

Chapter 3

Assessment of Budgetary

Forecasts

3. Assessment of Budgetary Forecasts

Key Messages

- *SPU 2020* forecasts a sharp deterioration in the general government balance in 2020 due to the impact of Covid-19. A deficit of €23.1 billion is forecast (13.3 per cent of GNI*) for 2020. This reflects €9.6 billion of additional spending and a €14.9 billion fall in general government revenue. To give a sense of the scale and speed of revisions, estimates from January this year had projected a surplus of €2.6 billion (1.3 per cent of GNI*) for 2020.
- For 2021, the fiscal outlook is set to be determined by how quickly or slowly the economy bounces back. *SPU 2020* forecasts an almost halving of the deficit to €13.8 billion (7.3 per cent of GNI*).
- There is a very high level of uncertainty surrounding economic and fiscal forecasts. If restrictions on economic activity last longer than assumed, then the deficit may be larger than forecast. In addition, *SPU 2020* forecasts do not incorporate costs arising from any economic recovery plan or other new policy measures. Such additional measures would contribute to a larger deficit in 2020.
- Brexit poses another significant risk to the economic and fiscal outlook. A hard Brexit would have a significant long-run impact on the Irish economy and public finances. *SPU 2020* is based on a much softer Brexit.
- With no projections beyond 2021 in *SPU 2020*, three scenarios are presented for paths for the public finances to 2025. Assuming no policy changes and taking into account demographic and price pressures, the general government balance remains in deficit in a range from around 3 to 12 per cent of GNI* out to 2025.
- General government debt is rising rapidly. Debt as share of GNI* is projected to peak in 2020 and to stabilise in a range between 90 and 140 per cent of GNI* without policy action from 2022.

3.1 Introduction

The fiscal forecasts for *SPU 2020* were made in mid-April amidst the extreme economic shock due to the Covid-19 health emergency. Along with the economic outlook, the fiscal outlook has changed rapidly. Policy measures will help to somewhat mitigate the economic impact of the crisis (Box B in Chapter 1). However, the economic downturn, combined with these new policy measures, means that *SPU 2020* projects a substantial deficit for this year and next. In line with the macroeconomic forecasts, *SPU 2020* only forecasts fiscal variables for 2020 and 2021.

This chapter assesses recent data from the Central Statistics Office (CSO), Fiscal Monitors, and the latest set of fiscal forecasts produced by the Department of Finance in *SPU 2020*. In 2019, the general government balance (excluding one-off items) reached a surplus of €1.3 billion, an improvement of €1.0 billion relative to 2018 (Table 3.1). For 2020, a large deficit is expected to emerge due to the forecast economic downturn and policy response. This deficit is forecast to narrow significantly in 2021, as economic conditions improve somewhat.

There is currently high uncertainty surrounding macroeconomic and fiscal projections. Given the uncertainty, three scenarios for the public finances out to 2025 are presented (Box D, Chapter 2).

Table 3.1: Summary of fiscal outturns (2018–2019) and SPU forecasts (2020–2021)

€ billion, excluding one-offs, unless stated

	2018	2019	2020	2021
General government balance	0.3	1.3	-23.1	-13.8
Total revenue	82.0	87.5	72.5	79.4
... % change	7.0	6.6	-17.0	9.5
Total expenditure	81.7	86.1	95.7	93.3
... % change	5.5	5.4	11.1	-2.5
Interest expenditure	5.3	4.5	4.0	3.8
Primary expenditure	76.4	81.7	91.7	89.5
... % change	6.9	6.9	12.3	-2.4
Primary balance	5.6	5.8	-19.2	-10.1
Nominal GNI* growth (% change)	7.3	4.1	-15.5	8.6

Sources: CSO; Department of Finance; and Fiscal Council workings.

Note: One-offs are removed from variables to get a sense of the underlying fiscal position. One-off items/temporary measures are as assessed by the Council to be applicable, as per Table 1.1, Chapter 1. Rounding can impact on totals. Nominal GNI* figures are based on earlier nominal GNI* figures provided by the Department for *SPU 2020*. The estimates were corrected in a later version of the report, yet the differences are relatively minor.

3.2 Assessment of 2019 Outturns

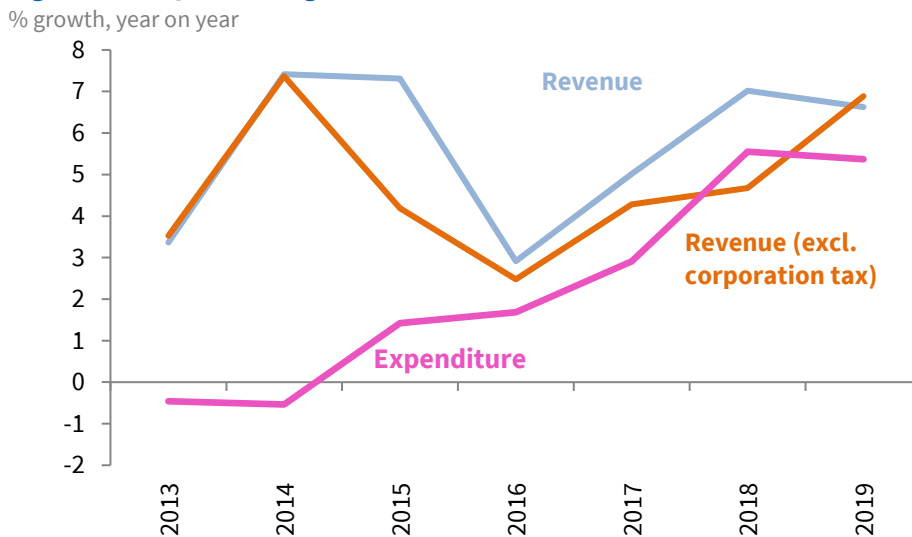
Balance, 2019

The **general government surplus** for 2019 (excluding one-offs) was €1.3 billion, an improvement on 2018 (when an underlying surplus of €0.3 billion was recorded).

This improvement was aided by strong cyclical revenue growth, declining unemployment and falling interest payments (€0.9 billion lower than in 2018).

Figure 3.1 shows underlying revenue and expenditure trends. General government expenditure growth was accelerating in recent years, with growth above 5 per cent in 2019. Despite this accelerating trend, spending growth has been generally surpassed by revenue growth, although by a smaller margin if corporation tax revenue is excluded.

Figure 3.1: Expenditure growth has accelerated since 2013



Sources: CSO; Department of Finance; and Fiscal Council workings.

Note: Revenue and expenditure are in general government terms. They exclude one-offs as assessed by the Council.

The **primary surplus** (excluding one-off items) was €5.8 billion in 2019, almost unchanged relative to 2018. Non-interest spending and revenue both grew by more than 6 per cent in 2019 (excluding one-off items).

Expenditure, 2019

General government **primary expenditure** (excluding one-off items) grew by €5.2 billion in 2019, almost €1 billion more than anticipated in *Budget 2020* in October 2019. Compensation of employees was €0.9 billion higher in 2019 than forecast in both *Budget 2020* and *Budget 2019*. The largest increases for the year came from

gross fixed capital formation (GFCF, €1.7 billion), compensation of employees (€1.7 billion) and intermediate consumption (€1.2 billion).²²

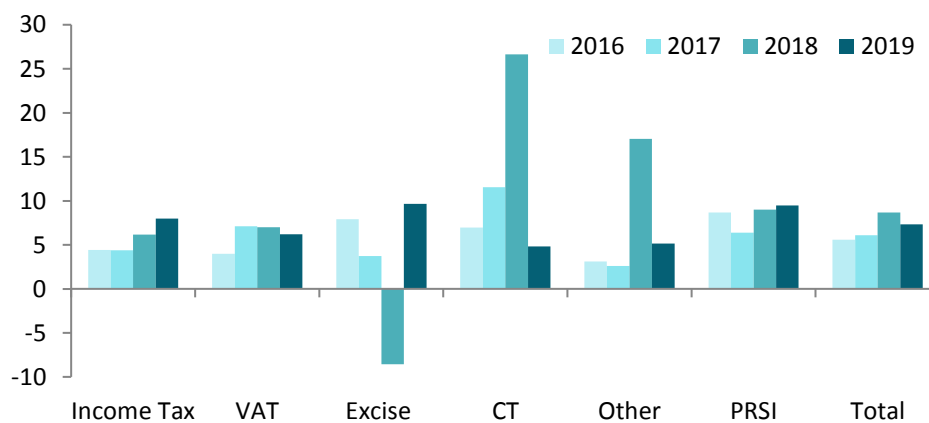
Revenue, 2019

The outturn for **general government revenue** in 2019 was €87.5 billion, €1.1 billion higher than anticipated in *Budget 2020*, just three months earlier, and €2.2 billion higher than anticipated in *Budget 2019* (6.2 per cent higher than 2018). This overperformance relative to *Budget 2020* forecasts was mostly driven by corporation tax.

Some €59.3 billion in **exchequer tax revenue** was collected in 2019. Total exchequer tax revenue, including PRSI, grew by 7.2 per cent in 2019 (Figure 3.2). This is €4.7 billion higher than 2018 and €1.7 billion ahead of profile for 2019.

Figure 3.2: Tax revenue and PRSI growth 2016–2019

% change year-on-year



Sources: CSO; Department of Finance; and Fiscal Council workings.

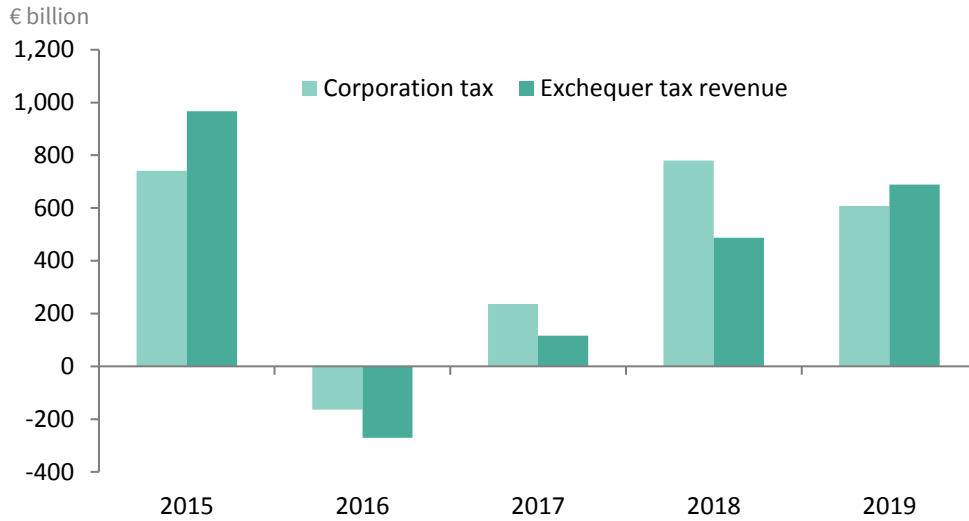
Note: Tax revenue expressed in exchequer terms. Other includes stamp duties, customs, capital gains tax, capital acquisition tax and other unallocated tax receipts. It excludes local property tax and motor tax for comparability purposes. Total represents the growth of exchequer tax revenue and PRSI.

In recent years, in-year surprises in exchequer tax revenue have been largely driven by unexpected corporation tax receipts. Figure 3.3 shows the in-year surprise in tax revenue from October projections of that year versus the outturn less than three months later, for that year as a whole. For 2019, some €0.6 billion more corporation tax receipts were collected in the last three months than forecast in *Budget 2020*.

²² Much of the increase in compensation of employees and intermediate consumption is related to increased health expenditure.

This was 88.2 per cent of the total surprise in exchequer tax receipts in the final three months of 2019.

Figure 3.3: In-year surprise in corporation tax



Sources: CSO; Department of Finance; Budgets 2016-2020; and Fiscal Council workings.

Note: Figure shows the in-year surprise in tax revenue from October of that year vs the outturns for that year. For example, figures for 2015 show the difference between the forecast of tax revenue in October 2015 (*Budget 2016*) vs the outturn for 2015. Exchequer tax revenue does not include PRSI.

3.3 Forecasts for 2020 and 2021 in *SPU 2020*

The fiscal projections in *SPU 2020* look radically different compared to previous forecasts. This is due to the Covid-19 crisis, the impact of policy measures introduced to mitigate the economic downturn, and the large fall in tax revenues. There is exceptionally high uncertainty surrounding economic and fiscal forecasts at present.

In line with the macroeconomic forecasts, fiscal projections in *SPU 2020* are prepared for this year and next year, rather than the usual five-year horizon. While the heightened uncertainty makes producing medium-term projections difficult, such projections would help support a medium-term orientation for fiscal policy and monitor potential economic imbalances.²³

Expenditure

In 2020, *SPU 2020* forecast an increase in general government expenditure of €9.6 billion (11.1 per cent), two-thirds coming from Covid-19 measures and around a third from normal spending increases already planned in *Budget 2020*. With interest costs now set to fall by €0.5 billion, primary spending is projected to increase by €10.1 billion (12.3 per cent).

The *SPU 2020* expenditure forecasts for 2020 are based on the December 2019 Revised Estimates for *Budget 2020* (€70.4 billion) together with €8 billion for Covid-19-related costs.²⁴ Of these costs, €6.8 billion relate to Covid-19 policy measures introduced across a range of areas, while €1.3 billion relate to higher unemployment payments at standard rates over the remainder of the year after the 12-week duration initially planned for the Pandemic Unemployment Payment (PUP) and Temporary Wage Subsidy Scheme (TWSS) has elapsed. Specifically, it is assumed that all of those who are unemployed after the 12-week period would revert to the standard rate of Jobseeker's Benefit or Allowance.²⁵

²³ Fiscal ratios presented throughout are based on the earlier nominal GNI* figures provided by the Department for *SPU 2020*. The estimates were corrected in a later version of the report, yet the differences are relatively minor.

²⁴ Revised estimates for *Budget 2020* included €1.2 billion of spending contingent on a no-deal Brexit occurring. Only €50 million of this is now expected to take place, with the remaining funds reallocated to other spending items.

²⁵ Some claimants of the Pandemic Unemployment Payment or Temporary Wage Subsidy Scheme may not be eligible for the standard jobseeker's allowance or benefit after the 12-week period

Table 3.2 shows the breakdown of the €8 billion in Covid-19 costs. Of the additional €2 billion of funding for health, €1.8 billion is for intermediate consumption (purchase of medical equipment and renting of private hospital facilities), €0.1 billion is for additional staffing and €0.1 billion is for gross fixed capital formation.²⁶

Table 3.2: Covid-19 spending

€ billion	
	2020
Covid-19 spending	8.0
PUP/TWSS	4.5
Unemployment payments (post-PUP/TWSS)	1.3
Business supports	0.3
Health (in addition to <i>Budget 2020</i>)	2.0
Of which:	
Intermediate consumption	1.8
Compensation of employees	0.1
Gross fixed capital formation	0.1

Sources: *SPU 2020*.

Note: PUP stands for Pandemic Unemployment Payment and TWSS stands for Temporary Wage Subsidy Scheme.

Approximately 6,000 temporary staff have been employed in the health sector. Some of this additional staffing is due to redeployment and early recruitment of nursing students and medical interns. Given that much of staffing is assumed to be temporary, and much of the purchase of medical equipment is assumed to be one-off, SPU forecasts for 2021 are made based on almost no carry over impact into 2021. Gross voted spending in the Department of Health last year was €17.5 billion, so a €2 billion package corresponds to just over 10 per cent of annual spending. Given the recent challenges of managing health spending within budgets, there is still a risk of health spending exceeding this new budgeted level for this year.

Employment and unemployment policy supports account for €4.5 billion of the package. The PUP and TWSS are assumed to run for 12 weeks, ending in mid-June

elapses. This may be more common for part-time employees or those that have not made sufficient PRSI contributions.

²⁶ This is in addition to the €840 million increase which had already been budgeted for 2020 as per the Revised Estimates 2020. For context, gross voted expenditure in health increased by €1.5 billion in 2019.

when the initial scheme was scheduled to expire.²⁷ For forecasting purposes, *SPU 2020* assumes that both schemes end after the 12-week period elapses.²⁸

Fiscal forecasts in *SPU 2020* assume that there are just under 600,000 claimants of the PUP, with a further 452,000 availing of the TWSS. Applying an average costing of €350 per week for the PUP and TWSS to this number of claimants for 12 weeks would imply a total cost just under €4.5 billion.²⁹ On a general government basis (Table 3.3), the cost of these schemes is reflected in increased spending on social payments (up €4.2 billion) and subsidies (up €2.0 billion).

Business supports with a fiscal cost of €0.3 billion have been incorporated into *SPU 2020* forecasts. Liquidity supports of €1 billion were announced on 8th April. These are assumed to not incur a cost. While business supports have a set cost, potential costs from liquidity supports or loan guarantees are more uncertain (see expenditure risks section).

It is important to note that fiscal forecasts in *SPU 2020* were based on the policy measures announced at that time. Further policy measures are likely to lead to increased spending, so one might take the *SPU 2020* forecasts as a lower bound for expenditure for both 2020 and 2021.

No account was taken in the forecasts of spending related to an economic recovery plan anticipated in the *SPU 2020* document. Any extension of the PUP and/or TWSS would also lead to higher-than-anticipated expenditure for 2020.

²⁷ Taoiseach Varadkar noted in relation to the Pandemic Unemployment Payment that “it will need to continue at least until people have the opportunity to return to their jobs. For the vast majority, that will not be possible before mid-June, so, yes, it will need to be extended beyond mid-June”. <https://www.oireachtas.ie/en/debates/debate/dail/2020-05-07/2/>

²⁸ If one simply divides the assumed €4.5 billion cost equally over 12 weeks, this would imply a cost of €375 million per week. This gives some sense of the cost of additional weeks of this scheme (assuming the numbers of claimants were constant).

²⁹ €412 per week is the maximum level of subsidy available under the TWSS.

Table 3.3: General government expenditure forecasts

€ billion

	2019	2020	2021
General gov. expenditure	86.1	95.7	93.3
Compensation of employees	23.9	24.3	24.9
Intermediate consumption	12.0	14.3	13.6
Social payments	30.7	34.9	33.7
Interest expenditure	4.5	4.0	3.8
Subsidies	1.7	3.7	1.6
Gross fixed capital formation	8.1	8.8	9.0
Capital transfers	1.7	2.0	2.4
Other	3.6	3.8	4.2
Primary expenditure	81.7	91.7	89.5
Primary expenditure (% GNI*)	39.7	52.5	47.2

Sources: *SPU 2020*.

Note: Primary expenditure is calculated as total expenditure minus interest payments.

Compensation of employees for 2019 was €0.9 billion higher-than-forecast in *Budget 2020* and *Budget 2019*. Despite this upward revision to the 2019 level, the *SPU 2020* forecast is only €0.5 billion higher than that in *Budget 2020*. This means that *SPU 2020* forecasts lower growth for 2020 (€0.3 billion) compared to *Budget 2020* (€0.7 billion).

SES 2019 estimated public sector pay increases in 2020 to cost €0.4 billion.³⁰

Additional temporary recruitment into the health sector (related to Covid-19, and hence was not part of *Budget 2020* forecasts) in 2020 is expected to cost €0.1 billion.

Growth due to these two items alone (€0.5 billion) would exceed the increase forecast in *SPU 2020*. So if one was to start from the 2019 outturn as a base for forecasting the 2020 level, one would forecast a higher level for 2020 than is the case in *SPU 2020*.³¹

Overall, intermediate consumption is forecast to increase by €2.3 billion this year, of which €1.8 billion relates to Covid-19 healthcare spending. *Budget 2020* had forecast an increase of €1.0 billion for 2020.

³⁰ One of the elements of this is a 2 per cent pay increase for more than 300,000 employees in early October 2020. This pay rise is expected to cost €0.1 billion in 2020 and to have a carryover cost of €0.3 billion in 2021.

³¹ If some of the 2019 level of expenditure is assumed to be one-off or if the Covid-19 crisis means less hiring is needed in 2020, then using 2019 as the base to forecast from may not be advisable. However, there is no clear data to suggest that this might be the case.

Gross fixed capital formation is forecast in *SPU 2020* to grow by €0.8 billion in 2020.³² This increase in general government terms is also reflected in exchequer capital spending. The slowdown in building and construction activity could result in lower capital spending. However, Approved Housing Bodies purchase completed homes as well as funding new builds. As many of these bodies are included in the general government sector, general government capital spending may be less sensitive to new building activity.

Box F: Policy measures introduced since the Covid-19 outbreak

The government has introduced a range of fiscal supports since the onset of the Covid-19 outbreak in Ireland. Broadly speaking, these efforts have focussed on three areas; providing income support to those made unemployed as a result of the crisis, including directly subsidising wages for employees who otherwise would have been made unemployed, delivering cash flow supports to businesses, and directing additional funding towards the health sector.

All told, the government has allocated an additional €14 billion (8 per cent of estimated GNI* for 2020) of funding for the provision of these programs (of which €7 billion is through direct spending). This box provides a brief overview of the government's fiscal measures outlined to date, along with some tentative indications as to how these programmes may evolve over the coming months.

Table F.1: Overview of Fiscal Measures

	Est. cost €m
Income Supports	4,500
<p>Pandemic Unemployment Payment: Emergency unemployment payment of €350/week to those who have lost their jobs on or before 13th March due to Covid-19. It is higher than the standard jobseeker's allowance of €203 and the government has budgeted for such payments to run over a 12-week period until 8th June.</p>	
<p>Temporary Wage Subsidy Scheme: A tiered payments system that subsidises between 70% and 85% of an eligible employee's salary up to maximum of €412/week (equivalent to pre-tax annual income of almost €22,000).² The scheme was launched on 26th March with a duration set to 12 weeks by the government.</p>	
<p>Enhanced Illness Benefit Scheme: The Illness Benefit Scheme for those who have been either diagnosed with the virus or have been told to self-isolate by a medical professional has been increased to €350/week, up from the standard Illness Benefit rate of €203. This payment is provided for 2 weeks for those medically required to self-isolate, and 10 weeks for those diagnosed with the virus. It is unclear whether this payment will extend beyond the 12-week lockdown period.</p>	
Business Supports	7,500
<p>Covid-19 Working Capital Loan Scheme: Designed to facilitate access to short-term liquidity for businesses impacted by the virus. The term of these loans is reflective of this aim, and is between 1 and 3 years, with a maximum fixed interest rate of 4 per cent.</p>	

³² An increase of €0.9 billion was projected in *Budget 2020*.

Covid-19 Future Growth Loan Scheme: An upgraded pre-existing facility to provide longer term loans to firms impacted by Covid-19. The interest rate ceiling is set at 4.5% for this facility, with durations between 8 and 10 years.	200
Sustaining Enterprise Fund: Designed to provide manufacturing and internationally traded services companies with capital to help stabilise and rebuild their businesses	180
Credit Guarantee Scheme: Designed originally to offer protection to SMEs affected by Brexit. The facility is intended to reduce the onset of liquidity and credit constraints for smaller borrowers who would otherwise face barriers to attracting credit.	150
Pandemic Stabilisation and Recovery Fund: This fund will form part of the Irish Strategic Investment Fund's portfolio, replacing the amount allocated to its global investments. The fund will invest in medium to large scale enterprises across all sectors, with a focus on near term economic stimulation and stabilisation of the Irish economy.	2,000
Covid-19 Credit Guarantee Scheme: Credit guarantees of 80% on lending to SMEs until the end of 2020, for terms between 3 months and 6 years, and values between €10,000 and €1m. Lenders are subject to a portfolio cap of 50%, with the scheme applying to all sectors of the economy.	2,000
Restart Grant for Micro and Small Businesses: The grant will reimburse micro and small businesses equivalent to a maximum amount reflecting their 2019 commercial rates bill, with a cap per business of €10,000, and a minimum of €2,000.	250
Commercial Rates Break / Tax Forbearance: Revenue tax and commercial rates breaks and deferrals have been facilitated for businesses. Tax liabilities for businesses will be 'warehoused' for one year following the recommencement of trading. Rates will be deferred for 3 months beginning 27th March for businesses forced to close as a result of the shutdown	2,260
Health Sector Supports	2,000
Capacity Increasing: Additional capacity, increasing staffing and overtime.	
Securing Private Hospitals: Securing the use of private healthcare facilities.	
Additional Funding: Measures to support the Covid-19 Action Plan and supports for nursing homes. Customs 'green routing' for critical pharmaceutical goods.	
Total:	14,000
-- of which direct spending*	7,000
-- of which guarantees / loans/investments	7,000
Less funds previously allocated for other purposes	-750
Total (less funds previously allocated)	13,300

Sources: Department of Finance; Department of Business, Enterprise, and Innovation; Fiscal Council workings.

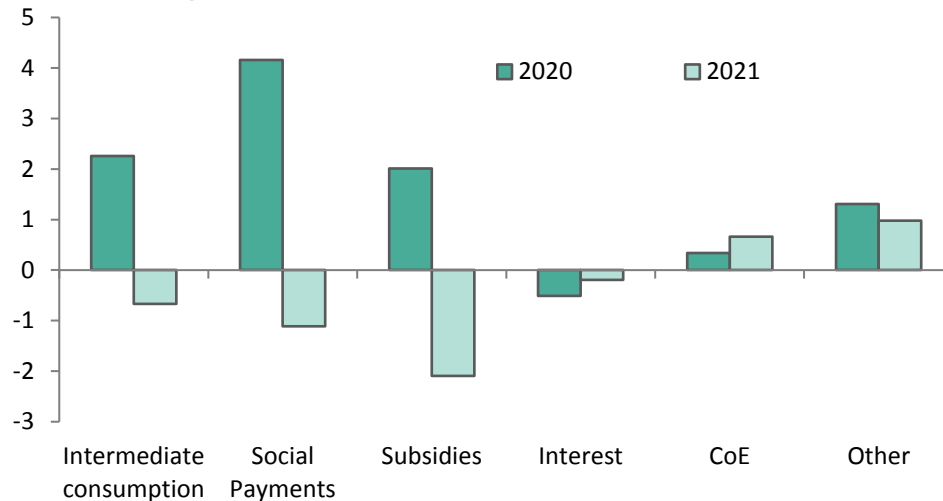
*The government has also launched a round of smaller direct grants to supplement the main lending facilities and investments detailed in this box.

On a headline basis general government expenditure is forecast to fall in 2021 (€2.4 billion or 2.5 per cent), nevertheless leaving it €7.2 billion above its 2019 level. The projected fall reflects halting spending on the main government support schemes and the ending of exceptional health spending related to Covid-19 (Figure 3.4), partly offset by higher compensation and other costs.

Subsidies are forecast to fall by €2.1 billion in 2021 after the TWSS has ended. Social payments are forecast to fall by €1.1 billion. This is partly due to the savings from the assumed ending of the PUP scheme and the reduced level of unemployment. Intermediate consumption is also forecast to fall in 2021 (€0.7 billion), after exceptionally strong purchases of equipment for the health sector in 2020.

Figure 3.4: General Government Expenditure

Year-on-Year change, € billion



Sources: *SPU 2020*.

Note: CoE stands for Compensation of Employees. The “Other” category here includes gross fixed capital formation, capital transfers and other general government expenditure.

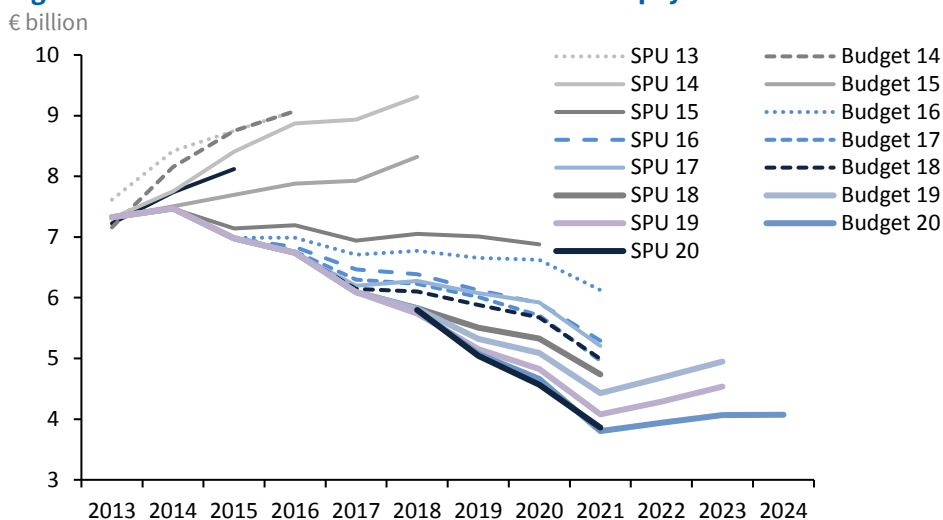
Compensation of employees is forecast to increase by €0.7 billion in 2021. This is partially driven by a €0.3 billion carryover cost arising from a pay increase which is due to start in October 2020 (and hence would have to be paid for a full year in 2021).

Budget 2020 had projected annual contributions of €0.5 billion to the Rainy Day Fund, starting in 2021. *SPU 2020* forecasts indicate that no contributions would be made in 2020 or 2021, with a drawdown of the €1.5 billion fund expected in 2020.

Interest expenditure

Figure 3.5 shows the reduction in forecast and actual interest costs. Figure 3.5 also shows that interest costs have been consistently lower than forecast for a number of years. Given the short forecast horizon in *SPU 2020*, the impact of large deficits and increasing funding requirements are not evident in the forecasts.

Figure 3.5: Revisions to national debt cash interest payments

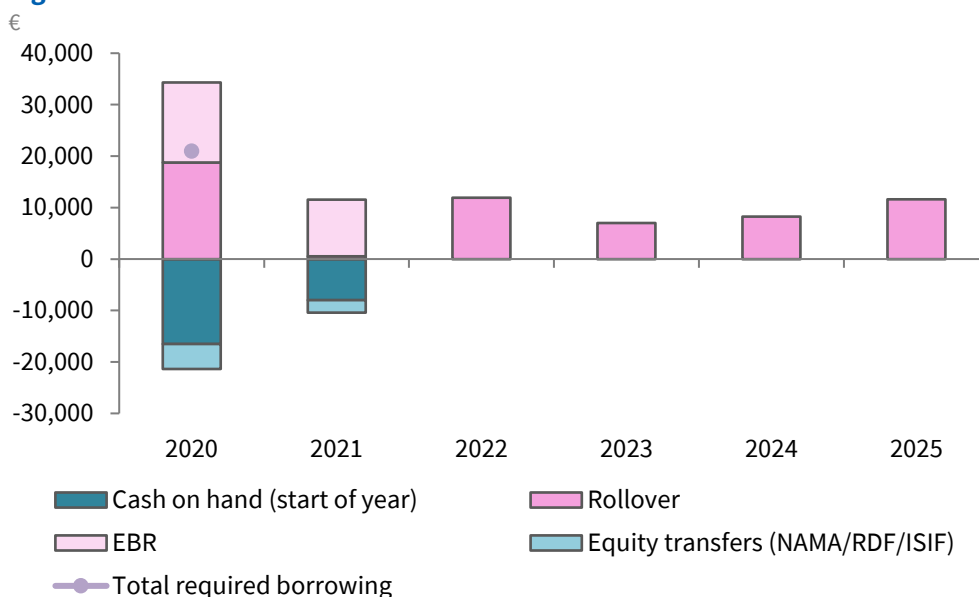


Sources: Department of Finance.

Despite the absolute amount of Irish government debt increasing in 2020 and 2021, the cost of servicing this debt is forecast (in *SPU 2020*) to fall. Improvements in government creditworthiness and policy actions by the ECB and other central banks have reduced the interest rate at which the government can borrow. Retiring higher coupon bonds and refinancing at lower rates has brought down the effective interest rate on Irish government debt.

These falls in interest rates more than outweigh the increase in the stock of debt, hence debt service costs fall. In the coming years, the marginal rate will be important due to high funding requirements both for new borrowing and rolling over existing liabilities (Figure 3.6).

Figure 3.6: Government debt issuance and rollovers



Sources: Department of Finance & NTMA.

Note: EBR stands for Exchequer borrowing requirement. Cash on hand at the start of 2021 is estimated at approximately €8 billion based on the anticipated run down of cash balances in 2020 using information in *SPU 2020*. Total required borrowing is only shown for 2020. Thereafter, total required borrowing in a calendar year would depend on the pre-funding strategy of the NTMA and the future exchequer borrowing requirements.

Expenditure risks

As noted earlier, fiscal forecasts in *SPU 2020* are based on the PUP and TWSS being in place for 12 weeks. Hence any extension to these schemes would imply an upside risk to expenditure forecasts in *SPU 2020*. As noted earlier, the costing of €4.5 billion was based on almost 600,000 claimants of PUP, with a further 452,000 availing of the TWSS. These estimates are based on those numbers availing of these schemes for the full 12 weeks.

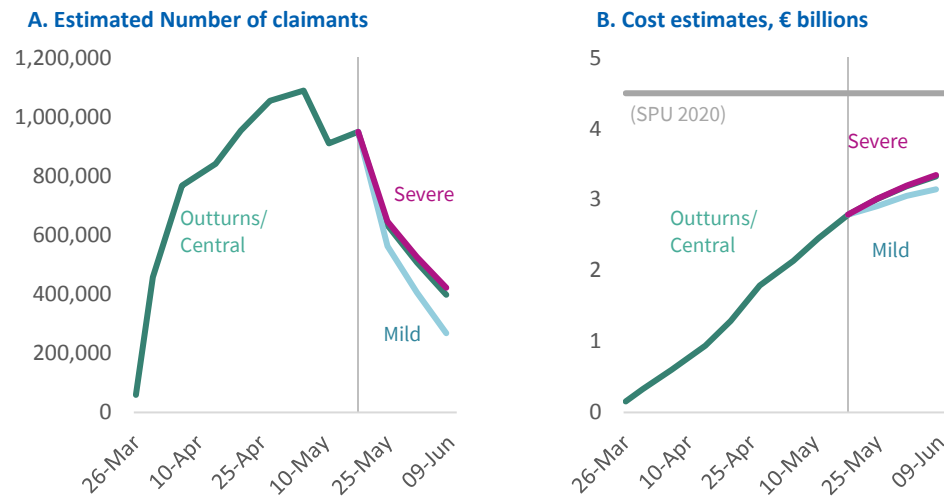
Latest estimates suggest that 585,000 are currently claiming the PUP, while a further 249,200 are in receipt of the TWSS.³³ Figure 3.7 shows that there was a rapid increase in uptake of these schemes. Despite this, in the first three weeks the scheme was operating, uptake was well below the average levels assumed in costing the scheme. If the number of claimants falls as restrictions are lifted (Figure 3.7), the cost of these schemes could be less than €3.5 billion.³⁴ These lower-than-

³³ Correct as of 21st May. Latest data refers to May 18th.

³⁴ If the number of claimants were to stay constant for the final three weeks of the schemes at the current estimated levels, the cost would run below €4 billion. The number of claimants on the TWSS can be estimated by dividing the weekly scheme expense details provided by the Revenue Commissioners by €350.

anticipated costs for the initial phase of the scheme may aid offsetting the cost of extending the scheme beyond the 12 weeks that have been budgeted for.

Figure 3.7: Claimants to date and illustrative scenarios



Sources: Revenue; Department of Social Protection; and Fiscal Council workings.
 Notes: The scenarios are broadly consistent with the Mild, Central and Severe scenarios outlined in Box C. Budgeted costs in the *SPU 2020* assume a 12-week period of claims totalling €4.5bn ending in early June.

There are also risks surrounding social payments after the PUP and TWSS are ended. Upside risks (to the public finances) would stem from faster-than-expected progress in containing the virus, and a synchronised economic recovery that exhibited few scarring effects. On the downside, repeated waves of the virus, an economic restart that was slower than anticipated, or one where strong social distancing measures needed to remain in place would be costly.

Fiscal stimulus or further policy measures beyond those assumed in *SPU 2020* pose a significant risk to SPU fiscal forecasts. Figure 1.18 gives an illustrative example of how spending could evolve with an assumed stimulus package over three years. Table 1.2 shows the impact such a package could have on the general government balance.

Health expenditure poses a risk to fiscal forecasts in *SPU 2020*. Expenditure in this area has proven difficult to manage in recent years. A successful containment of Covid-19 would result in fewer outlays for the health sector and would allow for a more manageable transition back to the pre-crisis norm, including meeting the pent-up demand for elective procedures. There is also a risk that the allocation of €2 billion in additional funding for the health sector proves insufficient, with this being

determined by the evolution of the virus. A failure to contain Covid-19 would exert great pressure on an already capacity-constrained service.

All additional healthcare staff hired in 2020 have been assumed to be temporary. If these were to be retained for longer than budgeted for, then that would pose an upside risk to expenditure projections for both 2020 and 2021.

The ultimate costs of liquidity supports or loan guarantees to the exchequer is largely dependent on how economic conditions evolve. A rapid resumption of economic activity would lead to less debt and liability being accumulated. Firms would be better placed to attract market-based funding and take advantage of the economic recovery.

On the downside, extending or repeating the lockdown, the failure of a meaningful recovery to materialise, or one that involves the economy being forced to run at a reduced capacity would threaten the solvency of many firms. Liabilities associated with extending credit guarantees and other measures would be realised if firms ceased to trade, or continued support would result in many 'zombie' firms operating at the expense of the state.

Regarding interest payments, the higher levels of government debt, combined with increased borrowing requirements, mean that the marginal interest rate on government borrowing becomes more important.

Budget 2020 allocated €1.2 billion of spending in 2020 contingent on a hard Brexit occurring this year. *SPU 2020* assumes a much more benign outcome. As a result, this contingent spending is not included in *SPU 2020* estimates. However, spending related to preparing for Brexit may be required in 2021 or later. More generally, higher unemployment as a result of Brexit would put upward pressure on expenditure.

Revenue

The sharp fall in economic activity forecast for 2020 has major implications for government revenue in 2020. A reduction in income and employment means lower direct taxes and social contributions (Income tax and PRSI combined are forecast to

fall by €6.6 billion in 2020). Falling consumption means lower indirect tax receipts (*SPU 2020* forecasts a fall of €3.7 billion in VAT and excise receipts).

The general forecasting methodology used in *SPU 2020* for the various revenue headings is to project the change of revenue using the change in the associated macroeconomic driver, multiplied by an elasticity. The elasticity reflects how closely receipts move with its macroeconomic driver. Where applicable, any assumed impacts of policy changes are also included. In addition to these factors, judgement is often applied. Judgement can be helpful to take account of specific factors like changes in behaviour or where the elasticities may be misleading. Given the uncertainties at this time, there may be reasons to anticipate factors other than those typically considered as impacting on receipts. For example, specific sectors being more severely impacted may result in a larger effect on certain tax headings than would be anticipated by simply looking at the macroeconomic driver.

Box G: Experience of Falling Revenues in the 2008 Crisis

While the standard approach to revenue forecasting performs reasonably during normal times, past sharp downturns—notably in 2008—lead to very large falls in revenues.

This box evaluates how a standard revenue forecasting methodology would have performed in 2008, the most recent example of a sharp fall in revenue. This is useful in the current environment. If standard forecasting methodologies tend to underestimate or overestimate revenue when a sharp fall in activity and revenue occurs, then there may be a case for supplementing model-based forecasts with judgement.

While different revenue headings typically track changes in their respective macroeconomic drivers, this relationship might not hold during a recession. For example, if income losses were concentrated at the top of the income distribution and/or meant people earning less and moving to a lower tax bracket (where average tax rates are lower), this would result in a bigger loss in income tax revenue than predicted by looking at changes in aggregate income.

To assess this, the Council's standard forecasting methodology is used on the historical data for the 2008 crisis. The change in the macroeconomic driver is used, which is then multiplied by its elasticity. The elasticities used are those estimated using policy-adjusted revenue in Conroy (2019).

For example, for aggregate income tax (including USC), an elasticity of 1.4 is estimated in Conroy (2019).³⁵ When forecasting income tax, the Department forecasts PAYE income tax and USC separately. Elasticities of 2.1 and 1.2 respectively are used. If one weighted these elasticities by their share of 2019 receipts, a weighted average of 1.9 would result. Using a higher elasticity would mean forecasting stronger growth when income is rising, and larger falls when income is contracting.

³⁵ This elasticity is estimated over the period 1987 – 2018.

The actual outturn of the macroeconomic driver is used for this exercise, so any errors are due to the forecasting methodology and not macroeconomic errors. The revenue forecasts are adjusted for the yield or the cost of tax policy changes.

Forecasts are examined in year (T), one year ahead (T+1) and two years ahead (T+2). The revenue headings examined are income tax (including USC), VAT and PRSI.

Table G.1: Income tax (including USC) forecast errors from standard model (percentage of receipts)

Forecast horizon	2009	2010	2011	2012	Average (2009–2012)
T	11.8	13.6	0.0	-4.4	5.3
T+1	12.4	24.9	10.7	-4.4	10.9
T+2	6.0	25.5	19.5	5.3	14.1

Source: Fiscal Council workings.

Note: Model projections use the outturn of the macroeconomic driver, an elasticity of 1.4 and budget day estimates of the cost/yield of income tax policy changes. Positive values indicate forecasts exceed the outturn. Negative values indicate outturns exceed the forecasts.

For income tax, we can see that the model forecast would have typically overestimated the outturns during this period by around 5 per cent in-year and by around 10 per cent and 15 per cent one- and two-years ahead respectively. Forecasts for 2010 were around 25 per cent too optimistic.³⁶ While based on a very small number of observations, these results may indicate that superior forecasts may be obtained by applying some negative judgement to the model-based forecasts during a severe downturn.

It is worth noting that the Department of Finance typically uses an elasticity (1.9 in aggregate terms) which is larger than that used for this exercise (1.4). So, for periods where economic activity is contracting, using the Department's methodology would lead to lower forecasts of revenue. Nevertheless, errors would be large if the past pattern were repeated.

Table G.2: VAT forecast errors using personal consumption as the macro driver (percentage of receipts)

Forecast horizon	2009	2010	2011	2012	Average (2009–2012)
T	13.0	3.4	1.5	-0.3	4.4
T+1	26.3	16.9	5.0	1.2	12.3
T+2	27.1	30.8	18.9	4.5	20.4

Source: Fiscal Council workings.

Note: Model projections use the outturn of the macroeconomic drivers, an elasticity of 1.0 (consumption) and budget day estimates of the cost/yield of VAT tax policy changes. Positive values indicate forecasts exceed the outturn. Negative values indicate outturns exceed the forecasts.

For VAT, initially we use only personal consumption as a macroeconomic driver. An elasticity of 1.0 is applied, as is done by the Department in forecasting VAT receipts. We find that forecasts using this approach (without any judgement applied) would have vastly overestimated VAT receipts. These errors grow over time, as errors cumulate.

³⁶ It is worth noting that there were substantial income tax policy changes occurring in this period. If the yields from these policy changes were overestimated, then this could partially explain the forecasts exceeding the outturns.

This overestimation of VAT receipts in this period may be due to not taking account of the severe contraction in building and construction activity which took place. This activity has previously been found to be VAT rich (construction activity accounting for a third of VAT receipts in 2008). Using consumption as well as building and construction activity as macroeconomic drivers would have resulted in small negative forecast errors (before applying judgement) during this period (see Table G.3).

Table G.3: VAT Forecast Errors Using Personal Consumption and Building and Construction Investment as Macro Drivers (percentage of receipts)

Forecast horizon	2009	2010	2011	2012	Average (2009–2012)
T	2.8	-5.7	-2.4	-0.3	-1.4
T+1	9.0	-3.0	-8.0	-2.7	-1.2
T+2	7.0	2.9	-5.3	-8.1	-0.9

Source: Fiscal Council workings.

Note: Model projections use the outturn of the macroeconomic drivers, an elasticity of 0.8 (consumption) and 0.2 (building and construction) and budget day estimates of the cost/yield of VAT tax policy changes. Positive values indicate forecasts exceed the outturn. Negative values indicate outturns exceed the forecasts.

For PRSI, the elasticity estimated in Conroy (2019) is consistent with that used by the Department of Employment Affairs and Social Protection (1.0). We find that in-year forecasts have average errors close to zero (albeit with large errors in opposite directions in 2011 and 2012). When looking one or two years ahead, there is some evidence that forecasts may be biased downwards. Overall, there does not appear to be very strong evidence for applying judgement to model-based forecasts of PRSI, particularly if a conservatism bias applies.

Table G.4: PRSI forecast errors (percentage of receipts)

Forecast horizon	2009	2010	2011	2012	Average (2009–2012)
T	-0.8	-0.1	-10.3	14.2	0.8
T+1	-2.5	-0.9	-10.4	2.8	-2.8
T+2	-5.5	-2.6	-11.0	2.7	-4.1

Source: Fiscal Council workings.

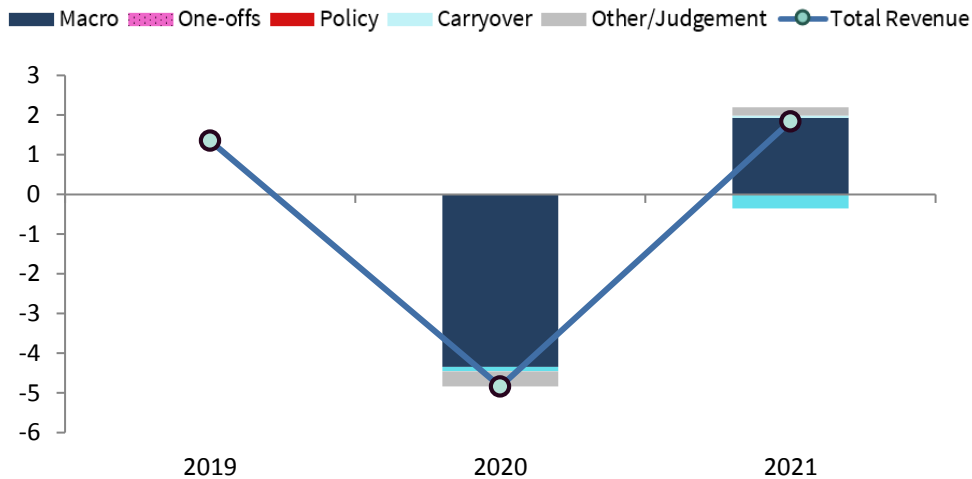
Note: Model projections use the outturn of the macroeconomic driver, an elasticity of 1 and budget day estimates of the cost/yield of PRSI policy changes. Positive values indicate forecasts exceed the outturn. Negative values indicate outturns exceed the forecasts.

Focusing on **exchequer tax revenue**, *SPU 2020* forecasts a fall of 16.4 per cent in 2020. Income tax is forecast to fall by €4.7 billion (20.4 per cent) in 2020. This largely reflects the fall in income (macro driver) and employment (Figure 3.8). In addition to this macro driver effect, negative judgement (€0.4 billion) has been applied to the SPU forecasts (just under 2 per cent of income tax receipts). This is broadly

consistent with previous experience.³⁷ For 2021, income and employment are forecast to recover somewhat. In line with that, income tax receipts are forecast to grow (€1.7 billion or 9.2 per cent), but the level remains below 2017 levels.

Figure 3.8: Falls in 2020 income tax (PAYE and USC) caused by lower macro drivers and judgement applied

€ billion change year-on-year



Sources: Department of Finance; and Fiscal Council workings.

Note: “Other” reflects other factors/judgement applied by the Department of Finance and carryover impacts from previous policy measures. The elasticities used by the Department of Finance are used for this exercise (2.1 for PAYE income tax, 1.2 for USC). See Appendix C for more details.

PRSI receipts are forecast to fall in 2020 by 16.6 per cent. This fall is less severe than is the case for income tax and reflects that income tax is more progressive and so more sensitive to the level of income, as well as having a broader base that includes more volatile components such as profit-like income. As a result, income tax revenue is more sensitive to changes in income. For 2021, PRSI is forecast to grow by 9.9 per cent, recovering half of the revenue decline in 2020.

VAT receipts are projected to decline in 2020 by €2.8 billion or 18.6 per cent. This reflects the projected fall in consumption. As well as this impact, negative judgement (€0.8 billion or 6.1 per cent of receipts) is applied. This is applied to reflect forbearance measures in place from the Revenue Commissioners in 2020. Forecasts from the Department use only personal consumption as a

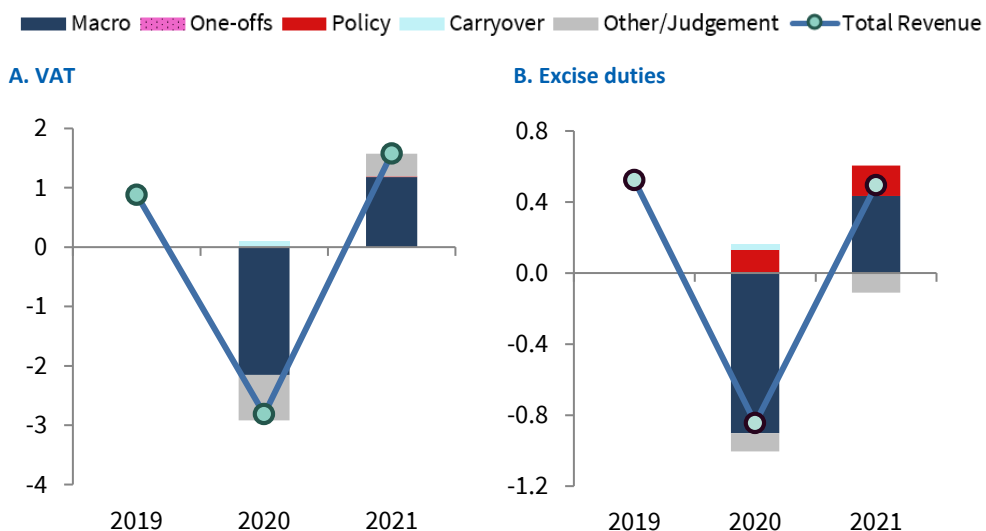
³⁷ Forecast errors from the last recession would average 5.3 per cent for in-year forecasts, which would imply €1 billion of judgement for 2020. However, as the Department are using a higher elasticity than that used in Box G, this would imply a larger fall in income tax receipts for a given fall in income. This difference in elasticity would equate to approximately €0.7 billion for 2020.

macroeconomic driver. If building and construction activity were to be used alongside consumption (using elasticities from Conroy, 2019), a more severe fall in VAT receipts would result.³⁸ This difference is substantial (€0.8 billion), as *SPU 2020* forecasts a sharp fall in building and construction activity in 2020.

For 2021, VAT receipts recover somewhat, reflecting the forecast recovery in personal consumption (Figure 3.9). Positive judgement is applied in 2021 (€0.4 billion) as it is assumed that forbearance measures from the Revenue Commissioners will not continue into 2021.³⁹ *SPU 2020* forecasts an increase in receipts of €1.6 billion (12.8 per cent) in 2021.

Figure 3.9: Falls in 2020 VAT and excise by lower macro drivers and judgement applied

€ billion change year-on-year



Sources: Department of Finance; and Fiscal Council workings.

Note: “Other” reflects other factors/judgement applied by the Department of Finance and carryover impacts from previous policy measures. See Appendix E for more detail.

Excise duties are forecast to fall in 2020 (€0.8 billion or 14.2 per cent). This decrease is driven mainly by reduced personal consumption.⁴⁰ Downward judgement of €0.1

³⁸ This presumes that the same level of judgement (€0.8 billion) is applied.

³⁹ This is applied as positive judgement, as the negative judgement in 2020 leads to a lower base for 2021 forecasts. As a result, model forecasts for 2021 are impacted by the judgement applied in 2020.

⁴⁰ Revenue (2018a) report that 43 per cent of 2017 excise duties were derived from alcohol and tobacco. A further 34 per cent of excise duties came from petrol and diesel.

billion is applied in 2020. Policy changes (increases in the carbon tax and the rate of excise for tobacco) contribute positively in 2020 and 2021.

Receipts from the local property tax (LPT, €0.5 billion) are assumed to be unchanged in 2020 and 2021 in *SPU 2020*. Current policy suggests properties would be revalued in November 2020. Given the sharp rise in house prices since the previous valuation date (2013), one would have expected an increase in receipts to result from revaluation. Given the delays in government formation and administrative preparations for this revaluation exercise, *SPU 2020* forecasts LPT receipts for 2020 and 2021 based on the 2013 valuation level.⁴¹

SPU 2020 forecasts of non-tax revenue for 2020 are €0.7 billion higher than forecast in *Budget 2020*. The upward revision mainly reflects higher-than-projected payments to the Exchequer from the Central Bank, arising from its disposals of Floating Rate Notes. Most of this income does not impact on general government revenue, however. Payments from the Central Bank are expected to continue into 2021, albeit at a lower level.

Corporation tax receipts are projected to fall by €0.7 billion (6.5 per cent) in 2020. This reflects reduced profitability. No judgement is applied to *SPU 2020* forecasts of corporation tax. While the Department assesses that the OECD's BEPS process may reduce corporation tax receipts in the future, this impact is expected to arise from 2022 and is therefore beyond the forecast horizon in *SPU 2020*. These impacts are reflected in the scenario analysis (Section 3.4). *SPU 2020* forecasts renewed growth in corporation tax receipts in 2021, reaching almost 2019 levels.

Box H: Half of corporation tax receipts explained by domestic economy

Attracting large multinational enterprises to set up operations in Ireland has been a focus of economic policy for several decades. The scale and value-added of these firms' activities has generated substantial corporation tax receipts for the Exchequer. However, the presence of companies in Ireland could change as the result of company-specific decisions or changes in global circumstances and policy regimes (including the OECD's BEPS initiatives).

This Box revisits projections of corporation tax based on an extended set of forecasting models. Using models similar to those set out in Casey and Hannon (2016) and a set of error correction models like those used in McGuinness and Smyth (2019), we show that most of the performance in corporation tax in recent years is still unexplained by the domestic economy.

⁴¹ Given that the current policy is to revalue properties, deciding not to revalue properties would be a discretionary revenue reducing measure.

On average, model estimates indicate that only a half of corporation tax receipts currently taken in each year are explained by the performance of the domestic economy since 2012.

The models used

Broadly speaking, the models we use to project corporation tax rely on the historical relationship between changes in corporation tax and “domestic” economic output. By domestic, we mean measures of output that removes distortions caused by foreign-owned multinational enterprises. Specifically, we use nominal Domestic GVA and nominal modified GNI* as our output measures. We clean the corporation tax data of any policy changes made over the periods to avoid distortions in how we estimate the relationship (Conroy, 2019).

First, we model the log-difference in corporation tax on the log-difference of our domestic output measures (see equation 1). Second, we use two error correction models — models that allow variables to return to their long-run relationship from a position of short-run disequilibrium. Equation 2 sets out the long-run relationship that is to be returned to, while equation 3 sets out the short-run relationship. The γ term is the error correction parameter, which defines how fast any disequilibrium will be corrected by in the next period.

$$\Delta CT_t = \alpha + \beta \Delta output_t + \varepsilon_t \quad (1)$$

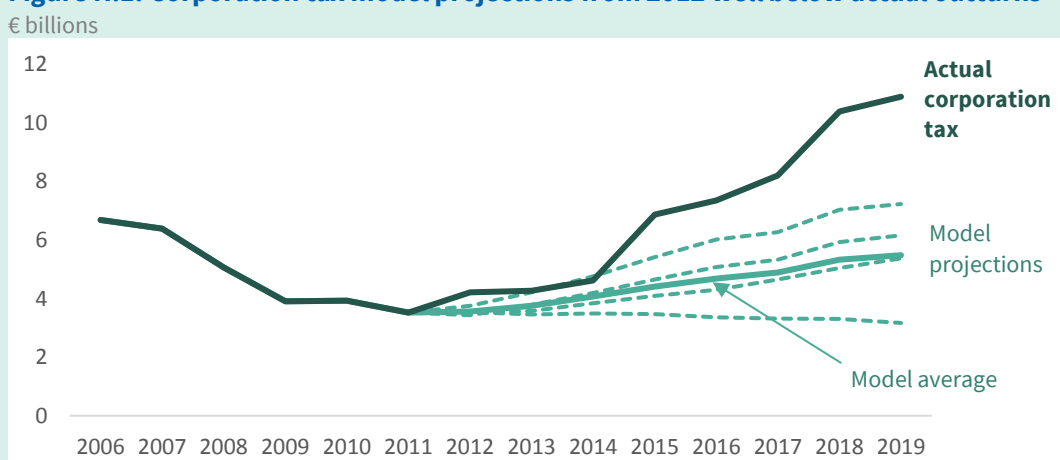
$$CT_t = \alpha_L + \beta_L output_t + \varepsilon_t \quad (2)$$

$$\Delta CT_t = \alpha_s + \beta_s \Delta output_t + \gamma (CT_{t-1} - (\alpha_L + \beta_L output_{t-1})) + \varepsilon_t \quad (3)$$

We estimate the models over the period 1987–2011 and forecast out-of-sample from 2012 on.

The projections from 2012 onwards are shown in Figure H.1.

Figure H.1: Corporation tax model projections from 2012 well below actual outturns



Sources: Fiscal Council workings.

Note: Model projections use a suite of models together with actual nominal GNI* and domestic GVA outturns to project forward expected corporation tax receipts from 2012.

As can be seen, the actual outturns for corporation tax in recent years have been far beyond what can be explained by the domestic economy. If we take the projections from the four models, then we can see that projected corporation tax receipts for 2019 would be between €3.2 to €7.2 billion, with the model average suggesting €5.5 billion as the likely level of receipts. The actual level of annual corporation tax receipts in 2019 was twice that at €10.9 billion.

The results suggest that the outperformance of corporation tax in recent years is possibly due to the outsized performance of foreign-owned multinational enterprises. It is likely that their relatively large profits are contributing to substantial increases in corporation tax receipts, but

their activities are largely removed from the domestic economy measures we use in our analysis. With four-fifths of corporation tax receipts accounted for by multinational enterprises and 45 per cent by just ten firms, it is not surprising to find that this sector might be responsible for recent surges (for an example of the concentration risks associated with corporation tax, see Box H of the *June 2019 Fiscal Assessment Report*).

The results suggest that there is an excess in corporation tax receipts in 2019 of about €5½ billion, unexplained by growth in the domestic economy. This central estimate—based on the model average—compares to upper and lower estimates of €7.7 to €3.7 billion (Table H.1). This could mean that the excess annual receipts are boosting the budget balance as a percentage of modified GNI* by some 1.8 to 3.8 percentage points (or by 2.6 percentage points for the central estimate).

Table H.1: Model-based estimates of excess corporation tax receipts

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Central estimate €bn	0.0	0.7	0.5	0.5	2.5	2.7	3.3	5.1	5.4
Upper estimate €bn	0.0	0.8	0.8	1.1	3.4	4.0	4.9	7.1	7.7
Lower estimate €bn	0.0	0.5	0.1	-0.1	1.5	1.3	1.9	3.4	3.7
Central estimate % GNI*	0.0	0.5	0.4	0.4	1.5	1.5	1.8	2.6	2.6
Upper estimate % GNI*	0.0	0.6	0.6	0.8	2.1	2.3	2.7	3.6	3.8
Lower estimate % GNI*	0.0	0.4	0.0	-0.1	0.9	0.8	1.1	1.7	1.8

Sources: Fiscal Council workings.

Note: Model projections use a suite of models together with actual nominal GNI* and domestic GVA outturns to project forward expected corporation tax receipts from 2012.

Models that use GDP instead of measures of domestic economic activity

If we use GDP instead of measures that are more representative of the domestic economy, we can better capture the performance of corporation tax since 2012. This reflects the fact that GDP is similarly distorted by the inflated profits attributable to foreign-owned multinational enterprises.

Table H.2: Actual and GDP-based projections of corporation tax receipts

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Actual receipts	3.5	4.2	4.3	4.6	6.9	7.4	8.2	10.4	10.9
GDP-based projections	3.5	3.7	3.6	4.0	6.9	6.8	7.6	8.6	9.2

Sources: Fiscal Council workings.

Note: The GDP-based projections use nominal GDP to project forward expected corporation tax receipts from 2012. The projections are a model average of two models: a regression model and an error-correction model of the form shown in equations (1)–(3).

The large impact of Covid-19 on exchequer revenue in 2020 is also reflected in general government revenue. General government revenue is forecast to decline by €14.9 billion (17 per cent) in 2020 to €72.5 billion (Table 3.4). Taxes on production and imports are forecast to fall most rapidly (€5.3 billion or 19.5 per cent). This mirrors the fall forecast for VAT and excise receipts in exchequer terms. Taxes on income and wealth (mainly income and corporation tax) are forecast to fall by €5.3

billion (14.4 per cent). Social contributions (mainly made up of PRSI) are forecast to fall (€1.8 billion or 12.1 per cent) in 2020.

Table 3.4: SPU 2020 general government revenue forecasts

€ billion, excluding one-offs

	2018	2019	2020	2021
General gov. revenue	82.0	87.5	72.5	79.4
Taxes on production and imports	25.7	27.2	21.9	25.0
Current taxes on income, wealth	34.0	36.6	31.4	33.7
Capital taxes	0.5	0.5	0.4	0.5
Social contributions	13.5	14.5	12.8	13.7
Property income	1.3	1.7	1.2	0.6
Other	7.0	6.9	5.0	6.1

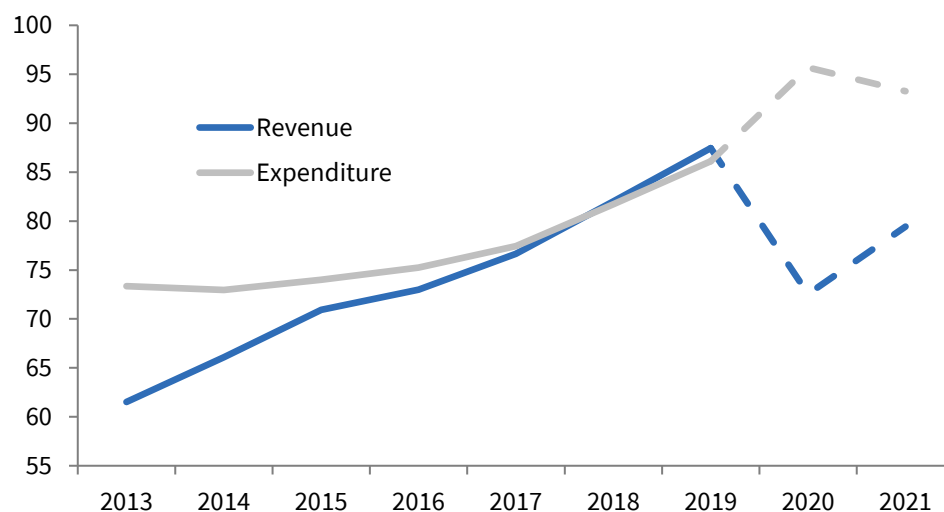
Sources: Department of Finance.

Note: One-offs are those assessed by the Council as applicable.

SPU 2020 projects that general government revenue will recover somewhat in 2021, in line with the economy (Figure 3.10). Growth of €6.9 billion or 9.5 per cent is forecast. Even with this strong growth, revenue remains well below 2019 levels (€8 billion or 9.2 per cent lower).

Figure 3.10: General government revenue and expenditure

€ billion, excluding one-offs



Sources: Department of Finance; and CSO.

Note: One-offs are those assessed by the Council as applicable.

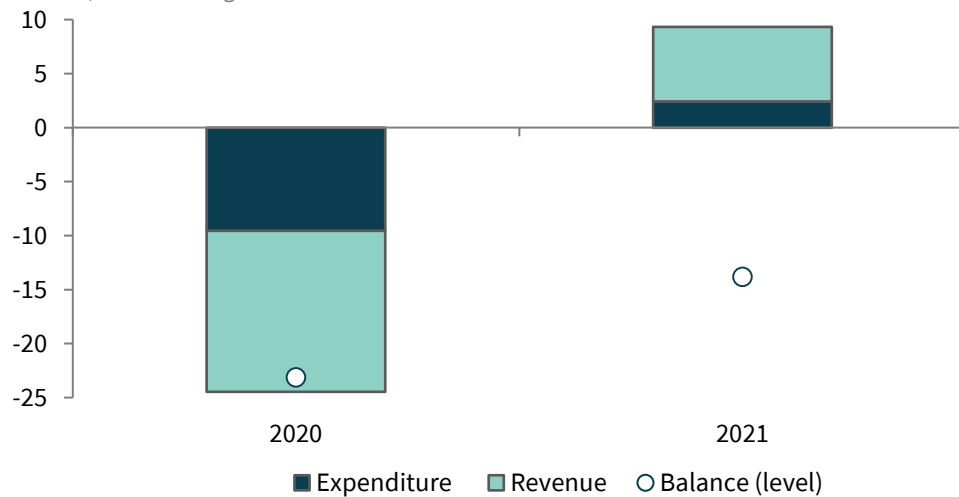
Taxes on production and imports are forecast to rebound most strongly (€3.1 billion or 14 per cent), having fallen mostly sharply in 2020. This is driven by the strong growth forecast for personal consumption in 2021, relative to the weak 2020 level. Current taxes on income and wealth are also forecast to recover some of the losses in 2021 (an increase of €2.4 billion or 7.5 per cent relative to 2020). Given the forecast improvement in income and employment, social contributions are also forecast to grow in 2021 (€0.9 billion or 7.0 per cent).

Budget Balance, 2020 and 2021

SPU 2020 forecasts a **general government deficit** of €23.1 billion (13.3 per cent of GNI*) in 2020. To give a sense of the scale and speed of revisions, estimates from January this year had projected a surplus of €2.6 billion (1.3 per cent of the projection at the time for GNI* (Department of Finance, 2020b)). For 2021, a deficit of €13.1 billion (7.3 per cent of GNI*) is forecast in *SPU 2020*. Figure 3.11 shows that revenue changes are forecast to have a bigger impact on the general government balance in 2020 and 2021 than expenditure changes.

Figure 3.11: Expenditure and revenue contributing to changes in the general government balance

€ billion, annual change



Sources: Department of Finance; and CSO.

Note: Changes in expenditure are recorded as their impact on the balance (i.e. expenditure increases are recorded as negative, as they worsen the balance). The level of the general government balance is also shown.

Revenue Risks

Box H suggests that approximately half the corporation tax receipts could be considered “excess”, that is, larger than would be explained by the economy’s underlying performance and historical/international norms. However, there are also

some upside risks to the *SPU 2020* forecasts. For example, the changing international tax environment could result in companies paying more corporation tax in Ireland in the next few years, as has been the case recently. This, however, remains uncertain and the tax head remains the most volatile of the main taxes.

Looking over a longer horizon (beyond that covered by *SPU 2020* forecasts), other important risks could materialise. The OECD BEPs process could negatively impact on corporation tax receipts. Department of Finance (2020b) estimates suggest an impact to the level of receipts of €0.5 billion in 2022, rising to €2 billion in 2025. More generally, changes to the international tax environment could impact on Irish corporation tax receipts over the medium term.

Brexit will have significant impacts on the Irish economy and the public finances. As noted in Chapter 1, a hard Brexit could reduce long-run potential output. Lower activity and output would result in lower revenue. The three scenarios in Section 3.4 give a sense of how revenue responds to differing economic conditions.

3.4 Three Medium-term Fiscal Scenarios and Risk Analysis

Five-year ahead fiscal projections, as usually provided in the Budget and SPU are key to informing budgetary choices. With uncertainty exceptional high, this section develops three fiscal scenarios out to 2025 consistent with the Mild, Central and Severe scenarios set out in Box D, Chapter 2. The Central scenario is designed so that it matches general government expenditure and revenue forecasts (for 2020 and 2021) published in *SPU 2020*. These scenarios reflect both different economic outcomes and the different policy measures required in each scenario, assuming that policy reactions are broadly in line with those to date.

Box I: Policy Measures and Fiscal Scenarios

This box sets out three fiscal scenarios based on the macroeconomic scenarios set out in Chapter 2 Box D. These scenarios are based on the implementation of announced and existing policy measures. For periods of lock-down, it is assumed that the Government mobilises the same supports as have been used to date. For the Central and Mild scenarios, the only lockdown period is the 12-week period running from late-March 2020 to mid-June 2020. For the Severe scenario, there are additional 12-week lockdown periods in Q4 2020 and Q2 2021.

Income Supports/Unemployment Payments.

In lockdown periods, we assume that the enhanced PUP and the TWSS are available. In each case, these schemes are as they currently operate, with a wage subsidy of up to 85 per cent and a PUP of €350 per week. We assume that those whose employment is impacted by the lockdown period are split evenly between the PUP and the TWSS.

In non-lockdown periods, those who are unemployed receive the standard Jobseeker's Benefit/ Jobseeker's Allowance payments.

We assume that Social Welfare payments are indexed in line with private sector wages. Pension expenditure (state pensions and public sector pensions) is projected to increase by approximately €1 billion per year on average over 2022-2025. This is driven by both demographic change and increases in line with private sector wages. It is assumed that the statutory retirement age increases to 67 in 2021.

Health Expenditure

We assume that the additional funding planned for health spending is sufficient in the Central scenario (€2 billion). For the Mild case, while this scenario implies slightly less demand for health services, we assume that there is no saving relative to the Central scenario. This is because additional staff have already been hired, private facilities have been rented and additional equipment has been purchased. For the Severe case, we assume that each additional wave of the virus (which corresponds to a 12-week lockdown period) implies additional healthcare costs of €1 billion. For the Severe scenario, there is an additional €1 billion of health spending in both Q4 2020 and Q2 2021.

Beyond 2021, for all three scenarios, health spending is projected forward using Fiscal Council standstill estimates. These are estimates of the cost of maintaining 2021 service levels, after taking account of service demand (driven by demographics) and price pressures.

Business Supports

For the Mild and Central scenarios, it is assumed that loan guarantees do not lead to fiscal costs. As a result, the only costs incurred are €0.3 billion in business supports which are included in *SPU 2020* projections. For the Severe scenario we assume that €500 million of losses arise in 2023 and a further €1 billion in 2024.

Public Pay Bill

For the Central scenario, *SPU 2020* forecasts of compensation of employees are used for 2020 and 2021. Thereafter, Fiscal Council Stand-Still Scenario estimates are used (Fiscal Council, 2019b). These take account of increases in public sector employment required to hold service levels constant in light of increasing demand due to demographic change. Pay rate increases in line with private sector wages are assumed. There are slight differences between the three scenarios for the public sector pay bill, as inflation and private sector wage pressure differs in each of the three scenarios.

Capital Spending

In all three scenarios, capital spending takes the values forecast in *SPU 2020* for 2020 and 2021. Thereafter, general government capital spending is assumed to be 4.4 per cent of GNI*. This reflects previous government plans to have exchequer capital spending amounting to 4 per cent of GNI*. A further 0.4 percentage points of non-exchequer spending is assumed, leaving a general government total of 4.4 per cent.

As GNI* is different in each of three scenarios, this mechanically leads to different levels of capital expenditure in each of the three scenarios. In 2025, capital spending in the Mild scenario is projected to be €1.9 billion higher than in the Severe scenario.

Revenue

In terms of government revenue, we assume that there is no difference in policy between the three scenarios. In effect, this assumes that there are no major policy changes that yield or cost significant revenue.⁴² Changes in the macroeconomic driver multiplied by the elasticity are used for projections of revenue. Judgement applied to forecasts in 2020 and 2021 is assumed to unwind over the following two years. As a result, there is no judgement applied for 2024 or 2025 (apart from corporation tax).

Judgement is applied to corporation tax receipts after 2021. This is to take account of the possible impact of the OECD's BEPS initiative. The amount of judgement applied is based on the estimates given in the *January 2020 Fiscal Strategy* published by the Department of Finance (2020b). Corporation tax receipts are reduced relative to the baseline level by €0.5 billion in 2022, €1 billion in 2023, €1.5 billion in 2024, and €2 billion in 2025. Despite this negative judgement, receipts increase slightly over this period.

Budget Dynamics and Interest Costs

An interest model nested in the Council's Fiscal Feedbacks Model was used to generate interest projections, with the assumption that marginal interest costs were about 1 per cent in each scenario. While there are upside risks to this assumption for more severe scenarios, more accommodative monetary policy would also be possible in those scenarios, which would be expected to drive down interest rates. The Central scenario mirrors projected interest costs for 2020 and 2021, while the Mild and Severe scenarios mirror *SPU* projections for 2020.

⁴² For income tax, beyond 2022, it is assumed that tax bands widened in line with wage rates. As a result, there no yield from non-indexation beyond 2022.

Expenditure

The three scenarios show that there is a wide range of levels of expenditure possible in 2020. Projections from the three scenarios range from €93 billion to €101.8 billion for 2020. The main differences between the three scenarios arise from social payments and subsidies.

In the Mild case, the economy recovers quite rapidly after Q2 2020, with job losses diminishing over the next two years. Reduced unemployment results in social payments falling in 2021. Expenditure falls back by 2022 to reach a similar level to *Budget 2020* plans, reflecting higher compensation of employees and unemployment payments offset by lower intermediate consumption.

For 2020 and 2021, expenditure forecasts in the Central scenario mirror those in *SPU 2020*. The Central scenario is based on a slower recovery than in the Mild scenario. After the lockdown ends, half of the jobs initially impacted are assumed to be affected until Q4 2020 (193,000 out of an initial 380,000). This slower recovery means more people transition from the temporary support schemes to standard unemployment payments. As outlined in Box I, both the Central and Mild scenarios assume €2 billion of extra health spending in 2020. For 2021, expenditure falls by €2.4 billion. This is entirely driven by falling unemployment as the economy gradually recovers.

From 2022 onward, spending in the Mild scenario is driven mainly by demographics and price pressures, given by the Fiscal Council's standstill estimates. An ageing population results in higher spending, particularly in areas such as pensions and health. Some savings on social payments are made as unemployment continues to gradually fall from just under 8 per cent in 2022 to just under 5 per cent in 2025. Primary spending growth averages 3.5 per cent over 2022-2025.

The Severe scenario assumes a sharp contraction in activity and employment in Q2 2020. Additional lockdown periods (Q4 2020 and Q2 2021) lead to increases in unemployment and delay a recovery.⁴³ In 2021, the unemployment rate averages at almost 15 per cent. As a result of the additional unemployment and additional periods where the PUP and TWSS are paid, there is significantly higher spending on

⁴³ As detailed in Box I, during all lockdown periods it is assumed that the PUP and TWSS are in place.

social payments and subsidies. In 2020, social payments and subsidies combined increase by more than €11 billion compared to 2019. In 2021, spending in these areas falls somewhat, but remains almost €8 billion higher than in 2019. Due to the additional lockdown periods assumed, there is additional health spending of €1 billion in both Q4 2020 and Q2 2021 relative to the Central or Mild scenarios. This additional spending is assumed to be mainly on medical equipment and hence is classified as intermediate consumption.

Expenditure in the Severe scenario falls in 2022, as the unemployment rate falls below 10 per cent. As unemployment continues to fall over 2023–2025, this partially offsets spending increases in other areas in line with demographics and price pressures. Due to the rising level of debt, interest costs rise in 2022 and 2023, before falling thereafter.

Expenditure in all three scenarios converges to a similar level by 2023 and then progress in a similar way (Table 3.5). This reflects the assumption that additional spending is largely mobilised in the short-term to tackle direct Covid-19 effects. The higher unemployment and debt in the Severe scenario have only a modest impact on spending. Given the risks that expenditure could be higher to support the economy, spending could be higher than in these scenarios and vary more across them for a longer period.

Table 3.5: Expenditure, Revenue and Balance under the three Scenarios

€ billion

	2020	2021	2022	2023	2024	2025
Expenditure						
Mild	93.0	91.3	94.9	97.9	100.6	103.7
Central	95.7	93.3	95.7	98.0	100.3	103.1
Severe	101.8	99.1	96.1	98.2	101.5	103.0
Revenue						
Mild	76.3	83.6	89.6	94.1	97.3	100.9
Central	72.5	79.4	85.5	90.0	93.2	96.9
Severe	68.7	73.4	81.3	86.0	88.7	91.7
Balance						
Mild	-16.7	-7.7	-5.3	-3.8	-3.4	-2.7
Central	-23.1	-13.8	-10.2	-7.9	-7.0	-6.3
Severe	-33.2	-25.7	-14.8	-12.2	-12.9	-11.3

Sources: CSO; *SPU 2020*; and Fiscal Council workings.

Notes: The three scenarios are as outlined in Box D in Ch2.

Revenue

General government revenue falls in all scenarios but recovers at different speeds. For 2020 and 2021, the *SPU 2020* forecasts of exchequer tax and general government revenue are used for the Central scenario.

Despite being the most optimistic of the scenarios, the Mild scenario still sees a significant fall in revenue in 2020. General government revenue declines by more than €11 billion. Falling income tax reflects falling employment and income, while reduced VAT and excise are driven by reduced consumption. The recovery assumed in 2021 yields an increase in receipts of over €7 billion, recovering much of the revenue lost in 2020 (Table 3.6). General government revenue exceeds 2019 levels by 2022 in the Mild scenario. Increases in employment and wage rates yield increased income tax receipts. Revenue growth moderates, thereafter, averaging 4 per cent over 2023 – 2025.

Table 3.6: Revenue by heading and scenario

€ billion

	2019	2020	2021
Income tax			
Mild	22.9	18.7	20.3
Central	22.9	18.3	19.9
Severe	22.9	16.7	18.5
VAT			
Mild	15.1	13.7	15.2
Central	15.1	12.3	13.9
Severe	15.1	11.3	11.7
Corporation tax			
Mild	10.9	10.7	11.4
Central	10.9	10.2	10.8
Severe	10.9	10.0	10.3
All other gen govt. revenue			
Mild	38.5	33.1	36.8
Central	38.5	31.8	34.8
Severe	38.5	30.7	32.9

Sources: CSO; *SPU 2020*; and Fiscal Council workings.

Notes: Three scenarios are considered in this exercise. They are as outlined in Box D in Ch2.

In the Central scenario, general government revenue falls by almost €15 billion in 2020.⁴⁴ Income tax and VAT account for half of this fall. The gradual recovery of

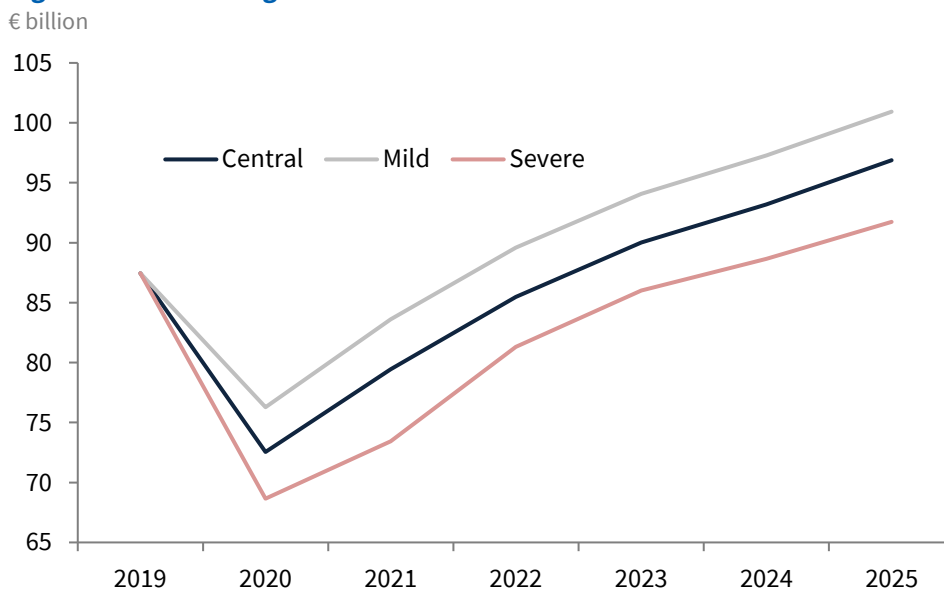
⁴⁴ The Central scenario takes general government and exchequer revenue forecasts from *SPU 2020* for 2020 and 2021.

employment income and consumption leads to strong revenue growth (averaging 7.5 per cent over 2021 to 2023). Despite this, general government revenue does not exceed 2019 levels until 2023. Thereafter, revenue growth slows to an average of 3.7 per cent (2024 and 2025).

For the Severe scenario, judgement is applied to the model-based forecasts. This is based on Box G above, which shows that model-based forecasts may not always be unbiased in Severe economic downturns. For income tax, we apply €890 million (5 per cent of receipts) of downward judgement for 2020, €600 million in 2021 and €300 million for 2022. We also apply negative judgement for VAT (€315 million in 2020 (2.5 per cent of receipts), €230 million in 2021 and €100 million in 2022). As this judgement is unwound, it creates a sharper fall in receipts initially, but does not affect the long-run level of receipts.

General government revenue falls sharply in 2020 under the Severe scenario (€18.8 billion). The slow economic recovery thereafter is reflected in general government revenue, which does not exceed 2019 levels until 2024 (Figure 3.12). The lower potential growth rate in the Severe scenario (0.5 percentage points lower relative to the Central or Mild cases) is reflected in slower revenue growth in 2024 and 2025.

Figure 3.12: General government revenue under three scenarios



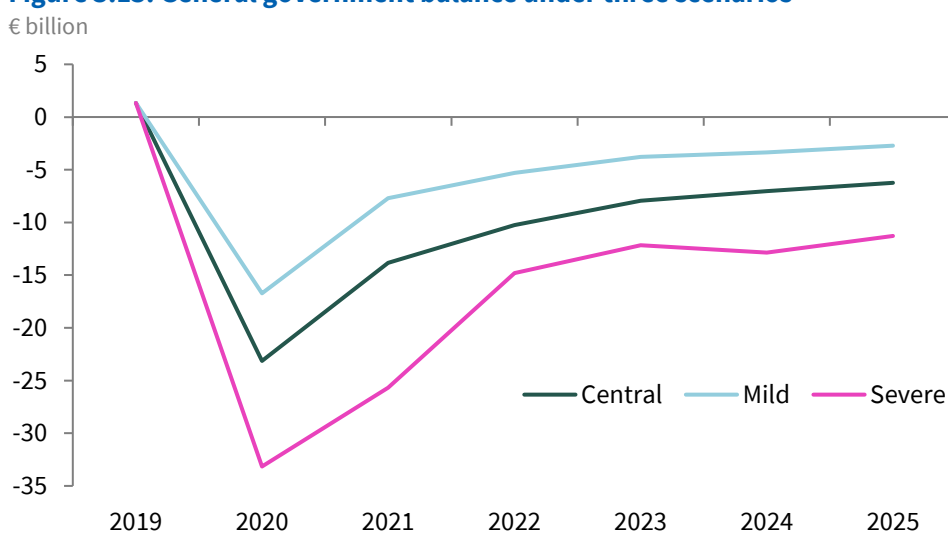
Sources: *SPU 2020* and Fiscal Council workings.

Balance

Figure 3.13 shows the general government balance under the three scenarios. As outlined earlier, these scenarios assume no major tax policy changes. Spending over the medium term reflects Covid-19 expenditures and the likely costs of holding service levels constant and accommodating price pressures. Were a significant fiscal stimulus package introduced in the coming years, this would likely result in higher spending and a deterioration of the balance (see Table 1.2), while fiscal adjustment in later years could improve the balance.⁴⁵

In each scenario there is a rapid deterioration in the public finances in 2020, albeit with different degrees of severity. All three scenarios show a gradual improvement thereafter. In the later years, the main differences in the balance are driven by general government revenue. For 2025, the deficit varies between €3 billion and €11 billion.

Figure 3.13: General government balance under three scenarios



Sources: *SPU 2020* and Fiscal Council workings.

General government debt

While the *Stability and Growth Pact* reference value of 60 per cent is set in terms of debt-to-GDP, it is worth remembering that for Ireland this 60 per cent of GDP

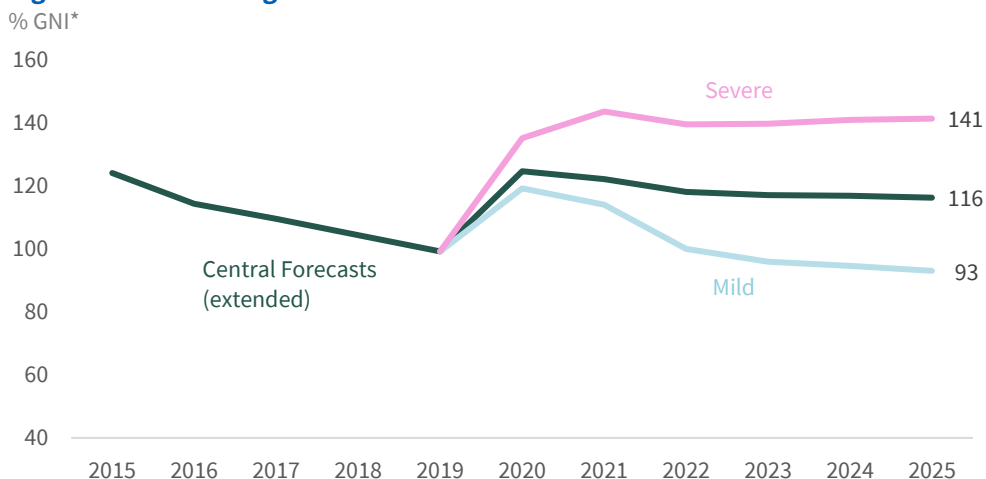
⁴⁵ Increases in spending above those needed to maintain service levels would also have negative implications for the general government balance (relative to those shown here).

reference value would be equivalent to 98.5 per cent of GNI* (using 2018 nominal outturns for both variables).⁴⁶

SPU 2020 forecasts debt to rise in 2020 due to the large deficit adding to the existing debt stock. In addition to the absolute level of debt increasing, national income is forecast to fall in 2020. Both numerator and denominator effects contribute to the debt to GNI* ratio increasing sharply in 2020. While the absolute level of debt is set to increase in 2021, the impact of a recovery in GNI* more than outweighs this, with the debt to GNI* ratio forecast to fall.

Figure 3.14 shows general government debt to GNI* for the Mild, Central and Severe Scenarios out to 2025. These are consistent with the different scenarios for the general government balance shown in Figure 3.13. In the Mild scenario, after an initial increase in 2020, the ratio declines, reaching a lower level in 2025 (93 per cent) than in 2019 (99 per cent). The Central scenario mirrors *SPU 2020* forecasts for 2020 and 2021. Thereafter, the ratio is projected to fall steadily. In the Severe scenario, the debt to GNI* ratio increases in 2020 and 2021, reaching a high of over 140 per cent. The ratio then stays stuck at levels close to 140 per cent out to 2025. While the Severe scenario does not show an explosive (ever increasing) path for debt levels, it does imply higher funding requirements and debt servicing costs on an annual basis.

Figure 3.14: General government debt



Sources: *SPU 2020* and Fiscal Council workings.
Notes: Scenarios are outlined in Boxes D and I.

⁴⁶ Gross general government debt fell below 60 per cent of GDP in 2019.

Box J: Net debt and contingent liabilities

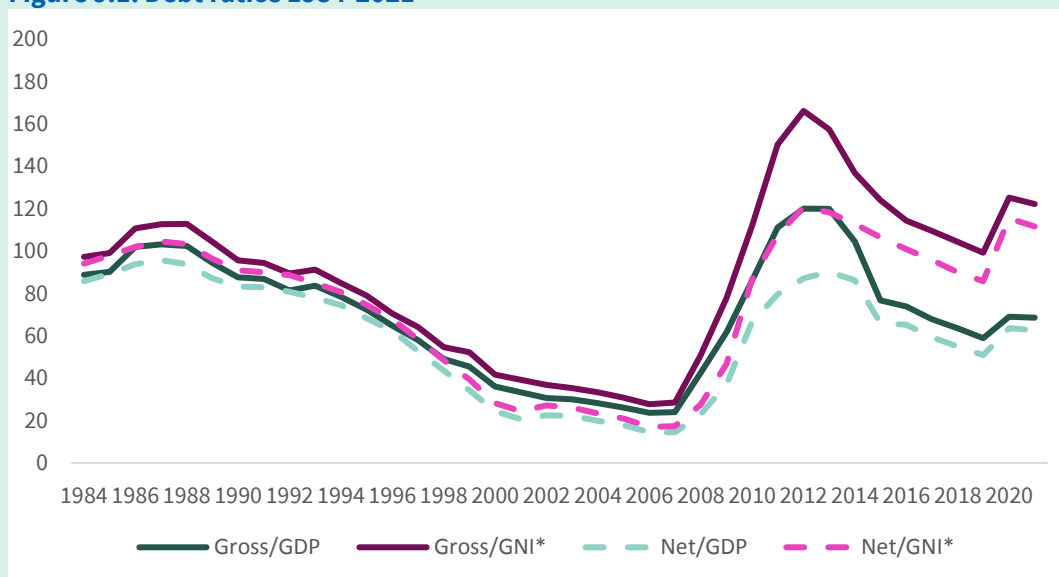
This box examines the relationship between net debt and gross debt in a historical context and also assesses the extent to which government guarantees may affect the government's debt position in the future.

Gross debt is defined as financial liabilities of loans, currency and deposits, and securities (excluding shares and financial derivatives).⁴⁷ Net debt is defined as gross debt minus financial assets corresponding to debt instruments. These measures do not take into account physical capital, such as infrastructure, that are part of government net worth.

Net debt is a more appropriate measure of the government's debt burden as it takes into account liquid assets that can be either used to fund a deficit or to further roll-over debt. Historically there can be substantial differences between the two series. This often arises during crisis periods due to the precautionary holding of cash balances.

Figure J.1 shows the gross and net debt ratios as a per cent of both GDP and GNI* from 1984-2021. In 1987 gross debt peaked at 113 per cent of GNI*, while net debt peaked at 103 per cent of GNI*. As a result of the financial crisis, gross debt peaked at 166 per cent of GNI* in 2012. However, net debt only peaked at 121 per cent of GNI*. This gap reflected a large amount of cash reserves that the NTMA had maintained as a precautionary measure (see Fitzgerald & Kenny, 2018).

Figure J.1: Debt ratios 1984-2021



Sources: CSO; Department of Finance; IMF; Fitzgerald & Kenny (2018); and Fiscal Council workings. Note: CSO data is used for GDP, GNI* and gross debt from 1995-2018. Gross debt from 1984-1994 is from Fitzgerald & Kenny (2018). CSO data for Net debt is used from 2000-2019. The general government balance is used as a proxy for the change in net debt from 1984-1999 (the change in net debt tracks the general government balance closely. Discrepancies arise between the two due to debt adjustment effects and statistical discrepancies). Data from the IMF April 2017 WEO is used for the general government balance from 1984-1995.

The *SPU 2020* forecast for net debt is that it will peak at 115 per cent of GNI* in 2020, below the 2012 peak but above the 1987 peak. This is an increase of 29 percentage points in the net debt ratio in 2020 compared with 2019. In contrast, gross debt is forecast to increase by 26

⁴⁷ Maastricht definition. See *Measuring net government debt: theory and practice* (Eurostat, 2014): <https://ec.europa.eu/eurostat/web/products-statistical-working-papers/-/KS-TC-14-005>.

percentage points. The difference mostly relates to a planned run down in cash balances by the NTMA (see Figure 1.9 for details on how the exchequer deficit will be funded in 2020).

Contingent liabilities

Government guarantees are often used as a way of leveraging the government's balance sheet in order to provide support to the economy in a time of crisis. Shown in Figure J.2 is the general government contingent liabilities from 2005-2019 as a per cent of GNI*. This represents the maximum possible exposure to the Irish State of these liabilities.⁴⁸

The banking guarantee scheme introduced in 2008, which covered €375 billion of banking liabilities, created a very large potential exposure for the government (Barnes & Smyth, 2013). As a result, the contingent liabilities peaked at 225 per cent of GNI* in 2008 but since then it has steadily declined and at the end of 2019 amounted to 2.5 per cent of GNI*.

In response to the Covid-19 pandemic, the Government has again turned to leveraging the government's balance sheet and has introduced a credit guarantee scheme of €2 billion (see Box F). As far as the Council is aware, this is the only new measure introduced by the Government in response to Covid-19 that creates a potential contingent liability for the State.⁴⁹ As a result, the potential cost the State may incur from contingent liabilities is not on a comparable scale to that arising from the financial crisis.

Figure J.2: The financial crisis led to a large increase in the government's contingent liabilities



Sources: CSO; and internal Fiscal Council workings.

Note: Contingent liabilities are presented in terms of their maximum possible exposure.

⁴⁸ Often, the probability of realising the cost on the contingent liabilities is low. While contingent liabilities are often expressed in terms of the maximum possible exposure, a more appropriate way to assess contingent liabilities would be on the basis of expected present discounted value.

⁴⁹ Up to 80 per cent of the loan is guaranteed, with a 50 per cent cap on a lender's portfolio. The scheme requires legislation, and the legislation will ultimately determine the amount of the contingent liability for the State.