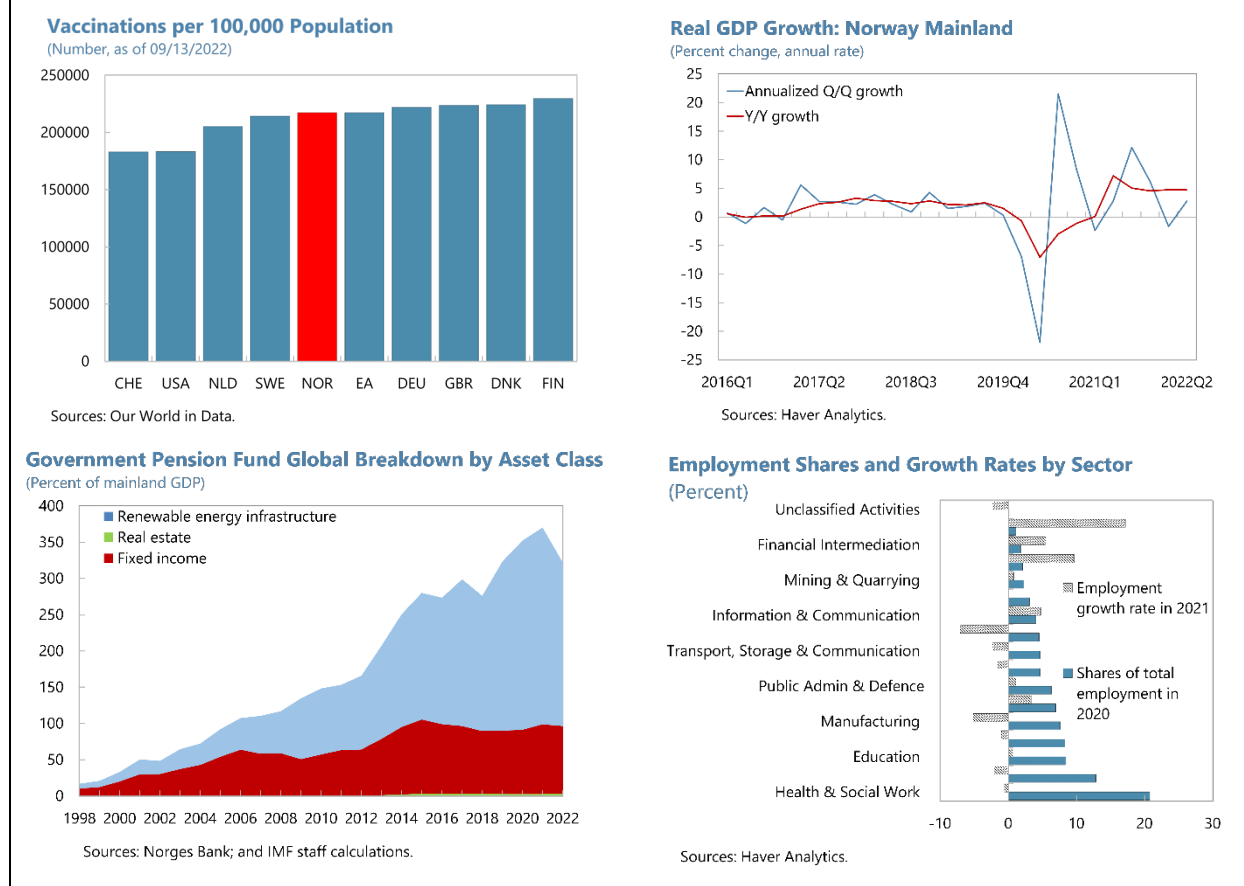


CONTEXT

1. Norway's economy rebounded quickly after the initial Covid-19 virus wave. By mid-2021, the mainland real GDP (excluding off-shore oil and gas sector) exceeded its pre-pandemic level (Figure 1). Real GDP grew 4.1 percent in 2021, supported by record high private consumption. The effect of the war in Ukraine so far has been mild and the country has benefited heftily from higher oil prices, but potentially reduced European demand could affect non-oil exports and confidence going forward.

Figure 1. Vaccination Rates and Selected Indicators



2. Norway's strong commitment to good policies will need to be sustained to address the long-standing challenges. A new government, formed by the Labor and the Centre Parties, took office in October 2021 after an election campaign dominated by a debate over climate change and the future of Norway's oil and gas exploration. This coalition government is pursuing a multipronged agenda. The climate agenda is particularly ambitious, and Norway is a global leader in advocating a buy-in from the largest emitters. Long-standing challenges such as boosting labor force participation and integration of vulnerable groups, including through better skill matching, coping with a forecasted reduction in the offshore oil production over the next decades, while sharing the wealth with future generations, all require a comprehensive and focused approach.

RECENT DEVELOPMENTS

3. Historically high private consumption has been driving the recovery. Increased private consumption boosted demand in 2021. Along with lifting of the pandemic-related restrictions, economic activity and private investment increased. Mainland net exports had a positive contribution to growth due to high exports of goods and services, partly owing to solid growth in fish exports and foreign tourism in Norway. Public spending continued to contribute to growth, with the fiscal impulse being positive. Capacity utilization remained high, despite production constraints due to labor shortages and global supply disruptions. High frequency indicators suggest that activity remained buoyant in 2022:Q1, with especially rapid recovery in sectors most affected by containment measures which were removed in mid-February.

4. Prices have been rising and eventually core inflation came under pressure. By end-2021, core inflation still remained below the target of 2 percent, while headline inflation reached 5.3 percent, reflecting very high energy prices. In July 2022, core and headline inflation increased to 4.5 percent and 6.8 percent, respectively (Figure 2). In 2021, real wage growth remained moderately strong, and high labor demand has likely pushed up wage growth slightly towards the end of the year. House sales remained vibrant in 2021, price inflation continued to be moderate, while investment remained sluggish, not least due to higher interest rates and substantially higher construction costs. House prices spiked at the beginning of 2022 as a response to a [new regulation](#), and the increase is expected to be transitory.

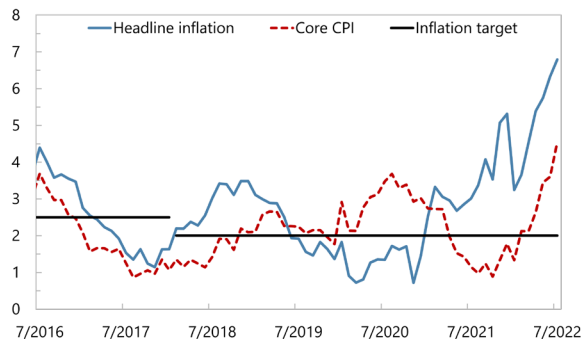
5. Higher wage expectations have been driven by tight labor market and rising consumer prices. Unemployment declined gradually to 4.4 percent in 2021 (from 4.6 in 2020), while variations by sector persisted (Figure 1). In May 2022, registered unemployment was 1.7 percent, which is the lowest rate recorded since before the 2008 global financial crisis. The employment rate is now at its highest level in over a decade. The large number of job vacancies indicate strong labor demand, as migrant workers have only partially returned to Norway after the pandemic restrictions were lifted. In early April, a wage agreement among social partners (manufacturing) settled on a wage hike of 3.7 percent, broadly in line with 2022 inflation projection. Wage growth of 3.8 percent has been agreed on in most of the public sector. Nonetheless, the tight labor market may result in somewhat faster wage growth for this year.

6. Norway's external position was assessed to be broadly in line with fundamentals. The current account surplus surged from 1.1 percent in 2020 to 15 percent of total GDP in 2021 (compared to the pre-pandemic 10-year average of 9 percent), driven by high oil prices and primary income, which reflects lower outflows due to postponed dividend and interest payments. Staff assesses the current account gap in 2021 to be around 0.7 percent of total GDP, which is broadly in line with what is implied by fundamentals and desirable policies. The real effective exchange rate (REER) in 2021 was overvalued by 12 percent relative to the REER norm (Annex I).

Figure 2. Inflation Indicators

Annual Inflation

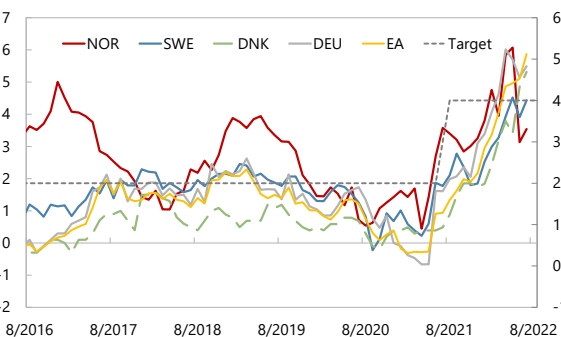
(Percent)



Sources: Statistics Norway; and IMF staff calculations.

Harmonised Index of Consumer Prices

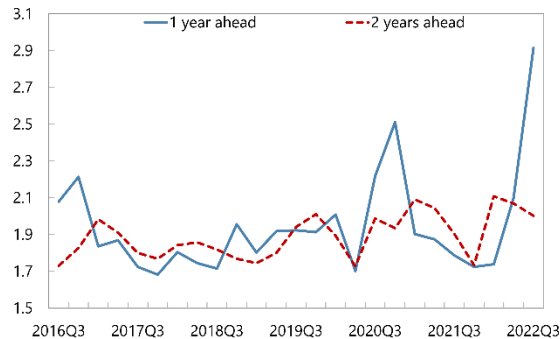
(Percent change; y/y)



Sources: National Authorities; Eurostat; and IMF staff calculations.

Inflation Expectations

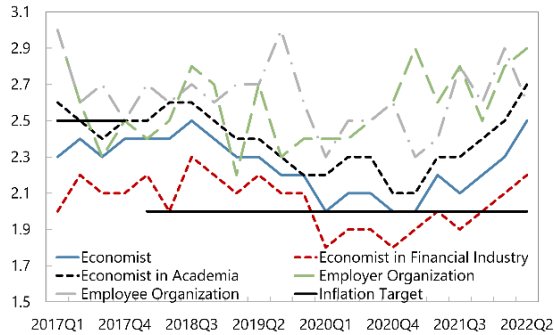
(Percent)



Source: Consensus Economics.

Inflation Expectations, 5 Years Ahead

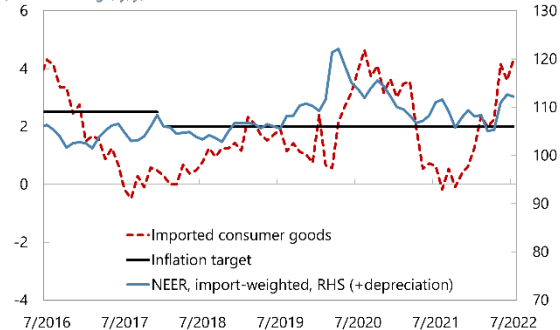
(Percent)



Sources: Haver Analytics; and Norges Bank.

Exchange Rate and Imported Price

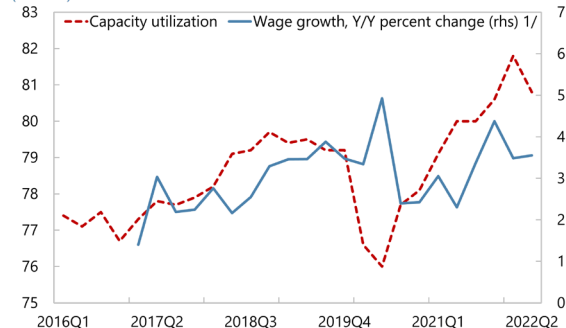
(Percent change; y/y)



Source: Haver Analytics; and IMF staff calculations.

Capacity Utilization Rate and Wage Growth

(Percent)



1/ Wage growth is calculated from new index starting 2017.

Sources: Statistics Norway; and IMF staff calculations.

OUTLOOK AND RISKS

7. Risks are relatively balanced in the short-term and ample policy space provides room to mitigate adverse shocks. Mainland real GDP growth is expected to be somewhat below 4 percent in 2022 and to continue to be driven primarily by strong domestic demand, especially private consumption. The forecast is especially sensitive to energy prices developments, whether Russian energy supply to Europe will be disrupted, and Norway's capacity to increase gas supplies to Europe. Norway's share of gas supply to Europe recently increased to 40 percent, as Russia's share declined to 25 percent, and a new pipeline is expected to become operational by end-2022. It is still unclear how much oil capacity can be expanded to increase exports to Europe in light of a partial EU ban on Russian oil, but high oil prices will continue to support oil investment¹ and energy exports (in addition to already expanded export capacity). While household consumption could be affected by high global energy prices, compensatory electricity subsidies, together with the agreed wage increase, should help support real incomes and spending. The current account is projected to remain in a high surplus, with net exports contributing positively to growth. Indirect effects from the war in Ukraine, a potentially lower demand from Europe for non-energy exports, and continued supply bottlenecks weigh on the outlook (Annex II).

8. While prospects are generally favorable in the near term, maintaining high growth over the longer horizon remains a challenge. Given the accumulation of substantial savings, private consumption could continue to grow, albeit at a slower pace, affected by interest rate increases and measured increases in wages guided by industry agreements. Investment is expected to rebound, barring tail risks from the war, as spending commitments will need to be delivered on (e.g., green energy). In the long term, however, there are challenges. While Norway's very low operational costs would keep medium-term oil production stable, the longer-term future of oil production beyond its expected 2024 peak remains relatively uncertain. Also, there are impediments to stronger long-term growth stemming primarily from worsening demographics, highlighting the need to boost labor force participation and improve spending efficiency, while building larger buffers.

Authorities' Views

9. The authorities broadly shared staff's assessment. They expect strong mainland GDP growth to persist in the short term despite tighter global and domestic conditions and supply bottlenecks. They noted that the wage bargaining system has a disciplining role that makes a wage-inflation spiral less likely, however a tighter fiscal-monetary mix is necessary to mitigate overheating risks.

¹ Currently, there is potentially one new field with capacity higher than previously assumed.

POLICY DISCUSSIONS

As economic recovery solidifies, and barring the short-term uncertainties, policies will need to focus on making the labor market more inclusive, improving educational opportunities, completing COP26 climate commitments, and ensuring intergenerational fairness through accumulating larger fiscal cushions. If downside risks materialize, fiscal and monetary policies should be flexibly adjusted (Annex II). Fiscal policies should aim at the reduction in the non-oil balance. Monetary policy has been responding timely to the changes in the cycle and safeguarding against financial risks and should continue to do so. Addressing the remaining 2020 FSAP recommendations would also help reduce vulnerabilities.

A. Fiscal Policies

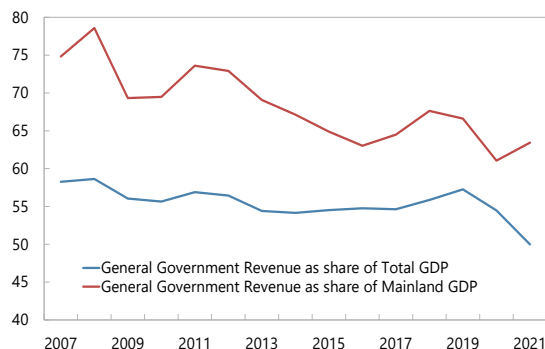
10. The fiscal stance in 2022 remains accommodative. In 2021, the fiscal outturn, netting out the pandemic-related stimulus, implies a positive fiscal impulse close to 1 percent of GDP. The original 2022 budget envisaged consolidation, however, in December 2021, new measures (0.6 percent of GDP) were announced to deal with the increase in electricity prices (Box 1). While the subsidy is largely covered by windfall profits of state-owned electricity companies, which export excess electricity, and does not compensate for the full amount of an increase in prices, in staff's view, it should be more targeted toward lower income households. In addition, in March, further measures were adopted related to the war in Ukraine (0.4 percent of GDP). Compensatory measures were also introduced to help finance the additional spending. Accordingly, the fiscal impulse (measured by the change in the nonoil structural deficit net pandemic measures) remained accommodative (about 1.5 percent of mainland GDP). Given the pent-up private consumption as the high pandemic-related excess saving unwind, and the large positive terms of trade shock, staff argued that larger and faster fiscal consolidation would help prevent overheating of the economy.

Revised Budget				
	Budget		Revised Budget	
NOK Billion	2021	2022	2021	2022
Non-oil Revenues	1156	1252	1190	1308
Non-oil Expenditures	1569	1552	1559	1611
<i>of which Pandemic Support</i>	93	28	93	28
Non-oil Deficit	-413	-300	-369	-303
Structural Non-Oil Deficit	-397	-322	-354	-352
% of Trend Mainland GDP				
Structural Non-Oil Deficit (net of Pandemic)	-9.3	-8.6	-8.0	-9.5
Fiscal Impulse (net of Pandemic Support)	2.1	-0.6	1.0	1.5
Memo items				
Structural Non-Oil Deficit	-12.1	-9.5	-10.8	-10.3
Fiscal Impulse	0.6	-2.6	-0.6	-0.5
Source: Norwegian Authorities and IMF staff calculations				

Figure 3. Selected Fiscal Indicators

General Government Revenue

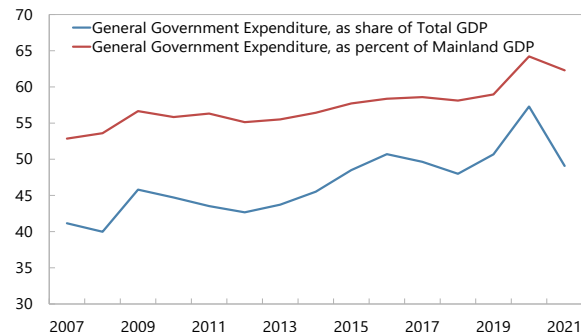
(Percent)



Sources: Haver Analytics; Ministry of Finance; and IMF staff calculations

General Government Expenditure

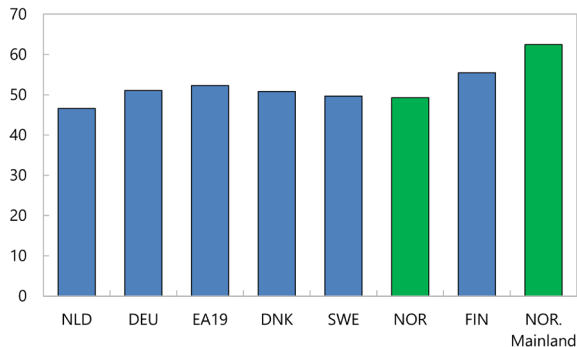
(Percent)



Sources: Haver Analytics; Ministry of Finance; and IMF staff calculations.

General Government Expenditure, 2021

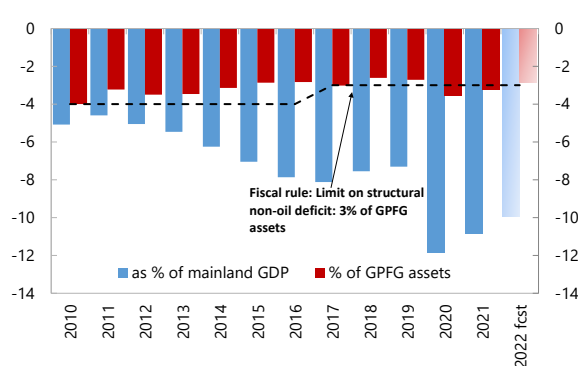
(Percent of GDP)



Sources: Haver Analytics; Eurostat; and IMF staff calculations.

Structural Non-Oil Balance

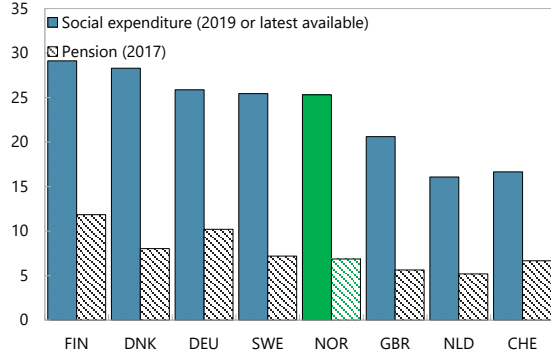
(Percent)



Sources: Ministry of Finance, Norge Banks; and IMF staff calculations.

General Government Social Expenditure

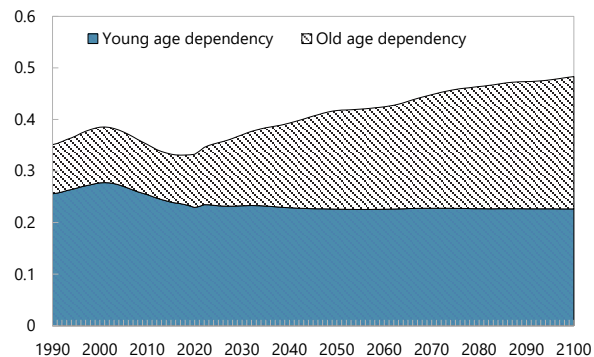
(Percent of GDP)



Sources: OECD; and Eurostat.

Dependency Ratio

(Persons aged 0-14 and 75+ per person aged 15-74)



Sources: Statistics Norway; and IMF staff calculations.

Box 1. Electricity Cost Support Packages

- Direct household subsidy will cover 80/90 percent of electricity bills that exceed 7 euro/cent per Kwh during January 2022-March 2023.
- Reductions in the electrical power tax.
- Increased housing assistance and student support.
- Compensation to municipalities for additional welfare assistance.
- Additional efficient energy-use initiatives under the auspices of Enova, a government enterprise responsible for promotion of environmentally friendly production and consumption of energy.

11. The new government continues to pursue the objectives of inclusive growth. On the revenue side, there are provisions for a net tax increase of 0.2 percent of mainland GDP, which is mostly a result of higher progressivity of income taxation and fairer wealth tax, and the revenue is passed on to low-income households and commuters. On the expenditure side, the budget includes provisions to reduce childcare costs for families, boost labor participation, while increasing allocations for public transport.

12. Expansion of green transition and technologies are also high on the agenda. The government has pledged to bring the tax on non-Emission Trading System (ETS) emissions to NOK 2,000 (USD 221) per ton of CO₂ by 2030 to meet Norway's climate targets (Box 2). The 2022 budget increases the tax on non-ETS emissions by 28 percent, with offsetting tax cuts benefiting the groups more impacted by the increase. While granting of permits to explore new oil and gas fields will continue, the government plans to cut emissions from oil and gas production by 50 percent by 2030 and to net zero by 2050. The plan includes investment to develop CO₂ capture and storage facilities in the North Sea.

Medium and Long-term Issues

13. The fiscal framework and strong fiscal management have created fiscal space and have helped ensure macroeconomic stability (Annex III). The fiscal rule has been applied conservatively over the years, and its flexibility has allowed the use of savings accumulated in the Government Pension Fund Global (GPF) during times of crises. Over time, the increase in the value of the assets accumulated in the GPF has led to a steady rise in government deficits as a share of mainland GDP, creating ample fiscal space in the budget (Figure 4).²

14. Over the long term the policy space is projected to decline. Over the past decade, growth in transfers from the GPF and tax revenues has exceeded growth in pension and aging related spending, creating policy space to finance additional initiatives to improve long-term growth prospects (MOF, 2022). However, projections for the coming decades show diminishing policy space, as GPF transfers will decline with lower projected oil revenues inflows. While the overall revenue growth will be sufficient to cover the projected increase in aging and health care related spending, some adjustment might be needed in the longer term.

² In expectation of lower future returns on oil revenue investment, the rule was revised downwards to a 3 percent (expected return) of the GPF's value in 2017.

Box 2. New Action Plan for Climate

In 2021, Norway launched a new action plan for climate adaptation and food security, building on the key principles of its 2030 Agenda. The action plan aims to support innovation and digitalization for increased climate-smart productivity within agriculture. The strategies for sustainable and climate-adapted food production comprises access to technology, improved farmer knowledge and access to necessary goods, reduced food waste, and preservation of biological diversity. In accordance with a key principle of the SDGs, the Norwegian plan aims to “leave no one behind” by prioritizing vulnerable and marginalized groups that are most affected by climate change. The plan emphasizes the need for policy coherence and cooperation between governments, multilateral organizations, the private sector, academic institutions, and civil society. It aims to strengthen coordination between Norway’s International Climate and Forest Initiative (NICFI) and the action plan on sustainable food systems. In doing so, the government plans to fund research, technology, and innovation by actively involving Norwegian and international research communities.

Norway remains a global leader in climate mitigation policy, especially in carbon pricing, but more effort is needed as gaps in the coverage of carbon taxation remain.¹ Current policies to achieve climate mitigation objectives through 2030 are centered on carbon taxation and other important initiatives such as research and development of carbon capture options. Norway aspires to become a low emission country by 2050, with net negative emissions when the uptake of carbon of Norwegian forests and other land is accounted for. According to data collected by Statistics Norway, the average price paid per ton of CO₂-equivalents in 2020 was NOK 590 (about USD 70). This is well above the global average of USD 2 and now within the USD 50-100 range estimated by [the IMF](#) to be necessary to achieve the targets set out in the Paris Agreement.

¹ See [OECD Economic Surveys](#).

15. Long-term challenges related to adverse demographics trends and the transition away from oil may put public finances under strain if unaddressed. As oil revenues are projected to decline beyond 2025, aging related spending pressure will intensify over time, though the rise in pensions will be more modest due to the impact of past reform. The fiscal framework has allowed accumulation of substantial assets and financing pressures are unlikely be an issue for several decades. However, as [past staff analysis](#) has shown, the intertemporal net worth of the public sector remains negative, reflecting the high cost of future ageing-related spending.

16. Staff has examined possible reforms that could reduce pressure on public finances in the long term. With unchanged policies, the real per capita GDP is expected to decline by almost 14 percent by 2070 (Figure 4). The decline is due to lower labor supply resulting in lower investment and accumulation of capital stock. Reforms that increase labor supply (including changes to sickness and disability benefit schemes) would improve the macroeconomic outlook. However, as discussed in the [White Paper](#) by the Ministry of Finance, they are not sufficient to address long-term fiscal sustainability, unless accompanied by reforms aimed at containing spending and improving its efficiency.³ Staff estimates show that a fiscal adjustment (of about 7 percent of GDP) over the next couple of decades can prevent the deterioration in the general government net debt. As the value of the GPFG can fluctuate significantly because of changes in oil and asset prices, resulting in both upside and downside risks due to market corrections, these fluctuations can affect the future conduct of fiscal policy. Consideration could be given to the adoption of an additional medium-term

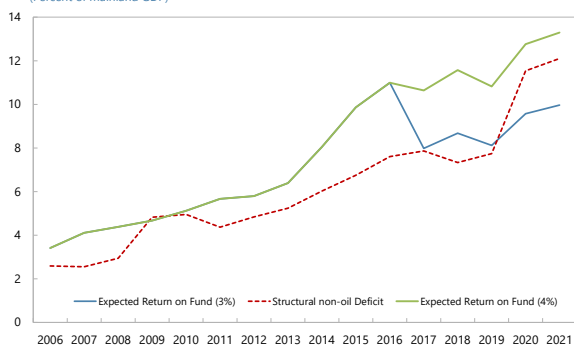
³ See also Annex V ([IMF, 2019](#)) and [IMF \(2021\)](#).

fiscal anchor in the form of a medium-term expenditure framework (OECD, 2022) and/or expenditure rule that caps the growth of aggregate spending, to guide a more gradual phasing out of the GPFG inflows.

Figure 4. Fiscal Space and Impact of Reforms

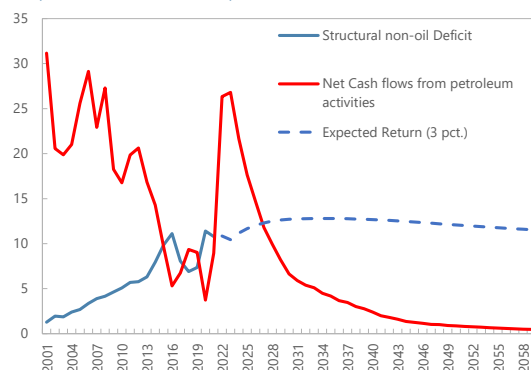
Fiscal Rule in Norway

(Percent of mainland GDP)



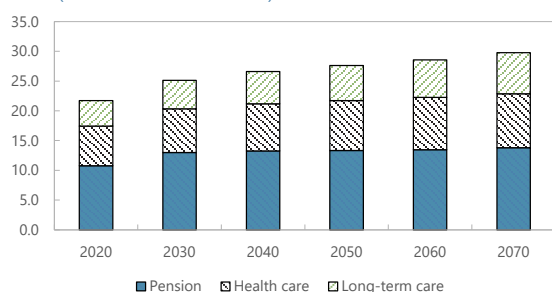
Oil Revenues and Spending from the GPFG

(Percent of mainland GDP)



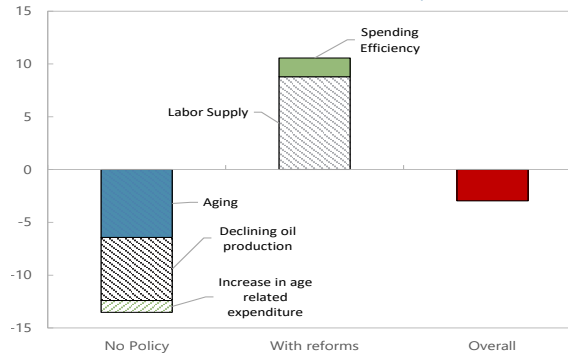
Aging Related Costs by Decade

(Percent of mainland GDP)



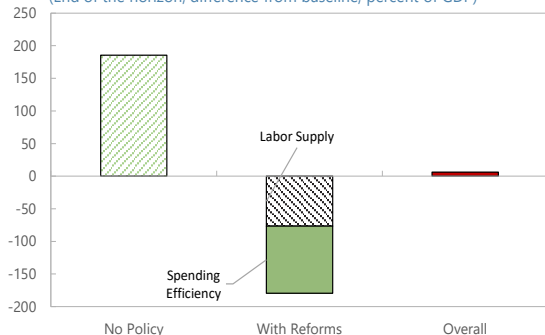
Impact on Real GDP per Capita

(End of the horizon, difference from baseline, percent)



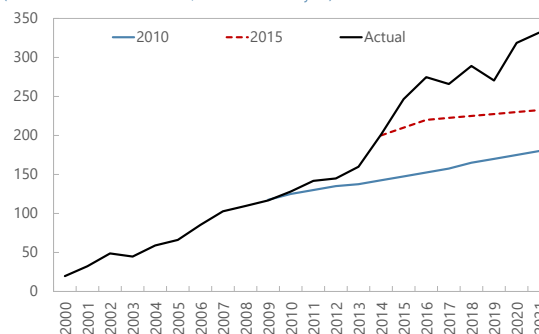
Impact on General Government Net Debt

(End of the horizon, difference from baseline, percent of GDP)



Historical Forecasts for the GPFG Asset Stock

(Percent of mainland trend GDP, at Jan. 1st of each year)



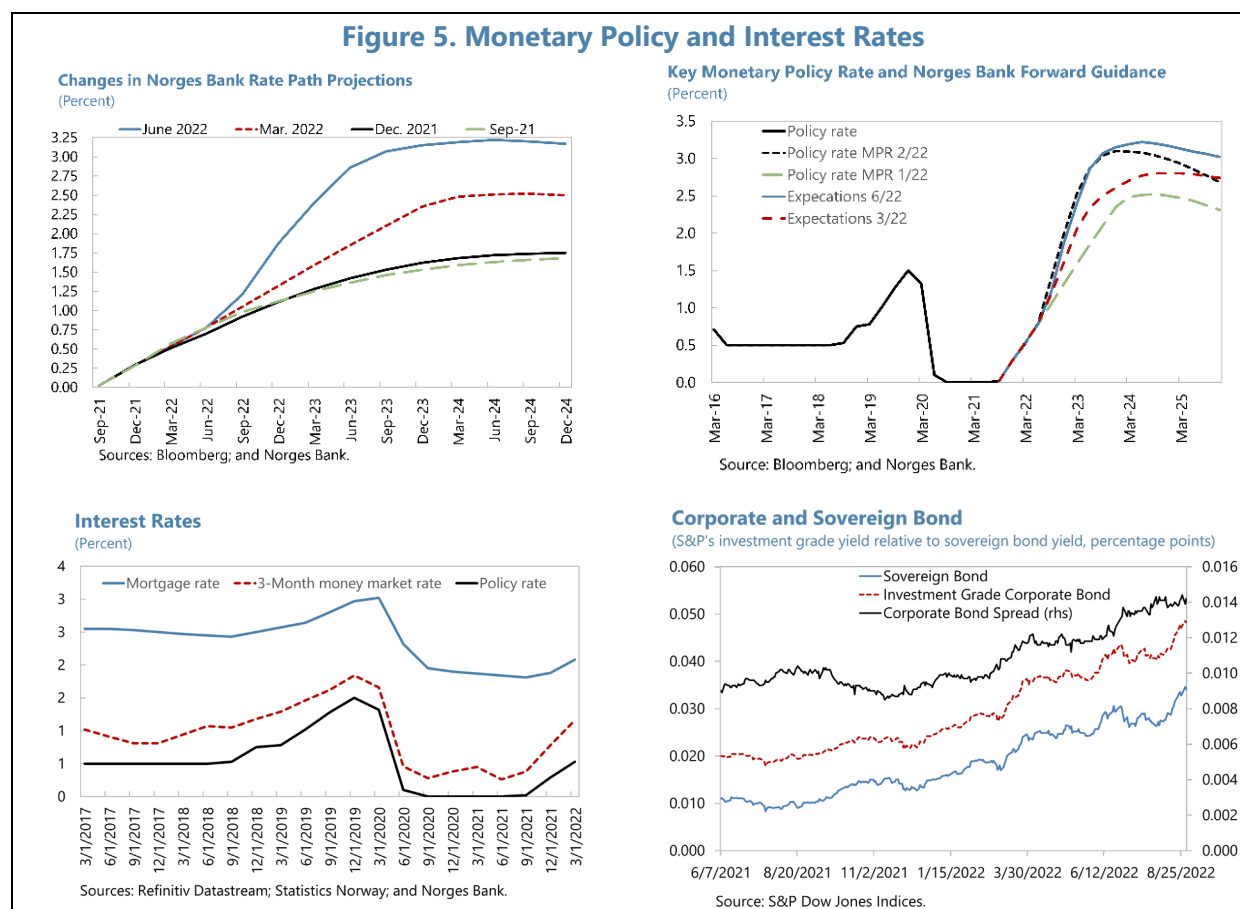
Sources: Ministry of Finance; IMF staff calculations.

Authorities' Views

17. The authorities broadly agreed with staff's assessment of fiscal policies. Medium-term consolidation remains a primary objective. There is some concern related to the budget dependence on financing from the wealth fund, and the fiscal framework now exposes the economy mainly to asset price volatility, while commodity price volatility has gradually become a less dominant risk. While the Advisory Panel on Fiscal Policy Analysis, now with an expanded mandate to comment on long-term fiscal sustainability issues, has recommended changes to the fiscal framework to make the transfer from the fund more stable over time, discussions are at an initial stage on the options to improve its design.

B. Monetary Policy

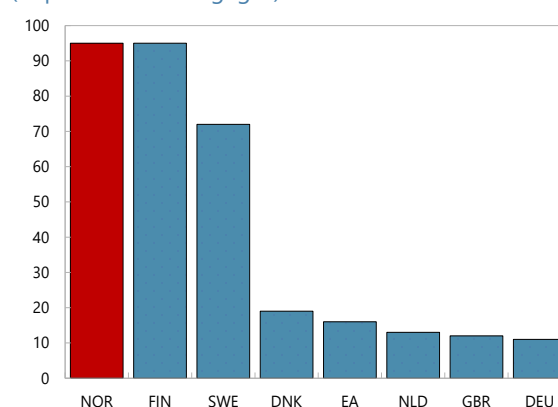
18. As the Covid-19 shock receded, Norges Bank was one of the first advanced economy central banks to start increasing the policy rate. By end-March 2022, while inflation was below the target, Norges Bank increased the policy rate by 0.25 percent three times (to 0.75 percent) in response to increasing wage pressures and capacity utilization. Pressures continued into 2022 (higher-than-expected inflation, including for imported goods due to the krone depreciation), and the policy rate was further increased by 0.5 percentage points in June and August to 1.75 percent, faster than previously communicated, and further hikes are expected (Figure 5).



19. Given current price developments and outlook, staff assesses faster policy tightening as appropriate. Norges Bank conducts monetary policy under a flexible inflation targeting regime with the aim of stabilizing CPI inflation close to the 2 percent target over the medium term. The increased prospects for a more prolonged period of high inflation justify the faster pace of rate hikes compared to earlier this year. The high share of flexible rate mortgages (above 95 percent) with short lock-in periods would suggest that the hikes would amplify the intended effect (Figure 6).⁴ Residential mortgage rates have been increasing and are gradually expected to dampen house price inflation and credit growth. The uncertainty surrounding the projections supports continued flexibility in decision making accompanied by clear communication.

Figure 6. Flexible Rate Mortgages

(In percent of mortgages)



Sources: Statistics Norway; and European Mortgage Foundation.

20. As other central banks in the region, Norges Bank has been exploring the use of digital currency and strengthening cyber resilience. Cash usage has fallen to only 4 percent of the payments, dubbing Norway as “the world’s most cashless” country. Following years of research, Norges Bank has started testing various technical options for a central bank digital currency (CBDC). In April 2021, it announced that it would be conducting CBDC tests over the next two years upon recommendations from an internal working group. Given a predominantly digital payment system, risks to security are rising. To improve testing for and identify incidence of cyber-attacks in the bank operations and payment systems, Finanstilsynet and Norges Bank have recently drawn up a framework for testing cyber resilience, in accordance with the European framework for Threat Intelligence-Based Ethical Red-Teaming (TIBER-EU). An implementation guide for a Norwegian framework (TIBER-NO) has been developed and [published](#), and critical functions will be tested as well as the entities responsible for them, have been identified. In addition, Norges Bank is working with the private sector, encouraging them to boost their cybersecurity capabilities.

Authorities’ Views

21. Authorities broadly agreed with staff’s assessment. Norges Bank was concerned with the risk of inflation moving higher than anticipated against the background of little spare capacity, sustained global inflationary pressures and a weaker krone. On the other hand, there is a risk that rapid tightening abroad would lead to an abrupt slowdown in growth, with global inflation pressures easing faster than assumed. The rise in interest rates in Norway may also cool down the housing market and curb household consumption to a greater extent than expected. Acceleration of rate hikes/a faster rate rise now will reduce the risk of inflation remaining high and the need for a sharper tightening of monetary policy further out.

⁴ Banks are required to stress test mortgage applications for higher rates.

C. Financial Sector Policies

22. Norwegian banks have remained resilient, solvent, and profitable, not least due to a high level of digitalization. They have withstood well the Covid-19 pandemic shock, which was considerably milder than those examined during the 2020 FSAP. As expected, banks continued to meet capital requirements, in particular because of the very high capital buffers. While liquidity has been sufficient to address pressures during the fairly short-lived economic inactivity, tests do show that risks become more significant over longer horizons. With relatively high dependence on international wholesale funding banks remain vulnerable to turbulence in foreign markets. Banks kept up lending activity in 2021–22, with credit to households increasing, albeit at a moderate pace, notably due to the pre-pandemic prudential measures to limit excessive borrowing (Figure 7). Nonetheless, household debt-to-income ratio has been steadily growing and stood well above 200 percent in 2021. The mitigating factor was that the interest burden-to-income ratios fell to their lowest levels in 2020–21, providing a boost to disposable income.

23. Further improvements were made to the macroprudential policy framework, but some recommendations remain outstanding, especially with respect to housing (Annex IV). Following the introduction of the consumer credit regulation in 2019 and the establishment of credit registries, the volume of consumer credit declined, and there are now substantially fewer borrowers with very high consumer debt. Temporary relaxation of mortgage lending regulation that facilitated debt restructuring and home-equity withdrawals ended, and support measures to households were rolled back. Staff continues to recommend to permanently preserve tighter mortgage regulation limits for Oslo now that the recovery is sustained and given still high house price growth in the capital (Box 3). As emphasized during previous consultations, other targeted measures, including easing restrictions on the supply of new housing, altering regulations to boost construction efficiency, and curbing demand through a gradual phasing out of mortgage interest deductibility should also be implemented. In September 2021, Norges Bank was granted decision-making responsibility for setting the countercyclical capital buffer (CCyB), which is set [four times a year](#), and advisory responsibility for the systemic risk buffer, in line with the 2020 FSAP recommendation.⁵ Recommendation powers on other tools should also be granted (Annex IV).

24. Risks to financial stability appear to be broadly manageable. Overall risks are assessed to be at the same level as before the pandemic and lower than prior to the financial crisis in 2008. In a stress scenario, banks' losses increase significantly, driven, to a great extent, by the fall in residential and commercial property prices, but banks' loss-absorbing capacity is fundamentally sound.⁶ The current prudential toolkit to mitigate financial stability risks remains quite comprehensive to address the vulnerabilities and has adapted well to the challenges brought by the pandemic. The expiration of the pandemic-related relaxation of borrower-based requirements, monetary policy normalization, and the (planned) increases of the CCyB should help curb CRE price

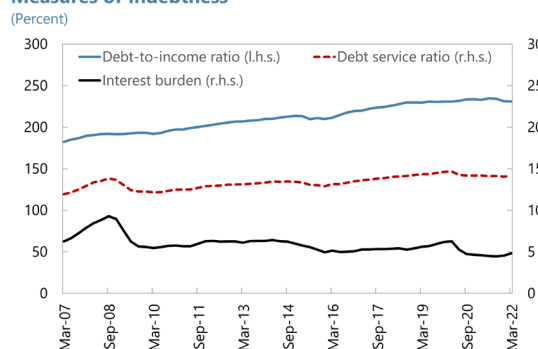
⁵ CCyB was raised in two steps (0.5 percent each) in 2021 to 2 percent by end-2022 and will be 2.5 percent, effective March 2023.

⁶ [Norges Bank, 2021](#).

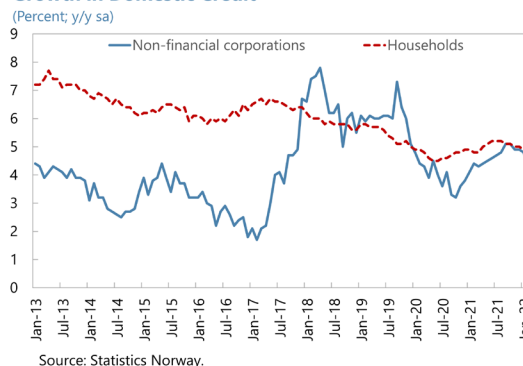
growth going forward (half of banks' corporate assets comprise lending to CRE). Expanding the regulatory toolkit for mitigating CRE vulnerabilities, including sectoral capital tools, continues to be staff's long-standing recommendation (Norway's implementation of European Capital Requirements Directive in June 2022 would make expanding the tool possible). To better monitor risks through more comprehensive CRE data collection and dissemination, in line with staff advice, Norges Bank has recently changed the provider of rent statistics for prime office space, as its data are considered more representative of developments in prices in this segment.

Figure 7. Selected Financial Indicators

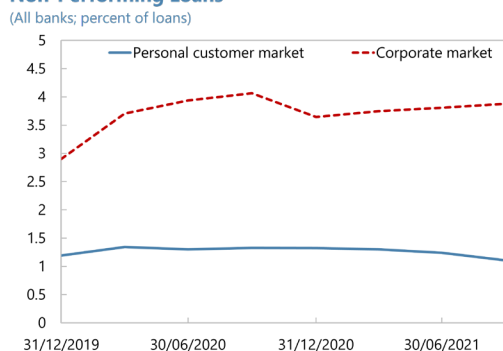
Measures of Indebtness



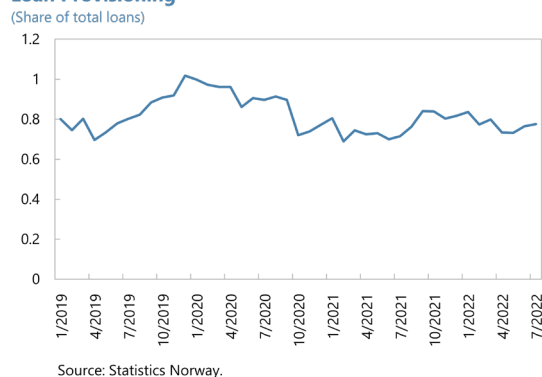
Growth in Domestic Credit



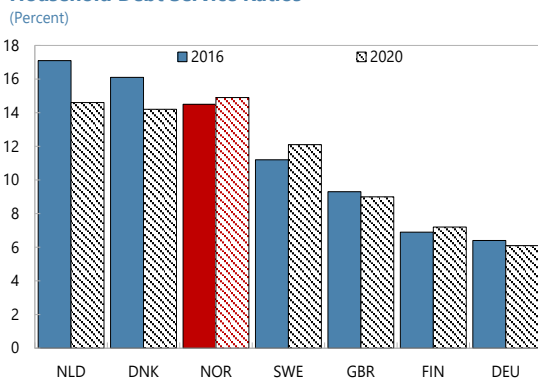
Non-Performing Loans



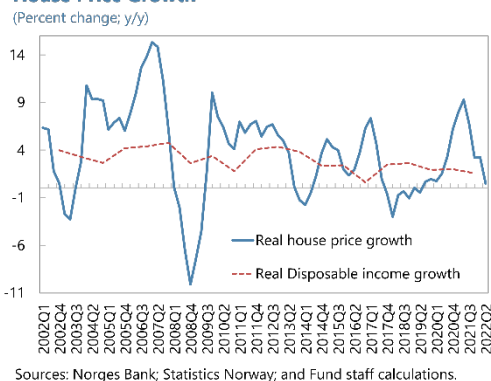
Loan Provisioning



Household Debt Service Ratios



House Price Growth



Box 3. Recent Regulation on Residential Mortgage and Consumer Loans

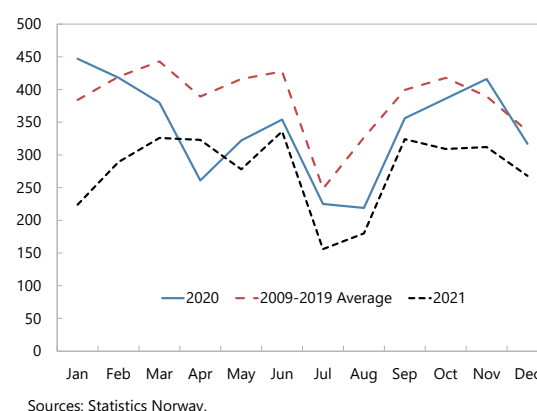
The regulation imposes restrictions on banks' lending practices and includes requirements on:

- The customer's debt-serving ability
- The customer's debt-to-income (DTI) ratio
- Mortgage size in relation to property value (loan-to-value ratio)
- Principal payments for all consumer loans and mortgages with a high LTV ratio

To ensure that banks can make customer-specific assessments, a certain share of banks' loans can exceed the regulation requirements. For mortgages, this flexibility quota is set to 8 percent of the lending volume each quarter in Oslo and 10 percent outside of Oslo. For consumer loans, the flexibility quota is 5 percent nationwide. The mortgage regulations timeframe has been extended to 4 years from 1.5 years. In end-2019, risk weight floors of 20 and 35 percent were introduced for mortgages and CRE lending, respectively.

25. Creditworthy businesses have ample access to bank credit and bankruptcies have been low. Growth in corporate lending has picked up since end-2020. NPLs have declined slightly among NFCs and, overall, are still quite low, while varying by sector. Loan provisioning has increased since mid-2021, but very marginally. Bankruptcies have followed the pattern of 2020, overall declining, most likely still due to continuation of some support measures (e.g., tax deferrals) (Figure 8). The loan guarantee schemes for affected businesses were re-introduced in January 2022 to cushion the effect of activity restrictions, but the take-up was not high.

Figure 8. Number of Bankruptcies



26. The financial authorities continued to move forward with enhancing its AML/CFT framework, but challenges remain. It appears to have been difficult during the pandemic to increase the on-site inspections, and the costs of implementing the new AML law is said to be high for both regulators and banks, including costs of litigation between the banks and offboarded customers. The authorities have strengthened their risk-based approach to financial sector supervision and increased frequency of AML/CFT inspections of banks, including branches of foreign banks. A more active enforcement approach, including continuing application of penalties, is needed. In addition, Norway is looking to further buttress an already robust legal framework that has supported proactive enforcement against transnational corruption. In a positive step, Norway has volunteered for assessment with respect to transnational aspects of corruption (i.e., supply and facilitation), which shall be conducted as part of the country's next AIV consultation.

27. Norway is committed to making financial intermediation compatible with climate goals. It has endorsed the EU's objectives of reorienting capital towards sustainable investment, managing financial risks stemming from climate change, and fostering transparency in financial and

economic activity. The Ministry of Finance has established a sustainable finance reference group to facilitate closer dialogue and information exchange between the shareholders. Norges Bank and Finanstilsynet participate in a network of central banks and supervisory bodies (Network for Greening the Financial System) which aims to contribute to the development of environment and climate risk management in the financial sector, and to mobilize mainstream finance to support the transition toward a sustainable economy. Norges Bank has conducted initial studies in estimating the impact of a higher carbon price together with effects of physical risks on banks (Annex V). Norwegian companies' sustainability and climate risk disclosures are expected to become more compatible with the EU regulation. Also, companies, as part of their corporate reporting, would disclose how they are affected by and manage climate risk, as well as the impact of their activities on climate and environment.

Authorities' Views

28. The authorities broadly concurred with staff's assessment. While there is a risk that a tightening cycle could lead to adverse impact on balance sheets, banks' strong capital buffers should provide adequate safeguards. In a scenario of pressures on households, a decline in consumption is more likely than outright defaults. The authorities consider the current extension of mortgage regulation limits as a step to protect the system, while other forms of interventions, like expanding housing supply, face both regulatory and supply chain bottlenecks.

D. Structural Policies

29. Barring short-term risks, policies should be reoriented towards addressing long-standing structural challenges that impede the growth potential (Annex VI). Staff recommend taking more decisive steps in the following areas:

- **Encourage timely restructuring and resource reallocation:** While bankruptcies have not increased, the insolvency regime should continue to be improved, given that structural shifts such as digital and green transitions are likely to force some businesses to restructure or close. To ensure a smooth reallocation of resources, adjustments could be made to the current framework that tends to over-penalize failing businesses. Efficiency improvements are already underway through further digitalization, introducing provisions to rapidly freeze assets and collect information from banks, and utilizing the automated process using public registries. The time to discharge (i.e., the number of years a bankrupt entity must wait until they are discharged from pre-bankruptcy indebtedness) should be reduced ([OECD, 2021](#)). In addition, there is merit in enhancing the tools for insolvency prevention and setting up special procedures for SMEs. On the regulatory side, staff's long-standing recommendation is to relax land-use restrictions which could facilitate more productive utilization ([FSAP, 2020](#)).

- **Reduce participation in the social benefit system:**⁷ The pandemic exacerbated the situation, with an increasing number of young beneficiaries in the system being at risk of remaining out of the labor force over a long term. Previous recommendations remain relevant: (i) tighten eligibility criteria and certification procedures; (ii) enhance education and retraining programs for beneficiaries, especially for those with more limited employment opportunities; and (iii) reduce benefit levels, which are high compared to peer countries. While there has been more spending on retraining programs, this does not appear to have produced a meaningful decline in the benefit program participants, though efforts may have been complicated by the pandemic.
- **Further diversify the labor force and its skills:** Given the structure of the Norwegian economy, labor force participation requires advanced technical skills. To enable as many people as possible to join the labor force, investment is necessary from an early age. The authorities' key priorities include preventing youth from dropping out of upper secondary education and enabling adults to engage in lifelong learning. The employment rate has been weak for core labor market groups. Compared to other European countries, the employment rate for men during their most economically active years (25–54) was below the OECD average in 2019. It is also a cause of concern that completion rates in vocational upper secondary education programs are at the bottom of the OECD group. In order to facilitate longer working life, it is important to ensure that youth complete and progress more swiftly through their education and into the labor force. While progress has been limited, there are continuous efforts by social partners to increase the number of apprenticeship spaces. Hopefully, the new Integration Act that came into force in January 2021 will produce encouraging results in incorporating immigrants into the labor market.
- **Close remaining digitalization gaps:** Norway remains one of the highly digitalized countries in Europe, but a few gaps persist. The 1000Mbps fixed broadband take-up by the households have gone up to almost 50 percent against the EU's 34 percent. The fast broadband and very high-capacity coverage have also increased sizably. Recently there have been more graduates in ICT and specialists entering the workforce. A survey of business leaders indicates that the need to replace old technology with new was one of the three most important factors that influence company's investment decisions ([Nordea, 2021](#)). Businesses have increased e-Invoicing to 65 percent. However, the e-Commerce turnover as percentage of SME turnover has declined from 22 percent to 14 percent in 2020, possibly affected by the pandemic. The share of enterprises providing ICT training has also declined, and so has the share of females employed in the sector. Norway ranks below the EU average (51 vs 78 percent of maximum score) in the *Open data* category which indicates the public's access to data and its ability to contribute to improvements in providing public service.

⁷ Among OECD countries, Norway has the largest proportion of the population on health-related benefits and underperforms other countries when including people with functional impairments in the labor force. Functional impairments do not necessarily mean a reduced fitness for work ([Ministry of Finance, 2021](#)).

30. At COP-26 Norway has restated commitment to its already ambitious climate agenda.

It plans to double its climate financing to more than USD 1.6 billion by 2026, thus contributing significantly to reaching the USD 100 billion overall target set in Paris by developed countries. As part of its contribution, it will, as a minimum, triple its financing for adaptation. Norway's plans to engage with development partners to help finance their transition to renewable energy and launch a new Climate Investment Initiative to fund renewable energy in developing countries is welcome. This will support investments that can help phase out coal and other fossil sources and develop and export new technology that can be of use beyond its borders. The government believes that research and innovation are key to becoming a low-emission society ([The Long-Term Plan for Research and Higher Education 2019–28](#)). Norway is well-positioned to take a lead in developing ocean-based solutions such as offshore wind; green shipping; carbon capture, utilisation, and storage; hydrogen, and electric mobility. One of GPFG's long-term objectives is net-zero emissions from the companies it invests in. Norway is at the forefront of vehicle electrification, and it is now assumed that about half of the passenger cars will be at zero emissions by 2030 ([Climate plan, 2021–30](#)). In this respect, recalibrating the tax incentives in a way that would incentivize the replacement of the most polluting conventional cars by electric vehicles in a revenue-neutral way could significantly improve their environmental benefits and cost effectiveness.

Authorities' Views

31. The authorities generally agreed with assessment of structural issues. The most pressing matter remains supporting the youth, low-income, and foreign-born through effective education and training programs to facilitate their entry into the labor force. Dampening the inflow into the sickness benefit scheme and the disability scheme is also urgent, as Norway has a higher number on such benefits than most other countries. Labor force participation has increased, and they view the tight labor market and record high number of vacancies as an opportunity for the discouraged workers to enter the labor force. The shortage of migrant labor, in particular in the services and construction sectors, which was initially due to limits in entry requirements is a concern. However, the authorities note that the inflow of migrant labor has recently picked up, but not to the same levels as before the pandemic. On climate policies, the authorities agreed that they are broadly on track, but given recent developments in the energy sector, an acceleration in the implementation of the measures may be needed even if Norway is among the lowest emitters.

STAFF APPRAISAL⁸

32. Due to strong fundamentals, Norway exited the pandemic with nearly no scarring, and risks are balanced in the short term. Ample policy space provides room to mitigate adverse shocks. Growth prospects are favorable, but there are challenges ahead in dealing with long-term issues, including demographics, inclusion, and climate change. The outlook is subject to risks, mostly coming from adverse external conditions. The authorities should continue to remain vigilant and

⁸ Data remains adequate for surveillance (see Informational Annex).

adjust flexibly to the changing environment. Norway's external position is assessed to be broadly in line with fundamentals.

33. Fiscal management has been strong and accommodative within the fiscal rules, but over the medium term a return to a neutral fiscal stance should be targeted. The 2022 budget aims at a reduction in deficit. However, a tighter fiscal policy is needed to counter the risks of overheating. Expansion of green transition and technologies is welcome. Norway is in a strong position to be able to provide support to households to compensate for high electricity prices, but this should be targeted rather than across-the-board.

34. The challenges ahead relate to adverse demographics trends and the transition away from oil, which, if unaddressed, may put a serious strain on public finances. To contain spending going forward, further strengthening their fiscal framework could be considered by complementing it with a medium-term expenditure framework guided by an operational rule. Reforms that increase labor supply (including changes to sickness and disability benefit scheme) could improve the macroeconomic outlook, but more is needed to improve long-term fiscal sustainability. Also, it would be key to promote improvements in the quality and cost efficiency of public services delivery.

35. Monetary policy should continue to balance overheating risks and financial stability. The policy rate has been raised in a timely manner to address the risks, and high uncertainty surrounding the outlook calls for continued flexibility in decision making accompanied by clear communication. Providing the Norges Bank with new policy setting powers on CCyB are a welcome addition to its regulatory toolkit. Norway's advances in testing the CBDC are in line with global trends.

36. Risks to financial stability appear to be broadly manageable. A sharp tightening of global financial conditions will put pressure on balance sheets. However, the banking system is well capitalized and should withstand the potential shock, despite the high level of household debt and exposure to commercial real estate. It is commendable that steps continued to be taken to improve data collection, but more could be done to broaden the toolkit for mitigating CRE vulnerabilities. While house price growth moderated and will probably recede more in light of interest rate increases, efforts should still continue to alleviate the constraints on the supply of new housing. Also, consideration should be given to a gradual phase out of mortgage interest deductibility. While bankruptcies have been low, there is room to enhance the framework to facilitate the exit for businesses, especially SMEs. The application of the new AML/CFT law is welcome, including increased frequency and coverage of inspections. To mitigate cybersecurity risks, the authorities are rightly testing critical infrastructure and are working with the private sector, encouraging them to boost cyber security capabilities.

37. Longer-term structural policy agenda should be wide-ranging. Structural reforms should more strongly focus on boosting and diversifying labor force participation, including among vulnerable groups, raising non-oil productivity, including by reducing school dropouts, upskilling, and changing the sickness and disability benefit system. It would be important to implement the

provisions under the new Integration Act to give more opportunities to immigrants. Closing remaining digitalization gaps will help further improve productivity.

38. Norway is actively promoting climate adaptation and mitigations strategies, including globally. Plans to support innovation and digitalization for increased climate-smart productivity within agriculture, strengthen the ability of low-income countries to adapt to climate change, as well as manage climate-related risks, fund research, technology, and innovation by actively involving Norwegian and international research communities are welcome. Current efforts to achieve climate mitigation objectives through 2030 are appropriately centered on carbon taxation and other important initiatives such as research and development of carbon capture options. Norway also endorsed the EU's objectives of reorienting financial capital towards sustainable investment, managing financial risks stemming from climate change, and fostering transparency in financial and economic activity.

39. It is proposed that the next Article IV consultation with Norway be held on the standard 12-month cycle.

Table 1. Norway: Selected Economic and Social Indicators, 2019–24

Population (2021): 5.4 million
 Per capita GDP (2021): US\$ 89,041.6
 Main products and exports: Oil, natural gas, fish (primarily salmon)

Quota (3754.7 mil. SDR/0.78 percent of total)
 Literacy: 100 percent

	2019	2020	2021	Projections		
				2022	2023	2024
Real economy						
Real GDP (change in percent)1/	0.7	-0.7	3.9	3.6	2.6	2.2
Real mainland GDP (change in percent)	2.0	-2.3	4.1	3.7	2.1	2.0
Final Domestic demand	2.3	-3.6	3.4	4.6	2.3	2.1
Private consumption	1.1	-6.6	4.9	5.8	2.3	2.0
Public consumption	1.3	1.8	3.8	1.6	1.3	1.7
Gross fixed capital formation	6.3	-3.6	0.0	5.7	3.7	2.6
Exports	4.7	-8.2	5.4	3.6	3.1	2.4
Imports	5.7	-12.1	3.0	7.0	3.6	2.2
Total Domestic demand (contribution to growth) 2/	1.2	-4.3	3.7	5.2	2.6	2.2
Net exports(contribution to growth)	-0.9	2.5	0.3	-1.5	-0.5	-0.2
Unemployment rate (percent of labor force)	3.7	4.6	4.4	3.9	3.8	3.7
Output gap (mainland economy, - implies output below potential)	0.2	-2.1	0.3	0.8	0.2	0.1
CPI (end of period)	1.4	1.4	5.3	4.7	3.5	2.5
Core Inflation (end of period)	1.8	3.1	1.8	3.4	3.3	2.8
Public finance						
Central government (fiscal accounts basis)						
Non-oil balance (percent of mainland GDP)	-7.4	-12.2	-11.3	-8.6	-8.4	-8.4
Structural non-oil balance (percent of mainland trend GDP) 3/	-7.3	-11.4	-10.8	-10.3	-9.4	-9.3
Fiscal impulse	-0.1	4.1	-0.6	-0.5	-0.9	-0.1
in percent of Pension Fund Global Capital 4/	-2.7	-3.6	-3.2	-2.9	-2.7	-2.6
General government (national accounts definition, percent of mainland GDP)						
Overall balance	7.7	-3.2	11.5	27.8	23.1	20.3
Non-oil balance (percent of mainland GDP)	-8.0	-13.3	-9.4	-9.0	-8.7	-8.7
Net financial assets	392.4	423.0	456.8	425.3	425.9	429.3
of which: capital of Government Pension Fund Global (GPF-G)	329.2	358.5	377.7	352.2	357.0	363.5
Money and credit (end of period, 12-month percent change)						
Broad money, M2	4.2	12.1	10.4	...	...	...
Domestic credit, C2	5.1	4.9	4.9	...	...	...
Interest rates (year average, in percent)						
Three-month interbank rate	1.6	0.4	0.8	...	...	...
Ten-year government bond yield	1.5	0.8	1.1	...	...	...
Balance of payments (percent of total GDP)						
Current account balance	2.9	1.1	15.0	19.4	14.5	11.3
Balance of goods and services	1.7	-0.9	15.5	24.0	17.1	13.9
Terms of trade (change in percent)	-8.0	-16.7	42.7	14.7	-8.1	-5.6
International reserves (end of period, in billions of US dollars)	65.0	73.6	83.0	83.0	83.0	83.0
Gross national saving	32.8	31.4	40.3	43.6	40.2	37.7
Gross domestic investment	29.9	30.3	25.3	24.2	25.6	26.4
Exchange rates (end of period)						
Bilateral rate (NOK/USD), end-of-period	8.8	9.4	8.6	...	...	...
Nominal effective rate (2010=100)	81.7	76.2	80.5	...	...	...
Real effective rate (2010=100)	83.7	78.2	83.1	...	...	...
Memo:						
Nominal GDP (in Billions of US Dollars)	404.9	362.2	482.2	504.7	486.4	495.1

Sources: Norwegian Authorities; International Financial Statistics; United Nations Development Programme; and IMF staff calculations.

1/ Based on market prices which include "taxes on products, including VAT, less subsidies on products".

2/ Includes the contribution from the mainland GDP residual.

3/ Authorities' key fiscal policy variable; excludes oil-related revenue and expenditure, GPF-G income, as well as cyclical effects. Non-oil GDP trend estimated by MOF.

4/ Over-the-cycle deficit target: 3 percent of Government Pension Fund Global.

Table 2. Norway: Medium-Term Indicators, 2020–27

	2020	2021	Projections					2027
			2022	2023	2024	2025	2026	
Real GDP (change in percent)	-0.7	3.9	3.6	2.6	2.2	1.6	1.3	1.3
Real mainland GDP	-2.3	4.1	3.7	2.1	2.0	1.8	1.8	1.8
Real Domestic Demand (change in percent)	-4.5	3.0	4.6	2.3	2.2	1.9	1.5	1.6
Public consumption	1.8	3.8	1.6	1.3	1.7	1.7	1.7	1.7
Private consumption	-6.6	4.9	5.8	2.3	2.0	2.0	2.0	2.0
Gross fixed investment	-5.6	-0.9	4.3	3.2	3.1	2.3	0.9	0.9
Trade balance of goods and services (contribution to growth)	3.7	1.0	-0.6	0.3	0.2	-0.2	-0.2	-0.2
Exports of goods and services	-1.2	4.7	3.7	3.9	2.3	1.3	1.4	1.5
Mainland good exports	-2.5	6.7	1.2	2.8	2.4	2.4	2.4	2.4
Imports of goods and services	-11.9	2.3	6.4	3.4	2.2	2.2	2.2	2.3
Potential GDP (change in percent)	1.6	1.4	3.2	3.1	2.4	1.7	1.3	1.3
Potential mainland GDP	-0.1	1.6	3.2	2.7	2.1	1.9	1.8	1.8
Output gap (percent of potential mainland GDP)	-2.1	0.3	0.8	0.2	0.1	0.0	0.0	0.0
Labor Market (percent)								
Employment	-0.5	2.4	1.5	1.1	0.9	0.8	0.8	0.5
Unemployment rate LFS	4.6	4.4	3.9	3.8	3.7	3.7	3.7	3.7
Prices								
GDP deflator	-3.6	16.9	12.8	-1.9	0.1	0.5	0.6	0.8
Consumer prices (eop)	1.4	5.3	4.7	3.5	2.5	2.5	2.0	2.0
Core inflation (eop)	3.1	1.8	3.4	3.3	2.8	2.5	2.0	2.0
Fiscal Indicators (percent of mainland GDP)								
Central government non-oil balance	-12.2	-11.3	-8.6	-8.4	-8.4	-8.5	-8.5	-8.6
General government fiscal balance	-2.9	12.2	28.8	24.1	21.2	18.6	16.9	15.3
of which: overall revenue	62.7	74.6	89.5	84.6	81.7	79.1	77.4	75.8
of which: overall expenditure	65.6	62.4	60.7	60.5	60.5	60.5	60.5	60.5
External Sector								
Current account balance (percent of mainland GDP)	1.2	19.0	26.5	18.9	14.3	11.5	9.3	7.6
Current account balance (percent of GDP)	1.1	15.0	19.4	14.5	11.3	9.3	7.6	6.3
Balance of goods and services (percent of mainland GDP)	-0.9	15.5	24.0	17.1	13.9	11.2	9.2	7.4
Mainland balance of goods	-12.2	-11.2	-18.0	-17.7	-17.1	-16.6	-16.4	-16.1
Crude Oil Price	41.8	69.4	99.9	83.5	77.8	74.1	71.8	70.3

Sources: Norwegian Authorities; and IMF staff calculations.

Table 3. Norway: External Indicators, 2019–27

	2019	2020	2021	Projections					
				2022	2023	2024	2025	2026	2027
Current account balance (percent of GDP)	2.9	1.1	15.0	19.4	14.5	11.3	9.3	7.6	6.3
Balance of goods and services	1.5	-0.8	12.3	17.6	13.2	11.0	9.0	7.5	6.2
Balance of goods	3.2	-0.9	11.7	16.2	13.2	11.5	10.0	8.9	7.9
Balance of services	-1.7	0.0	0.5	1.4	0.0	-0.6	-1.0	-1.3	-1.7
Exports	36.3	32.2	41.6	46.8	43.6	41.8	40.2	39.4	38.7
Goods	25.5	22.6	33.0	36.9	34.4	33.0	31.6	30.9	30.2
of which oil and natural gas	13.0	10.3	20.8	29.7	27.0	25.3	23.6	22.5	21.5
Services	10.7	9.6	8.5	9.9	9.2	8.8	8.6	8.5	8.5
Imports	34.8	33.1	29.3	29.3	30.4	30.9	31.2	31.9	32.5
Goods	22.4	23.5	21.3	20.7	21.2	21.4	21.6	22.0	22.3
Services	12.4	9.6	8.0	8.6	9.2	9.4	9.6	9.9	10.1
Balance on income	1.4	2.0	2.7	1.8	1.4	0.3	0.3	0.1	0.1
Capital account balance (percent of GDP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial account balance (excluding change in reserves) (percent of GDP)	-0.9	-1.3	12.2	19.4	14.5	11.3	9.2	7.6	6.3
Net direct investment	-2.2	-1.9	2.1	-0.1	-0.5	-0.5	-0.5	-0.5	-0.5
Net portfolio investment	2.0	1.4	8.5	5.7	4.7	4.7	4.7	4.7	4.7
Net other investment	-0.6	-0.8	1.7	13.8	10.3	7.0	5.0	3.4	2.0
Net errors and omissions (percent of GDP)	3.8	1.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Change in reserves (percent of GDP)	0.0	1.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
Stock of net foreign assets (IIP) (percent of GDP)	245.7	285.2	283.1	...	...	...	...	...	...
Direct investment, net	9.2	8.4	9.7	...	...	...	...	...	...
Portfolio investment, net	242.0	282.7	274.8	...	...	...	...	...	...
Other investment, net	-22.1	-24.7	-19.4	...	...	...	...	...	...
Official reserves, assets	16.5	18.8	18.0	...	...	...	...	...	...
Government Pension Fund Global (percent of mainland GDP)	329.2	358.5	377.7	...	...	...	...	...	...

Sources: Statistics Norway, Ministry of Finance, and IMF staff calculations.

Table 4. Norway: General Government Accounts, 2019–27
(NOK, and percent of mainland GDP)

				Projections					
	2019	2020	2021	2022	2023	2024	2025	2026	2027
General Government	Percent of Mainland GDP								
Revenue	67.6	62.7	74.6	89.5	84.6	81.7	79.1	77.4	75.8
Oil Related Revenue	15.6	10.4	21.6	37.8	32.7	29.9	27.3	25.6	24.0
Non-oil Related Revenue	52.0	52.3	53.0	51.7	51.8	51.8	51.8	51.8	51.8
Social Security	12.5	12.7	12.4	12.2	12.2	12.2	12.2	12.2	12.2
Interest	3.3	3.0	2.2	3.0	2.9	2.8	2.7	2.7	2.6
Expenditure	60.0	65.6	62.4	60.7	60.5	60.5	60.5	60.5	60.5
Oil Related Expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-oil Expenditure	60.0	65.6	62.4	60.7	60.5	60.5	60.5	60.5	60.5
Social Security	17.1	19.1	18.3	17.8	17.7	17.7	17.7	17.7	17.7
Interest	0.8	0.8	0.6	1.4	1.7	1.7	1.5	1.4	1.2
Overall Balance	7.7	-2.9	12.2	28.8	24.1	21.2	18.6	16.9	15.3
Non-Oil Balance	-8.0	-13.3	-9.4	-9.0	-8.7	-8.7	-8.7	-8.7	-8.7
General Government	Bil. NOK								
Revenue	2071.7	1908.3	2437.6	3171.4	3172.0	3208.4	3241.1	3291.4	3346.5
Oil Related Revenue	478.8	316.4	706.4	1339.6	1228.3	1173.3	1118.6	1088.2	1059.6
Non-oil Related Revenue	1592.9	1591.9	1731.3	1831.8	1943.7	2035.0	2122.5	2203.2	2286.9
Social Security	382.9	387.3	406.8	430.4	456.7	478.1	498.7	517.7	537.3
Interest	99.7	92.6	71.8	106.5	107.2	109.7	112.0	114.1	116.5
Expenditure	1837.1	1996.5	2039.4	2150.0	2269.4	2376.1	2478.2	2572.4	2670.2
Oil Related Expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-oil Expenditure	1837.1	1996.5	2039.4	2150.0	2269.4	2376.1	2478.2	2572.4	2670.2
Social Security	524.2	579.7	596.9	629.2	664.2	695.4	725.3	752.9	781.5
Interest	25.2	23.1	18.8	48.2	62.1	66.1	62.2	57.8	53.1
Overall Balance	234.6	-88.2	398.2	1021.4	902.6	832.3	762.9	719.0	676.4
Non-Oil Balance	-244.2	-404.6	-308.1	-318.2	-325.7	-341.0	-355.7	-369.2	-383.2
Central Government									
Structural Non-Oil Balance as % of GPFG	-2.7	-3.6	-3.2	-2.9	-2.7	-2.6	-2.5	-2.4	-2.3
Sources: Norwegian Authorities; and IMF staff calculations.									

Sources: Norwegian Authorities; and IMF staff calculations.

Table 5. Norway: Financial Soundness Indicators, 2014–21
(Percent)

	2014	2015	2016	2017	2018	2019	2020	2021
Capital Adequacy								
Regulatory Capital to Risk-Weighted Assets	16.5	18.9	22.1	22.0	22.3	24.2	24.8	24.5
Regulatory Tier 1 Capital to Risk-Weighted Assets	14.5	16.7	19.7	19.4	19.6	21.4	22.0	21.8
Total Capital to Total Assets	8.6	9.8	10.6	10.6	11.3	11.3	11.2	10.7
Asset Quality and Exposure								
Non-performing Loans to Total Gross Loans	1.1	1.1	1.2	1.0	0.7	0.8	0.7	0.8
Non-performing Loans Net of Provisions to Capital	6.7	5.4	4.9	2.5	0.1	0.7	0.3	0.6
Earnings and Profitability								
Return on Assets	1.1	1.1	1.2	1.3	1.3	1.6	1.1	1.3
Return on Equity	13.0	11.2	11.7	12.0	11.9	14.0	9.9	12.2
Non-interest Expenses to Gross Income, percent	65.0	69.2	62.5	47.2	46.3	42.1	44.0	45.0
Liquidity								
Liquid Assets to Total Assets (Liquid Asset Ratio)	6.3	5.1	10.0	8.8	8.2	10.0	9.8	14.5
Liquid Assets to Short Term Liabilities	15.1	10.0	19.5	16.9	15.8	20.0	18.9	26.2
Memorandum Items								
Change in Housing Price Index (in percent, year average)	2.7	6.1	7.0	5.0	1.4	2.5	3.9	10.5
Total Household Debt (in percent of GDP)	93.5	100.1	106.4	106.2	104.0	108.9	120.1	107.8
Total Household Debt (in percent of disposable income)	225.7	222.1	231.8	236.5	242.5	243.4	246.0	247.2
Gross Debt of Non-financial Corporations (in percent of GDP)	131.6	145.5	160.2	138.1	131.6	146.3	161.7	0.0
Sources: ECB, IMF Financial Soundness Indicators, and OECD.								

Annex I. External Sector Assessment

Overall Assessment: The external position of Norway in 2021 was broadly in line with what is implied by medium-term fundamentals and desirable policies, based on both the current account and REER assessments. Norway has sizable external buffers with a NIIP of more than 3.5 times mainland GDP.

Potential Policy Responses: External buffers provide significant time to address competitiveness issues as Norway gradually shifts away from its offshore activities. Fiscal and structural policies should aim to foster productivity growth, higher labor market participation, and wage moderation to enhance non-oil sector competitiveness. There is scope for greener and growth-enhancing private and public investments to facilitate structural transformation of the economy.

Foreign Assets and Liabilities: Position and Trajectory

Background. Norway's net international investment and reserve position remain strong. NIIP reached 359 percent of mainland GDP at end-2021, increasing from 320 percent in 2020. The general government is the main external creditor with net external assets of 358 percent of mainland GDP, notably the Government Pension Fund Global (GPF), with assets under management reaching 3.6 times mainland GDP by end-2021. The financial sector remains the largest net external debtor given reliance on wholesale funding, at over 30 percent of GDP. International reserves have remained stable at a comfortable 22.8 percent of mainland GDP.

Assessment. The NIIP position is expected to remain strong and stable due to the sound management of GPF's assets. Negative revaluation risks are mitigated by asset diversification.

2021 (percent mainland GDP)	NIIP: 359	Gross Assets: 635	Res. Assets: 22.8	Gross Liab.: 274	Gross External Debt: 157
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Current Account

Background. Driven by large oil exports, the CA has been persistently strong, averaging 5 percent of total GDP over 2015–20. Mainland trade balance on the other hand remains dominated by imports, averaging near -11 percent of mainland GDP over 2015–20, despite the positive real growth of non-oil exports (near 1 percent average) over the same period. In 2021, primarily due to the negative impact of Covid-19 pandemic on imports of tourism and travel services, net real mainland exports grew by 41.6 percent; the total nominal trade balance increased to 12.3 percent of mainland GDP, compared to -0.8 percent in 2020. Overall, the current account increased to 15 percent of total GDP due to a large rebound in oil prices, helped also by an increase in the primary income balance. This increase reflects lower flows abroad due to postponed dividend and interest payments. It remains uncertain how persistent the impact of pandemic and the war will be, particularly on the tourism and oil balances. Staff's current assessment is that the larger share of these dynamics is only temporary, and a return to lower oil prices and resumption of travel activities is likely to bring the trade balance closer to its historical pattern.

Assessment. The current account is assessed to be broadly in line with what is implied by fundamentals and desirable policies. The cyclically adjusted 2021 CA per EBA calculations was 14.1 percent of GDP, while the EBA regression-estimated norm is 15.1 percent of GDP, suggesting a gap of -1 percent. After correcting for short-term pandemic effects (see technical note below¹), the estimated gap becomes -2.5 percent. However, staff assesses that estimation of the EBA norm in Norway is prone to a significant bias due to Norway-specific characteristics (see technical note).² The estimated bias exceeds 3.1 percent of GDP, bringing the overall CA gap to 0.66 percent.

Norway: Model Estimates for 2021 (in percent of GDP)			
	CA model	REER model	ES model
CA-Actual	15		
Cyclical Contributions (from model)	1.2		
Additional temporary/statistical factors			
Adjusted CA	14.1		
Adjusted CA Norm	15.1		
CA gap	-1	-3.6	-7.3
o/w Policy gap	-0.4		
Staff Gap 1/	0.66		
Adjustors	1.66		
Elasticity	0.3		
REER Gap 2/	3.4	12	24.3
1/ Includes Covid-19 and measurement bias adjustors			
2/ Calculated using the inverse elasticity on the CA gap, without including any adjustors.			

Real Exchange Rate

Background. The krone floats freely against other currencies. Norges Bank has not intervened in FX markets since 1999, with a brief exception in March 2020, owing to extraordinary market turbulence spurred by the pandemic. The central bank has indicated that it remains ready to intervene if the exchange rate deviates substantially from fundamentals. At the end of 2021, Norges Bank reserves were at 22.8 percent of mainland GDP.

Assessment. Reserves are ample even considering the exposure of banks to wholesale funding and risks of regional macro-financial shocks (imports are less than 35 percent of total GDP and there is no GG short-term financing risk thanks to the large pension fund).³ Further, Norges Bank has expanded swap agreements with the Fed and Nordic central banks to bolster market confidence.

Capital and Financial Accounts: Flows and Policy Measures

Background. Flows, both outgoing and incoming, mainly span Nordic and EU countries. With banks' heavy reliance on wholesale funding—accounting for about half of total banks' funding—and about half of wholesale funding from foreign sources, banks are vulnerable to turbulence in foreign financial markets.

Assessment. Financial account vulnerability is low, but the banking sector's reliance on external wholesale funding remains a source of vulnerability. The increase of duration in part of the funding structure is a positive development.

FX Intervention and Reserves Level

Background. The krone floats freely against other currencies. Norges Bank has not intervened in FX markets since 1999, with a brief exception in March 2020, owing to extraordinary market turbulence spurred by the pandemic. The central bank has indicated that it remains ready to intervene if the exchange rate deviates substantially from fundamentals. At the end of 2021, Norges Bank reserves were at 22.8 percent of mainland GDP.

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1\ Particularly mainly due to travel (i.e., Norwegians unable to travel abroad) and other covid-related factors; the corresponding adjustments to the norm are estimated at -1.44 percent.

2\ There are several sources of bias: (i) the large size and particular composition of Norway's foreign assets (tilted towards portfolio equity) makes the country's CA balance particularly prone to the portfolio equity retained earnings bias, which is estimated to be around 3.1 percent of GDP for Norway. In addition, estimated IIP valuation changes averaged around 8.8 percent of GDP over the 2015–20 period, which inflate the amount of dividend yields estimated as part of the CA norm and lead to a sizable overstatement of the CA norm; (ii) productivity of the non-oil sector is lower than implied by average productivity; and (iii) oil affects the norm considerably, but the adequacy of the econometric specification is doubtful.

3\ Standard reserves adequacy metrics are not adequate for the case of Norway given its large pension fund which is mostly invested in foreign markets and is fully diversified away from oil markets.

Annex II. Risk Assessment Matrix¹

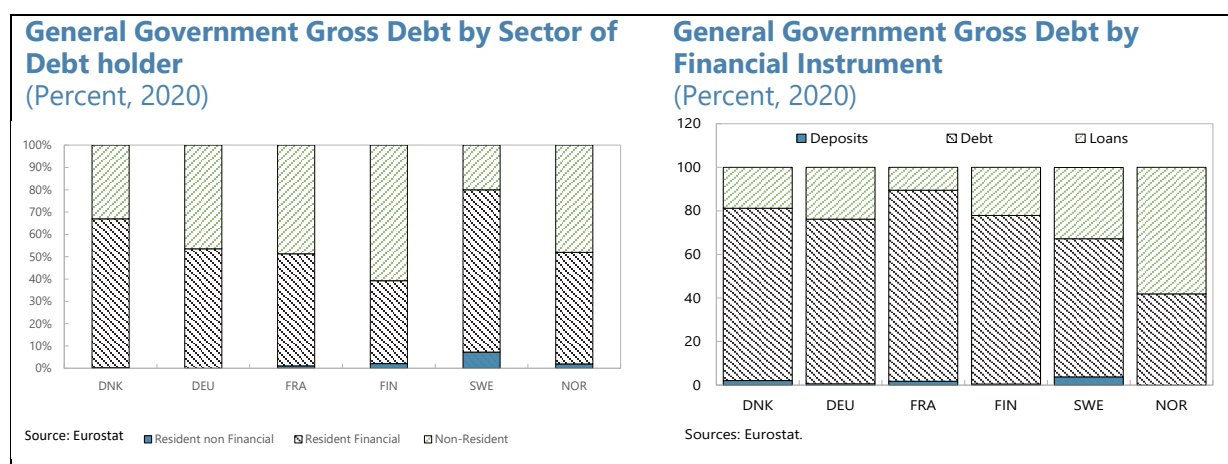
Source of Risks and Relative Likelihood (High, medium, or low)	Impact if Risk is Realized (High, medium, or low)	Policy Response
Global		
Medium Outbreaks of lethal and highly contagious Covid-19 variant. Rapidly increasing hospitalizations and deaths due to low vaccine protection or vaccine-resistant variants force more social distancing and/or new lockdowns. This results in extended supply chain disruptions and a reassessment of growth prospects, triggering capital outflows, financial tightening, currency depreciations, and debt distress in some EMDEs.	Low The recovery is delayed with scarring effects amplifying vulnerabilities in the private sector. More layoffs lead to a considerable increase in unemployment and labor market hysteresis, which will weigh on productivity growth. Firms' liquidity problems translate into insolvencies while highly leveraged corporates may experience significant stress, leading to higher credit spreads, potential downgrades, inability to refinance debt, and defaults. Banks' asset quality deteriorates, resulting in capital shortfalls, thus impairing the lending channel with further adverse implications to growth. Attendant supply-side disruptions would weigh on domestic industrial activity.	Reassure that adequate support to the broader economy and the health system. Given ample fiscal space and the possibility for better targeting, the policy mix should rely primarily on fiscal policy – aiming to support households and businesses to overcome liquidity needs and limit scarring, while encouraging necessary reallocation of resources. Norway's fiscal risks remain fundamentally low due to the world's largest SWF, low government debt levels (around 40 percent of GDP), and AAA sovereign rating.
Medium/Low De-anchoring of inflation expectations in the U.S. and/or advanced European economies. Worsening supply-demand imbalances, higher commodity prices (in part due to war in Ukraine), and higher nominal wage growth lead to persistently higher inflation and/or inflation expectations, prompting central banks to tighten policies faster than anticipated. The resulting sharp tightening of global financial conditions and spiking risk premia lead to lower global demand, currency depreciations, asset market selloffs, bankruptcies, sovereign defaults, and contagion across EMDEs.	Low Norges Bank already started monetary policy normalization. Bank capital adequacy is high. A need for additional tightening may have some adverse spillovers to corporate and household sectors through higher debt service and reduced demand.	Stand ready to implement further policy support. Maintain flow of credit by making sure financial policies are adequately targeted and effectively deployed. The guaranteed scheme for bank loans to businesses could be extended as needed. Norway's extremely large SWF, low government debt levels, and AAA rating suggest limited fiscal risks in response to a rise in global risk premia.

¹ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. The conjunctural shocks and scenario highlight risks that may materialize over a shorter horizon (between 12 to 18 months) given the current baseline. Structural risks are those that are likely to remain salient over a longer horizon.

Source of Risks and Relative Likelihood (High, medium, or low)	Impact if Risk is Realized (High, medium, or low)	Policy Response
<p>High</p> <p>Russia's invasion of Ukraine leads to escalation of sanctions and other disruptions. Sanctions on Russia are broadened in line with the EU to include oil, gas, and food sectors. Russia is disconnected almost completely from the global financial system and large parts of the trading system. This, combined with Russian countersanctions and secondary sanctions on countries and companies that continue business with Russia, leads to even higher commodity prices, refugee migration, tighter financial conditions, and other adverse spillovers, which particularly affect LICs and commodity-importing EMs.</p>	<p>Medium/Low</p> <p>Norway is one of the largest oil producers so it will benefit from oil price increases. Higher disruptions would dampen exports and investment and weaken growth.</p>	<p>Provide monetary and fiscal support as needed.</p>
<p>High</p> <p>Geopolitical tensions and deglobalization. Intensified geopolitical tensions, security risks, conflicts, and wars cause economic and political disruptions, fragmentation of the international monetary system, production reshoring, a decline in global trade, and lower investor confidence.</p>	<p>Medium</p> <p>Higher disruptions and barriers to trade would dampen exports and investment and weaken growth.</p>	<p>Provide monetary and fiscal support, implement labor market reforms, and enhance bankruptcy regime to facilitate sectoral reallocation of labor and capital.</p>
<p>High</p> <p>Rising and volatile food and energy prices. Commodity prices are volatile and trend up amid supply constraints, war in Ukraine, export restrictions, and currency depreciations. This leads to short-run disruptions in the green transition, bouts of price and real sector volatility, food insecurity, social unrest, and acute food and energy crises (especially in EMDEs with lack of fiscal space).</p>	<p>Low</p> <p>Norway is one of the largest oil producers so it will benefit from oil price increases. It can offset higher domestic energy prices with the revenue windfalls.</p>	<p>Continue to save windfall revenue and provide targeted support to the most vulnerable households.</p>
<p>Cyberthreats. Cyberattacks on critical physical or digital infrastructure (including digital currency platforms) trigger financial instability or widespread disruptions in socio-economic activities.</p>	<p>Medium</p> <p>Norway is one of the most digitalized economies, cyberattacks could significantly impair the functioning of the financial system and economy, in general.</p>	<p>As per FSAP recommendations, make processes for cybersecurity risk supervision and oversight more structured and comprehensive. Establish incident reporting and crisis management frameworks for systemic cyber incidents (Annex IV).</p>
Domestic		
<p>Medium</p> <p>Significant property price decline in Norway due to structural changes. Price declines could possibly affect commercial property markets and/or residential property.</p>	<p>Medium:</p> <p>Investment and collateral values for lending could be undermined by sizable falls in commercial property prices. Loan quality impacted, primarily of firms serving domestic market. Lending could be curtailed if doubts about the quality of covered bonds rise elevating bank funding costs. Given the banks' high exposure to CRE, NPLs could increase significantly.</p>	<p>Monitor recent developments through better data collections and supervise banks commercial real estate lending closely; consider broadening the toolkit for mitigating CRE vulnerabilities. In the event, provide funding support to banks.</p>

Annex III. Public Debt Sustainability Assessment

1. Summary: Public debt sustainability risks remain low due to the high net worth of government (reflecting a large sovereign wealth fund and a low stock of gross public debt). The debt-to GDP ratio in 2021 stood at 43.2, declining from 46 percent of GDP in 2020. In terms of the debt structure, about half of the debt is held by non-residents, and about 40 percent is in the form of debt securities.



2. Baseline scenario: Recovery continues in the short-term, and then real GDP growth subsides and converges to potential growth over the medium-term. In terms of fiscal policy, a more conservative adherence to the fiscal rule is assumed over the medium-term. Public debt is projected to decline this year and stabilize over the coming years, at about 37 percent of GDP by 2027, returning to pre-pandemic levels. Oil revenues inflows are expected to remain elevated during the projection period, reducing gross financing needs. .

3. Stress tests: Adverse growth, interest-rate, financing-needs shocks, and combined shocks affect debt trajectories only in levels, but debt as percent of GDP will keep declining, or at worst stabilize, despite the shocks.

Annex III. Figure 1. Norway: Public Sector Debt Sustainability Analysis—Baseline Scenario (In percent of GDP unless otherwise indicated)

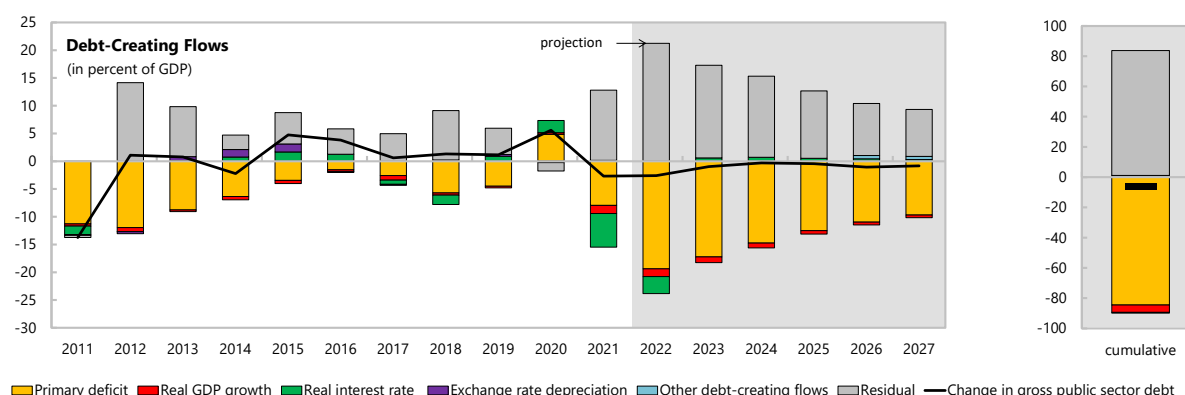
Debt, Economic and Market Indicators ^{1/}

	Actual			Projections							As of July 01, 2022		
	2011-2019 ^{2/}	2020	2021	2022	2023	2024	2025	2026	2027				
Nominal gross public debt	34.0	45.9	43.2	40.6	39.6	39.3	38.9	37.8	37.0		Sovereign Spreads		
											EMBIG (bp) 3/	166	
Public gross financing needs	-5.1	12.6	0.4	-19.4	-14.8	-12.7	-10.3	-9.0	-7.9		5Y CDS (bp)	13	
Real GDP growth (in percent)	1.5	-0.7	3.9	3.6	2.6	2.2	1.6	1.3	1.3		Ratings	Foreign	Local
Inflation (GDP deflator, in percent)	2.1	-3.6	16.9	8.8	-0.1	-0.3	0.2	0.6	0.9		Moody's	Aaa	Aaa
Nominal GDP growth (in percent)	3.7	-4.3	21.4	12.8	2.4	1.9	1.8	1.8	2.3		S&Ps	AAA	AAA
Effective interest rate (in percent) ^{4/}	2.5	1.6	1.5	1.2	1.4	1.5	1.6	1.7	1.8		Fitch	AAA	AAA

Note

Contribution to Changes in Public Debt

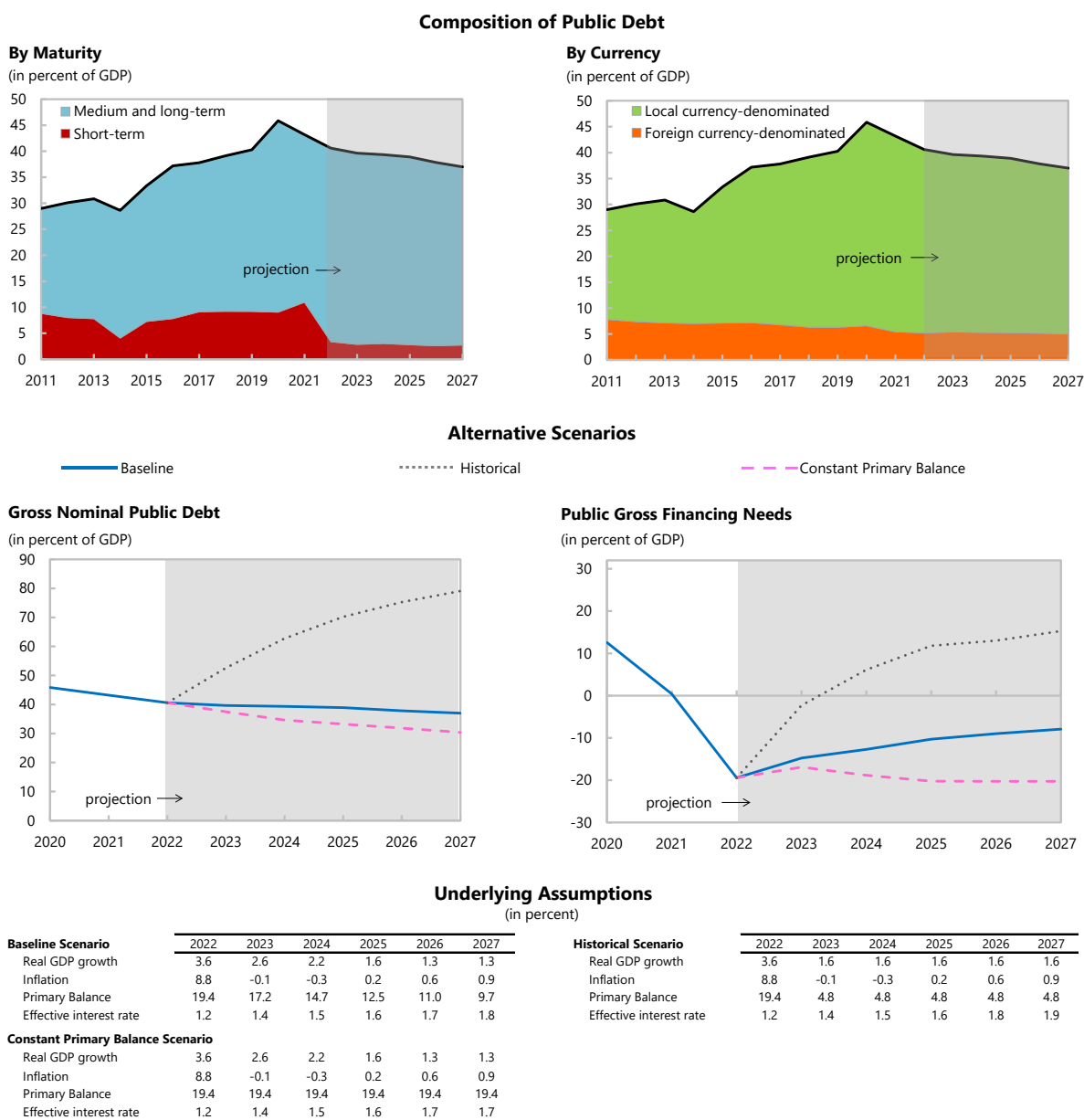
	Actual			Projections							cumulative	debt-stabilizing primary balance ^{9/}
	2011-2019	2020	2021	2022	2023	2024	2025	2026	2027			
Change in gross public sector debt	-0.3	5.6	-2.7	-2.6	-1.0	-0.3	-0.4	-1.1	-0.8	-6.2		
Identified debt-creating flows	-6.3	7.1	-15.3	-23.8	-17.7	-14.9	-12.6	-10.4	-9.3	-88.7		
Primary deficit	-6.2	4.9	-7.9	-19.4	-17.2	-14.7	-12.5	-11.0	-9.7	-84.5		0.4
Primary (noninterest) revenue and grants	52.4	51.8	55.6	63.9	63.1	61.9	60.8	60.2	59.6	369.5		
Primary (noninterest) expenditure	46.2	56.6	47.6	44.5	45.9	47.1	48.3	49.2	49.9	284.9		
Automatic debt dynamics ^{5/}	-0.1	2.2	-7.4	-4.4	-0.4	-0.2	-0.1	-0.1	-0.2	-5.3		
Interest rate/growth differential ^{6/}	-0.4	2.5	-7.5	-4.4	-0.4	-0.2	-0.1	-0.1	-0.2	-5.3		
Of which: real interest rate	0.1	2.2	-6.1	-3.0	0.6	0.7	0.5	0.4	0.3	-0.5		
Of which: real GDP growth	-0.5	0.3	-1.5	-1.4	-1.0	-0.9	-0.6	-0.5	-0.5	-4.9		
Exchange rate depreciation ^{7/}	0.4	-0.2	0.2	...	...	...	...	...	...	...
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.2		
Drawdown of Deposits (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.2		
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual, including asset changes ^{8/}	6.0	-1.5	12.6	21.2	16.7	14.6	12.1	9.4	8.5	82.5		



Source: IMF staff calculations.

^{1/} Public sector is defined as general government.^{2/} Based on available data.^{3/} Long-term bond spread over German bonds.^{4/} Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.^{5/} Derived as $[(r - \pi(1+g)) - g + ae(1+r)] / (1+g+\pi+g\pi)$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).^{6/} The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.^{7/} The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.^{8/} Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.^{9/} Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

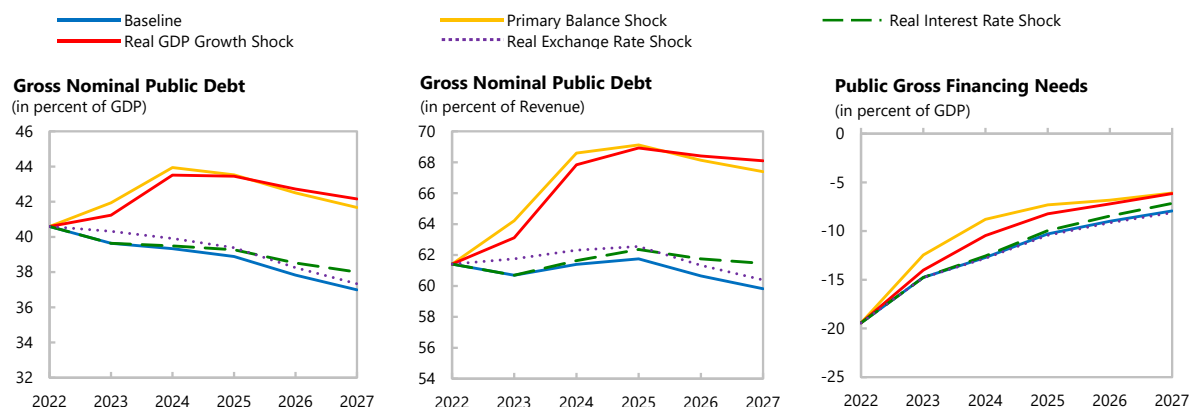
Annex III. Figure 2. Norway: Public Debt Sustainability Analysis —Composition of Public Debt and Alternative Scenarios



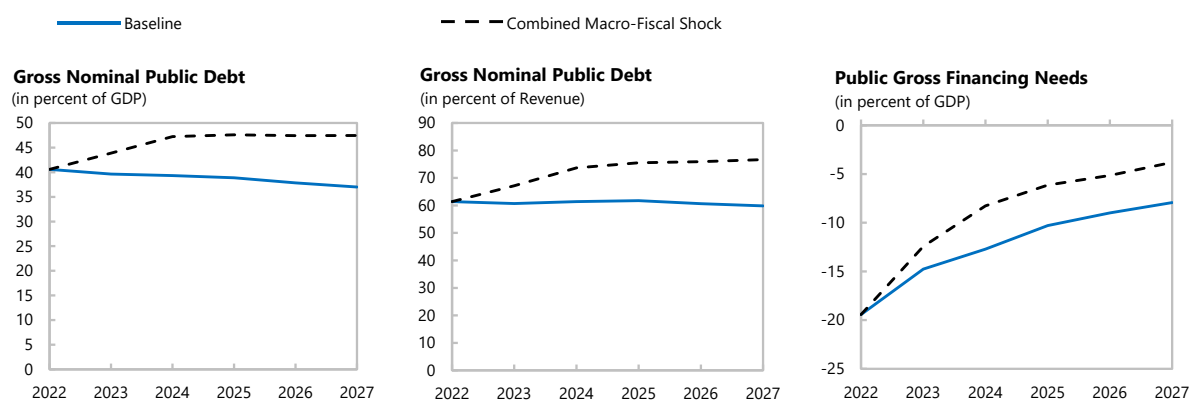
Source: IMF staff calculations.

Annex III. Figure 3. Norway: Public Debt Sustainability Analysis—Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests

Underlying Assumptions
(in percent)

	2022	2023	2024	2025	2026	2027
Primary Balance Shock						
Real GDP growth	3.6	2.6	2.2	1.6	1.3	1.3
Inflation	8.8	-0.1	-0.3	0.2	0.6	0.9
Primary balance	19.4	14.9	12.4	12.5	11.0	9.7
Effective interest rate	1.2	1.4	1.6	1.7	1.8	1.8
Real Interest Rate Shock						
Real GDP growth	3.6	2.6	2.2	1.6	1.3	1.3
Inflation	8.8	-0.1	-0.3	0.2	0.6	0.9
Primary balance	19.4	17.2	14.7	12.5	11.0	9.7
Effective interest rate	1.2	1.4	1.9	2.2	2.5	2.6
Combined Shock						
Real GDP growth	3.6	1.3	1.0	1.6	1.3	1.3
Inflation	8.8	-0.5	-0.6	0.2	0.6	0.9
Primary balance	19.4	14.9	12.4	12.5	11.0	9.7
Effective interest rate	1.2	1.4	2.1	2.5	2.9	3.1

	2022	2023	2024	2025	2026	2027
Real GDP Growth Shock						
Real GDP growth	3.6	1.3	1.0	1.6	1.3	1.3
Inflation	8.8	-0.5	-0.6	0.2	0.6	0.9
Primary balance	19.4	16.5	13.3	12.5	11.0	9.7
Effective interest rate	1.2	1.4	1.5	1.6	1.7	1.8
Real Exchange Rate Shock						
Real GDP growth	3.6	2.6	2.2	1.6	1.3	1.3
Inflation	8.8	0.5	-0.3	0.2	0.6	0.9
Primary balance	19.4	17.2	14.7	12.5	11.0	9.7
Effective interest rate	1.2	1.4	1.5	1.6	1.6	1.7

Source: IMF staff calculations.

Annex IV. Status of 2020 FSAP Recommendations

Recommendations and Authority Responsible for Implementation	Time ¹	Status
Systemic Risk Oversight and Macroprudential Policy		
Develop and publish a macroprudential policy strategy. (MoF, Norges Bank, FSA)	ST	The authorities have expanded on key aspects of macroprudential policy in the Ministry's annual Financial Markets Reports.
Use existing triparty meetings more effectively to discuss risks and policy actions needed to address them. (MoF, Norges Bank, FSA)	I	The authorities have implemented some adjustments to facilitate candid and targeted exchanges on risks, and to better align the meeting schedule with planned policy decisions.
Give Norges Bank recommendation powers over macroprudential policy tools that can be relaxed under stress, with a comply-or-explain mechanism. (MoF)	I	The Government in September 2021 tasked Norges Bank to advise the MoF on the systemic risk buffer rate at least every other year.
Make key household sector measures permanent features of the framework. (MoF)	ST	While the mortgage regulation still requires renewal, it has now been implemented for 4 years, up from 1.5 years previously.
Consider broadening the toolkit for mitigating CRE vulnerabilities, including sectoral capital tools. (MoF)	MT	The MoF in December 2020 adopted a temporary floor for average risk weights for CRE exposures at 35 percent. With the implementation of the European Capital Requirements Directive (CRD5) framework in Norway in June 2022, it is now possible to implement sectoral systemic risk buffers, i.e. for CRE exposures. The MoF has not at this time assessed the need for sectoral systemic risk buffers.
Banking and Insurance Supervision		
Strengthen the FSA's prudential powers, operational independence, and budgetary autonomy. (MoF)	ST	The Government in September 2021 tasked a Commission to propose a new law replacing the existing Financial Supervision Act. The Commission shall discuss topics such as the FSAs organization, tasks, and tools. The Commission shall discuss the constitutional and administrative legal framework for the FSA, including the relationship between the Ministry and the FSA. The Commission may consider whether the Ministry's access to instruction in certain areas should be cut off or limited. The Commission is asked to consider in particular whether, in light of EEA-law, restrictions should be placed on the Ministry's access to instruction in certain areas. The Commission shall assess whether there are differences between supervisory tasks and the preparation and administration of regulations.
Expand review of banks' risks in supervisory activities to strengthen oversight over systemic foreign bank branches and domestic medium and small sized banks. (FSA)	ST	Finanstilsynet has strengthen internal guidelines for monitoring and supervising foreign branches and subsidiaries, and the supervisory teams responsible for foreign branches have been provided additional resources. Finanstilsynet has developed a new automatic tool which provides a risk dashboard for each institution on a quarterly basis, facilitating risk-based supervision of medium and small sized banks.

Recommendations and Authority Responsible for Implementation	Time	Status
Further enhance the oversight of banks' IRB models, in view of the implementation of CRD IV. (FSA)	I	Finanstilsynet has published a circular clarifying supervisory practice and expectations regarding IRB models and is following up on the circular.
Intensify oversight of banks' risk management of real estate loans and funding/liquidity conditions. (FSA)	ST	The FSA has improved the supervisory framework and will continue to intensify supervisory activities related to bank's risk management of real estate loans. The FSA has introduced new supervisory modules based on EBA Guidelines for loan origination and monitoring (EBA/GL/202/06) and supervisory experience. The guidelines from EBA aim to ensure that institutions have robust and prudent standards for credit risk taking, management and monitoring, and the update of the FSA's credit risk module in December 2021 has enhanced the supervisory toolbox for on sight inspections related to risk management of real estate loans. Further, the FSA has strengthened the requirements to the bank's reporting of exposures to non-financial firms ("ENG database"), i.e., more granular segmentation of CRE exposures in the largest banks. A thematic inspection of risk related CRE exposures, specifically loans secured by office premises, will be arranged in a selection of banks in second half of 2022. With regards to requirements for valuation of immovable properties the FSA published a Circular in September 2021 (Circular 5/2021), mainly focusing on valuation of residential mortgages.
Strengthen risk-monitoring of individual insurers. (FSA)	ST	A project has been established to further develop the Early Warning Risk Dashboard.
Complement EIOPA efforts with Norway-specific in-house stress tests of the whole insurance sector. (FSA)	MT	An EIOPA stress test was conducted in 2021. Finanstilsynet will consider if this stress test can be modified and applied to a larger share of the Norwegian market.
Cybersecurity Supervision		
Make processes for cybersecurity risk supervision and oversight more structured and comprehensive. (FSA, Norges Bank)	I	Finanstilsynet will consider how to strengthen the approach for cybersecurity risk supervision, and also consider if it is appropriate to provide further guidance on IT/ cybersecurity risk. Finanstilsynets work is still ongoing. Norges Bank is also in the process of establishing a more structured process for oversight and supervision. Important elements are annual risk-based planning, more active use of reports from third parties and self-assessments from FMIs. The introduction of the TIBER framework in Norway will contribute to the oversight of cyber risk in the payment system.

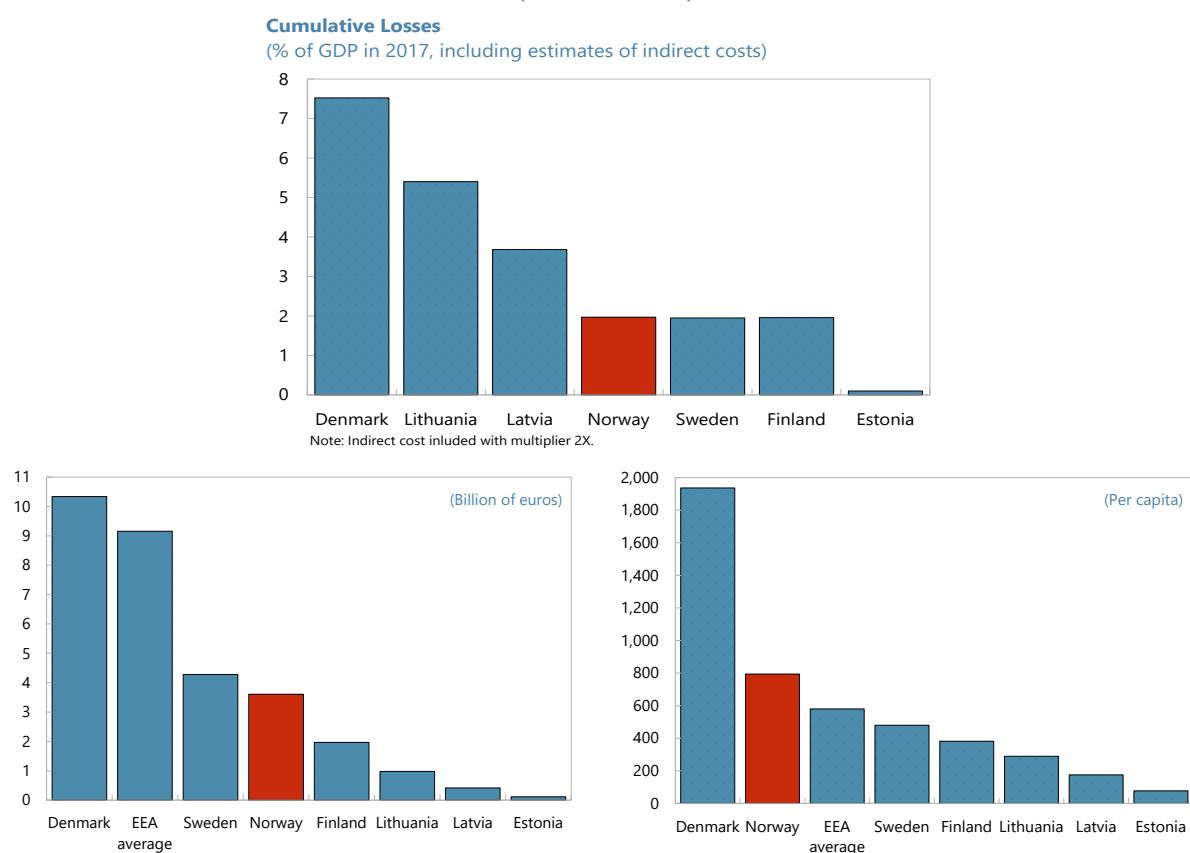
Recommendations and Authority Responsible for Implementation	Time	Status
Establish incident reporting and crisis management frameworks for systemic cyber incidents. (FSA, Norges Bank)	ST	Norges Bank and Finanstilsynet have updated routines for reporting of incidents from FMIs to The Financial Infrastructure Crisis Preparedness Committee (BFI) in 2020. Finanstilsynet works closely with Nordic Financial CERT (NFCERT) on cyber-attacks/incidents with "open line" and monthly status meetings. Finanstilsynet and BFI are looking to further enhance incident reporting and crisis management by leveraging the EBA Guidelines, the European Commission's Digital Operational Resilience Act, and the ESRB's work on systemic cyber risk. Finanstilsynet is revising the incident reporting framework, based on the revised EBA Guidelines. The crisis management handling by Finanstilsynet and BFI has been improved.
Anti-Money Laundering / Countering Financing of Terrorism (AML / CFT) Supervision		
Enhance AML/CFT supervision by increasing the frequency of targeted and thematic inspections and improving the risk-based approach and tools for AML/CFT risk assessments. (FSA)	I	Full scope on-site inspections dedicated to AML/CFT, and off-site inspections are increasing. The risk-based approach has been adjusted and the risk classification model has been further developed.
Ensure appropriate use of sanctions, including monetary penalties, for AML/CFT violations. (FSA)	I	The sanctioning power has been used as appropriate in cases of serious breaches. Several banks have been sanctioned (three banks were sanctioned in 2019, and one in 2020), and three cases are ongoing.
Financial Crisis Management and Safety Nets		
Make the new resolution tools operational and strengthen the crisis preparedness framework. (FSA, MoF)	ST	Finanstilsynet is continuously working to enhance the crisis preparedness framework. In 2021 a new project, focused on developing a bail-in playbook, will be initiated. Finanstilsynet has initiated a new project, focused on preparing banks for deliverables required by the EBA guidelines on resolvability. This includes for banks to develop bail-in playbooks.
Ensure BGF's integration into the broader resolution framework. (BGF, FSA).	ST	Discussions on draft MoUs between Norges Bank and BGF and Finanstilsynet are ongoing. Certain clarifications are being sought from the MoF. BGF also took part in a crisis simulation exercise together with Norges Bank, MoF and Finanstilsynet in April 2021.
Systemic Liquidity		
Monitor banks' collateral eligible for central bank liquidity. (Norges Bank)	ST	Both Norges Bank and Finanstilsynet have access to databases containing information on banks' assets. Through our system for collateral management, detailed information is available on pledged securities, while information on other securities can be found in Finanstilsynet's Liquidity Reporting (ILAP). Norges Bank follows up potential mortgages by examining the liquidity in the Norwegian bond market both through a semi-annual survey and through issue and price data from commercial databases that are updated daily. Information about foreign mortgages is retrieved through general market insight, including information from Norges Bank's own management of foreign exchange reserves. Norges Bank is also establishing a model for analysis of cash flows in the banks.

Recommendations and Authority Responsible for Implementation	Time	Status
Develop, test, and implement a mechanism for acceptance of mortgage loan collateral for emergency liquidity support to solvent banks. (Norges Bank)	ST	Norges Bank has initiated a project with the larger Norwegian Banks and Finance Norway to implement such a mechanism. The mechanism is currently being tested with five of the larger banks.
Financial Stability Analysis		
Upgrade data collection for risk monitoring to include more granular data on bank lending (including for commercial real estate), group mappings, and liquidity positions of foreign branches. (FSA, Norges Bank)	ST	More data on banks' CRE exposures will now be included in Finanstilsynet's enquiry on banks' exposures to non-financial firms ("ENGA database"). In addition, Norges Bank will from 2021 on, subscribe to a novel private sector database that combines several sources of information, i.e., with help from algorithms, resulting in a by far more comprehensive data set on CRE for all Norwegian regions than has been available so far. Norges Bank has also started to exploit payment remarks data for quantitative analysis of credit risk on loans to non-financial companies. Finanstilsynet has developed new sector specific bankruptcy models (10 sectors), which as a by-product has expanded non-financial company coverage.
Improve collection and analysis of derivatives exposure data and analyze banks' margin arrangements. (FSA, Norges Bank)	ST	Norges Bank and Finanstilsynet are working on making more data on agents' derivatives contracts accessible and usable (EMIR data) and are collaborating to develop analysis and dashboards suitable for monitoring. Norges Bank is analyzing the effects of margining agreements; see Norges Bank Staff Memo 2/2021 for part of the analysis. Finanstilsynet has analyzed banks and insurance companies' derivatives exposures using EMIR-data.
¹ I Immediate (within 1 year); ST Short term (1–3 years); MT Medium Term (3–5 years)		

Annex V. Climate Adaptation and Mitigation: Assessing Risks to Banks

1. Thus far, the Nordic economies have been relatively spared from extreme weather events, but this is changing (Figure 1). The economic costs are expected to increase as climate change intensifies, affecting more parts of the planet, as the direct global costs of extreme weather events are constantly rising (Swedbank, 2021). Therefore, the negative impact of extreme weather on economic growth could be much larger in the future. Some of the effects of sudden extreme weather events can be mitigated by active adaptation. If risk mitigation is effective, the economic impact of these phenomena is likely to be reasonably small. The network for Greening the Financial System estimates that around 4 percent of global GDP will be lost in an “orderly transformation” to climate change by the end of the century (NGFS, 2020). However, if adaptation measures fail, the NGFS estimates that the impact from physical risk could increase to 25 percent of GDP by 2100; the ECB expects that the losses could be even bigger, as not all sources of physical risk are included in the NGFS scenario (ECB, 2021).

Annex V. Figure 1. Norway: Losses Due to Extreme Weather-Related Events in the Nordics and Baltics
(1980 to 2017)



Sources: Swedbank Research; Macrobond; and European Environment Agency (EEA).

2. Banks are exposed to continuing changes in climate and increases in carbon taxes through their clients' balance sheets. The passthrough is not as clear, however, as climate-related events and risks are uncertain, and may be subject to non-linearities ([BIS, 2021](#)). *Physical risks* have been categorized into acute and chronic events, and while some aspects of those risks can be predictable, there is increasing uncertainty as to the location, frequency, and severity of these events. For *transition risks*, there is uncertainty as to the future pathways that changes in policies, technology innovation and shifts in consumer sentiment contribute to shaping. To size climate-related financial risks, banks and regulators require plausible ranges of scenarios to assess the potential impacts of both physical and transition risk drivers on their exposures. These scenarios will need to be combined with sufficiently granular data that capture the climate sensitivity of their exposures and are subject to an appropriate methodology.

3. Thus far, there is scarce research and data that explore how climate risk drivers feed into transmission channels and banks' financial risks. Existing analysis is yet to fully translate changes in climate-related variables into changes in banks' credit, market, liquidity or operational risk exposures or bank balance sheet losses. Instead, current research focuses on how specific climate risk drivers can impact specific sectors, individual markets, or top-down assessments of the macro economy as a whole.

4. Given the above caveats, a few studies to gauge the costs of both transitional and physical risks for Norwegian banks suggest that risks are manageable so far. As a part of 2020 FSAP exercise, [stress testing](#) was performed to estimate potential effects of transition to a low carbon economy. Two calibrations were tested (average of USD 75 and USD 150 per ton CO₂-equivalent) to estimate the impact on banks and companies, and, in particular, the oil sector. While the analysis relies on some strong assumptions and simplifications, it offers some valuable insights into climate-related transition risks—a relatively new and underdeveloped area in the field of financial stability analysis. Firstly, a domestic increase in carbon prices could result in inability to service debt for firms with higher emissions, especially when profits are low compared to interest expenses. Under all scenarios, the sectors most at risk are agriculture, forestry, and fishing; water supply, sewerage, waste management and remediation activities; as well as transportation and storage (Figure 2). Banks' debt at risk from an increase in carbon prices is small on average, but can be significant when lending is concentrated to sectors at high risk. Secondly, a global increase in carbon prices could reduce oil sector revenues which would imply a significant increase in banks' loan losses. With carbon prices rising to USD 150, results suggest an increase in loan losses of 0.9 percentage points. Lastly, the analysis suggests that climate policy to curb the oil sector's total output could reduce valuations of oil producers, implying portfolio effects for Norwegian households and asset managers.

5. Expanding the analysis, Norges Bank's analysis suggests that banks that actively consider climate change risk assessments should be able to contain balance sheet risks. While being mindful of the caveats to such analysis, as the full overview of the consequences of climate changes is difficult to form, [Norges](#) Bank estimated the effects on banks' relative exposures to an emission price increase from today's level to NOK 2,000 (USD 221). It also examined the use of

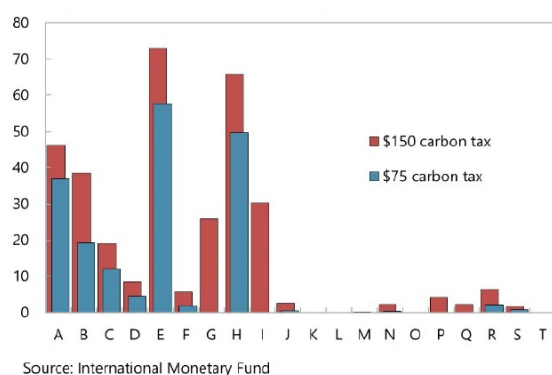
energy labeling of commercial property and showed how banks' property collateral could be affected by changes in storm surges and flooding. On aggregate, the banks have moderate loans to emission-intensive industries, but are exposed to some industries with high emissions, especially shipping. The banks have sizeable loan exposures to commercial property. It appears that there was a need to reduce energy consumption for these properties. For certain banks, a portion of current collateral values in commercial property could lie in the risk zones in the event of a rise in sea level or flooding. Overall, forward-looking banks that actively consider climate change risk assessments should have ample scope to reduce current balance sheet risks.

Annex V. Figure 2. Sector at Risk from Carbon Price Increase

Agriculture, waste management and transportation...

\$75 and \$150 Average Carbon Price

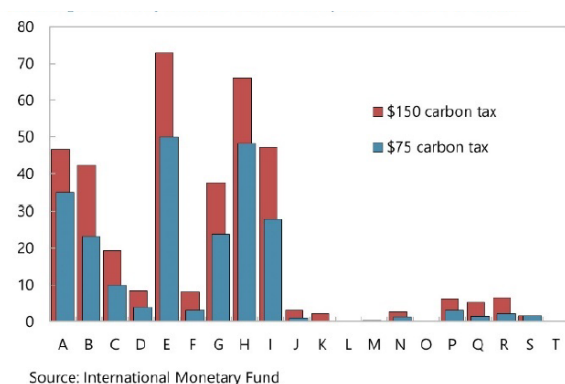
Percentage of firms by sector which CIR drops from $2 > ICR > 1$ to below 1



...are most affected under all scenarios

\$75 and \$150 Average Carbon Price—Parallel Increase

Percentage of firms by sector which CIR drops from $2 > ICR > 1$ to below 1



Note: A = Agriculture, forestry and fishing; B = Mining and Quarrying; C = Manufacturing; D = Electricity, gas, steam and air conditioning supply; E = Water supply, sewerage, waste management and remediation activities; F = Construction; G = Wholesale and retail trade, repair of motor vehicles and motorcycles; H = Transportation and storage; I = Accommodation and food service activities; J = Information and communication; K = Financial and insurance activities; L = Real estate activities; M = Professional, scientific and technical activities; N = Administrative and support service activities; O = Public administration and defence, compulsory social security; P = Education; Q = Human health and social work activities; R = Arts, entertainment and recreation; S = Other service activities; T = Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use.

Annex VI. Authorities' Responses to Past IMF Article IV Consultation Recommendations

Fund Policy Advice	Authorities' Actions
Fiscal Policy	
Unwind temporary measures, simplify the VAT system	The temporary rate cuts introduced during the crisis have been unwound. Some of the concessionary rates of VAT have been raised, thus narrowing the differences in rates across goods and services. However, Norway's standard ('ordinary') VAT rate of 25 percent is among the highest in the OECD, and multiple reduced rates and exemptions add complexity. There is room to simplify and broaden the system considerably, which is longstanding recommendation.
Triple the carbon tax (with offsetting tax cuts to make the plan revenue neutral and to mitigate the social impact of the higher carbon tax).	The tax increase has been announced. The compensating measures to households such as lower fuel taxation as a means of alleviating the cost of travel by petrol and diesel vehicles, however, seems to move incentives in the wrong direction as they are not targeted to most vulnerable and retard the replacement of the most polluting cars.
Consider an expenditure review with the aim of improving the cost-effectiveness of government spending.	The business R&D and innovation support was recently the subject of a public spending review (2020-21), and the incoming government has signaled a new review.
Financial Stability	
Consider tightening mortgage regulations in line with FSA recommendations. Make mortgage regulations permanent to contain risky mortgages.	No progress.
Step up effort to collect and disseminate CRE data for better monitoring of risks.	Some progress.
Structural Reforms	
Reforms of sickness and disability schemes are needed to sustain high labor participation amid growing demographic pressures.	No progress. The Employment Commission evaluating (among other issues) the sickness and disability system delivered a second (and final) report in 2021. Only some proposals are aligned with long-standing staff recommendations.
Relaxing restrictions on land-use.	No progress.
Facilitating technological change, including a more developed open government data ecosystem.	Some progress.