

Quarterly Economic Observer

Autumn 2016



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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 19th *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 mid-September 2016. The final draft of this document was completed on the 21st of September 2016.

This report has been prepared by staff of the Institute. The lead author of the QEO is Dr. Tom McDonnell. We are grateful to two 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
Quarterly Economic Observer
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Executive Summary

This edition of the NERI's *Quarterly Economic Observer* (QEO) outlines our economic forecasts and assessment of risks for the Republic of Ireland and Northern Ireland (Section 3) and provides an examination of the potential for Budget 2017 to support sustainable and inclusive economic growth in the Republic of Ireland (Section 4).

Projections for Output, Earnings, the Public Finances and the Labour Market (Republic of Ireland)

	2015	2015	2016	2017	2018
Real Output		<i>Percentage real change over previous year</i>			
Gross Domestic Product	€255.8bn	26.3	4.1	3.7	3.6
Personal Consumption	€92.4bn	4.5	3.7	2.9	2.5
Government Consumption	€27.0bn	1.2	3.4	1.7	1.5
Investment	€54.1bn*	32.7	11.6	9.6	7.0
Exports	€317.2bn	34.4	5.3	5.0	4.5
Imports	€236.0bn	26.7	7.2	6.3	5.0
Earnings		<i>Percentage nominal change over previous year</i>			
Average Hourly Earnings	€21.91	0.2	1.3	2.3	2.4
Government Finances		<i>Percentage of GDP</i>			
General Government Balance	-€4.6bn	-1.8	-0.9	-0.5	0.1
Gross Debt	€201.3bn	78.7	75.3	72.8	69.5
Labour Force		<i>Percentage change over previous year</i>			
Employment	1,963,550	2.6	2.6	1.8	1.6
		<i>Percentage of labour force</i>			
Unemployment	203,625	9.4	8.2	7.5	7.0

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.

*Gross Fixed Capital Formation excluding intangibles was €30.6 billion in 2015.

Economic Outlook for the Republic of Ireland

- Internal and external factors are not as favourable to growth as they were in 2015. Even so, we are projecting that real GDP will grow at a solid and above trend level of close to 4.1% in 2016, and by 3.7% in 2017 and 3.6% in 2018
- The labour market should continue to strengthen with employment growth of 2.6% in 2016 and moderating but still healthy employment growth in 2017 and 2018. The unemployment rate should be below 7% by the end of 2018.

- The deficit in the public finances should improve to around 0.5% of GDP in 2017 assuming full use of the available fiscal space. We project a modest surplus of 0.1% of GDP in 2018 and a gross debt to GDP ratio of 69.5%.
- Our baseline forecast is subject to a wide range of risks. Brexit remains a downside risk as our baseline forecast is for a negotiated settlement that minimises change to the UK/EU trading relationship. A more significant change to the trading relationship will impact negatively on our forecast.
- Other risks to the forecast include rising energy prices, weaker than expected productivity growth, and greater than assumed damage to the labour force arising from the recession and prolonged stagnation.

Outlook for Northern Ireland

- The outlook must be divided between the short-term and the long term. Long-term prospects will be dependent on the shape of the political negotiations on Brexit.
- In the short-term the uncertainty surrounding the Brexit negotiations could be countered by the advantages of a weaker currency, by more expansionary fiscal policy and by loose monetary policy.
- The long term outlook for Northern Ireland will be driven pre-dominantly by how well the eventual Brexit scenario suits the needs of the economy. It is likely the overall impact on the economy will be negative and significant. Particular problems arise for Northern Ireland in the scenario where there is a divergence between its requirements and those of the UK.

Budget Policy for Inclusive Growth in the Republic of Ireland

- There is limited fiscal space available over the next five years. Accommodating demographic and price pressures will absorb much of this space. This is in the context of currently low levels of public spending by Western European standards.
- Existing and future spending pressures mean that the case for cutting taxes in Budget 2017 is very weak. Average rates of combined income tax and

employee social security contributions are significantly below OECD averages for both low and middle income earners.

- Economy-wide long-run productivity growth can be enhanced by increasing the per capita public spend on infrastructure, education, and Research & Development to Nordic country levels.
- State provision of subsidised childcare, the gradual tapering of family supports along with income and the introduction of refundable tax credits as a form of in-work benefit are all examples of policies that could support higher labour force participation.
- We can reorient fiscal policy in favour of greater wealth and income equality with only limited or even positive impacts on potential growth. Effective ways this can be done include reducing the scale and scope of available tax expenditures and increasing taxes on net wealth, intergenerational wealth transfers, and property, most notably immovable property such as land and housing.
- Finally, inclusive growth means that everyone should benefit from a growing economy. To maintain existing levels of economic well-being across all segments of society it will be necessary to increase welfare payments and disposable income for low income and low paid households in line with cost of living increases.

1 Introduction

Internal and external factors are not as favourable to growth in the Republic of Ireland's economy as they were in 2015. Even so, we are projecting that real GDP will grow at a solid and above trend level of close to 4.1% in 2016, and by 3.7% in 2017. The labour market should continue to strengthen and we expect that the unemployment rate will fall below 7% sometime in 2018. The public finances should move into surplus in 2018. Brexit remains a downside risk as our baseline forecast is for a negotiated settlement that minimises change to the UK/EU trading relationship. A more significant change to the trading relationship will impact negatively the forecast.

The outlook for Northern Ireland's economy must be divided between the short-term and the long term. In the short-term the uncertainty surrounding the Brexit negotiations could be countered by the advantages of a weaker currency, by more expansionary fiscal policy and by loose monetary policy. Long-term prospects will be dependent on the shape of the political negotiations on Brexit and it is highly likely the overall impact on the economy will be negative and significant.

This *Quarterly Economic Observer* (QEO) is structured as follows:

Recent economic trends on both parts of the island are reviewed in Section 2. Section 3 updates the NERI's macroeconomic projections for both economies while Section 4 discusses the idea of inclusive economic growth and in the context of Budget 2017 in the Republic of Ireland identifies a set of high-level policy principles and specific policies on both the taxation side and the public expenditure side consistent with the goals of faster long-run economic growth, sustainability, closer economic equality, and social inclusion.¹

The Nevin Economic Research Institute offers this report as a contribution to public debate on policy making and formation on the island of Ireland. We welcome feedback, comment and suggestions. The precise data used and the specifics of any proposal/projections are subject to review as fresh information and data become available.

¹The analysis in this document complements a number of recent and forthcoming NERI Research Papers. These are cited throughout the report and can be accessed on the NERI website.

2 Overview of Recent Economic Trends

2.1 Recent trends in the World Economy

Last year the world economy grew at its weakest rate since 2009 despite the impact of low energy prices on the cost of production. GDP growth was 3.1% in real terms with slower growth in most advanced economies and 2.1% growth in the OECD group of rich countries. Growth in world trade volumes at 2.6% was well below its twenty year average. Table 2.1 provides a summary of recent macroeconomic performance for key Irish trading partners. The pace of recovery in the advanced economies has been disappointing given expected tailwinds from accommodative monetary policy and gains from lower energy prices. The lower prices for energy and other commodities has weighed on exporters of these goods adding to financial imbalances in many commodity-exporting economies and, in some cases, causing sharp downturns.

Table 2.1 Dashboard of Macroeconomic Indicators (World)

	2011	2012	2013	2014	2015	2016*
Real GDP	<i>Percentage volume change over previous year</i>					
Euro area	1.6	-0.9	-0.3	0.9	1.7	1.6
United Kingdom	2.0	1.2	2.2	3.1	2.2	1.7
United States	1.6	2.2	1.5	2.4	2.4	2.2
Unemployment**	<i>Percentage of labour force</i>					
Euro area	10.1	11.3	12.0	11.6	10.9	10.2
United Kingdom	8.1	8.0	7.6	6.2	5.3	5.1
United States	8.9	8.1	7.4	6.2	5.3	5.0
Inflation	<i>Percentage annual average rate of change</i>					
Euro area (HICP)	2.7	2.5	1.3	0.4	0.0	0.4
United Kingdom (HICP)	4.5	2.8	2.6	1.5	0.1	0.8
United States (CPI)	3.1	2.1	1.5	1.6	0.1	0.8
Compensation per Employee	<i>Percentage change from previous period</i>					
Euro area	1.8	1.1	1.4	1.3	1.4	1.7
United Kingdom	1.1	1.7	1.5	0.3	1.8	2.0
United States	2.6	2.4	1.1	2.6	2.2	2.9
Current Account Balance	<i>Percentage of Gross Domestic Product</i>					
Euro area	0.2	1.3	2.0	2.4	3.0	3.5
United Kingdom	-1.7	-3.3	-4.5	-5.1	-4.3	-4.3
United States	-3.0	-2.8	-2.3	-2.2	-2.7	-2.9

Notes: *2016 figures for GDP, Inflation and Current Account Balance are latest IMF projections while 2016 figures for Unemployment Rate and Compensation per Employee are latest OECD projections.

**National definitions.

Sources: IMF World Economic Outlook (April WEO, 2016a; July WEO Update, 2016b), OECD Economic Outlook (June, 2016a; July HURs, 2016b).

Year-on-year real GDP growth for both the OECD area and the euro area fell to 1.6% in the second quarter of 2016. This was the fourth consecutive quarterly decrease in the annual rate of growth for the OECD and the slowest growth rate since the third quarter of 2013. The pre-Brexit United Kingdom (UK) was the best performing G7 economy in the second quarter (2.2% year-on-year) while Japan (0.6%) and Italy (0.8%) were the worst performers. There was no quarter-on-quarter growth at all in France, Italy or Japan compared to the first quarter of 2016 and just 0.3% growth in the euro area and the United States (US). Industrial production was down 0.5% in the euro area in July over the previous year, and up 2.3% in the UK. Retail trade volume was up 2.9% in the euro area in July over the previous year and 6% in the UK. The UK's relatively better performance than other OECD countries needs to be regarded with a jaundiced eye, given its debt dynamics, as partially evidenced by its persistent current account deficit.

The euro area's labour market remains dysfunctional with the unemployment rate averaging 10.8% in 2015 before improving somewhat to 10.1% in July 2016. Total employment was up 0.4% in the second quarter of 2016. The unemployment data hides large variations between countries reflecting the heterogeneity within the single currency across countries and demographic groups. For example, Germany's unemployment rate was 4.2% in July, whereas Spain's was 19.6%. Youth unemployment was 21.1% in the euro area in July. The fact that youth unemployment is double the average figure may point to the changing structure of economies, with labour saving technology resulting in more youth unemployment. The US at 4.9% and the UK (5.0% in May) appear to be close to full-employment.

However, the low unemployment rates in the UK and the US have yet to translate into substantial year-on-year increases in compensation per employee. Seasonally adjusted compensation per employee increased by just 0.3% during the first quarter of 2016 (quarter-on-quarter) in the OECD, the US, Germany and the euro area. Growth in labour compensation was marginally higher in the UK at 0.4%.

Due to falling energy and commodity prices there was no consumer price inflation (HICP) in the euro area in 2015 despite accommodative monetary policy. Inflation was zero in the UK and averaged 0.1% in the US. Consumer prices in August were up just 0.2% in the euro area compared to August 2015 (0.9% excluding energy). Prices are increasing somewhat faster in the UK (0.5% June to June) and US (1% June to June).

2.2 Recent trends in the Republic of Ireland Economy

Irish economic growth data is difficult to interpret as it tends to fluctuate along with the behaviour of a small number of multinational enterprises (MNEs). In particular, the accounting practices and tax planning of MNEs distort the headline GDP figures. Even so, the revised 2015 estimates of 26.3% real GDP growth and 18.7% real GNP growth were unexpected and represent substantial revisions to the previous provisional annual estimates. The revisions also show a massive 2015 current account surplus of 10.2%. Care is required when interpreting headline figures. The national accounts figures, while abiding by international standards, do not accurately reflect activity in the Republic and highlight the deficiency of the current system in measuring economic activity. The distortion of the national accounts creates a barrier to good policymaking.

Table 2.2 Dashboard of Macroeconomic Indicators (ROI)

	2011	2012	2013	2014	2015	Latest
<i>Percentage volume change over previous year</i>						
Gross Domestic Product	0.0	-1.1	1.1	8.5	26.3	4.0 (H1'16)
Domestic Demand	0.7	1.4	-1.9	7.7	9.9	5.1 (H1'16)
Retail Sales	-3.0	-1.1	0.7	6.4	8.2	7.2 (H1'16)
Industrial Production	-0.4	-1.5	-2.2	22.9	34.9	1.7 (H1'16)
<i>Percentage annual average rate of change</i>						
Employment	-1.8	-0.6	2.4	1.7	2.6	2.7 (H1'16)
Average Hourly Earnings	-0.4	0.2	-0.3	-0.1	0.2	0.5 (H1'16)
Inflation (HICP)	1.2	1.9	0.5	0.3	0.0	-0.4 (M8'16)
<i>Percentage of gross domestic product</i>						
Investment	17.2	19.4	18.2	20.5	21.1	22.4 (H1'16)
Current Account Balance	-1.6	-2.6	2.1	1.7	10.2	11.0 (H1'16)
Government Balance	-12.6	-8.0	-5.7	-3.7	-1.8	-2.3 (Q1'16)
Government Gross Debt	109.6	119.5	119.5	105.2	78.7	78.7 (Q4'15)
<i>Percentage of labour force</i>						
Unemployment	14.6	14.7	13.0	11.3	9.4	8.3 (M8'16)
Long-term Unemployment	8.6	9.0	7.8	6.6	5.3	4.4 (Q2'16)
<i>Percentage of households</i>						
Deprivation	24.5	26.9	30.5	29.0	n/a	29.0 (2014)
At Risk of Poverty	16.0	16.5	15.2	16.3	n/a	16.3 (2014)
<i>Percentage</i>						
Gini Coefficient	31.1	31.2	31.3	31.8	n/a	31.8 (2014)

Notes: Quarterly (e.g. Q1 is the first quarter), half year (e.g. H1 is the first half), and monthly (e.g. M1 is January) data is compared to the same period of the previous year. Rates of change represent the average value over the four quarters, or twelve months. Average annual hourly earnings compares annual hourly earnings to the previous year. General Government Balance and Gross Debt are end-year figures as a % of annualised GDP or, in the case of the government balance, the latest quarterly figure as % of quarterly GDP. Unemployment and labour force are averages for the four quarters.

Sources: CSO National Income and Expenditure (2016a), CSO Quarterly National Accounts (2016b), CSO Retail Sales Index (2016c), CSO Industrial Production and Turnover (2016d), CSO Quarterly National Household Survey (2016e), CSO Earnings and Labour Costs Annual (2016f), CSO Earnings and Labour Cost Quarterly (2016g), CSO Consumer Price Index (2016h), CSO Balance of Payments (2016i), CSO Government Finance Statistics (2016j), CSO Monthly Unemployment (2016k), CSO Survey on Income and Living Conditions (2015).

The national accounts are being distorted in a variety of ways including through the phenomenon of tax inversions or ‘re-domiciled PLC’ which affects the current account and distorts GNP upwards. The treatment of aircraft leasing in the national accounts is another important source of distortion. However, the most important distortion to the 2015 data appears to relate to contract manufacturing type activity on a very large scale (see Box 2.1).

While the headline growth figures and the industrial production figures are not representative of actual economic activity within the borders of the Republic, there is evidence that the real economy grew strongly in 2015 and has continued to grow strongly in 2016. The Central Bank (2016) estimate that underlying domestic demand, defined as domestic demand excluding investments in aircraft and intangible assets, grew at close to 5% in 2015. Personal consumption increased 4.5% in volume terms in 2015 and 3.5% in the first half of 2016, compared to the previous year. The volume of retail sales was up 8.2% in 2015 and retail sales growth has averaged 7.2% in the first seven months of 2016 when compared to the same months in 2015. VAT (3.9%) and Excise (19.4%) receipts are also up strongly in the first eight months compared to the same period in 2015.

Growth in spending is being driven by the strong growth in employment. Other factors boosting consumption in the last 18 months include the reversal of fiscal austerity; the ongoing decline in household debt, and the sustained fall in unemployment. These developments are all supportive of increased consumer confidence. In addition, the fall in oil prices has increased the real income and purchasing power of households. Investment is being supported by the fall in energy prices reducing input costs and by the European Central Bank’s extremely loose monetary policy stance which is reducing financing costs.

Employment increased by 2.6% in 2015, and is up 2.7% in the first half of 2016 compared to the first half of 2015. Total employment is now above two million for the first time since the fourth quarter of 2008; however it is still over 140,000 below peak 2007-2008 employment levels. All eight geographic regions remain below their pre-crisis (Q2-2008) employment totals with recovery relatively strongest in *Dublin* at 96.8% of Q2-2008 employment and relatively weakest in the *West* at 89.2%.

Box 2.1 Contract Manufacturing and the Republic's National Accounts

The most recent National Accounts release contained a revised estimate for GDP growth in 2015 showing real GDP to have increased by 26.3%. One or more corporate restructurings lead to an 'on-shoring' of intellectual property assets in the first quarter of 2015 and added greatly to Ireland's capital stock. As a result, and because of the way data is compiled under international rules, a large amount of activity carried out elsewhere and previously treated as contributing to other countries GDP is now treated as contributing to Ireland's GDP. The activity itself has not changed – just the location of the capital assets and the effect on GDP.

One or more MNEs appear to have transferred very large amounts of intangible or Intellectual Property (IP) assets to the Republic by having the companies holding the assets become Irish resident. It is believed this was an 'on-shoring' of assets that were previously held in zero tax jurisdictions (tax havens) and may have been done as a response to the OECD's Base Erosion and Profit Shifting project. The on-shoring of assets added to Ireland's capital stock. The assets are important because of how they relate to contract manufacturing. Essentially, the company contracts an operator in another country to manufacture a product based on the IP. As it is ownership that matters under the ESA 2010 national accounting rules the output is counted as part of Irish GDP. In other words, economic activity that was previously treated as contributing to other countries GDP is now treated as contributing to Ireland's GDP.

There was a very large increase in direct investment in the Republic in the first quarter of 2015. Ireland's gross capital stock increased from €750 billion to €1,050 billion in 2015 - an increase of €300 billion or 120% of GDP. The addition of these assets theoretically increases the ability of the economy to generate Gross Value Added (GVA). Irish GVA increased from €174.9 billion in 2014 to €236.6 billion in 2015. Of this €61.5 billion increase, GVA arising from industry (excluding construction) increased by €50.7 billion, and went from €41.1 billion in 2014 to €91.8 billion in 2015. This represents a sectoral increase of 123.2%, and 82.4% of the total increase in Irish GVA. Increased capital assets means increased production of goods and services and increased profits. The newly 'Irish' company or companies are now paying their corporate taxes to the Irish exchequer providing a revenue boon for the Irish government, albeit a potentially unstable one.

While contract manufacturing will show up as goods exports it will not show up in the merchandise trade statistics. Merchandise trade statistics only record goods that physically cross the Irish border. Goods exports amounted to €195 billion in 2015 yet merchandise trade reports exports of just €112 billion. This wide discrepancy illustrates the large scale of contract manufacturing. It is clear that the Republic's national accounts data now records a significant amount of activity that occurs in other jurisdictions and no longer paints an accurate picture of the performance of the domestic Irish economy.

The large upward revision to output has implications for the contribution to the EU budget. In addition, any indicators measured as a ratio of GDP are now of reduced usefulness, for example the debt to GDP ratio and other fiscal indicators. Finally, the data revisions make it harder to interpret Irish performance under the European Commission's Macroeconomic Imbalance Procedure. For example, partially as a consequence of the surge in contract manufacturing, the 2015 current account balance is now in surplus of 10.2% of GDP.

Ultimately the distortion of the national accounts creates a barrier to good policymaking.

The unemployment rate was 8.6% in the second quarter of 2016 with substantial regional variation. This compares to 9.8% in the second quarter of 2015. Monthly unemployment data suggests the seasonally adjusted rate had fallen to 8.3% in August. Unemployment rates are lowest in the *Mid-East* (6.9%) and highest in the *South-East* (10.8%). Long-term unemployment (95,900) is below 100,000 for the first time since the third quarter of 2009 and now stands at 4.4%. However, long-term unemployment is still three times as large as it was in the first quarter of 2008.

Average weekly earnings were €703.83 in the second quarter of 2016. This was up 0.5% compared to the previous year but down 1.3% over the previous quarter. Average hourly earnings increased by 0.2% or four cents over the year going from €21.89 to €21.93. Average hourly earnings remain mostly unchanged over the past five years, with earnings increasing marginally from €21.92 in the second quarter of 2011 to €21.93 in the second quarter of 2016. Hourly earnings have declined in nominal terms in comparison to the same quarter in 2009.

Consumer prices were down 0.1% in August over the previous year in CPI terms and down 0.4% in HICP terms. Excluding energy products the CPI was up 0.8% in August compared to the previous year, and up 0.1% compared to the previous month. The CPI is now broadly at 2008 levels and is up almost 3% since the middle of 2011. This means that hourly earnings have declined in real terms over the last five years.

Residential property prices rose 6.7% in the year to July while household net worth increased by 0.3% during the first quarter of 2016. The headline general government deficit was €4.6 billion or 1.8% of GDP in 2015 and €1.47 billion or 2.3% of quarterly GDP in the first quarter of 2016. Gross debt was €206.8 billion or 80.4% of annualised GDP at the end of March 2016. Net debt was €173.3 billion or 67.4% of annualised GDP.

The Exchequer recorded a deficit of €329 million to end-August 2016. This compares to €1.29 billion in the same period in 2015. The improvement is primarily driven by an increase in tax revenue which is up €1.7 billion over the previous year. However, while tax revenues are ahead of target for the first eight months, tax revenue came in below target in July and was 7.4% below target in August suggesting there may be a softening of economic activity.

2.4 Recent trends in the Northern Ireland Economy

For Northern Ireland and the UK, the last three months have been dominated by discussions on the UK's exit from the European Union. There have been many attempts to interpret the economic impact of Brexit from the limited number of post-referendum statistics produced at UK level. However, there have been very few official statistics published which actually cover the period since the 23rd of June and there will be no indication of the impact on GDP until third quarter estimates are published in October. There are also likely to be significant revisions which could significantly alter any initial impact assessments. Secondly, there have been even fewer official statistics published for Northern Ireland since the referendum result. Of those that have been published only labour market statistics cover a period from the end of June.

Table 2.3 Dashboard of Macroeconomic Indicators (NI)

	2011	2012	2013	2014	2015	Latest
<i>Percentage volume change over previous year</i>						
Gross Value Added (GVA)	-0.2	1.1	0.6	0.7	-	0.7 (2014)
NI Composite Economic Index	-1.7	-1.3	0.1	0.7	1.4	0.4 (Q1'16)
Services Index	-2.7	-1.2	0.7	1.4	1.4	1.7 (Q2'16)
Production Index	7.0	-1.4	1.0	2.2	1.9	0.6 (Q2'16)
<i>Percentage annual average rate of change</i>						
Employment	2.0	-0.3	-0.6	1.8	0.3	-0.2 (M5-7'16)
Average Hourly Earnings	1.7	1.5	2.5	-1.3	4.2	4.2 (2015)
Inflation (UK)	4.5	2.8	2.6	1.5	0.0	0.6 (M7'16)
<i>Percentage of GVA</i>						
Exports	28.7	28.4	29.7	28.4	-	28.4 (2014)
Government Spending	59.4	58.5	57.7	57.6	-	57.6 (2014)
<i>Percentage of labour force</i>						
Unemployment	7.2	7.5	7.5	6.4	6.1	5.6 (M5-7'16)
Youth Unemployment	18.2	20.1	22.5	19.0	19.3	13.0 (M5-7'16)
Long-term Unemployment	3.2	3.8	4.0	3.4	3.6	2.5 (M5-7'16)
<i>Percentage of households</i>						
Relative Poverty	20	22	19	21	-	21 (2014)

Note: Total employment refers to all persons in employment (ILO definition) aged 16-64 as proportion of all persons 16-64.

Sources: ONS (2015) Regional Gross Value Added (Income Approach); NISRA (2016) Northern Ireland Composite Economic Index Q1 2016; Index of Production Q2 2016; Index of Services Q2 2016; Labour Force Survey (Jul-Sep); Annual Survey of Hours and Earning 2015; ONS (2016) Consumer Price Inflation: August 2016; HMT (2015) Public Expenditure Statistical Analyses 2015; NISRA (2015) Households Below Average Income Report 2013-14

The Northern Ireland Composite Economic Index (NICEI) indicates that Northern Ireland is entering the coming period of uncertainty on a low growth trajectory. The rate of annual growth in the NICEI has slowed significantly in the last year, down from 1.9% in 2015 to 0.7% in Q1 2016. The growth in the NICEI averaged over the last 12 months compared to the previous 12 months, was 0.7% lower than the equivalent

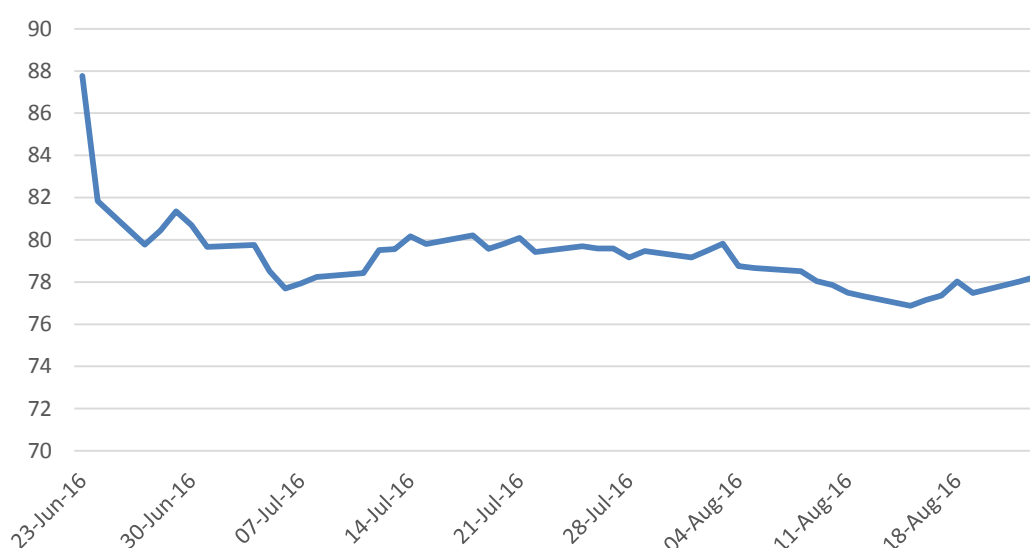
period for UK GDP. This indicates that Northern Ireland is entering the post Brexit period behind the UK, with a modest rate of growth.

Unofficial statistics offer the only indications of the path of the economy since the referendum. The Ulster Bank (2016) Purchasing Manager's Index (PMI) for Northern Ireland in July and August provided a snapshot of business sentiment. The early indications were not encouraging with output in the PMI for Northern Ireland declining in July for the first time in 15 months and remaining stagnant in August. New orders contracted sharply in July before rebounding modestly in August. Both July and August saw a significant increase in input costs, highlighting the more negative side to Sterling's recent depreciation. Employment levels did remain steady over both July and August, but this is not as counterintuitive as it may seem. Any labour market impacts arising from Brexit are unlikely to be immediate; they are more likely to be contingent on decisions surrounding future business activity and investment which would not have fed through to the data at this stage. The results for Northern Ireland chime with the UK's PMI which showed a sharp deterioration in July followed by a rebound in August. The PMI is an indication of sentiment and the up and down nature of the index over the last two months broadly reflects the mood on Brexit more generally. The initial reaction to the referendum result probably explains the sharp downturn in overall activity. However, the actions of the Bank of England (see Box 2.2) and the relative political stability provided by the change of government have probably eased many concerns in the short term.

The relative calm of the short-term could be upset when decisions about key Brexit issues begin to come into focus. Trade is such an area where the post-Brexit experience could be one of short-term gain, long term pain. One of the few immediate impacts of Brexit was the sharp deterioration in the value of the pound. Chart 2.1 shows the Sterling Effective Exchange Rate which has fallen by 10 points since the referendum result. This means that Northern Ireland's exports are likely to get a significant boost in the short term. Uniquely for Northern Ireland this will likely also result in a boost to consumer spending as a consequence of increased cross-border trade. There are no official statistics regarding consumer spending in Northern Ireland. Figures for Great Britain indicate that retail sales in July were up by almost 6% on 2015. The data do not indicate the proportion of spending that was carried out by non-residents, and some of the boost is likely to be attributable to increased tourism following the drop in Sterling.

A weaker pound poses significant longer term difficulties for Northern Ireland. Firstly, as the PMI indicates, an exchange rate can boost exports but can also hurt manufacturers in the domestic market who rely on imported inputs. Secondly, any boost in consumer spending through cross-border trade is likely to be outweighed by a drop in consumer spending from increased domestic inflation due to the lower pound. Finally, the boost to exports could be short-lived if the trade deal agreed upon for exit from the EU causes any disruption to EU-UK trade. Fully 60% of Northern Ireland's exports in 2014 went to the EU, 37% alone to the Republic of Ireland. Any disturbance to this trade is likely to wipe out short-term gains from depreciation.

Chart 2.1 Sterling Monthly Average Effective Exchange Rate Index (2005=100)



Source: Bank of England (2016a) Monthly Average Effective Exchange Rate Index

The first post-Brexit indication for the labour market in the three months ending in July showed a 0.2 percentage point fall in the unemployment rate. However, the reduction in unemployment did not feed into greater employment, but once again was absorbed by an increase in economic inactivity. The first half of 2016 has seen increasing economic inactivity, reversing one of the most positive recent accomplishments in the Northern Ireland labour market. Many had attributed the previous decline in inactivity to successes in welfare reform. Recent increases call this analysis into question. There was also a significant fall in full-time employment and an increase in both part-time employment and employees with second jobs in the three

months ending in July. Whilst the period in question does cover the month of July it would be unwise to draw any Brexit implications from the most recent data.

Property prices in Northern Ireland increased 3.8% in the second quarter of 2016 following a drop of 1% in the first quarter. Obviously this improvement does not take into account the impact of the referendum, but the strengthening of house prices was more pronounced in Northern Ireland than in any of the regions of Great Britain. The post-crash growth in property prices in Northern Ireland has been significantly slower than in most parts of Great Britain. Therefore, any Brexit impact on UK property prices may be somewhat dented in Northern Ireland for the simple reason that prices here have less far to fall.

Box 2.2 Brexit – Policy Impacts for Northern Ireland

In the few short weeks since the referendum, Brexit has had far reaching implications for the economy and wider society. At a political level the change at the top of the UK government signalled some important changes for UK economic policy. The first of these was the decision to abandon of the government's ambition for a fiscal surplus in 2020, although this was signalled even before Theresa May and Philip Hammond entered Downing Street. This has implications for the pace of austerity over the coming parliament and will have a disproportionate impact in Northern Ireland, due to the importance of public spending in economic activity.

There are also expectations that the Chancellor will use the forthcoming Autumn Statement to launch a fiscal stimulus in response to any downturn in the economy. This is a significant re-drafting of UK government fiscal policy that could have implications for long term growth if the actions taken over the coming months match recent statements.

The Bank of England has also stepped up its stimulus program in response to the Brexit result. The expansion of Quantitative Easing and the introduction of a programme of corporate bond purchases were quickly followed by a 0.25 reduction in interest rates. While these measures may have some short-term impact in the market, they are measures that will only find their full effect if they are met with a large and sustained fiscal package to stimulate demand in the economy.

The Northern Ireland Executive set out its post-Brexit priorities in a letter to the new Prime Minister arguing for continued "access" to the single market and no hardening of the border between Northern Ireland and the Republic. The letter argued for most of the protections that membership of the EU would normally afford and enjoyed broad political support which stands in contrast to the disagreements surrounding the referendum before the result.

The policy most likely to impact Northern Ireland in the short-term will be the loosening of fiscal policy. However, the impacts of Brexit negotiations are more likely to have a larger and longer term impact for Northern Ireland, and these are discussed in greater detail in section 3.

3 Economic Outlook

3.1 Introduction

In this section of the QEO we outline our projections based on assumptions for the economies of the main trading partners of the Republic of Ireland and of Northern Ireland. We then set out our baseline expectation for the short-term performance of both Irish economies. The main risks to the forecasts are also considered.

3.2 Macroeconomic Assumptions for the Global Economy

The size of the economic impact of the UK electorate's Brexit decision is difficult to forecast. The size of the mid-term impact will depend on the nature of the changed trade relationship with the EU. The lack of clarity over the timing and tone of the Brexit process is adding to the uncertainty. This uncertainty may start to hurt confidence and lead to delays in investment and consumption decisions, although supportive monetary policy will dampen short-term impacts. In any event, Brexit is likely to have a significant and negative impact on the UK's income and output levels over the medium-term. The OECD's central scenario is for real GDP to be 5.1% lower by 2020 relative to the UK staying in the EU, while the IMF forecast that real GDP will be 1.4% to 4.5% lower by 2021 relative to the baseline.

The IMF revised its global outlook for 2016/2017 downwards by 0.1 percentage points in the wake of Brexit although this revision assumes a relatively benign outcome to Brexit negotiations. The IMF project world output will increase by 3.1% in 2016 and 3.4% in 2017 with advanced economy growth of 1.8% in both years. Geopolitical tensions, conflict and climate impacts are impacting on the outlook for parts of the Middle East and Africa while the general fall in commodity prices has damaged growth prospects and increased financial instability risks for commodity exporters.

The OECD's Composite Leading Indicators (CLIs) suggest that the growth of the UK economy will slow over the next few months before stabilising around a lower rate towards the end of the year. The OECD area grew by 1.6% year-on-year in the second quarter and the OECD's CLIs indicate that growth momentum is stable in the OECD area as a whole with growth picking up in Canada and easing in France. However, the CLIs point to more severe weakness in growth momentum in Italy. The outlook is more

positive for major emerging economies with the CLIs indicating growth should pick up in China, Russia and Brazil and should be steady in India.

Less positively, the IFO world economic climate index, an international survey of professional economists, fell to its lowest level in three years. This reflects subdued sentiment and deteriorating economic expectations. Expectations are for interest rates and inflation to remain low in most countries and for the US dollar to rise against other major currencies.

The ECB's September staff projections are for real GDP in the euro area to grow by 1.7% in 2016 and by 1.6% in 2017 and in 2018. These projections are broadly in line with those of the European Commission and the OECD. The ECB anticipate resilient domestic demand supported by a continuation of accommodative monetary policy, relatively low oil prices, and improving bank lending conditions. On the other hand Brexit is expected to reduce foreign demand across euro area countries with the Republic most exposed within the euro area. The ECB expect the euro area's negative output gap to narrow over the forecast horizon, for the euro area's unemployment rate to fall from 10.1% in 2016 to 9.6% in 2018, and for consumer inflation (HICP) to increase from 0.2% in 2016 to 1.6% in 2018.

The Bank of England expects UK growth to slow sharply to 0.1% in the third quarter of 2016. In the near term, the Bank expects labour demand to weaken with average hours worked per worker expected to fall, employment growth to slow to zero in 2017, and unemployment to rise. The Bank expects unemployment to rise marginally to 5% by early 2017 and then to 5.6% by the middle of 2018. Real GDP growth is forecast to be 2% in 2016, 0.8% in 2017 and 1.8% in 2018. Inflation is expected to rise from 0.8% in 2016 to 2.4% by 2018 as higher import prices take inflation above the 2% target.

The median economic projection of Federal Reserve Board Members in the United States is for real GDP growth of 2% in each of 2016, 2017 and 2018. The unemployment rate is forecast to fall marginally from 4.7% in 2016 to 4.6% in 2018 while personal consumption inflation is forecast to rise from 1.4% in 2016 to 2% in 2018. The projected appropriate policy path is for the federal funds rate to increase to 2.4% by the end of 2018 suggesting a gradual tightening of monetary policy over the next two years, albeit at a slower pace than previously signalled.

3.3 Macroeconomic Projections for the Republic of Ireland

The Republic of Ireland's 2015 growth figures are unlikely to be replicated in 2016. The 2015 growth figures are distorted by corporate restructuring leading to the movement of entire balance sheets to the Republic and the reclassification of transactions previously accounted for abroad. This restructuring dramatically increased the capital stock in the National Accounts (see Box 2.1), as well as output in the industry sector which more than doubled in 2015, and output in exports of goods. The current account on the balance of payments is also distorted by the restructuring and is estimated to be in surplus by over 10% of GDP in 2015. Distortion of this scale is not expected in 2016 or in 2017 and we are treating the increase in GDP and GNP in the National Accounts as a once-off level shift.

Our baseline position is that the economy is not yet overheating and that there is a small negative output gap. The unemployment rate remains high; wage growth and price inflation remain modest, underlying investment (i.e. excluding intangibles) is still low, as is credit growth to households and non-financial corporates. Current account data is difficult to interpret given the recent distortions although the Fiscal Council (2016) suggest it may have been close to balance in 2015 once adjustments are made for multinational distortions.

The short-term impact of Brexit is likely to be negative due to weaker demand from the UK, as well as adverse exchange rate movements and increased uncertainty. The ultimate impact will depend on the nature of the new trading relationship. The impact under a Norway type scenario would be minimal while a WTO scenario would have a negative impact on UK trade and investment which would in turn have a significant negative impact on the Republic's economy. Indigenous firms are particularly at risk as 43% of indigenous exports go to the UK. Such firms tend to be more labour intensive than MNEs.

Overall, while internal and external factors are not as favourable to growth as they were in 2015, we are projecting that real GDP will grow at a solid and above trend level of close to 4.1% in 2016, and then by 3.7% in 2017 and 3.6% in 2018 as the output gap closes (see Table 3.1). This is based on existing data, sentiment indicators, and medium-term forecasts of the economy's growth potential. We assume full use of fiscal space for public spending increases or tax cuts and tentatively account for Brexit. Our expectation is that gross fixed capital formation (investment) will make the largest

contribution to real GDP growth in each of these years with smaller positive contributions from personal consumption and government consumption.

Strong growth in employment; gradually rising average hourly earnings, and negligible price inflation are all supporting growth in real disposable household income. Personal consumption levels are being supported by this growth in disposable income, as well as by pent-up demand after years of stagnation, by supportive monetary policy, by improving consumer confidence arising from an improving labour market and a reversal of fiscal austerity, by increasing household net worth, and by falling household debt. We project that personal consumption will grow by 3.7% in volume terms in 2016 before moderating to 2.9% in 2017 and 2.5% in 2018.

Table 3.1 Macroeconomic Projections (ROI)

	2015	2015	2016	2017	2018
Real Output		<i>Percentage real change over previous year</i>			
Gross Domestic Product	€255.8bn	26.3	4.1	3.7	3.6
Personal Consumption	€92.4bn	4.5	3.7	2.9	2.5
Government Consumption	€27.0bn	1.2	3.4	1.7	1.5
Investment	€54.1bn*	32.7	11.6	9.6	7.0
Exports	€317.2bn	34.4	5.3	5.0	4.5
Imports	€236.0bn	21.7	7.2	6.3	5.0
Earnings		<i>Percentage nominal change over previous year</i>			
Average Hourly Earnings	€21.91	0.2	1.3	2.3	2.4
Government Finances		<i>Percentage of GDP</i>			
General Government Balance	-€4.6bn	-1.8	-0.9	-0.5	0.1
Gross Debt	€201.3bn	78.7	75.3	72.8	69.5
Labour Force		<i>Percentage change over previous year</i>			
Employment	1,963,550	2.6	2.6	1.8	1.6
		<i>Percentage of labour force</i>			
Unemployment	203,625	9.4	8.2	7.5	7.0

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.

*Gross Fixed Capital Formation excluding intangibles was €30.6 billion in 2015.

Sources: NERI estimates for 2016-2018; 2015 data is from CSO National Income and Expenditure (2016a), CSO Earnings and Labour Costs Survey (2016f), Government Finance Statistics (CSO, 2016i) and CSO Quarterly National Household Survey (2016e).

We project that growth in investment will be the workhorse driving real GDP growth over the forecast horizon. Firms will move to rebuild their capital stock as private sector balance sheets and underlying conditions in the economy improve, while pressure to increase the housing stock will eventually lead to substantial increases in

house building. Monetary policy will remain extremely supportive. Finally, there is strong potential for above-trend catch-up growth given the persistently low underlying investment-to-output ratio over the previous half decade. The impact of Brexit is unclear. There may be a cost arising from increased uncertainty and delays in investment decisions. On the other hand, the reduced attractiveness of the UK as an investment location arising from the potential loss of access to the EU market could benefit the Republic as a location for investment. Overall, we expect that underlying investment (i.e. investment excluding intangibles and aircraft purchases) will expand rapidly in the next few years. We project that investment will grow by 11.6% in volume terms in 2016, by 9.6% in 2017 and by 7% in 2018.

While exports grew 34.4% and imports grew 21.7% on a national accounts basis in 2015 these figures were heavily distorted by multinational activities and corporate restructuring. We anticipate that net exports will make a small positive contribution to nominal growth in each of the next three years and that imports will grow at a faster rate than exports in each year. The detached performance of the multinational enclave adds a large element of uncertainty to the trade forecasts. Import growth will be supported by the growth in real disposable incomes, domestic consumption and investment. On the other hand, we anticipate export growth to decline year-on-year over the medium-term until it is broadly in line with external demand indicators such as trading partner output growth adjusted for exchange rate and competitiveness shifts. The Brexit process will put downward pressure on export growth until there is greater clarity on the destination point and its timeline. Further exchange rate swings are likely as the process evolves and this too will impact on exports.

Overall, we forecast that nominal GDP will exceed €270 billion in 2016 and will be close to €286 billion in 2017 (see Table 3.2 for other agencies projections).

Table 3.2 Range of Projections for Real GDP Growth (ROI)

	2016	2017	2018	2019	2020	2021
NERI (<i>September</i>)	4.1	3.7	3.6	-	-	-
Department of Finance (<i>April</i>)	4.9	3.9	3.9	3.3	3.1	2.9
Central Bank of Ireland (<i>July</i>)	4.9	3.6	-	-	-	-
European Commission (<i>May</i>)	4.9	3.7	-	-	-	-
IMF (<i>April</i>)	5.0	3.6	3.2	2.8	2.7	2.7
OECD (<i>June</i>)	5.0	3.4	-	-	-	-
ESRI (<i>September</i>)	4.3	3.8	-	-	-	-

Sources: Dept. Finance Stability Programme Update (DoF, 2016a); CBI Quarterly Bulletin (CBI 2016); European Commission European Economic Forecast (EC, 2016a); IMF World Economic Outlook (IMF 2016a); OECD Global Economic Outlook, (OECD 2016a); ESRI Quarterly Economic Commentary (ESRI, 2016)

The labour market should continue to strengthen through the forecast horizon. We project robust average employment growth of 2.6% in 2016 and moderating but still healthy employment growth of 1.8% in 2017 and 1.6% in 2018. The unemployment rate should continue to fall as cyclical unemployment declines and we are forecasting that the headline rate will fall to an average of 7% in 2018. The unemployment rate should be below 7% by the end of 2018. However, while the labour market dynamics should continue to improve we anticipate that the rate of improvement will gradually slow down as the output gap closes. Our baseline projection is that there will still be over 150,000 unemployed by the middle of 2018 and that much of this unemployment will be structural. Fiscal policy and industrial policy will need to play key roles if we are to avoid persistently high unemployment rates.

We anticipate that pressure for wage growth will accelerate as the unemployment rate falls and labour market slack diminishes. The extent of pressure will vary from sector to sector reflecting differences in sectoral performance, labour demand and differences in the tightness of labour supply. In the short run, the absence of significant inflationary pressures will dampen nominal growth in average hourly earnings across the economy. Even so, growth in average hourly earnings should outpace inflation over the forecast horizon and we anticipate average hourly earnings will increase by 1.3% in 2016, by 2.3% in 2017 and by 2.4% in 2018.

The once-off boost to nominal GDP in the 2015 national accounts has meant that the headline deficit-to-GDP and debt-to-GDP ratios have improved. The deficit is now recorded as 1.8% of GDP in 2015. VAT receipts are up 3.9% on a year-on-year basis to the end of August while income tax receipts are up 4.2% in year-on-year terms. However, recent data has softened somewhat. Based on current trends, our projections for output and the labour market, as well as our expectations for the fiscal stance, we anticipate that the deficit will improve to 0.9% in 2016 (around €2.4 billion in nominal terms) on the back of falling unemployment and rising employment, wages and disposable income. The deficit should improve to around 0.5% of GDP in 2017 assuming full use of the available fiscal space. We project a modest surplus of 0.1% of GDP in 2018 and a gross debt to GDP ratio of 69.5%.

There are a number of risks to our forecast. For example, our projections are based on labour productivity growth in excess of 1% in each year and this may be somewhat

optimistic given that 21st century productivity trends have been weaker than this in almost every advanced economy.

We are also assuming that there is a negative output gap and therefore space for above trend growth. However, it is difficult to assess the level of hysteresis (i.e. the damage to the quality of labour supply) caused by the post crisis recession and prolonged stagnation. If the damage to the work force is greater than assumed then above trend employment growth may not materialise to the extent that we have forecast.

Brexit remains a downside risk as our baseline forecast is for a negotiated settlement that minimises change to the UK/EU trading relationship. A more significant change to the trading relationship will impact negatively on our forecast. The Republic would suffer disproportionately within the EU given existing trading patterns, particularly if Sterling fell into sharp decline, while the introduction of trade barriers would reduce economy-wide efficiency over time and damage the potential for medium-term productivity growth. The Republic is also particularly exposed to a Brexit related slump in the UK economy.

A tightening of monetary policy would damage domestic demand and would particularly impact on the Republic given the still high public, corporate and household debt overhangs. The risk of a tightening is low in the short-to-medium term given the weakness of the euro area economy, the still high unemployment rate and the absence of significant inflationary pressures. The debt overhang is also a source of vulnerability in the event of a growth shock or a fiscal shock. Household debt relative to household income and GDP is one of the highest in the euro area. Also, as the ECB point out, 20% of loans in the Republic are non-performing compared to 7% for the euro area.

A faster than expected rise in energy prices, perhaps arising from increased geopolitical tensions in the Middle East, would reduce real household disposable incomes and negatively impact on personal consumption. Rising energy costs would also adversely impact on investment given the likely impact on corporate balance sheets.

Finally, the Republic has taken reputational damage over its corporate tax regime in recent weeks. Current developments at European level suggest a greater willingness to tackle aggressive corporate tax avoidance as well as a greater intolerance for beggar-thy-neighbour race-to-the-bottom type approaches to mobile international capital.

This change in sentiment may foreshadow the establishment of a Common Consolidated Corporate Tax Base (CCCTB). Momentum towards a CCCTB is likely to be assisted by the UK's exit from the EU as the UK is a strong proponent of the right to fiscal autonomy at the national level. While certainly welcome from a tax justice perspective the evolving situation makes the Irish economy exceptionally vulnerable to the extent that future developments might erode the tax and regulatory advantages of locating in the Republic and negatively impact on the Republic's ability to secure foreign direct investment.

3.3 Macroeconomic Outlook for Northern Ireland

The outlook for the Northern Ireland economy has not changed dramatically in the three months since the Brexit referendum. Once again, the outlook must be divided between the short-term, which is likely to be driven by the trends outlined in section 2 and the long term which will be dependent on the shape of the political negotiations on Brexit. Table 3.3 outlines the short-term projections for the Northern Ireland economy made by various forecasters.

Table 3.3 Overview of recent projections of Economic Activity and employment/unemployment (Northern Ireland)

	2015 (Outturn)	2016	2017
Economic Activity	n/a		
Ernst & Young (GVA)	-	2.0	-
PWC (GVA)	-	1.0	0.2
Danske Bank (GVA)	-	1.0	0.5
UUEPC	-	1.6	1.3
Employment	0.3		
Danske Bank		0.6	0.2
Ernst & Young	-	0.7	0.1
UUEPC	-	1.2	-0.3

Note: Gross Value Added differs from GDP by the difference between taxes and government subsidies.
Sources: Ernst and Young: Economic Eye, Winter 2015; PWC: Northern Ireland Economic Outlook July (2016); Quarterly Sectoral Forecast Q2 2016 (May 2016) UUEPC Spring Outlook (May 2016)

GVA in Northern Ireland grew by just 0.7% in 2014 and the NICEI would indicate that the mild acceleration of growth in 2015 was quite short-lived. Both the IMF and the Bank of England have significantly downgraded UK growth in the wake of the Brexit vote. The IMF downgraded growth from 2.2% in 2017 to 1.3% (IMF, 2016b), while the Bank of England downgraded its 2017 forecast for the UK to just 0.8%. The Bank of England also forecast that the UK economy could come close to a technical recession

with quarterly growth falling to 0.2% and 0.1% in the first half of 2017 (BOE, 2016). In light of these figures it would seem optimistic to forecast that Northern Ireland would avoid a recession in the first half of 2017. However, it is possible that the uncertainty surrounding the Brexit negotiations could be countered by the short term advantages of a weaker currency, by more expansionary fiscal policy and by loose monetary policy. This could smooth growth in 2017 and in the lead up to Brexit, but it is most likely that these short term trends will be overwhelmed as the Brexit deal begins to take shape.

Long-term Outlook

In the summer edition we highlighted a number of post-Brexit trade scenarios that the UK government might negotiate. The long term outlook for Northern Ireland will be driven pre-dominantly by how well the eventual scenario suits the needs of this economy. As Box 2.2 mentioned, the Northern Ireland Executive have stated that it is their preference to maintain “as far as possible the ease with which we currently trade with EU member states” and importantly maintain “access to unskilled and highly skilled labour”. This initial position would suggest maintaining membership of the Single Market and with it free movement of labour. The most likely model for this would be the arrangement currently enjoyed by Norway.

The possibility of a Norway style arrangement has encountered some difficulty in the months since the Brexit result. At UK level, immigration was a key platform of the Leave campaign and the new UK government has indicated that more control over the free movement of people will be key to its negotiating strategy. This would seem to limit the possibility for EEA membership, for which free movement of labour is a prerequisite. If the possible scenarios are thus reduced to a free-trade area (FTA) or some sort of bilateral agreement between the EU and the UK, several possible downsides for Northern Ireland then emerge.

There is a danger that food/agri-food products will either be omitted or subject to a side agreement in any FTA or bilateral arrangement as is the case with the current Canada Trade deal (EU Commission, 2016b). This would naturally pose a downside risk for Northern Ireland. More importantly an FTA or bilateral agreement is unlikely to reduce non-tariff barriers which can be especially prevalent in the food sector.

However, the Norway option itself is not without risk. Norway at present is not a member of the EU Customs Union (CU) as Turkey is. What this means is that Norway must comply with EU “rules of origin” for all exports into the single market. This is because members of the EU CU impose a common external tariff on all goods from outside the EU, and these can then be traded freely within the Union. However, while Norway may trade freely with the single market as a member of the EEA it must prove that all goods it trades into the single market originate within Norway. Unless the products are solely or substantially produced in Norway, they may invite a tariff.

A deal which places the UK outside the CU may place an inordinate level of administration on firms trading between Northern Ireland and the EU especially the Republic of Ireland. However, a deal that would keep the UK in the CU would significantly limit the ability of the UK government to strike new trade deals because all CU members must accept a common external trade position. The UK would in essence abdicate its trade responsibility to an organisation it is no longer a member of. Previous research assessing FTAs and CUs in South East Asia finds that CUs are always optimal chiefly on the basis that they increase intra-union trade compared to an FTA scenario (Park & Park, 2008). Studies of the North American Free Trade Agreement point out that while the benefit of a CU is increased trade, the cost is reduced national sovereignty (Mirus & Rylska, 2001) and therefore they require more political cooperation (Kreuger, 1995).

The problems for Northern Ireland arise in the scenario where there is a divergence between its requirements and those of the UK. While reduced immigration and the ability to make new international trade deals may be optimal for the UK, for Northern Ireland free movement of goods and labour across the border with the Republic of Ireland may be of more value. The greatest risk for Northern Ireland in the long term is that the perceived needs of the many may outweigh the needs of the few.

4 Budget Policy for Inclusive Growth

4.1 Introduction

In this section of the QEO we discuss the idea of inclusive economic growth. In the context of Budget 2017 in the Republic of Ireland we identify a set of high-level guiding policy principles and specific policies on both the taxation side and the public expenditure side consistent with the goals of faster long-run economic growth, sustainability, closer economic equality, and greater social inclusion. The budget should be aimed at moving towards full employment, a living income for all and good quality public services.

Inclusive economic growth is economic growth shared relatively equally across society, with improvements in well-being equally experienced across society. Faster economic growth and closer economic equality are mutually compatible policy objectives. Economic growth does not require a widening of economic inequality. Nor does greater equality of wealth and income imply a reduction in living standards. Indeed research from the IMF (2015) suggests that inequality is associated with lower growth.

The net fiscal space available in Budget 2017 is a little under €1 billion with around €11.3 billion available over the next five budgets. Accommodating demographic and price pressures will absorb much of this space. How can policymakers' best employ these limited fiscal resources to promote inclusive and sustainable economic growth?

The budgetary options most consistent with sustainable long-run economic growth are those that enhance the economy's ability to generate productivity gains year-on-year. Growth in output comes from growth in productivity and growth in hours worked across the economy. However, sustainable long-run growth can only come from productivity gains. Given the Republic's relatively low levels of spending by Western European standards on education, R&D and capital expenditure, there is scope to use fiscal policy to enhance future productivity by (A) increasing per capita investment in education and skills, (B) increasing investment in the production, diffusion and use of new knowledge and development of a strong innovation system and (C) increasing per capita investment in productive infrastructure. Unfortunately

the Republic's low tax model constrains the state's ability to make adequate levels of investment in each of these areas.

Fiscal Policy can be used to structurally increase hours worked in the economy, for example by reducing barriers to labour market entry and by increasing the attractiveness of labour force participation to second earners and low earners. State provision of subsidised childcare, the gradual tapering of family supports along with income and the introduction of refundable tax credits as a form of in-work benefit are all examples of policies that could support higher labour force participation.

A third way to use fiscal policy to boost output and inclusive growth is to eliminate the distortions to economic efficiency arising from existing policies. In practice this would mean eliminating many existing government subsidies and tax expenditures. Ending such programmes and initiatives would create valuable fiscal space to pursue more growth friendly policies.

Inclusive growth means that everyone should benefit from a growing economy. To maintain existing levels of economic well-being across all segments of society it will be necessary to increase welfare payments and disposable income for low income and low paid households in line with cost of living increases. In addition, poorer households tend to be more dependent on certain public services, notably healthcare, and to benefit disproportionately from in-work family supports as well as unemployment-related and disability benefits. Increased spending in these areas will tend to reduce inequality.

It is also possible to reorient fiscal policy in favour of greater wealth and income equality with only limited or even positive impacts on potential growth. Effective ways this can be done include reducing the scale and scope of available tax expenditures and increasing taxes on net wealth, intergenerational wealth transfers, and property, most notably immovable property such as land and housing.

Budget 2017 takes place in the context of an ongoing homelessness and housing crisis, characterised by lack of supply and spiralling rent. Adequate housing supply and standards are fundamental to inclusive growth. The output of housing, whether in terms of new builds or adaptation of existing property, is about one third of what is needed to make inroads into waiting lists. To adequately address the crisis the annual investment in social housing will need to be increased. Unfortunately, recent

experience has shown that the capital budget is extremely vulnerable to economic downturns and short-term political considerations during periods of fiscal retrenchment. To ensure a stable source of funding for social housing throughout the economic cycle we propose the hypothecation of three streams of government revenue to a dedicated housing fund. Specifically, we propose that Capital Acquisitions Tax should be strengthened; that a tax on net household wealth should be created, that a tax on vacant property should be created and that the combined revenue from these three capital taxes should be hypothecated to a dedicated social housing fund. The growth impact of these taxes is limited compared to most other forms of taxation and also highly progressive from the perspective of wealth inequality.

Finally, the growth enhancing investments discussed in this section of the QEO are not possible on the scale required unless the Republic moves away from its low tax model. The only alternative would be to cut other areas of spending at a time when spending is already at low levels and when demographic and price pressures will exert pressure to increase spending in future years. A more prudent long-term approach would involve steps to gradually increase the tax base by dismantling the system of tax expenditures, as well as increasing the revenue from existing taxes such as the residential property tax and introducing new taxes such as on sugar, unoccupied sites and net wealth.

4.2 Fiscal Policy for Inclusive Growth

The budget provides an annual opportunity to reengineer national policy in a more growth friendly direction. Sustainable long-run growth in per capita output comes from the accumulation of labour and capital inputs combined with improvements in the productivity of labour and capital arising from on-going scientific progress, technological change and the diffusion of innovation (see McDonnell, 2015).

Per capita output is determined by: (A) the proportion of the working-age population as a percent of the total population, (B) the percent of the working age population working for pay or profit, (C) the average number of hours worked per person working and, (D) the average output per unit of hour worked (i.e. labour productivity). The key parameters underlying future growth prospects are demographic changes, the participation and employment rates, the investment rate, and changes in productivity.

The Republic is now a high productivity economy with GDP per worker close to frontier productivity levels. This suggests opportunities for catch-up productivity gains may be lower in the future than has prevailed in the past.

Growth policies are those that either increase the amount of labour inputs employed or those that increase average labour productivity. Budgetary policy has an important role to play in this regard. The only way we can sustain growth in productivity over the long-term is by investing in education and skills (human capital), new equipment and productive infrastructure (physical capital), and in the production, diffusion and use of new ideas (innovation). Insufficient investment in skills, infrastructure and a thriving innovation system will constrain future economic growth (McDonnell, 2015). The Republic currently lags other EU countries in terms of public investment in education, research and development and infrastructure.

There is a strong case for improving the design of specific taxes and adjusting the composition of the tax base. However, while a cut in taxes will provide a short-run stimulus to output, albeit at the cost of a higher budget deficit and higher future taxes, such a cut will not boost the long-run productive capacity of the economy.

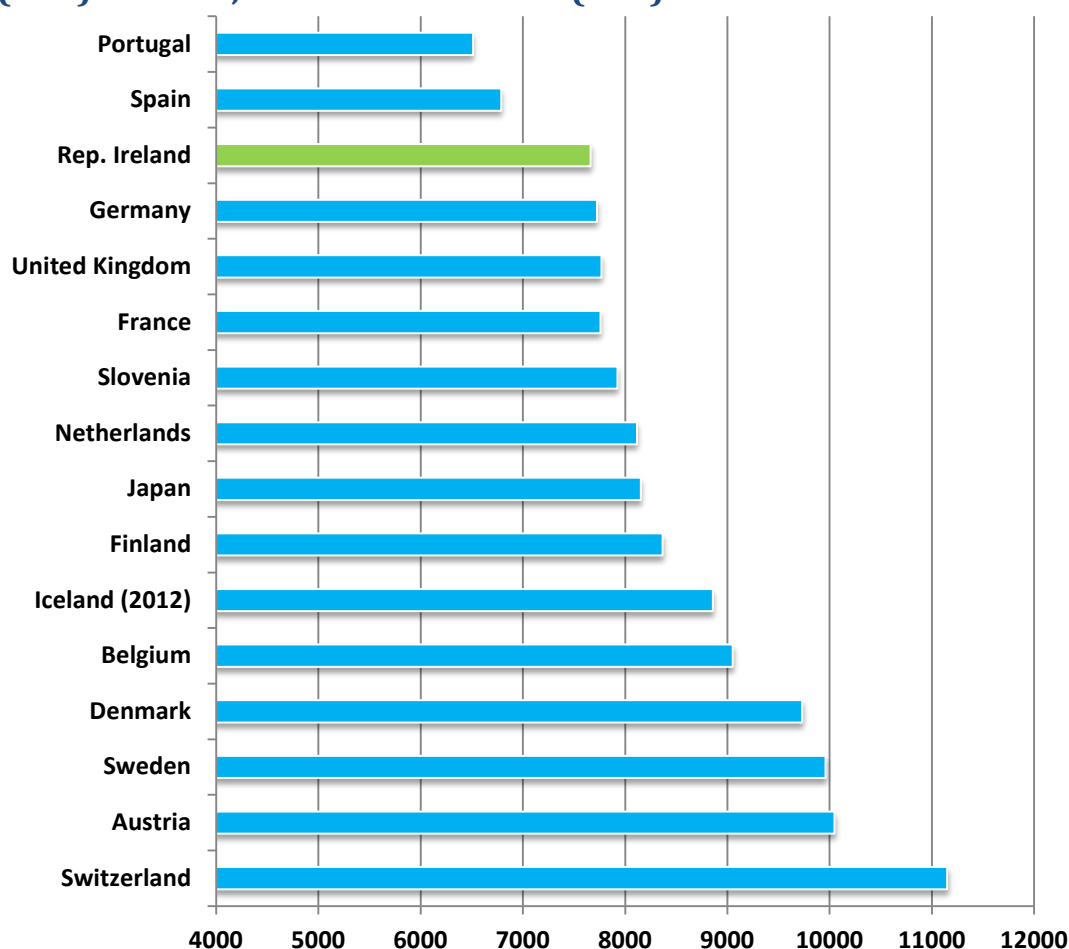
The distinctive feature of Irish fiscal policy relative to other OECD countries is that the Republic is a low tax economy when social security contributions are considered. The state's ability to make the necessary level of sustained investments in education, infrastructure and in a functioning and properly resourced innovation system is constrained by the Republic's low tax model. Further tax cuts will deepen this problem. Direct taxes are considerably lower as a proportion of output than they are in most other OECD countries although indirect taxes are more in line with OECD averages. As discussed in previous NERI QEOs the Republic deviates from the average due to extremely low levels of social security contributions.

Productivity

Human capital development, which is a life-long process, not only enhances labour productivity but is also a necessary input for and complement to innovation and technology adoption. Early years are the most important for human capital development (Heckman, 2000) and strong education systems are empirically associated with long-run increases in per capita output (OECD, 1998). Spending on

education generates positive externalities for the wider economy to the extent that it represents genuine investment in human capital. However, despite the Republic having a comparatively young population, government spending on education on a Classification of the Functions of Government (COFOG) basis (Eurostat, 2016a) was just 4.3% of GDP in 2014 compared to 4.9% for the EU, 5.2% for the UK, 6.5% for Sweden and 7.2% for Denmark.

Chart 4.1 Public spending on education institutions per pupil (FTE) in 2013, selected countries (PPS)



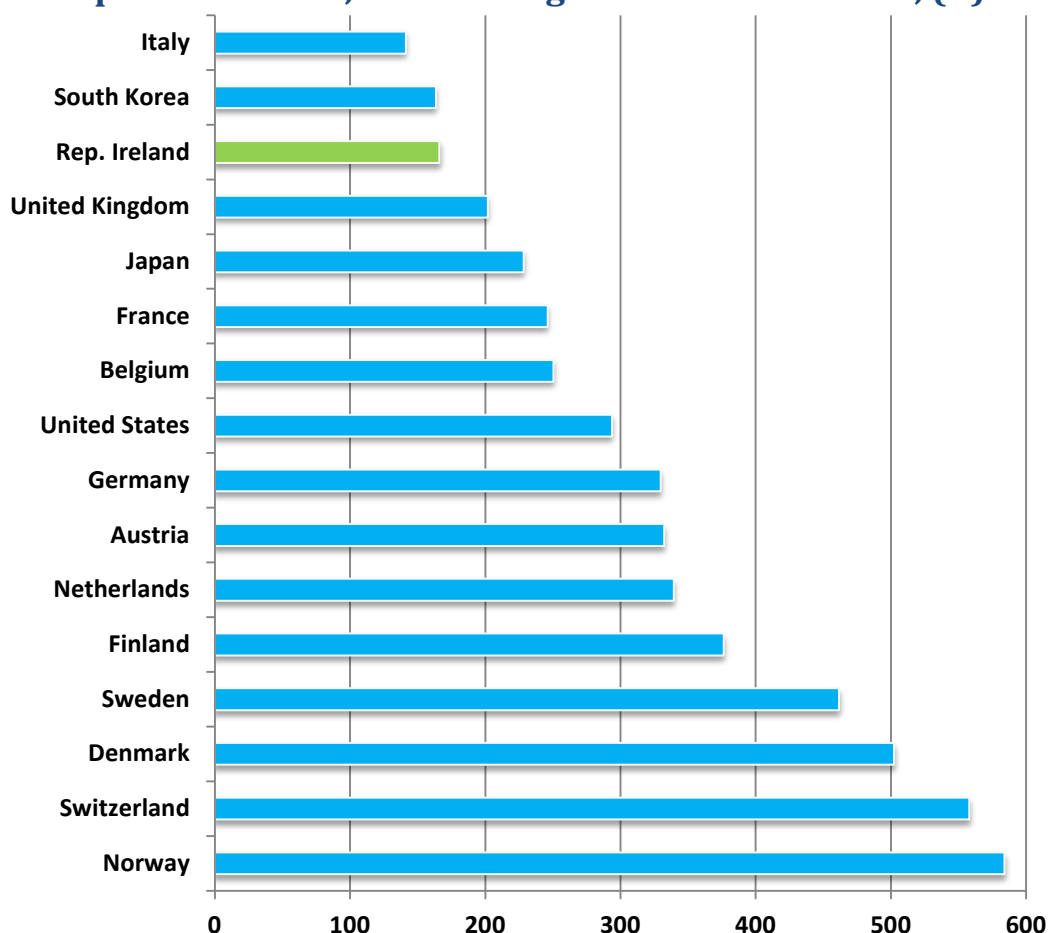
Notes: FTE is Full Time Equivalent. Figures are the total for all International Standard Classification of Education levels (ISCED 2011) excluding early childhood educational development. Figures are for public institutions and are expressed in purchasing power standard.

Source: Eurostat (2016b)

The quality of education spending, and the achievement of equality in the sense that children are not left behind, appear to be the factors that boost overall educational outcomes and productivity. Total spend is only one element. Even so, the Republic lags on a 'per pupil' basis in terms of spending on primary and tertiary education.

Increasing the per capita spend on education to Nordic¹ country levels would increase the Republic's long-run growth potential by enhancing labour force and economy-wide innovative and productive capacity.

Chart 4.2 Per capita spend on public sector research and development in 2014, selected high income economies, (€)



Notes: Figures shown are the combined totals for government and higher education R&D expenditure. Definition differs for Germany, Netherlands and the United States. Data is 2013 for Japan and South Korea and 2012 for Switzerland and the United States.

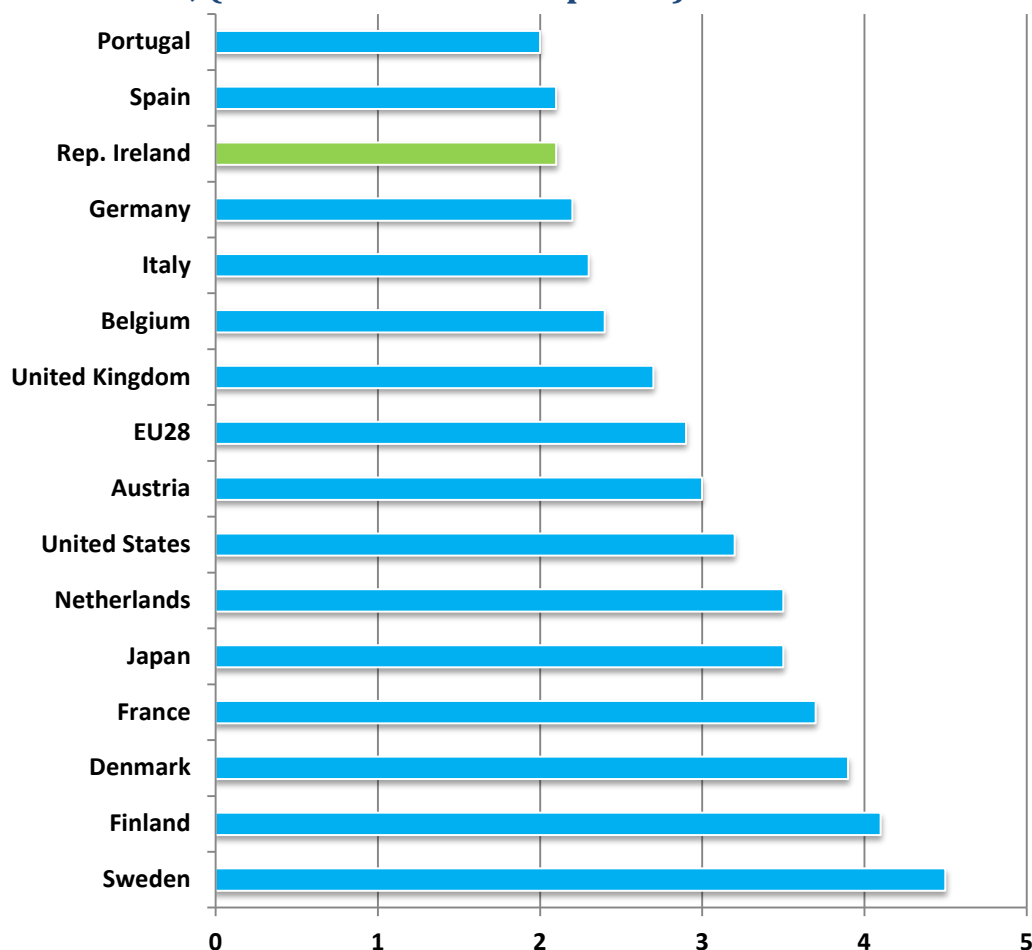
Sources: Eurostat (2016c)

A similar point can be made about total government and higher education R&D spending. The Republic spent €166 per capita on public sector R&D in 2014 (Eurostat, 2016c). This compares to over €200 in the UK, €462 in Sweden, and over €500 in Denmark and in Norway. While an economy's innovative capacity depends on far more than just the public spend on R&D it is evident that the Republic has significant scope

¹ The Nordic countries are Denmark, Sweden, Finland, Norway and Iceland. The Republic of Ireland spent 7,663.4 per pupil in 2013 on a PPS basis. The Nordic country average with Norway data unavailable was 9,230.4 on a PPS basis, or 20% more per pupil than the amount spent in the Republic of Ireland.

to increase the R&D budget. Increasing the per capita spend from such a low base would enhance the Republic's long-run growth potential.

Chart 4.3 Gross fixed capital formation in 2014, general government, (% of GDP at market prices)



Notes: ESA 2010 basis.

Source: European Commission (2016c)

Efficient investment in productive infrastructure is the third area of public spending closely identified in the literature for its association with long-run economic growth (see McDonnell, 2015). Investment in public infrastructure raises output in the short-term because of demand effects and in the long term as a result of supply effects. The appropriate level of spending will depend on the quality of the existing capital stock, demographic changes, and the cyclical position of the economy. Public capital investment has been hovering close to 2% of GDP since 2012, one of the lowest rates in the EU, and well below the EU average of 2.9% of GDP in 2015. The Republic already ranks poorly in terms of international rankings of infrastructural quality (WEF, 2015)

and such a low rate of public investment, if maintained, will increasingly produce infrastructure bottlenecks and impede the Republic's long-run growth potential.

The government has proposed a rainy day fund as a counter cyclical vehicle against future economic shocks. As an alternative to the rainy day fund there is merit in considering the establishment of (1) an independent state investment bank to provide affordable funding for innovating enterprises and increase seed funding for high potential start-ups and (2) an independent infrastructure bank to facilitate the provision of stable, long-term finance for infrastructure and to engage in counter cyclical investment.

Table 4.1 High-level Budget Policies to Enhance Productivity

Measure	
A	Gradually increase the average public spend on education to Nordic levels on a 'person aged 3-25 years' basis. Particular emphasis should be given to the budget for early years learning especially for disadvantaged children. Protect human capital development by protecting childcare, family and housing supports and healthcare services at sufficient levels to avert child poverty.
B	Gradually increase total government and higher education spending on Research and Development (both basic and applied research) to Nordic levels on a per capita basis. This increase should form part of a coordinated strategy to develop a world-class innovation system. Establish a state investment bank to provide affordable funding for innovating enterprises and increase seed funding for high potential start-ups. Introduce fiscal incentives for the provision and take-up of science, engineering, technology and mathematics courses at undergraduate and postgraduate levels.
C	Establish and adequately fund an independent infrastructure bank to facilitate the provision of stable, long-term finance for infrastructure and to engage in counter cyclical investment. Establish an expert group or commission to independently evaluate infrastructure needs, determine cyclically appropriate levels of spending, and co-ordinate evaluation of specific projects from both regional and national perspectives.

Efficiency

Productivity and technological progress are not the same thing. Cross-country differences in economic efficiencies (productive and allocative) may be just as, if not more, important for output per worker than technology differences. We can use fiscal policy to both create and eliminate inefficiencies in the economy.

Fiscal subsidies for home ownership, business and agriculture tend to be deleterious to long-run growth because they skew economic activity, distort resource allocation and reduce competitive pressures (OECD, 2004). Even so, there are economic arguments that can justify subsidising business such as the presence of imperfect markets or risk adverse behaviour in an uncertain environment, and of course there are often social arguments to justify subsidising agriculture and housing. We can identify some

areas where well-designed subsidies could be appropriate. A good example might include a carefully-designed R&D subsidy because this could increase the production and or diffusion of new ideas and technology with positive externalities for the economy. In addition, a subsidy for childcare would have a reasonable chance of passing a cost-benefit test as it would incentivise greater market participation and hours worked in the economy while retaining human capital in the workforce.

Tax expenditures or 'tax reliefs' are of particular importance in the context of efficiency. Tax reliefs change the incentive structure for households and firms, thus influencing their behaviour. The resulting behavioural changes can have positive and negative impacts on both short-run and long-run economic growth. However, in general, tax reliefs negatively affect growth by distorting allocative efficiency, by creating inefficiencies in production and consumption, and by diverting economic activity toward non-productive activities and rent-seeking behaviour.

Tax expenditures, and more direct subsidies, are also problematic in so far as they subsidise economic activity that would have happened in the absence of the measure, resulting in a deadweight loss to society. Simplifying the tax code would provide the benefit of reducing compliance and administration costs thereby freeing up resources for more productive activities. Rebalancing the tax system away from reliefs could also, on a revenue neutral basis, offer the prospect of selectively reducing headline rates. Such a shift would reduce the distortive impact of the tax system on economic activity.

Rebalancing the tax system on a revenue neutral basis towards property and consumption taxes and away from other more distortionary taxes is likely to be pro-growth (Johansson et al., 2008). In particular, recurrent property taxes tend to be strongly pro-growth relative to most other forms of taxation and, if carefully designed, are strongly supportive of equity goals. However, consumption taxes and charges are problematic because they do not take into account ability to pay and therefore have a disproportionate impact on the well-being of lower income households. It is difficult to add progressivity to consumption taxes and these types of tax, for example VAT and excise taxes, tend to fall heavily on lower income households (Collins, 2014). Not only are consumption taxes generally regressive but they are also distortive to the extent that they influence consumer behaviour and increase the cost of living.

This means that a revenue neutral recalibration of taxation in favour of higher consumption taxes and charges will come at a cost in terms of equity goals. A possible exception to this in the Irish context might be the abolition of the reduced VAT rate for hotel accommodation and restaurant food as higher income households may benefit disproportionately from this measure, albeit marginally (Collins, 2014). In general, reduced VAT rates are an inefficient way of helping poorer households with much of the benefits going to richer households.

Table 4.2 High-level Budget Policies to Enhance Efficiency

Measure	
D	Refrain from introducing new tax expenditures. Gradually phase out all existing non-core tax expenditures except where an independent review can clearly establish net benefits to the economy from retention using a social cost-benefit analysis and considering all opportunity costs. Ensure horizontal equity of tax treatment across all asset classes and horizontal equity and progressivity across all sources of income to the greatest extent feasible.
E	Gradually phase out subsidies for home ownership, business and agriculture except where an independent review can clearly establish net benefits to the economy and society from retention.
F	Rebalance the tax system towards less distortionary taxes including taxes on land, immovable property, net wealth, inheritances, vacant property, passive income and gifts. Replace the current system of multiple VAT rates with a single VAT rate and compensate poorer households through higher welfare payments.

Participation

Increasing the economy's potential output is not just about labour productivity. Output also depends on employment levels and on the average number of hours worked in the economy. Just 68.7% of the working age population (ages 20-64) in the Republic were in employment in 2014 compared to 76.9% for the UK (Eurostat, 2016d). This suggests significant scope for increasing labour inputs. One way we can increase employment and hours worked is by removing barriers to labour market entry.

The very high cost of childcare is one such barrier and likely to be an important factor in the Republic's low rate of female labour force participation and employment compared to other Western European economies. The OECD (2015) estimate that the net childcare costs for couples as a share of the average wage is the second highest in the OECD and well over twice the OECD average. Net childcare costs for lone parents as a share of average wage are by far the highest in the OECD. State subsidised childcare would incentivise the labour force participation of second earners and lone parents. This would increase the effective size and quality of the available workforce while

retaining human capital within the workforce. It would also reduce income inequality between women and men. One concern is that subsidised childcare could lead to increased private cost of such care. A long-run solution would be to move gradually to a model of public childcare provision.

More generally, employment can be incentivised by ensuring that housing and welfare supports are gradually tapered or phased out along with increases in income instead of being removed completely along with employment. Tapered in-work benefits have the benefit of redistributing to poorer households, while maintaining incentives to work additional hours and avoiding poverty traps provided the phasing out rate is kept low.

Finally, earned income or ‘refundable’ tax credits encourage employment for workers that are only marginally attached to the labour force and empirical evidence from the US (Hotz et al., 2006) suggests that these measures have positive employment effects for certain groups. While refundable tax credits are often viewed as antipoverty measures that promote greater income equality they can also be effective tools to improve labour force participation amongst certain groups including women, younger workers and the low-skilled.

Table 4.3 High-level Budget Policies to Enhance Participation

Measure	
G	Provide substantial state subsidies for childcare. In the medium-term move to a system of free public childcare paid for through increases in employer social contributions.
H	Gradually taper down housing and welfare supports with increases in income instead of making supports conditional on employment status. Eliminate and avoid creating step-effects in the tax and social insurance system.
I	Introduce refundable tax credits as a form of in-work benefit.

4.3 Fiscal Policy for Equality and Social Inclusion

Research from the IMF (2013) indicates that inequality is associated with lower levels of growth. This suggests that measures to reduce inequality can help support growth. Public spending on childcare, family and housing supports and healthcare services help protect low income households from poverty and thus help protect human capital development in disadvantaged communities. More generally, the idea of inclusive growth is one that emphasises the need for well-being improvements for all social groups. One implication is that over the economic cycle the average level of increase in the rates for social transfers should exceed the average increase in the cost of living. While indexing social supports in this way would be pro cyclical automatic indexing

would also form an important bulwark protecting the most vulnerable households against poverty and deprivation.

The taxation system is one of the main tools available to policymakers to ensure greater equality of outcome. However, tax expenditures reduce the overall progressivity of the tax system and in doing so reduce the effectiveness of the taxation system in achieving equity goals. Tax expenditures violate a number of core tax principles, most importantly the principle that people should pay tax in proportion to their ability to pay. Tax expenditures tend to disproportionately benefit high-income individuals, for example, the system of tax reliefs on pensions creates a strong inequity effect and primarily benefits those in the top income quintile (Collins and Hughes, 2016). In addition, by weakening the tax base these reliefs necessitate higher tax contributions from households not in a position to benefit from the reliefs. Even where there is a strong economic case for retaining individual tax expenditures there can be no case on equity grounds for a failure to standard rate surviving tax expenditures as non-standard rating provides disproportionate benefits to higher income individuals.

The distribution of wealth is more concentrated than that of income and wealth inequality grows over time in the absence of progressive taxation and the taxation of acquired wealth (McDonnell, 2013). Taxes on property and wealth are the tax types that best reconcile our twin growth and equity goals. In particular, inheritance and gift taxes are less distortionary than most other taxes, help reduce intergenerational inequity, and help reduce the beneficiary's disincentive to work. On the other hand there are arguments against net household wealth taxes. Exemptions and reliefs for certain types of asset could distort investment decisions while too high a rate might disincentivise investment. The administrative and compliance costs and cost-yield ratio could be high if the threshold is set too low. In addition, there may be valuation difficulties for non-traded assets.

Each of these concerns can be countered or mitigated through careful design (for details see McDonnell, 2013). More positively, wealth taxes on the very rich would reduce inequality in the distribution of wealth by constraining the accumulation of wealth by the wealthy. A wealth tax would also help detect and discourage evasion of other capital taxes by providing data that can be cross-checked with other capital returns. Finally, wealth taxes can promote efficiency and growth by encouraging more productive use of assets and are less distortionary than taxes on income. Overall, the

theoretical impact on investment is ambiguous – wealth taxes do not discourage investment per se – they discourage investment in low yielding assets.

The future of the Universal Social Charge (USC) has come under question in recent years. The USC brings in close to €4 billion per annum and has a simple and highly progressive structure. Goldrick-Kelly (2016) shows that income taxes (including social security contributions) are not high in the Republic relative to other Western European countries. He shows that maximum effective rates of taxation (i.e. before considering tax reliefs) were significantly below OECD and EU15 averages for low and average wage single earners and couples in 2014. Similarly, Department of Finance (2016b) analysis shows that average rates of combined income tax and employee social security contributions in the Republic are significantly below OECD averages for both low and middle income earners.

Abolition of the USC would be regressive, primarily benefiting higher income households, and would be extremely costly. The fact that the USC is subject to so few reliefs makes it an extremely efficient tax and a better focus of reform would be to merge the income tax and USC together in a manner consistent with the USC's simple (no reliefs) and highly progressive structure.

Adequate housing is a necessary condition for social inclusion and inclusive growth. The Republic's level of investment in public capital investment fell significantly during the period of fiscal austerity and public capital investment as a percentage of GDP has been consistently amongst the lowest in the EU since 2010. One consequence is that Budget 2017 takes place in the context of an ongoing homelessness and housing crisis characterised by lack of supply. To adequately address the crisis the annual investment in social housing will need to be increased.

Table 4.4 Budget Principles to Enhance Equality and Inclusion

Measure	
J	Protect childcare, family and housing supports and healthcare services. Ensure that basic welfare payments increase over the medium-term by at least the increase in the cost of living over the economic cycle.
K	Standard rate all tax expenditures that pass an independent cost-benefit analysis and clamp down on aggressive tax avoidance. Refrain from rebalancing the tax system away from progressive taxes.
L	Protect the tax base including the progressive Universal Social Charge (USC) and move towards greater taxation of wealth including inheritances, gifts and net wealth. Hypothecate (ring-fence) the receipts from CAT, a net wealth tax and a tax on vacant property for a social housing fund.

Recent experience has shown that the capital budget is vulnerable to short-term political considerations during periods of fiscal retrenchment. To ensure a stable source of funding for social housing throughout the economic cycle we propose the hypothecation of three streams of government revenue to a dedicated housing fund. Specifically, we propose that CAT should be strengthened; that a tax on net household wealth should be created; that a separate tax on vacant property should be created, and that the combined revenue from these three taxes should be hypothecated to a dedicated social housing fund. The growth impact of these taxes is limited compared to most other forms of taxation and also highly progressive from the perspective of wealth inequality. The combined yield will depend on the chosen design and structure of the taxes but a combined annual yield in the region of €750 million to €1 billion is feasible given the current CAT structure yielded €400 million in 2015. A yield of €1 billion would support the annual construction of around 5,000 accommodation units. From an efficiency perspective increased public housing would lead to more mobile labour and hence a more efficient labour market.

4.4 Conclusion

In this section of the QEO we have identified a number of high-level policy guidelines that in our view should inform Budget 2017 and future budgets. Inclusive economic growth requires policies that support productivity, efficiency, participation and equality. In this context, priority areas for Budget 2017 and future budgets should include education, childcare, infrastructure including housing, and R&D. Selected measures include:

- Gradually increase the average public spend on education to Nordic levels on a 'person aged 3-25 years' basis
- Gradually increase total government and higher education spending on research and development (both basic and applied research) to Nordic levels on a per capita basis
- Establish and adequately fund an independent infrastructure bank to facilitate the provision of stable, long-term finance for infrastructure and to engage in counter cyclical investment
- Refrain from introducing new tax expenditures
- Gradually phase out most subsidies for home ownership and business

- Rebalance the tax system towards less distortionary taxes
- Provide substantial state subsidies for childcare
- Gradually taper down housing and welfare supports with increases in income
- Introduce refundable tax credits
- Protect the real value of childcare, family and housing supports and healthcare services
- Standard rate all tax expenditures that pass an independent cost-benefit analysis and clamp down on aggressive tax avoidance
- Protect the tax base including the progressive Universal Social Charge (USC)

Failure to pursue these types of policies will result in lower output in the long-run and a loss to the economy and to society, especially for young people who have suffered the most in recent years.

5 Conclusion

The medium-term outlook for economic growth has become more uncertain in the wake of the UK's decision to exit the EU. While the outlook is uncertain the ability of policymakers to influence the future trajectory of economic growth remains undiminished. Budget 2017 represents an opportunity to influence that growth trajectory in the Republic of Ireland.

This edition of the QEO has emphasised the importance of inclusive growth and we have identified a range of policies consistent with sustainable and inclusive long-run economic growth. In this context we are proposing significant increases in public spending on childcare, education, research and development, infrastructure and other areas. However, the Republic's low tax model constrains the state's ability to make adequate levels of investment in each of these areas. Cutting taxes in Budget 2017 would in our view be a strategic mistake that would impair the economy's long-term productive and innovative capacity and undermine the public finances.

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