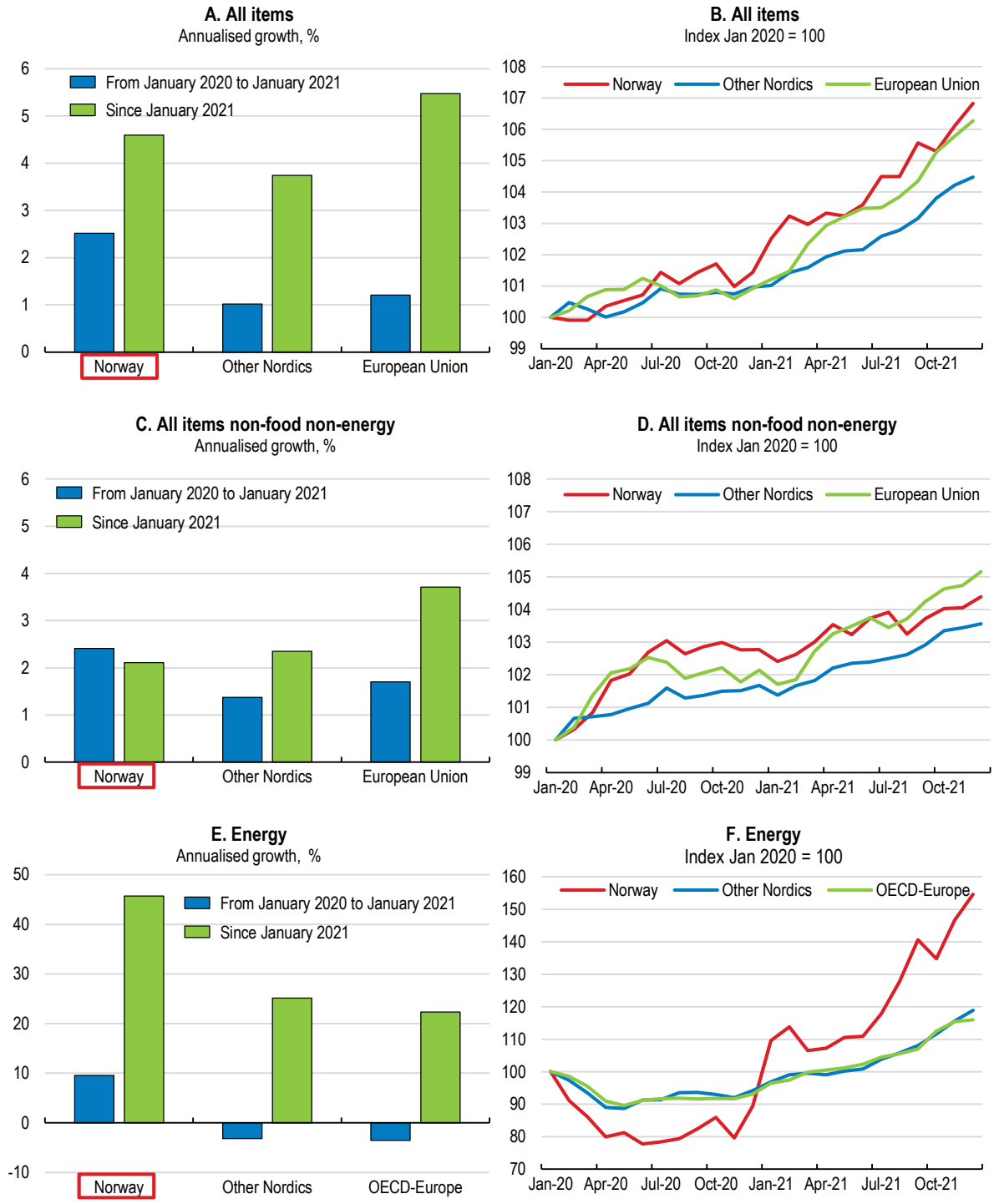
Possible extreme shocks to the Norwegian economy	Possible outcome	Policy response options
Emergence of another strain of COVID-19, beyond the Omicron variant, that is highly virulent and deadly.	Current vaccines could prove ineffective against new strains, with potential for even larger increases in numbers of hospitalisations, cases of serious illness and fatalities.	Continued identification of virulent new strains and prompt action to prevent their spread, including through vaccination. Re-imposition of social distancing measures.
Spiralling wage and price inflation.	Macroeconomic instability from large price and exchange-rate movements, relative price distortions leading to misallocated resources, losses for households whose incomes do not keep pace with inflation.	Managed control and reduction of inflation through monetary policy. Support for low-income households hard hit by inflation
Large house-price correction and household debt deleveraging.	Large house-price falls (a "hard landing") could lead to falling household consumption, losses for businesses, reduced value on commercial property 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.
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). Decline of petroleum-related activities. Large job losses and falls in income and output, particularly in certain regions. High-price scenario. Increased wealth and incomes but a deepening of the challenges in managing oil wealth.* *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.	For low price scenario. Monetary and fiscal support. Targeted support for most affected regions and sectors. Intensified efforts to improve the environment for non-oil business.

Financial stability: costs, prices and wages on watch, household debt still high

Recent energy-price increases are most likely temporary, but more persistent wider price pressure is a risk

In recent quarters, headline consumer price inflation has been strongly driven by large electricity price increases. Norway is connected to the European electricity grid but, as is typical in electricity markets, limitations in transmission capacity mean that, to an extent, electricity prices have a different level and dynamic from neighbouring markets (similarly, there are price differences across regions within Norway). Norway experienced particularly sharp electricity-price rises in late 2020 and in the autumn of 2021 (Figure 1.10., Panel E). Economic recovery, plus cold weather, boosted demand for electricity. Supply was, inter alia, affected by below-average wind and dry weather in southern Norway, the latter affecting hydropower generation. Growing global demand for liquefied natural gas (LNG) and consequent growth in natural gas prices in Europe have also played a role (Norges Bank, 2021[2]). As Norwegian households typically have variable-price electricity supply contracts, there is strong transmission from wholesale prices into retail energy bills. There is support to help with paying bills via social welfare; low-income households may receive a higher municipal social assistance payment where electricity costs are included in the municipality's means testing for benefits. Concern for the impact of recent electricity-price increases has prompted temporary compensation by central government (Box 1.4). In addition, a cut in the tax on electricity has also been introduced. Both the temporary compensation and the tax cut benefit all households, including higher-income households that can likely cope with high electricity prices. These policies are therefore an inefficient way to address concerns for energy affordability, which are primarily a concern for low-income households.

Figure 1.10. Norway's headline consumer price inflation has been pushed up by large energy-price increases



Note: OECD-Europe includes OECD countries that are also European countries. Geographic definition of Europe including Turkey.
Source: OECD (2021), Main Economic Indicators (database); and OECD calculations.

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Box 1.4. Norway's temporary electricity-bill compensation scheme for households

Concern for the impact of high electricity prices on the cost of living prompted the government to introduce a temporary compensation scheme. For the month of December 2021 the scheme refunded 55% of the cost of electricity above a price of 0.70 NOK per kWh. For the period January to March 2022 the refund rate has been increased to 80%. The refund is capped at 5 000 kWh per household. It is made automatically on a household's electricity bill and the power supply companies are compensated by the government. The government aims at introducing a similar scheme for the agricultural sector.

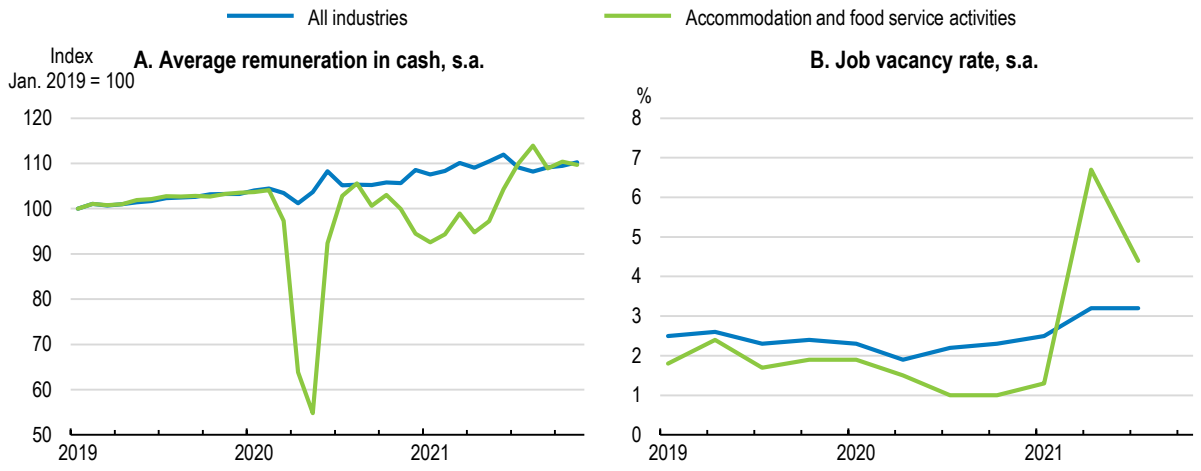
Similar to elsewhere, there are concerns about the effects on consumer prices of global supply bottlenecks in computer chips, lumber and shipping (notably reflected in high container prices). Some impact is apparent in consumer prices . For instance, maintenance and repair of dwellings showed sharp growth in mid-2021, reflecting a short-lived but substantial increase in lumber prices. However, so far the impact on overall prices in Norway of international supply-chain disruption has been small.

Meanwhile, however, a close watch on wage pressures is required. The pressures are growing with rising labour demand, relatively small inflows of foreign workers during the pandemic and the increase in consumer price inflation. A key question is whether the pressures start to fuel a generalised wage-price spiral. Certainly, labour market developments in some industries have been dramatic. At least prior to the Omicron wave, the vacancy rate in the accommodation and food services sector was high and with it, growth in average employee remuneration (Figure 1.11) (there is some concern that support for furloughed workers may be contributing to labour shortages in the sector, (Norges Bank, 2021[2])). Furthermore, recent quarterly wage data have indicated that more general wage growth may be underway, though more data points are needed to confirm this (Figure 1.12). Norway's centralised wage-setting process limits the risk of wage-push inflation as it ensures macroeconomic considerations are typically given considerable weight in employee wage demands (the trade-exposed manufacturing sector is always the first sector that negotiates, providing a benchmark wage increase to other sectors). This said, when profits in the export sector are large, which has been the case in recent quarters due to higher oil and gas prices, then the guideline wage also increases.

It seems most likely that the recent pressures on consumer-price inflation will not spark a generalised surge in wage and price inflation. Norway's headline consumer-price inflation has largely been pushed up by energy price hikes that have origins in temporary events, such as weather-related influences on hydroelectricity supply. A downward correction in energy prices, and headline inflation, seems likely. Core inflation remains moderate.

Nevertheless, an outbreak of generalised price and wage inflation cannot be ruled out. Despite the anchoring provided by Norway's centralised wage bargaining system, wage inflation could see substantial increase. The tightening labour market has put employees in a strong position to ask for higher wages in response to rising living costs. Wage hikes would feed back into business costs, and likely output prices.

Figure 1.11. Remuneration and vacancies increased markedly in hospitality in 2021



Note: Panel A: Payment in cash includes all payments in cash from the employer including basic monthly earnings, fixed and variable allowances, bonuses, overtime pay and other payments in cash. Panel B: The job vacancy rate measures the proportion of total posts that are vacant.
Source: Statistics Norway.

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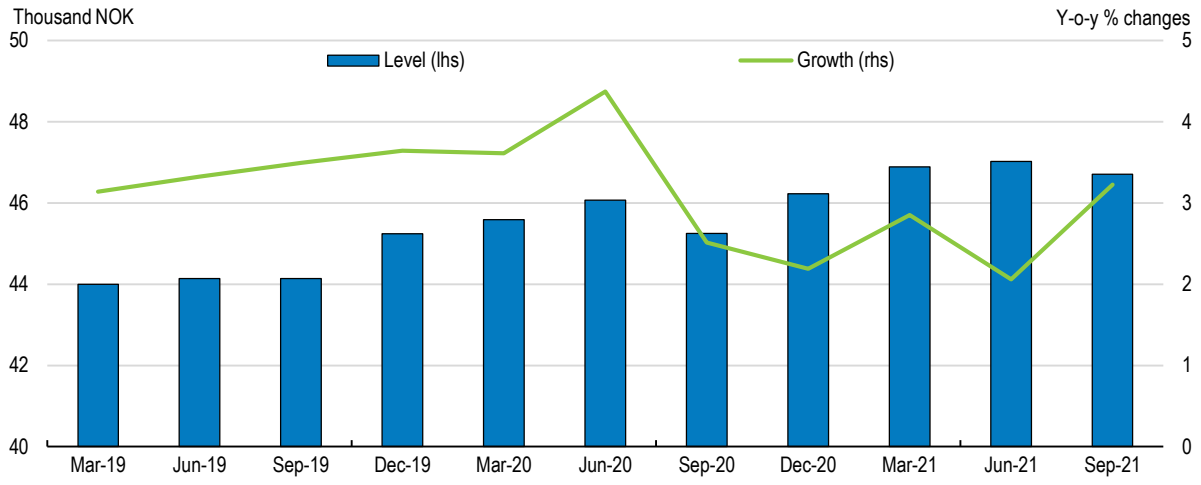
Figure 1.12. Quarterly data indicate a more general increase in wage growth may be underway

Average nominal basic wage



Note: The basic wage index excludes supplementary components of earnings, such as overtime and bonuses. The wage index is for all industries and therefore changes in the index may reflect compositional changes in employment alongside changes in individual employees' wages.
Source: Statistics Norway.

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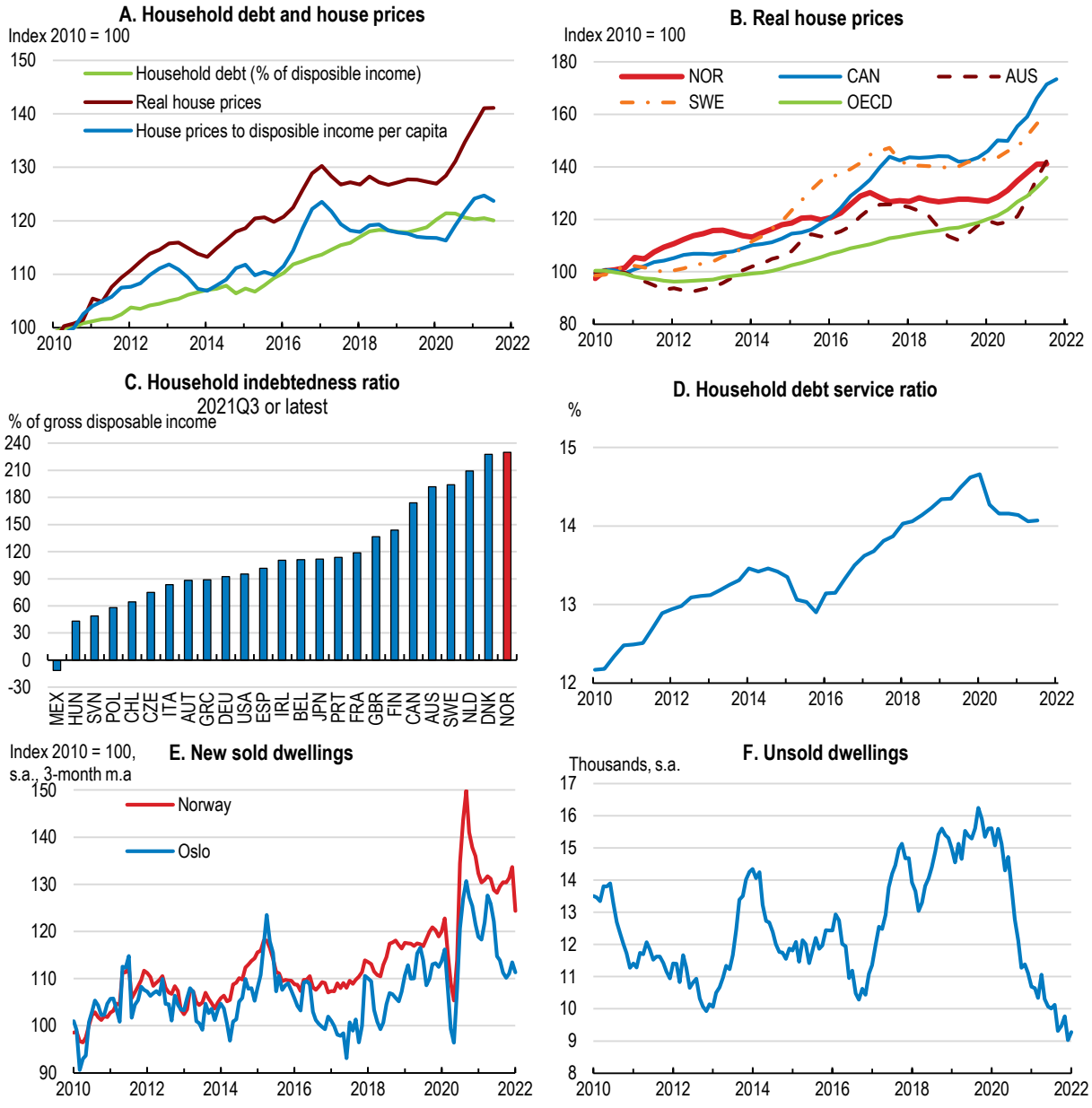
House prices and related debt remain a potential source of financial instability

Steep rises in house prices over the pandemic have added to past surges in the cost of home purchase. Canada, Sweden and Australia are among the OECD countries that have found themselves in a similar

position (Figure 1.13). Expansionary monetary policy has been a contributory factor. Studies suggest that in Norway a 1 percentage-point reduction in the interest rate will lead (over time) to a pre-tax increase in house prices of between 4% and 11% (Norges Bank, 2021[2]). Higher savings arising from reduced consumption opportunities during lockdowns, and the prospect of more time working from home are also likely to have fuelled demand for housing, including renovation and upgrade. Lift-off in rate normalisation is likely to temper price growth. This may have already been playing a role in the recent softening of price growth seen in some areas, including Oslo. An estimate of the "fundamental" house price index by Norway's *Housing Lab* research unit suggests the country's house prices were overvalued by around 13% as of the second quarter of 2021, before Norges Bank begun raising its policy interest rate (the approach factors in household income, interest rates, and housing stock per capita).

Figure 1.13. House prices and debt are elevated



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

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The recent house-price increases, and further mortgage borrowing linked to this, add to risks of a correction with impacts on the wider economy. The most important channel would be through household consumption. 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, 2019[3]). Weakening household consumption could, inter alia, feed through to the business sector, prompting business-loan losses for banks and an increase in mortgage borrowers encountering financial difficulty.

Furthermore, high household debt also makes Norway more vulnerable in the event of downturns, whether stemming from house-price correction or otherwise. Capitalisation requirements and safeguards in mortgage lending appear sufficient to avoid a direct risk to banks via mortgage default (see below). However, high household debt-servicing commitments imply large cutback in consumption in the event of a downturn in incomes. As most mortgages are variable-rate, changes in the interest rate directly impact a majority of mortgage holders. The substantial increase in the household saving ratio over the pandemic suggests many households currently have a buffer to handle any additional debt-servicing requirements. However, it is expected this will be eroded due to pent up demand boosting consumption of goods and services.

In addition, high household debt raises risks related to bank wholesale funding. Norwegian banks rely quite heavily on wholesale funding, much of it comprising covered bonds that are collateralised against mortgages. These bonds provide cheap and stable funding. However, 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 balloon if banks simultaneously sell off covered bond holdings.

Macro-financial risk from Norwegian banks' large holdings of commercial real estate has also grown in the wake of the pandemic. About half of banks' exposures to the Norwegian corporate sector are in this segment. Norges Bank's latest assessment (Norges Bank, 2021[2]) envisages a pick-up in commercial real estate rents in the near term as the economy recovers further. Further ahead, however, there is possible downside risk once businesses fully adjust to operating with more employees teleworking and consequently reduced needs for office space. As suggested in previous *Surveys*, additional data collection that gives a better picture of market developments would be helpful. In a welcome development on this front Norges Bank has recently switched to a new provider of statistics of prime office space that will provide data on a broader set of office premises (Norges Bank, 2021[4]).

Given these post-pandemic risks and normalisation of economic activity, macro prudential instruments are, sensibly, being maintained. Increases in Norway's countercyclical buffer (part of bank capitalisation requirements) were announced in June 2021 (as part of the emergency economic response in early 2020, the buffer had been cut from 2.5% to 1%, Figure 1.14). Norges Bank has announced an intention to lift the countercyclical buffer requirement back to the pre-pandemic level from July 2023. Regulations on mortgage and consumer loans were renewed without alteration in January 2021. These include caps on loan-to-value ratios and on the ratio of debt to income (Box 1.5). Evidence from new loans prior to the pandemic showed that both these regulations were indeed limiting lending activity (see the 2019 *Survey*). During the pandemic they will have helped limit the growth in housing and mortgage demand prompted by the sharp reduction in the policy rate.

Box 1.5. Norway's macroprudential measures on mortgages and consumer loans

Rules imposed by financial authorities on mortgage-lending and consumer loans are a core channel through which financial-market policy aims to ensure prudent lending to households. Bank capital requirements and the monitoring of financial institutions (for instance via the scrutiny of balance sheets or detailed lending data) are the two other main channels. Norway's macroprudential rules on mortgage lending and consumer loans principally comprise caps on the value of a loan in relation to the value of the property being purchased (loan-to-value ratio) and a limit on a household's total debt in relation to its income (debt-to-income limit) (Table 1.5). Lenders are also required to check that the borrower can cope with an increase in the interest rate (stress test). Interestingly, Norway's macroprudential rules include some geographic variation; some mortgage rules are tougher for purchases in Oslo than in other parts of the country. Also, there are "flexibility quotas" that provide financial institutions scope to provide some loans that exceed the limits set.

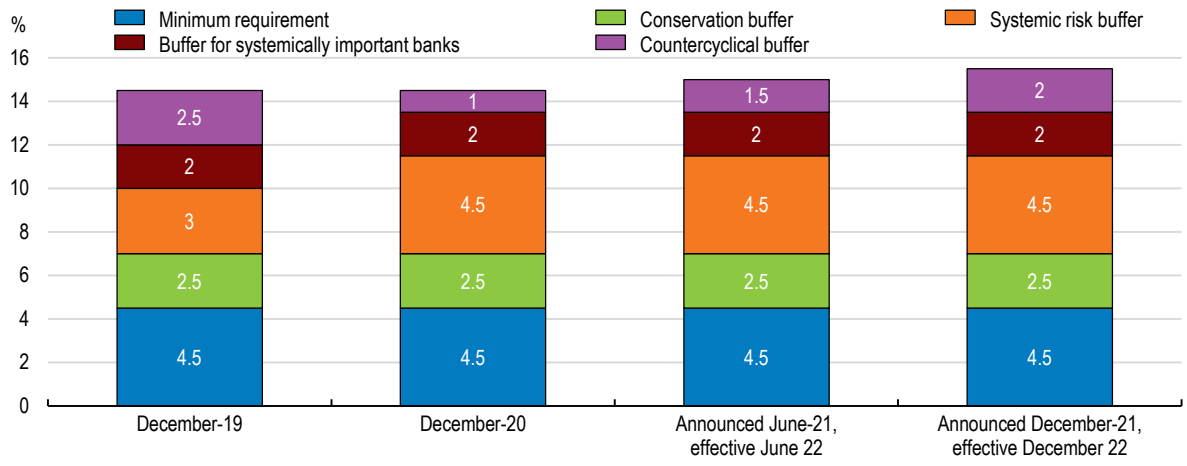
Table 1.5. Details of Norway's macroprudential rules on mortgages and consumer loans

	Mortgages	Consumer loans
Maximum loan-to-value (LTV) ratio, installment loans	85% standard, 60% for secondary dwellings in Oslo	-
Maximum loan-to-value (LTV) ratio, home equity credit lines	60%	-
Mandatory principal payments	Loans with LTV ratio above 60%	All loans
Maximum debt-to-income limit	5 times the level of income	*Same as for mortgages*
Stress test of debt-servicing ability in the event of an interest rate increase	5 percentage-point interest-rate hike	*Same as for mortgages*
Flexibility quota. Banks are allowed a certain percentage of lending volume each quarter to exceed regulation requirements.	10% standard, 8% in Oslo	5%

Source: *Lending Regulation*, press release posted 25 October 2021, Ministry of Finance.

Figure 1.14. Bank capital buffers are being expanded now the crisis is receding

Ratio of Common Equity Tier 1 (CET) requirements to risk-weighted assets, Norwegian Banks



Note. Norges Bank has signalled an increase in the countercyclical buffer for July 2023.
Source: Norges Bank (2021), Norway's Financial System and Norges Bank press releases.

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Assessment of price inflation facing households, and analysis of monetary stance and financial stability, would be helped if the housing components of Norway's consumer-price index more strongly reflected housing market developments. Together with a measure of market rents, Statistics Norway, like many other national statistical agencies, includes in the CPI an estimate of the implied cost of housing for owner-occupiers. To do this they assume that so-called "imputed rents" to owner-occupied dwellings evolve in line with market rents. This type of "rental equivalence" approach is appropriate in countries where rental markets are large, and representative of the broader housing market. This is not the case in Norway: the rental market is relatively small compared with that for owner-occupied dwellings, and caters to a different segment of the population. Consequently, the price dynamics for rental and owner-occupied properties can differ. Furthermore, it is in principle harder to infer growth in imputed rents from observed growth in market rents. Alternative methods, notably approaches based on tracking the user cost of housing, can be more appropriate in such settings. In Canada, a price index for owned accommodation is constructed by estimating movements in costs related to mortgage interest, repairs and maintenance, depreciation and taxes. This can help ensure the impact of housing price movements is reflected in growth in the CPI. In light of such approaches, and initiatives elsewhere, for instance by the European Central Bank (ECB, 2021[5]) consideration should be given to a measure for owner-occupied housing costs that more fully reflects housing market developments.

Table 1.6. Past recommendations on macroeconomic and financial stability

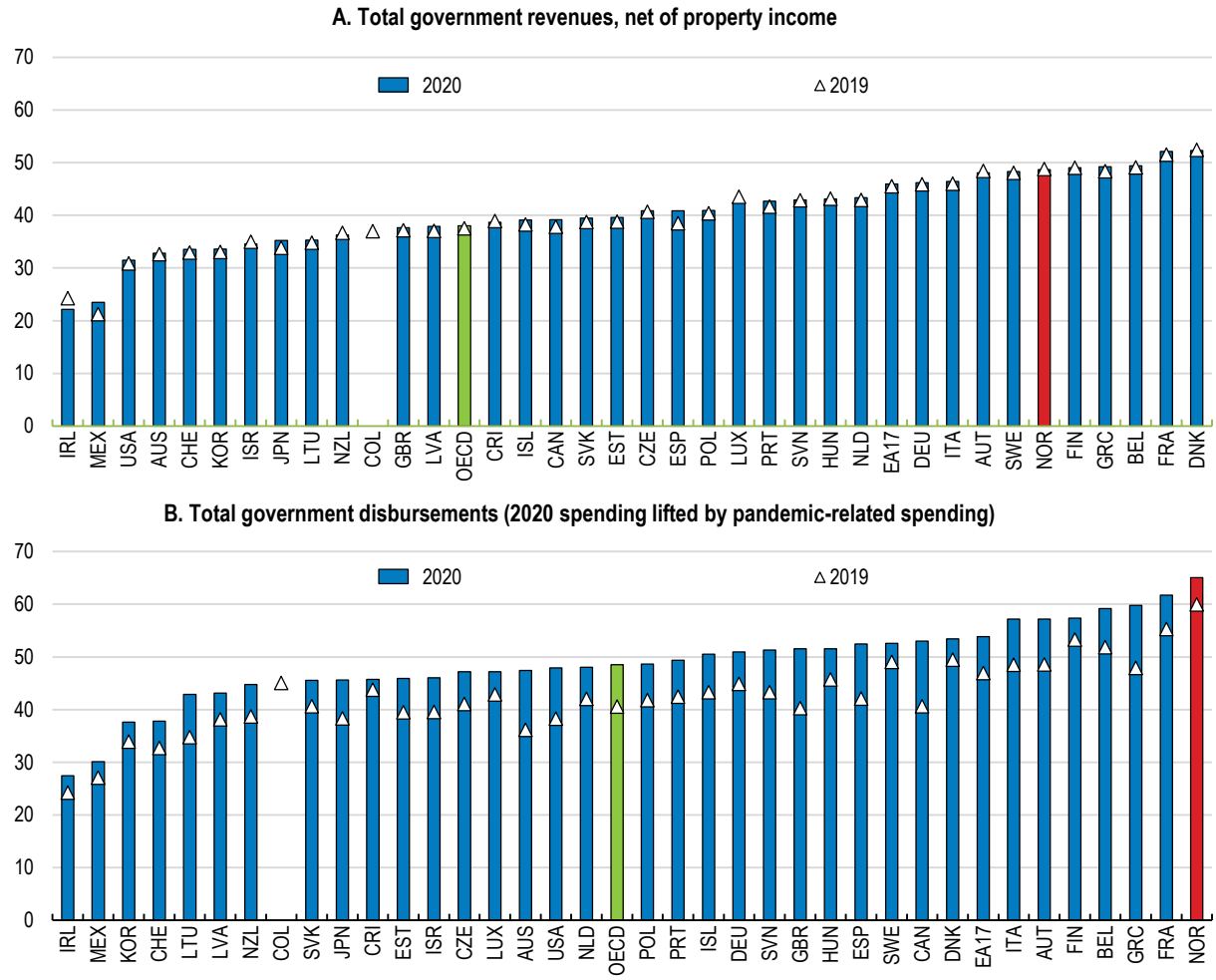
Recommendations	Action taken since the previous *Survey (December 2019)*
Should house-price growth remain uncomfortably high, consider additional macro prudential measures.	Response to the pandemic dominated policymaking. Policy rate cuts made as part of this response contributed to a surge in house-price growth. Other measures to increase liquidity included a lowering of banks' regulated counter-cyclical capital buffer. In addition, the "speed limits" in the mortgage regulation were softened. As of late 2021, most measures had been terminated or were in the process of being restored to normal settings. Macro prudential regulation on mortgage borrowing was renewed without alteration in January 2021.
Facilitate more responsive housing supply. In particular, lighten rules on release of land for development.	No major reform.

Fiscal policy: keeping on track with the fiscal rule

Like other Nordic countries, Norway's public spending is comparatively high, reflecting a commitment to comprehensive public provision of services and welfare support integral to its socio-economic model. In any given year, Norway's government outlays as a share of mainland GDP are often the highest in the OECD area (Figure 1.15). (Needless to say, the differences in public spending between Norway and other countries do not necessarily wholly reflect differences in provision. For instance, pension provisions in some other countries are centred on mandating saving into pension accounts that does not feature in public spending). Norway's large outlays are partly funded by petroleum wealth through a fiscal system that allows it to run substantial mainland-economy budget deficits for the benefit of current and future generations (Box 1.6). Nevertheless, the tax revenues required are large and mainland Norway's ratio of general government revenue to GDP is also among the highest in the OECD.

Figure 1.15. Norway's socio-economic model involves high government spending and taxation

% 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 (2021), OECD Economic Outlook (database).

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Norway's fiscal system worked well during the pandemic

Norway's wealth-fund system (Box 1.6) has proved effective over the pandemic. Channelling public revenues from resource extraction into a wealth fund avoids the fiscal problems that can arise when such revenues feed directly into government balances; for instance when oil prices drop suddenly, as happened in the early phase of the pandemic. Indeed, the wealth-fund system operates counter cyclically; an oil-price drop generally triggers currency depreciation that usefully bolsters the value of the wealth fund (which invests in foreign assets) and consequently also the value of the guideline deficit. In addition, flexibility in the fiscal rule allows the deficit to run above the guideline in a given year (Box 1.6), providing scope for fiscal stimulus during a crisis.

Spending on special measures to help households and businesses is estimated to be equivalent to 4.1% of GDP in 2020 and 3% in 2021 (Table 1.7). Measures supporting companies accounted for 45% of the outlays, the largest item being a scheme supporting hard-hit businesses to cover fixed costs. Other pandemic support measures included extra support for households, typically through extensions to existing transfers and extra support to public services (notably health care).

Table 1.7. Estimated spending on special measures to support households and businesses during the pandemic

Total spending in each budget year, NOK billion

Group/sector supported by the measures	2020	2021	Total	% of Total spending
Businesses	69	31	100	44.2
Households	19	20	39	17.4
Sectors of critical importance	41	36	77	34.2
Culture, sports and volunteering	6	4	10	4.1
Total	135	91	226	100
Total, % annual mainland GDP	4.1%	2.8%		

Note: The amounts for 2020 are adjusted to 2021 prices.
Source: Ministry of Finance, Proposition to Parliament 51S, January 2022.

National Budget planning for 2022 has been appropriately prudent. The central government's core mainland deficit measure (the "structural non-oil deficit") is estimated to turn out at 11.6% of trend mainland GDP in 2021, well above the guideline deficit in the fiscal rule. With economic recovery well advanced, and significantly reduced need for pandemic financial support for households and businesses, the fiscal deficit should decline substantially. The National Budget for 2022, published in autumn 2021 budgeted for a deficit of 9.5% of mainland GDP, which is below the "3% path" guideline value (Figure 1.16, Panel C). With inclusion of the subsequent temporary support during the Omicron wave and for compensating high electriciy prices, the deficit is estimated to turn out at 10.4% of mainland GDP. This budgeting strategy reflects concern that downside risks on the returns to the wealth fund have increased. Indeed, the long-term perspective used in budget planning for 2022 includes downward adjustment in the guideline deficit (technically, the equivalent of NOK 1 000 billion at 2021 prices has been deducted from the value of the fund before calculation of the 3% guideline deficit values). (This adjusted 3% path is shown alongside the standard 3% path in Panel C of Figure 1.16).

Box 1.6. Norway's fiscal system

Norway has used revenues from offshore petroleum production to accumulate a wealth fund (the Government Pension Fund Global, GPFG). 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 Norway's entire non-oil budget deficit. The fund, which has a value equivalent to around 3.5 times annual GDP, is invested entirely in foreign assets, which helps offset the currency appreciation arising from petroleum exports.

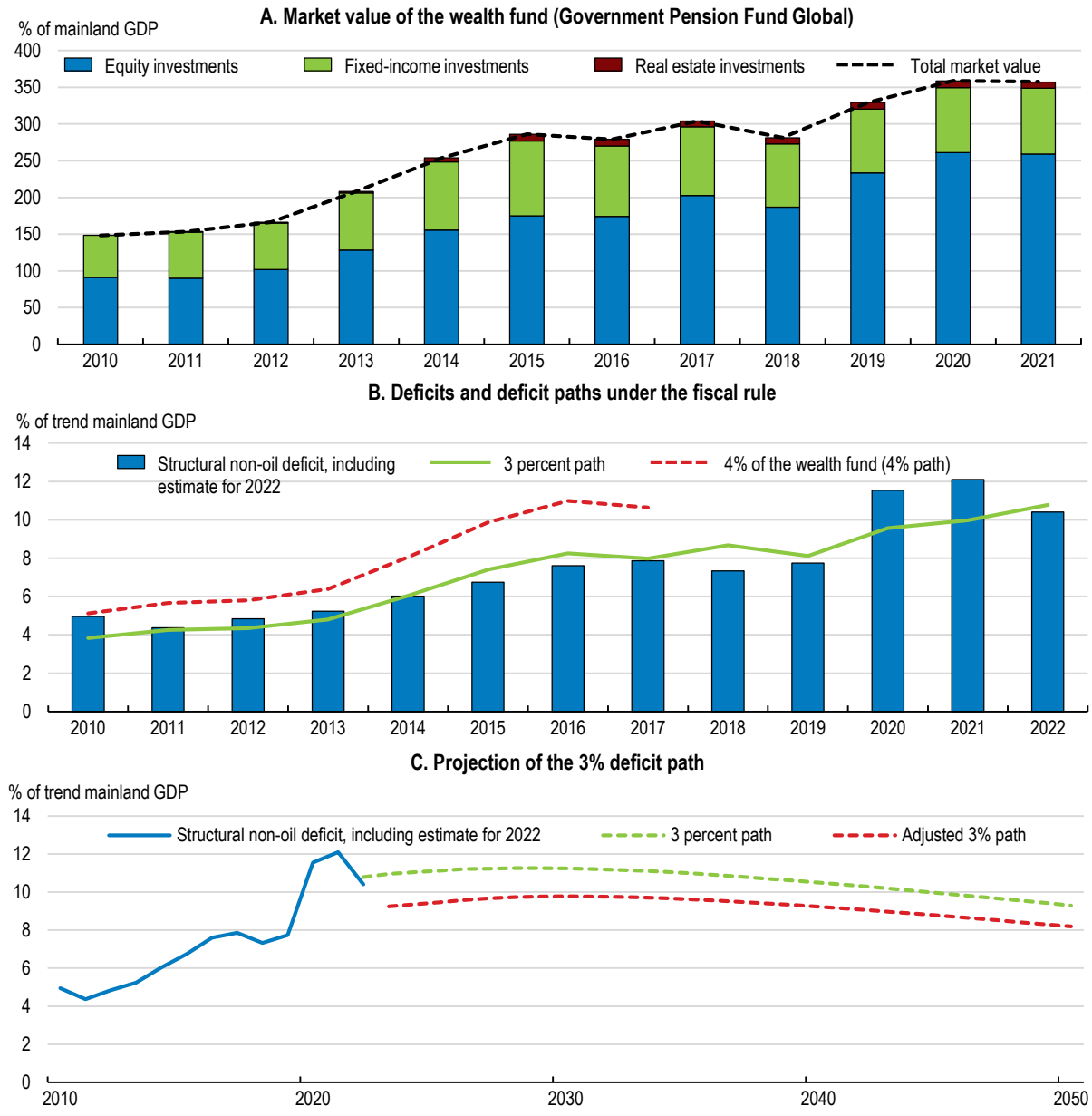
The Government Pension Fund Global is operationally managed by Norges Bank Investment Management (NBIM), an arm of the central bank. The guidelines for the management are set by the Ministry of Finance and imply an index-near management strategy, with 70% equities and 30% bonds, and the possibility for the manager to invest in unlisted real estate and infrastructure for renewable energy within certain limits. NBIM as the operational manager has also put in place policies on investment and ownership strategies, including criteria on executive pay, board diversity, and sustainability reporting. In addition the Ministry of Finance has set ethical criteria for observation or exclusion of companies relating to certain products or companies' conduct. In addition upstream oil and gas companies are excluded from the Fund due to considerations of oil price risk for the Norwegian economy. The Fund's work on climate related risk has come under further scrutiny. In August 2021 an expert group established by the Ministry of Finance underscored need to further develop the climate risk strategy in the Fund's investments, including that the fund should base its ownership work on an overall, long-term goal of net-zero emissions from the companies invested in (Ministry of Finance, 2021[6]). In September 2021 another expert group was established, in this instance to consider more broadly how the investment strategy of the Fund should be affected by geopolitical risks.

The fiscal rule states that the cyclically adjusted non-oil deficit (the "structural non-oil deficit") should, over time, follow 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. Business cycle considerations are given significant emphasis which can lead the actual takeout rate to deviate from the 3% path both from one year to the next and over several years.

Since 2017 government budgeting has been based on a 3% expected real return to the fund. The expected return was previously estimated at 4%. The reduction was prompted by concerns of declining global rates of return. The rule alteration was also timely given the cyclical situation. Under the "4% rule" and with rapid growth in the wealth fund (Figure 1.16), the guideline deficits had risen substantially. In the decade 2007-2016, the structural non-oil deficit increased by 0.5 percentage points of GDP each year on average (Figure 1.16).

In sum, the rule enables Norway to sustainably run a large non-oil deficit, currently in the order of 10% of GDP (Figure 1.16). In effect, the oil wealth means that households and business benefit from lighter taxation and more public spending on services and investment than would otherwise be the case. If Norway's fiscal rule is closely adhered to, all future generations stand to benefit. Governments in most other countries can, at best, only afford to run modest fiscal deficits during normal economic times, typically less than two percent of GDP. Some countries have to aim for balanced budgets to contain public-debt burdens and to build fiscal space to respond to negative shocks.

Figure 1.16. The structural non-oil deficit will have to trend downwards over the long term



Note: "3% deficit path" shows 3% of projected wealth-fund value as a percentage of trend mainland GDP. The "adjusted 3% path" shown in Panel C was incorporated in the long-term perspectives used to guide the 2022 Budget. It includes a downward adjustment to reflect assessment of elevated risk to returns to the wealth fund looking forward.
Source: Norges Bank Investment Management (MBIM); and Ministry of Finance, National Budget 2022.

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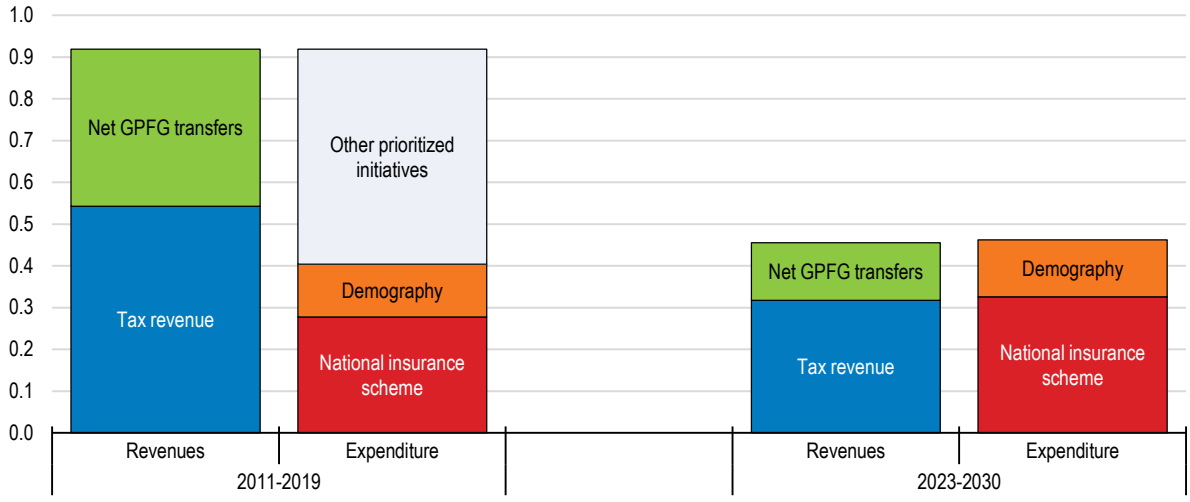
Diminishing fiscal space ahead

The prudent government budgeting for 2022 sets an appropriate precedent as fiscal space is set to shrink in the coming years compared with conditions prior to the pandemic. Between 2011 and 2019, governments spent around 0.5% of GDP extra each year on additional initiatives (Figure 1.17). Growth in mainland tax revenues and the wealth fund provided headroom to cover structural growth in spending on

transfers from demographic changes and demands on national insurance, with room to spare for additional initiatives. Ministry of Finance projections suggest that the fiscal space created by tax and wealth-fund transfers (in line with the fiscal rule) will approximately halve in the coming years. This reduced space will only just cover estimates of structural growth in spending, which is mainly due to outgoings relating to population aging. This implies no room for additional initiatives unless funded from measures that make efficiency gains in public spending or generate more revenues.

Figure 1.17. Scope for new spending will diminish in the coming years

Average annual increase in revenue or spending, % of 2021 mainland GDP



Note: "Demography" is an estimate of the increasing health care costs due to population ageing. "National Insurance Scheme" mainly reflects increasing costs in pensions and disability benefits. The NOK values in the calculations are re-based to 2021 and therefore 2021 mainland GDP is the denominator.
Source: Ministry of Finance and OECD calculations.

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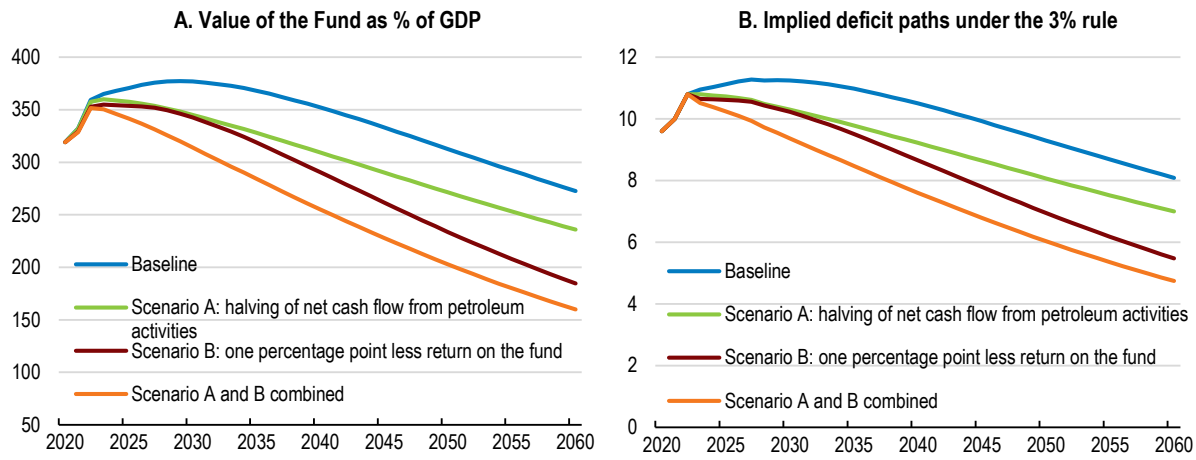
Furthermore, there will be even less fiscal space if cash flow from petroleum activities or returns to the fund are weaker than expected. As reflected in the downward adjustment in the guideline deficit, with attention to climate change gathering momentum globally, the risk of a faster-than-expected decline in cash flow from petroleum activities over the medium and long term has increased.Figure 1.18 illustrates that a halving of the cash flow from the petroleum fund could mean a steady decline in the deficit from 2030 onwards. Cash flow from the petroleum fund could, for instance, decline in the event of an accelerated wind down of petroleum production. If this was combined with a reduction in the return to the fund then declines in the implicit deficit would begin almost immediately. A trend decline in the return to the fund could, for instance, occur in the event of a global weakening in stock market valuations.

Figure 1.18. Fiscal sustainability: illustrative scenarios



Note: The baseline scenario is from Ministry of Finance estimates. The same nominal GDP growth is assumed in all scenarios. The basic 3% guideline is shown in the calculation, not the variant applied in the 2022 Budget that made an adjustment for financial risk.
Source: Calculations based on Ministry of Finance data.

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Continued firm commitment to and conservative interpretation of the fiscal rule will be important as the trade-offs sharpen between revenues and spending in the years ahead. Public understanding and commitment to the fiscal rule have proved encouragingly robust in the past, albeit in a period where the value of the fund has trended strongly upwards. Maintaining strong commitment in the coming years underscores the importance of:

- Ensuring the non-oil deficit declines in line with the diminishing need for economic support as the economy recovers, as envisaged in the 2022 National Budget.
- Continuing to base fiscal planning on prudent projections of the Fund's value, including through use of haircut adjustment to account for risks, as exemplified in the 2022 National Budget and the Long Term Perspective report. Planning on the basis of conservative estimates of inflows to the fund (see Box 1.6) reduces the risk of policies that add multi-year spending commitments which could prove unaffordable if the Fund's value turns out lower than projected. Prudent estimates also strengthen capacity of the fiscal system to handle shocks to fiscal balances, such as that experienced during the pandemic.
- Continued good communication with the press and the public on the principle of the fiscal rule, how it works and the benefits for current and future generations.

Making public services more efficient and ensuring wise public investment choices

With reduced fiscal room, government spending must become more efficient. Past *Surveys* have highlighted several areas where Norway's comparatively high public spending could be made more effective. Public spending on social protection (this includes, for instance, support for low-income households, old-age pensions, disability support), and to an extent health care, distinguishes Norway, and the other Nordics, from most other OECD countries (Figure 1.19). For instance, in 2019 Nordic social protection spending was equivalent to over 20% of GDP, compared with an OECD average of 15%. Ensuring the substantial social protection spending achieves goals efficiently is therefore particularly important. In Norway, sick-leave compensation and disability support are widely recognised as in need of reform (discussed further below). In addition, Norway's comparatively high spending on the category of

Economic Affairs (Figure 1.19) in part reflects slow progress in unwinding support for the agricultural sector (discussed further below). Past *Surveys* have also found weak spots in Norway's selection processes for large scale infrastructure projects.

Efforts to identify scope to improve specific areas of public spending should continue, including through the ongoing process of spending reviews. Recent years have seen reviews in a number of areas (Box 1.7). Such reviews need to ensure, inter alia, that opportunities for efficiency gains and quality improvements in government services via digitalisation are fully exploited. Norway scores well on indicators of the uptake of government digital services. However, there is almost certainly scope for further development of services.

Box 1.7. Public spending reviews in Norway

Given Norway's extensive publicly funded services, ensuring good quality, and value for money is particularly important. It matters for remaining on target with budgets and for building headroom for new policy initiatives. It also helps towards trust in government and strengthens acceptability of the relatively high tax burdens required to fund public spending.

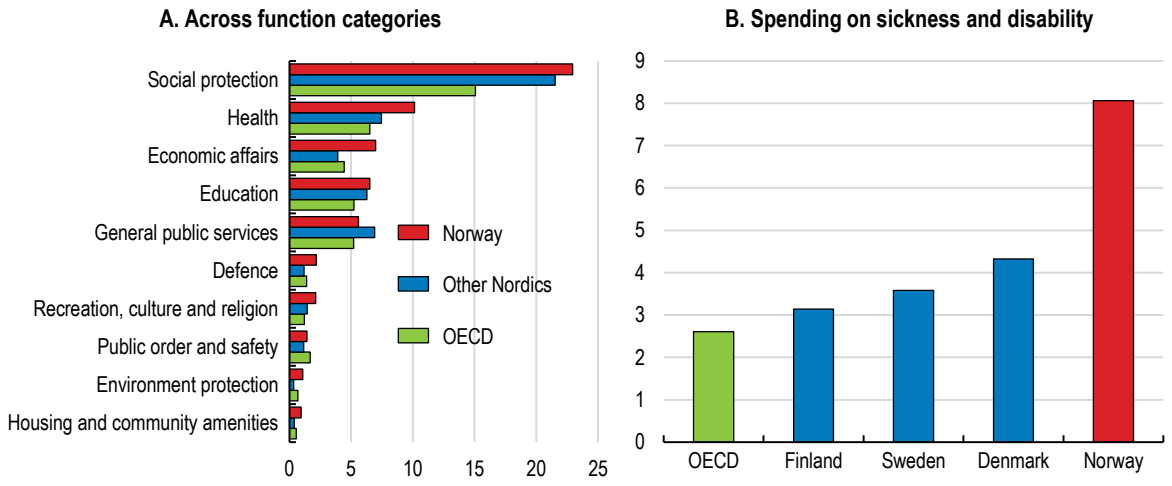
One way to ensure quality and value for money in public services is through spending reviews. These are frequently used in Norway and in recent years have covered:

- Costs and price mechanisms of medicines under the National Insurance Scheme.
- Management of the Police.
- Efficiency and effectiveness of the Foreign Service (ongoing).
- Policy instruments to promote Norwegian businesses abroad.
- Identity system management.
- Norwegian Public Roads Administration.
- Climate Support Schemes.
- Structure and administration of Municipal transfer systems.
- Organisation and efficiency of government construction and property management.
- Business support and financial means system.
- Housing solutions and health and care services for the elderly (ongoing).

Budgeting processes should continue to incentivise improvements in the quality and cost efficiency of public services. In recent years central government budgeting has featured "efficiency dividends", small annual reductions to baseline budget allocations to ministries and agencies (Box 1.8). Such a mechanism, or similar, should continue to feature in budget processes, and could be extended to regional and municipal budgeting. In a similar vein, past Surveys have suggested the introduction of medium-term expenditure frameworks (MTEFs). The authorities have previously given this proposal detailed consideration but judge it to be it unsuitable in the Norwegian context. A commonly expressed concern is that in Norway multi-year spending paths for ministries and agencies may in practice act as floors, rather than ceilings, on expenditure. However, as the challenges in containing existing spending and funding new spending mount, the potential advantages of a medium-term expenditure framework may increase. Given the prospect of more limited fiscal space in the coming years, policymakers should remain open to augmenting the fiscal system with medium-term benchmarks for items of discretionary and non-discretionary spending.

Figure 1.19. Public spending on social protection is particularly high in Norway and the other Nordic countries

General government spending, 2019, % of GDP



Note: The spending levels do not necessarily reflect overall levels of service, inter alia, due to variation across countries in the degree of private-sector provision particularly in health care and education. Differences across countries in the use of tax (as opposed to spending) instruments and differences in how transfers are taxed are also considerations.
Source: OECD (2021), National Accounts (database).

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Box 1.8. Norway's budget "efficiency dividends"

Norway's central government budget process includes "efficiency dividends". These are small reductions to the baseline budget allocations (usually a 0.5% reduction from the baseline) 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 space for new spending measures.

According to the new government's political platform, the efficiency dividends will be replaced by targeted processes and efficiency goals. In principle this can be a better way of achieving efficiency gains in government spending compared with uniform across-the-board cuts or efficiency devices like the dividends. However, properly identifying where the greatest scope for efficiency gains lies across Ministries and other spending bodies and operationalising this in budgets can be challenging both technically and politically.

Recent years have seen progress in tax reform

Pre-pandemic, one focus of tax policy was on lowering the tax burden, particularly that for businesses. Notably, the rate of "ordinary tax", which applies to most forms of income – including corporate income – was reduced in a series of steps from 28% to 22% between 2013 and 2019. This has made Norwegian business taxation compare more favourably with that of other countries.

Policy in recent years has improved the consistency of tax rates and broadened tax bases. Some concessionary rates of VAT have been raised, thus narrowing differences in rates across goods and services. In addition, a financial activity tax has been introduced that aims to compensate for the absence of VAT on financial services (as in other countries, establishing value added from financial services for

taxation purposes is challenging). In addition, Norway is making progress in tackling base erosion and profit shifting in corporate taxation. Further advances on these fronts would be welcome. Establishment of a committee on taxation with a broad remit in June 2021 provides opportunity to do so.

The new government aims for more progressivity in the tax system. One measure reduces the burden of taxation for those with an annual income below NOK 750 000 and increases it above this threshold. This supports middle- and lower-income households' disposable incomes, directly helping to address concerns about housing affordability and other cost-of-living pressures, such as those anticipated in the coming years from greater carbon taxation. Furthermore, changes to the wealth tax include rate hikes and reductions in the discounts applied to some assets, including shares, high-end housing and holiday homes. One risk, discussed in previous *Surveys*, is that these changes could mean more instances where the effective rate of tax on investing is above 100%.

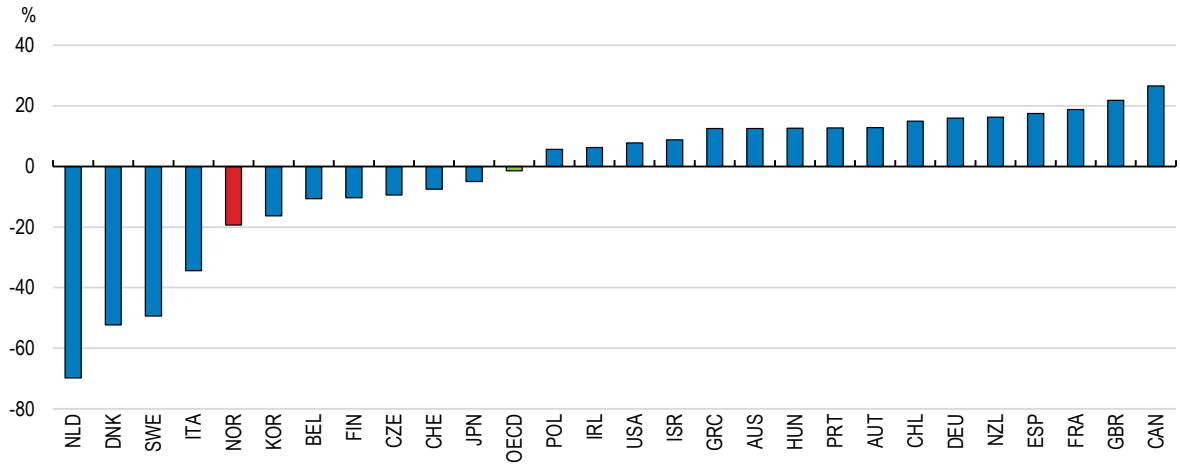
Options for fixing Norway's tax treatment of homeownership

As underscored in Chapter 2 and in previous *Surveys*, Norway's tax treatment of housing is unusually generous, fuelling strong demand for owner-occupied dwellings and inflating house prices. A few OECD countries have an approach to taxing housing that is broadly consistent with the tax treatment of other assets (*i.e.* mortgage interest payments are deductible but this is offset by imputing a rent to primary dwellings that is counted as taxable income). Many countries instead have no interest deduction for owner-occupied homes and no taxation of imputed rent; a solution that preserves an asymmetry in the tax treatment of different assets, but which avoids some challenges (both political and related to implementation) associated with taxing imputed rent. Norway, in contrast, allows mortgage interest deductions with no corresponding taxation of imputed rent to owner-occupied dwellings. Like many countries, Norway also charges no capital gains tax on the sale of primary residences. Indeed, Norway is among a group of OECD countries where the marginal effective tax rate on a debt-financed investment in a primary residence is negative—in other words the tax system raises the return to home ownership, rather than diminishing it (Figure 1.20.).

Concessions in the taxation of owner-occupied housing need to be reduced. Chapter 2 finds that, from an administrative perspective, Norway is better placed than other countries to phase in a tax on imputed rental income. If this is not possible politically, it should instead gradually phase-out mortgage interest deductibility. Chapter 2's recommendations also include aligning wealth-tax discount rates on housing and non-housing assets and taxing capital gains on the sale of owner-occupied dwellings. Adjusting the tax treatment of homeownership would be consistent with the government's target of increasing progressivity. Revenues generated from increased taxation of housing could be used to reduce reliance on more distortive forms of taxation, especially labour income tax.

Figure 1.20. The tax system favours owner occupation of housing

Marginal effective tax rate for debt-financed investment in owner-occupied housing



Note: Unweighted OECD average excluding Costa Rica.
Source: Brys et al. (2022), "Measuring Effective Taxation of Housing".

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Important developments in environmental and natural resource taxation

Steep increases in the price of carbon have been proposed that would further strengthen Norway's track record on carbon taxation. Norway already has comparatively high and broad-based carbon taxation. The proposals envisage a schedule of hikes in the price of carbon to 2030 (see the environment section below for further discussion).

Meanwhile, tax concessions were made to the oil and gas sector in the early months of the pandemic when the oil price dropped. Measures, for instance, included allowing the immediate tax deduction of current and projected investment spending. The "uplift" that prevents normal profits from being exposed to the special petroleum tax was also increased. In total the temporary amendment is estimated by the Ministry of Finance to amount to a tax relief of about NOK 10 billion (in 2020 value terms), or around 0.3% of mainland GDP, a fairly substantial sum. Rebound in the oil price has meant that the oil and gas sector's financial position has turned out less precarious than was anticipated when the concessions were made.

A major change to the tax treatment of petroleum exploration and development from 2022 has been proposed. Similar to the restructuring already introduced for hydropower, the Ministry of Finance has detailed a reform in which the special tax would be converted into a cash flow tax with immediate expense recognition of new investments. This would replace the current accrual system in which investment deductions are distributed over 6 years through depreciation, plus an additional uplift of 5.2% of investment costs over four years (therefore, a total uplift of 20.8%). Under the proposed reform, fiscal revenues would initially be smaller, but in future years would exceed estimates of the tax that would be received under the current regime. The proposed system is more neutral than the current special tax. The investment-based deductions (depreciation, uplift and interest deductions) in the current ordinary special tax are higher than they should have been in a neutral special tax. According to calculations by the Ministry of Finance (Ministry of Finance, 2021[7]), when secure investment deductions are valued with a risk-free return, the petroleum companies, in effect, cover about 12% of the investment costs after tax while they should cover around 23% in a neutral tax (close to the corporate tax rate). In the proposed change, the companies will cover more than 22% of the investment costs. The proposal has been on public consultation and will be followed up by the new Government.

Table 1.8. Past recommendations on fiscal policy, public spending and taxation

Recommendations	Action taken since the previous *Survey (December 2019)*
Public spending	
Restrain government spending and improve public-service efficiency to tackle the narrowing fiscal space.	"Efficiency dividends" continue to feature in budgeting. Though the current government has expressed an intention to discontinue them.
Intensify regular spending reviews.	Spending reviews continue. For instance, a review of housing solutions and care services for the elderly is currently underway.
For transport-infrastructure investment, strengthen the influence of cost-benefit analysis in project selection and improve checks against cost inflation after projects are selected.	The final stages of a campaign to encourage mergers of municipalities and regions has been completed. It reduced the number of municipalities from 428 to 356 and the number of regions from 19 to 11. The new government intends to approve the reversal of several of the mergers.
Taxation	
Complete the programme of income-tax cuts, and consider further reductions.	New government has strengthened progressivity, inter alia, by lowering income taxation below a threshold of NOK 750 000 (annual) and increasing it above the threshold.
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.	No progress in reforming tax treatment of housing in personal income tax. The new government is implementing increases in the wealth tax on certain assets: shares, expensive housing and holiday homes.
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.	Concessional VAT rate (items covered include transport) had been increased from 8% to 12% but was lowered during the pandemic. The standard VAT rate is 25%. A reduced rate applies to foodstuffs (15%).

Box 9. Quantifying the fiscal impact of ambitious structural reforms

The following estimates roughly quantify the fiscal impact of ambitious medium-term reforms. The estimates should be considered illustrative, providing an indication of the scale of potential long-run effects of significant reform efforts. For instance, achieving a halving of the number of disability benefit recipients and sick leave absences would be an impressive achievement and would likely be a prolonged process. Similarly, achieving a 10% productivity gain in the provision of public goods and services would likely be a multi-year project.

Table 9. 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 17 to 8.5 days per employee per year: – 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 the fiscal saving arises from the increase in labour supply boosting tax receipts (model-based calculation).	3.4 ppts
Public-spending efficiency improvements	10% productivity gain in the provision of public goods and services: – 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 ppts
Reforming the taxation of housing	Neutralising the treatment of owner-occupied housing and other assets in income tax and net wealth tax. It is assumed that: – imputed rents are added to the ordinary income tax base and taxed at 22%(this accounts for roughly two-thirds of the estimated fiscal impact). – wealth tax valuations for owner-occupied dwellings are increased to align with the 45% discount rate applied to shares and commercial property in 2021. – greater taxation of housing results in lower housing prices, partially offsetting the revenue-augmenting effect of the reforms.	1.8 ppts

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

Box 1.10. Quantifying the GDP impact of structural reforms

The following estimates roughly quantify the impact on GDP per capita of ambitious medium-term reforms and are illustrative.

Table 1.10. Illustrative GDP impact of recommended reforms

Policy	Scenario	Output growth per capita, %
Reforming sick leave and disability benefits	Halving disability benefit recipients from 10% of the working age population to 5% and halving sickness absences from around 17 to 8.5 days per employee per year – 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 to the labour supply: around 2 percentage-point boost to the employment-population ratio from sick leave reduction and 2.5 percentage-points from disability-benefit reduction. This is equivalent to around 6% increase in the level of employment, resulting in a substantial impact on GDP.	7 ppts
Public-spending efficiency improvements	10% productivity gain in the provision of public goods and services: – implies the equivalent of 2.8% boost to economy-wide productivity – calculation assumes reforms are introduced over 5 years, with much of the impact within this period.	2.5 ppts
Business-sector productivity increase	A 5% increase in business-sector productivity from improvements, for instance, to the efficiency of business dynamics through alterations to insolvency legislation.	3.6 ppts

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

Supporting productivity and ensuring good governance

Policy needs to facilitate business-sector productivity growth

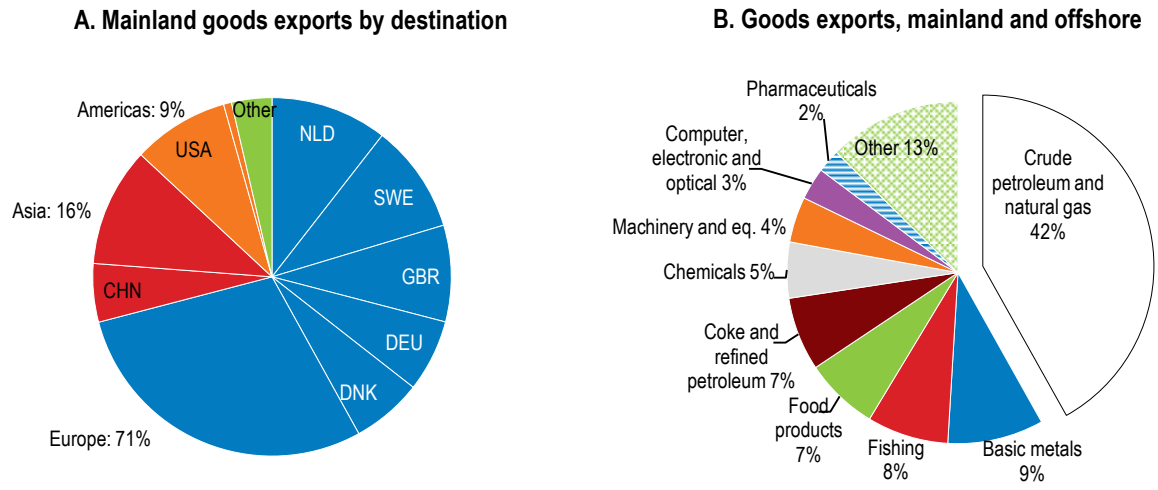
Financing Norway's socio-economic model requires a business sector that is economically viable and internationally competitive in a comparatively high-wage, high-tax environment. Policy needs to help business benefit from technological advance. It also needs to address the opportunities and challenges of green transition. Facilitating an orderly shift away from petroleum sector activity will be part of this challenge in years to come. Currently, the sector accounts for around half of Norway's goods exports (Figure 1.21.) and direct and indirect employment makes up around 5% of the workforce (Box 1.11). The pace of the eventual decline in the industry will depend in part on domestic policy towards the sector, in particular the approach to issuing new exploration licences. Also influential will be developments in the global demand for petroleum products as technological development and emission reduction policies such as the EU's Emissions Trading System (ETS) take greater effect.

Policy support towards facilitating an eventual transition away from the oil and gas sector should primarily comprise improvement to the general legal and administrative environment for businesses. This will enhance the overall responsiveness of the business sector to changing conditions, including the eventual petroleum-sector decline, and encourage competition, innovation and the adoption of new technologies. As is the case in many countries, improving digital infrastructure needs to remain on the policy agenda. In addition, good insolvency processes, for instance, are key to efficient reallocations of resources through business entry and exit (see below). Education and training also needs to remain responsive to evolving skill requirements. A strong policy focus on keeping specific industries or companies afloat, or on

supporting perceived growth industries should be avoided. Governments generally have a poor track record in picking winners.

Figure 1.21. Crude oil and natural gas account for around 40% of the value of goods exports

2020



Source: Statistics Norway.

StatLink https://stat.link/84gkms

Box 1.11. Norway's petroleum sector: its role in the economy

Norway's petroleum sector ("petroleum" covers both oil and natural gas) comprises offshore production facilities, exploration activities and supply services; that latter two account for most of the petroleum sector's employment. Growth in 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. Direct employment in petroleum production only accounts for about 1% of total employment but including those employed in related activities lifts the share to around 5%. Norway's south-west coast is particularly dependent on petroleum-related activity.

As described in Box 1.6, the petroleum sector makes a sizeable contribution to tax revenues. Net extraction revenues largely accrue to the state due to resource taxation and state ownership in production (the state has a 67% stake in the oil company Equinor and direct ownership via holdings in most of the large fields (these holdings are managed by state-owned company Petoro AS)). In addition, corporate income tax revenues are generated by supply services.

The prospects for petroleum-related activity depend on several factors. Growth in production has been underway in recent years due to the large Johan Svedrup field coming on stream and further increase in production is anticipated when the Johan Castberg field comes on stream (expected in 2023). However, the long-term trend in production is inevitably downward, and a white paper on Long-Term Perspectives (published in February 2021) projects a decline of 65% up to 2050, and the decline would be even larger without continued exploration.

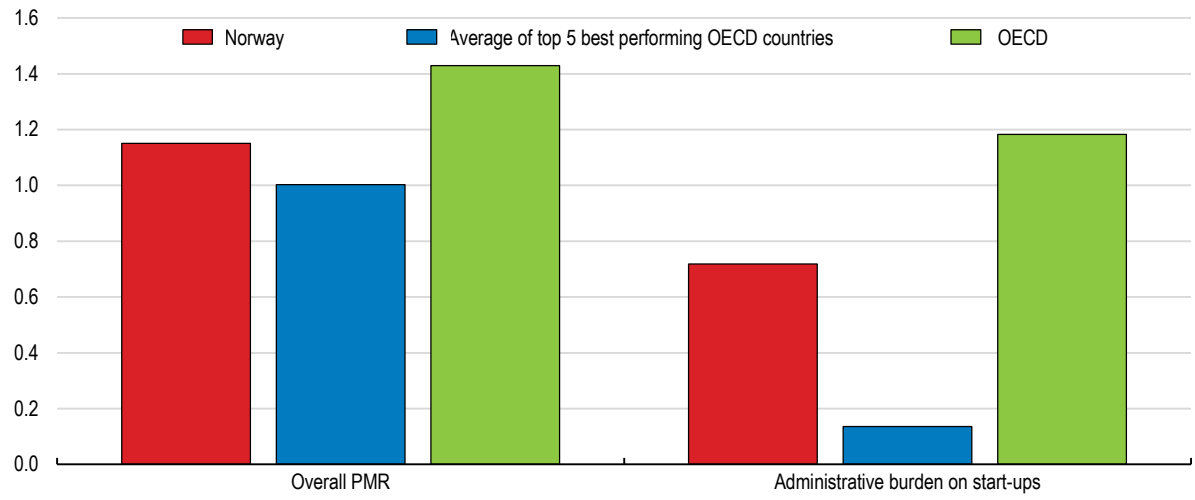
Helping business start-up and ensuring good insolvency processes

Financial pressure on businesses during the pandemic has underscored the important role of insolvency procedures in giving struggling businesses a chance to turn around. Indeed concerns about business failure during the pandemic prompted a temporary change in legislation that provided a new route for business restructuring. However, take up has been low. One explanation is that, although relatively accommodating, the new route did not allow businesses to halt all contracts and have a fresh start.

Post-pandemic, ensuring insolvency processes along with conditions for business start-ups are in good shape remains important for longer-run productivity growth. As regards the administrative burden for setting up a business, Norway's score is behind the best scoring countries, suggesting scope for improvement (Figure 1.22). In the case of insolvency, past *Surveys* have suggested that there is a need for better routes to recovery for businesses in difficulty. As detailed in the 2018 *Survey*, OECD data capturing the efficiency of insolvency processes indicate 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, in particular, relatively long.

Figure 1.22. Some scope to reduce the administrative burden in starting businesses

OECD Product Market Regulation (PMR) indicator, scale 0-6 from least to most restrictive



Source: OECD 2018 PMR database.

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Improving the responsiveness of residential construction to housing demand

As underscored in Chapter 2, policies affecting the responsiveness of housing supply are key to improving housing affordability. For Norway, the main challenge is to create more leeway for the residential construction sector to respond to housing demand while retaining high standards on other fronts. Chapter 2 identifies:

- Scope to relax land-use laws, to enable residential construction on land suitable for development near existing urban areas and more housing within cities.

- Room for improving planning and zoning processes. Broadly, processes should be made shorter, simpler and more predictable. For instance, uncertainty for developers is amplified by the risk of time-consuming objections to local authorities' decisions by regional and central-government authorities. Furthermore, there is scope for simplified approval processes for small-scale residential projects in developed areas.
- A need to push ahead with regulatory change necessary to reduce construction waste generation, and improve building material recovery and reuse (see Environment section below).

Reform to agricultural-sector support remains slow

Norway's subsidy and tariff support for the agriculture sector is still large and in need of substantial reform to improve the efficiency and sustainability of agricultural production. The OECD's latest *Agriculture Policy Monitoring and Evaluation* (OECD, 2021[8]) highlights that support to producers is equivalent to 56% of gross farm receipts, which is the third highest value in the OECD area (Figure 1.23). This level of subsidy implies that, on average, the value of support in Norway is higher than the gross value of its agricultural production (valued at world market prices). There has been some welcome progress. Export subsidies have now been fully phased out, as per WTO regulation. However there remains considerable scope for further reform (Table 1.11).

Commitment by the new coalition government to address income gaps between the agricultural sector and the rest of the economy should be used as an opportunity to accelerate reform (Box 1.12). *Agricultural Policy Monitoring and Evaluation* underscores the need for a shift towards supporting long-term productivity growth and environmental sustainability. According to this report, this should include:

- Further reduction in the most economically distorting forms of agricultural support in order to strengthen exposure to market signals and eliminate output-related measures. The full withdrawal of export subsidies is welcome, but distorting measures remain, including many import tariffs.
- Re-orienting support towards general services – especially for the agricultural knowledge and innovation system – would raise productivity growth while maintaining environmental protection and sustainable natural resource management. Norway should strengthen efforts to provide farmers with tailored advice and support about sustainable technologies and practices.
- Improving climate-change policy for the agricultural sector. In particular, an emission reduction target has been agreed for the sector but it remains uncertain how it will be achieved. Recent legislation restricting cultivation on peatlands could also significantly reduce GHG emissions from agriculture but the degree of application remains uncertain. Farmers remain exempt from GHG emission taxes and the EU cap-and-trade system.
- Better identification of intended beneficiaries and more targeted policies so that agricultural policy can most effectively contribute to policy objectives, including food security, green transition, sustaining rural economies and landscape amenities.

Box 1.12. The current Norwegian government's agricultural policies

Norway's current government has a number of goals in agricultural policy. These include that the local agriculture sector provides Norway's population with enough and safe food produced from Norwegian natural resources. The government underscores that this will contribute to employment, a reduced carbon footprint, and good nutrition and health. The government also wants farmers to have the same income opportunities as other groups, irrespectable of farm size, region or production. It aims to achieve this through strong import protection, annual agricultural negotiations and preserving the market regulation system.

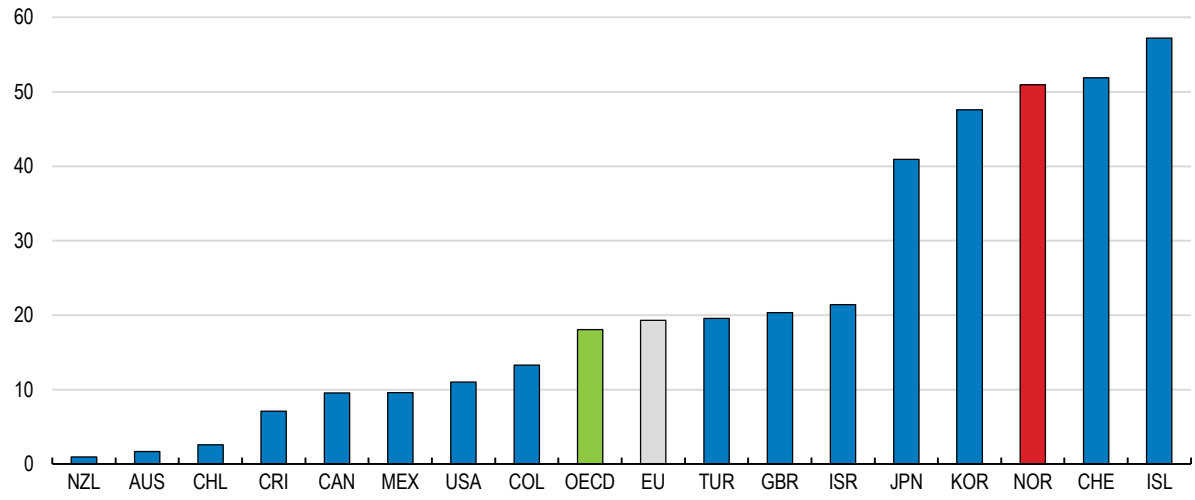
Intended actions towards these goals include:

- Presentation of a mandatory and timed plan to close the income gap between agriculture and other groups in society.
- A cut in the maximal milk quota per farm.
- Consideration of measures to reduce quota costs and quota rental.
- Introduction of support ceilings in all production.
- Introduction of an investment scheme for small and medium-sized dairy farms.
- Presentation and implemention of a plan for increased safe food production from Norwegian resources and the setting of a target for the level of self-sufficiency of Norwegian agricultural food products, adjusted for imports of feed raw materials, of 50 per cent.
- Stimulation of production of local food products, including organic food.
- Ensuring import protection for Norwegian agriculture through the choice between ad-valorem and specific import tariffs, and by making sure that import protection is not weakened in new trade agreements.
- Assessment of new and strong means of market regulation.

Source: Text provided to the Secretariat by the Government of Norway.

Figure 1.23. Producer support in agriculture remains among the highest in the OECD

Producer Support Estimate (PSE) transfers as a share of gross farm receipts, 2020



Note: Producer Support Estimate (PSE) is the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income. It includes market price support, budgetary payments and budget revenue foregone, i.e. gross transfers from consumers and taxpayers to agricultural producers arising from policy measures based on: current output, input use, area planted/animal numbers/receipts/incomes (current, non-current), and non-commodity criteria.
Source: OECD (2021), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database).

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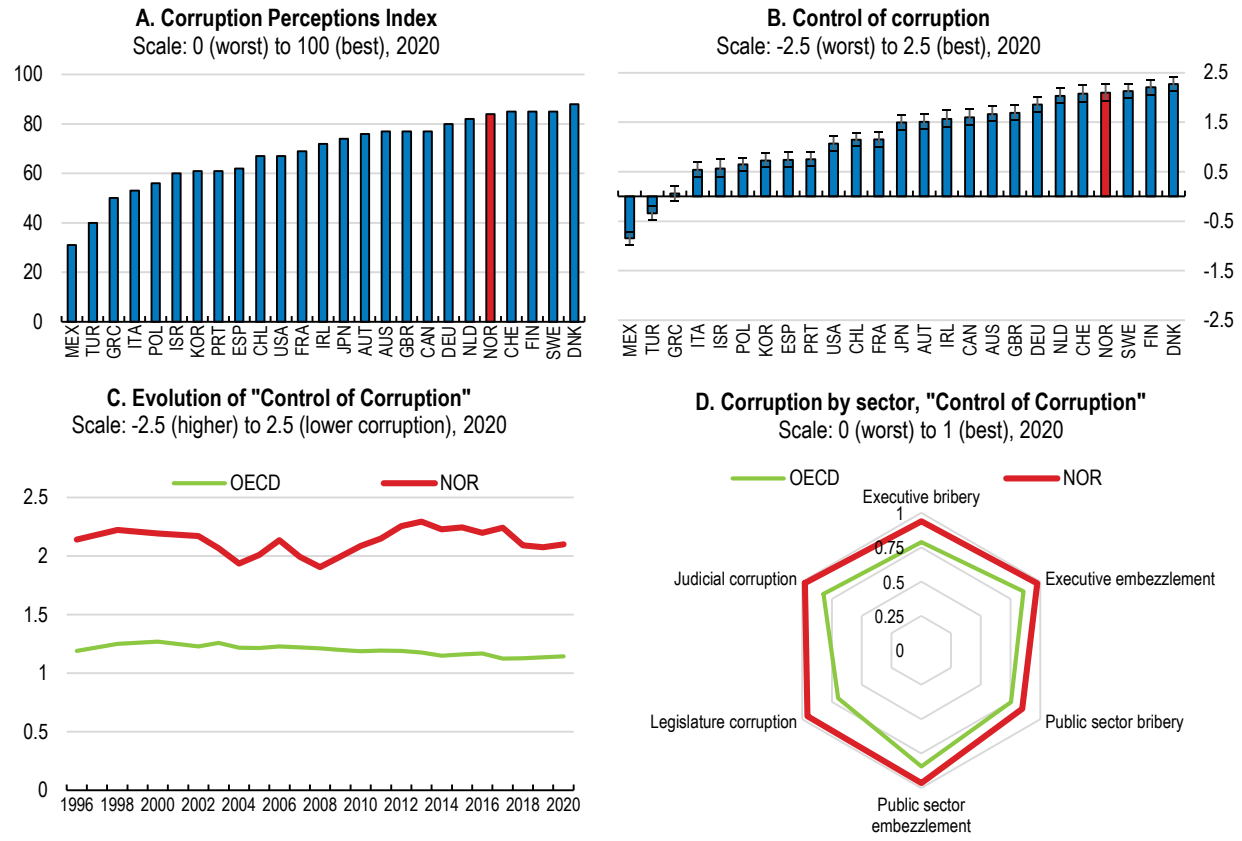
Enhancing government integrity and combatting financial crime

While Norway is generally seen as having strong integrity in government and policymaking (Figure 1.24.), efforts should be made to weed out instances of poor practice and to ensure no slippage in standards. As underscored in the latest OECD *Government at a Glance* (OECD, 2021[9]) the pandemic illustrated the importance of public trust in policymaking. Trust is crucial for people to understand and comply with extraordinary measures. It is also key to a society's capacity to absorb and recover from shocks. Norway is in a position of relative strength on this front. Indicators shown in *Government at a Glance* suggest Norway has among the highest levels of trust in the civil service and government of all OECD countries.

Regulations on lobbying are a potential weak spot. Recent assessment in *Lobbying in the 21st Century* (OECD, 2021[10]) finds Norway is among several countries with no systematic framework for lobbying transparency. It is possible this is not a material problem because, for instance, lobbying is disciplined through other channels. Nevertheless, an exploration of the adequacy of transparency and checks on lobbying, and the potential gains from a more systematic framework is warranted.

Figure 1.24. Corruption is 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.
Source: Panel A: Transparency International; Panels B & C: World Bank, Worldwide Governance Indicators; Panel D: Varieties of Democracy Project, V-Dem Dataset v11.

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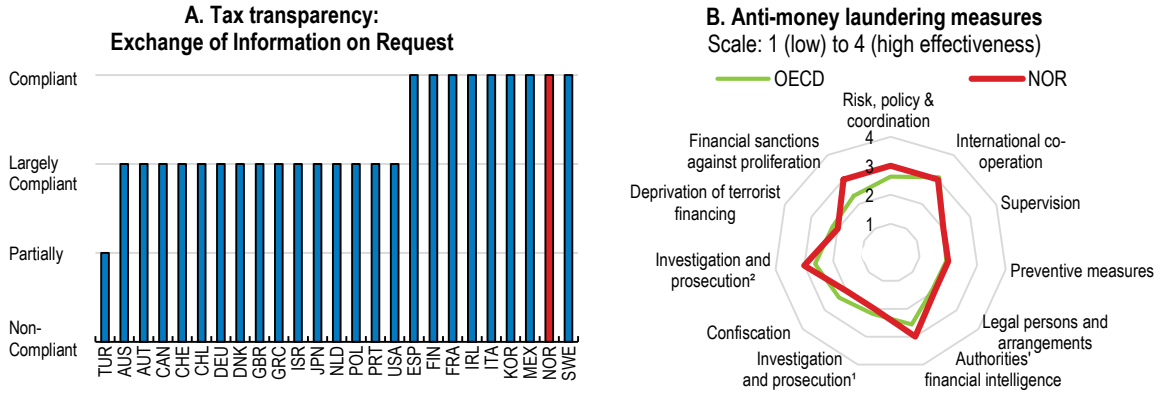
As regards domestic corruption, Norway continues to score well on international indicators. It had the third best score in the 2020 edition of Transparency International's Corruption Perceptions Index, and scores well in the World Economic Forum's *Executive Opinion Survey* (Figure 1.21). However, Norway is not

without corruption risk. Transparency International's latest survey finds around 20% of respondents consider corruption to be a major problem (Transparency International Norge, 2021[11]). Furthermore, the latest annual threat assessment by the National Authority for Investigation and Prosecution of Economic and Environmental Crime (ØKOKRIM, 2020[12]) highlights that several serious corruption cases involving local planning authorities, along with cases involving public purchases, have been uncovered in recent years. The report underscores that, although public procurement regulation contains many non-discretionary criteria, there remains room for discretion that potentially opens the door to corrupt practices. Efforts to eliminate misconduct need to continue, for instance through encouraging local authorities' efforts to combat corruption, and the provision of well-functioning whistle-blower channels.

OECD assessment points to room for stronger measures on corporate governance in foreign operations. Norway has many companies operating in corruption-exposed jurisdictions and sectors, such as oil and gas, shipping, and telecommunications. The latest evaluation of Norway's implementation of the OECD Anti-Bribery Convention (OECD, 2020[13]) underscored several areas of good practice including: ØKOKRIM's integrated approach to law enforcement, a robust framework for whistle-blower protection and corruption-risk management in official development assistance. However, the evaluation found scope for greater clarity in corporate liability for offences committed by related entities (e.g. subsidiaries or joint ventures) and called 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.

As regards combatting money laundering, indicators point to generally sound policies (Figure 1.25), but there is concern about laundering via the real estate market. In 2021, Norway's Research Council funded a university research unit to investigate the extent to which real estate has ownership links to tax havens. It is not compulsory for deeds of transfer of property to be registered with the land registry (*Grunnboken*). As an unintended consequence, property transfer can be hidden from public view. Use of such unregistered deeds (blank deeds) is thought to be a channel for money laundering. Further investigation, and potentially policy action, is required.

Figure 1.25. Indicators of economic crime



Note: Panel A 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. The figure shows first round results; a second round is ongoing. Panel B shows ratings from the Financial Action Task Force (FATF) peer reviews 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. "Investigation and prosecution¹" refers to money laundering. "Investigation and prosecution²" refers to terrorist financing.

Source: 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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Table 1.11. Past recommendations on improving business conditions

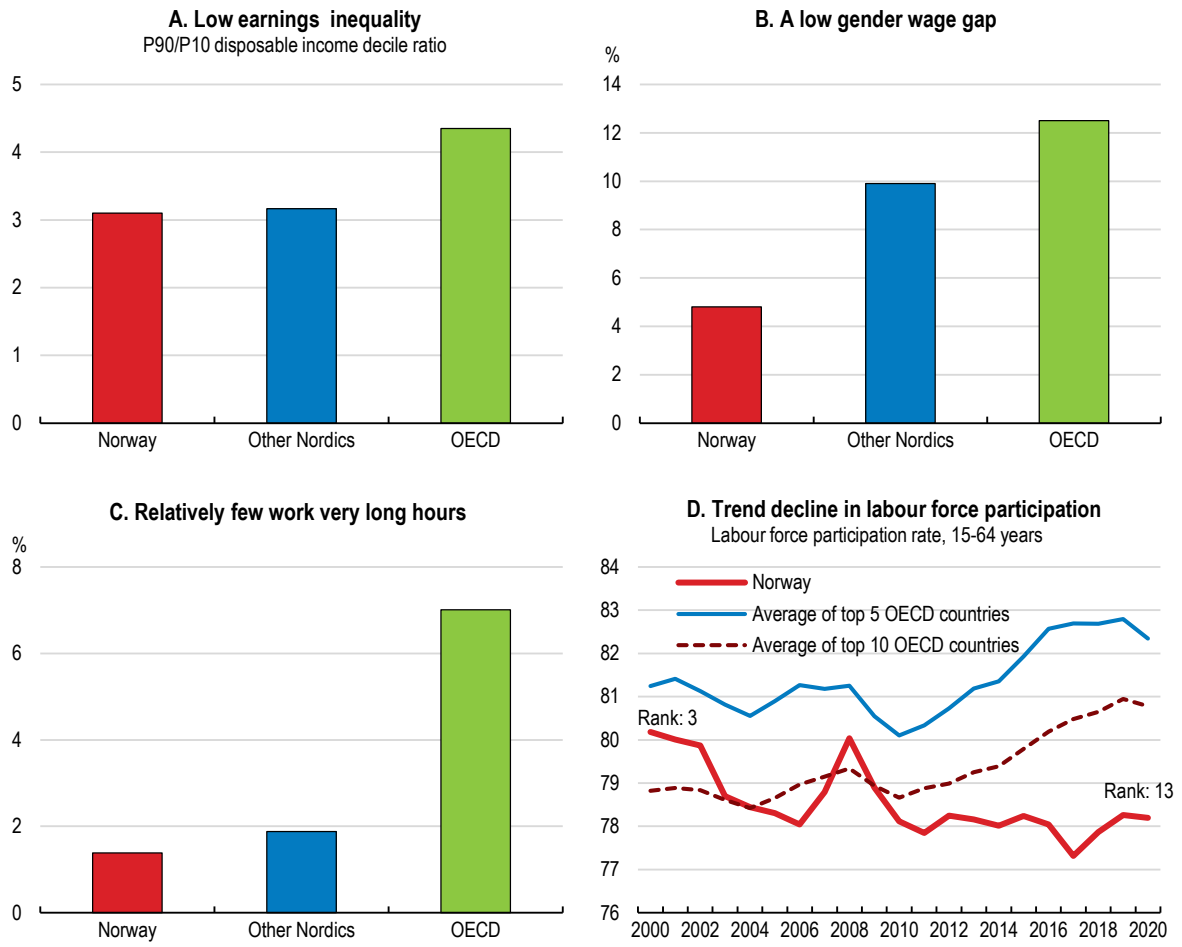
Recommendations	Action taken since the previous *Survey (December 2019)*
Improve framework conditions for business activity	
Address innovation and technology issues, including through: • promotion of entrepreneurial skills and STEM skills • encouraging Technology Transfer Offices in universities • stronger evaluations of business-support programmes (notably innovation and R&D schemes).	The business R&D and innovation support was recently the subject of a public spending review (2020-21), and the incoming government has signalled a new review.
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. A new route to business restructuring was introduced as part of measures to support business during the pandemic (see main text).
Improve transport services by more focus on selecting the most profitable projects.	No major change since reforms in 2016-17 that included establishment of new road and rail infrastructure companies.
Ensure strong market competition	
Adjust competition legislation and enforcement, including through increasing the competition authority's regulatory power.	No major reform of competition legislation.
Strengthen competition in network industries (especially postal and rail services).	No major recent initiative in network industries. Major reform in the rail sector continues.
Reduce barriers to entry in the retail sector. Replace the taxi-licencing system with less restrictive regulation to address availability and consumer protection.	Taxi licencing was altered towards a more open market in July 2020 following legislative changes. Notable changes include no upper limit on the number of licences that can be issued except for small and thinly populated municipalities where county authorities may issue exclusive rights.
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: • reorientation of support away from import tariffs and direct subsidies towards generalised services • removal of legislative biases that favour agriculture • encouraging diversification of economic activity in rural areas by improving general framework conditions.	Export subsidies on cheese and other processed agricultural products were removed in 2020. Export subsidies have now been fully phased out, as per WTO regulations.

Labour and social issues: tackling cost-of-living growth, ensuring high employment

Compared with other countries, Norway has high levels of employment and wages, low earnings inequality and overall good job quality. Wage earnings at the 90th percentile are around three times those of the 10th percentile; the OECD average is over four times (Figure 1.26). In Norway the gap between women's and men's median earnings is 5% compared with over 10% in the other Nordics and over 12% in the OECD (Figure 1.26). Illustrating generally good working conditions, only a small share of employees report working very long hours (Figure 1.26). High employment among women and comparatively narrow gender wage gaps are key factors underpinning low income inequality across households, a goal that has high priority in the Nordic socio-economic model. High employment is, in part, attributable to use of active labour market policies, for instance services helping individuals find new work and support for retraining. The current government aims to strengthen workforce attachment and job stability by advocating greater full-time work and permanent employment contracts over part-time and temporary forms of work. As discussed in the context of consumer price inflation above, Norway's system of collective bargaining based on coordinated annual wage increases generally works well, providing top-down guidance on wage increases that is grounded in macroeconomic realities.

However, labour-force participation has been slipping, particularly compared with other countries. In 2000, Norway had the 3rd highest labour force participation rate in the OECD. As of 2020 it ranked 13th and the rate is a good margin below the average of the top 10 OECD countries (Figure 1.26). This flagging performance is taking the edge off Norway's good record. Future falls in labour force participation, including due to population ageing, would further erode the productive capacity of Norway's economy. There has been some progress ensuring balanced retirement choices among older cohorts—in Norway comparatively large numbers of people either take up pensions early, or effectively retire early through take-up of sickness and disability benefit. However, further work is needed. Also, Norway's record on employment among young and middle-aged cohorts has been deteriorating, and this is also partly due to the generous sick leave and disability benefit systems.

Figure 1.26. Norway's labour market still contributes to low inequality but employment is no longer top-ranking



Note: Panel A to C: data refer to 2019 or latest available year. The OECD average is an unweighted average. Panel A: The P90/P10 ratio is the ratio of the upper bound value of the ninth decile (i.e. the 10% of people with highest income) to that of the upper bound value of the first decile. Panel B: The gender wage gap is defined as the difference between median earnings of men and women relative to median earnings of men. Data refer to full-time employees on the one hand and to self-employed on the other. Panel C: Long hours in paid work refers to the share of employees (of all ages) whose usual working hours are 50 hours or more per week. Panel D: Norway's rank amongst the OECD countries is shown at the beginning and at the end of the period.
Source: OECD (2021), Income Distribution Database (IDD); OECD (2021), Employment and Labour Market Statistics database; OECD (2021), How's Life? Well-being database.

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Addressing rising costs of living, including housing expenses

Concern for the cost of living is gaining prominence in light of strong house-price growth during the pandemic and increases in the consumer-price index over recent quarters, notably due to large hikes in cost of electricity (see discussion on inflation above). In addition, living costs are set to be pushed up by carbon-price increases in the coming years. The new government has committed to shift more of the income-tax burden onto high-income households. This could help alleviate cost-of-living challenges for those that are less well off. The government intends to partially offset the effects of carbon tax increases with lower fuel taxation as a means of alleviating the cost of travel by petrol and diesel vehicles. This approach is arguably inefficient as a social measure as all users benefit, including those that can easily absorb higher carbon taxation. Environmentally, it moves incentives in the wrong direction.

For many households on low incomes, the cost of housing has become burdensome. As underscored in Chapter 2, Norwegian housing policy has long emphasised assistance with home purchase to improve housing affordability. While this has been successful in making ownership accessible to more households, more priority is needed on addressing shortfalls in affordable rental housing. Chapter 2's recommendations include raising the supply of social housing, especially in high-cost cities.

Sickness and disability support still need reform to help ensure high levels of employment

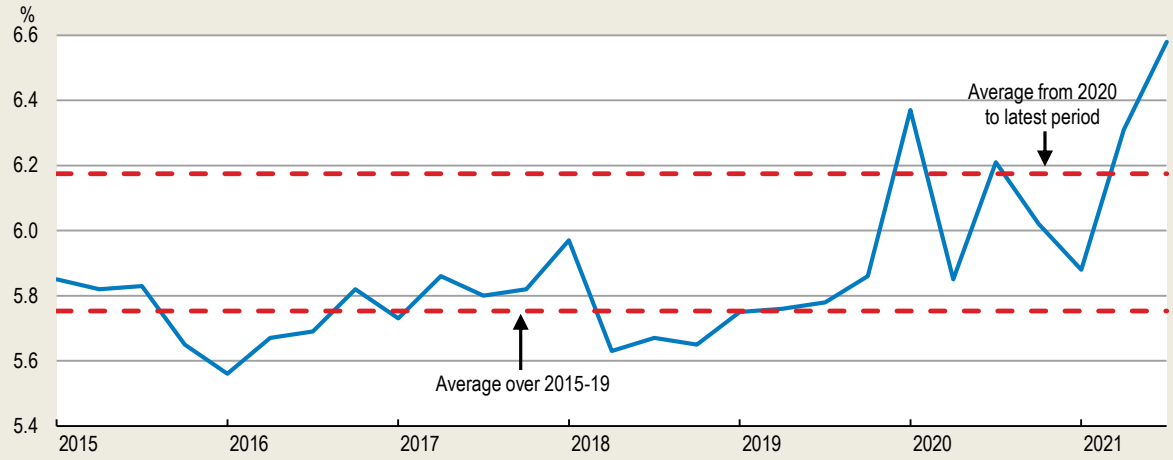
As underscored in previous *Surveys*, including an in-depth examination for the 2019 *Survey*, Norway's sickness leave compensation, in combination with disability benefit support, are a major channel for exit from the labour force. Active labour market policies have already been endeavouring to intensify efforts by management to tackle sick leave (particularly in the public sector) and to strengthen early intervention, treatment and rehabilitation. However, economic incentives, particularly in generous public sick-leave compensation, are also part of the problem and there has been little progress in rectifying this issue. The current level of sick leave support has been in some respects appropriate to the exceptional circumstances of the pandemic, providing 100% compensation to those having to take time off work due to illness and requiring employer financing only for an initial period of sick leave. Interestingly, data indicate only a small uptick in the rate of absence among employees during the pandemic (Box 1.13). However, the suitability of the scheme for normal times remains questionable. The full-salary compensation is provided for up to one year (which is exceptional in international comparison). The limited employer involvement in compensation is problematic because it means little incentives for taking preventative measures or facilitating return to work. The compensation scheme contributes to a very high incidence of sick leave and, in combination with comparatively large numbers of people on disability benefit is a significant route to early retirement among older cohorts, compromising labour supply and economic inclusiveness. Even more worrisome is a tendency of increased disability benefit take up rates among younger cohorts.

Box 1.13. Sickness absence among Norwegian employees during the pandemic

Rates of absence from work due to sickness picked up in Norway during the pandemic, but less than in some other countries. Between 2015 and 2019, the quarterly sickness absence rate averaged nearly 5.8%, i.e. around one in twenty work days were lost due to sickness. Since 2020 it has averaged a little over 6.1%(Figure 1.27). In contrast an OECD examination of paid sick leave in the initial months of the pandemic found substantial growth in the numbers of people on sick leave in some countries (OECD, 2020[14]). Norway's comparatively low number of COVID-19 cases, especially in the early days of the pandemic, is likely to be the main reason for the contrast with other countries. Other factors that potentially damped sick leave include high numbers of furloughed workers and a measure that increased the number of days parents could stay home with children due to sickness or school closures.

Figure 1.27. The rate of sickness absence has increased only marginally during the pandemic

Sickness absence rate, seasonally adjusted



Note: Days lost due to own sickness (self-certified and doctor-certified) as a percentage of contractual person-days.
Source: Statistics Norway.

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A commission evaluating (among other issues) the sickness and disability system delivered a second (and final) report in 2021 (Table 1.12). The report proposes a model that reduces employer financing for short-term absences but raises it for long-term absence. Such an approach would bring welcome strengthening in employers' incentives for taking preventative steps and for providing rehabilitation in cases of long-term absence. However, the report does not recommend moving away from providing 100% compensation for up to 12 months. This is unfortunate as the prolonged full compensation is a key reason for Norway's inflated sick leave absences. The commission's previous report proposed a step down in compensation to 80% of a worker's previous wage after six months absence (in the case of full-time absence), a move supported by in-depth assessment in the 2019 *Survey*.

Table 1.12. Key proposals made in Phase Two of the Employment Commission

Policy	Selected detail of the proposals
Reforming sick leave compensation	The report invites consideration of a model comprising: initial employer period for fully funding sick pay reduced from 16 to 12 days combined with introduction of a 10% contribution to sick pay after 3 months. Measures to improve and strengthen follow-up, facilitation and participation of persons on sick leave.
Work-oriented disability benefit	A proposed pilot scheme in which the employee's pay is reduced to reflect reduced productivity or working time due to disability. Employees receive top-up disability payments to compensate.
Activating Youth	More use of benefits or measures without medical requirements (i.e. The Qualification Programme). One year activation period for youths below 30 without earlier job experience before they can enter Work Assessment Allowance.

Further progress on pension reform but more can be done

Ongoing population ageing underscores the need to resolve remaining issues in the pensions system. Public-sector pension reform was agreed on in 2018 (similar to a reform finalised in 2011 for the private sector), representing the final major step towards a more actuarially neutral and flexible pension system. A key feature of this new system is that individuals with an occupational pension can retire from age 62 up to 75 years with pension pay outs adjusted to become actuarially neutral regardless of withdrawal age. In addition, there is a proposal to switch pension indexation to a formulation using the average of consumer price and wage growth. The establishment of a committee to review pension reform may raise the prospects for further progress. It would be particularly welcome to see linkage of the age parameters of the pension system (such as the age-range for retirement) to life expectancy and better solutions to regressivity concerns.

There is scope for more progress regarding the special pension arrangements for certain public-sector professions, including the police, military and nurses. Under legislation introduced in 2021, mandatory retirement ages for public employees have been discontinued. This will allow those employeed in the professional groups concerned to work beyond the former mandatory retirement age. However, according to the political platform for the new government this change might be reversed, which is not advisable given that more needs to be done to modernise these occupational pensions given the changing nature of work in the professions concerned. Furthermore, there remain provisions allowing early retirement but without an actuarially based downward adjustment of the annual pension payout. Negotiations between government and the relevant professional bodies have yet to reach agreement.

Table 1.13. Past recommendations on human capital, jobs and welfare

Recommendations	Action taken since the previous *Survey* (January 2019)
Encourage labour-market participation	
Strengthen incentives to contain sick-leave absences, including through: *i)* lowering sick-leave compensation and by extending employers' participation in funding and *ii)* intensify management efforts to address sick leave in sectors facing elevated levels of absence due to illness, in particular in the public sector. In disability benefits, strengthen treatment and rehabilitation requirements and apply eligibility rules in general more strictly. Make early interventions that encourage and facilitate return to work a strong theme of future reforms to sickness leave compensation and disability benefits. Tighten medical assessment for both sick leave and disability benefit systems.	Sickness leave compensation: no major reform since a new Inclusiveness Agreement covering 2019-2022 was struck in December 2018. Disability Benefit: Work Assessment Allowance. New rules as of February 2020 applied towards new applicants below 25 years. The minimum allowance was reduced. The Employment Commission, charged with recommending reform to both sickness leave compensation scheme and disability benefit scheme, delivered its final report in 2021 (see main text). No action has so far been taken on these areas.

Recommendations	Action taken since the previous *Survey* (January 2019)
Remove biases favouring early retirement in the old-age pension system. In-depth assessment in the 2019 *Survey* recommended to: • Align pension provisions for occupational groups with job-specific retirement age such as nurses, national defence and the police with the ordinary pensions system. Bring greater retirement-age flexibility and facilitate transition to roles where age is not a constraint on performance. • Seek alternatives to the *sliterordningen* scheme that provides extra payments to early retirees to address potential regressivity concerns. For instance, strengthen progressivity in the accumulation of pension entitlements to the state-funded earnings-linked pension. • Index age-dimensions of the pension system to life expectancy, such as the retirement-age range of 62 to 75 years. Diminish the financial attractiveness of early retirement via disability benefits by delaying the life-expectancy adjustment. • Help individuals make sound retirement choices, by ensuring information and education campaigns on retirement-age choice and consider default or recommended retirement ages.	Measures taken since the 2018 agreement to major public-sector pension reform that echoes past reform have included: • For public sector employees in occupational groups subject to job-specific retirement age, the obligation to resign for large groups of public employees has been removed through legislation (June 2021). Early pension entitlements remain. • Pension indexation has been suggested that changes from a formula comprising wage growth less 0.75% to the average of growth in consumer prices and wages. • A committee has been formed to review the pension reform and suggest • adjustments to ensure further sustainability and adequacy of the public pension system. Addressing age parameters, regressivity concerns and old age pension for recipients of disability benefits is part of the committee mandate.
Improve education	
In primary and secondary education reform, consider: • reduction in the number of schools • making more data on school performance publicly 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.	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. 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. 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.
In vocational education raise the number of apprenticeship places.	No major reform, however there are continuous efforts by social partners to increase the number of apprenticeship places.
In higher education: • 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.	Most of the intended mergers in higher education have been completed. A performance-agreement process across institutions was completed in 2019. Policy efforts to improve the quality of higher education teaching have intensified with publication of a white paper in early 2017. 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.

The environment: pressing ahead with green transition

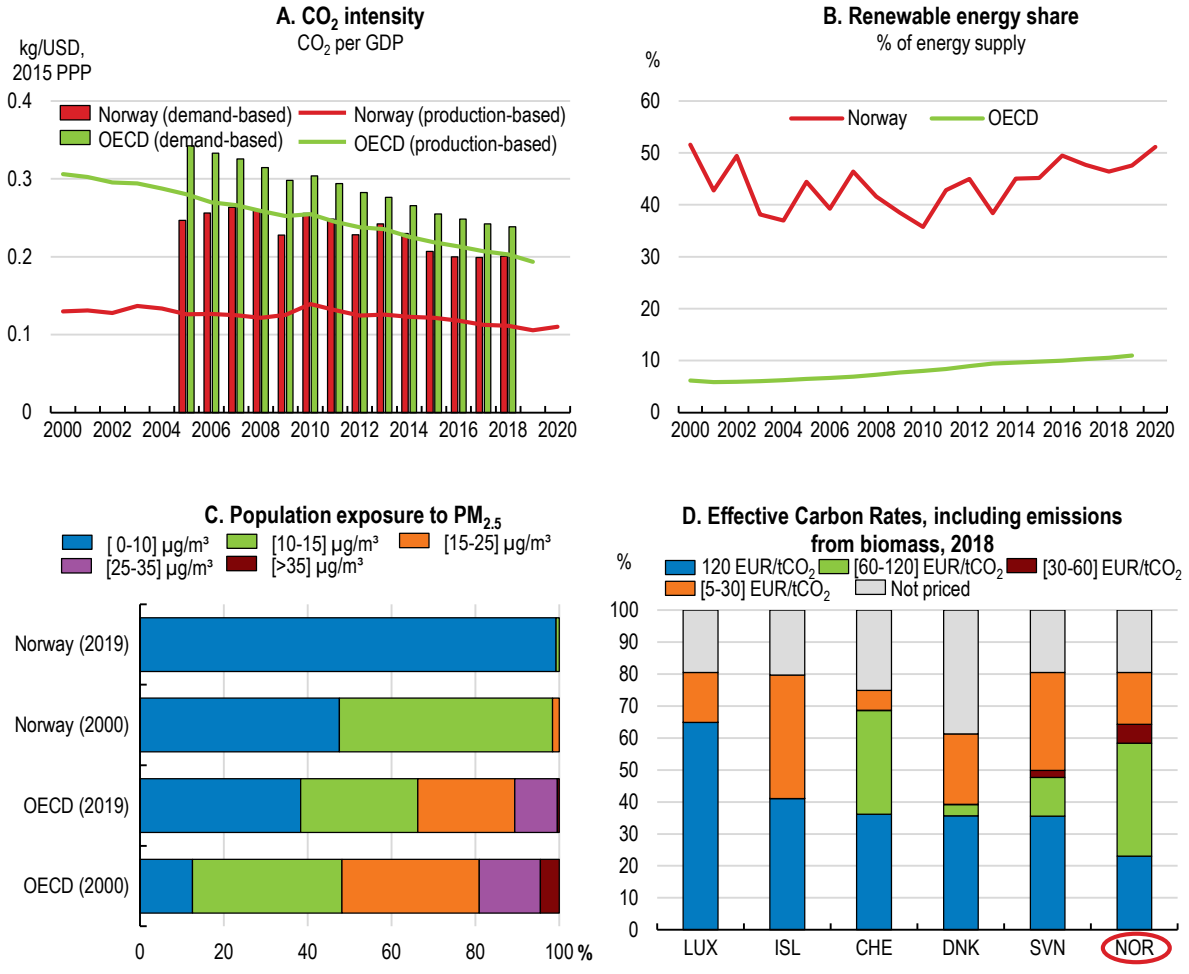
Norway has stepped up its greenhouse gas emission reduction targets in line with similar moves by the EU and many other countries. Achieving the goals requires reducing emissions from the current 50 million tonnes of CO_2 equivalent to around 25 million tonnes in 2030 and close to zero by 2050 (Figure 1.2 above and Box 1.15 below). As also underscored in the forthcoming OECD *Environmental Performance Review* (Box 1.14), Norway's starting point for domestic emission reduction is low compared with many developed countries in large part because its hydropower production (most of it in place well before widespread awareness of anthropogenic climate change) is sufficient to cover practically all domestic electricity demand. This is reflected in Norway's relatively low emission intensity in energy use and high share of renewable energy (Figure 1.28., Panels A and B). Thus, costs of mitigation are generally relatively high in Norway compared to other European countries. Norway has very low particulate pollution (Figure 1.28., Panel C).

Box 1.14. The OECD's upcoming *Environmental Performance Review* of Norway

The fourth OECD Environmental Performance Review of Norway will be published in the second quarter of 2022. The review team for the Norway Review includes experts from two reviewing countries (Finland and the United States). The review assesses Norway's progress towards sustainable development over the last decade, with a focus on sustainable land-use management and its impacts on biodiversity and climate change. It evaluates the country's track record against its environmental objectives, identifies good policy practices and key challenges. In addition, the review provides recommendations to help Norway improve the environmental effectiveness and economic efficiency of its policy mix and, ultimately, advance on its sustainable development reform agenda.

More information is available at: http://oe.cd/epr

Figure 1.28. Norway has considerable renewable energy resources



Note: Panel A: Included are CO_2 emissions from combustion of coal, oil, natural gas and other fuels. Gross Domestic Product (GDP) is expressed at constant 2015 USD using PPP. Panel D: Emissions from biomass are included in the emissions base, in line with OECD Effective Carbon Rate data. This treats CO_2 emissions from the combustion of biomass the same way as emissions from the combustion of fossil fuels. An alternative approach, taken in national GHG inventories, assumes that the net effect of production and consumption of biomass for fuels is carbon neutral.

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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Box 1.15. Norway's national climate goals

Norway's key commitments on climate change policy comprise:

- **Climate target for 2030**. A conditional target of 50-55% greenhouse gas (GHG) emissions reduction from the 1990 level by 2030 under its nationally determined contribution (NDC) to the Paris Agreement (previously the target was for a reduction of at least 40%). For the non-Emissions Trading System (ETS) sector the goal is for a 40% reduction compared to the level in 2005 (and within this, 50% for the transport sector). Norway will continue to cooperate with the EU on fulfilling the commitment and already participates in the Emission Trading System (EU-ETS). Norway's 2030 target does not directly compare with the EU's target. The EU's enhanced climate target of a 55% reduction includes greenhouse gas removals through land use and forests. The Norwegian target mainly concerns emissions, not carbon uptake from forests. Net uptake from the LULUCF-sector counteracts around 40% of total gross emissions in Norway.
- **Climate neutrality goal by 2030**. Emissions must be offset by climate action through emission trading systems or other international co-operation.
- **Low-emission society by 2050.** This was first detailed in the 2017 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, greenhouse gas emissions are reduced within a range of 80-95% from 1990 levels. This range was revised to a reduction of 90-95% in the 2021 Climate Change Act. The legislation is not fully clear on what is included in this emission target; though it is generally held to exclude carbon uptake in forests. The effect of Norway's participation in the EU-ETS will be taken into account in assessing progress towards this target (Ministry of Climate and Environment, 2017[15]).

Consistent with international rules on emission accounting, emissions generated in the process of extracting oil and gas are included in Norway's targets. Most of these "upstream" emissions come from gas-powered generators on offshore production plaftorms. The emission count does not include the emissions implicit in Norwegian-exported oil and gas when used in other countries. These emissions emerge in accounts when they are used, for instance in transport or electricity generation. As most of Norway's oil and gas is exported, the emissions emerge in the accounts of importing countries.

As elsewhere, green transition policy requires a mix of market-based instruments, regulatory measures and support for investment, including in research. Norway is a member of the European Trading System (ETS), a cap-and-trade system in which total emissions among emitters covered by the scheme are reduced over time with a market in emission credits determining how, and where, production adjusts to the reduced emissions. Around half of Norway's emissions fall under the ETS. With comparatively high marginal costs of reducing domestic greenhouse gas (GHG) emissions (partly because emission reduction starts from a low base), it makes economic sense for Norway to, in part, reduce its net emission balance through the purchase of foreign emission credits (notwithstanding the complications in determining how much such purchases contribute to emission reduction). Norway's high marginal emission-reduction costs means domestic emission reduction is often not cost effective. However, there are reasons for pressing ahead with policy actions. The recent sharp increase in ETS carbon prices, plus lead times required to bring in policy measures, means concrete action towards non-ETS reduction is nevertheless needed. Emissions from transport are prominent among non-ETS sectors, accounting for around 60% of non-ETS emissions. Devoting public resources to finding technological solutions to climate change is also important (see below). Norway's past support of demand for electric cars has probably contributed to technological developments. However, going forward this effect is now likely small as Norway's share of global demand for electric cars is declining rapidly.

Climate change and other environmental considerations are increasingly a factor in licencing decisions for new offshore fields for oil and gas development. For instance, permits for oil exploration off the Lofoten islands in northern Norway did not go ahead, largely for environmental reasons and the rich fisheries in the area. Furthermore, the political agreement on the 2022 Budget included a halt to an upcoming licencing round in so-called uncharted areas, while exploration is still open in pre-defined areas closer to existing infrastructure. Some are calling for wider measures. For instance, the EU announced in October 2021 that it will seek a ban on oil and gas production throughout the Arctic (by implication this would include those areas under Norwegian jurisdiction). There is some debate as to whether, similar to several other countries, Norway should introduce in a blanket ban on all new oil and gas exploration (Box 1.16).

Box 1.16. Economic considerations in bans on new oil and gas exploration

Some countries, including Denmark, France, Ireland, New Zealand and Portugal, have announced bans on new oil and gas exploration. In Denmark for instance the ban is on all new licensing rounds, implying decline in exploration and production as existing licences expire (a process due to end in 2050). Such bans can demonstrate good intention towards achieving climate change goals, in some cases reflecting a strategic decision to move away from oil and gas production in the future. The bans echo the messages derived from climate change modelling in the International Energy Agency's widely cited 'net zero' report (IEA, 2021[17]). All countries that have announced bans on petroleum production have relatively low income from this sector.

A ban on petroleum production would be much more costly domestically for Norway than for many other countries. Furthermore, even abstracting from this the case for banning new oil and gas exploration, including in Norway, is not clear cut:

- In the case of natural gas, future production may help other countries substitute away from more emission-intensive fuel sources. For instance, natural gas production in Norway can contribute to transition away from the more emission-intensive coal-based energy that supplies a significant share of Europe's energy needs. Furthermore, in the scenarios reported in the IPCC report from the UN Climate Panel global gas production still plays an important role in 2050. Geopolitical risks are also a factor.
- If emissions from oil and gas sectors are covered by effective carbon taxation and carbon trading systems, there is, in principle, no need for additional policy measures to curtail supply. In particular, the chief virtue of the EU's cap-and-trade system (ETS), which covers Norway, and similar mechanisms elsewhere, is that it enables the market to determine the least costly path to emissions reduction. In practice:
    - In Norway, emissions from petroleum production are included in the ETS, and on top of that there is a large CO_2 tax. There is substantial work going on to electrify oil platforms to make production processes close to CO_2-free.
    - As most Norwegian oil and gas is exported to Europe, emissions embodied in the finished products are also, by implication, largely covered either by the ETS or by non-ETS European carbon-pricing mechanisms.
- Forgone future production can, in effect, be substituted by production elsewhere, including possibly in countries with less stringent environmental standards for oil and gas exploration and production.

Source: OECD Secretariat.

Proposals for carbon price increases should be followed through

Norway has a stronger track record in pricing greenhouse-gas emissions than most OECD countries. Around 60% of emissions from energy use, including emissions from biomass, was priced at or above the commonly used benchmark of EUR 60 in 2018 according to the effective carbon rates framework (Figure 1.28). Furthermore, similar to moves by the Netherlands and the United Kingdom, the government's Climate Action Plan 2021-30 (Government of Norway, 2021[16]) proposes a schedule of increases in the price on carbon (Box 1.17). The National Budget for 2022 makes a start by proposing a hike in taxes on non-ETS emissions from NOK 591 (around EUR 59) per tonne of CO_2 equivalent to NOK 766 (around EUR 77, a real increase of 28%). In addition, the taxes on the continental shelf and for aviation covered by the ETS were increased by 28% and 5.4% respectively.

Box 1.17. Norway's plan for climate action measures

Current plans for combatting climate change are primarily based on the Climate Action Plan that was published in January 2021 (Government of Norway, 2021[16]). Planned policy measures include:

- A scheduled hike in the price on non-ETS emissions from the current value of NOK 591 (approximately EUR 60) to roughly NOK 2 000 (approximately EUR 200) in 2030. For ETS-emissions from extraction of petroleum on the continental shelf and aviation, it is stated that the total carbon price (allowances plus emission taxes) will also grow to roughly 2 000 NOK in 2030. As indicated in the main text, the 2022 national budget includes a first step in these increases.
- Public procurement rules requiring zero-emission solutions in public procurement contracts involving passenger cars and small vans. There is also intention to introduce zero- and low-emission criteria in procurement processes for ferries and high-speed passenger vessels. In addition, requirements for zero- and low-emission solutions for aquaculture service vessels are planned.
- More biofuel requirements, for instance the biofuel quota obligation for road traffic, are to be increased in the period up to 2030.
- Further negotiation of an emission reduction plan for the agricultural sector. The government and the agricultural organisations have signed a letter of intent with the aim of reducing emissions and enhancing removals by a total of 5 million tonnes CO_2 equivalent over the period 2021–2030.
- Measures to advance technological solutions to emissions, including support for carbon capture and storage (CCS) through implementation of the *Longship* project.

Source: *Climate Action Plan 2021-30* (Government of Norway, 2021).

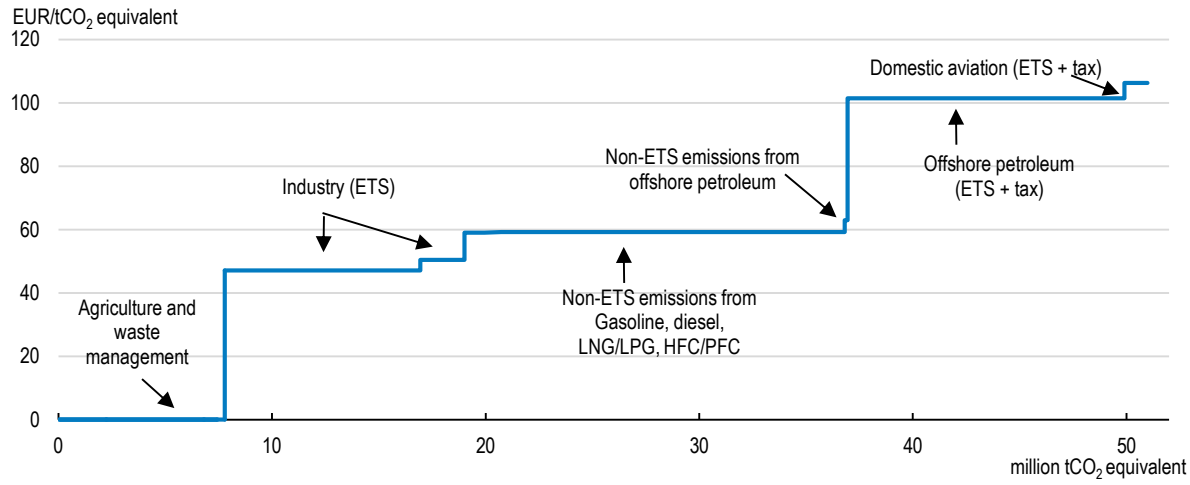
Nevertheless, as previous *Surveys* have underscored, emission pricing and taxation could be more consistent across sectors (an issue faced by many countries) (Figure 1.29). While progress has been made toward consistency, there remain issues. In particular, GHG emissions of around 8 million tonnes of CO_2 equivalent (i.e. around 15% of total emissions) are not priced by a tax or by the ETS, notably emissions of methane and nitrous oxides from agriculture (Ministry for Climate and Environment, 2020[17]) (Ministry of Climate and Environment, 2017[15]). There is some progress in these unpriced areas. Norway introduced a tax on emissions from waste incineration and abolished the tax exemption for the greenhouse industry in 2022. Furthermore, the Climate Action Plan recommends investigation of a tax on mineral fertiliser with a view to reducing nitrous oxide emissions.

Caution is required in measures aiming to offset the cost-of-living growth implied by carbon tax increases. As of 2022 the road use tax on biodiesel, bioethanol, mineral oil and petrol (affecting petrol and diesel vehicles) has been reduced. It is estimated that (for the typical vehicle user) this will offset around half of the effect on fuel prices of proposed rises in the carbon tax for 2022, limiting the increase in the

disincentives to drive combustion engine vehicles compared to other uses of fossil fuels. Furthermore, the tax on traffic insurance has been reduced. A tax deduction for commuting has also been made more generous. These measures benefit well-off along with poorer households and are therefore inefficient as a social policy and imply a larger than necessary dilution of carbon taxation.

Figure 1.29. Effective carbon tax rates in Norway range from zero to around EUR 100 per tonne

Carbon price in 2021



Note: Prices for 2021 based on 2019 GHG emissions. The prices encompass tax rates in 2021 and ETS allowance price (NOK 472 per tonne of CO_2). The prices have been converted in EUR/tCO_2 using an exchange rate of 10 NOK/EUR. Emissions are measured according to the United Nations' National Inventory Report (NIR) 2019 for Norway, not including LULUCF. A tax on waste incineration was introduced in 2022.
Source: Statistics Norway; Norwegian Environment Agency; and Ministry of Finance.

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There is scope to make housing construction greener

Norway's energy-efficiency standards for new housing are among the world's strictest but, as in many countries, measures to tackle emissions relating to construction, notably emissions from the manufacture of building materials, are not fully developed (Chapter 2). Buildings and construction account for 14% of Norway's direct and indirect greenhouse gas emissions, with two thirds coming from the production and transport of building materials. Greener energy can help, and rises in the carbon price would assist in this regard. However, some emissions are harder to eliminate, for instance CO_2 emissions inherent to the process of cement production. It is welcome that Norway's *Longship* project (see below) includes a search for solutions to this problem.

In the absence of technological solutions, policy should focus on reducing material waste from construction, including through greater reuse of building products. A regulatory framework for this is being developed, which is welcome. For both regulation and market-based policy instruments, the implications for construction costs should be factored in to avoid trading-off housing affordability for potentially costly emissions reduction.

Supporting green technologies

Norway is supporting pilot and demonstration projects broadly through the environmental technology scheme (Innovation Norway), and technology adoption and carbon-capture and storage (CCS) projects.

The state-owned agency, Enova SF, plays a prominent role in Norway's climate change strategy. A large part of Enova's budget (around NOK 3.4 billion or around 0.1 percentage points of GDP), supports the development and implementation of zero emission transport technologies such as batteries and hydrogen. In addition, Enova supports the development of technologies for emissions reduction in manufacturing and the energy sector, such as district heating. Around 10% of Enova's budget subsidises households for the installation of advanced energy-saving technologies. Norway's lead CCS initiative, *Longship*, comprises three full-scale carbon capture and storage projects (Box 1.18). Norway is also well placed to participate in the development of hydrogen power as pure hydrogen can be extracted from natural gas and the government is sponsoring hydrogen power projects via Enova.

Box 1.18. Norway's Longship project

Longship is a project in which public funds are being used to support two full-scale CO_2-capture projects and a full scale off-shore CO_2 storage facility (Government of Norway, 2020[18]). The capture projects comprise installation of carbon capture in a ement factory and a waste-to-energy plant in Oslo. The cost of mitigating CO_2 in these projects is likely to be several times higher than the quota price in the system. The excess costs can be seen as part of Norway's contribution to developing and demonstrating technology for carbon capture and storage.

The cement-factory project exemplifies the potential for Longship to be a model for R&D support in related circular-economy initiatives to scale back use of emissions-intense building materials. It targets a significant technological hurdle to reducing global emissions, is backed by long-term funding commitment, and pairs research with a practical application to an emissions-intense industry. Success in the Longship project could realise significant cost-effective CO_2 emissions reductions, which could be replicated in other countries. Complementary initiatives backed by government funding include SUPERCON, a project to develop methods to reduce the volume of concrete needed to build tunnels and CIRCULUS, a project to improve recovery and reuse of materials from concrete structures.

Source: (Government of Norway, 2020[18])

Norway should continue to prune its substantial incentives for electric vehicle ownership The incentives have been important to open the market for electric and hybrid cars. Now this market has matured, and the cost of mitigation by supporting electric vehicle purchases are very high. The incentives have already been pared back somewhat as ownership has become more established and as more affordable electric-vehicle models have become available. In 2021, around 65% of new car sales were battery-only and this figure is expected to rise further (Box 1.19). In 2022, both the annual vehicle insurance tax and the re-registration tax have been increased for electric vehicles. The political parties in government also intend to introduce VAT on electric vehicle purchases above a threshold value (thus aiming at the high end of the market). These moves, and further steps to pare back the concessions as the market matures further would be welcome. In parallel, it will be important to continue strengthening the promotion of shared mobility and climate-friendly modes of transport (i.e. zero-emission city buses, cycling and walking) in line with Norway's "Zero-growth goal" in urban areas.

Box 1.19. Norway's electric vehicle incentives

As of 2020 there were some 340 000 electric cars in Norway, the largest number among European countries and representing about 16% of global sales. The share of EVs among new vehicles being bought continues to grow; in 2021, 64.5% of new passenger registrations were battery (only) electric vehicles (BEVs) (around 86% including plug-in hybrid vehicles). The share of electric vehicles in the entire vehicle stock is growing quite rapidly. For instance, the share of battery-only passenger cars grew

from 9.5% to 16% between 2019 and 2021 (the increase in BEV traffic volume is roughly similar). This is bringing Norway closer to its target of cutting transport emissions by 50% in 2030. The impressive outcomes in EV take-up have been driven by substantial tax benefits and privileges, including exemptions from value-added tax and vehicle registration tax, along with cheaper access to toll roads and parking (Figure 1.30) (Table 1.14). Also key has been the widening range of electric vehicles available, including lower-cost models.

However, the push to persuade households to purchase electric vehicles has come at a price. The policy has contributed to a sizeable revenue decline from car-related excise duties, from NOK 78 billion in 2007 to an estimated NOK 40 billion in 2021 (Figure 1.30). This equates to an average revenue loss of about 0.1 percentage points of mainland GDP each year. In addition, VAT revenues have fallen because of the VAT exemption for electric cars. The value of the exemption is estimated at NOK 11.3 billion in 2021. When viewed only in terms of direct CO_2 abatement costs, the policy is not very efficient. Although there are uncertainties in abatement-cost calculation, the available estimates point to large costs. For instance, the tax breaks and the behavioral responses to them imply an abatement cost of EUR 1 370 per tonne of CO_2 for battery electric cars (as of 2019) and at least EUR 640 and EUR 200 per tonne for light and heavy-duty commercial vehicles, according to one study (Fridstrom, 2021[19]). Similarly, a recent OECD working paper estimates the cost of emission reduction through the CO_2-component in the registration tax to be around ten times the EU-ETS quota price – the cost of emitting a tonne of carbon under Europe's emissions trading system (Eskeland and Yan, 2021[20]). As elsewhere, there are valid arguments for EV-subsidy exceeding the abatement cost. Larger subsidies help the EV market reach critical mass (reducing the need for subsidy in the long term).

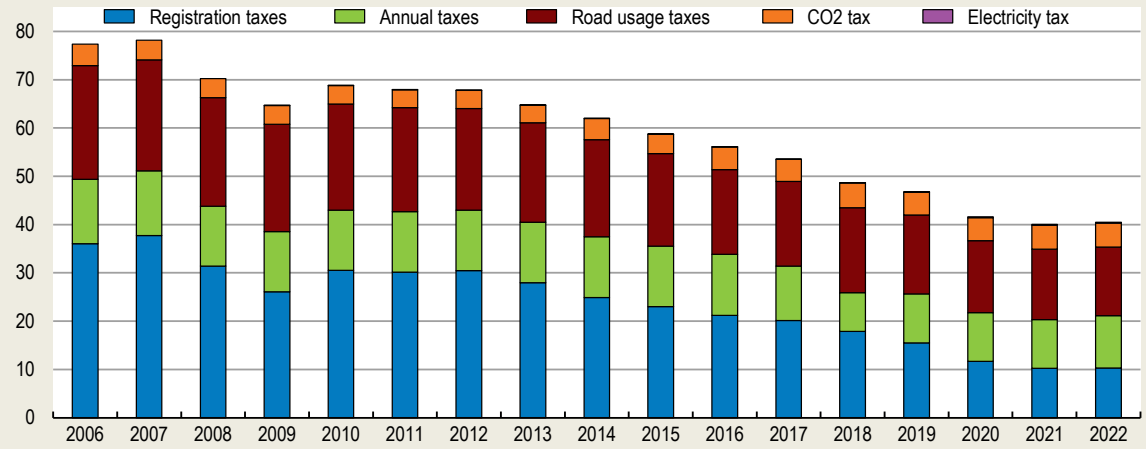
As the EV market has become better established, government has started scaling back some of the incentives. Provisions allowing free use of bus lanes have been reduced and in 2022 a reduced rate for electric cars in the re-registration tax has been introduced and the standard rate has been introduced for electric cars in the annual vehicle insurance tax. In addition, the government parties have stated in their political platform that they will introduce VAT for the most expensive electric vehicles (above the value of NOK 600 000).

There is also a case for introducing a tax on electric vehicle use. Electric vehicles and conventional vehicles have approximately the same marginal externalities when CO_2 is excluded. Fuel tax covers the externalities for conventional vehicles but there is no equivalent on electric vehicles. This shortfall strengthens the case for position-based distance, location and time-contingent road charge and it is welcome that the Norwegian authorities are currently working on this approach. This type of road charge can reframe vehicle taxation to ensure road users internalise congestion costs and related externalities. It can also help offset the fuel-tax revenues losses arising from the transition to EVs.

Government support for charging stations has been in place since 2010 and the current scheme, run by the state enterprise Enova (which provides funding and advice for energy and climate projects), aims for fast charging stations every 50km on around 7 500 km of Norway's road network. The current network is already quite dense with the exception of some sparsely populated areas in the north. Overall, the growth in fast charging stations has been impressive. In 2015, there were only about 800 such charging points, as of July 2021 there were around 5 700 according to the NOBIL database of the Electric Car Association. In recent years, charging operators have been building fast charging stations without subsidy, especially in larger cities and along major highways. This is a further sign of the EV market reaching critical mass. While un-subsidised stations will probably become increasingly viable, government support will likely still be needed to ensure availability in remote areas.

Figure 1.30. Revenue from car related taxation is declining

Vehicle-related tax revenue, billions NOK



Note: Adjusted for inflation, estimated 2022 NOK values.
Source: Ministry of Finance.

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Table 1.14. Key elements of Norway's policies encouraging electric vehicle purchase

Support	Selected details
Tax breaks for electric vehicle (EV) owners	Taxation of car purchase: – exemption on VAT (normally 25%). – exemption from the one-off motor vehicle registration tax (a tax based on vehicle weight emission characteristics). – reduced rate in the re-registration tax
Concessions for EV drivers	Concessionary rates on parking, road tolls and ferry fares. Provisions allowing use of bus lanes (from 2016 these were reduced to only allow use by EVs carrying at least one passenger). Urban road-toll concessions are also being reduced. For instance, EVs are now subject to Oslo's congestion charge.
Regulation	There is a target that by 2025 all new passenger cars sold and city buses should be zero emission.
Support for charging stations	A competitive-bid subsidy program run by Enova covers up to 100% of investment costs, including purchase of a charger, grid connection, shielding and communication and payment solutions.

Source: OECD Secretariat

Table 1.15. Past recommendations on tackling environmental challenges

Recommendations	Action taken since the previous *Survey (January 2019)*
Green transition	
Pursue cost efficiency across sectors and borders in fulfilling Norway's Paris 2030-goal within the EU climate framework.	Commitment to increasing the price of carbon to NOK 2 000 by 2030 has been made, and a first step towards this is included in the 2022 Budget. However, the Budget also included tax cuts that would offset half of the increase for road transport.
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.	Policymakers have given green light to investigate the posibility of creating zero-emission zones in Oslo and Bergen (June 2021). Gradual withdrawal of tax concessions and other benefits for electric-vehicle owners continues in light of the maturing take up. The government intends to introduce VAT on high-end electric vehicles.

Main findings and recommendations: excluding those relating to the in-depth chapter

MAIN FINDINGS	RECOMMENDATIONS (KEY RECOMMENDATIONS IN BOLD)
Handling post-recovery challenges	
Economic output has reached pre-pandemic trend and vaccination rates are high. However risk of renewed social distancing measures remains. Recent strong price and cost increases will most likely ease in the coming quarters but there is a risk of sustained inflation. Vulnerabilities stemming from property markets remain a risk.	**Maintain a close watch on price and wage inflation and continue to normalise monetary and fiscal conditions.** **Stand ready to tighten macroprudential tools if strong house-price growth resumes.** Consider a measure for imputed rents in the consumer price index that more fully reflects housing market developments. Improve data on price developments in commercial real-estate, given the sector's importance to banks' balance sheets.
A prudent national budget for 2022 envisages bringing the fiscal deficit below the long-term guideline value under the fiscal rule. Fiscal space will narrow in the coming years due to slower wealth-fund growth, multi-year spending commitments and population ageing.	**Retain a prudent approach to fiscal budgeting in the coming years.** Consider augmenting the fiscal system with a medium-term expenditure framework. **Use more productivity enhancing measures in public services, including spending reviews. Use cost-benefit analysis more extensively in public investment and retain the pruning of budget allocations through "efficiency dividends".** As a general principle of tax reform aim to reduce reliance on the more distortive forms of taxation, especially labour income tax. Reconsider the use of across-the-board cuts in electricity taxation and subsidies that benefit high, as well as low income households to address concerns about the cost-of-living effects of price increases.
Strengthening productivity and employment	
Post-pandemic, policy should nurture stronger business-sector productivity. One strand should be to ensure businesses are easy to establish and have good paths to recovery when running into financial difficulty. Another strand is to ensure sectoral business support encourages long-term economic and environmental sustainability, notably in agriculture.	**Improve insolvency procedures through better routes to recovery for businesses in difficulty, including lighter penalties for failed entrepreneurs.** **Continue to tackle weak points in business efficiency including through re-orienting agriculture support away from the most economically distorting forms of support, including import tariffs.** Further investigate whether property registration needs to be tightened to contain money laundering through property purchase. Check that processes for tracking and checking lobbying of officials and policymakers by business are adequate. Continue efforts to eliminate corruption, for instance through encouraging local authorities' efforts to combat corruption, and the provision of well-functioning whistle-blower channels. Increase the clarity of corporate liability for offences committed by related entities (e.g. subsidiaries or joint ventures) and bring more transparency when foreign bribery matters are resolved out of court.
The pandemic demonstrated the value of comprehensive sick leave compensation and disability support, but nevertheless reforms are needed to enhance labour-force attachment.	**Strengthen incentives to reduce sick-leave absences, including through lowering sick-leave compensation and by extending employers' participation in funding.** **In disability benefits, in addition to retraining and other support, apply eligibility rules more strictly and strengthen treatment and rehabilitation requirements.**
Special pensions provisions for some occupations mean early retirement remains common and pension provisions do not appropriately adjust pension payouts when individuals decide to retire early.	**Continue to align special pension provisions for groups such as nurses, national defence and the police with the mainstream pension system.** **Index age dimensions of the pension system to life expectancy, such as the retirement-age range of 62 to 75 years.**
Tackling climate change	
Norway is to commence a welcome schedule of carbon-price increases and has recently launched large-scale publicly-supported projects for carbon-capture and storage. Achieving greenhouse gas emission goals in Norway requires reducing gross domestic emissions from the current 50 million tonnes of CO_2 equivalent to around 25 million tonnes in 2030 and close to zero by 2050.	**Ensure continued follow through on the schedule of carbon-price increases. Augment this with additional greenhouse-gas reduction measures via regulation and investment, in particular in transport and agriculture.** **Develop carbon pricing on emissions of methane and nitrous oxide in the agricultural sector.** **Make electric vehicles gradually subject to VAT and the motor vehicle registration tax.** Ensure measures to address the cost-of-living concerns of carbon taxation are well targeted.

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2 Making housing more affordable and sustainable

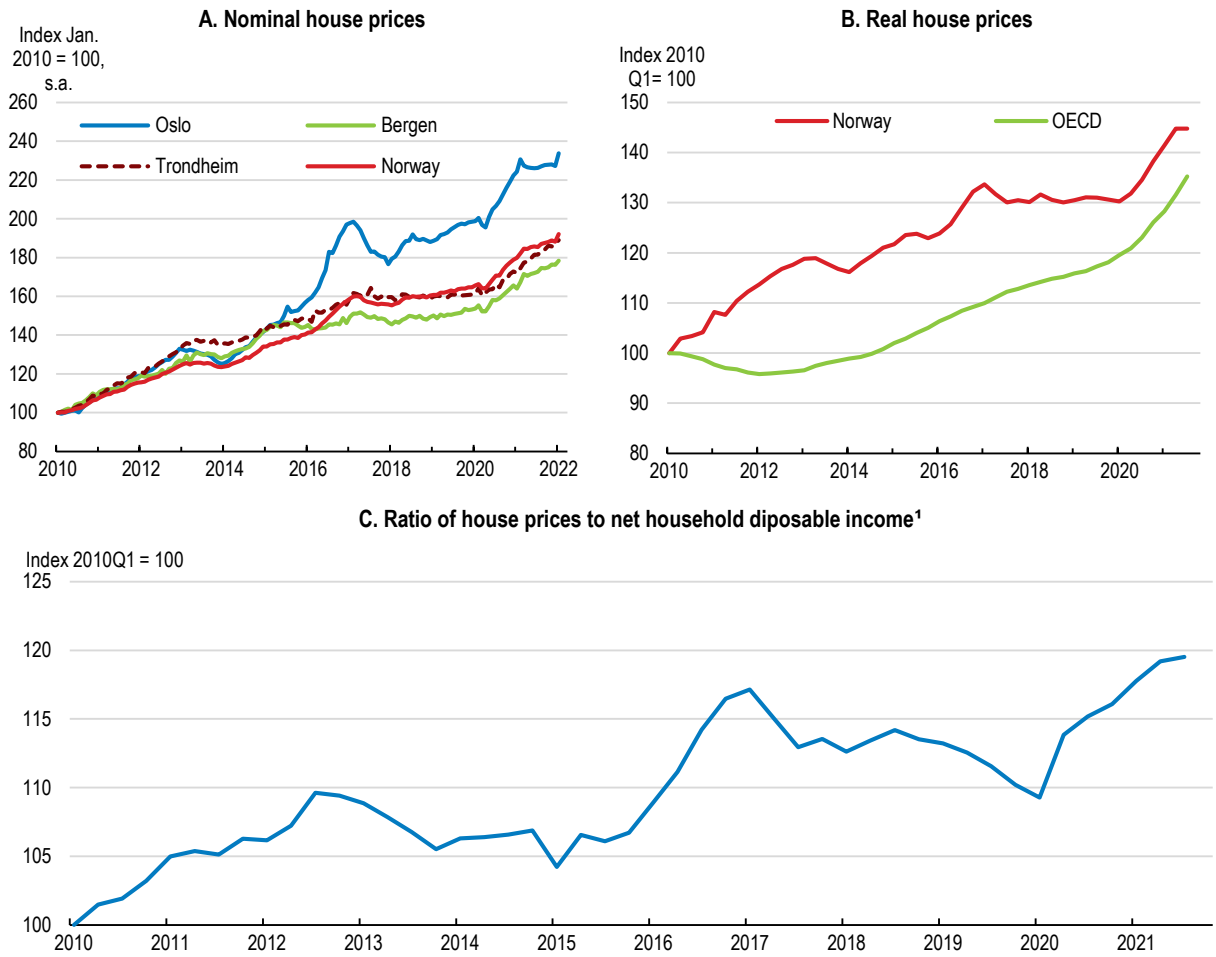
Philip Hemmings

Ben Conigrave

Norway, like a number of other countries, saw steep growth in house prices during the pandemic. This added to past years of strong price increases and has brought renewed concern for housing affordability. Tax advantages to buying homes inflate house prices, contribute to wealth inequality and divert resources from more productive investments. An underdeveloped rental market is an additional consequence of Norway's pro-homeownership policies. Beyond tax reform and targeted support for low-income households, including renters, lasting improvements in affordability will require measures to enhance the responsiveness of residential construction to increased demand. However, creating room for new housing supply can involve difficult trade-offs with environmental and other policy objectives.

Norway is among several countries to have experienced steep house price rises during the pandemic, particularly in urban areas (Figure 2.1 Panel A and B). This Chapter examines the growing challenge of housing affordability. Measures to improve targeted support to low-income households are examined in addition to broader reforms to temper demand for homebuying and enhance the responsiveness of housing supply. Housing objectives must be balanced against other policy aims, not least the range of considerations involved in land-use planning, from biodiversity to public infrastructure capacity. A key task for policymakers is to manage trade-offs between housing affordability and environmental objectives.

Figure 2.1. House prices have risen significantly



1. Nominal house prices divided by nominal disposable income per person. Population data are from the OECD National Accounts database.
Source: Real Estate Norway (Eiendom Norge); and OECD (2021), Analytical house prices database.

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Recent developments in housing affordability in Norway

Strong housing demand during the first year of the COVID-19 crisis saw housing prices grow at rates well in excess of consumer price increases. Norway was not alone in this regard. Interest rate cuts, reduced non-housing spending opportunities and an initially sluggish residential construction response combined, in varying degrees, to drive up housing prices in many other OECD countries as well.

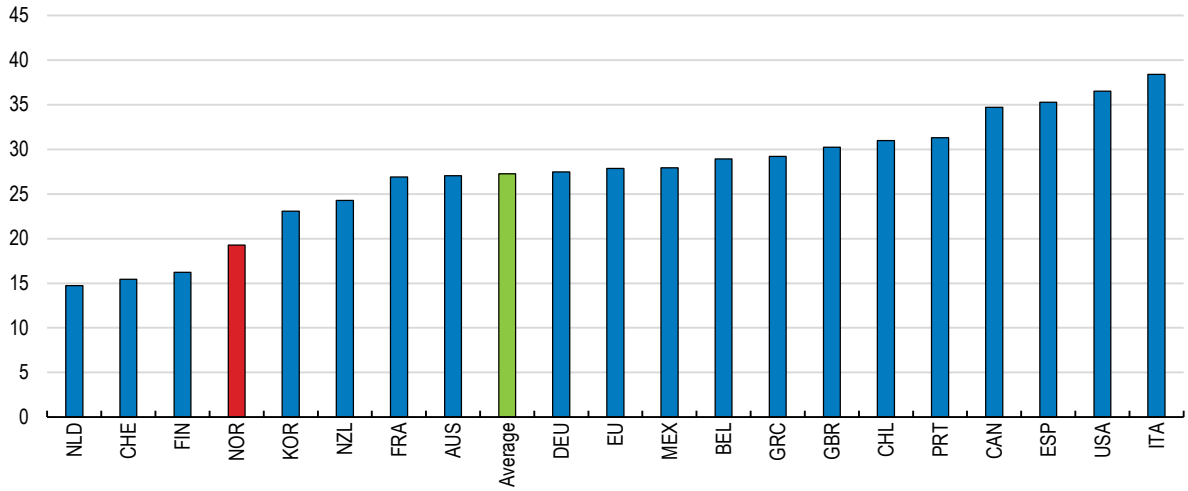
In Norway's case, the recent increase in housing market activity ended a period of relatively moderate house price growth from 2017 to early 2020. A trend rise in the house price-to-income ratio resumed following the onset of the pandemic (Figure 2.1 Panel C). Strong price growth affected many regions and multiple dwelling types. This recent acceleration brought renewed debate about what to do about high prices and rents in many parts of the country, and the related issue of housing affordability for low-income households (Housing Lab, 2021[1]).

Homeownership has become less accessible despite low borrowing costs

Cheap credit continued to play a key role in stimulating housing demand in recent years even as other demand drivers, including population growth, waned (Norges Bank, 2021[2]). Interest rate cuts in early 2020 in response to the pandemic reduced mortgage burdens for households already paying off variable-rate loans (representing more than 90% of mortgages in Norway (IMF, 2020[3])). Rate cuts had more mixed effects on housing affordability for first-time buyers. On the one hand, lower borrowing costs eased ongoing mortgage expenses (Figure 2.2). On the other hand, higher house prices – in part a consequence of interest-rate reductions – increased down payments for mortgages and principal amounts to be repaid, often over longer loan durations.

Figure 2.2. Mortgage burdens for low-income households are relatively low

Median mortgage burden (principal repayment and interest payments) of low-income households, % of disposable income, 2019 or latest year



Note: Low-income households are households in the bottom quintile of the income distribution. In Chile, Mexico, Korea and the United States, gross income instead of disposable income is used due to data limitations.
Source: OECD Affordable Housing database.

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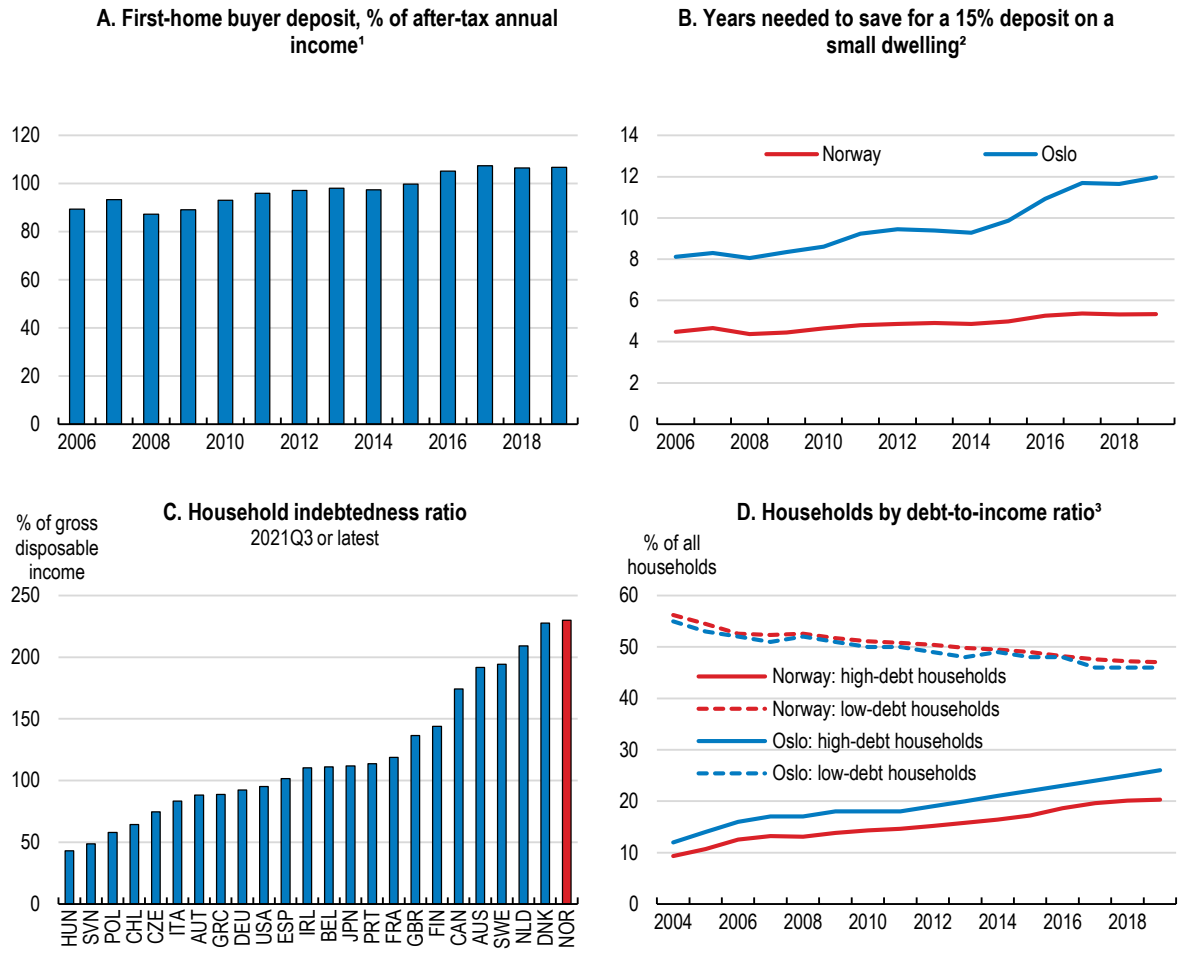
Saving for a deposit can be an important obstacle to homeownership for low-income households. Rising house prices in more populous cities (in particular in Oslo) have increased the deposits would-be homebuyers must accumulate before purchasing dwellings (Figure 2.3, Panel A and B). A large share of young buyers (in recent years, roughly half those in their 20s) are reliant on financial support from parents (Dokka, 2018[4]). Those able to buy first homes without help from family often take on large debts, risking financial difficulty in the event of house price corrections or loss of labour income (Figure 2.3, Panel C and D). Both factors – larger deposits and elevated risk – can help to explain recent declines in rates of homeownership, especially among lower-income households (Figure 2.4) and the young. The share of young people that own homes (61% of those in their 20s in 2020) remains high relative to other European countries but has declined since the 2000s (Revold, 2019[5]).

Figure 2.3. Deposits and household debt have increased



1. Calculated based on a 15% deposit on a 100 m² dwelling of average price per square metre as a share of the average after-tax income for a single person 30-44.
2. Years needed to save a 15% deposit on a 100 m² dwelling of average price per square metre for a single person 30-44 saving 20% of average after-tax income.
3. High-debt households are those whose debt is greater than or equal to 3 times their annual income. Low-debt households are those for whom debt is worth no more than the value of their income.
Source: OECD calculations based on Statistics Norway data; OECD dashboard of household statistics.

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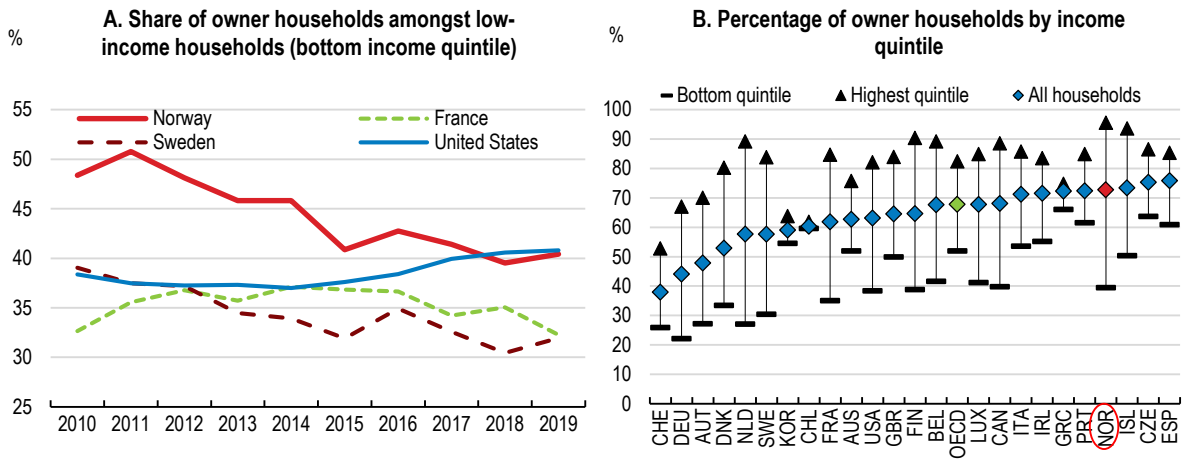
In the wake of the pandemic, changes in how and where Norwegians work could take some pressure off metropolitan housing markets. Oslo witnessed a small exodus of typically older households to areas with greater space, further from the centre of town (Lindquist et al., 2021[6]). Similar trends played out in other countries, enabled by increased teleworking opportunities at a time when the appeal of city living was diminished. The coming years will reveal the extent to which shifts in patterns of work and housing demand are reversed following vaccine rollouts and economic re-opening. If lasting changes turn out to be sizeable, this could influence employment opportunities and environmental impacts related to commuting and urban sprawl, as well as housing affordability. The geography of housing demand will also be affected by international migration flows. Border restrictions thinned flows of temporary foreign workers and other migrants during the crisis. This again had a marked effect on population change in Oslo, which is home to a large share of Norway's foreign-born residents.

Box 2.1. Historical perspective on pro-homeownership policies in Norway

Norwegian housing policies since the late 1940s pursued a goal of mass homeownership. An important objective in doing this was to ensure affordable housing for low-income households in retirement (Sandlie and Gulbrandsen, 2017[7]). Still-high aggregate homeownership rates (76% of households owned homes in 2020) are a legacy of enduring tax advantages for homebuyers but also large-scale publicly-subsidised homebuilding after the Second World War (Figure 2.4, Panel B). Large supply-side interventions wound down with subsequent deregulation of housing and financial markets in the 1980s (Sandlie and Gulbrandsen, 2017[7]). Reflecting in part tighter mortgage lending controls, the gap in homeownership rates between high and low-income households has since widened and housing is contributing to wealth inequality (Eggum and Røed Larsen, 2021[8]). This has occurred even amid continued first homebuyer policy support from tax incentives (for young households) and subsidised mortgages (for low-income families). The small size of Norway's rental markets has also emerged as a vulnerability, with shortages of affordable rental properties eroding options for many geographically mobile households.

Figure 2.4. Homeownership rates have fallen among low-income households



Note: Panel B: In Chile, Mexico, Korea and the United States gross income is used due to data limitations. OECD aggregate is an unweighted average excluding Colombia, Costa Rica, Israel, Japan, New Zealand and Turkey.
Source: OECD Affordable Housing database.

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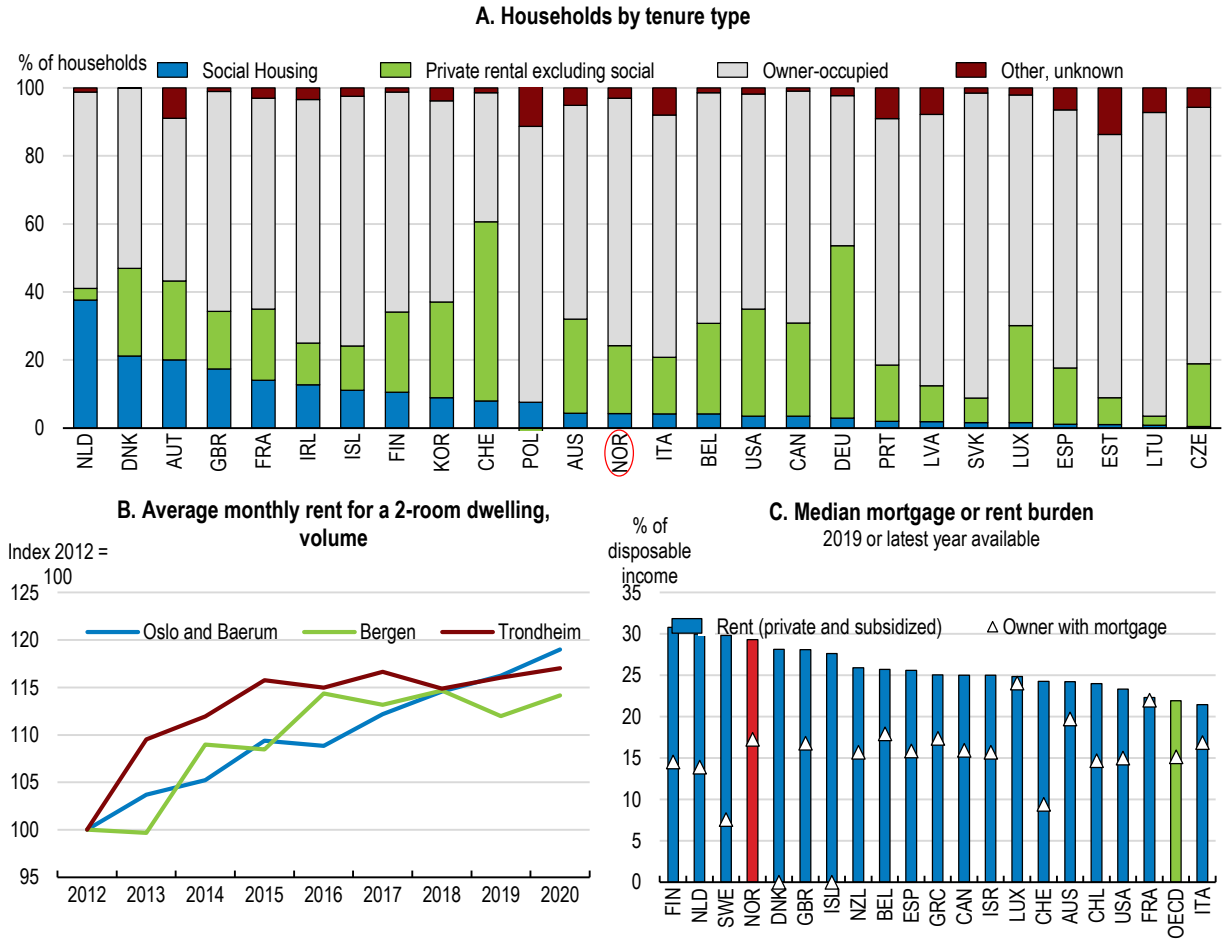
Housing cost burdens are heavy for low-income renters

Recent years have brought increased focus on the performance of rental markets (KMD, 2021[9]) in a country that has historically pursued the goal of mass homeownership (Box 2.1; Figure 2.5, Panel A). Outside its larger cities, private rental markets in Norway tend to be small. A significant share of private tenancy arrangements are undocumented by formal leases, with many tenants living in homes owned by friends or family. Social housing is targeted at a small group of low-income households.

Rent increases over the past decade have been moderate next to growth in house prices. This reflects the influence of low interest rates on demand for buying homes. Some cities have, however, seen rents grow at faster rates than aggregate consumer prices through extended periods (Figure 2.5, Panel B). Renters tend to be younger and have lower incomes, on average, than homeowners. A large share of renters face acute ongoing housing expenses (Figure 2.5, Panel C), with reduced capacity for non-housing consumption. High housing costs can present lower-income households with difficult choices. Those opting to live in cheaper housing further from sought-after urban areas may face longer commutes (with

implications for well-being and the environment) or a narrower range of job options closer to home (possibly with lower pay). Elevated housing expenses can, in this way, erode equality of opportunity. By reducing worker flows to urban areas, shortages of affordable rental housing can also reduce aggregate labour productivity.

Figure 2.5. The private rental market is underdeveloped and rent burdens are significant



Notes: Panel A: For the United States, the social housing stock includes public housing, subsidised units developed through programmes targeting the elderly and disabled people, as well as income-restricted units created through the Low-Income Housing Tax Credit programme. For Canada, social housing excludes units managed by the Société d'habitation du Québec. For Spain, the social housing data may also contain other types of reduced rent housing, e.g. employer-provided dwellings. For the Czech Republic, Italy, Luxembourg, Portugal, the Slovak Republic and Switzerland, no social housing data are available for 2018; data for 2010 were used instead. Panel B: Nominal rents are from an annual price level survey. Differences in the sample composition can affect price changes between years. Rents are deflated by the consumer price index. Panel C: Mortgage burden includes principal and interest payments. Rent burden includes private market and subsidised rents.
Source: OECD Affordable Housing database and OECD calculations based on Statistics Norway data.

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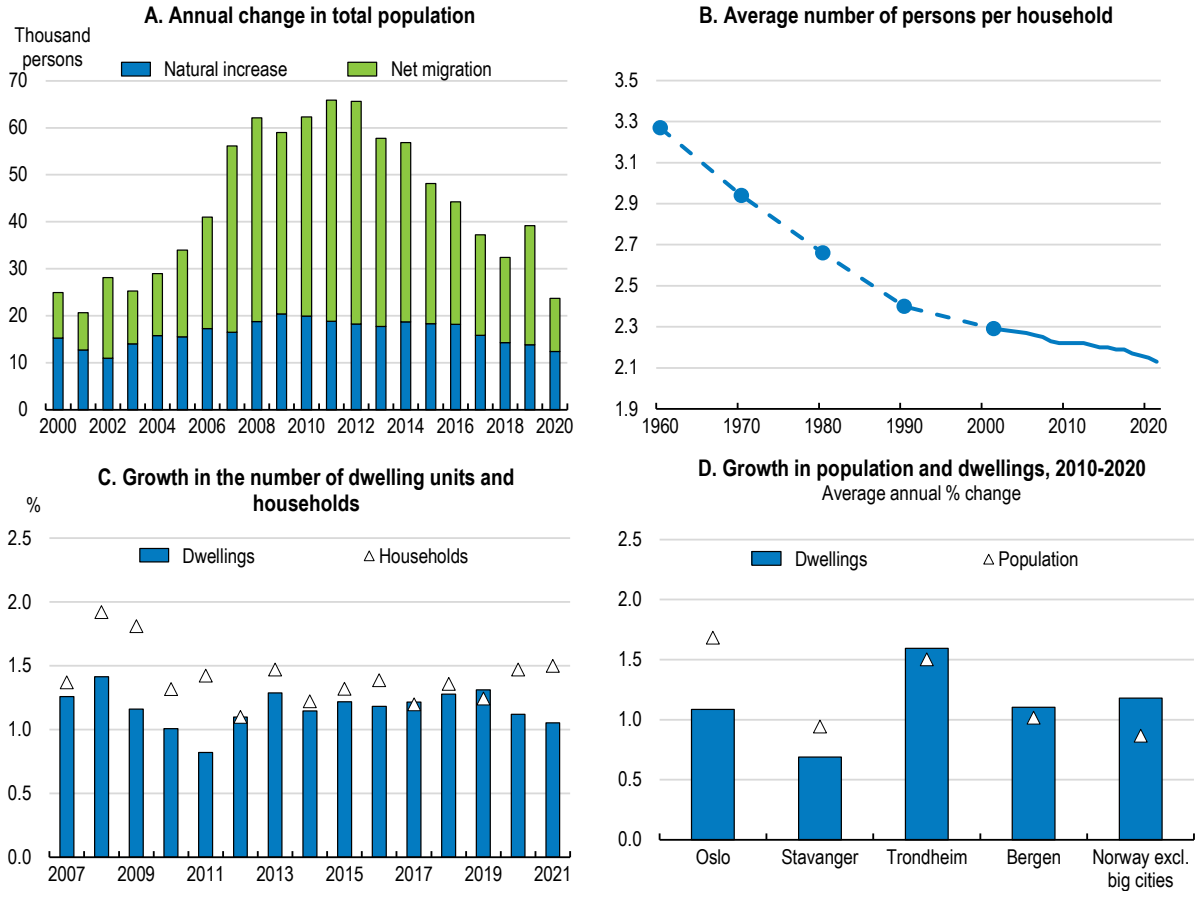
Sluggish supply responses have driven up house prices and rents

Rising real house prices partly reflect a slow response of residential construction to increased demand for housing services. At the national level, declining household sizes have offset the effect of slower population growth on household formation (Figure 2.6 Panel A, B and C). Still, outside Norway's four most populous cities, supply of new housing units over the past decade tended to keep up reasonably well with demand pressures. There was, however, significant variation in experience at city-level (Figure 2.6 Panel D). In Oslo, in particular – which has historically received larger net flows of migration than other parts of Norway

– population gains over 2010 to 2020 were not matched with equivalent expansion in the housing stock. (Housing demand has also been propped up by low after-tax borrowing costs and growth in disposable incomes.) In addition to new construction, increased demand has been partly met by falls in the number of vacant dwellings. This is reflected in a smaller gap between the total number of dwellings and households in Norway; the gap shrunk by 12% from 2010 to 2020. There is also evidence in recent years of subdivisions of existing dwellings and conversions of commercial property helping to meet demand for housing. In 2019, for example, net additions to the stock of dwellings exceeded the number of new dwellings built by 9%. This is consistent with a proportion of new supply coming from sources other than homebuilding. Historically, however, such supply contributions have only partially offset housing-cost increases associated with the slow response of construction to new demand.

Housing supply cannot adjust immediately to increases in demand. Absent extreme events or shocks, new buildings represent a small share of all dwellings in a country. Whereas demand can increase quickly – for instance, with interest rate cuts or increased migration – expanding the size of the housing stock (and thus the total flow of housing services) is not instantaneous. The bigger and more rapid the supply response, the smaller the increase in real housing prices and rents. Governments can improve housing affordability through structural reforms to temper demand for buying homes, in particular through tax reform, and with policies to improve the responsiveness of housing supply.

Figure 2.6. Housing supply lags demand in some Norwegian cities



Note: Panel A: People that move to Norway are counted as residents when they have lived in Norway for at least 6 months, even if the stay is temporary. Panel B: Data exclude people living in institutions, such as nursing homes and other aged-care facilities, and people without a fixed abode. Panel D: Calculations for cities are based on municipal-level data for Norway's four most populous urban municipalities.
Source: Statistics Norway.

StatLink https://stat.link/8regyf

Reforms to relieve pressure on demand for homebuying

Interest rate rises and lower population growth are set to take pressure off housing prices in the coming years. A build-up in financial imbalances was one of the factors considered in Norges Bank's decision to start raising the policy interest rate from September 2021. Additional projected rate rises are contributing to reduce housing demand and slow price growth. Scope for a moderation in housing prices is further signalled in empirical estimates that house prices are above levels implied by underlying supply and demand drivers. Researchers at Norway's Housing Lab assessed that house prices were overvalued by 13% as of the second quarter of 2021, before Norges Bank's first post-crisis interest rate rise (Housing Lab, 2021[10]). Chapter 1 argues that projected additional rate rises are appropriate and that existing prudential tools – including loan-to-value limits (Box 1.5) – are adequate to the task of reducing financial vulnerabilities. However, as past *Surveys* have argued, there is scope for demand-side policies to temper future house price growth, and improve the accessibility of homeownership, through reform of the taxation of housing.

Tax settings support strong demand for owner-occupied housing

Favourable tax treatment of housing lowers the after-tax cost of owning compared with renting and contributes to strong housing demand and higher prices. Tax settings that promote homeownership are common to many OECD countries (OECD, 2021[11]). However, few countries have tax systems as favourable to owner-occupiers as Norway (Table 2.1). Concessional tax treatment of owner-occupied housing is often rationalised based on the benefits of homebuying for wealth accumulation (including through the discipline of paying off mortgages). Some also point to (more mixed) evidence on the social benefits of increased community attachment from homeownership (see, for example, Glaeser (2011[12]) and Goodman and Mayer (2018[13])) or the private benefits of a stable living situation. But by lifting house prices, the tax-favoured status of housing can actually make it harder for lower-income households to buy homes (Box 2.2). This can in turn generate inequality and put pressure on governments to improve housing affordability through inefficient means. At the same time, well-off households over-invest in housing (and under-invest in other assets). Reform of Norway's biased tax treatment of housing can thus support multiple policy goals at once, improving affordability and making the tax system fairer and more efficient (Bø, 2019[14]).

Table 2.1. International comparison of the tax treatment of owner-occupied housing

Taxation treatment of owner-occupied homes in Norway and selected other OECD countries

	Tax relief for mortgage payments	Imputed rent tax	Capital gains tax
Australia	No	No	No
Canada	No	No	No
Germany	No	No	No
Iceland	Yes	Yes	Yes (limited)
Netherlands	Yes	Yes	No
Norway	**Yes**	**No**	**No**
Sweden	Yes	No	Yes
United Kingdom	No	No	No
United States	Yes (limited)	No	Yes (limited)

Note: Entries in red indicate policies that push up demand for homebuying and housing prices; those in green have the opposite effect. Local property taxes are not included. These can operate in a similar way to a tax on actual and imputed rents, but may be better viewed as a user charge for local public services.
Source: OECD Affordable Housing Database, Thomas (2021[15]).

Bias in the treatment of owner-occupied housing is strong in income taxation. Norway's flat-rate tax on capital income does not apply to the implicit value of housing services from primary residences and holiday homes ("imputed rents"). Yet, as in the case of investments in other assets – the returns to which are taxed – the value of interest paid on debt is still deducted from a homebuyer's taxable "ordinary income" (subject to Norway's flat-rate tax of 22%). This sets up an asymmetry in the tax treatment of different assets, encouraging debt-financed purchases of owner-occupied housing over other investments. This tax treatment is unusually generous compared with many OECD countries. A small number of countries tax imputed rents (albeit often at concessionary rates) while offering mortgage-interest relief – going at least part way towards a symmetrical tax treatment of owner-occupiers and landlords. Many other countries instead exclude imputed rent from the income tax base without offering mortgage interest relief to owner occupiers (or limiting the value of mortgage interest deductibility).

Box 2.2. The relationship between taxes, homeownership and affordability

Norway and many other OECD countries tax housing at lower rates than other assets, often as a deliberate policy to encourage homeownership. In Norway, the tax advantages of owner-occupation include unlimited debt interest deductibility (without a corresponding tax on imputed rents), non-taxation of capital gains on home sales, and generous wealth-tax discounts. Under such settings, households with the means to do it are typically better off buying homes than renting dwellings and investing their savings in other assets.

However, the relationship between homeownership and housing-related taxes is not clear-cut. Mortgage interest deductibility reduces the ongoing costs of debt-financed home purchases. But this is reflected in elevated home values. High housing prices in turn increase deposit requirements for new buyers and shut some lower-income households out of the market. Economic theory suggests that by reducing down payment requirements, eliminating such benefits could in fact lift homeownership rates among credit-constrained lower-income households (Sommer and Sullivan, 2018[16]).

Tax advantages to buying homes also affect the amount of housing people "consume". There are around 440 000 holiday homes in Norway, or 1 for every 6 households. Roughly one in ten households owns a "secondary dwelling" (excluding holiday homes), a share that has been stable since 2010. Indicators of dwelling size also signal a degree of excess capacity in the housing stock, and high levels of housing consumption among owners. Statistics Norway data show that 45% of people aged over 44 live in "very spacious" dwellings (meaning there are at least three more rooms than occupants). EU statistics on living conditions similarly show that 60% of people in owner-occupied dwellings in Norway were living in "under-occupied" homes in 2019 (again defined by comparing numbers of rooms and occupants). Among tenants, the share was lower (14%). International comparisons can be affected by differences in the size of countries' urban populations. Looking only at cities, however, Norway stands out next to other northern European countries. A reported 37% of the urban population live in under-occupied homes, more than in Sweden (27%), Denmark (27%), Germany (22%) and the EU (30%).

Increased taxation of housing would push some middle and high-income homeowners to consume less housing services, shifting housing consumption to lower-income households. In the near term, given transaction costs involved in moving, some owners could be expected to lease out some of their housing assets (Sommer and Sullivan, 2018[16]). This would increase the units available for rent, benefiting tenants (Sommer and Sullivan (2018[16]), Alpanda and Zubairy (2016[17]), Floetotto, Kirker and Stroebel (2016[18])). Over time, some owners could be expected to downsize (or subdivide large houses), while lower prices should translate to a smaller overall housing stock (in terms of the number and size of homes). For households that continue to rent, the reform's net effect could be broadly neutral (Sommer and Sullivan, 2018[16]). This would depend on the relative strength of upward pressure on rents from a smaller housing stock, and downward pressures from more intensive use of existing dwellings (bringing

additional rental homes onto the market) and, in some market segments, fewer lower-income renters. Extra tax revenue would, however, give governments significant new resources, which might be used to reduce other distortive taxes, in particular labour income taxes.

The tax advantages of homeownership in Norway are expanded by wealth tax concessions. Generous discount rates reduce the taxable value of primary dwellings for the purpose of calculating net wealth tax liability (Table 2.2). Owner-occupiers pay net wealth tax, levied in 2021 at the rate of 0.85% (above a tax-free threshold), only on a quarter of the estimated market value of their primary residences (i.e. the discount factor is 75%). Considerably more wealth tax is paid on other assets. For shares and commercial property, for example, the discount is 45%, while the taxable value of secondary dwellings (excluding holiday homes) is (in 2021) reduced by just 10%. Holiday homes are also treated favourably. Their taxable value is calculated not based on the property's estimated market value but on its original cost of construction, with infrequent upward adjustments (the last of which took place in 2014; another is slated for 2022).

Table 2.2. Net-wealth tax valuation discount rates by asset type

Discount factors applied to calculate the taxable value of assets for Norway's net wealth tax, 2021

	Wealth-tax discount rate
Primary residence	75% (most favourable)
Secondary dwelling (not including holiday homes)	10% (least favourable)
Commercial property	45%
Other real property	20%
Shares	45%
Holiday homes	NA (taxable value is based on construction cost)

Source: Norwegian Tax Administration.

Capital gains tax exemptions further encourage investment in primary dwellings and holiday homes. Homeowners do not pay tax on gains realised upon the sale of their primary dwelling provided they have lived in it for one of the two years preceding the sale. Holiday-home owners – typically well-off households – are exempt from Norway's 22% capital gains tax provided they use the property in 5 of the 8 years before sale.

Box 2.3. Mortgage deductions and Norway's dual income tax

Norway has a dual income tax regime. Personal income – salary income and pensions – is taxed according to a progressive schedule of marginal tax rates ("bracket tax"). Ordinary income, in comparison, also includes capital income (such as dividends, interest, and rent) and is generally taxed at a flat rate of 22% (adjustments are made to the taxable value of dividends and gains from sales of shares, including to discourage income shifting).

Interest paid on debt, including mortgages, is deductible from ordinary income but not personal income. This helps equalise the value of mortgage interest relief for high and lower-income earners, since all are subject to the same flat rate tax of 22%. Other countries do things differently. The United States, for example, instead allows (capped) mortgage interest deductions from progressive personal income

tax. Under such settings, tax relief on mortgage interest is worth more to higher-income taxpayers facing higher rates of tax on their personal income (Poterba, 1992[19]).

Norway's tax system is, in this respect, more equitable. High and lower-income earners all face the same flat rate of tax on ordinary income, from which debt interest is deductible. It is still true, however, that tax relief on debt interest is worth more to those with larger taxable incomes and bigger mortgages (on more expensive homes). Bø (2019[14]) shows that in practice debt interest deductibility in Norway's tax system does benefit higher-income earners more than other taypayers – both in total value and as a share of disposable income (Table 2.3). This can be explained by higher shares of capital income in the disposable incomes of well-off households as well as slightly higher loan-to-value ratios. Norway's dual income tax regime thus only partly reduces the regressivity of tax relief on debt interest.

Table 2.3. Value of debt interest deductions by income quintile

Income quintile	Homeowner share	Debt interest deductions
	% of households	% of disposable income
1	40	0.8
2	73	1.9
3	82	2.5
4	90	2.7
5	95	2.5

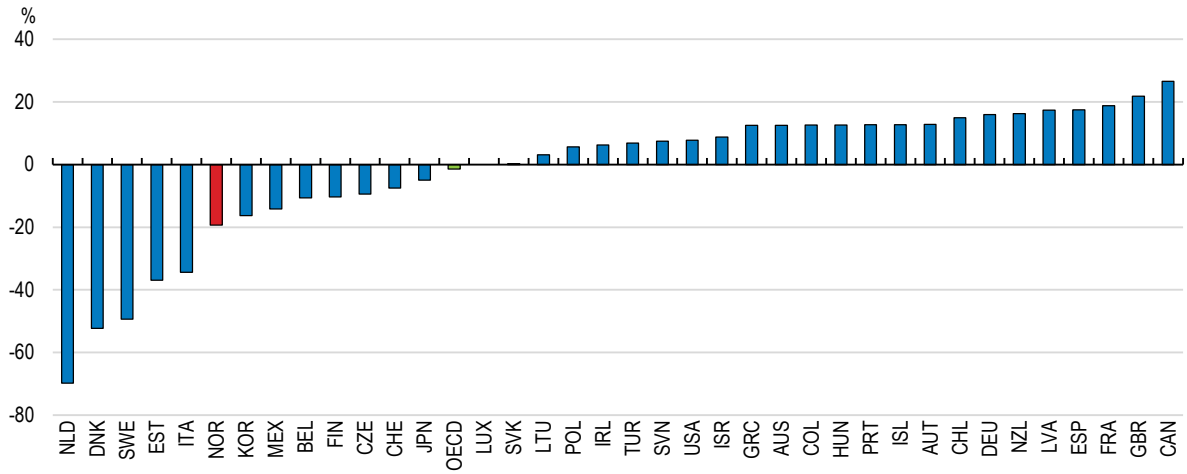
Note: Homeowners include households that own housing outright or with a mortgage. Estimated value of debt interest deductions are from Bø (2019[14]) and include non-mortgage debt interest deductions.
Source: OECD Affordable Housing Database, Bø (2019[14]).

Tax concessions on housing assets are inefficient and unfair

Low effective tax rates on housing can divert resources from more productive investments. Exemptions for imputed rent and capital gains, and heavy wealth tax discounts, together produce low marginal effective tax rates (METRs) on debt-financed owner-occupied housing investments. METRs for this asset class are estimated to be negative (Figure 2.7) – lower than effective tax rates on other assets as well as equivalent METRs in many other OECD countries. This disparity encourages overinvestment in owner-occupied dwellings. Taxing returns to land and residential structures at relatively low rates also increases Norway's reliance on less efficient taxation of more mobile tax bases, including corporate and labour income. Tax revenues from immovable property (including municipal property tax but excluding capital gains tax) account for 3.3% of tax revenues in Norway, below the OECD average of 5.5% in 2018 (Norwegian Ministry of Finance, 2020[20]). Favourable tax treatment of housing also creates inequities. This is because homeownership rates are highest among high-income earners and large gains on housing assets disproportionately benefit well-off households OECD (2021[21]), Eggum and Røed Larsen (2021[8])). In encouraging overinvestment in housing, tax biases may also have environmental impacts. These can arise, for instance, by encouraging construction of larger primary dwellings and more holiday homes, with greater overall energy needs and increased greenhouse gas emissions embodied in larger quantities of building materials.

Figure 2.7. The tax system favours owner-occupation of housing

Marginal effective tax rate for debt-financed investment in owner-occupied housing, 2016



Note: Unweighted OECD average excluding Costa Rica.
Source: Millar-Powell et al. (2022[22]).

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Reducing distortive income-tax concessions on owner-occupied housing

Priority should be given to reducing the income-tax concessions on owner-occupied dwellings. One reform option is to bring imputed rents to owner-occupied dwellings and holiday homes under ordinary income tax. This would go a considerable way to neutralising the tax system's treatment of primary dwellings and other assets.

Norway is better placed than many other countries to introduce a tax on imputed rents. First, it has a comprehensive and effective welfare system. This can help limit financial hardship to vulnerable low-income homeowners faced with higher tax liability. A second advantage is that Norway already has a model for estimating residential property values (Tackle and City, 2019[23]). This model, which is maintained by Statistics Norway, is currently used for estimating net wealth tax liability on real-estate assets. It could be a useful input for estimating implied rental returns. The model should, however, be enhanced. Using data on dwelling prices for smaller local housing-market areas would help reduce disparities between model estimates and market valuations. Machine learning methods, with greater use of geodata, as currently proposed to improve value estimates for holiday homes (for net wealth tax assessments) could also be tested (Box 2.4). Rents might be imputed to owner-occupied homes using a long-run average ratio of rents to home values for private rental properties, together with model-estimated home values. A related approach imputes values of housing services to owner-occupied homes based on market rents for properties of similar size and quality in a given location (see, for example, Eurostat (2017[24])). Such methods may be hard to implement in places where rental markets are thin or rental properties differ in important ways from owner-occupied homes. This is likely the case in many parts of Norway, suggesting alternative methods may be more appropriate.

Box 2.4. Machine-learning methods for enhancing holiday-home valuations

The taxable value of holiday homes under Norway's wealth tax is based on historical construction costs. While these estimates are periodically adjusted upwards, such adjustments have tended to be smaller than actual holiday-home price increases. The use of national benchmarks also means that estimates are insensitive to regional variation in price growth. The system thus particularly benefits owners of older holiday homes, and homes that have appreciated substantially in value.

A new model developed on behalf of the Ministry of Finance aims to improve holiday-home valuations. Using machine learning, the new model exploits information in relationships between numerous variables important to determining holiday-home values. This includes, for example, not only a property's size, construction year and location but also local-area data on topography (such as a property's altitude and slope) and a dwelling's distance to roads, towns, the shoreline or ski resorts. Initial testing suggests the model significantly improves the accuracy of valuation estimates. Roughly half are found to fall within 20% of actual market values. In contrast, current valuation rules achieve an equivalent degree of precision for only one in five holiday homes.

In addition to better accuracy, the model has been developed to ensure stability and predictability in valuations from year to year. Another important criterion is that model results should be relatively easy to explain. Success in all three dimensions would make a strong case for rolling out the methodology more broadly to improve valuations of other types of homes. It will likely still be important, however, that owners can reject official estimates and opt to self-report valuations (subject to audit). This is a useful mechanism, reducing the risk of over-taxation of individual homeowners and enhancing public acceptance of wealth taxes.

Source: Norwegian Ministry of Finance (2021[25])

While attractive in principle, bringing in an effective tax on imputed rents could prove politically challenging. International experience suggests that compromises in the design of such taxes can reduce their efficiency. In the Netherlands, for example, low valuation of imputed rents (assumed to equal just 0.5% of a dwelling's estimated market value) leaves implied returns to housing assets taxed at lower rates than returns to other investments (OECD, 2021[26]).

If it is not possible to introduce an efficient tax on imputed rents in Norway, mortgage interest deductibility should instead be phased out. This would improve housing affordability for new buyers and enhance tax-system efficiency. But the reform would have uneven effects on existing owners depending on whether they have mortgages or own homes outright (23% of households in 2019). House price falls prompted by removing debt interest deductibility would make all current owners worse off. But middle-income owner-occupiers – and especially recent homebuyers – could be particularly adversely affected (Floetotto, Kirker and Stroebel, 2016[18]). This reinforces the need to phase in such reform gradually – as has been the approach, for example, in France, the United Kingdom and the Netherlands (Box 2.6). In addition to reducing distortions from the tax treatment of housing, removing mortgage interest relief could have a meaningful impact on house prices (and thus also deposit requirements). OECD estimates suggest it would reduce the house price-to-income ratio, lowering an important hurdle to market entry for new buyers (Box 2.5, Figure 2.8). By limiting debt run-ups in periods of accommodative monetary policy, the same reform would also support financial stability.

For reasons of equity, and to support accessibility of homeownership for first-time buyers, some countries offer a limited form of mortgage interest tax deductibility. If debt interest deductibility were phased out entirely, it would significantly increase mortgage servicing costs for households dependent on taking loans to buy homes, including lower-income first-time buyers. Well-off households, in contrast, could choose to

finance a larger share of their home purchases from savings or sales of other assets, and thus be less affected (this might, of course, require some to purchase less expensive homes). Capping the maximum value of deductible interest expenses (as done in the United States) could reduce distortions while mitigating potential regressive effects.

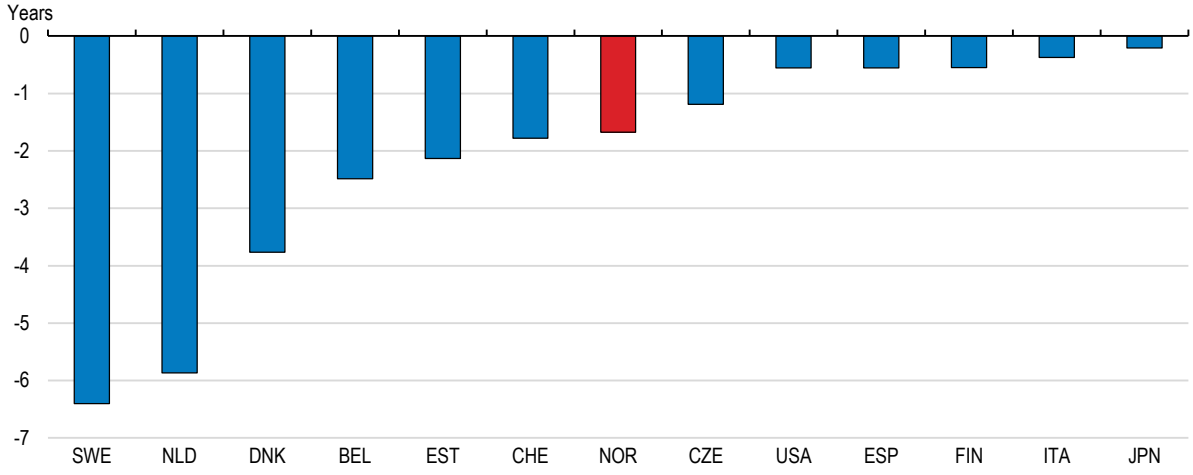
Box 2.5. Illustrative affordability impact of phasing out mortgage interest relief

An immediate withdrawal of mortgage interest relief would reduce the disposable incomes of households with mortgages, adding to housing cost burdens and disrupting households' long-term financial plans. Such negative effects could be mitigated by phasing-out mortgage interest deductibility gradually, starting with a cap on the maximum value of income-tax deductions.

Over time, eliminating mortgage interest relief would help make homeownership accessible to a larger group of households by slowing growth in house prices relative to income gains. Recent OECD estimates suggest that phasing out mortgage interest relief could have a significant positive effect on homeownership accessibility in Norway. From a baseline estimate of a 100m^2 dwelling costing the equivalent of 10 years of average disposable income in 2050, removing mortgage interest relief would reduce the total by 2 years (OECD, 2021[11]). Comprehensive reform to eliminate the tax advantages of investing in owner-occupied housing would have larger impacts. Bø (2019[14]) estimates that making the required adjustments to the taxation of capital income and wealth associated with owner-occupied homes would lower house prices by a fifth.

Figure 2.8. Removing mortgage interest deductibility would improve homeownership accessibility

Simulated impact of eliminating mortgage interest tax relief on price-to-income ratios by 2050, in years



Note: Simulated 2020-50 change in the number of years over which cumulated average household disposable income equals the average price of a 100 m^2 dwelling.
Source: OECD (2021[11]).

StatLink https://stat.link/pizfoc

Introducing capital gains tax and reducing wealth tax concessions on primary dwellings

Objectives of tax neutrality and equity also weigh in favour of taxing gains on the sale of primary dwellings more like gains realised on other assets. To avoid possible lock-in effects, however, a limited form of capital gains tax on primary dwellings could better balance aims of improved geographic mobility and tax neutrality (mobility considerations are, however, less relevant for holiday-home owners). Taxing gains above a minimum threshold, or rate, could avoid large transaction-based costs in most house sales, costs that might otherwise discourage homeowners from moving for work, or in order to downsize, or for other reasons (Caldera Sánchez and Andrews, 2011[27]). Such approaches are used in the United States and Israel, for example (Thomas, 2021[15]). Designed well, a tax on large gains from primary-dwelling sales would ensure that well-off households, in particular, pay tax on large housing-asset returns, improving wealth equality.

Separate reforms should move towards equalising wealth-tax discount rates across assets. Reforms from 2017 to 2019 narrowed differentials in discount rates on primary residences and other assets. The wealth-tax discount rates on shares and commercial property, for example, were 10% and 20% before recent adjustments (both were raised to 45% in 2021, before being lowered again to 25% in 2022). The valuation discount for primary dwellings worth more than NOK 10 million (roughly EUR 1 million) has also been reduced (from 75% to 50%), while holiday-home valuations were increased by 25% from 2021 to 2022. This will help narrow gaps in discount rates between assets. Further adjustments to equalise wealth-tax discount rates would reduce disincentives to non-housing investments.

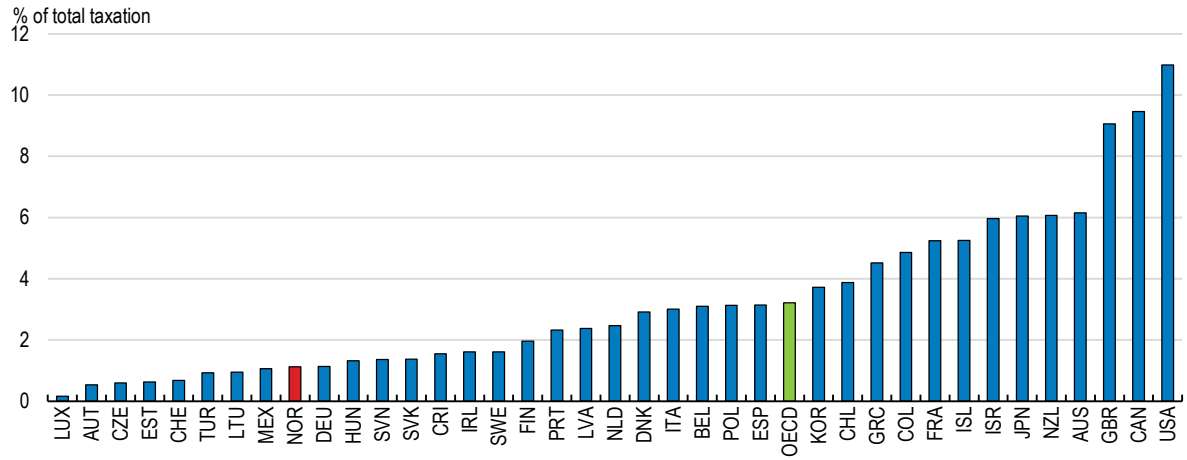
Ceilings on municipal property tax should be raised

Central government-imposed maximum rates of municipal property tax on owner-occupied dwellings and holiday homes have been lowered over time. Some municipalities also set value thresholds below which a residential property's value is exempt from property tax. Though aimed at reducing tax pressure on lower-income homeowners, both of these policies contribute to Norway's underutilisation of recurrent taxes on property (Figure 2.9). The most recent change by the former central government in 2021 lowered maximum tax rates on residential property to 0.4% (from 0.5% in 2020 and 0.7% in 2019). In municipalities levying property tax at the top rate, this contributes to decrease the annual cost of owning residential property, absent changes in valuations and allowances. The effect is to further distort decisions between buying and renting, while investors can exploit tax-free thresholds by purchasing multiple small, low-value dwellings.

The central government should stop lowering ceilings on municipal property tax, and reverse recent reductions. Lowering property-tax ceilings risks depriving municipalities of a relatively efficient means of raising revenue to pay for local services. In taxing a portion of the value of rented and owner-occupied homes, property tax can, if levied at sufficiently high rates, approximate the characteristics of a neutral tax on capital income from actual and imputed rents. A gradual return to the old ceilings would restore lost revenue capacity without significant market corrections. This would also increase the tax paid by relatively well-off homeowners. Eliminating tax-free thresholds, or ensuring that allowances apply to the aggregate value of a taxpayer's housing assets (as opposed to individual dwellings), would also make municipal property tax more efficient and equitable. These aims would be further supported by curtailing property-tax concessions for holiday homes.

Figure 2.9. Recurrent taxes on immovable property are underutilised

Recurrent taxes on immovable property, % of total taxation, 2020 or latest available year



Source: OECD Revenue Statistics (database).

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Reducing document tax to support geographic mobility

Past *Surveys* have argued for scaling back document tax (stamp duty) levied on transactions involving residential property (OECD, 2012[28]). Norway's document tax is levied at the rate of 2.5% of a residential property's sale value. Stamp duties are sometimes justified as helping temper volatility in housing markets and house prices by slowing turnover. However, empirical evidence of such effects is mixed. In contrast, stamp duty's negative effects on geographic mobility are well established (OECD, 2021[11]). Such effects are likely to be more pronounced in countries with higher stamp duty rates than Norway. (In the United Kingdom, for instance, stamp duty is as high as 12% of the sale price for expensive properties.) Still, there is scope to reduce stamp duty in Norway and this could improve geographic mobility. Several states in the United States, for example, have residential transfer taxes in the range of 0.5 to 1% (many do not levy such taxes at all). Lowering Norway's document tax rate to within such ranges might be done without risking increased housing-market volatility and would improve the way the economy responds to shocks. This could also help offset transaction costs related to increased taxation of capital gains.

Complementary reforms should reduce tax on labour income

The tax revenues raised by reducing tax relief on owner-occupied dwellings could be substantial (Figure 2.10). Estimated tax expenditure associated with lower income taxation of owner-occupied dwellings and holiday homes was NOK 25.3 billion in 2021 (2.4% of total tax receipts) (Norwegian Ministry of Finance, 2020[20]). Tax expenditures due to wealth tax discounts for residential property were estimated at NOK 26.4 billion (2.5% of tax receipts). Bø (2019[14]) estimates that taxing housing like other assets would increase personal income tax receipts by 11% (and improve the progressivity of the tax system).

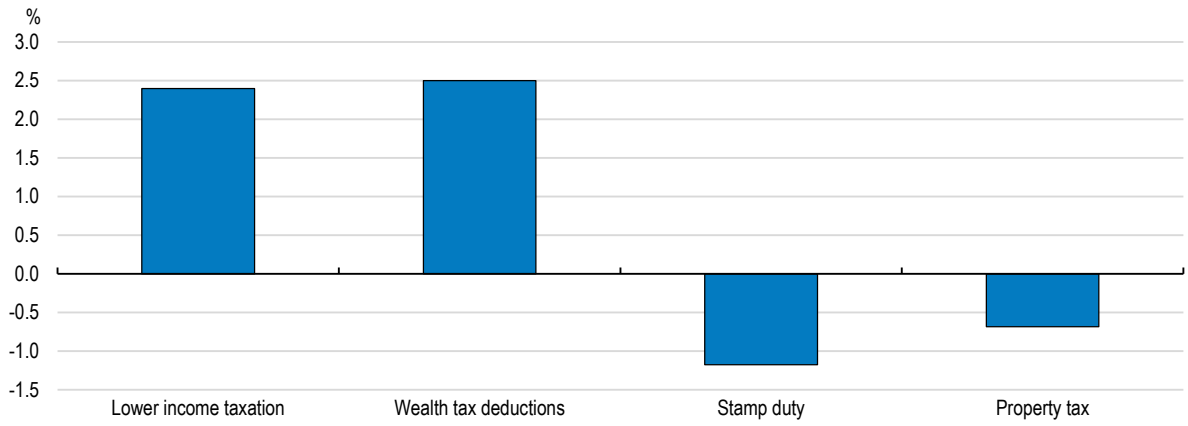
Revenue raised from curtailing preferential tax treatment of dwellings could enable complementary reforms to reduce reliance on other more distortive taxes. Lowering tax on labour income would directly enhance households' purchasing power. This might be done in a targeted way to benefit lower-income households. Such reform could encourage higher rates of employment while limiting the need to expand eligibility for housing benefits or the generosity of existing support. It would also reduce the risk that benefits are capitalised in higher rents and prices in cities with rigid housing supply. Alternatively, reforms might aim at smaller tax cuts benefiting households at all income levels – for instance by adjusting bracket-tax rates.

Such an approach would leave to Norway's welfare system the task of easing cost-of-living pressures on vulnerable households. A key benefit would be to shrink the tax system's drag on economic activity.

Reducing taxation of labour income could also help overcome political challenges involved in reforming the taxation of housing. Norwegian governments have in the past resisted calls to reform housing taxation. This reflects political considerations, common to countries with high homeownership rates, that make it challenging to raise tax from owner-occupied homes. Like past *Surveys*, Norwegian tax system reviews (NOU (2003[29]), NOU (2014[30])) have called for greater taxation of owner-occupied housing. More recently, the *Norway towards 2025* Commission argued for filling in holes in the housing tax base (NOU, 2021[31]). A new tax-system review is now underway with an appointed committee due to report recommendations in November 2022. The committee's mandate requires it to consider how capital taxation can be adjusted to reduce distortions and improve investment incentives. The government should ensure the committee's work includes a review of housing taxation. A package of reforms involving greater taxation of housing and lower taxes on earnings could lift efficiency and affordability without raising total tax receipts.

Figure 2.10. Housing-related tax expenditures are significant

Tax expenditures for dwellings and holiday homes, % of total tax receipts, 2021



Note: The benchmark used to calculate tax expenditures is the tax treatment of bank deposits. Interest on bank deposits is fully included in taxable ordinary income and bank deposits are valued at 100 per cent in calculating wealth tax liability. Compared with bank deposits, dwellings and holiday homes are undertaxed in both income and wealth taxation. In contrast, stamp duty and property tax in isolation increase the tax payable on dwellings and holiday homes relative to bank deposits. They are thus considered to be negative tax expenditures.
Source: Ministry of Finance.

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Tax reform should start now and be phased in gradually

To limit risks of housing-market instability, and to avoid hardship to vulnerable homeowners, major reform should be gradual. The impact of imputed rent taxation, for example, could fall heavily on high-wealth, low-income older households (Bø, 2019[14]). To mitigate such risks, tax on imputed rent owed by vulnerable older households could be deferred until properties are sold or until title is transferred by their estates (Mirrlees et al., 2011[32]). More generally, phased increases in the taxation of imputed rents should be spread over a number of years. A more gradual timeframe could be warranted if increases in recurrent taxes on housing were pursued through multiple bases at once (for instance, personal income tax, municipal property tax, and net wealth taxes). This would help limit hardship to low and middle-income households. A gradual timeframe for phasing out mortgage interest relief (an alternative to taxing imputed rents) would similarly limit financial costs to recent homebuyers. Grandfathering provisions might separately shield pre-reform house-price appreciation from an increase in capital gains tax. At the same time, the effect of incremental cuts to wealth-tax discount rates on owner-occupied properties might be offset by reductions in wealth-tax rates. Phased implementation has been a common feature of major housing tax reforms in other countries and states(Table 2.4). It helps avoid penalising the investment decisions of households that bought properties before important rule changes. It can also avoid sharp corrections in house prices ahead of major reforms.

Table 2.4. Examples of phased implementation periods for major housing-tax reforms

Phase-in periods on significant housing-taxation reforms: selected countries and states

	Reform	Phase-in duration
Finland	Reduction in the maximum mortgage relief rate from 65% to 10%	6 years
Netherlands	Reduction in the maximum mortgage relief rate from 49% to 37%	4 years
Australian Capital Territory	Increase in the rate of land tax; recent annual rate increases of 7 to 11% per year	20 years
Ontario	Increase in the rate of land tax up to 0.25%	6 years
Israel	Introduction of capital gains tax on residential property	Gains earned before the reform are untaxed

Source: Australian Capital Territory Treasury, Finnish Tax Administration, Ontario Ministry of Finance, OECD (2021[11]), Thomas (2021[15]).

Box 2.6. Housing tax reform in other countries: phase-out of mortgage interest relief in the Netherlands

The phase-out of mortgage interest tax relief in the Netherlands started in 2013. The concession was first restricted such that mortgage interest could be deducted over a maximum period of 30 years, and only for loans requiring payment of both interest and principal amounts. This change was implemented, along with other reforms, to reduce housing market-related debt. The Dutch government subsequently decided in 2014 to progressively reduce the maximum mortgage tax relief rate. The intention was to lower the rate from its then current level of 52% by 0.5 percentage points each year to 2040. This would "scale down private debts and allow the housing market to function more effectively" (Stability Programme of the Netherlands – April 2013). In 2017, a new coalition government decided to accelerate the phase-out of mortgage interest relief. This will see the rate lowered by 12 percentage points from 49% in 2020 to 37% in 2023.

Source: OECD (2021[11])

Improving the functioning of rental markets

High rates of homeownership in many parts of Norway coincide with small rental markets, potentially limiting employment options for otherwise geographically mobile renters. Norwegian rental markets are relatively thin in international comparison, reflecting strong incentives to purchase homes. Even in Oslo and Trondheim – the two cities with the most renters – tenants comprise a relatively small share of all households (under a third) next to European cities with thicker rental markets (more than half of households rent in Vienna, Berlin, inner London and Brussels). There is also evidence that a large share of tenancies are informal (see, for example, Oslo Economics (2021[33])). Data from the *Survey of Living Conditions*, for example, show that in 2018 up to a quarter of renters lived in dwellings owned by friends or family. A similar proportion of rent-paying tenants indicate that they pay below-market rent (Oslo Economics, 2021[33]). There is active debate about how well Norwegian rental markets function. Improving their performance was identified as a priority of the 2020 housing strategy (KMD, 2021[9]).

Reducing tax concessions on homeownership would improve incentives to lease out dwellings. This could benefit tenants seeking housing in job-rich cities. Deep, well-functioning rental markets would also help to enhance labour mobility and reduce unemployment following economic shocks with disparate regional impacts (ElFayoumi et al., 2021[34]). Additional tax changes could build on recent efforts to address reported problems with informal short-term leases. Income tax rules were tightened in 2018 to remove concessions enabling tax-free rental income from short-term leases (up to 30 days) of parts of a landlord's own home. This was a welcome adjustment and will help balance incentives between letting units to tourists or permanent residents. Further tax-system changes could also help. Income from longer-term rentals of up to half a landlord's primary residence remain exempt from income tax. Owner-occupier landlords are thus treated more favourably than landlords leasing out independent rental units, for which rents are taxed like other forms of capital income. Other provisions benefit well-off families owning multiple homes. Parents can, for example, put their daughter up in a second home, where she can earn tax-free income letting half the property to friends or other tenants as if she herself were the owner. Introducing a tax on imputed rents to owner-occupied homes would correct these asymmetries (in particular if owner-occupier landlords benefited from deductions for expenses including maintenance). In the absence of such reform, tax concessions favouring owner-occupier landlords should be removed. This would help reduce distortions favouring purchases of big primary dwellings and second homes at the expense of a larger stock of independent rental units.

Shorter minimum lease durations could also support rental-market development. Norway's current minimum fixed-term lease duration of 3 years is long compared with equivalent rules in other OECD countries (Table 2.5). Longer lease terms tend to increase risks borne by landlords, particularly when the ability to renegotiate rents is restricted. This is the case in Norway. Landlords and tenants are free to negotiate rents at the outset of a tenancy agreement. But increases thereafter are tied to growth in the consumer price index for the following three years, the minimum duration of a fixed-term lease (except when the landlord and tenant live in the same house, where a one-year minimum applies). When market rents increase faster than consumer price inflation – as has occurred in some cities in recent years – landlords have an incentive to terminate leases early. At an aggregate level, such policies tend to reduce the supply of rental dwellings, leaving tenants with fewer affordable housing options. Proposals have in the past been floated to further increase minimum lease terms, ostensibly to give tenants more stability in living arrangements (KMD, 2021[9]). If enforced, longer minimum lease durations could have unintended consequences, further stunting the development of Norway's rental markets. Tenants and landlords would be better served with shorter minimum lease terms and more clearly defined termination rights. In practice almost half of all fixed-term leases in Norway end within a year already (Oslo Economics, 2021[33]): the Tenancy Act gives tenants, as well as landlords, some flexibility to terminate leases early and many young, mobile renters appear to exercise this option (Ogbamichael, 2017[35]). Reducing minimum lease durations to match rules in Switzerland (12 months) or the United Kingdom (6 months), while still allowing parties to

negotiate longer leases, would align the Tenancy Act with real-world practice. It would also better allow landlords and tenants to negotiate agreements on terms that suit them.

Clarifying early-termination rules on fixed-term leases could, in turn, improve stability for tenants. The Tenancy Act allows landlords to terminate early when they or a member of their household plan to use the dwelling, or for "objective grounds". Landlord-tenant regulations might be amended to clarify the grounds on which landlords can terminate leases early. This need not materially affect risks borne by landlords, in particular if paired with reform to reduce minimum lease durations. Such changes could encourage the development of thicker rental markets with more stable options for households that do not wish or cannot afford to buy.

Table 2.5. Minimum lease durations for rental housing

International comparison of minimum lease durations: Norway and selected other OECD countries

	Duration of rental contracts negotiable?	Typical minimum duration
Australia	Yes	No minimum
Canada	Yes	No minimum
Czech Republic	Yes	12 months
Finland	Yes	12 months
France	No	3 years
Greece	Yes	3 years
Ireland	Yes	6 months
Israel	Yes	6 months
Japan	Yes	No minimum
New Zealand	Yes	No minimum
Norway	**No**	**3 years**
Portugal	No	12 months
Switzerland	Yes	12 months
United Kingdom	Yes	6 months
United States	Yes	12 months

Note: For Norway, the minimum duration for fixed-term leases is shown. Landlords and tenants are able to enter into leases of unfixed duration.
Source: OECD Affordable Housing database

Ensuring adequate affordable housing for low-income households

Private markets will not supply enough affordable housing on their own

Without government support, private markets typically supply relatively little housing at prices accessible to low-income households; building low-cost dwellings tends to be less profitable than constructing higher-quality homes (Quigley and Raphael, 2004[36]). Only a small proportion of homes for sale in Oslo are affordable to lower-income buyers: by one often-quoted estimate, a single nurse could afford just one in a hundred dwellings on the market in 2021 (Eiendom Norge and Eiendomsverdi, 2021[37]). Renters have similarly seen housing costs rise to absorb a large share of their disposable income, with lower-income households most vulnerable to shortages of affordable dwellings, existing or new.

Norwegian social housing policy assists persons unable to find and retain adequate housing (Box 2.7). Norway puts a stronger emphasis than other countries on helping low-income households to purchase their own home. Low interest-rate "Start-up loans" help low-income families buy homes when they are unable to get a loan from a private bank. Government funds allocated to low interest-rate mortgages are larger than in most other OECD countries (0.3% of GDP in 2020). National government spending on housing allowances is, in contrast, highly targeted and not large in international comparison (0.1% of GDP; lower than in other northern European countries). Means-tested allowances are the main instrument used to support poor tenants living either in private rental accommodation (65% of allowance recipients in 2020) or municipal rental housing.

Norway uses social rental housing in a more limited way than many other European countries. In Denmark and the Netherlands, for instance, social housing is an important means of supporting low but also middle-income households. Stocks of social housing in those countries comprised respectively 21% and 34% of dwellings in 2020; in Norway, 4% of homes are social-rental dwellings. In the coming years, population growth alone will require increased funding for social housing in Norway. A rough calculation suggests an additional 500 to 900 housing units per year may be needed from 2020 to 2030, depending on trends in household size and income distribution.

Norway is successful in providing shelter and support services for the homeless

Norwegian housing policy has been highly effective in delivering shelter and associated services to those with the most acute housing needs. Under 0.1% of the population is homeless, below rates reported in other rich countries. Recent survey data reveal that already low homeless numbers fell from 2016 to 2019 (Husbanken, 2021[38]). Other indicators show that, broadly speaking, infrastructure and services are working well to assist those in urgent need of shelter. The number of residents in temporary accommodation decreased from 2015 to 2020. So did the share of those in temporary dwellings longer than 3 months (a fifth of the total in 2020, down from a quarter five years earlier). In addition to finding permanent lodgings for homeless people, municipalities provide a comprehensive range of associated health and social services.

Homebuyer support should be re-targeted over time

Helping low-income households buy homes remains a primary aim of housing policy. Tax-subsidised "Home saving for young people" accounts (*Boligsparing for ungdom* or "BSU accounts") help first-time buyers under the age of 34 save for a deposit. Young people are able to accumulate up to NOK 27 500 per year in BSU accounts (the annual cap increased in 2021 from a previous limit of NOK 25 000) and deduct up to NOK 5 500 from income tax. The maximum amount that can be accumulated is NOK 300 000 (around 12% of the average price of a 40m^2 dwelling in Oslo in 2021) plus interest.

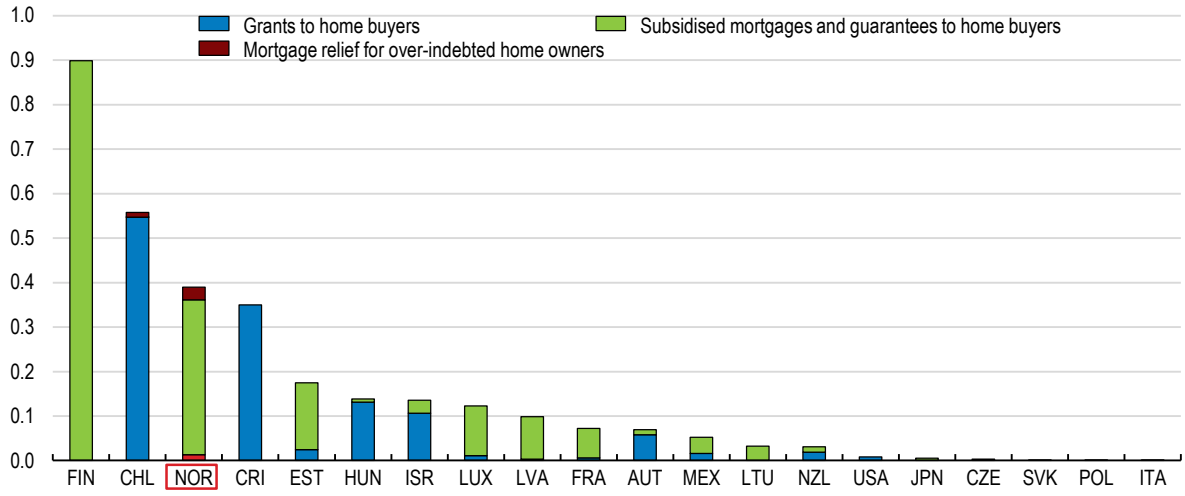
The BSU scheme was sensibly adjusted in 2021 so that it no longer reaches people that already own homes – a move that will reduce the programme's cost and help avoid fuelling wealth inequality. Annual saving caps will still need to be gradually lifted, as house prices rise, to maintain incentives at current levels. Doing more than that, however, would risk boosting already-strong demand for homeownership to the detriment of those outside the scheme. It could also increase distortions that result in young would-be homeowners simply shifting savings between asset categories. Administered on more generous terms, or within narrower age cut-offs, BSU accounts might, moreover, push people to buy at a time when renting's benefits (notably geographic mobility) are greatest. In their current form, however, the risk of such effects appears limited.

Low interest-rate mortgages called "Start-up loans" are the main social housing policy instrument helping low-income households buy homes (Figure 2.11). Available to those unable to get a loan from a private bank, Start-up loans help contain households' mortgage costs. Efforts have been made in recent years to better target Start-up loans to permanently disadvantaged households. In 2014, regulations were tightened

to stipulate that loans are meant for recipients facing long-term problems getting financing. There is scope to do more. Families with children may, in some instances, still receive support even if they are able to save for a deposit (and thus might seek a loan from a private bank). Past studies have found that many Start-up loans go to recipients that are not disadvantaged (Ekhaugen et al., 2017[39]). This is set to continue with planned increases in Start-up loan funding (the revised Budget of November 2021 announced that financing for Start-up loans would increase by roughly 10%). Further tightening eligibility criteria could improve efficiency, reduce the scheme's effect on housing prices (NIBR, 2015[40]) and lower costs associated with the programme, including those borne by municipalities in assessing applications.

Figure 2.11. Subsidised loans are a key tool of Norwegian housing policy

Public spending on grants and financial support to homebuyers and homeowners as % of GDP, 2020 or latest year



Note: Year of reference: 2020, except for France (2021), Austria and Lithuania (2019) and Luxembourg (2018). For Finland, Israel, Mexico, New Zealand and the United States: information is missing on one programme, and the reported amount is therefore a lower-bound estimate.
Source: OECD Affordable Housing database.

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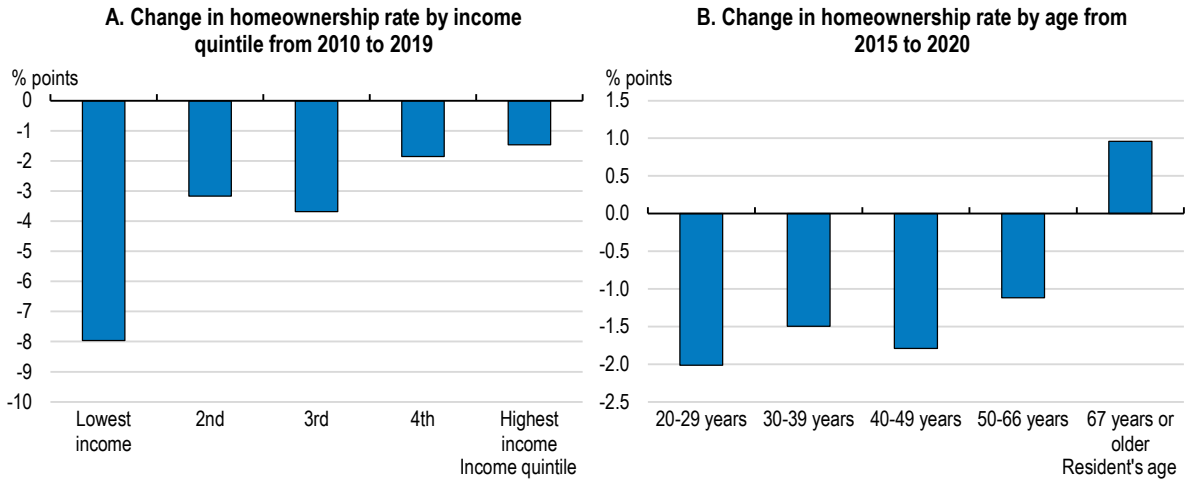
Start-up loans and BSU saving accounts have only partly offset declining homeownership rates in young and low-income households since mortgage lending requirements were tightened in the wake of the financial crisis (Figure 2.12). It would be a mistake, however, to try to reverse recent trends by extending pro-homeownership interventions to households ill-equipped to repay mortgages. Indeed, reform of the taxation of dwellings and measures to lift supply responsiveness would improve housing affordability and, over time, reduce the need for programmes such as Start-up loans and BSU saving accounts. Until such reform happens, existing homebuyer support should remain targeted. Husbanken routinely commissions reviews of the characteristics of low-income households able to handle mortgage costs and benefit from buying homes. This is useful work and should be continued, including to avoid pushing families to buy homes that would better suited to renting. For vulnerable low-income renters, the emphasis should be on ensuring that existing support is adequate to alleviate housing-cost burdens, especially in expensive cities.

Figure 2.12. Homeownership rates are falling among lower-income households



Source: OECD Affordable Housing database; and Statistics Norway.

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Box 2.7. Main instruments of Norwegian Social Housing Policy

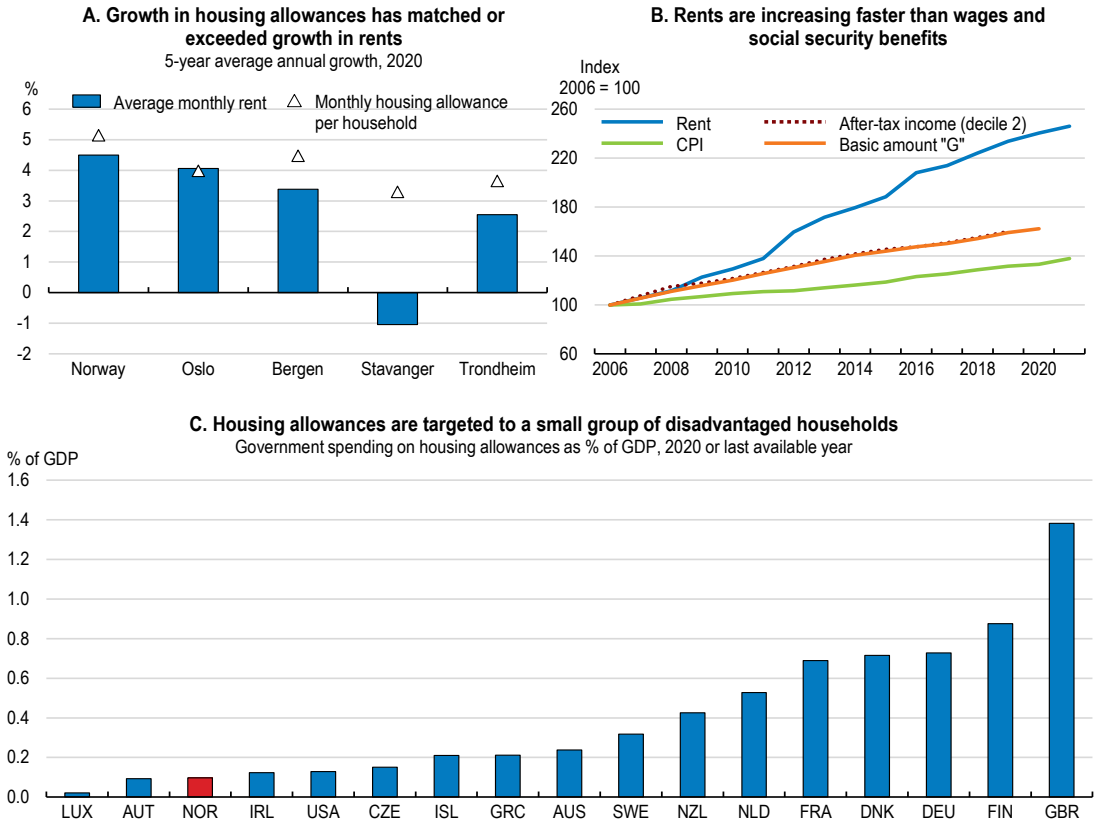
The main instruments of Norwegian social housing policy are:

- **Housing allowances**: Means-tested allowances help low-income households pay rent and other housing expenses, either in municipally-managed social housing or private dwellings. Allowances are adjusted for household size and cost differences between cities, with increases pegged to the living expense components of Norway's consumer price index. This helps ensure allowances increase in line with rents. In high-cost cities, municipalities supplement national benefits. There were roughly 124 000 recipients of housing allowances in 2020, representing around 5% of households.
- **Loans for low-income housing**: Husbanken administers loans and grants to housing companies, either directly or through municipalities, to subsidise privately built low-cost housing. Most social housing is owned by municipalities, which are also responsible for providing social housing services. However private companies, housing cooperatives and other non-government entities also own a portion of the social housing units at municipalities' disposal (just under a quarter of the stock (Sandlie and Gulbrandsen, 2017[7])). Social rental housing is targeted at a small group of disadvantaged households, which receive housing allowances to cover below-market rents. The share of housing benefit recipients living in municipal social rental housing has declined in recent years. A government decision in 2016 to enable benefit recipients to live in private housing collectives contributed to this trend (Husbanken, 2021[38]).
- **Start-up loans**: Start-up loans provide subsidised credit to disadvantaged households that cannot get a private loan but can pay ongoing expenses of owner-occupation. The goal is to remove obstacles to home purchases for those shut out of borrowing from private banks (for instance, due to loan-to-value ratio limits or an inability to save for a deposit). Special emphasis is placed on assisting families with children and people facing social and health challenges. Loans are supplemented in some cases with grants from municipalities (a minority of Start-up loan recipients also get national housing allowances). In 2020, Start-up loans represented 63% of loans distributed by the State Housing Bank, which also finances construction of student accommodation (7% of the loan portfolio in 2020) and subsidised rental housing (3%).

Allowances provide cost-effective support to poor renters, but income cut-offs are low

Norway's lowest-income households are supported with means-tested housing allowances (administered jointly by Husbanken and municipalities) to assist with the cost of rent. While benefits are indexed to housing costs (Figure 2.13, Panel A), income thresholds determining eligibility to receive them are low and tend to evolve more in line with wage growth. This channels support to a small group of very low-income households. By way of example, for Oslo residents, current income cut-offs are below the EU-60 poverty measure, equivalent to 60% of median after-tax income (Husbanken, 2021[38]). Significant increases to eligibility thresholds could drive up rents and discourage workforce attachment among recipients with stronger employment potential. There is likely scope, however, for moderate expansion in income cut-offs without such risks materialising – especially if paired, in supply-constrained cities, with steps to free up new housing supply. A review of the housing benefit scheme is underway (KMD, 2021[9]). The committee should assess the cost-effectiveness of extending benefits to a slightly larger group of low-income renters. This could alleviate acute housing costs for vulnerable households currently outside the benefit scheme. Many over the past decade saw rents increase faster than incomes and social security benefits (Figure 2.13, Panel B and C). Indeed, low-income renters are much more likely to be overburdened with housing costs than owners with mortgages in the same income group: two in five low-income tenants spent at least 40% of their disposable income on housing costs in 2019 compared with one in ten homeowners.

Figure 2.13. Housing-allowance cut-offs leave many households exposed to high rent burdens



Note: Panel A: Average rent is for a 2-bedroom apartment. Rent data for Oslo includes Baerum municipality. Panel B: Rent is average monthly rent for tenancies starting in the current and previous year. Basic amount "G" is the reference payment in Norway's social security scheme, to which multiple benefits, and eligibility thresholds for benefits, are indexed. Average after-tax income is shown for households in the second income decile, many of whom will not be eligible for housing allowances. Panel C: Data for 2020 refer to the responses to the 2021 OECD Questionnaire on Affordable and Social Housing except for Denmark, Germany, Greece, Iceland where they refer to 2019 QuASH, i.e. around year 2018.
Source: Statistics Norway; Norwegian Tax Administration; OECD Affordable Housing database and OECD calculations.

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There is a need for more investment in social rental housing

Public investment in social housing is an important pillar of housing policy. In targeting support at highly disadvantaged households, Norway uses social housing in a more limited way than some other OECD countries (Box 2.8; Figure 2.14 Panel A). This can limit cost inefficiencies and disruption to private housing market activity. However, in many settings social housing can provide a more cost-effective means of supporting low-income households than other forms of assistance. This is particularly the case for cities where new housing supply is rigid. In such areas, housing allowances for tenants in private dwellings – the main alternative to social housing provision in Norway – are more likely to drive up rents. In high-cost cities there is also less risk that publicly-funded social housing crowds out unsubsidised private construction of affordable housing (Eriksen and Ross (2015[41]), NIBR (2015[40])).

Box 2.8. Broader approaches to social housing: the experiences of the Netherlands and Austria

In Norway, as in most other OECD countries, social housing makes up less than 10% of the dwelling stock and is targeted at low-income households. In some countries, however, social housing serves a larger role and a broader group of households.

The Netherlands

In the Netherlands, a large rent-controlled social housing sector comprises more than a third of the total housing stock. The income threshold for eligibility is high enough that roughly half the population qualifies for social housing. Non-profit housing corporations own roughly three quarters of regulated social housing units. Municipalities are still able to allocate a portion of the available units to tenants based on specific needs. However, social housing does not always benefit those with the most acute needs and many existing tenants having incomes above prescribed eligibility thresholds. Rent controls also limit landlords' returns and constrain investment in rental housing (OECD, 2021[26]).

Austria

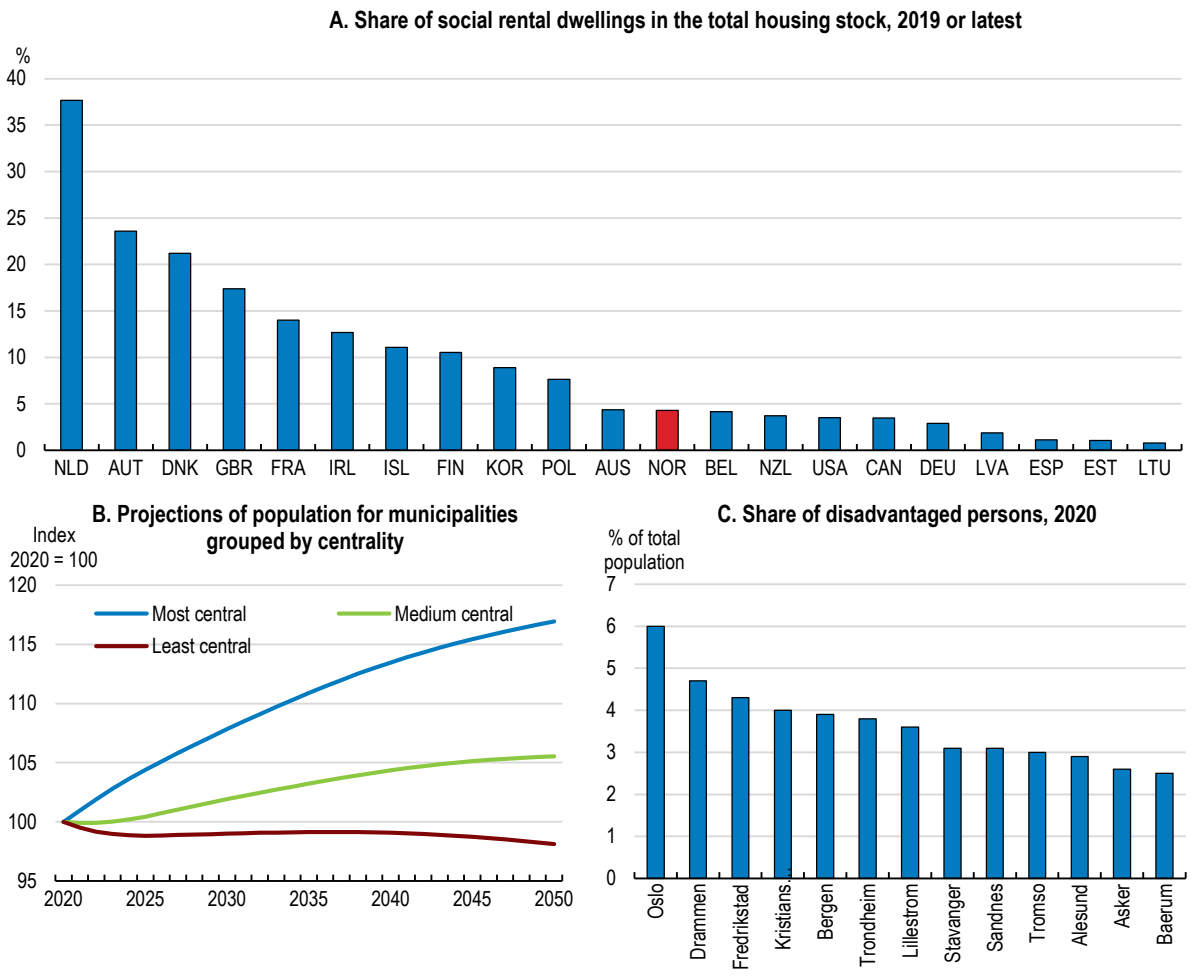
In Austria, social housing accounts for a quarter of all dwellings. More than two-thirds of social housing units are managed by limited-profit housing associations, which build up to 15 000 new homes each year (a bit under a third of all residential construction). Projects are funded through private and public loans and equity in the associations themselves, with surpluses reinvested in new building and renovations. The contribution of housing associations enables the social-housing sector to cater to a large group of households with a relatively stable and solid supply of units. As a model of joint public-private provision of social housing, the system is broadly considered to have worked well. But the future may bring challenges. Many tenants are now in the upper-middle income group. Increased demand risks straining capacity, making it harder to support new entrants to the sector, including younger households (OECD, 2021[42]). Deposit requirements can already pose a barrier to entry for low-income households (OECD, 2020[43]) – new tenants must pay a deposit to co-finance a share of construction and land costs. Non-portable tenancy contracts also risk eroding geographical mobility, impacting labour-market performance (OECD, 2021[42]).

In countries where eligibility is more limited, it may be easier to avoid inefficiencies and target social housing to vulnerable low-income households. Risks of crowding out private housing investment are also likely to be lower. Such countries can, however, face other challenges, including heightened spatial concentration of poverty. It is also important to have well-developed private rental markets, for low-income households ineligible for social housing.

Source: OECD (2021[11]), OECD (2021[26]), OECD (2021[42]), OECD (2020[43])

Increased investment in the social housing stock is needed already in some high-cost municipalities. Norway's small social housing stock – which is partly owned by non-government entities – expanded at roughly the same rate as the total housing stock from 2011 to 2017. But loans for building or buying social rental housing have decreased each year since 2016 (Husbanken, 2021[38]), a period that saw construction costs and numbers of disadvantaged persons rise (Box 2.9). Population growth will put pressure on municipal housing in the coming years, particularly in urban areas (Figure 2.14 Panel B and C). Deficits of municipal dwellings have recently been reported in Oslo (Husbanken, 2021[38]), notwithstanding a drop in 2020 in the number of new households queuing for social housing during the COVID-19 crisis. These shortages will need to be addressed as a priority.

Figure 2.14. Pressure on the social housing stock will grow



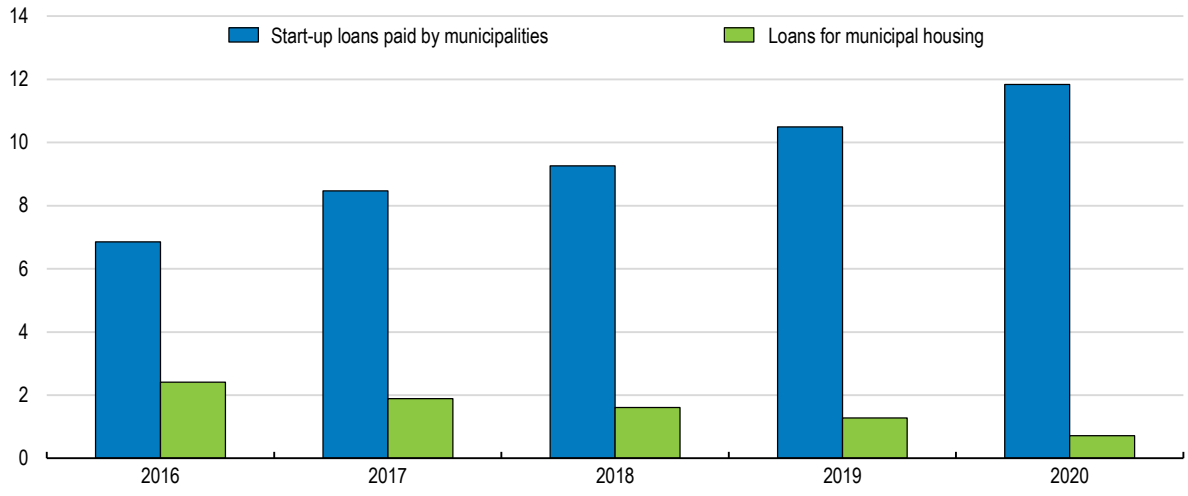
Note: Panel A: For New Zealand, data refer to the number of social housing places that are funded through central government and do not include housing provided by local authorities. For the United States, the social housing stock includes public housing, subsidised units developed through programmes targeting the elderly and disabled people, as well as income-restricted units created through the Low-Income Housing Tax Credit programme. For Canada, data exclude units managed by the Société d'habitation du Québec. For Spain, the figures may also contain other types of reduced rent housing, e.g. employer-provided dwellings.
Panel B: Centrality describes the location of a municipality in relation to urban settlements of different sizes. Data for "most", "medium" and "least" central municipalities correspond to categories 1, 4 and 6 in Statistics Norway's centrality classification system.
Panel C: "Disadvantaged persons" includes those with low levels of income and wealth, excluding students, that face burdensome housing costs, live in inadequate housing, or are homeless.
Source: OECD Affordable Housing Database; and Statistics Norway.

StatLink https://stat.link/65tizu

A social housing policy strategy announced in 2021 aims to provide Husbanken with financing for more loans for rental housing for the disadvantaged (KMD, 2021[9]). This was a positive signal. Husbanken's loans and grants provide useful tools for increasing construction of affordable housing and have tended to be underused in some cities in recent years (Figure 2.15). Increased subsidised construction of affordable housing would help relieve cost pressures on vulnerable households in areas experiencing significant growth in rents. To be most effective, new social-housing construction should be matched by local efforts to relax constraints on higher-density residential building in inner-city areas close to transport and jobs. Norway could also consider the possibility of further expanding incentives for provision of social housing through limited-profit housing associations (Box 2.8).

Figure 2.15. Loans for rental housing for the disadvantaged have declined

Start-up loans and loan commitments to build or buy rental housing for the disadvantaged, NOK billion



Note: "Loans for municipal housing" are loan commitments for the construction, purchase or rebuilding of rental housing for disadvantaged persons; data before 2020 are for rental housing that received a basic loan for construction, upgrade or purchase. "Start-up loans" are subsidised mortgages allocated by municipalities to low-income households to support homebuying.
Source: Norwegian State Housing Bank.

StatLink https://stat.link/m0xsz4

Avoiding problems tied to socio-economic segregation

As well as expanding social housing in some areas, municipalities should continue working to reduce socio-economic segregation. Some past housing policies had the effect of concentrating disadvantaged groups in parts of Norway's major cities. This is particularly apparent in Oslo, where an east-west divide has persisted since the 19th century. Large-scale affordable housing projects after the Second World War were typically carried out in the city's east (Haandrikman et al., 2021[44]). In contrast, Oslo's west still tends to be more affluent.

Other Norwegian cities do not have as clear a spatial divide between areas with good and bad living conditions (Norwegian Ministry of Education and Research, 2020[45]). Moreover, despite increased segregation since 2000 (related to immigrant settlement patterns), Norway does not stand out in comparisons to other Nordic countries. Indeed, some analysis suggests concentrations of poverty are less pronounced in Norway than in Denmark, where social housing is more extensive (Norwegian Ministry of Education and Research, 2020[45]). Careful planning will, however, remain important to avoid concentrating vulnerable people in particular areas and to improve equality of opportunity for low-income households.

"Socially sustainable urban development" has been emphasised in Norwegian social housing strategy and is already practiced in many municipalities. Some municipalities take steps to allocate low-income households to dwellings in better neighbourhoods. Oslo, Bergen and Trondheim also receive grants from the State Housing Bank aimed at urban regeneration. Grants are used in areas facing challenging living conditions to improve the physical and social environment, including by upgrading buildings and outdoor areas. Similar urban regeneration programmes exist in other countries – including in Chile, France, Mexico and the United States. Coordinated investments in existing neighbourhoods to improve infrastructure and opportunities related to education, public transport and leisure can help build inclusive, socially-mixed neighbourhoods (OECD, 2021[11]).

New legislation has been proposed to clarify municipalities' responsibilities in social housing planning. This is welcome, particularly since local authorities retain considerable autonomy in the provision of social housing services. Better delineating local responsibilities could help raise the average quality of municipal services. The new legislation would ideally also elevate the importance of social sustainability in planning. Existing financial instruments can help. Husbanken's loans for affordable housing construction enable developers to lease a portion of units to tenants paying market rent. Increased construction of affordable dwellings through such channels can contribute to better integration of benefit recipients in better neighbourhoods.

Box 2.9. Measuring disadvantage for social housing purposes

Norwegian social housing policy targets people that are "disadvantaged", a term defined to include households with low levels of income and wealth that face burdensome housing costs, live in inadequate housing, or are homeless.

Statistics Norway occasionally releases experimental estimates of the number of disadvantaged persons. Past approaches have drawn on register-based statistics on housing conditions and data on living expenses from Norway's Rental Market Survey to estimate the size of the disadvantaged population (Thorsen, 2017[46]). Overrepresented in such estimates are immigrants, renters, residents of Oslo, young people and big families. A recent analysis released by the Ministry of Local Government and Regional Development reported a national estimate of 179 000 disadvantaged persons in 2020, just over 3% of Norway's population and an increase of 22 000 since 2015 (KMD, 2021[9]). In contrast to declining numbers of homeless people, the number of disadvantaged persons has increased in recent years, albeit at a declining rate (Husbanken, 2021[38]).

Municipal-level estimates reveal significant variation across cities. Consistent with earlier work by Statistics Norway, Oslo stands out as the city with the highest share of disadvantaged persons (6% of the population in 2020) (Figure 2.14). High house prices, a young population and larger numbers of immigrants than other municipalities can help explain higher rates of disadvantage in Norway's capital than other parts of the country.

Regular reporting of city-level data on disadvantaged persons and municipal housing for the disadvantaged would aid evaluation of social housing policy and assist analysis of future pressures on housing services.

Reforms to improve the responsiveness of private housing supply

The responsiveness of new residential construction to house prices differs within countries as well as between them, and depends on geography as well as local policies. Recent OECD estimates suggest the price elasticity of housing supply in Norway is lower than in other Nordic countries, including Denmark and Sweden, but higher than in a number of other OECD countries (Cavalleri, Cournède and Özsöğüt, 2019[47]).

Country-level estimates are, however, unlikely to reflect conditions in Norway's urban housing markets. In the country's biggest cities, geographical factors naturally constrain new housing supply. Norway's mountainous topography rules out development in much of the country. Mountains cover approximately 90% of the national landmass. Water, too, is a natural impediment to construction. All of Norway's four most-populous municipalities (Oslo, Bergen, Trondheim and Stavanger) are coastal. Unlike in flatter inland cities in other countries, the expansion of settlements in Norway's coastal municipalities is limited to stretches of non-mountainous land away from the water.

Land-use regulation must manage trade-offs between housing and other objectives

The constraints of Norway's geography increase the importance of statutory limits on use of natural land suitable for building. Many national restrictions on development are in place to limit losses of natural areas. More than half the territory of Oslo municipality is protected by *Markaloven*, laws preventing development in forested areas around the capital and neighbouring municipalities. Other laws prohibit building within 100 metres of the sea and protect against conversion of agricultural land to residential and other uses. Protections of natural and arable land serve multiple policy objectives. Banning the clearing of forests, for example, ensures access to green space for residents of neighbouring developed areas. The same laws can prevent sprawl and reduce transport emissions. Coastal-development bans similarly preserve marine biodiversity and shared use of the shoreline, while protections of arable land safeguard future agricultural supply.

However, overly strict national land-use restrictions can compromise housing-policy objectives. For instance, paired with inflexible local rules controlling construction *within* developed areas, limits on building beyond urban boundaries help drive up metropolitan house prices and rents. Rural municipalities can be affected as well as urban ones when restrictions rule out commercial or residential development in land neighbouring existing settlements. Bans on building near the coast, for example, can impede commercial activity in small towns and island municipalities; this is the case even if the rules' main aim is to restrict overdevelopment of densely populated areas such as Oslofjord. The imperative of preserving biodiversity in marine environments is clear. But in many sparsely populated areas, benign projects – for instance, new homes and shops – would lift economic activity with limited adverse environmental effect.

Box 2.10. Institutional framework for Norwegian housing policy

Design and implementation of Norwegian housing policy involves actors and instruments at national, regional and local levels of government.

National

- **The Planning and Building Act** sets requirements for environmental impact assessment, processes for zoning and building applications, and rights of objection and appeal.
- **Technical standards for buildings**, known as TEK17, prescribe minimum requirements in respect of quality, safety, health and energy-efficiency with which new buildings must comply.
- **The national government** determines a national planning strategy – including a national transport plan – and government agencies are involved in inter-regional planning decisions.
- **The Ministry of Local Government and Regional Development** implements national planning and building policies, issues planning policy guidelines, and serves an appellate function, determining the outcome of objections to municipal zoning plans.

- **Norway's State Housing Bank**, *Husbanken*, administers social housing assistance in coordination with municipalities. It also advises municipalities on effective social housing solutions and facilitates knowledge sharing between local authorities.

Regions

- **County councils** produce regional planning strategies that local authorities are expected to adhere to. County council members are themselves often members of municipal councils in the region.
- **Regional planning forums** – comprised of representatives of national, regional and local bodies – clarify the range of interests relevant to work on regional and municipal plans. The forums are managed by regional planning authorities and aim to limit recourse to time-consuming objections to zoning plans.
- **County governors** coordinate objections to zoning proposals from authorities at the local, regional and national levels of government. Objections operate as a check on municipal authority and are meant to ensure integration of regional and national considerations in local land-use decisions.

Local

- **Municipalities** develop legally binding master plans and detailed zoning plans for local areas and review building and zoning applications. They are further empowered, by the Planning and Building Act, to determine local rules limiting the size and number of dwellings, prescribe maximum building heights, and regulate plot utilisation rates, building location, and some physical characteristics of built structures. Municipalities also determine local needs for social housing assistance and deliver support backed with financing and advice from Husbanken.

Progress has been made to soften land-use restrictions – more is needed

National guidelines on coastal-zone building were softened in 2021, giving rural municipalities more scope to grant exemptions for housing and other developments compatible with environmental objectives. This is a sensible compromise. Similar concessions should extend to protections of natural land more broadly. This would relieve pressure at the periphery of Norway's space-constrained cities, helping more households live near where job offers are available.

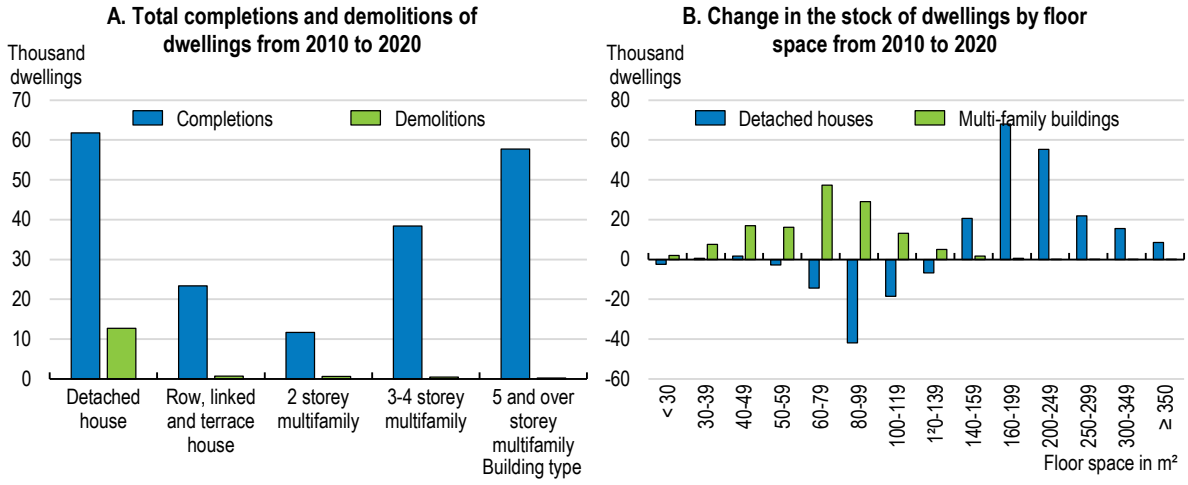
National laws protecting arable land are still quite strict and can undermine housing affordability. Agricultural land covers a relatively small 3.5% of Norway's territory. But with much of it located in low-lying areas close to major urban settlements (OECD, 2016[48]), land set aside for farming represents a much larger share of the territory fit for building. Statutory restrictions include bans on the conversion of arable land for other uses, and form part of Norway's wider policy of strong protection and support for the farming industry. By limiting possibilities for greenfield housing development close to built-up areas, these restrictions contribute to inflexibility in housing supply. They also likely go beyond what is needed to achieve the aim of safeguarding land for farming, and might therefore be moderated.

Whereas national land-use laws restrict residential construction beyond developed areas, municipal rules limit the supply of housing within them. In addition to restrictions on where homes can be built – for instance, away from space zoned for parks and nature areas – planning laws allow municipalities to set density restrictions. Norwegian cities set height limits on apartment blocks and non-residential buildings. Norway has relatively few tall buildings per urban population compared with other rich countries (Jedwab, Barr and Brueckner, 2020[49]). This reflects restrictions on building heights. Oslo's municipal plan, for example, allows structures of up to 30 metres in dedicated inner-city development areas (Oslo Municipality, 2015[50]). But in most districts the plan prevents building structures more than seven metres taller than the

typical building height in a given street. This rule, together with bans on building close to sites of cultural heritage significance, can hinder new residential development. Data on dwelling types reveal the relatively low density of neighbourhoods in parts of Norway's capital. Detached and semi-detached houses make up 23% of homes in Oslo (in comparison, such dwellings comprise 8% of homes in Copenhagen). While apartment blocks dominate inner-Oslo, lower-density residential buildings account for half the dwellings in the city's outer west and south (Oslo Municipality, 2021[51]). City or region-wide re-zoning of existing neighbourhoods – as has been done recently in New Zealand and California (Box 2.11) – could help speed up densification of residential areas.

Rules enforcing minimum dwelling sizes further restrict the supply of housing in urban areas. In Oslo, 35 square metres is the minimum allowed size for new apartments (a standard within the typical range of equivalent rules in OECD countries). Local rules additionally cap numbers of small flats. Notably, no more than 35% of units in inner-Oslo can be "small" (35 to 50m^2), while a minimum 40% must have floorspace of at least 80m^2. A proposal to abolish the "apartment norm" was voted down in early 2021. While it officially applies to just four of Oslo's 15 districts, the norm reportedly guides planning decisions in other parts of the city. Such rules are designed in part to manage strain on local infrastructure (for instance, congestion on roads) and to improve living environments – considerations developers might otherwise overlook. Significant impacts on housing supply and affordability can, however, result. In areas of Oslo, for instance, there are reported deficits of small apartments. In Norway as a whole, increases in the number of small units have been modest, notwithstanding increased construction of mid-sized apartment buildings (Figure 2.16).

Figure 2.16. More mid-sized buildings are being constructed, but few small apartments



Source: Statistics Norway.

StatLink https://stat.link/6dx3c4

Box 2.11. Relaxing land-use rules: the cases of New Zealand and California

Accelerating medium-density housing development in New Zealand

New Zealand has experienced rapid house price growth and deteriorating housing affordability in recent years. To address housing shortages in major cities, the government has proposed changes to relax land-use rules in urban residential areas. A bill put to parliament would enable people to build up to three homes of three storeys each on most sites without needing local approval (New Zealand Government, 2021[52]). The aim is to rapidly increase the amount of medium-density housing in districts currently zoned only for single-family dwellings. Modelling commissioned by the government suggests the supply effects of the new policy will be large. Up to 105 500 dwellings could be built over the next eight years according to estimates by PwC. In Auckland, where housing supply has been particularly strained, an additional 53 700 dwellings could result from the new medium-density dwelling rules. This would go a long way to eliminating housing shortages in New Zealand's most populous and most expensive city. Before the pandemic, the shortfall in Auckland was estimated at 40 000 to 55 000 homes (Coleman and Karagedikli (2018[53]), OECD (2019[54])).

Ending single-family zoning in California

California is also taking steps to increase housing supply. A new law passed in September, called SB9, ended single-family zoning in the state (California Legislature, 2021[55]). This will allow owners to build two housing units on lots where there are currently single-family dwellings, provided plots are of a certain size. Another law called SB10 enables the construction of up to ten units on parcels of land near major public transport stops and some urban infill sites (California Legislature, 2021[56]). As in the case of New Zealand, the new laws are meant to help address housing shortages in major population centres. Rigid housing supply has contributed to soaring prices in San Francisco and Los Angeles in particular. While not aimed at adding affordable housing – checks are incorporated to ensure the laws do not reduce it, either – these measures should have a significant effect on total housing supply, and thus help moderate house price growth. Estimates released by the Terner Center for Housing Innovation suggest SB9 could enable the construction of an additional 700 000 homes, marking a 40% increase in what would otherwise be built (Metcalf et al., 2021[57]).

There is scope to review and relax caps on small-apartment numbers, especially in districts where new housing development would not stretch local infrastructure. There is also a case for local authorities trialling more exceptions to municipal regulations and guidelines on minimum apartment sizes, as done in some other cities (for instance, New York). Norway's national building standards exist already to safeguard minimum habitation standards. Additional unit-size limits likely force some households to consume more housing than they otherwise would (Quigley and Raphael, 2004[36]). In contrast, permitting higher-density residential construction would have clear benefits for affordability, improving options for households seeking smaller dwellings in inner-city areas. It would also reduce the housing stock's environmental impact by lowering transport emissions and loss of natural land to sprawl. Energy for heating would also decrease with more compact apartments, as would quantities of building materials and associated greenhouse gas emissions (see below). Moreover, by enhancing flows of workers to high-wage, high-productivity cities, lifting density restrictions could also increase economic potential (Glaeser and Gyourko, 2018[58]).

National building standards also affect density and influence construction costs

In addition to national land-use rules, building standards can also influence scope for residential construction and the cost of building. With some exceptions, national building-code revisions from 2000 to 2015 typically tightened minimum requirements for safety, quality and accessibility (as well as energy-efficiency). Beyond their construction-cost impacts, which in some cases have been reported to be significant (NOU, 2015[59]), provisions to ensure buildings are accessible to all people tend to increase the minimum floorspace required in rooms, access areas and residential buildings generally. For example, enhanced interior-access requirements and stricter rules for elevators (elevator requirements were tightened in 2010 to apply to all new buildings three storeys or higher) raise housing quality and improve accessibility but also increase floorspace required in apartment buildings. While potentially heading-off accessibility problems as the population ages, the implications of these and other building-code changes for construction costs and urban density deserve greater policy consideration. Indirect environmental impacts should also be taken into account. Standards that increase the floorspace required for new apartments also likely imply greater use of CO_2-intensive materials such as steel and cement.

Some strict quality standards have been relaxed in recent years. A rule requiring new dwellings to have an interior storage room was, for example, repealed in 2017 and replaced with more flexible, less-prescriptive storage requirements. National guidelines on building location and light exposure have also been relaxed in recent years. This was part of a welcome drive to simplify national technical standards, a push that started with the release of the current building code (called *TEK17*). Where health and safety are not at risk, replacing additional highly prescriptive minimum standards with more functional requirements, enabling greater innovation in construction, could reduce the impact of the code on building costs and affordability.

There is still the possibility, in Norway's planning system, that despite well-designed and proportionate national building rules, some municipalities use strict local rules for undesirable ends. For instance, local rules on building position and plot utilisation can impede new construction to benefit existing homeowners. As a check against such behaviour, regional authorities should play a more active oversight role. In particular, counties should ensure that local planning rules – including directives on plot utilisation and building orientation – reflect the national planning priority of facilitating housing supply. This aim should also be supported in the work of regional planning forums.

Making planning and zoning quicker, cheaper and more predictable

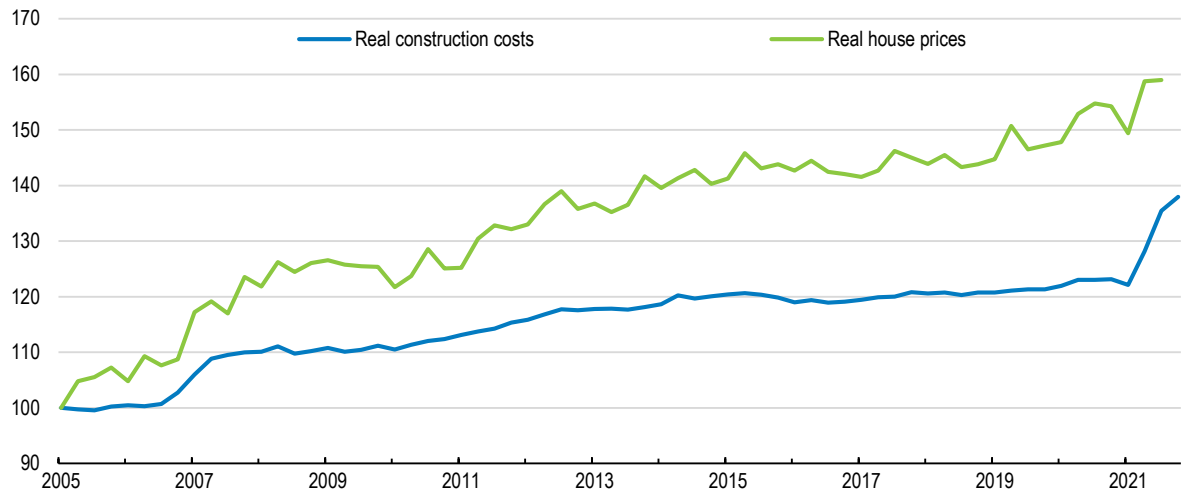
More efficient zoning and building application processes could also facilitate residential property development. Densely populated areas in Norway reportedly still present considerable opportunities for property development that remain unexploited. Improvements to planning and zoning processes could ensure such opportunities are harnessed, encouraging greater supply responsiveness to increased housing demand. Beyond direct impacts on timeframes for construction, zoning laws and practices influence rates of new building through their effect on builders' returns.

Studies of planning and zoning in Norway point to developers' co-contributions to public infrastructure funding, onerous impact-assessment requirements and lengthy approval processes as major contributors to construction costs (Figure 2.17). Development agreements facilitate co-financing of local infrastructure (for instance, funds for roads, water and sewerage) between municipalities and private developers to support new projects. There is a rationale for asking developers to contribute to infrastructure costs. It forces them to internalise the toll on neighbourhoods of new buildings and residents (for instance, from more traffic on local roads). Rules limit what municipalities are able to ask of developers. In particular, contributions must be proportionate to a project's scale and exclude financing of social infrastructure (kindergartens, schools and aged-care facilities). Past reviews have found, however, that development agreements can be abused, with local authorities demanding disproportionate contributions from developers. The impacts of infrastructure contributions on developers' costs are often large (NOU,

2015[59]). There is a welcome proposal to clarify rules on development agreements. The proposal includes a new model for financing local infrastructure whereby municipalities can stipulate a payment obligation in the relevant zoning plan. This will improve opportunities to review municipally-determined payment obligations. It could also help discourage misuse of the rules, enhance predictability and equal treatment among developers, and reduce developers' costs.

Figure 2.17. Labour and material costs account for only part of past house-price increases

Real construction costs (labour and materials) and detached-house prices (excluding land), index 2005 Q1 = 100



Note: Nominal indices of construction costs and house prices have been deflated using the consumer price index. Data are for detached houses made of wood and both series exclude the price of land.
Source: Statistics Norway and OECD calculations.

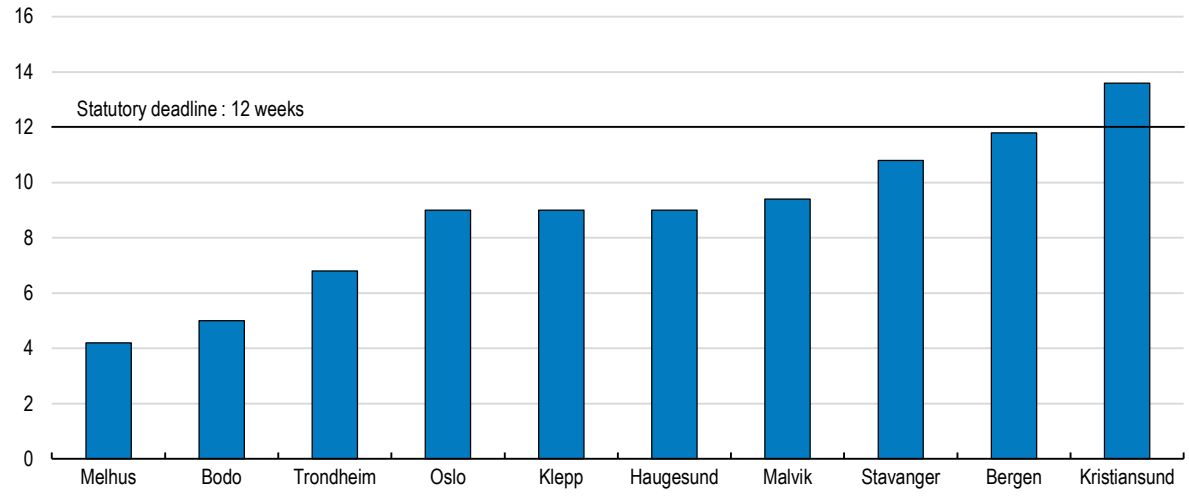
StatLink https://stat.link/6frvl7

Impact assessments for zoning proposals have been increasing in number and scope and also add to costs. A Productivity Commission (PC) review in 2015 noted an increase in scope of mandatory impact assessments, which derive from European Union directives (NOU, 2015[59]). Growing impact assessment requirements, affecting both private zoning proposals and municipally-led planning, are consistent with the increasing range of objectives planning decisions are expected to balance. These are detailed in the Planning and Building Act and include promoting sustainable development, facilitating resource management, safeguarding principles of universal design, conditions for raising children, and neighbourhood aesthetics. Considerations to be addressed in plans have been augmented to include reducing greenhouse gas emissions through solutions for energy supply, land use and transport (added in 2014 and modified in 2019); management of the water cycle (added 2019); and, perhaps belatedly, facilitating adequate residential construction (incorporated in 2021).

On top of the direct costs of investigations and reporting, impact assessments add to the time required to complete development applications, pushing further into the future the expected returns from building. The Productivity Commission noted an increase over recent decades in the time taken to process applications. Legislated 12-week deadlines for processing building and zoning applications are not long by international standards (Gyourko and Molloy, 2014[60]). Municipalities tend, on average, to stick to these deadlines, too (Figure 2.18). But in addition to time consumed preparing applications, time gets taken up in consultations, correcting errors, and responding to requests for clarifications. Correcting errors and omissions, in particular, can cause planning delays to balloon, requests for changes or more information extending review deadlines and cutting against laws designed to speed up processes (Box 2.12).

Figure 2.18. Average planning application review times are typically below the statutory limit

Average weeks to process applications subject to 12-week deadlines: selected urban municipalities, 2019 or latest year



Note: Data are for applications subject to 12-week review deadlines in the Planning and Building Act, including zoning and building applications. Bergen and Trondheim data are for 2020.
Source: Statistics Norway.

StatLink https://stat.link/6e17px

Useful steps are being taken to reduce time spent correcting errors in plans. The national ByggNett Strategy facilitates greater use of digital applications. A digital service platform launched as part of the strategy in 2018 aims to further improve standardised applications, ensuring they contain all the information local regulations require. This initiative goes part way towards eliminating costs and delays associated with incomplete applications. Application requirements and processes do, however, still differ by municipality. Greater central government-led efforts towards enhancing and standardising digital processes across municipalities could help improve planning efficiency in some local areas and further reduce the time taken to rectify problems or omissions in zoning proposals.

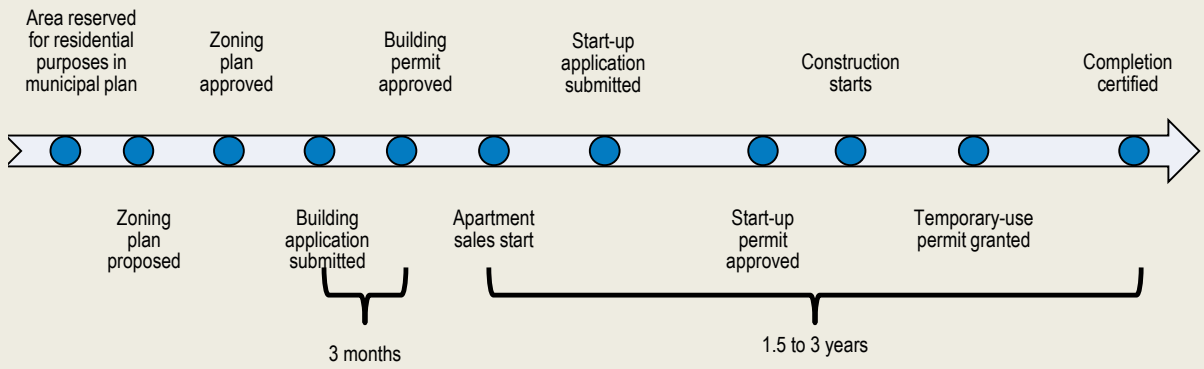
Comprehensive zoning processes, including impact assessments, may be excessive for small residential construction projects. Simplified approval procedures should be introduced for small urban infill projects. The Planning and Building Act already exempts from building-permit requirements minor alterations to existing structures. Extending such exemptions to additional categories of small construction projects could save developers time and costs and lift supply in urban municipalities with spare space.

Predictability in planning and building processes, including private zoning proposals, would be enhanced by grounding municipalities' discretion to approve or reject applications. As in other countries, planning and building laws allow local planning authorities a wide degree of discretion to reject proposals without reference to legal provisions or their own detailed plans (OECD, 2021[11]). This relatively unfettered discretion provides a window to local interest groups and landowners looking to influence planning outcomes, including by preventing residential construction. Affected parties can also appeal agreed zoning plans. Overall, the unpredictability of urban development projects erodes commercial incentives to build. One way to curtail the influence of local interest groups would be to increasingly tie municipalities' decisions to planning rules or criteria.

Box 2.12. Planning milestones in residential development projects

Large-scale residential developments often require a detailed zoning proposal. This includes when projects involve changing the prescribed land use in a given area (for instance, from permitting detached houses to multi-storey apartment blocks). Before this occurs, higher-level Municipal plans must set aside land for current and future residential construction. This could occur well before physical construction of new homes starts. The efficiency of these processes influences the responsiveness of housing supply. Figure 2.19 shows the order in which these planning stages occur and presents an indication of timeframes required to complete a typical apartment-block construction project once these preliminary municipal and zoning plans have been approved.

Figure 2.19. Illustrative timeline for a typical apartment project in an urban area



Source: Samfunnsøkonomisk analyse AS (2021[61]); and Planning and Building Act 2008.

Stages involved in zoning proposals:

- **Impact assessment**: Impact assessments are required for zoning plans that may have significant effects on the environment and society. They may require investigations and are designed to clarify the effects of the plan on the environment, health, safety, accessibility and other public interests. Assessment results are included with the proposal description as part of notification requirements.
- **Notification and consultation**: Affected public bodies and other interested parties must be notified at the initiation of planning work. “Interested parties” may include central, regional and local government bodies, neighbouring municipalities, private organisations, institutions and individuals affected by a proposal. Proposals should normally be submitted for consultation at the same time as notification is given, and must be published electronically and in at least one local newspaper. Deadlines can be specified for making a statement during consultations, or registering an objection, but can be no shorter than six weeks. The 6-week minimum originates in EU laws.
- **Objections**: Regional and central government bodies and other municipalities can object to proposed municipal and zoning plans to protect national, regional or local interests. Objections must be submitted during consultations at the latest. In practice they are often registered at earlier planning stages (Asplan Viak and Agenda, 2012[62]). If the municipality is unable to resolve an objection (for example, by altering the zoning plan), it is referred to mediation. If mediation fails, the objection passes to the Ministry of Local Government and Regional Development for resolution, which may result in the plan being amended. If it wishes to challenge the Ministry’s determination, the municipality has recourse to the courts up to six months from the Ministry’s decision.

- **Submission and municipal decision**: At the end of consultations, provided no objection has been filed, the proposed zoning plan goes to the municipality for consideration together with statements from consultations. The municipal administration has 12 weeks to make a final proposal. The deadline can, however, be extended by 6 weeks in complicated cases or where further clarifications are required. The municipal council then has 12 weeks to make a determination.
- **Appeal**: Affected parties in the area, including landowners, must be notified of approved zoning plans by letter, including information about rights of appeal.

Stages involved in obtaining building permits and completing construction:

- **Building permit**: Once the zoning plan is approved, a building permit application may be submitted and must be reviewed by the municipality within 12 weeks. Time can be saved if the municipality agrees to joint review of the building permit application and the proposed zoning plan. For larger projects, two stages are typically involved. First, a general or "framework" permit is granted, giving the developer the right to undertake the project in line with set conditions. Then, once the conditions are satisfied, a start-up permission is granted allowing construction to begin.
- **Sales**: Developers typically start selling apartments once the general building permit has been granted. Lenders commonly require that 50 to 70% of units in the development are sold before physical construction begins. The practice of selling a proportion of flats "off-the-plan" before construction (sometimes called "pre-sales") is common to other countries (for example, Australia, Canada, the United Kingdom). It can enable developers to secure better borrowing terms from lenders and allows builders to realise returns before a project finishes. In Norway it often takes 1½ to three years from the first apartment sales to the point where residents move into the building (Samfunnsøkonomisk analyse AS, 2021[61]).
- **Start-up permit**: Provided the developer satisfies any conditions required under the general building permit, a start-up permit is granted, enabling actual building to start.
- **Completion certificate**: Once building is finished the municipality awards a completion certificate and residents can move in. In cases where only minor works are required to finish the project, the municipality may grant a temporary-use permit allowing part of the building to be occupied.

Doing more to stamp out abuses of the objections system

More needs to be done to reduce time spent resolving objections to proposed municipal and zoning plans by regional and central government authorities. Introduced as a check on municipal review powers with the entry into force of the Planning and Building Act in 1985, the objections system is intended to protect significant regional and national interests. Statutory grounds for objections are broad, encompassing "matters of significant importance" to the nation, regions, other municipalities, the Sami community and businesses. Common reasons for objecting to municipal area and zoning plans relate to soil protection, preservation of marine habitats and culturally significant sites, and impacts on congestion, sprawl and agricultural land.

Objections can provide a useful means for coordinating and integrating multiple perspectives in planning processes. They can also be used to ensure appropriate planning and preparation for munipalities' future housing needs, for instance through reserves of land for residential development. In addition to county governors, frequent objectors include the Norwegian public roads authority and cultural heritage agencies. As the final arbiter of unresolved objections (many are settled earlier by municipalities, or through mediation), the Ministry of Local Government and Regional Development (KDD) must balance competing policy goals – for instance, determining whether to approve a new residential area permitting the building of new homes, or rejecting the measure because it will increase car use and congestion and undermine national guidelines on compact cities. Time taken to resolve objections can significantly increase planning timeframes, affecting how quickly new residential construction can respond to increases in demand. A

2012 review found that objections add, on average, 10 months to planning processes that should otherwise take two years (Asplan Viak and Agenda, 2012[62]).

While some objections are upheld, being found necessary to serve matters of national or regional significance (in line with the intention of planning laws), abuses are also common. Past objections have been found often to relate not to matters of national or regional significance but to disagreements about land use (Asplan Viak and Agenda, 2012[62]). A high proportion are also based on non-legal documents. The objections system has been found to be a major hurdle to private residential zoning proposals (National Competition Authority, 2018[63]). Welcome steps have been taken to limit abuses. Guidelines were clarified following recommendations by a Housing Committee (NOU, 2015[59]). These emphasised the importance of flagging significant interests early in planning procedures and introduced a requirement that objectors justify reasons for challenging zoning proposals. County governors (and county councils) were assigned the role of coordinating objections from different sources; they are now also tasked with screening out unfounded challenges. Legislative changes to the Planning and Building Act in 2017 further attempted to clarify grounds for objections based on national and regional interests (they remain, however, quite broad).

There is some evidence that recent reform efforts have been successful. A 2018 review by the Office of the Auditor General found that objections are better substantiated than in the past (Office of the Auditor General, 2018[64]). In contrast, county governors have tended to make limited use of their increased screening powers. Moreover, practices and objection rates vary across regions, undermining the consistency and predictability of planning processes. Objections are still used a lot. Data published by Statistics Norway show that in 2020 30% of zoning applications were subject to objections. An average 28 objections were reviewed by the Local Government ministry each year from 2016 to 2020. This statistic, which excludes objections resolved by municipalities or in mediation, was little changed from the average 30 per year registered over the previous five years. In contrast, the success rate of objections has declined (from 43% over 2010-2013 to 22% over 2014-2017), offset partly by increased partial acceptance of objections. This is consistent with efforts to tighten the system (Office of the Auditor General, 2018[64]).

More should be done to enhance the efficiency of the objections system and pare back abuses. One step would be to only allow objections that relate to regional and municipal plans, impact-assessment reports, or specific provisions in laws and regulations. Environmental, heritage and transport considerations should, to the extent feasible, be clarified in regional plans. Regional planning forums exist for this purpose. Better management and resourcing of regional planning forums could reduce the need for time-consuming objections at later stages of planning cases (Office of the Auditor General, 2018[64]). In screening objections, county governors could also be given recourse to submit complicated cases to the Ministry of Local Government and Regional Development for advice. This might help rule out unfounded challenges and free up capacity to review other objections more quickly.

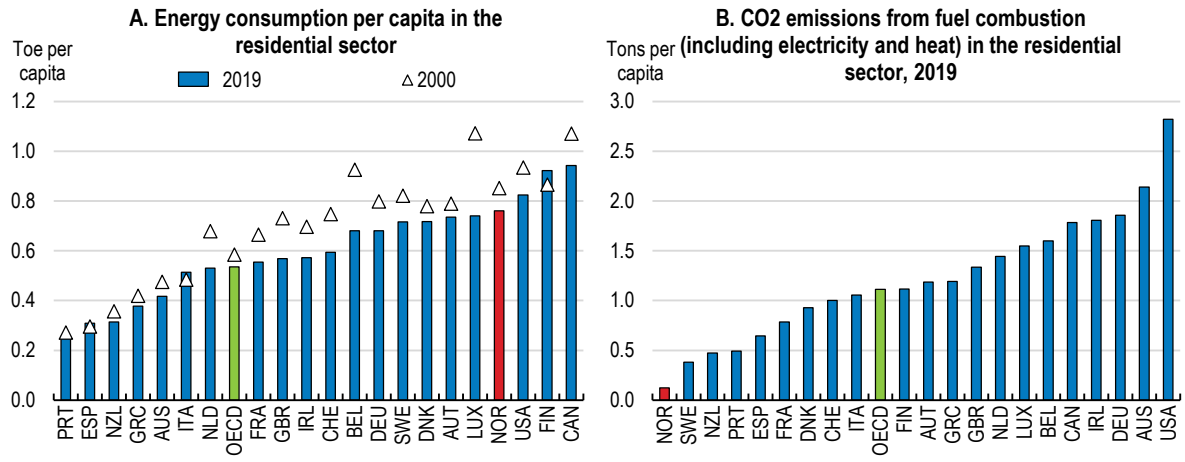
Reducing the environmental impact of housing

The environmental impact of Norway's housing stock is small in international comparison. Restrictions on developing natural land have helped limit losses of forested and other natural areas. Urban areas, as a consequence, have become more dense (OECD, 2018[65]). A national strategy of concentrating development around public transport hubs aims, appropriately, to continue this trend. This will help cap transport-related CO_2 emissions. But to succeed, the strategy will need the cooperation of urban municipalities to relax land-use policies impeding higher-density construction (as discussed above).

Norway's high energy-efficiency standards are already near the frontier

Norway has low CO_2 emissions from housing use, including heating. As a cold country with relatively big homes, per-capita energy consumption is larger than in most other OECD countries (Figure 2.20, Panel A). But with hydropower supplying almost all of Norway's electricity, CO_2 emissions from the residential sector are very low (Figure 2.20, Panel B). Energy-efficiency upgrades have further reduced residential emissions. A push to electrify residential heating has also paid off. Publicly-funded grants supported the retrofitting of older homes with fossil-free heating systems ahead of a ban on oil burners that took effect in 2020 (Enova, 2021[66]). State-owned enterprise Enova continues to provide households with advisory services and funding for climate-related and energy upgrades (Box 2.13). While the economic case for Enova's grants is clear, individual measures should continue to be regularly reviewed as markets and technologies mature, to check they are delivering anticipated energy savings, and that support remains cost effective.

Figure 2.20. Residential energy use is similar to other cold countries but CO_2 emissions are low



Source: IEA (2020), Energy Efficiency Indicators (database).

StatLink https://stat.link/61wgk8

Norway's building code sets high energy-efficiency standards for new buildings. The country's technical building standards are among the strictest in the world, with energy-efficiency requirements at passive house standard (requiring that thermal comfort be achieved to a large degree through "passive" measures such as insulation and heat from human occupants, household appliances and the sun) (Box 2.13) (IEA, 2017[67]). Proposals are being considered to further tighten performance standards. This would bring new homes to a near-zero net energy use standard, freeing up renewable energy for use in other sectors, including for the electrification of transport. Reducing energy consumed in homes would also enable greater exports of hydroelectric power to the regional electricity market, lowering emissions in other countries. These benefits should, however, be weighed against the potential for tighter energy-efficiency standards to push up construction costs and house prices. Construction cost implications of changes to the building code should be reviewed before tightening energy-efficiency and quality requirements.

Box 2.13. Main policy instruments for lifting energy efficiency in Norwegian homes

- **The building code** is the main regulatory tool used to ensure that new homes are energy efficient. The current version, called *TEK17*, sets limits for the net energy used for space heating, cooling, and hot water, and prescribes technical standards for windows, roofs, floors, walls and air tightness, along with other requirements (IEA, 2017[67]). Threshold standards for new homes and properties subject to major renovations were tightened in 2016 to "passive house" level. This is a particularly high standard of heat and energy efficiency. It requires thermal comfort to be achieved to a large extent through "passive" measures such as insulation and heat from the sun, household appliances, and a dwelling's human occupants.
- **Enova Subsidies** complement the technical building standards. Grants provide a financial incentive for households to make climate-related and energy-efficiency investments in existing homes. A pre-defined set of measures are eligible for funding without prior approval. Popular measures include installations of solar cells, heat-efficient mechanical ventilation systems ("balanced ventilation") and liquid-to-liquid heat pumps – energy-efficient devices for heating buildings by transferring heat between spaces.
- **Low interest-rate loans** from *Husbanken*, the Norwegian State Housing Bank, are separately available to people building energy-efficient homes using sustainable construction practices, and for energy-efficiency upgrades to existing dwellings.
- **The Energy Certification Programme** provides information on buildings' energy standards and potential energy-saving improvements.

There is scope for greener housing construction and building materials

Residential construction's environmental impact remains large. Whereas CO_2 emissions related to housing-stock use have been almost eliminated, building homes, and the associated production and disposal of building materials, still have significant environmental costs. Buildings and construction account for 14% of Norway's greenhouse gas emissions, with two thirds of this from production and transport of materials. Large quantities of CO_2 are generated, in particular, in the production of steel and to make cement, the most carbon-intensive ingredient in concrete, which alone contributes 2.5% of Norway's emissions (SINTEF, 2020[68]). In addition to carbon emissions embodied in materials, the construction sector generates roughly a quarter of Norway's waste; about a third of the waste from demolition and renovations goes to landfill.

Greener energy can help reduce CO_2 emissions from material production and construction. Planned increases to the carbon tax will help in this regard. Other CO_2 emissions will be harder to eliminate without large and cost-effective technological improvements. Advances in the reuse of scrap metal have reduced the capacity for further cuts in carbon emissions from already-efficient Norwegian steel manufacturing (SINTEF, 2020[68]). In the case of cement production, significant greenhouse gas emissions are inherent to material processing: only expensive carbon capture can neutralise CO_2 generated from the decomposition of limestone (Habert et al., 2020[69]) (see Box 1.18).

More efficient use of building materials can contribute to a greener housing stock. Norwegian research organisation SINTEF estimates that material efficiency strategies (also called "circular economy" measures) can have a big impact on waste and greenhouse gas emissions, reducing building material use by 20% and lowering CO_2 emissions by up to 18% (SINTEF, 2020[68]). An added benefit would be reduced consumption of water, mineral resources and land (Pauliuk et al., 2021[70]).

Making regulation more conducive to efficient use of building materials

A regulatory framework is being developed to enhance material efficiency. Guidelines have been published to explain rules governing trade and use of recycled materials. These complement other initiatives, notably government-funded research into sustainable materials and support for digital marketplaces facilitating trade in recycled products (Enova, 2021[66]). Supporting regulatory change would come from simplifying EU and national rules around documentation of building materials, an obstacle to selling second-hand building products. Amendments to the relevant regulations were proposed in September 2021. In a welcome move, the Directorate for Building Quality was also tasked in 2021 with identifying scope for adjusting technical building standards to enable increased reuse of building materials.

Work is also underway to identify and amend rules that discourage using buildings for longer. The building code can present hurdles to renovation as it mandates quality and energy-efficiency improvements for buildings undergoing major alterations. These provisions can have unintended consequences if they lead to higher rates of demolition and new construction, with greater overall use of emissions-intense materials. A proposed amendment to the planning and building act would give municipalities increased scope to grant waivers from strict building-upgrade requirements in TEK17 (Box 2.13). This would enable local authorities to determine appropriate upgrade standards on a case-by-case basis in view of sustainability considerations. This proposal could potentially remove an important obstacle to both greater development activity and more sustainable use of the building stock. Broader assessment of the environmental impact of building regulations is also warranted.

Minimum content requirements for recycled construction products will help push industry towards more sustainable production practices. The EU has flagged its intention to introduce new minimum thresholds for recycling non-hazardous waste from construction (European Commission, 2020[71]). Such performance standards should be stepped up progressively, giving producers time to adapt to new methods and technologies, but ensuring an appropriate base level of sustainability in production.

Using market-based instruments to speed the shift to greener construction

Industry progress towards adopting sustainable construction materials and practices could be stimulated through market-based instruments. A longer-term EU ambition is to reduce allocations of free allowances to steel and cement manufacturers in the EU's Emissions Trading System. Makers of these carbon-intense building materials will continue to receive 100% of their allocated allowances free-of-charge through to 2030. This limits risks of carbon leakage (relocation of production to countries with less stringent environmental policies) while encouraging emissions cuts by manufacturers able to profit from selling allowances. Risks of carbon leakage could diminish with the emergence of viable technological paths to greener materials production. This would enable a tightening of incentives for building-material producers to accelerate emissions cuts. Other reforms could, however, be needed first, including changes to rules on concrete production – for instance, to allow lower-carbon alternatives to cement in construction. The sequencing of circular-economy measures is thus important. This is a good feature of circular economy strategy in Norway, which has focused first on removing obstacles to production and trade in greener construction products while signalling a readiness to embrace market-based instruments once a regulatory framework is in place.

Box 2.14. Greener public procurement and social housing

Sustainable use of publicly managed dwellings is set to contribute to reducing greenhouse gas emissions from buildings in Norway. This is done through procurement of green buildings and by meeting emerging needs, to the extent possible, with existing publicly managed buildings. Cooperation with municipalities on sustainable management of social housing can contribute to this goal, even if the

direct impact on CO_2 emissions is likely to be smaller than in countries with larger stocks of social housing than Norway. Proposed amendments to planning laws to enable more exemptions from strict technical standards on building upgrades could help here, too, reducing the relative cost of renovations compared with demolition and new construction.

Public procurement of green buildings is also set to lift demand for used building products, complementing new digital marketplaces for greener materials. Public-sector demand could also accelerate the diffusion of sustainable practices, including the commercialisation of greener materials, such as harvested-wood products, for use in government buildings. However, procurement of sustainably built structures should not be a reason to cut back support for research and development, as this is needed to overcome significant technological obstacles to reducing the carbon-intensity of low-cost building materials. Public procurement should instead be used as a complement to traditional R&D, with practical applications of relatively well-developed technologies helping isolate areas in need of future research (Arrow et al., 2008[72]).

Trade-offs between affordability and other objectives need to be re-examined

Achieving some environmental policy objectives requires managing trade-offs with housing affordability. Such trade-offs are clear in restrictions on developing natural land, as well as proposals to tighten energy-efficiency requirements for buildings, or mandate increased use of recycled materials. These measures could push up house prices, either by increasing construction costs or constraining the supply of land for development. Some, such as higher carbon prices, affecting emissions-intensive materials including cement, could disproportionately affect low-income households: globally, cement represents a higher share of construction costs for low-cost housing than other types of dwellings (Habert et al., 2020[69]).

The presence of policy trade-offs (Table 2.6) strengthens the need for regular evaluation of the costs and benefits of environment-related housing policies, both to assess new policy proposals and to check past reforms are working as intended. Trade-offs might be managed by increasing existing support to first-time homebuyers and vulnerable renters (Start-up loans, BSU saving accounts and housing benefits). A better approach would be to package environment-related policy reforms with measures to improve the flexibility of housing supply. This would moderate house price growth during periods of strong demand, and help offset construction-cost impacts of climate-related housing policies.

Table 2.6. Managing trade-offs in housing-related policy interventions

Chief gains from housing reforms and main challenges

Selected reform directions	Chief gains	Main challenges
Reduce biases favouring housing in taxation.	Enhances efficiency and fairness of the tax system. Neutralises incentives to invest in owner-occupied and rental dwellings and improves accessibility of homeownership in the long run.	Political economy of tax reform in a country with a high homeownership rate. Need for gradual phase-in period to limit short-term increase in housing costs and market instability.
Reduce minimum lease durations for rentals.	Encourages supply of rental dwellings in job-rich cities. Improves employment opportunities for geographically mobile renters.	Perceived risk to lease stability if not coupled with balanced termination rights.
Invest in more social housing in populous cities.	Lifts supply of affordable housing for disadvantaged households. Addresses social-housing shortages.	Need to avoid segregation and ensure appropriate health and social services for housing support recipients.

Selected reform directions	Chief gains	Main challenges
Relax national restrictions on land use.	Frees-up land for new housing supply in areas close to existing settlements. Improves housing affordability.	Potential for sprawl and associated environmental harms if governance is lax.
Reduce urban density restrictions.	Greater supply of compact, energy-efficient housing in job-rich areas. Improves affordability.	Increased strain on local infrastructure. Challenges of balancing multiple policy objectives in urban planning.
Reduce time and cost of planning and zoning, including by reducing governance overlap across public bodies.	Enhances responsiveness of housing supply. Improves affordability.	Implementation requires effective cooperation between municipalities, regions and central government. Potential opposition from homeowners in currently highly regulated areas.
Promote building material reuse.	Reduces the environmental impact of housing.	Risk of construction-cost increases.

Table 2.7. Policy recommendations from this chapter

MAIN POLICY FINDINGS	RECOMMENDATIONS (Key recommendations in bold)
Improving the efficiency and fairness of taxes on housing assets	
Favourable tax treatment of owner-occupied dwellings diverts resources from more productive investments and props up high dwelling prices. Reform of the tax treatment of imputed rents, capital gains and housing wealth would in time improve housing affordability, reduce inequality, and enhance tax-system efficiency.	**Gradually phase in imputed rents to owner-occupied dwellings in income tax or gradually phase out mortgage-interest deductibility.** **Introduce tax on capital gains from sales of owner-occupied dwellings, eliminating exemptions based on periods of ownership and occupancy.** **Reduce disparities in wealth-tax discount rates applied to owner-occupied homes and other assets.** **Consider reducing labour income tax on low-income households, as a broad means of addressing housing affordability and other cost-of-living issues.** Lower the rate of document tax (stamp duty).
Recent reductions of ceilings on property tax rates deprive municipalities of an efficient means to raise revenue to fund local services. Deductions intended for owners of lower-cost homes can unintentionally benefit well-off multiple-property owners.	Reverse recent changes lowering national statutory ceilings on municipal property tax and consider restricting municipalities' right to set tax-free thresholds.
Enhancing the performance of rental markets	
Tax concessions for landlords leasing out parts of their primary dwellings encourage informal leases, likely at the expense of bigger formal rental markets and more stable tenancies.	Remove income-tax concessions for owner-occupiers renting out parts of their primary residences or second dwellings.
Long minimum lease durations discourage the development of deep rental markets that would improve options for renters.	Reduce minimum lease durations on fixed-term tenancy agreements to 6-12 months while clarifying landlords' termination rights.
Improving housing affordability for low-income households	
Homeless rates are low and temporary-housing facilities adequately serve those in acute need of support. But social housing shortages have emerged in high-cost cities. There is likely scope to expand means-tested housing allowances while still targeting low-income households, without driving up rents. Inadequate targeting of subsidised mortgages can, in contrast, benefit homebuyers that are not disadvantaged.	**Increase loans for building social rental housing, particularly in cities such as Oslo with currently constrained supply.** Consider the possibility of further expanding incentives for provision of social housing through limited-profit housing associations. Review eligibility thresholds for means-tested housing allowances for disadvantaged renters. Tighten eligibility for Start-up loans to better target disadvantaged households.
Local authorities make efforts to limit segregation of social-housing support recipients. However, municipalities retain a high degree of autonomy in the provision of associated housing-support services, which differ by area.	Follow through with plans to clarify municipalities' responsibilities with respect to social-housing planning, including the provision of health and social services to recipients of social-housing support.

MAIN POLICY FINDINGS	RECOMMENDATIONS (Key recommendations in bold)
Making private housing supply more responsive	
Statutory protection of arable and natural land limits housing supply in areas suitable for development. These laws can obstruct benign residential projects that would help make housing more affordable.	**Ease national restrictions on land use.** Regularly review the proportionality of statutory limits on development of coastal and natural areas.
Building height restrictions and strict local rules on the size and number of small apartments in inner-city areas undercut national strategies to densify neighbourhoods well-served with public transport. The same rules help to price lower-income households out of high-wage, high-productivity cities.	**Allow more small apartments in inner-city neighbourhoods.** Relax municipal limits on building heights in urban areas. Trial increased use of waivers of local rules limiting the size and number of small apartments (while maintaining compliance with national building standards).
Recent national building-code changes have sensibly relaxed overly prescriptive requirements around accessibility and building quality.	Continue to move towards proportionate national standards around building access, position and plot utilisation rates. Assign more priority to construction-cost considerations in assessing future building-code changes, including mandatory quality improvements.
Uncertainty and delays in zoning approval processes impede housing supply. Government agencies often object to municipally-approved plans for grounds not covered in planning laws. There are inconsistencies across regions in the effectiveness of Regional Planning Forums.	Bolster County-led screening of objections and clarify grounds for objecting to zoning plans. Improve the management and resourcing of Regional Planning Forums. Reduce governance overlaps across government bodies.
Co-financing of public infrastructure for new developments forces developers to internalise burdens on roads and utilities. Without oversight, however, abuses occur, with municipalities requesting disproportionate contributions that discourage supply.	Follow through with proposals to facilitate appeals of disproportionate payment obligations under development agreements requiring private provision of local infrastructure.
Comprehensive zoning processes, including impact assessments, can be excessive for small residential construction projects.	**Enable streamlined approval processes for small urban-infill projects.**
Planning laws rightly cap time for local review of development applications. But errors in applications take additional time to resolve, adding to developers' costs and delaying construction.	Continue to standardise digital planning application processes across municipalities.
Reducing the environmental impact of housing	
CO_2 emissions from using dwellings are low, reflecting carbon-free energy supply. Financial incentives and regulations have helped improve energy efficiency and phased out fossil-fuel heating. There remains scope to reduce emissions from production of building materials. A longer-term EU ambition is to reduce allocations of free allowances to steel and cement manufacturers in the ETS.	**Push ahead with proposals to remove regulatory impediments to increased use of second-hand building materials.** Follow through with proposals to expand case-specific waivers of building-code rules requiring major quality upgrades for renovated buildings, to encourage higher rates of maintenance and longer building lives.

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NORWAY

Norway has been more successful than many countries in limiting the spread and impact of COVID-19. The country has maintained good outcomes on many economic and social indicators. GDP per capita remains among the highest in the OECD. However, there are challenges in sustaining good outcomes amid post-pandemic economic adjustment, continued population aging and the urgency of tackling climate change. Labour force participation needs to increase to ensure the high levels of employment that are key to Norway's socio-economic model. Higher productivity growth is essential for businesses to remain competitive. Meanwhile, economic activity must continue to adjust to achieve a faster decline in greenhouse-gas emissions.

Housing in Norway has become even more expensive following a new surge in prices during the pandemic. This has further raised risks to macro-financial stability from elevated mortgage debt. Strong price growth has also made it harder for first-time homebuyers to enter the market. Many renters meanwhile devote a large proportion of their income to paying for housing. Fixing distortive taxation of dwellings will be essential to improve affordability, as will greater focus on the supply of housing.

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