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COVID-19 and the Public Finances in Ireland

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The fiscal response to COVID-19 in Ireland has been significant, with the increase in public spending the second largest in the euro area in the first three quarters of 2020. The necessary fiscal actions have supported the health system and protected the economy from the worst effects of the pandemic. ECB policy has also played an important role in the crisis response – easing financing conditions and boosting growth in the euro area and in Ireland. Policy support will need to be maintained over the short-term in order to stabilise the economy. When health risks diminish, any ongoing support via current expenditure should be targeted and temporary. Outside Covid-19, our analysis shows that permanent increases in current expenditure could only be sustainably accommodated if accompanied by offsetting revenue raising measures. Long-lasting increases funded by debt would amplify the risks to fiscal sustainability and potentially limit the scope for an expansionary fiscal response to future crises.

1. Introduction

Fiscal policy is a key instrument for addressing the harmful effects of the pandemic, both to provide additional funding to public health and to support households and firms. Monetary policy has also responded, with the ECB expanding its asset purchase programme and implementing a series of measures aimed at supporting the flow of credit to households and businesses (Lane, (2020a) and Makhlouf, (2020)). These measures have been complemented by macroprudential policy and supervisory actions. In March 2020, the Central Bank released a capital buffer that banks are required to hold in order to further support the continued provision of credit to the economy (see Donnery, 2021).

[1] Irish Economic Analysis Division, Central Bank of Ireland. The views expressed in this paper are those of the authors only and do not necessarily reflect the views of the Central Bank of Ireland. We would like to thank the following people for comments on an earlier draft: Mark Cassidy, Sharon Donnery, John Flynn, Sarah Holton, Reamonn Lydon, Caroline Mehigan and Gerard O'Reilly (Central Bank); Matt McGann, Niall Cassidy and Leo Redmond (Department of Finance); and David Purdue (NTMA).

This *Economic Letter* examines the fiscal response to the COVID-19 pandemic and considers the impact of ECB measures on the public finances and the economy. The key findings are as follows:

- The fiscal support package introduced in Ireland was large in a euro area context. Direct supports appear to be a more prominent feature of the Irish fiscal response than in other countries, with the increase in primary government spending the second highest in the euro area in the first three quarters of last year. The fiscal measures have mitigated the impact of the pandemic on households, firms and the broader economy.
- The ECB policy response has helped to maintain favourable financing conditions for households, firms and governments in the euro area. These measures ensured borrowing costs remained at exceptionally low rates in 2020, maintained access to credit for the private sector and facilitated the counter-cyclical fiscal response in Ireland. Our estimates indicate that ECB monetary policy actions will boost the level of output in the euro area and in Ireland by around 1.4 per cent in 2021, relative to a scenario in which the ECB had not intervened.
- As the crisis abates, spending on temporary COVID-19 supports such as the Employment Wage Subsidy Scheme (EWSS) is likely to reduce in the coming years. Any continuing support via current expenditure should be temporary and targeted. Outside COVID-19, *Budget 2021* contained a €5.4 billion increase in Exchequer expenditure. Our analysis shows that permanent increases in current expenditure could only be sustainably accommodated if accompanied by offsetting revenue raising measures. Long-lasting increases in current spending funded by debt could result in a permanent rise in the government deficit, increasing the risks to fiscal sustainability and limiting the scope to respond to future crises.

The rest of the *Letter* is laid out as follows: Section 2 provides an overview of the fiscal policy response in Ireland. Section 3 examines the impact of ECB monetary policy measures on Ireland and the euro area. Section 4 looks ahead, illustrating the implications for the public finances of permanent expenditure increases with and without offsetting revenue raising measures. Section 5 concludes.

2. The Fiscal Response to COVID-19: How Does Ireland Compare?

The fiscal response to the pandemic in 2020 occurred in three broad phases. Phase 1 was the initial response to the pandemic in March and April, which saw increased health spending, the creation of new income support measures and steps to improve business liquidity. Phase 2 was the July stimulus, which built on the initial measures but also included job creation measures with a view to the expected recovery at the time. Phase 3 was Budget 2021, framed at a time of high levels of uncertainty around the pandemic and Brexit.

The total estimated cost of all measures is €24.6 billion or 12.2 per cent of GNI* in 2020 (see Table 1), consisting of both direct (80 per cent of the total) and indirect costs (20 per cent). The latter do not affect the fiscal position today, but create a contingent liability in the future, for example credit guarantees.[2] Expenditure measures (€16.4 billion), notably income supports (€10bn) account for a large share of direct costs in 2020. In 2021, direct costs are expected to fall to €12.6bn.[3] This assumes that the full amount of the Covid-19 Contingency Reserve and the Recovery Fund, unallocated measures that account for half of the total cost in 2021, are utilised. At the time of writing, no additional indirect measures are planned for 2021.

Table 1: Estimated Fiscal Cost of Pandemic-Related Measures

	€bn			% GNI*		
	2020	2021	Total	2020	2021	Total
Revenue Measures	3.2	0.7	3.8	1.6	0.4	2.0
- Tax Deferrals	2.0	-	2.0	1.0	-	1.0
- Other Revenue	1.2	0.7	1.8	0.6	0.4	1.0
Expenditure Measures	16.4	6.4	22.8	8.1	3.1	11.2
- Income Supports	10.0	3.2	13.2	4.9	1.6	6.5
- Health Spending	2.6	1.9	4.5	1.3	0.9	2.2
- Other Spending	3.9	1.3	5.2	1.9	0.6	2.5
Unallocated Resources	-	5.5	5.5	-	2.7	2.7
- Contingency Reserve	-	2.1	2.1	-	1.0	1.0
- Recovery Fund	-	3.4	3.4	-	1.7	1.7
Total Direct Measures	**19.6**	**12.6**	**32.1**	**9.7**	**6.2**	**15.9**
Total Indirect Measures	**5.0**	**-**	**5.0**	**2.5**	**-**	**2.5**
Total Measures	**24.6**	**12.6**	**37.1**	**12.2**	**6.2**	**18.4**

Source: 2020 - Central Bank of Ireland estimates. 2021 – Department of Finance projections. The ratios use GNI* estimates taken from Budget 2021.

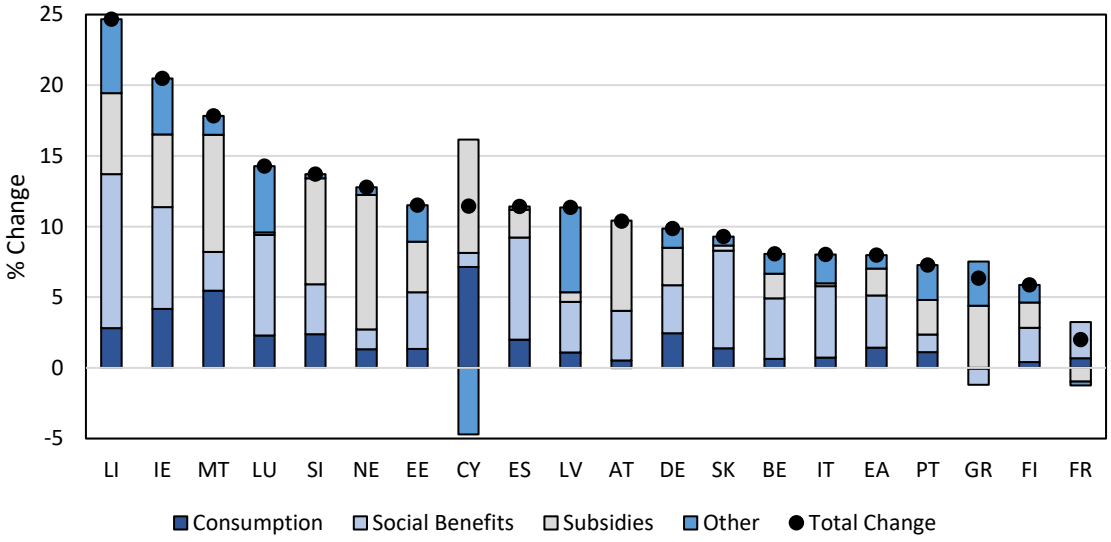
COVID measures are intended to be temporary in nature, so they should not lead to a permanent deterioration in the General Government balance or have a lasting negative impact on public debt dynamics.[4] This strategy of providing counter-cyclical policy is in line with European Commission recommendations on the fiscal response to the pandemic. It differs from the fiscal policy response to the Financial Crisis and previous economic crises in Ireland, when sustainability concerns required the introduction of tighter fiscal policy when

[2] We include tax deferrals as direct costs as they directly affect the public finances upon introduction, even if it is only on a temporary basis, consistent with IMF (2020).
[3] Department of Finance (2020c).
[4] In documentation accompanying the July Stimulus (DF 2020b) the Department of Finance notes that the measures introduced are 'targeted to protect jobs and incomes in the sectors most in need' and 'are largely temporary so can be funded through borrowing and not through raising taxation elsewhere'. In documentation accompanying Budget 2021 (DPER 2020) the Department of Public Expenditure and Reform notes that 'these Covid-19 support measures should be seen as timely, targeted and temporary, to be removed as the economic impacts dissipate and as employment levels increase'.

aggregate demand was *already* falling (See Kearney (2012)). A key challenge for government in the post pandemic period will be ensuring that measures designed to be temporary do not become a permanent part of the expenditure base.

Figures 1 and 2 compare the Irish response to that of other countries. The size of the Irish fiscal response – in terms of the increase in primary expenditure (Figure 1) – is large, at just over 20 per cent over the first three quarters of 2020. The response in Ireland also appears more weighted towards direct as opposed to indirect measures than in other euro area economies (Figure 2).[5] Direct measures have larger up-front costs, but potentially limit future fiscal exposure. Adjusting for the overall size of the measures introduced, the composition of direct expenditure measures here appear broadly in line with those in the euro area as a whole (Figure 1). Specifically, increases in government consumption (intermediate consumption and compensation of employees) and subsidies (reflecting wage subsidy schemes) made similar contributions to the growth rate in both Ireland and the euro area, while social benefits were the biggest contributor to the growth rate in both cases.

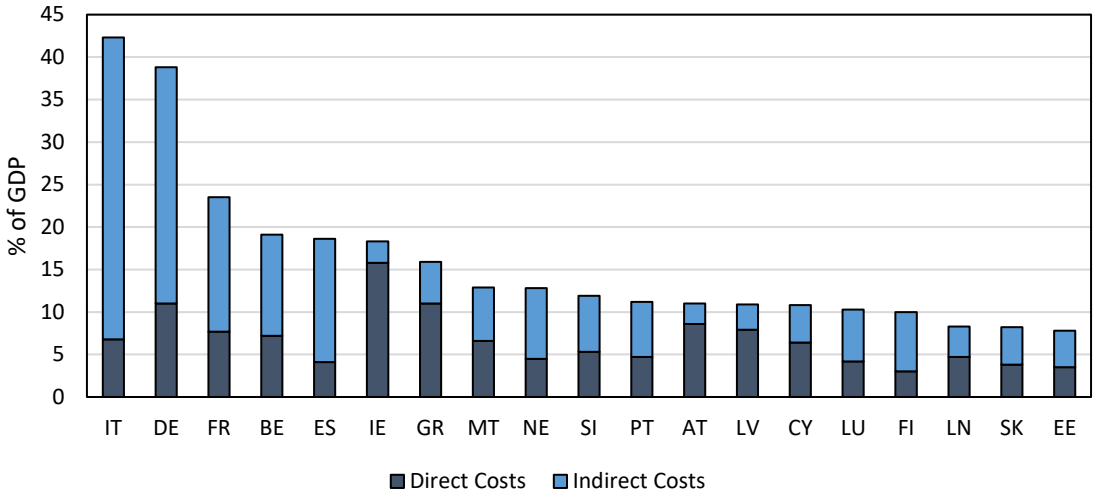
Figure 1: Primary Expenditure Growth, Q1 to Q3 2020 (Year-on-Year Change)



Source: Eurostat, Central Bank of Ireland calculations

[5] While the IMF cautions against using its Fiscal Policy Database for cross country comparison, when viewed in conjunction with quarterly Government Finance Statistics data (Figure 1) it can be used to assess broad trends in Ireland.

Figure 2: Estimated Fiscal Cost of Pandemic-Related Measures, 2020 and 2021



Source: IMF Fiscal Monitor for all countries except Ireland where internal calculations are used and the ratio is shown as a percentage of GNI*.

The fiscal supports introduced by the government have helped to mitigate the negative impact of the pandemic on Irish households, firms and the broader economy. Cahill and Lydon (2021) show that the measures have helped to partially offset the fall in incomes for households and have also benefitted household debt sustainability. Lambert *et al.* (2020) show that the policy package, including elements related to both wage and non-wage costs, reduced the rate of financial distress among SMEs by one-sixth.

More broadly, the fiscal measures have boosted overall economic activity with higher government spending reducing the scale of the decline in non-traded sector output. Estimates in Conefrey *et al.* (2020) of the initial fiscal response to the pandemic show that the measures introduced up to June 2020 increased output by around 2 per cent last year, relative to a baseline without the measures. The fiscal supports implemented during the remainder of the year are likely to have increased the overall boost to output to around 5 per cent in 2020 (Conefrey *et al.*, 2021).[6] Budget 2021 contained additional measures for 2021 which means that fiscal policy will continue to support growth this year.

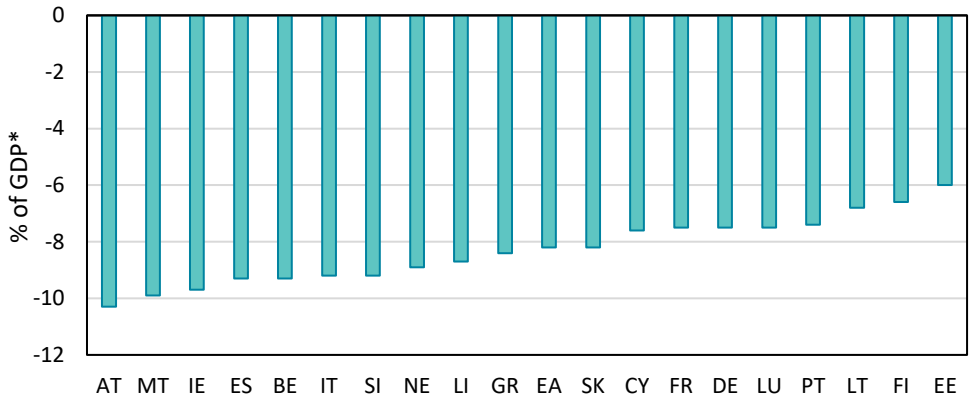
3. The ECB response

All 19 euro area countries are estimated to have run large budget deficits in 2020, compared to just seven in 2019. The change in the Irish budget balance last year is estimated to have been the third largest in the euro area, moving from a surplus of 0.9 per cent of GNI* in 2019 to a deficit of 8.8 per cent in 2020 (Figure 3). The deficit itself is in-line with the euro area average and is in the middle of the cross-country range. Unsurprisingly given these developments, debt ratios are also estimated to have increased across the region, many from already high levels. In Ireland, the debt ratio was just under 100 per cent of GNI* last year, broadly in line with the euro area average. The Irish debt ratio is expected to record a

[6] Forthcoming. Detailed results available on request from the authors.

relatively small increase – despite the sharp deterioration in the budget balance – reflecting the favourable impact of GNI* growth on the ratio and the use of existing resources to finance a large part of the additional spending in 2020.

Figure 3: Estimated change in budget balance in 2020



Source: European Commission Autumn Forecast for all countries with the exception of Ireland where internal CBI projections are used. (*) Ratios for Ireland are presented as a percentage of GNI*

Elevated debt levels, combined with uncertainty about the trajectory of the virus, could generate concerns about creditworthiness, leading to higher funding costs through a spike in the risk premium component of government bond yields. However, one of the key dimensions of the policy response to the pandemic has been the swift and substantial actions taken by central banks to mitigate the macro-financial impact of COVID-19. In terms of the euro area, the ECB adopted a multifaceted approach at the onset of the pandemic to address the spike in financial market volatility and to supply additional monetary easing to all parts of the economy. The ECB the policy supports have been designed to preserve favourable financing conditions and to bring medium-term inflation back towards its aim of below, but close to, 2 per cent (Schnabel, 2020).

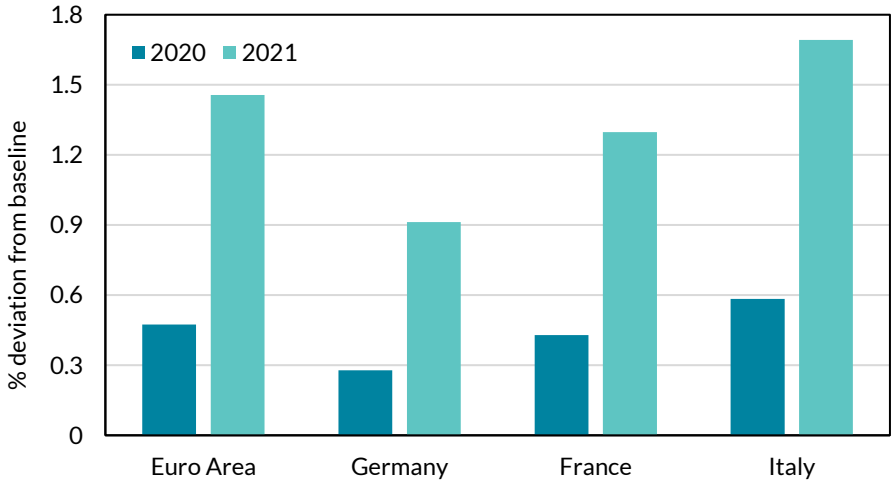
Perhaps the main pillar of the ECB intervention has been the purchase of financial assets, including sovereign bonds of euro members, on a relatively large scale. These purchases comprise an additional €120 billion through the pre-existing Asset Purchase Programme (APP) and €1,850 billion through a new, more flexible programme, the Pandemic Emergency Purchase Programme (PEPP) (see Holton et al, 2020; Lane, 2020a). The asset purchases have helped to stabilise markets and have suppressed any potential significant elevation in risk premia. As outlined by Lane (2021), sovereign bond yields act as a benchmark in the euro area by serving as the basis for the pricing of corporate and bank bonds, as well as the pricing of bank loans to firms and households. In this way, the ECB actions are designed to ensure that general financing conditions remain favourable.

In the case of Ireland, the cost of borrowing as measured by the 10-year yield continued to decline in 2020, despite a higher deficit and debt level. This contrasts with the position in the 2010 financial crisis when the interest rate increased sharply. As we outline below, the ECB asset purchases in 2020 could have lowered Irish long-term government bond yields by 80

basis points (that is, 0.8 of a per cent) relative to a counterfactual scenario in which the ECB had not implemented the APP and PEPP. Applying this reduction to the additional government borrowing of €24 billion in 2020, implies a direct interest saving of around €192 million per year to the Exchequer. The reduction in yields also lowers the cost of servicing existing debt as this can be refinanced at cheaper rates.

The asset purchase programmes will support the economy directly by keeping borrowing rates for the private sector lower than would have been the case in the absence of the programmes. Indirectly, the programmes benefit the economy through spillovers to Ireland from higher economic activity in other euro area economics. Following the methodology set out in Conefrey at al. (2020), we first estimate the direct impact of these programmes on the euro area using the NiGEM model (Hantzsche et al, 2018).[7] We then incorporate the macroeconomic effects of the programmes on Ireland's trading partners into the Central Bank's structural model of the Irish economy, COSMO (Conefrey et al, 2018), and quantify their impact on Irish macroeconomic variables.

Figure 4: Impact of ECB Purchase Programmes on Output, % deviation from Baseline



Source: Own calculations using NiGEM.

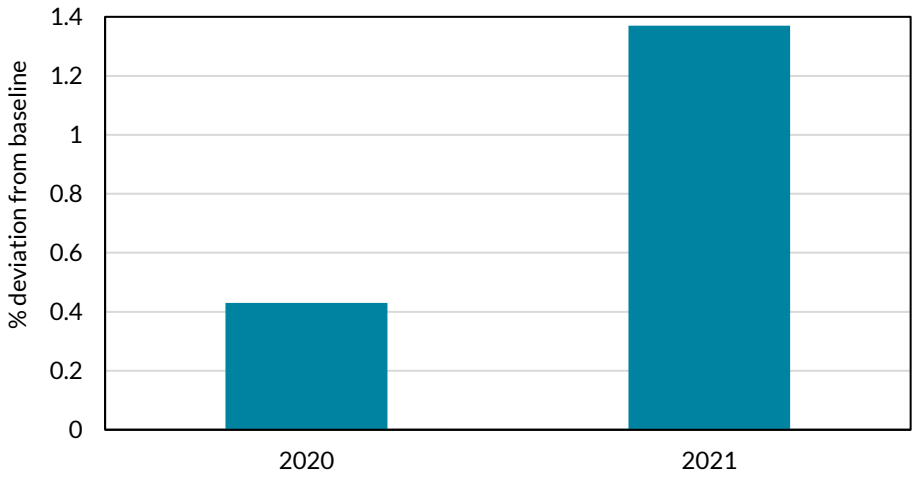
Figure 4 illustrates the results from the first step. The level of euro area output is 0.5 per cent higher relative to baseline (i.e. without the policy measures) in 2020 and almost 1.5 per cent higher than baseline in 2021. The larger impact in 2021 is due to two factors. First, consistent

[7] In particular, we scale the results from Rostagno et al (2019) and Chadha and Hantzsche (2018) to correspond with the size of the pandemic-related programmes announced by the ECB. We assume that over 90 per cent of the PEPP and approximately 80 per cent of the APP is allocated to the purchase of government bonds. Combining these assumptions with the estimates from the literature on the response of yields to previous programmes, suggests that average euro-area long-term sovereign yields will be approximately 80 basis points lower over the horizon of the new programmes than in the absence of these programmes. See https://www.ecb.europa.eu/mopo/implement/pepp/html/index.en.html and https://www.ecb.europa.eu/mopo/implement/app/html/index.en.html

with the trajectory of purchases under the programmes, we assume that approximately two-thirds of the total announced measures occur in 2021. Second, the transmission of monetary stimulus through financial markets and the banking system to the real economy typically exhibits "long and variable lags" so that the peak economic impact of asset purchases by a central bank is only reached after several quarters.[8] Purchase programmes are also likely to have a larger impact on countries with higher debt-to-GDP ratios such as Italy, due to the greater estimated sensitivity of sovereign yields to asset purchases in those countries.

The second step – the impact on Ireland – is illustrated in Figure 5.[9] We find that the programmes boosted output by over 0.4 per cent in 2020 relative to a counterfactual scenario excluding the policy supports, and by almost 1.4 per cent by 2021. These results are in line with the euro area estimates in Figure 4. This is reflective of several factors including Ireland's debt ratio relative to other euro area economies, the elasticity of Irish bonds yields with respect to official purchases and Ireland's relative exposure to euro area macroeconomic shocks through trade and financial linkages.

Figure 5: Impact of ECB Purchase Programmes on Irish Output, % deviation from Baseline



Source: Own Calculations using COSMO.

It is important to note that our estimates of the impact of the ECB's sovereign bond purchase programmes are likely to be a *lower bound*. As noted by Lane (2020b), simulations from essentially linear models such as COSMO, are based on elasticities of financial conditions with respect to policy changes that are estimated using data that are predominantly from periods in which relatively benign market conditions prevailed. Accordingly, results from these

[8] See Havranek and Rusnak (2013) for a discussion of lags in the monetary transmission mechanism.
[9] Similar to the approach in NiGEM, we implement the ECB's purchase of Irish sovereign bonds as a shock to Irish long-term sovereign bond yields. Using the estimates from the literature on the effect of previous programmes, we assume that the ECB's pandemic purchase programmes will lower Irish yields by close to 80 basis points relative to baseline. To capture the spillover effects on Ireland of sovereign bond purchases in other euro area economies, we incorporate the results from NiGEM outlined above into COSMO as shocks to the path of external variables in the model. We then simulate the model with both the external and sovereign yield shocks to quantify the total impact of the APP and PEPP on the Irish economy.

models may significantly underestimate the actual impact of the purchase programmes when macro-financial volatility is elevated, as was the case at the onset of the pandemic.

4. Expenditure and Revenue Scenarios after COVID-19

As outlined in Sections 2 and 3, the exceptional fiscal and monetary policy response to the pandemic has played a key role in reducing its social and economic impact over the past 12-months. The deterioration in the public finances that has occurred because of the fiscal response was fully warranted. Policy support will need to be maintained over the short term in order to stabilise the economy and, as health risks diminish, the focus of this support should shift to more targeted and forward-looking measures to foster recovery and avoid scarring effects.[10] At the same time, fiscal sustainability remains an important consideration, particularly in a small open economy such as Ireland that is more vulnerable to external shocks. Permanent increases in current expenditure need to be funded in a sustainable manner and there will be a need to reduced public debt from its high level when economic conditions allow.

On top of the spending allocated for COVID-19 and Brexit measures in 2021 – which could be considered temporary in nature – the *Expenditure Report 2021* projects a €5.4 billion increase in permanent core Exchequer spending across a number of departments including Health, Education and Social Protection (see IFAC, 2020). Once economic activity recovers, it will be important for the long-term sustainability of the public finances that any permanent increases in current spending are matched by revenue raising measures. In particular, the ability of the government to use fiscal policy to cushion the impact of a future crisis will be more limited if the public finances are weak entering the crisis, with, for example, elevated debt and a budget deficit.

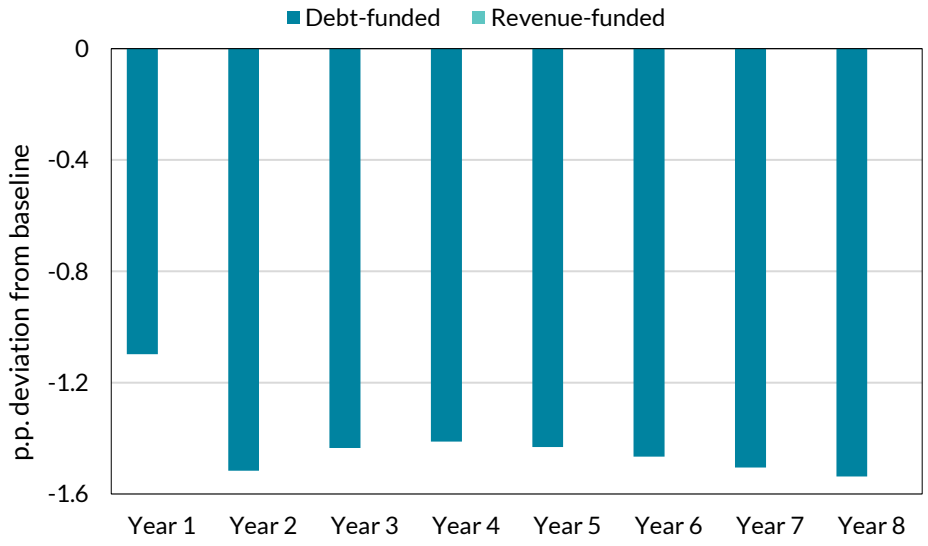
We run an illustrative scenario using COSMO to show the contrasting impact on the public finances of a permanent increase in government expenditure when the additional spending is funded though offsetting revenue raising measures (*'revenue funded'*) and when it is funded through debt issuance *('debt funded')*. In the *revenue-funded* scenario, we assume a rise in income taxes to fund the spending. This is a technical assumption for the simulation, as opposed to reflecting policy choices at this time. In reality, a range of revenue raising instruments could be considered such as carbon tax, VAT etc. The impact on the economy would be influenced by the revenue raising measure, or mix of measures, that is used. Tax measures that affect labour supply or the competitiveness of the economy tend to have the largest output effects; see Varthalitis (2019), Hickey *et al.* (2020) and Conefrey *et al.* (2013).

We assume a permanent increase in government spending of €5.4 billion, which is at the lower end of the €5.4 to €8.5 billion range of permanent spending identified by IFAC (2020) in *Budget 2021*. Figure 6 shows the impact on the General Government balance. In the *revenue-funded* scenario, the General Government balance remains unchanged, as there is no additional borrowing. In the *debt-funded* scenario, the General Government deficit increases

[10] The European Commission issued updated guidelines on the fiscal policy response to the pandemic in March.

by 1.5 percentage points over the horizon (note: this is a permanent increase). Increased borrowing costs due to the higher debt ratio contributes to a larger increase in debt servicing costs and the General Government deficit in the *debt-funded* scenario. Our approach assumes that for levels of the debt-to-output ratio above 60 per cent, the interest rate increases by around 10 basis points for every 10 percentage point increase in the debt ratio (see also Department of Finance (2019)). The rationale for this effect is that an increase in the debt burden could be associated with a rise in the perceived riskiness of the public finances, leading to higher sovereign borrowing costs. The size of this effect is uncertain and would be influenced by prevailing market conditions and the ECB monetary policy stance, as well as the state of the economy. Based on the calibration we have used, the impact of this interest rate effect is relatively small in this scenario, with the rise in long-term yields remaining below 10 basis points for the duration of the simulation.

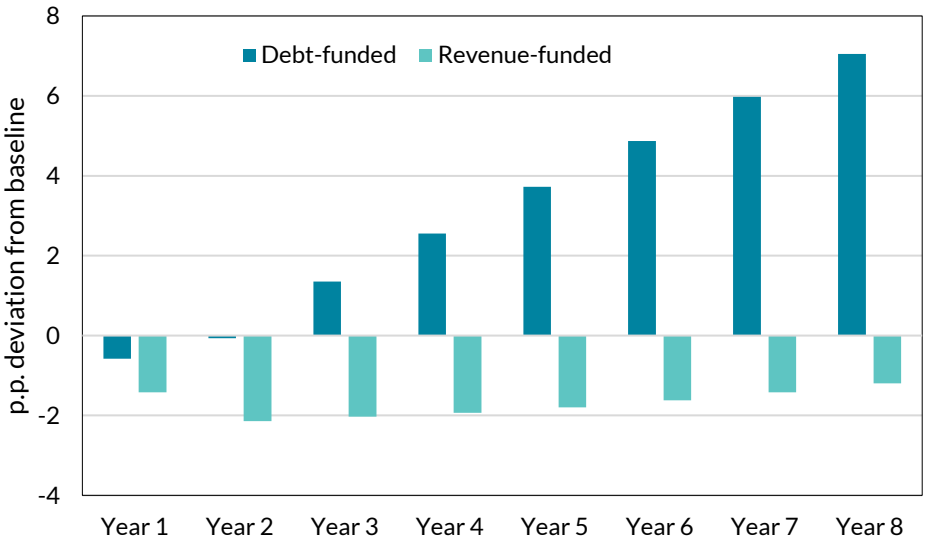
Figure 6: Impact of €5.4bn Increase in Government Expenditure on General Government Balance-to-output Ratio, p.p. deviation from Baseline



Source: Own Calculations using COSMO.

Figure 7 shows the effect on the General Government debt-to-output ratio. The *debt-funded* scenario leads to around a 7 percentage point increase in the debt ratio in the long-term. The increase is due to the cumulative direct effect of the additional annual borrowing needed to fund the rise in spending. Given Ireland's high starting level of debt at around 100 per cent of GNI* and the need to reduce this to lower levels to protect public finances against future negative shocks (Department of Finance, 2021, IFAC, 2020), the estimated increase in the debt-to-output ratio in this scenario could amplify the risks facing the economy and the public finances over the medium term.

Figure 7: Impact of €5.4bn Increase in Government Expenditure on General Government Debt-to-Output Ratio, p.p. deviation from Baseline



Source: Own Calculations using COSMO.

In contrast, if the higher spending is funded by additional revenue from income tax, the debt ratio would remain broadly unchanged – falling marginally by the end of the period. This is because the direct fiscal cost of the spending increase is lower in the *revenue-funded* scenario, while at the same time the public finances benefit from the boost to growth from higher spending which reduces the debt-to-output ratio.

Lastly, as well as the impact on the public finances, any decision to permanently increase government expenditure would also need to take into account the prevailing economic conditions and in particular, the cyclical position of the economy (Conefrey *et al.*, 2019). In both scenarios, increased government spending boosts economic growth via the usual channels, i.e. higher government spending, increased public sector employment and a rise in investment directly boosts activity and stimulates demand in the non-traded sector. Some of the additional spending is assumed to be used as transfers to households, increasing income and consumption. In the *revenue-funded* scenario, the effect on economic activity of the increase in government spending is lower than in the *debt-funded* scenario. This is because the rise in income tax offsets some of positive effect on demand of the higher government spending. In addition to how the spending increase is financed, the impact on the economy would also be affected by the composition of the spending. Previous research has examined the different effects on the economy of an increase in capital investment or government consumption (see Hickey *et al.*, 2020, Ivory *et al.*, 2019 and Bénétrix and Lane, 2009).

5. Conclusion

There are three stand-out features of fiscal policy during the pandemic: first, the size of the measures introduced in 2020 were on an unprecedented scale; second, the fiscal response in 2020 was countercyclical; and third, the fiscal expansion in Ireland was matched by similar actions abroad, and was complemented by an accommodative monetary policy response by the ECB.

The fiscal support package introduced in Ireland was large in an international context. With direct supports a more prominent feature of the Irish fiscal response than in other countries, the increase in primary government spending in Ireland was the second highest in the euro area in the first three quarters of last year.

Deteriorating public finances of this magnitude could generate concerns about creditworthiness and, potentially, lead to higher sovereign yields. This did not occur in 2020. Instead, the interest rate on 10-year Irish government debt declined to record lows, due in large part to the scale of the unprecedented monetary policy response of the ECB. These actions have maintained access to credit for the public and private sector, supporting growth in the euro area with positive spillovers to the Irish economy. We estimate that ECB measures will boost output in the Irish economy in 2021 by around 1.4 per cent.

Post-pandemic debt dynamics will depend on a range of factors, in particular a continuing low interest rate environment (see discussions in Blanchard (2019) and Lane (2019)). The future path of the virus will also exert a key influence. A successful vaccination programme should lead to reduced spending on temporary COVID-19 supports as the economy recovers. A scenario where some of this spending ends up being more long lasting than intended or expected will present challenges for the public finances. Outside of COVID-related spending, *Budget 2021* contained a €5.4 billion (2.5 per cent of 2019 GNI*) increase in permanent Exchequer spending which was funded by additional government borrowing. Our analysis indicates that permanent increases in current expenditure could only be sustainably accommodated if accompanied by revenue raising measures. In contrast, financing permanent current spending increases through borrowing, would lead to higher government deficits and debt levels in the future. Given Ireland's high starting level of debt, further increases in the debt ratio in the coming years would amplify the risks to debt sustainability and potentially limit the scope for an expansionary fiscal response to future crises.