3 Economic policy

Every aspect of economic policy has been used to counteract economic contraction in the face of the coronavirus pandemic. The impact of the government's fiscal policy was rapid, robust and targeted. This has limited the economic consequences of the pandemic for both households and businesses. Lower interest rates have also helped to improve the liquidity situation of households and businesses. The various welfare schemes played a vital role in the handling of the crisis and many schemes were expanded on a temporary basis.

The economic crisis is now over, although some sectors are still being affected. The Norwegian economy is experiencing a sharp upturn. The recovery following the pandemic has been more rapid than what has been the case after previous crises. In the National Budget for 2022, most of the remaining temporary measures which were introduced during the pandemic are reversed, and the use of oil revenues is once again reduced to well under 3 per cent of the Government Pension Fund Global.

3.1 Fiscal policy

The aim of fiscal policy is to facilitate a balanced development in the Norwegian economy. The fiscal rule is a guideline for sustainable spending of money from the Government Pension Fund Global and stipulates a spending of money from the fund in line with the anticipated real rate of return of the fund, estimated at 3 per cent. In the short term, spending shall be adapted to the prevailing economic situation, and in the event of substantial movements in the value of the fund, the spending of money from the fund must be adapted to the long-term guideline over an extended period of time. The framework for fiscal policy is outlined in Box 3.2.

The government emphasises pursuing a responsible fiscal policy which provides a basis for high GDP and employment. During the period leading up to the pandemic, the Norwegian economy was developing strongly, and the spending from the fund was at or below the long-term guideline of 3 per cent.[1] In the face of the coronavirus pandemic, spending from the fund rose sharply. The corollary of this is that the increase in spending must be reversed once the crisis is over, both in order to avoid depleting the capital in the fund and in order to be prepared for future setbacks and crises. During the crisis, public spending reached a historic high, primarily as a result of increased expenditure in order to manage the pandemic, but also as a result of increases under the National Insurance scheme and within other high priority areas. If resource use within the public sector is too high, activity in the private sector can be stifled, particularly in industries which are exposed to international competition. Over time, this can impede the ability of the Norwegian economy to grow and restructure.

[1] In Report to the Storting No. 29 (2016-2017) Long-term perspectives for the Norwegian economy 2017, the expected real return of the Government Pension Fund Global was adjusted downwards from 4 to 3 per cent. Nevertheless, the spending of fund capital during the period 2014-2019 was at or below 3 per cent.

Analyses show that the room for manoeuvre in fiscal policy going forward will diminish and gradually turn to a fiscal gap.[2] This is partly because of the increasing proportion of elderly people in the population and the expectation that petroleum revenues will decline. A reduction in the inflow of capital to the Government Pension Fund Global will eventually cause the contribution from the fund to diminish.

The Government Pension Fund Global has grown sharply over the past decade due to strong growth in international share prices and a weaker Norwegian krone. The fund now finances one fifth of the expenditure under the national budget. Thus, we are now more vulnerable to fluctuations in the value of the fund. This indicates that we must adopt a cautious approach to any further phasing-in of money from the fund in the Norwegian economy, to ensure that fluctuations in fund value do not cause unnecessary instability in fiscal policy.

3.1.1 Fiscal policy stance in 2022

An overarching goal for the 2022 budget is to counteract long-term unemployment and establish solid foundations for new growth and green transition. Most of the temporary coronavirus measures will be phased out during 2021. This will restore normal incentives for businesses and employees and enable businesses to base their recruitment and investment decisions on prospects for future earnings. At the same time, employees will be stimulated to seek new jobs, rather than becoming locked into furlough and unemployment.

For 2022, the government is proposing a budget which will go a long way in normalising spending following the crisis. Reduced spending will contribute to a more stable development of the Norwegian economy.

With the government's proposed budget, the spending of money from the fund, as measured by the *structural non-oil fiscal deficit,* is projected at NOK 322.4 billion 2022 prices; see Table 3.1. This is NOK 84.4 billion less than in 2021, at 2022 prices. As a proportion of trend GDP for mainland Norway, this corresponds to 9.5 per cent (see Chart 3.1A). This is 1.7 per cent higher than the pre-pandemic level.

The structural non-oil deficit, measured as a share of GDP for mainland Norway, will fall by 2.6 per cent in 2022 (*the fiscal impulse*, see the explanation in Box 3.1); see Table 3.1 and Chart 3.1B. Based on the traditional measure for the fiscal impulse, the 2022 budget appears to represent a marked tightening of fiscal policy as a result of the termination of the extraordinary coronavirus measures. However, this does not give a complete picture of the budget's impact on demand for goods and services. The phasing-out of temporary economic coronavirus measures will do little to dampen economic activity, as these measures largely follow the abolition of interventional infection control measures, which in itself will give rise to a substantial economic stimulus. In addition, higher household incomes and savings will boost demand for goods and services going forward. The effect of the expansionary fiscal

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[2] 'Fiscal deficit' refers to the widening gap between central government expenditure and revenues that will develop with a near-mechanical projection of the current focus of the tax and transfer systems and given current standards and contribution margin ratios of public services; see the white paper on Long-term perspectives for the Norwegian economy 2021 (*Perspektivmeldingen*).

policy during the pandemic is therefore spread over a number of years. If the extraordinary coronavirus measures are excluded, the structural fiscal deficit increases moderately from 2021 to 2022, but the size of the increase is uncertain as isolation of coronavirus measures has not been part of the budget process. There is still a need to continue some of the temporary measures, such as funds to finance vaccination. At the same time, the amount of extraordinary coronavirus measures in the 2022 budget is very limited compared to 2020 and 2021.

The actual transfer from the Government Pension Fund Global to the national budget, the non-oil deficit, is projected at NOK 300.3 billion in 2022. When the non-oil deficit is less than the structural deficit, this reflects the fact that tax revenues are expected to be above their long-term trend level in 2022; see Box 3.1. In other words, the automatic stabilisers[3] are believed to have a contractionary effect on the economy in 2022; see Chart 3.1B.

The government's proposed budget entails *new tax reductions* in 2022 of NOK 0.6 billion in accrued value.

The economic effects of fiscal policy can also be clarified based on macroeconomic models, which take into account the automatic stabilisers and the fact that different budget items have different effects on the economy. Model computations also capture the fact that budget effects persist over several years. Such computations indicate that the budgets for 2020 and 2021 are still boosting activity levels in 2022, counteracting an isolated negative contribution from the 2022 budget; see Box 3.3.

The government's proposed budget for next year results in a *withdrawal from the fund* in 2022 corresponding to 2.6 per cent of the projected capital in the Government Pension Fund Global at the beginning of the year; see Chart 3.1C and Table 3.4. Strong development in the Norwegian economy indicates that withdrawal from the fund should now be reduced from the high levels of 2020 and 2021 and be well below the long-term guideline of 3 per cent. Before the pandemic struck Norway, a withdrawal of 2.6 per cent was also being planned in the National Budget for 2020. Nevertheless, the withdrawal for 2022 entails a markedly higher level of spending of money from the fund measured in terms of both kroner and as a proportion of the mainland economy, as the value of the fund has risen significantly over the past two years. Money spent from the fund amounts to almost NOK 60,000 per inhabitant in 2022, compared with just over NOK 40,000 per inhabitant in the budgets prior to the coronavirus pandemic.

The future development of the fund value is uncertain. In order to reduce the risk of having to severely tighten fiscal policy and thereby reinforce the fluctuations in the economy in the event of any future fall in share prices, the withdrawal from the fund should be kept well below 3 per cent during normal times. Withdrawal from the fund in 2022 will remain below 3 per cent assuming normal fluctuations in fund value; see Box 3.4. If the value of the fund

[3] 'Automatic stabilisers' refers to changes in the budget deficit brought about by tax revenues either increasing during an economic boom or declining during periods of recession, and the fact that unemployment benefit payments decrease during an economic boom and rise during a recession; see Box 3.1.

should fall by significantly more than this, the withdrawal will be higher than the long-term guideline. The outlook regarding the spending from the fund in the years to come is discussed further in section 3.1.2.

The overall surplus in the national budget and the Government Pension Fund is projected at NOK 210.6 billion in 2022, and the surplus corresponds to around 6.2 per cent of the trend-GDP for mainland Norway; see Chart 3.1D. During the crisis in 2020 and 2021, Norway had an overall *deficit* in its national budget and the Government Pension Fund for the first time since the 1990s. During this period, the withdrawal from the fund exceeded what was added to the fund in the form of interest and dividend income[4] and petroleum revenues. However, the surplus in 2022 is expected to be greater than the total deficit from the previous two years. Cash flow from petroleum activity is expected to pick up somewhat due to higher prices and is expected to be higher than interest and dividend income in 2022. With a projected non-oil deficit of NOK 300.3 billion and a net cash flow from petroleum activity of NOK 277.1 billion, a *net transfer* from the Government Pension Fund Global to the national budget of NOK 23.2 billion is expected in 2022; see Table 3.2.

[4] Booked revenues primarily consist of interest on bond loans, dividends from private limited companies and rental income from property investments.

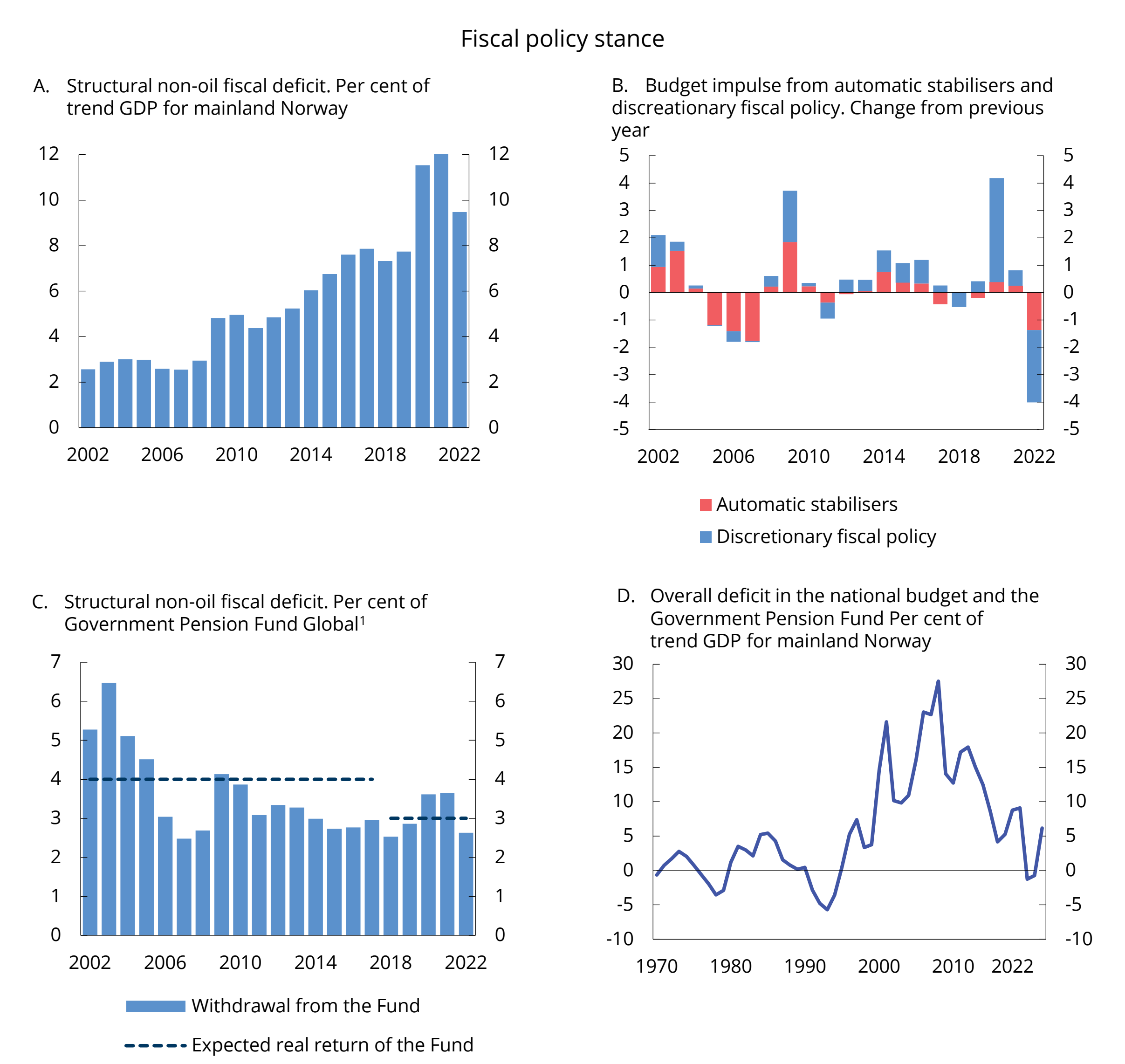

Chart 3.1 Fiscal policy stance

[1] The market value of the Government Pension Fund Global at the start of the year.

Sources: Ministry of Finance and the Norwegian Labour and Welfare Administration.

Expenditure in the national budget has increased considerably during the pandemic, which is reflected in the rise in expenditure within the public administration to 65 per cent of the GDP of mainland Norway in 2020 and 2021; see Chart 3.2A. The phasing-out of temporary coronavirus measures will cause the proportion to fall to 60 per cent in 2022, and the national budget's *underlying growth in expenditure* is projected at -3.4 per cent; see Chart 3.2B and Table 3.3.

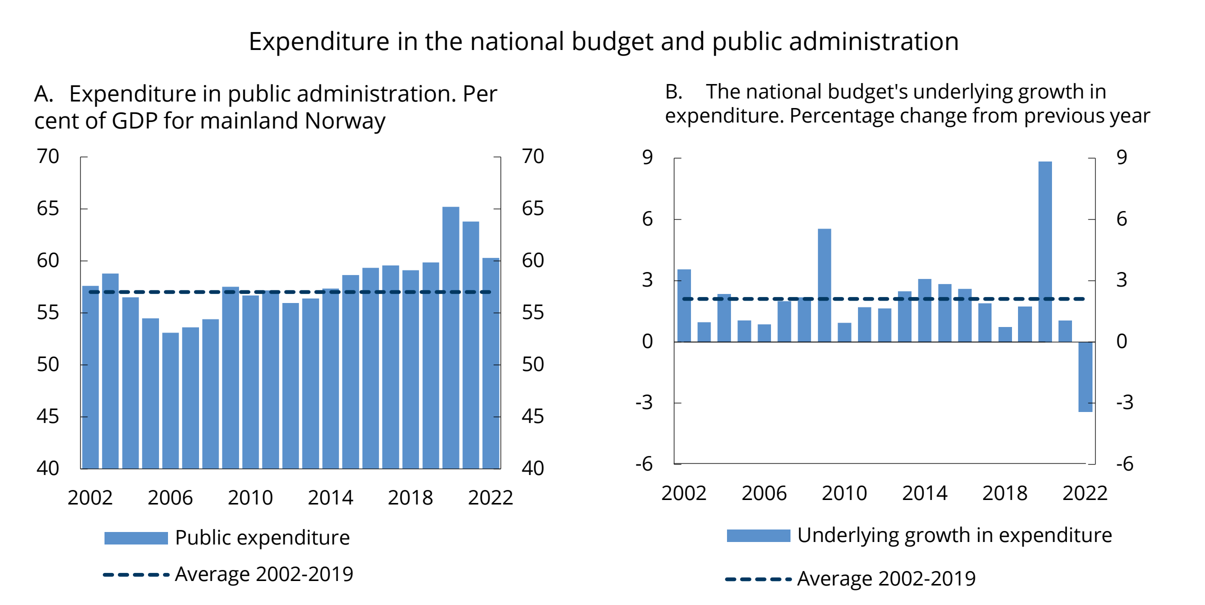

Chart 3.2 Expenditure in the national budget and public administration

[1] 'Public administration' comprises central government administration and municipal administration.

Sources: Ministry of Finance and Statistics Norway.

Table 3.1 The structural non-oil fiscal balance[1]. NOK million

	2020	2021	2022
Non-oil fiscal deficit	370 525	412 835	300 255
+ Net interests and transfers from Norges Bank. Deviation from trend	9 250	2 592	-615
+ Other technical corrections	1 885	7 279	2 475
+ Taxes and unemployment benefits. [2] Deviation from trend	-16 775	-25 481	20 304
= Structural non-oil fiscal deficit	364 885	397 225	322 419
Measured in per cent of mainland trend GDP	11,5	12,1	9,5
Percentage points change from previous year (fiscal impulse)[2] [3]	3,8	0,6	-2,6
Memo:			
Income from investments in the Government Pension Fund Global. Estimated trend	235 790	250 907	265 229
Structural non-oil fiscal deficit, including income from investments	129 095	146 319	57 190
Measured in pct. of trend-GDP for mainland Norway	4,1	4,5	1,7

[1] See Appendix 1 for a more detailed description of how the structural non-oil deficit is calculated.
[2] The corrections are affected by adaptations to the tax reform.
[3] Positive figures indicate that the budget has an expansionary effect. The indicator does not take account of different income and expenditure items impacting economic activity differently.

Source: Ministry of Finance.

Table 3.2 Key figures in the national budget and the Government Pension Fund. NOK billion

	2020	2021	2022
Total revenues	1 288.8	1 366.3	1 553.3
1 Revenues from the petroleum sector	134.4	210.1	303.6
1.1 Taxes and duties	35.4	58.9	167.9
1.2 Other petroleum revenue	99.0	151.2	135.7
2 Non-oil revenues	1 154.4	1 156.2	1 249.7
2.1 Taxes and duties from Mainland Norway	1 054.2	1 074.7	1 165.8
2.2 Other revenues	100.2	81.4	83.9
Total expenditures	1 552.5	1 595.0	1 576.5
1 Expenditure in the petroleum sector	27.6	26.0	26.5
2 Expenditures outside of petroleum sector	1 524.9	1 569.0	1 550.0
Budget surplus before transfer to the Government Pension Fund Global	-263.7	-228.7	-23.2
- Net cash flow from the petroleum sector	106.8	184.1	277.1
= Non-oil fiscal surplus	-370.5	-412.8	-300.3
+ Transfer from the Government Pension Fund Global	417.4	412.8	300.3
= Budget surplus	46.9	0.0	0.0
+ Net provision to the Government Pension Fund Global	-310.6	-228.7	-23.2
+ Revenues from interests and dividends etc. in the Government Pension Fund[1]	224.5	205.4	233.8
= Fiscal budget surplus and surplus in Government Pension Fund[1]	-39.2	-23.3	210.6
Memo:			
Market value of the Government Pension Fund Global[2]	10 086	10 907	12 250
Market value of the Government Pension Fund [2]	10 355	11 199	12 552
Obligations in National Insurance Scheme for old age pensions[2,3]	8 941	9 201	9 634

[1] Does not include currency gains or losses.
[2] At the beginning of the year.
[3] The present value of existing accrued rights to future old-age pension payments under the National Insurance scheme.

Sources: Ministry of Finance and Statistics Norway.

Table 3.3 The national budget's underlying growth in expenditure[1] from 2021 to 2022. Projections in NOK million and percentage change

		2021	2022
	Total expenditure	1 595 017	1 576 458
-	Government petroleum activities	26 000	26 500
-	Unemployment benefits	24 310	13 030
-	Interest payments	10 166	10 711
=	Expenditure other than for petroleum activites, unemployment benefits and interest payments	1 534 540	1 526 217
-	Refugees in Norway financed through development aid framework	458	573
+	Correction for pension premiums etc. in hospitals	-842	376
+	Transferred appropriations from 2020 beyond normal	9 700	
=	Underlying expenditures	1 542 940	1 526 020
	Value change in per cent.		-1.1
	Price change in per cent.		2.4
	Volume change in per cent.		-3.4

[1] The calculation of the underlying growth in expenditure excludes the national budget's expenditure on government petroleum activity, interest and unemployment benefit. In order to make the expenditure comparable over time, corrections have been made for extraordinary changes and certain accounting considerations according to standard procedures.

Source: Ministry of Finance.

Table 3.4 The Government Pension Fund Global, 3 per cent real return and structural non-oil budget deficit. NOK billion and per cent

	Current prices			Fixed 2022 prices			Structural deficit	
	Value of GPFG at the beginning of the year	3 per cent of fund capital	Structural non-oil fiscal deficit	3 per cent of Fund capital	Structural non-oil fiscal deficit	Deviation from 3 per cent path	Per cent of mainland trend-GDP	Per cent of fund capital
2001	386.6		16.8		33.2		1.4	-
2002	619.3		32.7		61.9		2.6	5.3
2003	604.6		39.2		71.4		2.9	6.5
2004	847.1		43.3		76.6		3.0	5.1
2005	1 011.5		45.6		78.3		3.0	4.5
2006	1 390.1		42.2		70.0		2.6	3.0
2007	1 782.8		44.3		70.0		2.6	2.5
2008	2 018.5		54.2		80.9		2.9	2.7
2009	2 279.6		94.2		135.3		4.8	4.1
2010	2 642.0		102.2		141.6		5.0	3.9
2011	3 080.9		95.0		127.1		4.4	3.1
2012	3 307.9		110.5		143.2		4.8	3.3
2013	3 824.5		125.4		157.2		5.2	3.3
2014	5 032.4		150.7		183.4		6.0	3.0
2015	6 430.6		176.0		209.3		6.7	2.7
2016	7 460.8		206.4		239.7		7.6	2.8
2017	7 509.9		222.0		252.4		7.9	3.0
2018	8 484.1	254.5	215.0	281.3	237.6	-43.7	7.3	2.5
2019	8 243.4	247.3	235.8	265.3	253.0	-12.3	7.7	2.9
2020	10 086.2	302.6	364.9	319.9	385.8	65.9	11.5	3.6
2021	10 907.1	327.2	397.2	335.1	406.8	71.7	12.1	3.6
2022	12 250.0	367.5	322.4	367.5	322.4	-45.1	9.5	2.6

Initiatives to promote economic growth

When the fiscal rule was introduced in 2001, great emphasis was placed on ensuring that oil revenues were used to promote growth in the Norwegian economy. During the consideration of the white paper ‘Long-term perspectives for the Norwegian economy 2017’, a unanimous finance committee noted that, in 2001, the parliament (Stortinget) stressed that oil revenues must not be used as an excuse not to implement essential system reforms. The committee stood behind the main priorities from 2001 that spending must be targeted at infrastructure, knowledge, and growth-promoting tax reductions.

The phasing-in of money from the fund increases the room for manoeuvre in the budgets over and above what follows from the underlying growth in taxes. For the years 2014–2022 viewed as a whole, around 10 per cent of the total room for manoeuvre in the budget was used for tax reductions; see Chart 3.3.

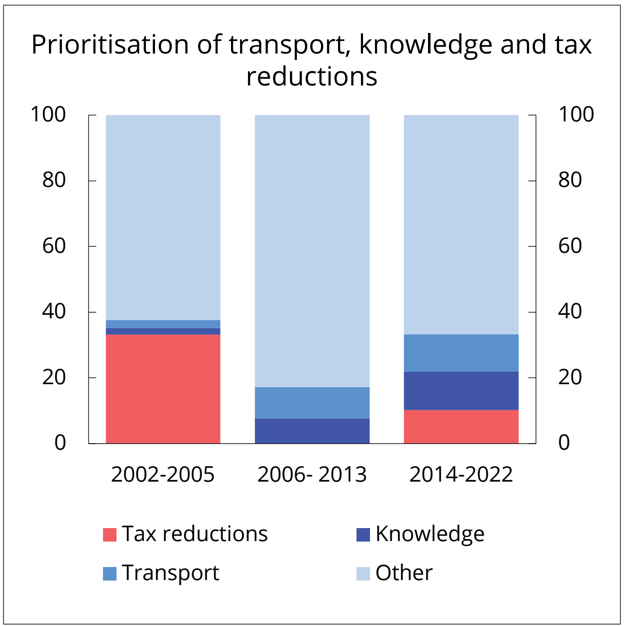

Chart 3.3 Prioritisation of transport, knowledge, and tax reductions. Per cent of total room for manoeuvre in the budgets

Source: Ministry of Finance.

The government has prioritised knowledge and transport. Just under 12 per cent of the room for manoeuvre during the period 2014–2022 was spent on initiatives relating to knowledge, while around 11 per cent was spent on transport initiatives. During the period 2006–2013, 8 per cent of the room for manoeuvre was spent on initiatives relating to knowledge, and 10 per cent on transport. In addition, increased expenditure in the National Insurance scheme has taken up approximately 26 per cent of the room for manoeuvre during the period 2014–2022. Around 17 per cent has been used to strengthen the municipal economy, including initiatives relating to knowledge and transport under municipal auspices. The extraordinary measures in 2020 and 2021 linked to the pandemic have been excluded from the calculations.

In line with the government's goals, the collective initiative relating to knowledge, transport and tax cuts was larger during the period 2014–2022 than under the previous government. Expenditure on transport and knowledge, as well as tax reductions, are broadly defined in the calculations and the growth-promoting effect of the individual measures has not been assessed. See Box 3.5 in the National Budget 2015 for a more detailed discussion of the calculations.

3.1.2 Fiscal policy going forward

The room for manoeuvre in the budgets going forward is expected to diminish; see the white paper on Long-term perspectives for the Norwegian economy 2021. Lower expected growth in tax revenues, lower expected growth in withdrawal from the Government Pension Fund Global and large obligations on the expenditure side of the budget, which are particularly linked to rising expenditure on pensions, health and care services, are contributory factors behind this; see Chart 3.4.

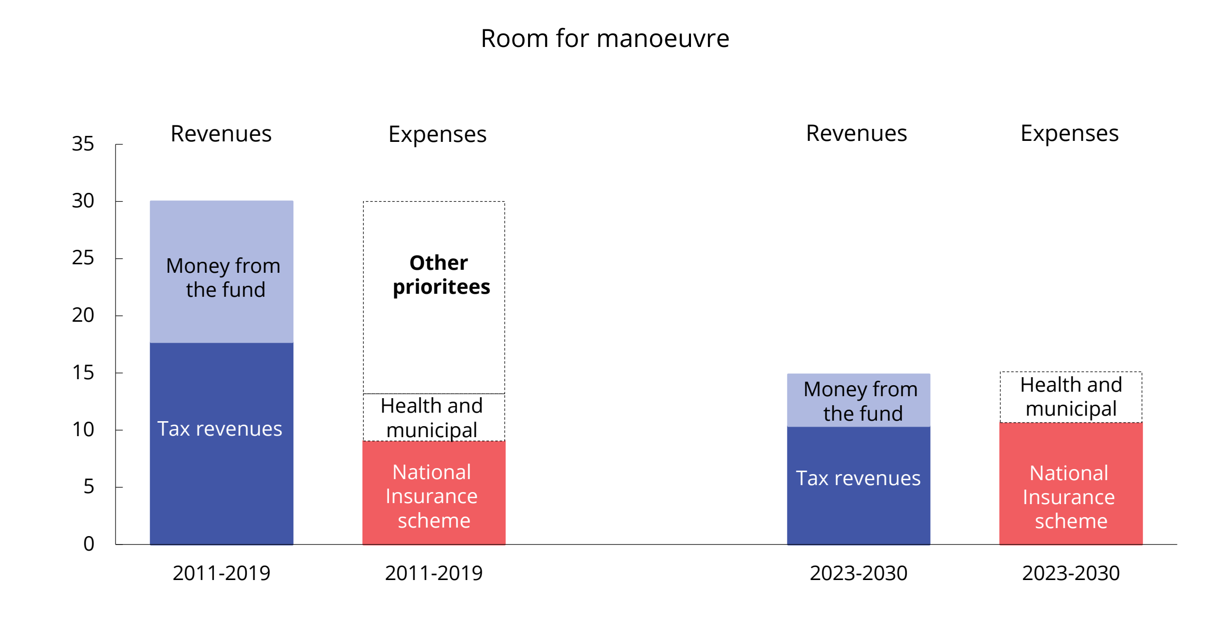

Chart 3.4 Projected annual growth in structural tax revenues, growth in the use of oil revenues and fund income, the National Insurance scheme and demographically driven costs in health enterprises and the municipal sector. NOK billion at 2021 prices

Source: The white paper on Long-term perspectives for the Norwegian economy 2021.

In the longer term, the challenges will increase, and the white paper on long-term perspectives on the Norwegian economy quantified the deficit in public sector finances at around NOK 5 billion per year through to 2060. This is partly because of the rising proportion of elderly people in the population and the expected decline in oil revenues. The reduced inflow of capital to the Government Pension Fund Global will eventually cause the contribution from the fund to the financing of the national budget to fall. At the same time, expenditure on old-age and disability pensions under the National Insurance scheme is expected to rise; see Chart 3.5.

It has only been six months since the white paper on Long-term perspectives on the Norwegian economy 2021 was presented, and the general picture of the long-term challenges for the sustainability of public sector finances remains the same. There is no basis for significant adjustments to any of the four components in Chart 3.4.

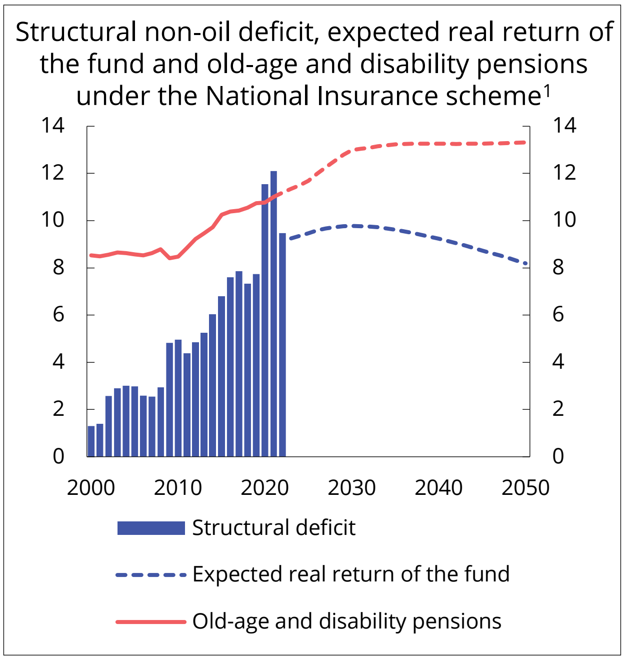

Chart 3.5 Structural non-oil deficit, expected real return of the Government Pension Fund Global and old-age and disability pensions under the National Insurance scheme.[1] Per cent of trend-GDP for Mainland Norway

[1] Expenditure under the National Insurance scheme relating to old-age and disability pensions has been projected based on the current pension system, the latest population projects from Statistics Norway (June 2020), and the long-term projections in the baseline scenario from the white paper on Long-term perspectives on the Norwegian economy 2021.

Sources: Ministry of Finance and Statistics Norway.

Development in central government revenues

Tax revenues from the mainland economy represent the central government's most important source of financing and will cover approximately 75 per cent of expenditure in the national budget in 2022.

The underlying growth in tax revenues has declined in recent years and is expected to decrease further over the next decade. Changes in the demographic composition of the population will pull down the workforce growth rate. Thus, the trend growth in the Norwegian economy and tax revenues will also be lower than they were in the past. In addition, the proportion of zero-emission vehicles amongst new car sales is expected to rise, causing a reduction in tax revenues. During the period 2023 to 2030, the underlying real growth in tax revenues is projected at NOK 10 billion per year at 2022 prices, compared with NOK 18 billion during the period 2011-2019.[5]

The fiscal rule indicates that the spending of money from the fund over time should correspond to the real return from the fund, estimated at 3 per cent. At the same time, fiscal

[5] NOK 18 billion during the period 2011-2019 refers to the average estimate of growth in structural tax revenues in the national budgets over the period.

policy should promote a stable development of the Norwegian economy in both the short and the long term.

As petroleum resources are extracted from the ground and converted into financial wealth, fluctuations in petroleum prices have become less important for the Norwegian economy, whilst fluctuations in share prices and uncertainty about the market value of the Government Pension Fund Global have gradually become more important for the national budget.

The value of the fund is now around four times GDP of the mainland economy, and the fund has become a more important source of financing compared to the past. Chart 3.6A shows the increase in value over the lifetime of the fund. Before the coronavirus pandemic, the fund covered around 15 per cent of expenditure in the national budget, while for next year it is projected that around 20 per cent of expenditure will be covered by the fund; see Chart 3.6B.

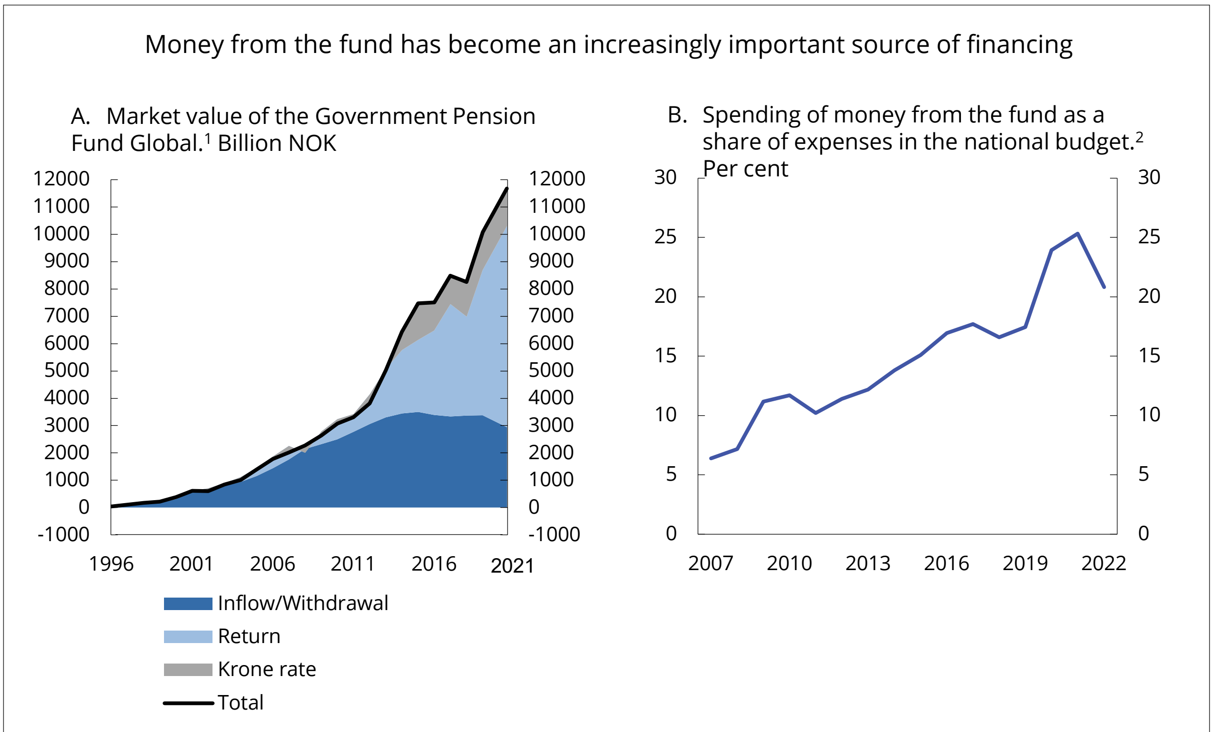

Chart 3.6 Money from the fund has become an increasingly important source of financing

[1] Net inflow comprises actual transfers of capital from central government to the fund, or vice versa. The return from the currency basket is reduced by accrued administration fees to Norges Bank. Through to the first half-year of 2021 inclusive.
[2] Expenditure excluding petroleum activity.

Sources: Norges Bank Investment Management and Ministry of Finance.

Over the coming years, transfers to the fund will decrease in line with the anticipated decline in cash flows from petroleum activity. When the fund is large and growing more slowly, it becomes more challenging to manage fluctuations. Following previous setbacks which have resulted in additional spending from the fund, the inflow of new petroleum revenues to the fund has brought the withdrawal back to the long-term guideline, without any need to reduce spending. We cannot count on this in the future.

When the fiscal rule was introduced 20 years ago, great emphasis was placed on ensuring that oil revenues were spent in a way which took account of the need to safeguard the stability of the Norwegian economy.[6] Emphasis was also placed on the need to ensure that the level of spending from the fund would continue to be sustainable even in the event of a drop in the price of oil. The focus on oil price risk must be viewed in light of the fact that the Norwegian economy had until then been strongly affected by fluctuating oil revenues, and that accumulation of oil revenues in the fund was at an early stage. Financial risk has become increasingly important as the oil wealth has been transferred to financial wealth. Fiscal policy must account for predictable reductions in the value of the fund, and ensure that such a fall does not bring about a need to impose substantial cuts in budget expenditure or increases in taxes, particularly in a situation where the economy is in a recession.

In order to address the level of uncertainty over the future value of the fund, the calculations in the white paper on Long-term perspectives on the Norwegian economy 2021 were based on a value for the fund as of the start of 2022 equal to the mean value of the fund during 2020. This resulted in a projected fund value which was about five per cent lower than a technical projection based on recent historic observation.[7]. The white paper on Long-term perspectives on the Norwegian economy presents an account of development trends in fiscal policy, the room for manoeuvre going forward and key assumptions. The long-term projections in this budget are based on the projected fund value used in the recent white paper on long-term projections.[8] As the value of the fund has risen substantially during the most recent half-year after the long-term perspectives were presented, there is now a somewhat greater distance to the current market value. The downward adjustment illustrates a fall in the value of the fund that is not unlikely; see the discussion below.

The calculations show that the annual spending of money from the fund can rise by an *average* of NOK (3–5) billion at 2022 prices over the next ten-year period.[9]

The estimated risk in the fund indicates that it would not be unusual for the fund to fluctuate by up to 10 per cent in any one year measured in foreign currency, and even greater fluctuations are anticipated in one in every three years.[10] During the financial crisis, the return

[6] See Report to the Storting No. 29 (2000-2001).

[7] See the report on Long-term perspectives for the Norwegian economy 2021.

[8] The long-term projections for the three per cent path from 2023 onwards assume a Fund value of NOK 10,400 billion at the start of 2022. The estimate that is used in the calculation of the spending of Fund capital of 2.6 per cent in 2022 is NOK 12,250 billion. This is based on the development in the market value of the Fund during the first six months of 2021.

[9] The calculation assumes that the majority of the remaining temporary coronavirus-related measures will be wound up in 2021.

[10] The Government Pension Fund Global's interim report for 2021 states that the expected absolute volatility of the Fund at the end of the first half-year was 10.6 per cent, compared with 10.4 per cent at the start of the year.

on the fund's investments was -31 per cent (measured in foreign currency).[11] During the coronavirus crisis, the fund's reference index briefly fell by 24 per cent, but the stock markets subsequently recovered rapidly.

Movements in the krone exchange rate can reinforce or counteract fluctuations in the fund measured in foreign currency. The krone exchange rate explains around 12 per cent of the increase in the value of the fund over the past 20 years; see Chart 3.6A. In its most recent monetary policy report, Norges Bank stated that it expects the krone exchange rate, measured through I-44[12], to strengthen by around 5 per cent through to 2024. This would in isolation reduce the market value of the fund in Norwegian kroner by a corresponding percentage.

We are now going through a prolonged period without any significant downturns in the stock markets. Over the past ten years, the real return of the fund has been 6.88 per cent, well above the expected real return on which the fiscal rule is based, and high from a historical perspective; see Chart 3.7B.[13] History shows that cycles with substantial increases followed by sharp downturns have regularly occurred in the stock markets; see Chart 3.7A. Chart 3.7C compares the development in the value of the fund with the value that the fund would have had if we historically had achieved the expected return assumed in each individual year. In recent years, the return has been significantly above the expected real return, and the estimated path is now around 40 per cent below market value. In section 2.4, reference is made to calculations from the IMF which show a substantial difference between actual and estimated share prices in the USA, close to the levels from the dotcom bubble in the early 2000s. The IMF has noted that a rapid and prolonged rise in interest rates could impact on the financial markets, resulting in a marked fall in share prices and more restricted access to credit.

[11] The figure refers to the return from November 2007 to February 2009. Over the same period, inflows to the Fund were substantial, which offset the negative development in the return.

[12] The I-44 index is a nominal effective exchange rate index based on NOK exchange rates as measured against the currencies of Norway's most important trading partners.

[13] The Government Pension Fund Global's interim report for 2021 states a net real return from the Fund over the past ten years, measured in a currency basket.

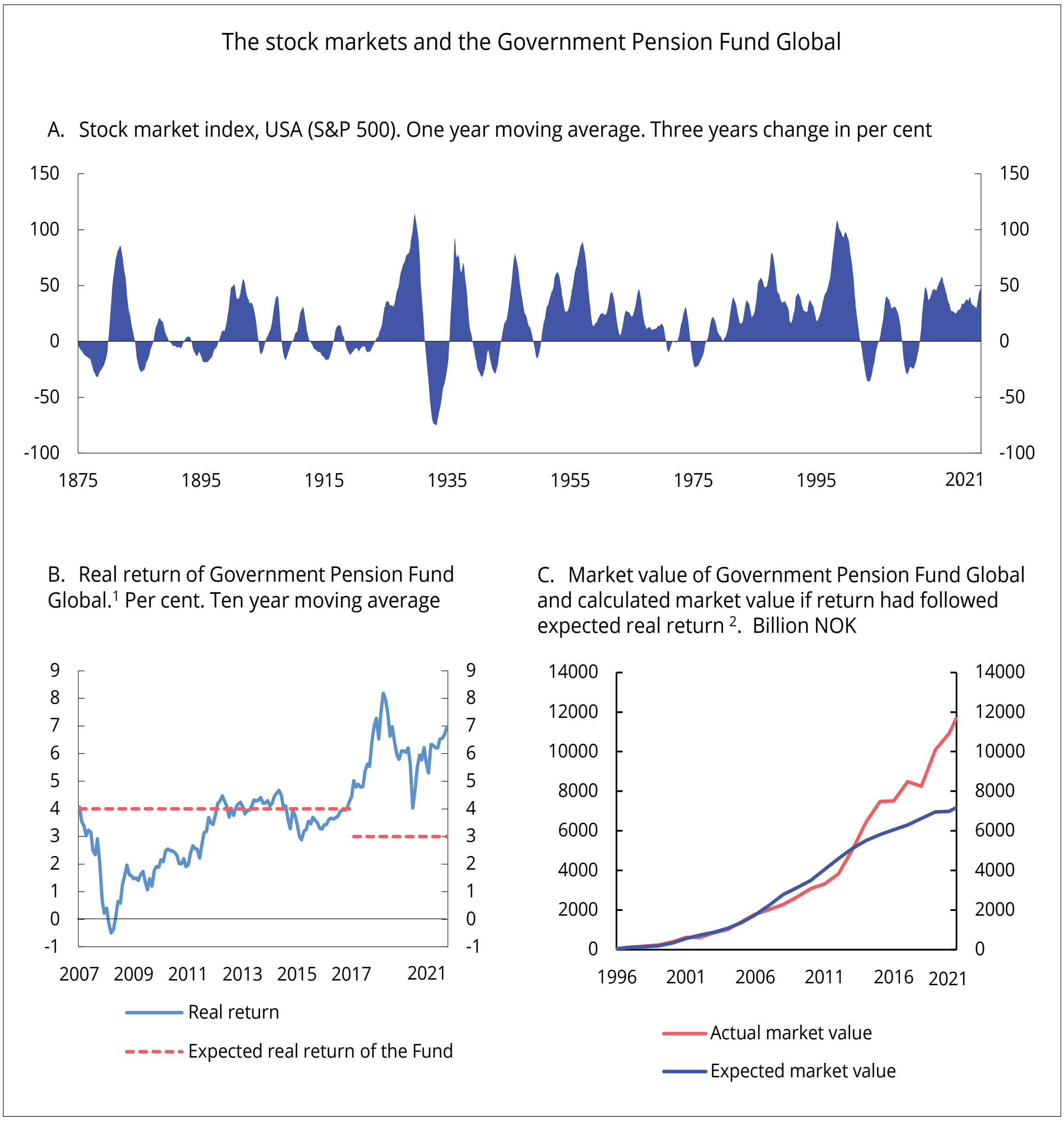

Chart 3.7 The stock markets and the Government Pension Fund Global

[1] Real return measured in the currency basket. Up to and including the first half-year of 2021.
[2] 'Expected market value' refers to the fund value as it would have been had the real return been equal to the ministry's expected value, 4 per cent until 2017 and 3 per cent thereafter. The realised inflation in the currencies in the fund's currency basket is used to convert from real values to nominal figures. Net inflows and management fees are converted to values measured in the fund's currency basket. The krone exchange rate is assumed to remain unchanged during the period. Up to and including the first half-year of 2021.

Sources: Macrobond, Norges Bank Investment Management and Ministry of Finance.

The authorities impose requirements regarding risk management and loss absorption capacity in a number of areas within society. The aim is to facilitate a stable development of the economy and ensure financial stability. Under the lending regulations, for example, households must generally provide at least 15 per cent equity when taking out a mortgage. Banks and other financial institutions must also fulfil certain equity requirements. The government has a substantial risk-bearing capacity and is not comparable to private sector operators. Nevertheless, a similar approach could enable fiscal policy to be managed more sustainably, thereby contributing to a more stable economic development. This could be achieved by using a lower estimate for the value of financial wealth when determining the room for manoeuvre in fiscal policy. This reflects the fact that we must be prepared for the value of the fund to fall permanently, and that it is more challenging to adapt the spending of money from the fund to a lower fund value than a higher one. A risk-adjusted calculation provides a better indication of the room for manoeuvre that should be assumed for fiscal policy a few years into the future, but this would of course not prevent a temporary, rapid and substantial, increase in the withdrawals from the fund if the economy should once again suffer major disruption. Such a risk adjustment must be subject to a more in-depth assessment.

Developments in central government expenditure

Looking ahead, there are several drivers affecting the expenditure side of the budget. It is anticipated that expenditure on the National Insurance scheme, particularly old-age pensions, will rise as a result of the ageing of the population. Between 2023 and 2030, expenditure on the National Insurance scheme, excluding unemployment benefit, is expected to rise by an average of just over NOK 10 billion per year at 2022 prices.

Demographic changes will also lead to increases in expenditure in the municipal sector and amongst hospitals by around NOK 4 billion annually over the coming years, if current standards and average resource use per capita are to be maintained. The projection for expenditure needs in the future do not take account of possible efficiency improvements in service production amongst the municipalities and hospitals, e.g. through the use of care technology, or the fact that longer life expectancies tend to be linked to better health, which in turn could reduce the need for public services.

The government's white paper on long-term perspectives shows how important high employment is for the sustainability of the welfare schemes. In particular, there are substantial benefits to be reaped if we can reduce the number of people on disability benefit, cut absence due to illness, integrate more immigrants into working life, get more workers into full-time employment, encourage older people to remain in employment for longer, and get young people through the education system and into a job.

A more efficient public sector will also be important. The de-bureaucratisation and efficiency reform is expected to generate annual savings of NOK 1½-2 billion over the coming years. Further efficiency gains or reprioritisations will also give more room for manoeuvre.

At the same time, political objectives, which are expressed in declarations of intent, reports to the parliament (Stortinget), majority remarks in Stortinget and elsewhere, provide strong guidance as regards future budgets. Follow-up of the long-term plan for the defence sector and the National Transportation Plan (NTP) are examples of high-priority areas with political bindings. Initiatives in these and other areas must be given priority within the overall room for manoeuvre in the budget.

3.1.3 Updated figures for fiscal policy in 2021

The coronavirus pandemic gave rise to an urgent need for a fiscal policy response in 2020 and 2021. In addition, tax revenues were below their long-term trend and expenditure on unemployment benefit was high, with the result that automatic stabilisers also contributed countercyclically and weakened the non-oil fiscal deficit.

The spending of money from the fund in 2021 is now projected at NOK 397.2 billion, as measured by *the structural non-oil fiscal deficit.* This is NOK 20.5 billion more than in 2020, measured at 2021 prices. The increase in the deficit is primarily due to an active fiscal policy also in the face of the crisis in 2021. In addition, there has been a rise in expenditure which cannot be linked to the pandemic, including increased expenditure on the National Insurance scheme and other high priority purposes.

Nevertheless, the fiscal deficit seems to be lower than projected this spring. The projection for the structural non-oil deficit has been adjusted downwards by NOK 11.3 billion since the Revised National Budget 2021; see Table 3.5. Much of the improvement can be explained by an upward revision of underlying structural taxes, due to stronger than expected economic development, and an upward revision in projected annual wage growth for 2021. Changes in account estimates for revenues, excluding taxes, and expenditures also contribute to an improvement in the structural balance in 2021. For example, the projection of climate quota revenues has been adjusted upwards, while projections for certain expenditure items have been adjusted downwards.

Table 3.5 Key figures in the 2021 budget. Projections for 2021 at different times.[1] NOK billion

	Balanced budget 2021	Correction	Revised budget 2021	Correction	National budget 2022
Fiscal budget surplus and surplus in Government Pension Fund................	-63,0	-0,7	-63,7	40,4	-23,3
Non-oil fiscal deficit.........................	396,6	30,4	427,0	-14,2	412,8
Structural non-oil fiscal deficit	344,6	63,9	408,5	-11,3	397,2
In pct. of mainland trend-GDP.......	10,4	2,1	12,5	-0,4	12,1
Per cent of fund capital..................	3,3	0,4	3,7	-0,1	3,6
Memo (percentage pionts):					
Budget impulse[2]................................	-2,0	2,7	0,8	-0,2	0,6
Real underlying expenditure growth.	-3,1	5,0	1,9	-0,9	1,0

1 Balanced budget 2021 adopted in autumn 2020, adopted Revised National Budget 2021 following deliberation by the Storting of RNB21 in June 2021 and the National Budget 2022.

2 Change in structural non-oil fiscal deficit measured as a proportion of the trend-GDP of Mainland Norway. A positive figure indicates that the budget has an expansionary effect.

Source: Ministry of Finance.

The extraordinary crisis measures which have so far been implemented in 2021 are projected at NOK 97.7 billion. This is NOK 3.7 billion more than projected in the Revised National Budget 2021, partly as a result of higher appropriations following deliberations by Stortinget. By way of comparison, a total of NOK 135 billion was allocated to crisis measures in 2020, measured at 2021 prices; see also the discussion in section 3.1.4.

The fiscal impulse, which measures the change in the *non-oil structural deficit* from one year to the next as a proportion of the trend-GDP of mainland Norway, is projected at 0.6 per cent in 2021. The fiscal impulse has not been adjusted for the comprehensive temporary economic measures during these years. If the coronavirus measures are excluded, the fiscal impulse in 2021 is projected at 1.1 per cent. The fiscal impulse in 2021 must be viewed in context with the fact that the impulse was no less than 3.8 per cent in the previous year.

The spending of funds in 2021 is now projected at 3.6 per cent of the capital in the Government Pension Fund Global at the year-end. The high *withdrawal ratel* is partly a result of the high level of expenditure in response to the pandemic. *The real underlying growth in national budget expenditure* is projected at 1.0 per cent in 2021. The growth in expenditure must be viewed in the context of the strong growth which occurred in 2020.

The *non-oil fiscal deficit* is projected at NOK 412.8 billion in 2021.

The projection for *government's net cash flow* from petroleum activity in 2021 has been adjusted upwards by NOK 30.1 billion since the revised budget, to NOK 184.1 billion. The upward adjustment is primarily due to higher estimates for the price of gas.

The total deficit in the national budget and the Government Pension Fund, which includes interest and dividend incomes from the fund and the cash flow from petroleum activity, is projected at NOK 23.3 billion in 2021, an improvement of NOK 40.4 billion compared with the projection in spring; see Table 3.7. This corresponds to just under 1 per cent of the trend-GDP of mainland Norway.

If we consider 2020 and 2021 as a whole, the fiscal policy is clearly expansionary, as Box 3.3 shows.

3.1.4 Economic management of the coronavirus pandemic

An overarching goal for the government in its economic management of the crisis, has been to protect jobs and prevent unemployment from permanently remaining at a high level. The aim of the economic measures towards businesses has been to ensure that viable enterprises can survive the crisis, thereby protecting jobs in the process. Employees would then be able to return to work once the strict infection control measures had been phased out and the level of economic activity had recovered. Experience shows that the measures largely worked as intended; see the discussion in Chapter 2.

In its approach to the economic measures in response to the crisis, the government placed great emphasis on six key factors. These factors were based on experience both from the pandemic itself and from previous crises; see the separate discussions in Government Bill 127 S (2019–2020), Government Bill 79 S (2020–2021) and the Revised National Budget 2021. The economic measures were to be targeted and temporary, have a plan for their phasing out, offer the best possible incentives and at the same time be structured in a manner which prevented their abuse. During the crisis, the economic measures were adjusted in line with changes in the infection control measures and the economic situation.

The crisis measures helped to support many businesses and organisations during the crisis. In 2020, a total of NOK 131.3 billion was allocated via the national budget to economic measures in the face of the pandemic (NOK 135 billion measured at 2021 prices; see Chart 3.8). For 2021, economic measures with a total value of NOK 98 billion have been approved.

In the Revised National Budget for 2021, the government presented a comprehensive plan for a roadmap out of the crisis. Amongst other things, this plan places great emphasis on new and enhanced skills, new growth amongst private enterprises, measures to protect vulnerable groups and a green transition.

	2020	2021	Total
Business	69	35	104
Households	19	20	39
Sectors with duties of critical importance	41	38	79
Culture, sports and volunteering	6	4	10
Total	135	98	233

Chart 3.8 Economic measures in 2020 and 2021 in response to the pandemic[1]. NOK billion at 2021 prices

[1]The total amount of NOK 135 billion for 2021 at 2021 prices corresponds to NOK 131.3 billion at 2020 prices.

Source: Ministry of Finance.

The economic crisis is now over, and society is re-opened. There is no longer need for central government support measures based on pre-pandemic activity levels. At a general level, schemes which cover lost income will reduce the incentive to counteract such losses. This can inhibit growth and restructuring of the economy. The general idea has therefore been that the crisis measures should be temporary. Economic crisis measures are also being phased out in other Nordic countries, and public sector budgets are being tightened; see Box 3.5.

3.1.5 Development in public sector finances

The public administration surplus is measured in the national accounts through net financial investments. For Norway, net financial investments in public administration – the collective of central government and municipal administration, including the Government Pension Fund – are projected at around NOK 231 billion in 2022. This corresponds to 5,8 per cent of GDP; see Table 3.6. In 2021, net financial investments in the public administration amounted to around NOK 40 billion.

Table 3.6 Net financial investments in the public administration.[1] NOK million and per cent of GDP

	2020	2021	2022
A. Central government's net financial investments, accrued value ..	-72 085	56 267	285 348
Fiscal budget surplus and surplus in Government Pension Fund.	-39 191	-23 334	210 646
Non-oil fiscal deficit	-370 525	-412 835	-300 255
Net cash flow from petroleum activity	106 825	184 101	277 101
Revenues from interests and dividends etc. in the Government Pension Fund	224 510	205 400	233 800
Surplus in other government and social security accounts [2]	31 085	-2 743	-5 478
Differences in definitions between central government accounts and national accounts[3]	-63 979	82 344	80 180

B. Municipal net financial investments, accrued value....................	-25 456	-16 229	-53 939
Municipal sector surplus, accounted value..................................	-25 191	-21 469	-43 604
C. Public administration net financial investments (A+B)	-97 541	40 038	231 409
As share of GDP	-2,9	1,0	6,1

[1] Includes the central government administration's accrued, but not booked, taxes, partly linked to petroleum activity. A correction has also been made for capital deposits in commercial operations, including government petroleum activity, being counted as financial investments in the national accounts.
[2] The surplus in other government and social security accounts in 2020 is due to non-conformant developments in loss provisions and realised losses in the government loan guarantee schemes.
[3] The table is based on the definitions used in the national accounts, which use accrued amounts. The difference between 2020 and 2021 can be attributed to accrued taxes, including petroleum taxes, being considerably lower than the booked amounts in 2020. This was reversed in 2021.

Sources: Statistics Norway and the Ministry of Finance.

The development of the public administration surplus is strongly affected by the revenues from petroleum activity and interest and dividend incomes in the Government Pension Fund. Excluding these incomes, the government has in recent years been recording a substantial deficit. In line with the Government Pension Fund Act, this deficit is being covered by a transfer from the Government Pension Fund Global to the national budget. The municipal administration has also seen negative net financial investments in recent years, largely as a result of high gross real investments.

A frequently used indicator for budget balance in European countries is net financial investments expressed as a percentage of GDP. The public sector budgets of the OECD countries and the countries in the euro zone have on average been in deficit. According to OECD estimates, member countries will collectively end up with a public administration deficit equivalent to 6 per cent of GDP in 2022. In recent years, the deficits amongst the OECD's member countries have generally been somewhat lower, but they rose to just over 10 per cent of GDP in both 2020 and 2021 as a result of the pandemic; see Chart 3.9A. IMF estimates show an average budget deficit globally in 2021of 8.8 per cent of GDP.

Norway's tax levels are higher than the average of the OECD countries, but lower than many other Nordic countries measured as a proportion of the country's GDP; see Chart 3.9B. The proportion of tax revenues will vary somewhat, partly depending on the extent to which public pension and benefit payments are subject to taxation.

From 2019 to 2021, public expenditure as a proportion of Mainland GDP rose from around 60 per cent to 63.8 per cent. This increase is partly a result of increases in public expenditure and reduced economic output in the mainland economy. Lower expenditure and higher GDP result in an expected drop in public expenditure expressed as a proportion of GDP to 60.3 per cent of mainland GDP in 2022; see Chart 3.9C. Historically, this is still a high level, and one which has not been seen since the early 1990s.

Public sector expenditure consists of public sector spending, transfers and real investments. Chart 3.9D shows that the development in public sector spending reflects the development in overall public sector expenditure. The level of public sector spending in Norway as a proportion of the mainland economy is not only somewhat higher than in the euro zone, but also higher than in Sweden and Denmark.

Gross investments in physical capital within the public administration, i.e. public sector expenditure for construction of roads, railways and public buildings, has also increased. This is in line with the government's desire to direct the increased use of oil revenues towards infrastructure, amongst other things, in order to promote growth. The level of public sector gross investments in physical capital has for many years been higher in Norway than in many other industrialised countries. The difference has increased since 2013, as many countries have reduced their investments in physical capital to strengthen their public sector budgets. Chart 3.9E compares gross investments in physical capital within the public administration as a proportion of Mainland GDP and the corresponding proportions in Sweden and Denmark.

Developments in public sector net receivables depend both on the current surplus or deficit and on changes in the market value of the portfolio of outstanding receivables and debt, such as shares and bonds. Including the capital in the Government Pension Fund and capital deposits in government commercial operations, public sector net receivables are projected at around NOK 14.330 billion at the end of 2022, or 357 per cent of GDP; see Chart 3.9F. Most of this is in the form of capital in the Government Pension Fund.

Very few OECD countries have positive net receivables within their public administration. For the OECD countries as a whole, the public administration is estimated to have negative net receivables, i.e. net debt, equivalent to almost 85 per cent of GDP in 2022. This net debt rose sharply in 2020 and 2021 as a result of high public sector deficits.

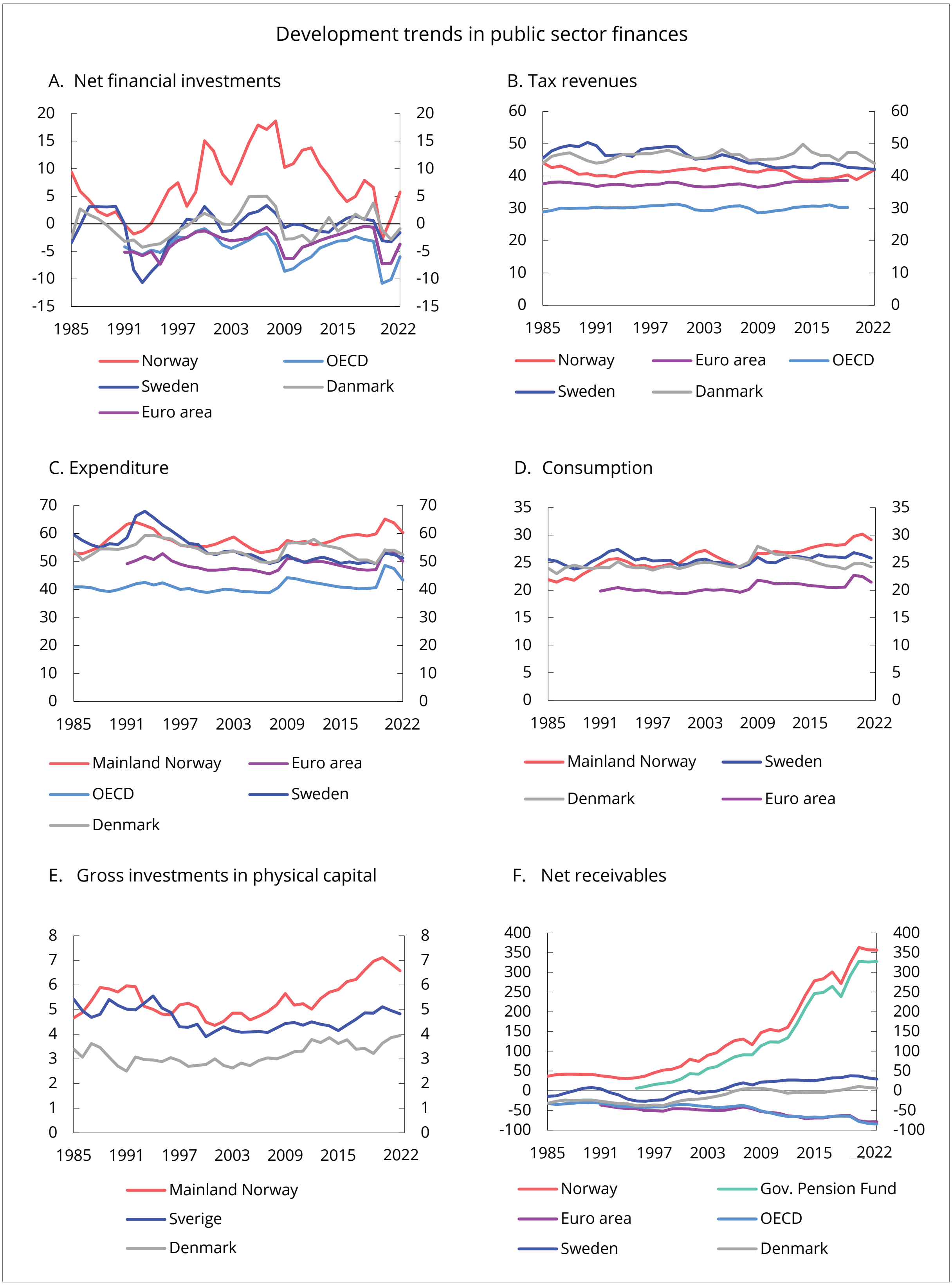

Chart 3.9 Development trends in public sector finances. Per cent of GDP

Sources: Norwegian Ministry of Finance, Swedish Ministry of Finance, Danish Ministry of Finance, OECD and Statistics Norway.

Box 3.1 Terms

Non-oil fiscal deficit: The national budget's deficit when revenues and expenditure linked to petroleum activity are excluded. The non-oil fiscal deficit is covered by transfers from the Government Pension Fund Global.

Structural non-oil fiscal deficit: The non-oil fiscal deficit adjusted for economic fluctuations and other more temporary fluctuations in individual revenues and expenses, known as 'activity corrections'. The corrections are done by estimating long-term trend values, or underlying values, for taxes and unemployment benefits. The structural non-oil fiscal deficit is intended to capture the underlying fiscal policy stance, and the activity corrections will be small or zero in a neutral economic situation. According to the fiscal rule, the structural non-oil fiscal deficit shall over time be in line with the expected long-term real return from the fund, estimated at three per cent. Although the actual withdrawal from the fund corresponds to the non-oil fiscal deficit, it is the structural non-oil deficit which is referred to as "spending of money from the fund" or "spending of oil revenues". The latter two terms are used interchangeably with the same meaning, reflecting the fact that the fund primarily consists of oil revenues which have not been spent, but appropriated to the fund for future use.

Automatic stabilisers: Reduction or increase in the budget deficit due to the economy performing either better or worse. During boom periods, tax revenues will increase and unemployment benefit expenditures will fall. The resulting improvement of the budget balance will slow down the booming economy. During periods of recession, tax revenues will fall, while unemployment benefit expenditures will rise. This weakening of the non-oil fiscal balance stimulates the economy. If the aim had been to maintain the nominal fiscal balance at an unchanged level throughout the economic cycle, it would have been necessary to pursue a tighter fiscal policy when activity levels in the economy are low, and a more expansionary fiscal policy when activity levels are high. This would result in a less stable economic development. The activity corrections explained in the section on the structural non-oil fiscal deficit are used as an indicator for the automatic stabilisers.

Fiscal impulse: The fiscal impulse measures the change in the spending of money from the fund from one year to the next, measured as a proportion of trend GDP of the mainland economy. The indicator provides a simple measurement of the effect of the budget on demand for goods and services in the economy. When the indicator is positive, i.e. the deficit increases from one year to the next, fiscal policy is considered to be expansionary. When the deficit is kept at a stable level as a proportion of the economy and the indicator is zero, fiscal policy is considered neutral. Similarly, fiscal policy is referred to as being contractive when the indicator is negative.

The fiscal impulse indicator does not capture the effect of the automatic stabilisers, or the fact that changes in different revenues and expenditures affect the economy in different ways. However, this can be clarified by analysis using macroeconomic models such as KVARTS, as is regularly reported in budget documents. See also Box 3.3.

Box 3.2 The fiscal policy framework

Like most other countries, Norway has a fiscal policy framework which imposes requirements on the budget's balance. The framework in Norway also encompasses the country's special situation, with substantial, temporary petroleum revenues and large financial wealth.

Since 2001, the Government Pension Fund Global and the fiscal rule have provided a plan for spending of oil revenues via the national budget and the management of petroleum wealth in a way that contributes to stable economic development, promotes growth, and which will also benefit future generations. As a result of the oil revenues, we can reap the benefits of higher expenditure levels and/or lower tax levels than other countries and what we would otherwise have had.

The Government Pension Fund Act stipulates that the government's net cash flow from petroleum activity must be allocated to the Government Pension Fund Global in its entirety, and that money can only be transferred from the fund to the national budget following a resolution by the parliament (Stortinget). The return of the fund is recognised as income directly in the fund. Since 2001, the following guidelines (known as 'the fiscal rule') have applied to withdrawals from the fund:

- Over time, the spending of money from the fund must be in line with the expected real return from the Government Pension Fund Global.
- Strong emphasis must be placed on smoothing out fluctuations in the economy to ensure good capacity utilisation and low unemployment.

The expected real return from the Government Pension Fund Global was initially estimated at 4 per cent, but this was subsequently adjusted downwards to 3 per cent in the white paper on long-term perspectives in 2017[14]. The fiscal policy framework facilitates the maintenance of the real value of the Fund, to the benefit of future generations. At the same time, the fund and the fiscal rule help protecting the national budget from short-term fluctuations in oil revenues and provide room for manoeuvre in fiscal policy to counter economic setbacks.

The money that is transferred from the fund to the national budget must be used to cover the non-oil deficit in the national budget. The money transferred from the fund forms part of a collective budgetary process and are not earmarked for specific purposes. Provided there is capital in the fund, any deficit in the national budget must be covered by transfers from the fund, rather than through borrowing; see the Government Pension Fund Act.

Capital in the fund is exclusively invested abroad as a financial investment, with an aim to achieving the highest possible return over time with a moderate risk level. The fact that the revenues are invested abroad promotes predictability in the market for Norwegian kroner. This prevents the accrual of the fund from becoming a source of instability in the Norwegian economy. Although money from the fund accounts for a substantial proportion of the financing in the annual national budgets, tax revenues from mainland Norway are the central government's most important source of financing.

The structural non-oil budget balance forms the basis for the budget policy. By correcting for economic factors in the budget balance, we enable the automatic stabilisers to take effect via changes in unemployment benefit and taxes. In countries like Norway which have well-developed public sector welfare schemes, such activity corrections are greater than in countries where the public sector plays a less important role. The automatic stabilisers normally compensate for over half of the income lost in the private sector during an economic recession, and to generate corresponding income during an economic boom.

Since the fiscal rule was established in 2001, strong growth in the fund capital has provided scope for a considerable increase in the spending of money from the fund. The framework has also made it possible to eliminate the link between the accrual of oil revenues and the spending of these revenues; see Chart 3.10.

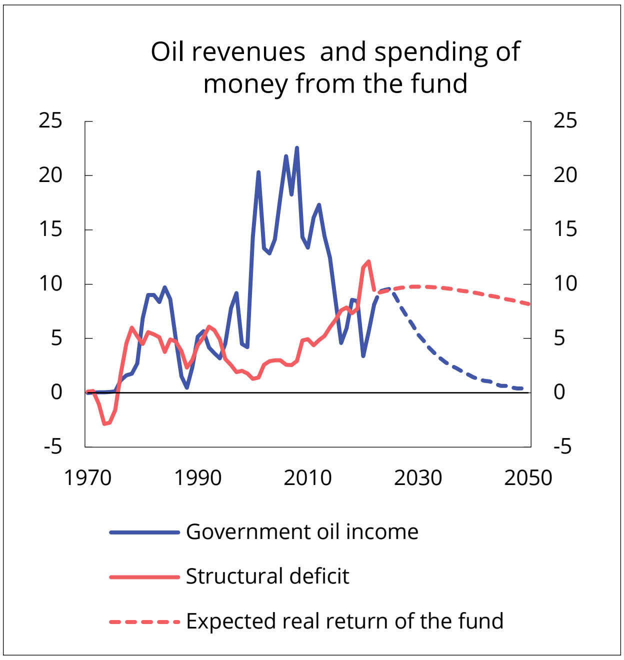

Chart 3.10 The government's petroleum revenues, structural non-oil deficit and expected real return from the Government Pension Fund Global. Per cent of trend-GDP for Mainland Norway

Source: Ministry of Finance.

[14] White paper to the Storting No. 29 (2016-2017).

Box 3.3 Fiscal policy effects on economic activity 2020 – 2022 2020 – 2022

The effects of fiscal policy can be analysed in various ways. A common indicator is the change in the structural non-oil fiscal deficit, measured as a proportion of the trend-GDP for the mainland economy, from one year to the next; see Box 3.1. This provides information on underlying spending of oil revenues but does not capture the overall macroeconomic impact of the budget. When assessing fiscal policy effects on economic activity, consideration should also be given to the effects of automatic stabilisers, as well as the fact that changes in various public sector revenues and expenditures can affect activity levels in different ways. Consideration should also be given to the fact that the fiscal policy pursued in any one year will also impact the economy in subsequent years. Budget effect calculations performed using economic models take account of such effects and can therefore fill in the picture of the economic effects of budget policy.

Budget effect calculations from the macromodels KVARTS and NORA[15] are summarised in Tables 3.7 and 3.8. The model calculations show the effects on mainland-GDP of actual and projected developments in primary government revenues and expenditures deviating from revenues and expenditures growing in line with the trend growth in the economy. Effects of economic policy on activity levels are analysed using fiscal policy multipliers in the two models.

The analyses indicate that the fiscal policy pursued during the crisis years of 2020 and 2021 helped boosting activity levels in 2021 by between 0.9 per cent according to NORA and 1.1 per cent according to KVARTS.[16] The substantial budget impulse in 2020 is largely linked to increased net income transfers to households and businesses. According to KVARTS and NORA, this had a limited impact on overall demand and production in 2020, but the effect is greater over the next two years. This reflects the fact that a proportion of public sector spending in 2020 contributed to an increase in household savings, which in turn is expected to contribute to the consumer-driven growth that is anticipated in 2021 and 2022.

The KVARTS analysis indicates that the overall effect on GDP in 2022 of the budgets during the period 2020-2022 is positive, even though the budget programme for 2022 will in isolation dampen activity. According to NORA, the overall effect on the activity level in 2022 is somewhat lower than in KVARTS, partly because the increase in transfers to households in 2020 has a more immediate impact on consumption and economic activity in NORA compared to KVARTS. [17] Budget effect calculations during the pandemic are highly uncertain. The models used are calibrated and estimated based on historical relationships, which may not hold during a pandemic.

The KVARTS and NORA analyses are based on the assumption that any unexpected increase in transfers will largely be saved, in line with historical data. During the pandemic, the unemployment rate has been particularly high, and most of the increase in transfers to households are unemployment benefits that compensate households for loss of income. If one assumes that the increased transfers to households (primarily unemployment benefits) are fully translated into increased consumer spending, the expansionary effect of the fiscal policy will be accelerated. As regards to overall activity levels, the effect will nevertheless be about the same as indicated in Tables 3.7 and 3.8.

The analyses are limited to how the individual expenditure and income groups in the national budget impact the level of activity in the economy. The analyses do not address the effects of removing the infection control measures, which in themselves are expected to increase demand. Overall, a very strong upturn is expected in the Norwegian economy both this year and next year.

Table 3.7 Budget effects on mainland GDP according to KVARTS. Per cent

	Fiscal impulse [1]	Effects on mainland GDP		
		2020	2021	2022
Fiscal impulse 2020	3,4	0,1	0,7	1,2
Fiscal impulse 2021	0,0		0,4	0,3
Fiscal impulse 2022	-2,9			-0,9
Total 2020, 2021 og 2022[2]	0,4	0,1	1,1	0,6

Table 3.8 Budget effects on mainland GDP according to NORA. Per cent

	Fiscal impulse [1]	Effects on mainland GDP		
		2020	2021	2022
Fiscal impulse 2020	3,4	0,4	0,6	0,7
Fiscal impulse 2021	0,0		0,4	0,1
Fiscal impulse 2022	-2,9			-1,0
Total 2020, 2021 og 2022[2]	0,4	0,4	0,9	-0,2

[1] The budget impulses in the table differ from the traditional "budget impulse" measured through changes in the structural non-oil deficit, partly because the automatic stabilisers are included, and partly because the model includes different effects from different types of public sector revenues and expenditure.
[2] As a result of roundings, the sum of the individual elements above may differ from the sum presented on this row.

Source: Ministry of Finance.

[15] KVARTS is a macroeconomometric model estimated using Norwgian data. NORA is a dynamic stochastic general equilibrium model which has been calibrated on Norwegian data with a view to analyse the effects of fiscal policy.

[16] For the KVARTS analysis, this is somewhat lower than in corresponding analysis in the Revised National Budget 2021. The difference can be explained by upward adjustments in accrued tax revenues for 2020, which dampen the impulse from automatic stabilizers this year.

[17] The effects on mainland GDP of increased transfers will also depend on how the transfers are financed in the model, and the extent to which it is assumed that households will take into account future spending cuts when making consumption and savings decisions. NORA is currently calibrated, but an estimation project is ongoing. This will likely improve the features of the model.

Box 3.4 Uncertainty regarding the future value of the fund

The development of the Government Pension Fund Global is determined by incoming oil receipts, the return on investments in the fund and transfers from the fund to the national budget.

The government's proposed budget for next year will entail a withdrawal of the fund's capital in 2022 corresponding to 2.6 per cent of the projected capital in the Government Pension Fund Global at the beginning of the year. This is based on a value of the fund projected at NOK 12.250 billion at the beginning of 2022. There is considerable uncertainty about the development in the value of the fund going forward.

The budget proposal is based on a withdrawal from the fund which is well below the long-term guideline of 3 per cent. Chart 3.11A shows the withdrawal in percent of the fund under the assumption of alternative fund values at the beginning of the year.[18] The chart illustrates that in the event of a drop in value of 10 per cent compared with what was assumed when the budget was completed, i.e. to a fund value close to NOK 11.000 billion, the withdrawal from the fund will be 2.9 per cent. A drop in fund capital of 25 per cent, i.e. to NOK 9.200 billion, will result in a withdrawal of 3.5 per cent given the spending of money from the fund as outlined in the budget.

There is even greater uncertainty over the value of the fund looking further ahead. Chart 3.11B illustrates the uncertainty concerning the future real rate of return and shows the development in the real value of the Government Pension Fund Global through to 2030 based on stochastic simulations.[19] The dark and pale fan-shaped areas indicate the 50 per cent and 90 per cent confidence intervals respectively, which with the given assumptions indicate the probability that the real value of the fund will lie within these intervals.

The underlying probability distribution will in isolation mean that the upside will be somewhat greater than the downside in the range of outcomes in the simulations.[20] In addition, the inflow of petroleum revenues will dampen the negative effects. It is challenging to quantify the probability of extreme outcomes that occur rarely. There is also uncertainty stemming from the simulation model, for example, whether the probability distributions sufficiently capture the possibility of very large drops in capital markets. The analysis may therefore underestimate the downside risk in the fund.

[18] The estimated risk in the fund indicates that fluctuations up to 10 per cent in any one year measured in foreign currency will be considered ordinary, and even greater fluctuations are anticipated in one in every three years; see section 3.1.2.

[19] Annual withdrawals corresponding to 3 per cent of the fund capital are assumed in all the alternative calculations.

[20] These calculations assume that the probability distribution of future returns measured in per cent are symmetrical. This suggests a slightly larger upside than downside to the fund value in the future.

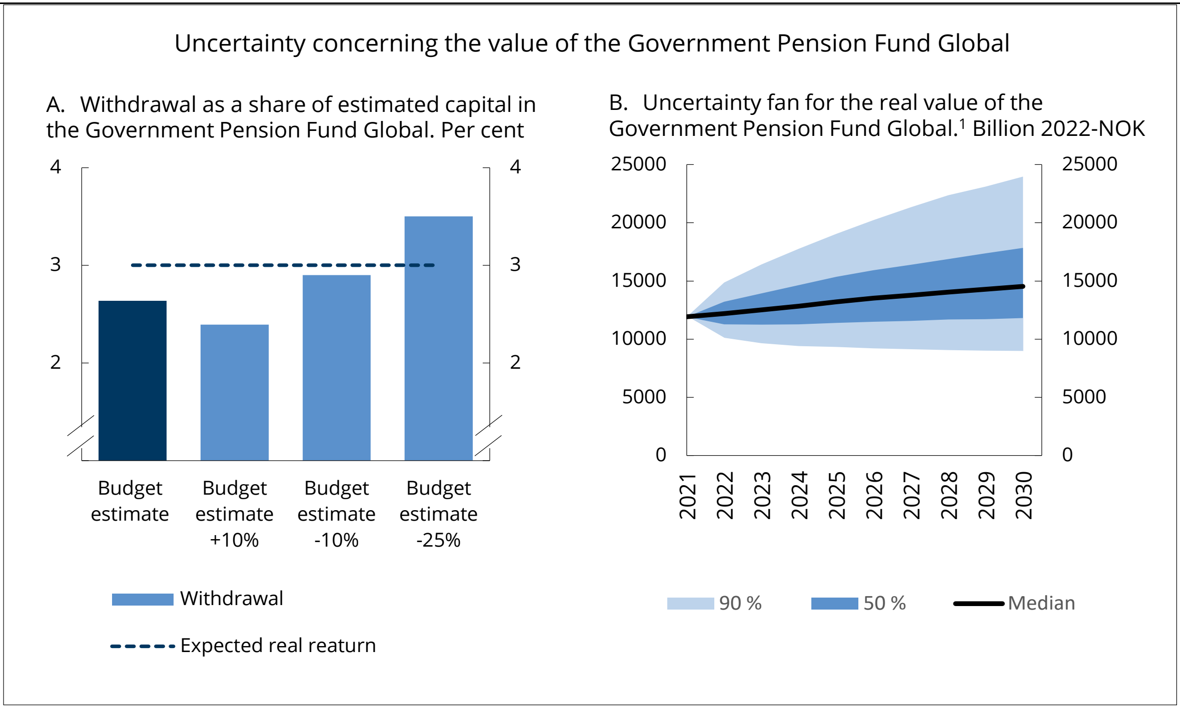

Chart 3.11 Uncertainty concerning the value of the Government Pension Fund Global

[1] The simulations are based on a value of the fund at the beginning of the second half of the year 2021 at 11 919 billion 2022-NOK.

Source: Ministry of Finance.

Box 3.5 Fiscal policy in the Nordic countries during the coronavirus crisis and expected tightening

Although Sweden pursued a different infection control strategy than Norway and Denmark, the three countries have experienced a relatively similar economic development through 2020 and 2021. The GDPs of all three countries are now above pre-pandemic levels; see Chart 3.12. As their economies have recovered, most of the temporary economic measures have been phased out in the three countries.

Chart 3.12 GDP in Nordic countries, seasonally adjusted volume indices

Source: Macrobond.

The Nordic countries face relatively different situations as regards central government finances. While Norway is able to finance a deficit in its national budget through fund withdrawals, the other countries have to take out loans when they have a budget deficit. All three countries have a fiscal policy framework which imposes requirements on balancing of the budget.

According to Denmark's Budget Act, the structural budget deficit must not exceed 0.5 per cent of GDP. In its fiscal policy framework, Sweden has established that the surplus target for net lending is to amount to one third of a per cent of GDP on average over a business cycle. In the event of deviations from the target, the Government must explain to the parliament how it will be managed.

Both Denmark and Sweden had structural surpluses in their budgets in 2019 and were therefore well-equipped to face the pandemic. Like Norway, both countries introduced comprehensive support measures in both 2020 and 2021.

Economic growth has picked up in both Denmark and Sweden over the past six months, and this growth is expected to continue going forward. As the extraordinary measures are withdrawn, the Danish government is looking to tighten its budget by 2 per cent of GDP from 2021 to 2022, resulting in a structural budget deficit of 0.3 per cent of structural GDP.[21] In Sweden, the Government has proposed that the budget be tightened by 0.6 per cent of GDP from 2021 to 2022, resulting in a structural budget deficit of 0.6 per cent of potential GDP.[22] In Denmark, the budget for next year is in line with Danmark's deficit limit, while Sweden is aiming for a surplus over the coming years. In both countries, the structural deficit is expected to rise by 1.0 per cent of GDP from 2019 to 2022.

[21] Økonomisk Redegørelse, August 2021 (fm.dk)

[22] Budgetpropositionen för 2022: Ett starkare och mer hållbart Sverige efter pandemin - Regeringen.se

This white paper assumes a structural non-oil budget deficit for Norway of 9.5 per cent of the trend GDP for Mainland Norway in 2022, down from 12.1 per cent in 2021. The structural deficit in 2022 is higher than pre-pandemic levels, and the increase from 2019 to 2022 is projected at 1.7 per cent of GDP of Mainland Norway.

Overall, economic developments in the three countries have been relatively similar. Comprehensive crisis measures were introduced in all three countries. Public spending was somewhat higher in Norway than in the other countries, but the reversal is also expected to be slightly greater in Norway in 2022. Both Sweden and Denmark are planning their budget balances to return to pre-pandemic levels, in line with the countries' respective fiscal policy frameworks.