Quarterly Economic Observer

Summer 2018

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NERI Nevin Economic Research Institute

About NERI and this publication

The Nevin Economic Research Institute (NERI) was established to provide information, analysis and economic policy alternatives. Named in honour of Dónal Nevin, scholar, trade unionist and socialist who gave a life of service to the common good, the Institute aims to undertake research that will be of relevance to the Trade Union movement and the general public across the island of Ireland.

This is the 26th *Quarterly Economic Observer* (QEO) of the Institute. The purpose of the QEO is to provide regular, accessible and timely commentary so as to equip trade unions and others in articulating and advancing a new economic paradigm where the old has failed. Unless otherwise stated, the data cited in this Observer are the latest available as of the 24th of July 2018. The final draft of this document was completed on the 30th of July 2018.

This report has been prepared by staff of the Institute. The lead author of this QEO is Dr. Tom McDonnell with contributions from Paul Goldrick-Kelly and Paul MacFlynn. We are grateful to our external reviewers from the academic and research community who reviewed and commented on an earlier draft of this document. The analyses and views expressed in this publication are those of the NERI and do not necessarily reflect those of others including the Irish Congress of Trade Unions or the unions supporting the work of the Institute.

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The Nevin Economic Research Institute

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Executive Summary

This edition of the NERI's *Quarterly Economic Observer* (QEO) outlines our latest expectations for the economies of the Republic of Ireland and Northern Ireland (Section 1) and proposes changes to the levels and composition of both public spending and government revenue in the Republic to boost the long-run productive capacity of the economy (Section 2).

Economic Outlook for the Republic of Ireland

- The short-term outlook for the Republic's economy remains positive. We project real GDP growth of 5.8 per cent in 2018 and 3.8 per cent in 2019.
- The labour market should also continue to improve with projected employment growth of approximately 100,000 over the period 2018-2019. The unemployment rate should range between 4.5 and 5 per cent through 2019.
- With falling unemployment and rising job vacancies the tightening of the labour market should also improve conditions for real wage growth. We project average hourly earnings growth of 2.9 per cent in 2018 and 3.4 per cent in 2019.

Macroeconomic performance & projection, Republic of Ireland

	2017	2016	2017	2018	2019
Real Output		*Percentage real change over previous year*			
Gross Domestic Product	€294.1bn	5.0	7.2	5.8	3.8
Personal Consumption	€99.9bn	4.0	1.6	2.7	2.5
Government Consumption	€29.6bn	3.5	3.9	2.3	2.2
Investment	€69.0bn	51.7	-31.0	10.1	9.7
Exports	€352.6bn	4.4	7.8	6.5	5.6
Imports	€263.3bn	18.5	-9.4	6.2	7.0
Earnings		*Percentage nominal change over previous year*			
Average Hourly Earnings	€22.43	0.8	1.7	2.9	3.4
Government Finances		*Percentage of GDP*			
General Government Balance	-€1.0bn	-0.5	-0.4	-0.2	-0.1
Gross Debt	€201.3bn	73.4	68.4	66.4	63.9
Labour Force		*Percentage change over previous year*			
Employment	2,194,150	3.7	2.9	2.9	2.1
		Percentage of labour force			
Unemployment	157,850	8.4	6.7	5.3	4.7

Economic outlook for Northern Ireland

- Uncertainty surrounding Brexit and the absence of devolved government continue to weigh heavily on the outlook for the Northern Ireland economy in the short term.
- Weakness in the *Manufacturing* sector is holding back output growth whilst the quality of new employment is a key concern for long-term, productivity based growth.
- Though headline figures for unemployment showed record lows in the first few months of 2018, issues with low levels of participation persist.

Rebalancing Fiscal Policy in the Republic of Ireland for Sustainable & Inclusive Growth

- There has been a significant improvement in the fiscal position of the Irish state over the past number of years. The government deficit, public interest payments and general government debt have declined as a portion of both output (however measured) and government revenues. Gross public debt is still relatively large however, and revenues are precariously dependent on volatile receipts flows from corporate tax.
- Conventional comparisons of tax revenue across states tend to measure a country's tax take as a portion of output, usually GDP. By this measurement, Irish government revenues are low by international standards. However, this particular metric is problematic in an Irish context, as GDP represents an inaccurate measure of fiscal capacity due to the unique distortionary effects of multinational activity on output. Alternative measures such as GNI* reduce the extent of the gap relative to comparator countries, but do not eliminate it. We can make a more meaningful analysis of Ireland's comparative position by measuring tax revenues as a percentage of the potential tax base (Implicit Tax Rate, or ITR), or on a per capita basis.
- In ITR terms, Irish tax revenues are low under the headings of taxation on Labour and Capital. Revenue comparisons in per capita terms reveal a significant aggregate shortfall in revenues relative to other high-income EU

states of almost 10 per cent. The shortfall is a function of the relative absence of taxes on Labour, itself mostly due to the relative shortfall in employer social security contributions. This is borne out in comparisons of tax paid for a single person on average earnings. The effective personal tax rate and total tax wedge in Ireland in 2016 of 19.2 and 27.1 per cent respectively, were the lowest observed in the EU-15 and even lower than rates observed in the United states.

— Per capita tax receipts in the areas of Consumption Taxes and Capital Taxes are above the comparator average in contrast.

— Comparisons of public expenditure based on output are similarly problematic. Per capita measures likely present a less biased picture. Aggregate spending (excluding interest on a per capita basis) was significantly lower than in other high-income EU states in 2017. This is largely accounted for by underspends in Social protection and Defence. While this might be partly a function of demographics, other factors such as child demographics, population density and dispersion, and price levels likely bias spending in the opposite direction.

— From a longer-term growth perspective, Ireland displays shortfalls in key expenditure areas. Public funding for R&D is only two thirds of the comparator average, and education per pupil shows significant relative deficits particularly at tertiary level. OECD data also show low spending for early-childhood spending and care in Ireland, which can inhibit labour market access.

— We conclude that fiscal policy should be reoriented to address these shortfalls. The growth literature indicate that taxes on property, wealth and passive income are pro-growth and pro-equity. A substantial revenue deficit occurs under this heading in per capita comparisons, implying some capacity to raise revenues in this area. However, the bulk of the revenue deficit is a function of the relatively low levels of taxes on labour, and specifically the low levels of social contributions.

1 Economic Trends and Outlook

1.1 World

The Republic of Ireland and Northern Ireland are small trade-dependent economies. Their year-to-year performance depends on the health of the global economy, and in particular that of the United Kingdom (UK), the euro area and the United States (US). We show the recent performance of these economies in Table 1.1.

Table 1.1 Dashboard of Macroeconomic Indicators, Selected Regions*

	2013	2014	2015	2016	2017	2018
Real GDP			*Percentage volume change over previous year*			
Euro area	-0.2	1.3	2.1	1.8	2.3	2.2
United Kingdom	2.1	3.1	2.3	1.9	1.8	1.4
United States	1.7	2.6	2.9	1.5	2.3	2.9
Unemployment**			*Percentage of active population*			
Euro area	12.0	11.6	10.9	10.0	9.1	8.4
United Kingdom	7.5	6.1	5.3	4.8	4.5	4.4
United States	7.4	6.2	5.3	4.9	4.4	3.9
Inflation***			*Percentage annual average rate of change*			
Euro area	1.3	0.4	0.0	0.2	1.5	1.5
United Kingdom	2.6	1.5	0.0	0.7	2.7	2.7
United States	1.5	1.6	0.1	1.3	2.1	2.5
Compensation per Employee			*Percentage change from previous period*			
Euro area	1.6	1.4	1.4	1.2	1.6	2.4
United Kingdom	2.8	0.5	1.1	3.3	2.9	2.9
United States	1.5	2.9	3.1	1.0	1.9	3.3
Employment			*Percentage change from previous period*			
Euro area	-0.8	0.8	1.0	1.3	1.5	1.1
United Kingdom	1.2	2.4	1.8	1.4	0.9	0.7
United States	1.0	1.6	1.7	1.7	1.3	1.1
Current Account Balance			*Percentage of Gross Domestic Product*			
Euro area	2.2	2.4	3.2	3.4	3.5	3.2
United Kingdom	-5.5	-5.3	-5.2	-5.8	-4.1	-3.7
United States	-2.1	-2.1	-2.4	-2.4	-2.4	-3.0
Fiscal Balance			*Percentage of Gross Domestic Product*			
Euro area	-3.0	-2.6	-2.1	-1.5	-0.9	-0.6
United Kingdom	-5.4	-5.4	-4.3	-3.0	-2.3	-1.8
United States	-4.4	-4.0	-3.5	-4.2	-4.6	-5.3

Notes: *2018 figures for Real GDP, Inflation, *Fiscal Balance, Unemployment Rate, Employment* and *Current Account* are latest IMF projections. 2018 figure for *Compensation per Employee* is latest European Commission projection.
**Eurostat definition, ***Harmonised consumer prices (national definition for the US)

Sources: IMF: World Economic Outlook, Interim Update and Fiscal Monitor, EU Commission: AMECO.

The IMF projects real growth of 3.9 per cent in world output in 2018 and again in 2019. This includes projected growth of 2.4 per cent this year in the advanced economies, along with growth in the volume of world trade of 4.8 per cent. The OECD's latest economic outlook forecasts global economic growth of 3.9 per cent in 2018 and 2019 and expects OECD-wide unemployment to fall to its lowest level since 1980. The most recent ifo World Economic Climate survey of economic experts suggests the world economic climate has improved considerably in recent years and that the global economic recovery will continue in the short-term. The OECD's Composite Leading Indicators (CLIs) point to stable growth momentum in the OECD over the next six to nine months, but with easing growth momentum in the euro area and in the UK. There are major uncertainties relevant to the future path of the global economy in the short-and-medium-term, not least uncertainty around US trade policy and the potential for a chaotic Brexit in the short-term, along with the uncertain future path of innovation, technology diffusion and productivity growth in the medium term.

In recent years, the UK and the US have outperformed the euro area. Even so, the unemployment rate in the euro area has fallen annually in each year since 2012 while recent real GDP growth in the euro area has been reasonably strong with real growth of 2.3 per cent in 2017, and growth of 2.2 per cent (IMF) or 2.3 per cent (EU Commission) forecast for 2018. On the other hand, annual growth in the UK has weakened each year since 2014. The UK economy grew 1.2 per cent year-on-year in the first quarter of 2018. Most institutional forecasts for the UK economy suggest growth of close to 1.5 or 1.6 per cent in 2018. The IMF and the EU Commission expect the US economy to outperform Europe in the near future and are both projecting growth of 2.9 per cent in 2018.

The ongoing weakness in wage growth suggests a degree of labour market slack persists in some advanced economies. This in turn suggests some scope remaining for cyclical expansion in the short-term, particularly in the **euro area** where the job vacancy rate is a relatively low at 2.1. While annual GDP growth for the euro area economy was 2.5 per cent in the first quarter (Q1) of 2018, seasonally adjusted growth was just 0.4 per cent over the previous quarter suggesting the cyclical upswing of recent years may be starting to slow. More positively, the unemployment rate is gradually trending downwards. It was 8.4 per cent in May compared to 9.2 per cent a year earlier. Even so, a number of countries have very high unemployment rates including the large economies of Spain (15.8 per cent), Italy (10.7 per cent) and France

(9.2 per cent). On the other hand, Germany (3.4 per cent) and the Netherlands (3.9 per cent) are close to full employment. Total euro area employment in Q1 was up 1.4 per cent year-on-year and up 0.4 per cent over the previous quarter. Hourly labour cost growth increased to 2.0 per cent in Q1, which compares to 1.5 per cent a year earlier. However, price pressure is developing in the euro area with consumer price inflation (HICP) reaching the ECB's 2.0 per cent target in June. In this context, we see the era of extremely loose monetary policy gradually ending over the next eighteen-to-thirty months. While the ECB will reduce the scale of its asset purchases, it will also keep interest rates very low this year and next.

The outlook is broadly positive for the **US** economy with most institutional growth forecasts for 2018 in the 2.5 to 3.0 per cent range, and with the unemployment rate forecast to remain below 4 per cent over the next eighteen months. Unemployment was, at 3.8 per cent in May, at its lowest rate in 18 years. The rate rose to 4 per cent in June. The Trump tax cuts are increasing demand in the short-term leading to growing price pressures and a widening fiscal deficit. Inflation was at 2.8 per cent in May and then 2.9 per cent in June. This was the highest inflation rate in over six years. Annual wage growth was 4.9 per cent in May, implying real wages increased 2.1 per cent. Finally, the US fiscal deficit is likely to exceed 5 per cent this year. In this inflationary context, the US Federal Reserve will continue to tighten monetary policy with a number of interest rate hikes over the next eighteen months and with a wind down of quantitative easing.

Annual GDP growth in the **UK** was just 1.2 per cent in Q1 2018 marking the weakest performance since Q2 2012. The Office for Budget Responsibility (OBR) five year forecast is for weak growth to persist out to at least 2022. The OBR forecasts real growth of just 1.5 per cent in 2018 and then 1.3 per cent in 2019 and 2020. The OBR do however, project modest real wage growth averaging 0.7 per cent annually over the five-year horizon. In addition, they project that the unemployment rate will stabilise at a relatively low 4.6 per cent (marginally above the 4.4 per cent rate in 2018). Monetary policy will probably tighten gradually over the next six to eighteen months as the economy is very close to full employment and inflation remains above 2 per cent. Inflation has however slowed from 3.0 per cent in January to 2.4 per cent in May. Finally, the UK's current account deficit was an unsustainably high 4.1 per cent of GDP in 2017 and will be close to 3 per cent in 2018.

1.2 Republic of Ireland

Trends and analysis

In headline terms, the Irish economy grew robustly in 2017 with real GDP expanding 7.2 per cent. Unfortunately, many of the traditional headline indicators for the economy (e.g. GDP, GNP, current account balance) have become difficult to interpret given the scale of the distortion to the national accounts caused by the activities of a small number of multinationals. Nevertheless, other macroeconomic indicators make clear that the economy is in a cyclical upswing, expanded quickly in 2017, and continues to expand in 2018 (see Table 1.2)

Table 1.2 Dashboard of Macroeconomic Indicators, Republic of Ireland

	2013	2014	2015	2016	2017	Latest
	Percentage volume change over previous year					
Gross Domestic Product	1.3	8.8	25.1	5.0	7.8	9.1 *(Q1'18)*
Modified Domestic Demand	2.5	4.1	4.8	5.6	3.2	4.8 *(Q1'18)*
Personal Consumption	-0.6	2.1	3.6	4.0	1.6	2.7 *(Q1'18)*
Retail Sales	0.7	6.3	8.4	6.7	2.9	4.3 *(M5'18)*
GNI* (current prices)	8.3	8.6	8.6	9.0	3.0	3.0 *(2017)*
	Percentage annual average rate of change					
Employment	3.0	2.6	3.5	3.7	2.9	2.9 *(Q1'18)*
Average Hourly Earnings	-0.3	-0.3	0.1	0.8	1.7	2.7 *(Q1'18)*
Average Weekly Earnings	-0.5	0.3	1.2	1.1	2.0	2.4 *(Q1'18)*
Inflation (CPI)	0.5	0.2	-0.3	0.0	0.4	0.7 *(M6'18)*
	Percentage of annual GDP or quarterly GDP					
Investment	18.7	20.7	24.1	35.7	23.5	19.5 *(Q1'18)*
Current Account Balance	1.5	1.1	4.4	-4.2	8.5	12.4 *(Q1'18)*
Government Balance (GGB)	-6.1	-3.6	-1.9	-0.5	-0.4	-2.0 *(Q1'18)*
Gov. Gross Debt (end-year)	119.7	104.1	76.8	73.4	68.4	69.3 *(Q1'18)*
	Percentage of labour force					
Unemployment	13.7	11.9	9.9	8.4	6.7	5.1 *(M6'18)*
Long-term Unemployment	8.0	6.7	5.4	4.3	3.0	2.1 *(Q1'18)*
	Percentage of households					
Deprivation	30.5	29.0	25.5	21.0	-	21.0 *(2016)*
At Risk of Poverty	16.5	17.2	16.9	16.5	-	16.5 *(2016)*
	Percentage					
Gini Coefficient	32.0	32.0	30.8	30.6	-	30.6 *(2016)*

Notes: Quarterly ('Q') and monthly ('M') data is compared to same period of the previous year. Rates of change represent the average value over the four quarters, or twelve months. *Modified domestic demand* is non-seasonally adjusted modified final domestic demand, which we define as '*Total domestic demand less the effects of the trade in aircraft by aircraft leasing companies and the imports of intellectual property*'. *GGB* is end-year figure as a % of annualised GDP or latest quarterly figure as % of quarterly GDP. *Unemployment* is average for four quarters or latest quarter/month seasonally adjusted. The Labour Force Survey replaced the Quarterly National Household Survey from Q3 2017 onwards with the effect that employment and unemployment data may not be directly comparable between 2016 and 2017.

Sources: CSO: Annual National Accounts, Quarterly National Accounts, Retail Sales Index, Labour Force Survey, Earnings and Labour Costs Annual, Earnings and Labour Costs Quarterly, Consumer Price Index, Balance of International Payments, Government Finance Statistics, Monthly Unemployment, Survey on Income and Living Conditions,

Demand in the economy and labour market conditions both continue to improve. Modified final domestic demand grew by an annualised 5.6 per cent in 2016 and then by 3.2 per cent in 2017.[2] Personal consumption is the largest component of demand and it grew by 1.6 per cent in 2017 while the volume of retail sales increased by 2.9 per cent. The cyclical position of the economy is difficult to assess due to the distortions to the national accounts.[3] Underlying investment is expanding but is doing so from a low base. On the other hand, non-housing consumer credit and loans to non-construction related corporations are increasing while residential property prices increased 12.4 per cent on an annualised basis in May. However, consumer price inflation is still below 1 per cent, and while average hourly wage growth increased by 2.7 per cent annually in Q1, this was in the wake of a decade of stagnant wages. Overall, the balance of evidence suggests the economy is not yet overheating, although the remaining 'output gap' will probably close sometime in the next 12 months. The government should calibrate its fiscal stance to ensure the economy does not overheat, while simultaneously ensuring that it adequately addresses existing spending deficits and demand pressures in areas like education, housing and productive infrastructure.

We can see the strengthening of the economy through the downward movement of the unemployment rate. The unemployment rate averaged 6.7 per cent in 2017 marking a sharp decline from the 8.4 per cent in 2016. The unemployment rate was down to 5.1 per cent in June. Long-term unemployment has fallen steadily. It was at 50,000 in Q1 2018 compared to over 200,000 in 2012. Even so, Ireland is actually a middle-of-the-road EU performer in terms of labour market outcomes. Ireland's unemployment rate of 5.3 per cent in April ranked 15th out of 28 EU countries and was significantly worse than the best performers (Czech Republic, 2.3 per cent; Germany, 3.4 per cent). Ireland's job vacancy rate of 1.0 was the fourth weakest of 24 EU countries in Q1 and less than half the EU average. This suggests there is some additional slack remaining in the Irish labour market. Finally, Ireland's employment rate in Q4 2017 was worse than 14 other EU countries and more than 8 percentage points worse than Sweden

[2] The new 'modified final domestic demand' indicator gives a reasonable barometer of activity in the domestic economy as it strips out the effect of intellectual property investment and purchases of aircraft by leasing companies.

[3] The headline current account surplus was 8.5 per cent of GDP in 2017. However, this gives us little guidance as to the cyclical position of the economy due to the distorting impact of multinational activity.

Total employment is expanding rapidly, albeit perhaps slowly starting to tail off. It grew by 2.9 per cent in 2017 and by 2.9 per cent on an annual basis in Q1 2018.[4] Employment increased by 62,100 year-on-year in Q1 2017 with full-time employment increasing by just over 72,000. On an annual basis the largest sectoral gains in Q1 2018 were in *construction* (+12,300) and *public administration and defence* (+9,800). However, employment declined in *industry*, in *wholesale and retail* and in *financial, insurance and real estate*. Employment grew in all geographic regions bar the *South East*. The labour force participation rate was unchanged annually at 61.5 per cent. Overall, the labour force increased by 1.6 per cent between Q1 2017 and Q4 2018.

The long period of slow or stagnant wage growth appears to have ended. On an annual basis, average weekly and hourly earnings grew by 2.4 per cent and 2.7 per cent, respectively, in Q1 2018. The Consumer Price Index was up by 0.3 per cent annually in Q1 2018 implying that average real hourly and weekly wages were both over 2 per cent in Q1. However, real average hourly and weekly wages fell on an annualised basis in Q1 for *administrative and support services*. Nominal average hourly wage growth was fastest in *information and communication* (+6.4 per cent) and *education* (+5.4 per cent), and was at least 4 per cent in five different sectors. Private sector average hourly wage growth was 2.4 per cent.

Outlook

The short-term outlook for the Irish economy is generally positive, albeit with growing macroeconomic risks and uncertainties (see Box 1.1). Real GDP grew 9.1 per cent in Q1 of 2018 and we are projecting that real GDP will grow by close to 5.8 per cent in 2018 and then by close to 3.8 per cent in 2019 (see Table 1.3).[5] This is strong and above trend growth, and reflects our expectation of a continuing cyclical upswing over the next 12-to-18 months and, crucially, a relatively benign outcome to Brexit negotiations. Increasing employment and higher incomes will push domestic demand upwards. Over the medium-term (2 to 5 years), growth should average close to 3 per cent in the absence of major shocks to the economy.

[4] Note that due to methodological and sample differences between the Quarterly National Household Survey and the Labour Force Survey introduced in Q3 2017, the results for Q3 2017 onwards may not be directly comparable to previous quarters and years.
[5] Crucially, we make the technical assumption of offsetting or minimal further volatility to the national accounts arising from multinational tax avoidance activity.

Table 1.3 Macroeconomic performance & projection, Republic of Ireland

	2017	2016	2017	2018	2019
Real Output		*Percentage real change over previous year*			
Gross Domestic Product	€294.1bn	5.0	7.2	5.8	3.8
Personal Consumption	€99.9bn	4.0	1.6	2.7	2.5
Government Consumption	€29.6bn	3.5	3.9	2.3	2.2
Investment	€69.0bn	51.7	-31.0	10.1	9.7
Exports	€352.6bn	4.4	7.8	6.5	5.6
Imports	€263.3bn	18.5	-9.4	6.2	7.0
Earnings		*Percentage nominal change over previous year*			
Average Hourly Earnings	€22.43	0.8	1.7	2.9	3.4
Government Finances		*Percentage of GDP*			
General Government Balance	-€1.0bn	-0.5	-0.4	-0.2	-0.1
Gross Debt	€201.3bn	73.4	68.4	66.4	63.9
Labour Force		*Percentage change over previous year*			
Employment	2,194,150	3.7	2.9	2.9	2.1
		Percentage of labour force			
Unemployment	157,850	8.4	6.7	5.3	4.7

Notes: Projections for *Gross Domestic Product* and components refer to real economic activity; *Investment* refers to Gross Fixed Capital Formation; *Employment*, *Unemployment* and *Earnings* all represent the average value over the four quarters.
Sources: See Table 1.2. NERI estimates for 2018-2019.

The baseline labour market outlook is extremely positive for the next eighteen months with employment likely to increase by over 100,000 over the period 2018-2019. The unemployment rate will generally range between 4.5 and 5.0 per cent in 2019. As the labour market tightens, real wage growth will accelerate and job vacancies will rise. Workers in fast growing sectors such as construction will experience particularly strong wage growth assuming housing supply ramps up in the short-term. Improving household net wealth and consumer confidence will contribute to domestic demand. The economy will probably be modestly overheating in 2019, in the absence of tighter fiscal policy or a macroeconomic shock such as a hard Brexit. Price rises will begin to erode competitiveness somewhat, and while exports should benefit from the general strengthening of the euro area economy, they are at risk from US protectionism and Brexit. We expect underlying imports[6] to grow particularly robustly given the expected fast growth in domestic incomes and demand. Finally, our baseline is that the general government balance will be close to zero in 2019. This implies a marginally negative structural balance given our assumptions about the cyclical position of the economy.

[6] I.e. non-R&D imports.

Box 1.1 Macroeconomic Risks and Uncertainties: Republic of Ireland

The baseline projection assumes a continuation of the relatively benign macroeconomic environment and this assumption may not be realistic. Below is a non-comprehensive list of macroeconomic risks and uncertainties:

A) **Brexit.** Despite Brexit being just eight months away, we still cannot predict the likely outcome to negotiations. This is partially because the UK government is divided and does not appear to know its own preferred outcome. At this stage, an exit from the EU Customs Union and Single Market seems more likely than not, with a significant possibility of a hard Brexit. Even so, our expectation is that, at minimum, the 21-month transition period will still take place. If so, there will be a delay in realisation of some of the macroeconomic consequences until beyond our forecast horizon. Nevertheless, a transition period with a hard Brexit tagged on the end will still damage consumer and investor confidence. The prolonged uncertainty for exporters and the potential for an imposition of tariffs and an increased regulatory burden, is already leading to delays and postponements of investment decisions. The fluctuating fortunes of the negotiations will add to currency volatility in the short-term. A hard Brexit would likely precipitate a Sterling crash with implications for Irish exporters. The agri-sector is particularly vulnerable to a hard Brexit.

B) **Monetary policy**. The euro area economy is strengthening and price inflation was up to 2 per cent in the euro area in June. As such, we expect the ECB to tighten monetary policy over the medium-term. A stronger than anticipated economic expansion coupled with faster than expected price inflation would prompt the ECB to speed-up the process of increasing interest rates. This would be particularly challenging for the Irish economy given still-high public and private debt ratios. Higher interest rates would inevitably exert downward pressure on domestic demand and corporate investment.

C) **International corporation tax policy**. Momentum in the EU towards a Common Consolidated Corporate Tax Base while welcome from a tax justice perspective would probably reduce government revenue in Ireland and weaken Ireland's attractiveness over the medium and long-term as a location for FDI. If managed correctly the process could help Ireland repair some of its reputational damage.

D) **Protectionism**. While we do not expect a dramatic escalation of protectionist policies, the confrontational stance adopted by the US administration along with its zero sum mercantilist attitude and rhetorical shift away from free trade could be a harbinger of a more general shift away from globalisation. An escalation in protectionism would negatively affect a small open economy like Ireland.

E) **Geopolitical instabilities**. There are always uncertainties related to geopolitical developments. For example, political developments in the Middle East or elsewhere could lead to an increase in energy prices. This would cause a negative supply side shock to the global economy. While some countries would benefit, as an energy importer a sharp rise in oil prices would reduce real household disposable incomes and personal consumption in Ireland, while simultaneously worsening domestic corporate balance sheets with consequences for investment.

1.3 Northern Ireland

Since the beginning of 2018, the performance of the Northern Ireland economy appears to be contradictory. Output and employment patterns are recording two very different stories. Significant weaknesses within the manufacturing sector are holding back output growth while unemployment reached record lows in the first few months of this year. However, we should interpret any ostensible successes in the labour market in the context of persistent issues with participation. Moreover, the quality of new employment in the economy is also a key concern for long-term growth and, in particular, productivity-based growth. Matters beyond Northern Ireland's control will largely determine longer-term performance. The political situation at UK level and the outcome of Brexit negotiations are still unknown factors impinging on potential growth. The exposure of smaller firms involved in cross-border supply chains is of particular concern. In the medium term, there is also the risk of an increase in interest rates in 2018 and 2019. If this were to happen, it could disrupt consumer led growth in the domestic economy.

Table 1.4 Dashboard of Macroeconomic Indicators (Northern Ireland)

	2013	2014	2015	2016	2017	Latest
	Percentage volume change over previous year					
Gross Value Added	0.1	1.6	3.4	1.8	-	1.8 *(2016)*
NICEI	-0.1	0.7	16	1.6	0.9	-0.3 *(Q1 2018)*
Index of Services	0.5	1.0	1.1	2.9	-	0.7 *(Q1 2018)*
Index of Production	1.2	2.3	1.7	0	-	-0.2 *(Q1 2018)*
	Percentage annual average rate of change					
Employment Rate	-0.6	1.8	0.2	2.1	-1.2	0.3 (*M3-M5 '18*)
Average Hourly Earnings	2.5	-1.3	4.2	1.5	2.8	2.8 *(2017)*
Price Inflation (UK)*	2.3	1.5	0.4	1	2.6	2.3 *(M6'18)*
	Percentage of GVA					
Exports	29.1	27.2	25.7	26.6	-	26.6 *(2016)*
Government Spending	58.5	57.5	55.5	-	-	55.5 *(2015)*
	Percentage of labour force					
Unemployment	7.5	6.4	6.1	5.8	4.6	3.5(*M3-M5 '18*)
Youth Unemployment	22.5	19	19.3	14.9	-	8.4 (*M8 -M10 '17*)
Long-term Unemployment	4	3.4	3.6	2.6	2.3	1.9(*M3-M5 '18*)
	Percentage of population					
Relative Poverty	21	22	18	-	-	18 *(2015)*

Notes: Employment Rate refers to all persons in employment (ILO definition) aged 16-64 as proportion of all persons 16-64. GVA is deflated using UK GDP deflator. NI Exports refer to sales outside the UK. Exports refers to both goods and services sold from NI beyond the UK. Government Spending refers to Total identifiable expenditure on services apportioned to NI.*CPIH is now the ONS recommended measure of UK inflation.

Source: *ONS Regional Gross Value Added* (Income Approach); *HMT GDP Deflators*; NISRA *Northern Ireland Composite Economic Index*; NISRA *Index of Production*; NISRA *Index of Services*; NISRA *Labour Force Survey*; NISRA *Annual Survey of Hours and Earning*; ONS *Consumer Price Inflation*; HMT *Public Expenditure Statistical Analyses*; NISRA *Households Below Average Income*

The Northern Ireland Composite Economic Index recorded a decrease of 0.3 per cent in the first quarter of 2018 with all sectors, bar services recording a decline. The Index of Production in Northern Ireland reordered a decrease of 0.2 per cent in Q1 2018. This represents a fall of 5.1 per cent annually as the sector attempts to recover from significant losses in the Manufacturing sector. The *Food, Beverage and Tobacco* section of manufacturing recorded still further losses in Q1 declining by 5.7 per cent. The demise of Northern Ireland's tobacco industry has weighed heavily on the sector, but further pressures in the food and beverage industries are also likely to be affecting these results. The output figures are also in stark contrast to jobs figures for the manufacturing sector. In the last year, the *Manufacturing* sector as a whole added just over 2,500 jobs while the *Food, Beverage and Tobacco* itself accounted for 1,000 of those jobs. Such trends point to a potential productivity problem within Northern Ireland manufacturing, which is particularly concerning given that *Manufacturing* has accounted for a large proportion of Northern Ireland's meagre productivity over the last number of years.

The Index of Services increased by 0.7 per cent in Q1 2018, representing an annual increase of 1.1 per cent. Growth in services was broad based with *Other Services*, which includes the *Arts, Entertainments, Health* and *Education* the only section to record negative growth.[7] Construction output fell by over 7 per cent wiping out much of the gains made in that sector since mid-2016.

In the past year, the Northern Ireland economy has created 18,630 net new jobs, both full-time and part-time. The job figures helped the unemployment rate to reach some historic lows in the early months of 2018. In Q1 2018, the seasonally adjusted rate of unemployment for those aged 16 and over was just 3 per cent rising to 3.3 per cent in the three months ending in April. However, the employment rate and the economic activity rate have not reached the same historic levels. The employment rate of working age adults (16-64) was 69.7 per cent in both periods, down from an all-time high of 70 per cent in the middle of 2016. Furthermore, the economic activity rate of working age adults was 72.1 per cent in the three months ending in April, significantly down from the highs of 74 per cent also recorded in the middle of 2016. While job growth has had an undeniably positive impact on the labour market in Northern Ireland, several structural issues remain.

[7] Note that public sector services are not part of this index.

In the medium term, the trajectory of monetary policy is a concern for Northern Ireland's economy particularly in those sectors heavily reliant on consumer spending. The Bank of England did not increase interest rates at the May meeting of the Monetary Policy Committee due to a recent easing of inflation. The Brexit induced exchange rate shock to inflation had begun to peter out and this called into question the need for significant monetary tightening in the immediate future. Brexit remains a significant cause of uncertainty and this is unlikely to abate in the near future. Absent any significant increase in inflation, a rate rise in the next 12 months would be a risky move on the part of the Bank of England.

This uncertainty surrounding potential Brexit outcomes weighs heavily on Northern Ireland's medium-term prospects. If the UK does not decide to re-join the Customs Union and the Single Market, Northern Ireland will almost certainly have a trade border with either the Republic of Ireland or Great Britain. Whilst the decision will ultimately be a political one, there are a myriad of economic factors underlying any decision. Firstly, there is the issue of cross-border supply chains. While the volume of exports and imports has been widely reported, the Northern Ireland Statistics and Research Agency have also produced a more in-depth analysis of how cross-border trade in Ireland feeds into production processes. They found 39 per cent of trade in non-financial, non-farm goods was in intermediate goods, i.e. goods that go into producing other goods. When Agri-food was included, the proportion of intermediate goods rose to 66 per cent. Furthermore, 62 per cent of Northern Ireland's trade with the rest of the EU was in intermediate goods compared with 53 per cent for the rest of the world.

Trade borders can create costly bureaucracy and delays for firms involved in exporting and importing finished goods. However, it poses an even greater challenge for firms involved in providing inputs to other production processes. Import substitution is more likely in these cases. Depending on the location of final good production, this can lead to a loss of jobs, or a loss of competitiveness. While the value of trade between Northern Ireland and Great Britain exceeds that of trade between Northern Ireland and the Republic of Ireland, the number of firms involved is actually the same. Furthermore, 83 per cent of trade with the Republic is concentrated in SMEs, whilst over 60 per cent of trade with Great Britain is with larger firms. Any final decision on trade borders must consider all of these dynamics.

Box 1.2 Housing Affordability in Northern Ireland

A recent NERI Working Paper (No. 52) looked at the affordability of housing in Northern Ireland and the implications of housing costs for living standards, and, in particular, the risk of housing cost induced poverty. The paper found that while housing in Northern Ireland appears relatively affordable, housing costs have a significant effect on the living standards of particular groups at the margins. This is particularly the case for low-income households in the private rented sector, who face a particularly high housing cost burden and a high risk of poverty.

Specifically, whilst several different approaches exist, the most commonly used and widely recognised measure to indicate whether or not housing costs are having a disproportionate impact on living standards, is the 'housing cost-to-net-household-income ratio'. Using this measure, the point at which housing costs become unaffordable or have a disproportionate impact on living standards is a normative judgement about what proportion of income households should spend on housing. Over time, thresholds of the housing cost to income ratio have varied between 25 per cent and 40 per cent, with households exceeding these cost burdens identified as having an affordability problem. In utilising any one of these thresholds, it does not appear that housing costs are having a particularly problematic effect on living standards in Northern Ireland for most households.

These measures conceal important differences between different sub-groups of the population. Thus, whilst housing costs may be relatively affordable for much of the population, the results show there is a significant segment of the population whose housing costs are significantly affecting their living standards. Specifically, 1 in 10 households are spending more than 40 per cent of their net household income on housing costs (Close to 1 in 6 in the private rented sector doing so, 1 in 10 in the social rented sector, and 1 in 20 of those with a mortgage).

Moreover, despite its widespread use, the housing cost to income ratio approach to capturing the impact of housing costs on living standards has been criticised with several inherent deficiencies. Critics maintain that with the housing cost to income ratio measure there is a lack of recognition that affordability is not just a simple problem of 'too-high housing costs' but is about the relationship between the cost of housing and income.

In this sense, households with relatively low incomes might spend a low proportion of their income on housing, and still be left with little to afford other basic non-housing necessities. Thus, a number of scholars recommend looking at how housing costs differ for those with different incomes. In doing so, the evidence shows that those with the lowest incomes in both the private and social rented sectors face a much larger housing cost burden in terms of the proportion of net household income spent on housing costs. Households in the bottom two quintiles of the private rented and social rented sector exceed the 25 per cent threshold, whilst only households in the lowest quintile of the private rental sector reach the 40 per cent threshold.

It is important to assess the role of both housing costs and household income in determining the extent of the housing burden. Given that housing costs in the private rented sector do not exert a particularly negative effect on living standards, it appears that rent levels are not the main problem. However, there seems to be a minority, but significant share of households who live in the private rented sector, who should be in the social rented sector. The household income of those with low incomes in the private rented sector equates almost exactly with the household incomes of those in the social rented sector. The housing costs however are significantly higher.

2 Rebalancing Fiscal Policy in the Republic of Ireland for Sustainable and Inclusive Growth

2.1 Introduction

While the general fiscal position of the Irish state is improving, it remains fragile. Recent data for the last full fiscal year 2017 show a general government deficit of just over €1 billion or 0.4 per cent of GDP. The annual deficit was €14.1 billion as recently as 2012. Gross public debt declined from a year-end peak of €215.3 billion in 2013 to €201.3 billion in 2016, although it did increase by €600 million in 2017. In addition, using the updated national accounts data we can see that the gross debt-to-GDP ratio declined rapidly from 119.7 per cent at end-2013 to 68.4 per cent at end-2017. Net debt fell from 89.7 per cent to 59.3 per cent. The size of the declines are ostensibly impressive but potentially misleading, and we need to interpret and understand them in the context of the artificial surge in nominal GDP in 2015.

In this section of the NERI's 26th Quarterly Economic Observer, we reflect on the sustainability of the public finances. We also consider possible changes to the aggregate amounts and composition of public spending and government revenue, in light of the need to boost the long-run productivity capacity of the Irish economy, in a way that is consistent with inclusive and sustainable improvements in living standards.

We draw specific attention to the low level of per capita public spending in a number of areas of particular importance to long-run economic growth, at least when the Irish state's spending levels are considered relative to a peer group of high-income comparator countries. These areas of public 'under-spend' include *education*, *childcare*, *public R&D* and, up until 2016, *public capital spending*.[8] We also point out that per capita government revenue is low, compared to the comparator countries, and see the revenue shortfall as directly leading to the spending deficits, and ultimately a weakening of the economy's future productive capacity. In this context, we identify some revenue-raising reforms consistent with broadening the tax base

[8] A 2013 OECD research paper considered the different impacts of 17 distinct fiscal policy instruments on welfare outcomes (economic growth and equity). They argued that spending on 'education' and spending on 'childcare and family resources' were the most beneficial fiscal instruments in terms of balancing long-run equity and growth, while government 'subsidies to business' were the least beneficial instrument. The most beneficial form of tax increase was taxes on 'other property taxes' meaning taxes on inheritance, gifts, land and net wealth.

as well as with inclusive and sustainable economic growth.

Finally, we note that introducing tax cuts in Budget 2019 would not only contribute to a potential overheating of the economy, but would also make it harder to address the identified and substantial existing spending deficits. This is particularly true in the context of cumulative annual pressures arising from the need to maintain and increase expenditure in real terms as well as demand pressures associated with the growth and ageing of the population.

2.2 The Public Finances

The Government's Summer Economic Statement (Government of Ireland, 2018) projects a primary surplus, along with a general government deficit of 0.2 per cent in 2018, or €780 million, and a general government debt-to-GDP ratio of 66 per cent. There was an exchequer deficit of €823 million in the first half of 2018, with tax revenues and voted expenditure broadly in line with targets. In terms of sustainability, the debt interest to government revenue ratio is expected to decline from 12.6 per cent in 2013 to a projected 6.7 per cent in 2018 (Stability Programme Update, 2018). In addition, the general government debt-to-GNI*[9] ratio declined from 166.1 per cent in 2012 to 111.1 per cent in 2017.

The fiscal position is clearly improving. However, on a per capita basis the Irish state's gross public debt was the second highest in the OECD in 2015 and the Irish Fiscal Advisory Council, or IFAC (IFAC, 2018), point out that the net government debt burden is one of the highest in the OECD when we use GNI* instead of GDP as the indicator. The gross public debt to tax revenue ratio is also amongst the highest in the OECD.[10] Finally, the Irish state is highly reliant on corporation tax (CT) receipts, a revenue source that can be be particularly volatile and is vulnerable to a domestic or global economic downswing. CT receipts almost doubled from €4.2 billion in 2013 to €8.2

[9] Modified GNI or GNI* is a measure of the size of the Irish economy that attempts to strip out some of the major distortions to Irish GDP arising from multinational tax schemes and profit shifting. Irish GDP was 162.3 per cent of GNI* in 2017. Some have argued that GNI* is a better measure of the fiscal or revenue capacity of the Irish state than GDP. However, the 'gap' between GNI* and GDP does provide some additional fiscal capacity, such that GNI* understates the state's actual fiscal capacity. For example, repatriated profits arising from net factor income flows are taxable.

[10] Note that debt to government revenue is problematic as a measure of fiscal sustainability because aggregate government revenue is actually a policy choice. Even so, the Irish state's high public debt and private debt levels make fiscal sustainability particularly vulnerable to a tightening of monetary policy in the coming years.

billion in 2017 with foreign owned multinationals accounting for 80 per cent of CT receipts in 2017 and the top ten payers accounting for 39 per cent (Revenue Commissioners, 2018). Irish CT receipts were 11.6 per cent of total tax receipts and social security contributions in 2016, which compares to an OECD average of 7.9 per cent. Overall then, our view is that the fiscal position remains somewhat fragile. Some form of negative macroeconomic shock is inevitable in future years, and it is essential that the overall fiscal stance of Government is prudent and countercyclical in design and in practice.

While the expenditure benchmark and the derived 'fiscal space'[11] care are somewhat helpful as guides to the general appropriateness of the fiscal stance, the rules provide no guidance as to the optimality of the composition of public spending and government revenue raising, or to the optimality of the aggregate level of public spending and government revenue raising.

2.3 Government Revenue Comparisons

The most conventional way to compare the scale of the tax take in different countries is to use GDP as the denominator because of the assumption that GDP reflects fiscal capacity. However, policymakers and other observers are well acquainted with the problems associated with GDP in the Irish context, and it is unwise to use GDP, or indeed any unadjusted indicators that use GDP as a divisor, when comparing the Republic of Ireland with other countries.[12] Nevertheless, we need some basis of comparison. While the new GNI* indicator understates Irish fiscal capacity it is also very likely to provide a more accurate reflection of Irish fiscal capacity than GDP.[13]

[11] The government calculates the headline increase in fiscal space available in each year in nominal terms. However, demographic shifts and changes in the price level erode the value of this space in real terms.

[12] GDP is problematic due to the substantial distortionary effects of multinational tax planning activity on the Irish national accounts. Comparisons based on GNI or GNI* are also problematic as neither of these indicators represent the full fiscal capacity of the state, most notably revenue from corporation tax. In addition, there are also no international comparators for GNI*.

[13] IFAC (IFAC, 2012) had estimated Irish fiscal capacity as GNP + 0.4(GDP-GNP) prior to the 2015 distortion of the National Accounts. GNP was €222.2 billion in 2016. €1 billion was EU subsidies and EU taxes and a further €47.3 billion was attributable to a combination of factor income from redomiciled companies, depreciation on aircraft leasing, and depreciation on R&D related intellectual property assets. This €47.3 billion probably has a fiscal capacity of close to zero. In addition, the difference between GNP and GDP (net factor income to the rest of the world) was €51.1 billion, which we can estimate, using to the IFAC's formula, to have a fiscal capacity of around €20.4 billion. So doing we arrive at a hybrid measure of fiscal capacity of

In any event, Table 2.1 shows that total government revenue in the Republic of Ireland, as a proportion of output, is lower than it is in the EU as a whole, irrespective of which denominator we use. Government revenue in the Republic in 2016 was 36.5 per cent of GNI* compared to 38.9 per cent in the EU as a whole (GDP basis). This gap of 2.4 percentage points of GNI* is equivalent to €4.2 billion. If we use GDP or the modified hybrid, we find that the gap increases significantly.

Table 2.1 Government Revenue as a Proportion of Output, %

	2012	2013	2014	2015	2016
Ireland (GNI*)	39.3	37.8	38.0	38.0	36.5
European Union (GDP)	38.3	38.7	38.7	38.5	38.9
United Kingdom (GDP)	33.3	33.2	32.7	33.1	33.7
Ireland (GDP)	28.4	28.8	28.7	23.4	23.5
Ireland (Modified Hybrid)	35.3	34.8	35.0	32.9	32.7

Notes: The 'Modified Hybrid' is a modified version of the 'hybrid' measure of GDP and GNP developed by the Irish Fiscal Advisory Council as an estimate of Ireland's fiscal capacity and is included here for comparative purposes. It is calculated as GNI* + 0.4(GDP-GNP).

Sources: European Commission: Taxation Trends in the European Union 2018 (European Commission, 2018), CSO: National Accounts (CSO, 2017), Updated (CSO, 2018), NERI calculations

Table 2.2 Implicit Tax Rates, (% of potential tax base)

		2012	2013	2014	2015	2016
Consumption	Ireland	21.9	22.7	24.0	24.2	24.7
	EU 27*	19.8	20.0	20.2	20.4	20.6
Labour	Ireland	31.7	32.0	33.3	33.1	32.7
	EU28	35.8	36.0	36.0	35.8	36.1
Capital	Ireland	15.0	14.7	15.3	13.3	13.4
	21 EU country average**	23.5	23.4	23.4	24.0	26.0

Source: European Commission (2018): See Table 2.1.

Note: *Data for Croatia is not available. **Only 21 other EU countries report data for the ITR on capital for all five years and the value given is the unweighted average for those countries.

Arguably, a more meaningful measure of whether the Republic is a relative low-or-high tax economy relative to other EU countries is the Implicit Tax Rate (ITR). The ITR provides a good measure of the effective average tax yield from different types of economic income or activities as it expresses aggregate tax revenues as a percentage of the potential tax base.[14] As it happens, the Republic has a relatively high ITR on

close to €196.2 billion in 2016 (GNI* + 0.4(GDP-GNP)). This modified hybrid value is 111.6 per cent of GNI* but just 71.8 per cent of GDP.

[14] While we can be confident that this is true for taxes on consumption and labour, the situation is more complicated when it comes to taxes on capital. The reason for this is that the amount of capital income (the potential tax base) in the Irish national accounts is a function of multinational tax planning and decoupled from real activity. In other words, the reported ITR

consumption (which is mainly VAT and Excise). In other words, we cannot consider the Irish state to be a low-tax economy when it comes to taxes on consumption. On the other hand, the Republic has lower than average ITRs on labour (mainly income tax and social security contributions) and, in particular, on capital (see Table 2.2). Therefore, to the extent that we can consider the Irish state 'low-tax', it is in relation to the taxation of labour and capital.

Table 2.3 Per Capita Receipts from Taxes and SSCs, High-income EU Countries, 2016, €

Country	Total Tax Revenue (Millions)	Population (Thousands)	Tax Revenue per capita
Luxembourg	20,291	583.5	35,212
Denmark	128,802	5,728.0	22,568
Sweden	204,961	9,923.1	20,806
Finland	95,154	5,495.3	17,341
Austria	149,273	8,736.7	17,157
Belgium	187,754	11,331.4	16,599
Netherlands	272,972	17,030.3	16,077
France	1,016,412	66,859.8	15,232
Germany	1,224,797	82,348.7	14,905
Ireland	**64,187**	**4,755.3**	**13,581**
United Kingdom	806,646	65,595.6	12,337
Weighted Average			**15,050**
Gap per Capita (€)			1,469
Scaled Gap (€ Billions)			6.9
Ratio (%)			90.2

Sources: European Commission (2018): See Table 2.1. Eurostat (2018): Population data**.** Author's calculations

Per capita comparisons may be more reliable than measures based on output, at least in the Irish case. As shown in Table 2.3, the Republic has the second lowest aggregate receipts per capita within a comparator group of high-income EU countries.[15] On average Irish people paid €1,469 less tax (including social contributions) in 2016 than did people in other high-income EU countries. This amounts to a gap of almost €7 billion when scaled over the Irish population, driven primarily by the relative absence of social contributions. The relative absence of taxes on *Labour* (€9.4 billion) drives

on capital can be misleading because the tax base relates to economic activities taking place in different jurisdictions but added to the Irish national accounts.

[15] The qualifying 'peer countries' used here for comparative purposes are the set of EU countries with a GDP per capita of €30,000 or more. These are Luxembourg, Denmark, Sweden, Netherlands, Austria, Finland, Germany, Belgium, United Kingdom (UK) and France.

the aggregate shortfall. This relative absence is itself accounted for mostly by the relative dearth of employer social security contributions in Ireland. On the other hand, taxes on *Consumption* and taxes on *Capital* show levels of tax collection above the comparator average. If we decompose these two tax headings further, we find that collection in specific subcategories, such as excise taxes in the former case, and corporation taxes in the latter case, are well above the peer country averages. The Republic does however have a significant shortfall in relation to taxes levied on stocks of capital (e.g. property taxes, inheritance taxes and net wealth taxes).

Table 2.4 Income Tax plus Employee Social Security Contributions in 2016, % of Gross Wage Earnings (Single Person at Average Earnings), EU15 and OECD35

	Country	Total	Income Tax	Employee SSC	Gross wage earnings
1	*Belgium*	**40.7**	26.8	14.0	58,214
2	*Germany*	**39.7**	19.0	20.7	61,750
3	*Denmark*	**36.2**	36.2	0.0	57,310
4	*Austria*	**31.9**	13.9	18.0	55,680
5	*Italy*	**31.1**	21.6	9.5	42,166
6	*Luxembourg*	**31.0**	18.1	12.8	65,522
7	*Finland*	**30.8**	22.0	8.8	48,479
8	*Netherlands*	**30.4**	16.9	13.5	63,549
9	*France*	**29.1**	14.8	14.3	47,817
10	*Portugal*	**27.6**	16.6	11.0	29,946
11	*Greece*	**25.4**	9.6	15.8	32,974
12	*Sweden*	**24.9**	17.9	7.0	47,450
13	*United Kingdom*	**23.3**	14.0	9.4	53,020
14	*Spain*	**21.4**	15.0	6.4	40,276
15	***Ireland (ROI)***	**19.2**	**15.2**	**4.0**	**44,737**
Non-EU Western European					
	Norway	**27.9**	19.7	8.2	60,020
	Iceland	**29.2**	28.9	0.3	59,044
	Switzerland	**16.9**	10.7	6.2	70,077
Unweighted averages					
	EU15 (ex. ROI)	**30.3**	18.7	11.5	50,297
	OECD	**25.5**	15.7	9.8	43,015
Other					
	OECD median	**25.4**	15.2	9.4	44,737
	United States	**26.0**	18.3	7.7	52,543

Notes: Single individual without children at the earnings level of the average worker. Rounding affects totals. Wages are is in US dollars with equal purchasing power. The median values for the tax payment components need not necessarily add up to the median value for the total tax payment.

Sources: OECD (2017) Taxing Wages 2015-2016 – Table 1.3 and author's calculations

Table 2.5 Total Tax Wedge[16] as % of Total Labour Costs (Single Person at Average Earnings), 2016, EU15 and OECD35

EU15	Country	Total	Income Tax	Employee SSC	Employer SSC	Labour Costs
1	*Belgium*	**54.0**	20.8	10.9	22.3	74,913
2	*Germany*	**49.4**	15.9	17.3	16.2	73,683
3	*France*	**48.1**	10.8	10.5	26.8	65,294
4	*Italy*	**47.8**	16.4	7.2	24.2	55,609
5	*Austria*	**47.1**	10.8	13.9	22.4	71,776
6	*Finland*	**43.8**	17.9	7.1	18.7	59,663
7	*Sweden*	**42.8**	13.6	5.3	23.9	62,359
8	*Portugal*	**41.5**	13.4	8.9	19.2	37,058
9	*Greece*	**40.2**	7.7	12.6	19.9	41,169
10	*Spain*	**39.5**	11.6	4.9	23.0	52,319
11	*Luxembourg*	**38.4**	16.2	11.4	10.8	73,489
12	*Netherlands*	**37.5**	15.2	12.2	10.1	70,665
13	*Denmark*	**36.5**	35.9	0.0	0.8	57,759
14	*United Kingdom*	**30.8**	12.6	8.4	9.7	58,714
15	***Ireland (ROI)***	**27.1**	**13.8**	**3.6**	**9.7**	**49,547**
Non-EU Western European						
	Norway	**36.2**	17.5	7.3	11.5	67,823
	Iceland	**34.0**	26.9	0.3	6.8	63,384
	Switzerland	**21.8**	10.0	5.9	5.9	74,439
Unweighted averages						
	EU15 (ex. ROI)	**42.7**	15.6	9.3	17.7	61,034
	OECD	**36.0**	13.4	8.2	14.4	50,214
Other						
	OECD median	**38.1**	12.6	7.6	13.9	54,053
	United States	**31.7**	16.9	7.1	7.7	56,956

Notes: Single individual without children at the earnings level of the average worker. Rounding affects totals. Employer SSC includes payroll taxes where applicable. Labour cost is in US dollars with equal purchasing power. The median values for the tax wedge components need not necessarily add up to the median value for the total tax wedge.

Sources: OECD (2017) Taxing Wages 2017 and author's Calculations

In Table 2.4, we show taxes on labour in 2016 for a single person on average earnings. The total income tax and social security contribution of such a person in the Republic is, at 19.2 per cent of income, lower than in every other EU15 country and over 10

[16] The tax wedge is the difference between labour costs to the employer and the corresponding net take-home pay of the employee. It is calculated by expressing the sum of personal income tax, employee plus employer SSCs, together with any payroll tax, minus benefits as a percentage of labour costs.

percentage points lower than the unweighted country average for the EU15. The Republic is even lower than the supposedly 'low tax' United States where the effective tax rate stands at 26.0 per cent. Table 2.5 shows the total tax wedge as a percentage of labour costs for a single person on average earnings in 2016. Again, we can see that the Republic is, at 27.1 per cent, the country with the lowest tax wedge in the EU15, and lower than the United States. The tax wedge is over 10 percentage points lower than the tax wedge in all but two of the other EU 15 countries.

Overall, the relative imbalance in labour taxation between the Republic of Ireland and the rest of the EU15 is principally due to the low effective rate of both employee and employer PRSI.[17] On the other hand, economy-wide income taxation based on gross wages and salaries is slightly higher than the average for our peer-group. Strictly speaking, while the Republic is a 'low government revenue' economy, it is *not* a 'low tax' economy. We can explain this seemingly contradictory statement by pointing to the fact that average social contributions, particularly from employers, are much higher in almost every other high-income EU country. In the context of the fiscal rules the overall low level of revenue acts as a structural constraint on the allowable levels of public spending.

2.4 Public Spending Comparisons

Comparisons of public spending levels based on proportions of output are as problematic as comparisons of taxation levels, at least in the Irish case. As before, we can do a more meaningful comparison by looking at per capita spending levels in each of the other high-income EU countries. We can see from Table 2.6 that spending in the Republic in 2017 was lower than in all comparator countries bar the UK, and on a per capita basis was just 84.6 per cent and over €2,600 lower than the population weighted average. If we include spending on debt interest payments, the per capita gap was €2,121 in 2016 (latest year available) and 88.1 per cent of the population-weighted average.

[17] Goldrick-Kelly and McDonnell (2017) describe how average effective tax rates in the Republic are consistently below the weighted average of other high-income EU countries for single earners between 50 per cent and 250 per cent of average income, as well as for married couples in the same income range. While the Republic's marginal tax rate begins at a relatively low level, the actual effective rate of tax paid by most people is well below peer country averages.

While this appears to indicate that the Republic has a low level of public spending, we must bear in mind that direct comparisons of aggregate data can be misleading. If we decompose public spending into its 10 functional categories[18], we find that 80.1 per cent of the relative underspend in total public spending in the Republic in 2016 was attributable to a lower than average spend on the *social protection* category of spending, and that the lower than average spend in the *defense* category of spending accounted for a further 16.7 per cent (Goldrick-Kelly and McDonnell, 2018 Forthcoming). However, even this level of decomposition can be misleading because it does not account for demographics, population density and dispersion, capital stock, prices and other differences between countries. For example, the Republic has a younger than average population, and as such we can reasonably expect that its per capita spending on age related social protection would be lower than the average. On the other hand, we would expect the Republic's per capita spending on education and childcare to be higher than the average.

Table 2.6 Per capita public spending excluding interest payments in 2017, €bn

Country	Population ('000s)	Total spending	Per capita spending €
Luxembourg	596.3	23.5	39,478
Denmark	5,766.0	146.5	25,412
Sweden	10,057.7	232.8	23,147
Finland	5,509.8	117.9	21,403
Austria	8,794.3	174.4	19,833
Belgium	11,384.6	218.2	19,166
France	67,127.8	1,251.7	18,646
Netherlands	17,132.0	305.0	17,802
Germany	82,712.7	1,399.0	16,915
Ireland (ROI)	**4,876.0**	**71.4**	**14,642**
United Kingdom	65,998.2	891.4	13,507
Weighted average			**17,306**
Gap per capita (€)			2,664
Scaled gap (€ billions)			13.0

Sources: Eurostat (2018) General Government Expenditure by Function (COFOG).
European Commission (2018) Macro-Economic Database AMECO

[18] To enable cross-country comparison public spending is divided into 10 'Categories of the Function of Government', or COFOG, areas of spending. The 10 categories are, General Public Services, Defense, Public Order and Safety, Economic Affairs, Environmental Regulation, Housing and Community Amenities, Health, Recreation, Culture and Religion, Education, Social Protection.

Fiscal policy plays a crucial role in long-term, sustainable economic growth through actions such as removing financial barriers to labour market access (e.g. childcare subsidies), as well as through productivity enhancing investments in infrastructure (Gross Fixed Capital Formation), education, and public Research and Development (R&D).[19] In recent years, the Irish state has shown some advance in terms of gross fixed capital investment, with spending per capita moving slightly above the peer-weighted average in 2016 (see Table 2.7).

Table 2.7 Per capita public capital expenditure and per capita public R&D spending, current prices, €

Country	2016 (GFCF)	2017 (GFCF)	4 Year Average (GFCF)	2015 (R&D)	2016 (R&D)
Belgium	825	852	837	266	276
Denmark	1,859	1,721	1,783	507	472
Germany	811	860	801	343	360
France	1,123	1,152	1,151	260	262
Luxembourg	3,587	3,733	3,529	569	555
Netherlands	1,438	1,503	1,442	357	362
Austria	1,217	1,267	1,206	344	353
Finland	1,587	1,574	1,555	361	360
Sweden	2,057	2,158	2,024	453	465
UK	969	930	988	215	191
Ireland (ROI)	**1,071**	**1,128**	**1,020**	**194**	**201**
Weighted Average	**1,066**	**1,087**	**1,072**	**298**	**299**
Scaled gap (€ billions)	0.0	-0.2	0.3	0.5	0.5
Ratio (%)	100.4	103.7	95.2	65.3	67.4

Note: A negative spending gap means that the Republic outspends the peer group average.

Sources: Eurostat (2018) General Government Expenditure by Function (COFOG).
European Commission (2018) Macro-Economic Database AMECO

However, the Republic exhibits key gaps in other areas that are fundamental to long term growth. Public funding for R&D is only two thirds of the comparator average in per capita terms, implying a population scaled deficit of €0.5 billion. In fact, per capita spending on public R&D is less than half the amounts in Denmark, Luxembourg and Sweden, and only the United Kingdom spends less. In addition, the Republic spends

[19] From a fiscal policy perspective, long-run growth depends on aggregate levels of investment in physical and human capital, on policies that influence employment and labour force participation rates such as childcare subsidies and income related social assistance payments, and on policies that influence changes in total factor productivity such as public support for R&D.

less per pupil at all levels of education, though this underspend is concentrated in higher education, where spending per pupil in 2014 was nearly 30 per cent below the median for a group of high-income European countries for which data was available. The implied spending gap over the population of full-time equivalent pupils at tertiary level was €2.1 billion in 2014.[20]

Finally, the OECD Family Database (2016) shows that public spending on early childhood education and care was close to 0.5 per cent of GDP in 2013 and 0.7 per cent of GNI*. In GDP terms, this was the second lowest percentage amongst the peer countries where data was available (third lowest if using GNI*) despite the Republic having a much higher child demographic than the comparator countries. Public spending exceeded 1 per cent of GDP in Sweden, Denmark, France, Norway and Finland in 2013 (see Table 2.8). Public spending on early childhood education and care per child aged 0-to-5 was lower in the Republic than in any other high-income European country on a USD PPP basis. Spending was less than one-third the level of spending per child in Norway, Sweden and Denmark, and was less than half of spending per child in Finland, France and the Netherlands. Spending per child was even less than the EU average, despite Ireland's much higher per capita income than the EU average.

Table 2.8 Public Spending on early childhood education and care, high-income European countries, % of GDP, 2013

	Total	Childcare	Pre-primary
Sweden	1.64	1.1	0.5
Denmark	1.36	-	-
France	1.27	0.6	0.7
Norway	1.25	0.5	0.7
Finland	1.11	0.6	0.5
Belgium	0.78	0.1	0.7
United Kingdom	0.76	0.1	0.7
Netherlands	0.69	0.3	0.4
Germany	0.58	0.2	0.4
Ireland	**0.52**	**-**	**-**
Austria	0.49	-	-

Notes: Rounding affects totals. Disaggregated data not available for Denmark, Ireland and Austria. Spending in Ireland in 2013 was 0.68 per cent of GNI*.
Source: OECD (2016) Social Expenditure Database

[20] The Republic actually spends more per person on education than the median value for high-income countries for which data is available. However, the more meaningful indicator for the sufficiency of education spending is the amount per full-time equivalent pupil. Using this indicator, the Republic underspent by €3.4 billion in 2014.

2.5 Conclusions

The problem of expenditure deficits directly raises the issue of revenue sufficiency and the potential resources we can exploit to pay for additional expenditure. Increasing consumption taxes is problematic because these are already generally high in the Republic compared to peer countries. Consumption taxes also do not take into account ability to pay and therefore have a disproportionately negative impact on the well-being of lower income households.

However, sustainable quality of life improvements are incompatible with environmental degradation, and, as such, economic policy must always account for environmental costs and benefits. Climate change remains a huge global challenge and one that is already impacting on everyone in Ireland. A range of urgent measures are required to address this including investment in renewables, retrofitting and public transport. Increased environmental taxes have a role to pay not just in raising revenue to fund such investments but also to encourage changes in consumer and producer behaviour. Carbon taxes should be raised about its current level of €20 per tonne on a phased basis as proposed by the Climate Change Advisory Council. However, there needs to be a thorough examination of the likely impact of such a policy on competitiveness, on regional impacts, and on those vulnerable to fuel poverty. Any adjustments to this tax in Budget 2019 should be with the proviso that the real value of all social transfers are adjusted upwards to offset disproportionate impacts of a higher carbon tax on households deemed to be in fuel poverty as well as to improve living conditions of households below the poverty line through generalised increases in welfare rates ahead of the rate of price inflation.

The weight of evidence suggests that taxes on property, wealth and passive income have minimal negative consequences for economic growth compared to other taxes and are highly redistributive. Recurrent taxes on land and immovable property appear to be particularly pro-growth, and very likely pro-equality, and we can design these taxes in such a way as to make them progressive. We have noted that the Republic has a significant per capita revenue deficit for taxes on stocks of wealth and this suggests that tax reform could reasonably start by significantly increasing (e.g. property taxes) and introducing (e.g net wealth taxes) these types of taxes, as well as eliminating tax

expenditures related to wealth stocks and wealth transfers.[21] Overall, evidence from the OECD and elsewhere, makes clear that there is a strong case for increasing taxes on wealth (inheritances, gifts, net wealth, property and land).

However, the Irish state's most substantial revenue deficit is in the area of labour taxation. This is the proverbial 'elephant in the room'. The revenue deficit is a function of the very low level of social contributions – particularly from Irish employers. The implication is that a government could reasonably move to close the identified per capita spending gaps through gradual increases in employer PRSI or other employer levies over the medium-term.

As a final point, we note that there is no evidence that the Republic's taxation system is onerous in comparison to other high-income European states. In fact, the evidence is clear that the Republic is a low 'revenue' state. In light of this, tax cuts in Budget 2019 will limit the capacity of the Irish state to invest in growth enhancing areas of public spending and to pursue social objectives, and will reduce the resilience of the Irish state to future economic shocks.

[21] Tax expenditures damage growth by distorting resource allocation, by creating inefficiencies in production and consumption and by diverting economic activity toward rent-seeking behaviour. Tax expenditures also tend to favour high-income households so their elimination has positive equity implications. Finally, by weakening the tax base these reliefs necessitate higher tax contributions from households not in a position to benefit from the reliefs.

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