Quarterly Economic Observer

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NERI Nevin Economic Research Institute

About NERI and this publication

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

This is the 15th *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. The QEO complements the *NERI Autumn 2015 Quarterly Economic Facts* (QEF) which provides a set of statistical indicators to underpin our analysis. Unless otherwise stated, the data cited in this Observer are the latest available as of mid-September 2015. The final draft of this document was completed on 22nd September 2015.

This report has been prepared by staff of the Institute. The lead author 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.

Further information about NERI may be obtained at our website www.NERInstitute.net

The Nevin Economic Research Institute

Quarterly Economic Observer

Autumn 2015

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Executive Summary

This edition of the NERI's *Quarterly Economic Observer* (QEO) outlines our latest expectations for the economic outlook in the Republic of Ireland and Northern Ireland (Section 3) and discusses policies for long-run growth in the Republic of Ireland (Section 4).

Outlook for the Republic

The Republic was the fastest growing economy in the EU in the first half of 2015 and the main survey indicators of economic performance are suggestive of strong growth for the rest of the year. Based on existing data and our medium-term forecasts we now project that real GDP will grow by close to 6 per cent in 2015. Growth will remain strong in 2016 (circa 4.1 per cent), albeit moderating somewhat from the 2015 rate.

The economy is benefiting from a number of tailwinds including the depreciation of the Euro against the US dollar and UK Sterling, the boost to private consumption and investment from the fall in oil prices, loose monetary policy, the mild stimulus announced in Budget 2015, pent up demand and improving confidence translating into consumption and investment after years of weak domestic demand and, finally, the closing of the output gap as employment continues to fall. The weaker Euro is particularly important for a small open economy like the Republic, while lower energy prices are boosting real disposable income.

Total employment will exceed 2,000,000 sometime around the middle of 2016. We forecast the unemployment rate averaging 9.5 per cent in 2015, 8.6 per cent in 2016 and 8.3 per cent in 2017. Unemployment should fall below 200,000 sometime in early 2016 or perhaps very late in 2015. The scarring effect of the recession and the high-rate of long-term unemployment suggest the structural rate of unemployment is higher now than it was before the recession. This implies a need for innovative labour market policies in the years ahead.

In light of our projections for economic output and the labour market, we are projecting that the government's general budget deficit will fall to 1.7 per cent of GDP

in 2015 and 1.1 per cent in 2016. We project that the gross debt to GDP ratio will fall to 91.3 per cent of GDP in 2017. This is still a high level and the Republic will remain vulnerable to an adverse interest rate shock.

Outlook for Northern Ireland

There are tentative signs of economic recovery in Northern Ireland but the outlook has weakened as a consequence of the Conservative's victory in the General Election and the implications for public spending and aggregate demand in Northern Ireland. The potential collapse of the Stormont executive and the upcoming referendum on EU membership are generating instability and undermining the attractiveness of Northern Ireland as a location for foreign direct investment.

Policies for long-run growth

Section 4 discusses policies for long-run economic growth in the Republic of Ireland:

- The economy's potential to grow depends on its ability to generate productivity gains year-on-year. The Republic's productivity growth has been falling since the 1980s.
- The best way to sustain growth in productivity over the long-term is to invest in education and skills, in productivity enhancing infrastructure, and in the production and diffusion of new technologies.
- We propose a set of policies designed to increase the economy's future potential output. For example, we propose the establishment of an infrastructure bank, increased funding for research and development and early years learning, increased support to prevent child poverty, and a phasing out of most though not all government subsidies and tax breaks.
- Growth in per capita output also depends on growth in employment and the number of hours worked across the economy. We propose a number of reforms to reduce barriers to labour market entry. Examples include subsidies for childcare and the gradual tapering of family supports along with income.
- Budgetary projections suggest the primary government expenditure share of economic output will, by the end of the decade, be at a very low level by

modern historical standards. While acknowledging the need for reform of the tax system, we urge the government to reconsider its plans to cut the overall level of taxes in Budget 2016 and to take a more strategic and long-term approach to growing the economy.

Selected Policy Reforms to increase Potential Output

Area		Measure
Barriers to labour market entry	1	Provide substantial state subsidies for childcare
	2	Gradually taper down housing and welfare supports with increases in income instead of making supports conditional on employment status
	3	Remove barriers to inward migration and migrants working legally in the economy
Infrastructure	4	Spend more on independently evaluated public infrastructure projects (circa 3% to 4% of GDP)
	5	Establish an infrastructure bank to facilitate the provision of stable, long-term finance for infrastructure and to engage in counter cyclical investment
	6	Establish an expert group to independently evaluate infrastructure needs and co-ordinate evaluation of specific projects
Human capital	7	Increase teacher autonomy and accountability and reduce classroom sizes
	8	Increase education budget for early years learning
	9	Use fiscal policy to reduce economic inequality (income and wealth) and promote social and economic inclusion
	10	Protect childcare, family and housing supports and healthcare services at sufficient levels to avert child poverty
	11	Annually review the efficacy of activation programmes and training schemes and reallocate resources to well-performing programmes and schemes
Innovation	12	Spend more on basic and applied research as % of GDP as well as on seed funding for high potential start-ups
	13	Incentivise (subsidise) take-up of science, technology, engineering and mathematics courses at undergraduate and postgraduate levels
	14	Reform the patent system to promote innovation and the use of new technologies
	15	Establish a state investment bank to raise affordable funding for innovating enterprises
	16	Provide grants to SMEs for adoption of new technology
	17	Increase support for horizontal links between the state, higher level institutes and enterprises
	18	Reform bankruptcy law to not overly penalise failure
Efficiencies	19	Phase out the system of tax expenditures (simplify the tax code) and ensure horizontal equity of tax treatment across all asset classes to the greatest extent possible (though see no.23 below)
	20	Phase out most subsidies for home ownership, business and agriculture (though see no.1, no.13 and no.16)
	21	Guarantee independence for all existing regulators including the Central Bank. This includes powers to break-up dominant market operators and enforce macro prudential policies as appropriate
	22	Establish independent regulators with enforcement powers for all professional bodies
	23	Rebalance the tax system with increased taxes on land, property, wealth, inheritances, passive income and gifts

1 Introduction

The long delayed economic recovery has finally taken hold in the Republic's economy after years of stagnation and decline. The Republic is now the fastest growing economy in the European Union. There are a number of risks including rising energy prices, uncertainty over Brexit, financial instability in China and other emerging markets, austerity in the UK, and deflation in the Euro area. Even so, we anticipate the strong growth in output and employment will continue out to the end of 2016.

There are tentative signs of recovery in Northern Ireland. However, there are a number of concerns. Austerity policies emanating from Westminster will have a disproportionately damaging effect on the North's economy given the size of the public sector. Welfare 'reform' will dampen consumption in future years while the uncertainty over the North's membership of the European Union and over the future of devolved government will delay investment.

In the current edition of the *Quarterly Economic Observer* (QEO), as well as reviewing recent economic trends on both parts of the island, and outlining our expectations for the future economic outlook, we discuss policies to increase the long-run productive capacity of the Republic's economy. We argue that the best way to sustain growth in productivity over the long-term is to invest in education and skills, in productivity enhancing infrastructure, and in the production and diffusion of new technologies and ideas.

The QEO is structured as follows. Recent economic trends in both parts of Ireland are reviewed in Section 2. Section 3 updates the NERI's macroeconomic projections while Section 4 outlines a set of policy proposals to enhance the Republic's economic growth potential. Section 5 concludes.[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.

[1] The analysis 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 Introduction

Real output growth has failed to reach 2 per cent in the Euro area in any year since 2007. The Republic's GDP figures were substantially updated in the National Income and Expenditure Annual Results 2014 reflecting methodological changes in the calculation of GDP and its components. Real GDP grew by 5.2 per cent in 2014. This was the fastest expansion since 2007. Northern Ireland and the United Kingdom (UK) have regained their pre-crisis employment rates. The Republic's employment rate was well below pre-crisis levels in 2014, albeit improving steadily since 2012. The Republic's annual unemployment rate was in double digits from 2009 to 2014. However, rapid improvements in the labour market will see this streak end in 2015. The Republic's annual HICP inflation has been below the ECB target since 2008.

Table 2.1 Key Economic Trends (2007-2014)

	2007	2008	2009	2010	2011	2012	2013	2014
Employment (% of working-age population)								
Rep. Ireland	69.2	67.4	61.9	59.6	58.9	58.8	60.5	61.7
N. Ireland	68.4	67.9	64.7	66.1	67.4	67.1	66.8	68.1
UK	71.5	71.5	69.9	69.4	69.3	69.9	70.5	71.9
Euro area	65.5	65.8	64.4	64.0	64.1	63.7	63.4	63.9
Unemployment (% of labour force)								
Rep. Ireland	4.7	6.4	12.0	13.9	14.7	14.7	13.1	11.3
N. Ireland	3.9	4.4	6.4	7.1	7.2	7.5	7.5	6.4
UK	5.3	5.6	7.6	7.8	8.1	7.9	7.6	6.1
Euro area	7.5	7.6	9.6	10.2	10.2	11.4	12.0	11.6
Gross Domestic Product (% volume change over previous year)*								
Rep. Ireland	5.5	-2.2	-5.6	0.4	2.6	0.2	1.4	5.2
N. Ireland	4.2	-3.1	-3.0	-1.1	-0.5	-0.1	-0.6	n/a
UK	2.6	-0.3	-4.3	1.9	1.6	0.7	1.7	3.0
Euro area	3.1	0.5	-4.5	2.0	1.6	-0.8	-0.4	0.8
Harmonised Index of Consumer Prices (% annual average rate of change)								
Rep. Ireland	2.9	3.1	-1.7	-1.6	1.2	1.9	0.5	0.3
UK	2.3	3.6	2.2	3.3	4.5	2.8	2.6	1.5
Euro area	2.2	3.3	0.3	1.6	2.7	2.5	1.3	0.4

Sources: Labour market data for Rep. Ireland, UK and the Euro area are from Eurostat (2015a) Labour Force Survey Database. Online reference codes lfsi_emp_a and une_rt_a. Labour market data for Northern Ireland (NI) is from DETINI (2015a). Real GDP growth rate data for the UK and the Euro area are from Eurostat (2015b) National Accounts database; Online reference code nama_10_gdp. GDP data for Rep. Ireland are from (CSO, 2015a) National Income and Annual Expenditure. GVA data for NI are from the ONS Regional Trends Series (ONS, 2014). HICP data for Rep. Ireland, UK and the Euro area are from (Eurostat, 2015c) Prices database. Online reference code prc_hicp_aind.

Notes: *NI output refers to Gross Value Added (GVA). Euro area refers to the 19 members of the Euro area. Labour market data for 2007-2014 represent averages for the whole year. Total employment refers to all persons in employment (ILO definition) aged 15-64 as a proportion of all persons aged 15-64. Unemployment is measured on the ILO definition basis and refers to persons aged 15-74. n/a = not available

2.2 Recent trends in the World Economy

The world economy grew by 3.4 per cent in 2014 (IMF, 2015a). The Republic grew by 5.2 per cent while its main trading partners the Euro area, the United States (US) and the United Kingdom (UK) grew by 0.8 per cent; 2.5 per cent and 2.4 per cent respectively. The Japanese economy declined by 0.1 per cent. The BRICs had a mixed performance with China (7.4 per cent) and India (7.3 per cent) showing robust growth, while Russia (0.6 per cent) and Brazil (0.1 per cent) experienced relative stagnation. World trade rose by 3.2 per cent in volume terms.

The recovery in the Euro area has been somewhat weak (Eurostat, 2015d). Seasonally adjusted GDP growth in the Euro area was 0.4 per cent in the second quarter following 0.5 per cent growth in the first quarter. Survey indicators are suggestive of similar growth levels in the second half of the year. Second quarter growth was somewhat more robust in the UK (0.7 per cent) and in the US (0.9 per cent). Second quarter real GDP was up by 1.5 per cent over the previous year in the Euro area, by 2.6 per cent in the UK and by 2.7 per cent in the US. The Japanese economy returned to growth in the second quarter after four consecutive quarters of year-on-year decline.

The fall in energy prices has increased financial vulnerability in a number of energy exporters and dampened growth. The increasing uncertainty in emerging markets and the weakening prospects for the Chinese economy are both weighing on foreign demand for Euro area exports, on trade volumes in general and on stock markets. Investment levels remain weak in much of the Euro area. Low investment/GDP ratios have negative implications for potential growth and reflect weaknesses in the financial sector, high levels of private debt and fiscal austerity.

Monetary policy remains highly accommodative while fiscal policy is becoming more neutral. In addition, as the ECB (2015a) point out, the fall in energy prices is supporting corporate profits and household's real disposable income, which is in turn helping stimulate the private investment and consumption of oil consumers. The volume of retail sales increased by 2.7 per cent in the Euro area in July 2015 compared with the previous year (Eurostat, 2015e). The overall impact of falling energy prices is positive for world economic growth as it mainly reflects oversupply rather than lack of demand. Industrial production increased by 1.9 per cent in the Euro area in July compared with the previous year (Eurostat, 2015f). Loan dynamics in the Euro area remain subdued (reflecting on-going deleveraging) but are improving. Loans to non-

financial corporations increased 0.9 per cent in July on an annual basis while loans to households increased by 1.7 per cent over the same period.

Unemployment remains very high in the Euro area. The seasonally-adjusted rate was 10.9 per cent in July 2015 (Eurostat, 2015g). However, this was down from 11.1 per cent in June and 11.6 per cent in July 2014. It was also the lowest rate recorded since February 2012. The unemployment rate is 9.5 per cent in the EU and is lowest in Germany (4.7 per cent) and the Czech Republic (5.1 per cent) and highest in Greece (25 per cent) and Spain (22.2 per cent). The high rates of unemployment in parts of the Euro area, mainly in southern Europe, are suggestive of substantial labour market slack, which in turn implies potential for above trend growth in employment and output in the short-term. The largest annual declines in unemployment in percentage terms (July 2014 to July 2015) were in Bulgaria, Spain and Greece (May). Youth unemployment was 20.4 per cent in the EU in July and ranges from 7 per cent in Germany to 51.8 per cent in Greece.

The German, US (5.1 per cent unemployment in August) and to a lesser extent UK (5.6 per cent unemployment in May) economies are all either approaching or at full employment. Germany's employment rate of 73.7 per cent in the first quarter of 2015 was just 0.5 percentage points off its modern era peak, while the UK's employment rate of 72.4 per cent is its highest in over 20 years. Tightening labour market conditions in these jurisdictions should eventually filter through into faster wage growth. Even so, wages have yet to significantly increase in the US. Real Average hourly earnings were up 2 per cent over the previous year at the end of August 2015 (BLS, 2015). Nominal hourly wages and salaries increased by 1.9 per cent in the Euro area in the second quarter of 2015 compared to the previous year, and by 2.6 per cent in the UK and 3.4 per cent in Germany (Eurostat, 2015h). Hourly wage growth was lower in France (1.5 per cent) and actually declined in Italy (minus 0.2 per cent).

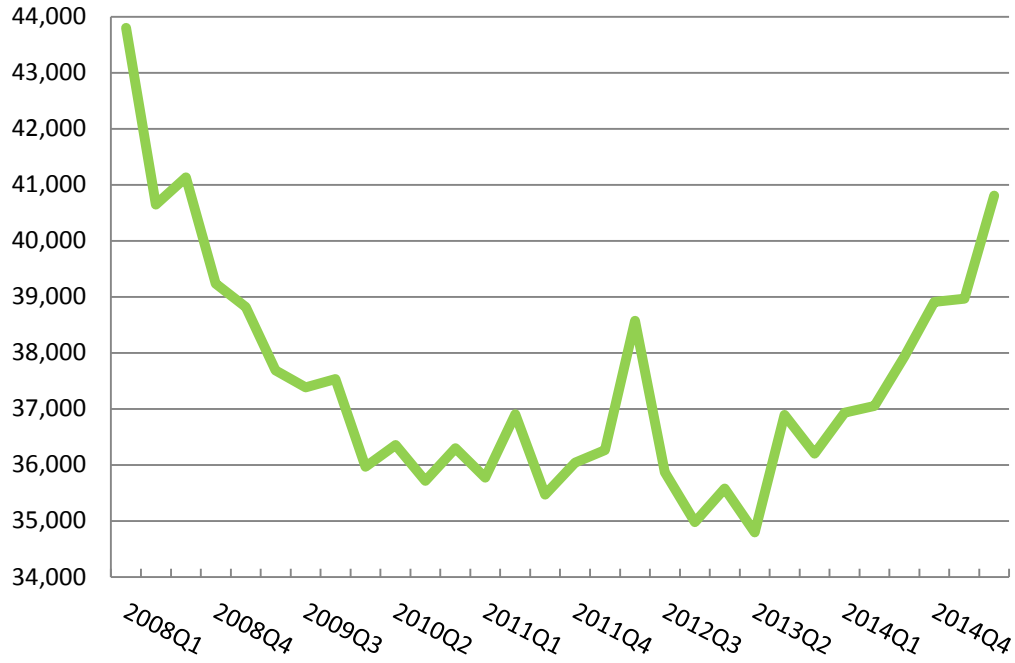
The ECB's monetary stance remains highly accommodative with interest rates close to zero and €60 billion of monthly asset purchases as part of its programme of quantitative easing. Deflation concerns persist despite these interventions and the weakening of the Euro exchange rate against the US dollar as well as against a trade-weighted basket of currencies. Euro area annual inflation (HICP) was 0.1 per cent in August 2015 down from in July (Eurostat, 2015i). The downward pressure reflects falling energy prices. Energy prices in August were down 7.2 per cent over the

previous year. HICP inflation excluding energy was up 1 per cent over the previous year. The appreciation of Sterling and the US dollar and the fall in energy prices are exerting downward pressure on UK and US inflation. CPI inflation was zero in the UK in June compared to the previous year while personal consumption expenditure was 0.3 per cent in the US in June (BOE, 2015).

2.3 Recent trends in the Republic of Ireland Economy

The Republic's economy grew very strongly in 2014 (CSO, 2015a). Real GDP (i.e. excluding price effects) expanded by 5.2 per cent while real GNP grew by an impressive 6.9 per cent. Personal consumption increased by 2 per cent after three consecutive years of decline while government net current expenditure increased by 4.6 per cent. Capital formation (investment) grew by 14.3 per cent between 2013 and 2014, albeit from a low base, while exports and imports grew by 12.1 per cent and 14.7 per cent respectively over the same period. Public administration and defence shrank for the sixth consecutive year but all of the other main sectors expanded in 2014.

Chart 2.1 Value of domestic demand, quarterly trends, Rep. Ireland, 2008 to 2015, €m (constant 2013 prices)



Source: CSO (2015) Quarterly National Accounts.
Notes: Domestic Demand = Personal Consumption + Government Consumption + Investment. Domestic demand chiefly differs from GDP due to net exports = exports – imports, and changes in values of physical stocks. Values are adjusted for seasonal variation.

The economy expanded rapidly again in the first half of 2015 (CSO, 2015b). On an annual basis GDP growth was 7.2 per cent in the first quarter and 6.7 per cent in the second quarter. Real GDP per head of population in the second quarter exceeded the previous record set in the fourth quarter of 2007. GNP grew by 8.1 per cent in the first quarter and 5.3 per cent in the second quarter. The second quarter GDP growth of 1.9 per cent was the fastest in the EU and followed growth of 2.1 per cent in the first quarter. Personal consumption increased by 0.4 per cent in the second quarter (2.8 per cent y-on-y) after growth of 0.7 per cent in the first quarter. Government consumption was down 0.7 per cent in the second quarter but was up on an annual basis (1.7 per cent). The growth figures are mainly being driven by the rise in investment spending. Investment surged 34.2 per cent on an annual basis in the second quarter and 19.2 per cent on a quarter to quarter basis. Overall domestic demand rose by 3.5 per cent in the second quarter (Chart 2.1). Exports increased by 5.4 per cent in the second quarter (13.6 per cent y-on-y) while imports increased by 6.3 per cent (16.9 per cent y-on-y).

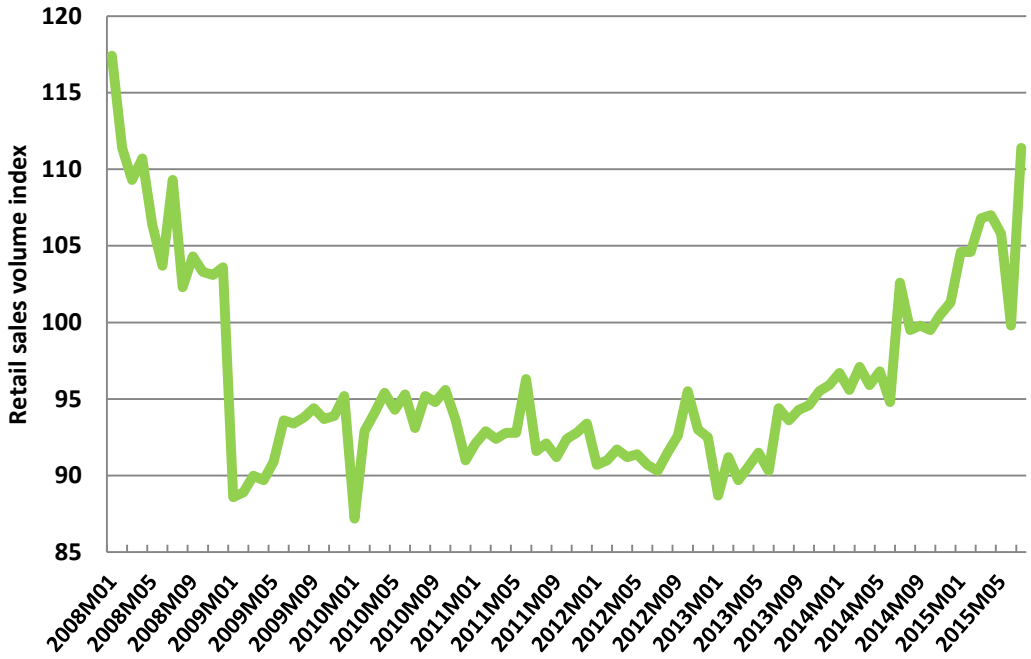
The balance of payments current account had a surplus of €2.7 billion in the second quarter of 2015 equivalent to 5.2 per cent of quarterly GDP (CSO, 2015c) and an increase from the €1.9 billion surplus in the second quarter of 2014. The merchandise surplus was €17.1 billion and the invisibles deficit was €14.4 billion. The rolling four quarter current account surplus is €9.9 billion. This would easily be a record if maintained for the rest of the year.

The services value and production indices have also expanded strongly in 2015. The monthly services index was up 10.3 per cent in July compared with the previous year (CSO, 2015d). The services value index grew by a robust 9.2 per cent in the first quarter compared to the previous year before moderating to 2.8 per cent in the second quarter. The volume index of production for manufacturing industries was up 10.3 per cent in the second quarter compared to the previous year following extremely robust year-on-year growth of 27.6 per cent in the first quarter (CSO, 2015e). There was year-on-year growth of 8.5 per cent in the second quarter in the 'modern' production sector (high tech and chemical).

A recovery in consumer spending is now evident (CSO, 2015f). The volume of retail sales increased by 9.9 per cent in July 2014 compared with the previous year (6.5 per cent in value terms). Six of the seven monthly readings have exceeded 8 per cent growth in volume terms over the previous year with growth of 9.1 per cent y-on-y in

the first quarter and 8 per cent y-on-y in the second quarter. Excluding motor trades gives us core sales. The volume of core retail sales was up 5 per cent in the first quarter of 2015 compared with the first quarter of 2014 and was up 6.3 per cent in the second quarter compared with the previous year.

Chart 2.2 Volume of retail sales, monthly trends, Rep. Ireland, 2008 to 2015 (2005 = 100)



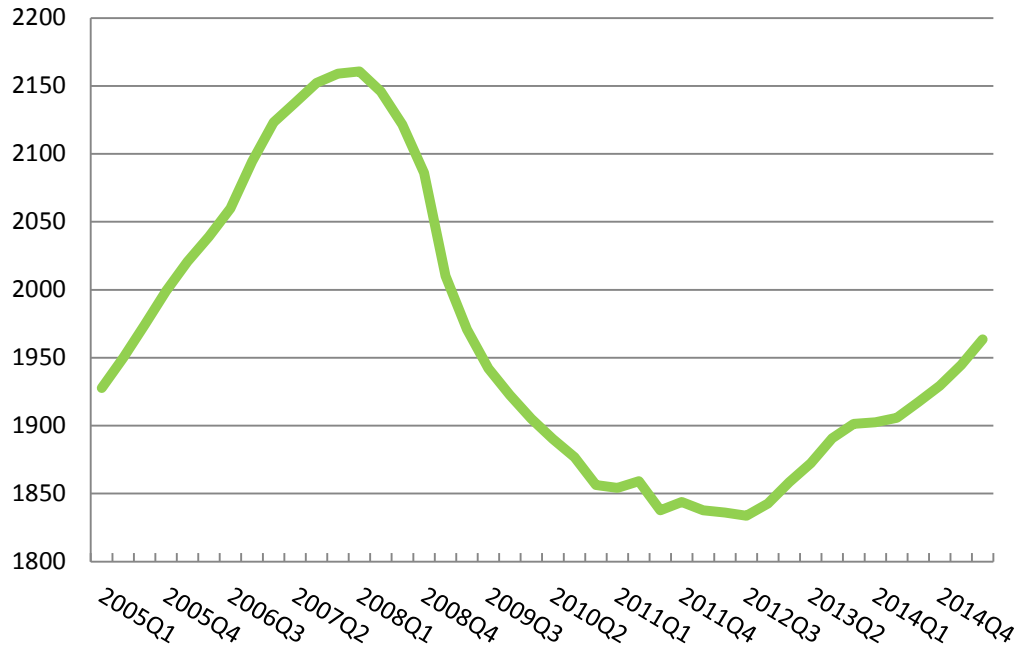
Source: CSO (2015) Retail Sales Index.
Notes: Volume of retail sales (seasonally adjusted). Index base is for 2005=100

There were 2,169,900 people in the labour force in the second quarter of 2015 (CSO, 2015g) representing an increase of 13,800 persons or 0.6 per cent over the previous year. The size of the labour force increased in six of the eight geographic regions (exceptions being the *West* and *Mid-East*). The labour force participation rate for persons aged 15 and over increased from 60 per cent in the second quarter of 2014 to 60.2 per cent in the same period in 2015. Seasonally adjusted employment increased by 19,000 (1 per cent) over the previous quarter while total employment increased by 57,100 (3 per cent) over the previous year. Total employment is now 1,958,700. The employment rate was 63.1 per cent in the second quarter up from 61.3 per cent the previous year. Male employment increased by 34,300 over the previous year while female employment increased by 22,900. Full-time employment increased by 56,800 while part-time employment increased by 300. The largest sectoral increases in

employment were in *construction* (+19,600) and *industry* (+10,100) while the largest decline was in *accommodation and food services* (minus 1,000). Youth employment (persons aged 15-24) increased by 2,700 over the year. All eight regions saw total employment increase over the previous year with employment growth fastest in the *Border* region.

The unemployment rate was 9.8 per cent in the second quarter of 2015 down from 11.9 per cent the previous year. Seasonally adjusted unemployment was 9.6 per cent in the second quarter and the CSO (2015h) estimate seasonally adjusted monthly unemployment was 9.5 per cent in August with 206,500 persons unemployed. The estimate for August shows a decline in unemployment of 32,200 persons compared to the previous year although this is up slightly (400 persons) compared to the previous month. Long-term unemployment is down to 5.5 per cent from 6.8 per cent the previous year and now stands at 118,600 persons. The seasonally adjusted youth unemployment rate was 20.7 per cent in July.

Chart 2.3 Total employment, quarterly trends, Rep. Ireland, ('000s), 2005 to 2015

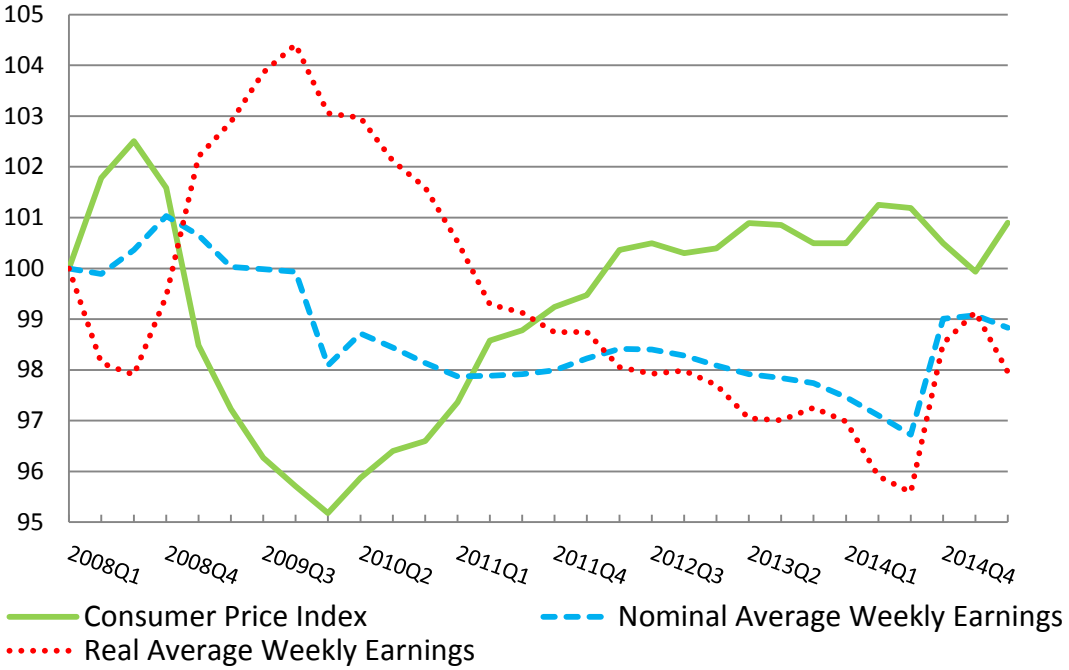


Source: CSO (2015) Quarterly National Household Survey.
Note: Total employment seasonally adjusted

Average weekly earnings were €697.52 in the second quarter of 2015. Average weekly earnings increased by 1.8 per cent compared to the previous year but were down 0.3

per cent over the previous quarter (CSO, 2015i). Average weekly paid hours was 31.9 in the second quarter, marginally up on the previous year (31.8) and also up on the previous quarter (31.4). Average hourly earnings increased by 1.5 per cent over the year rising from €21.53 to €21.85. The largest annual percentage increase over the previous year in average weekly and hourly earnings was in *administrative and support services* (+8.8 per cent and +12 per cent respectively) while the largest declines were in *construction* (minus 5.8 per cent and minus 3.1 per cent respectively). Average hourly total labour costs increased by 1.6 per cent over the year to second quarter 2015.

Chart 2.4 Earnings, quarterly trend, Rep. Ireland, 2008 to 2015



Sources: Calculated from CSO (2015) Survey on Earnings Hours and Employment Costs (2015) and Consumer Price Index.
Notes: Index values set to 100 for Q1 2008. Seasonally adjusted.

Real average earnings are benefiting from price stagnation (Chart 2.4). Prices in August were little changed over the previous year (CSO, 2015j) whether measured by the CPI (unchanged) or the HICP (0.2 per cent). *Transport* (minus 0.47 per cent) made the largest downwards contribution to the CPI reflecting lower petrol and diesel prices and a fall in the price of motor cars. The annual rate of inflation for services was 2.9 per cent in the year to August, while goods inflation was minus 4 per cent. Services,

excluding mortgage interest payments, increased by 3.9 per cent in the year to August. The annual change in the CPI has been below 1 per cent since March 2013.

Irish residential property prices rose by 9.4 per cent in the year to July with prices increasing by 9.6 per cent outside of Dublin over the same period (CSO, 2015k). House prices rose by 0.9 per cent nationwide over the previous month. The number of mortgage accounts for Principal Dwelling Houses (PDH) in arrears is falling (CBI, 2015a) with 98,137 such accounts (13 per cent) in arrears during the second quarter. Some 13.4 per cent of PDH mortgages by value are in arrears of more than 90 days.

Household net worth increased by 2.2 per cent during the first quarter of 2015 and is now at its highest level since 2008 (CBI, 2015b). Household net worth was €595.7 billion or €129,238 per capita. Overall net worth has risen by 34.8 per cent since its low of €441.8 billion in the second quarter of 2012. Household debt fell by 2.3 per cent over the quarter to stand at €154.6 billion. Despite continuous improvement since 2011 household debt as a proportion of disposable income (a measure of debt sustainability) is the third highest in the EU.

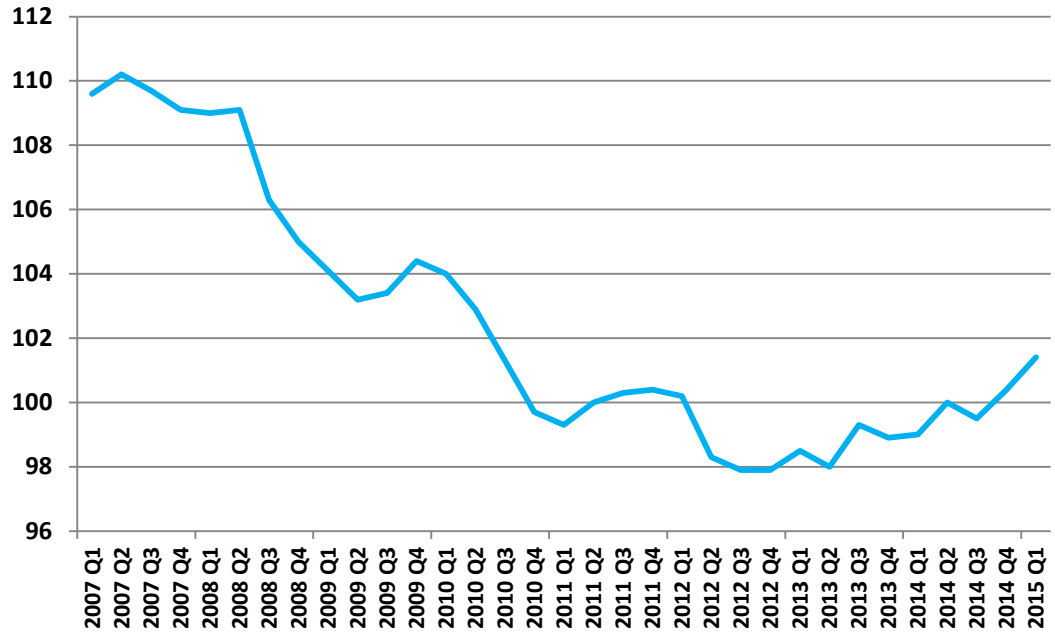
The Euro has generally declined in value in 2015. The Euro was trading at between 1.10 and 1.15 US dollars in September 2015 down from 1.3 US dollars in September 2014, and was trading at 0.72 UK Sterling down from 0.80 UK Sterling the previous year. Irish government 10-year bond yields have been below 2 per cent since August 2014 and reached a record low of 0.65 per cent in April 2015. The 10 year yield has been fluctuating around 1.4 per cent during September of this year.

The general government deficit was €7.5 billion or 4 per cent of GDP in 2014 (CSO, 2015l). Gross debt was €203.6 billion or 104.7 per cent of annualised GDP at the end of March 2015. Net debt was €167.7 billion or 86.3 per cent of annualised GDP. The first quarter deficit was €2.7 billion amounting to 5.4 per cent of quarterly GDP. An Exchequer deficit of just under €1.3 billion was recorded up to the end of August 2015 (DOF, 2015a). Excluding one-off transactions this represents an improvement of €3.5 billion compared to the same period last year. The tax take is up over €2.4 billion y-on-y with all headings performing above profile. There has been and a particularly strong performance to date from corporation tax receipts which are up 38.4 per cent on profile (€912 million).

2.3 Recent trends in the Northern Ireland Economy

Northern Ireland's economic recovery gained some much needed momentum in 2015. The latest figures for the Northern Ireland Composite Economic Index (NICEI) show that the Northern Ireland economy grew by 1.1 per cent in the first quarter of 2015. This follows growth of 0.9 per cent in the last quarter of 2014 representing a significant upswing following a contraction of 0.5 per cent in the third quarter of 2014 (DETINI, 2015b). The recovery, such as it is in Northern Ireland, has not followed a smooth or consistent path, and two consecutive quarters of growth have usually been followed by a small slump (Chart 2.5). While there is now upward momentum, growth in Northern Ireland lacks the "escape velocity" that has characterised recovery in both the UK and Republic of Ireland over the last two years.

Chart 2.5 Trends in the Northern Ireland Composite Economic Index (NICEI), 2007-2015

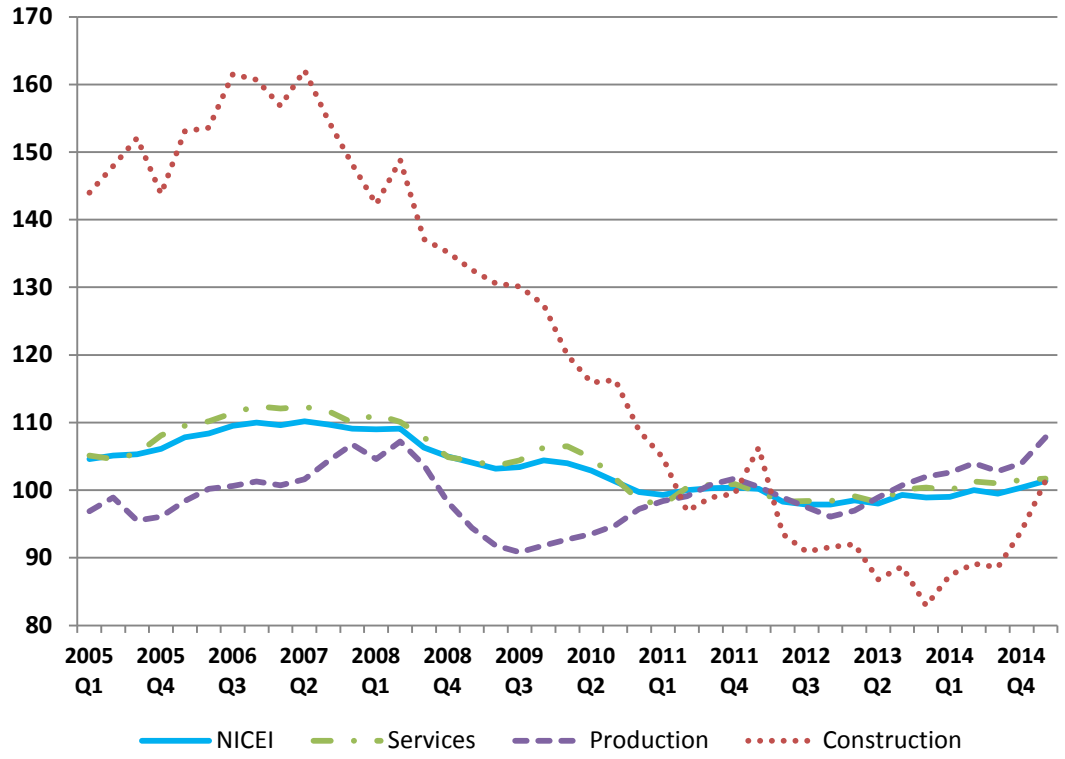


Source: NISRA (2015) NI Composite Economic Index

There was substantial growth in the last two quarters in the production and construction sectors. These sectors grew by 4.9 per cent and 14.5 per cent respectively. As Chart 2.6 shows, output from the production sector has now surpassed its previous peak in the third quarter of 2008. The performance in the construction

sector is particularly striking and marks a significant shift in activity following two years of stagnant or falling activity. While growth in both these sectors is significant, Chart 2.6 also shows that the construction sector in particular is still some way from pre-2007 activity levels. The services sector, which accounts for more than half of overall economic activity, recorded a much less impressive growth rate of 0.1 per cent in the first quarter of the year, dampening down suggestions of broad-based growth acceleration.

Chart 2.6 Sectoral trends in the NICEI, 2005-2014

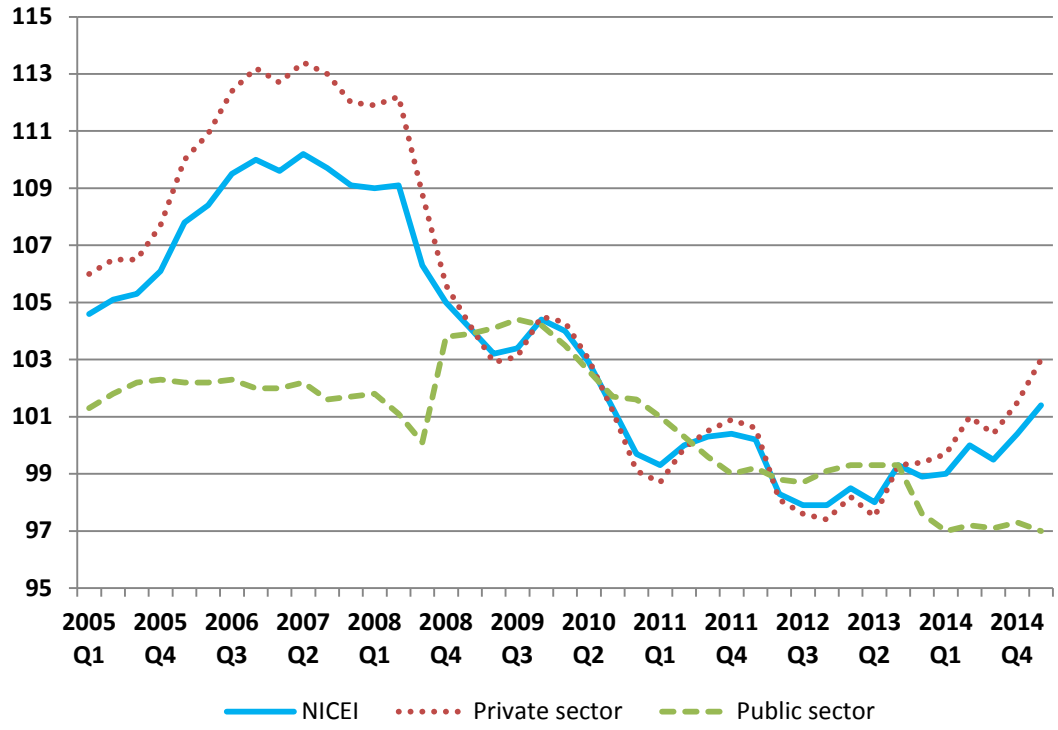


Source: NISRA (2015) NI Composite Economic Index

The only sector of economic activity to record negative growth in the first quarter of 2015 was the public sector. After minimal growth in 2014 activity is now back at the same level it was in the first quarter of 2014. While private sector activity is now back at a level last seen in the third quarter of 2009, public sector activity is 7 per cent lower than it was in that period. While a private sector recovery may be in prospect it is possible that overall activity may continue to be dragged down over the next few years by contraction in the public sector. In particular, cuts to public expenditure planned by the UK government and reductions in public sector employment outlined in the Stormont House Agreement remain a concern. The NICEI calculates public sector

output as a function of total public sector employment and therefore redundancies in the coming years will cause contractions to public sector activity in the index.

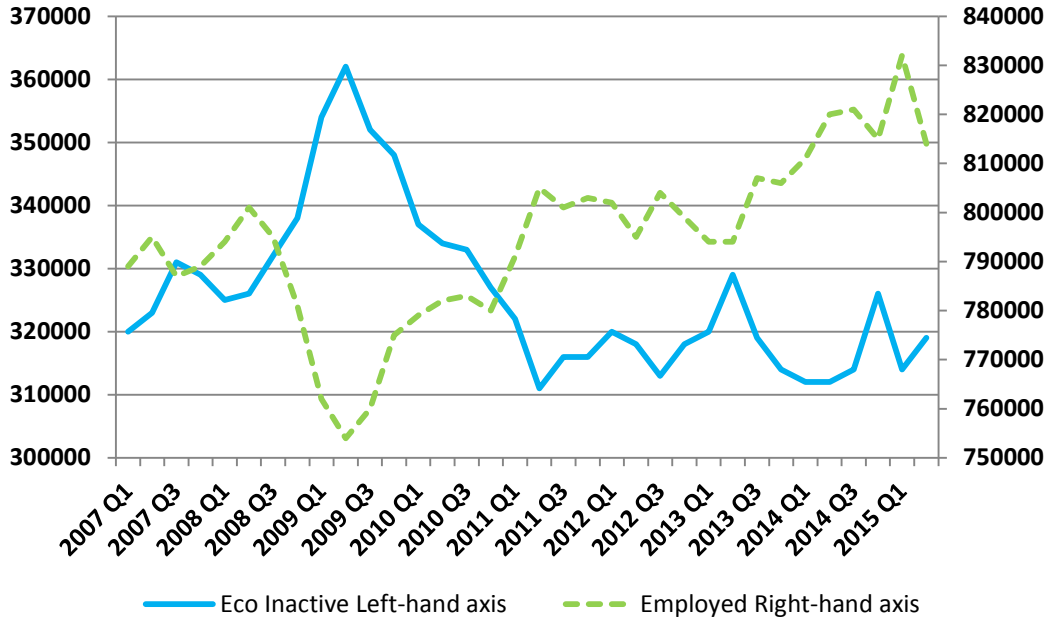
Chart 2.7 Public and private sector trends, NICEI, 2005-2014



Source: NISRA (2015) NI Composite Economic Index

The most up to date information we have on economic activity is survey data from the Purchasing Managers Index (PMI) for Northern Ireland. The PMI reports expectations and intentions of firms in various industries and sectors. The latest data for Northern Ireland in July showed continued, albeit muted, growth in private sector activity. (Ulster Bank, 2015a). However, this growth followed contraction of the index in the first four months of this year. Surprisingly, the construction sector, whilst posting the largest increase in output was the only sector to report a monthly decline in activity. The data further indicates that this may be due to a decline in backlog work and more modest growth in new business. Despite positive signals from the NICEI it is therefore too early to rule out future volatility in the construction sector.

Chart 2.8 Economic inactivity and employment, 2007-2015



Source: NISRA (2015) Labour Force Survey

The labour market experienced somewhat of a setback toward the middle of 2015 with the unemployment rate jumping to 6.5 per cent in the second quarter. At 56,000, the number of unemployed in the second quarter only represents an increase of 1,000 on the first quarter. However, there was an increase of some 18,000 in the number of those classified as economically inactive. The increase in economic inactivity was evenly split between those who want work and those who do not. Unfortunately the Labour Force Survey (DETINI, 2015a) is a random cross-sectional survey and the absence of any longitudinal or panel data on economic inactivity prevents a deeper insight into those moving in and out of economic activity. The concern would be that inactivity is disguising discouraged workers, who would more correctly be classified as unemployed. The largest increase in economic inactivity among all age groups was in the 25 to 49 years group which is least likely to be due to early retirement or full-time education, the most common reasons for working age inactivity.

3 Economic Outlook

3.1 Introduction

This section of the QEO outlines our assumptions for the main trading partners of the Republic of Ireland and Northern Ireland as well as our baseline expectations for the economies of both parts of the island of Ireland. The main risks to the baseline forecasts are considered and we also discuss the implications of the outcome of the recent United Kingdom (UK) budget for the Northern Ireland economy.

There are tentative signs of economic recovery in Northern Ireland but the outlook has weakened as a consequence of the Conservative's victory in the General Election and the implications for public spending and aggregate demand in Northern Ireland. The potential collapse of the Stormont executive and the upcoming referendum on EU membership are generating instability and undermining the attractiveness of Northern Ireland as a location for foreign direct investment.

NERI projections for economic growth, the labour market and the public finances are presented out to 2017 for the Republic of Ireland. We anticipate that the Republic's economy will continue to grow at a fast pace for the rest of 2015 and much of 2016 before moderating towards trend growth in later years. We project that by the third quarter of 2016 the number of persons employed will exceed 2,000,000. The general government balance will be close to zero by the end of the forecast period.

3.2 Macroeconomic Assumptions for the Global Economy

Domestic growth prospects are dependent on the economic performance of the wider global economy as well as future trade and competitiveness patterns. This is particularly the case for small open economies such as the Republic of Ireland. The IMF (2015a) forecasts world trade volume will grow by 4.1 per cent in 2015 and 4.4 per cent in 2016. The IMF also forecast that world economic growth will be 3.3 per cent in 2015 and 3.8 per cent in 2016. The forecast cites lower oil prices, supportive monetary conditions, less drag from fiscal consolidation and improving financial sector conditions as providing supportive conditions for growth. However, there are a number of concerns with potential for difficulties in China's transition to a new growth model, increased geopolitical tensions, tightening US monetary policy and the risks of

further increases in financial market volatility and disruptive asset price shifts. A hard landing for the Chinese economy is a possibility. The private sector is overleveraged and vulnerable to a fall in property prices. The outlook for many emerging large economies is subdued with Purchasing Manager Indices (PMIs) in the first half of the year suggestive of slow growth in the second half of 2015. The sharp drop in oil prices is a boon to oil importers but increases financial vulnerabilities for oil exporters. Tightening monetary policy in the US will also add to financial vulnerabilities for many emerging economies and weigh heavily on the global economy.

The IMF (2015a) is forecasting subdued Euro area real GDP growth of 1.5 per cent in 2015 and 1.7 per cent in 2016, similar to the European Commission's (EC, 2015a) growth forecast of 1.5 per cent and 1.9 per cent for the two years. The ECB (2015) foresee annual real GDP increasing by 1.4 per cent in 2015, by 1.7 per cent in 2016 and by 1.8 per cent in 2017. European exports will continue to benefit from the depreciation of the Euro against a trade-weighted basket of currencies, while the ECB's programme of quantitative easing, the fall in energy prices (boosting real incomes), reduced fiscal drag and improvements in credit conditions will all continue to support domestic demand. Even so, low investment rates, high unemployment and hysteresis scars will remain problems in many countries with downside implications for medium-term growth. Spare capacity will keep wages subdued in the near term. Annual inflation (HICP) is likely to remain low in the near term despite the quantitative easing programme and the depreciation of the Euro but should start to rise from the end of 2015 on account of base effects associated with the late 2014 fall in oil prices. The ECB foresee annual HICP inflation at 0.1 per cent in 2015, 1.1 per cent in 2016 and 1.7 per cent in 2017.

The IMF (2015a) foresees UK growth of 2.4 per cent and 2.2 per cent in 2015 and 2016 respectively. The Commission is a little more optimistic foreseeing growth of 2.6 per cent in 2015 and 2.4 per cent in 2016 The Bank of England (2015) Monetary Policy Committee sees the UK's GDP growth settling close to 2.5 per cent over the medium-term and CPI inflation returning to the 2 per cent target (from 0 per cent in June) during the third year of their forecast. Their projections are underpinned by four key judgements: A) that moderate global growth continues as international risks are contained; B) that private domestic demand grows robustly supported by sustained real income growth and a decline in private sector savings; C) that wage growth will

continue to rise, underpinned by absorption of slack and strengthening productivity growth and D) that the drag on inflation from external factors dissipates.

Turning to the US economy the latest economic growth projections of Federal Reserve Board members and presidents had a central tendency of 1.8 to 2.0 per cent for 2015, 2.4 to 2.7 per cent for 2016 and 2.1 to 2.5 per cent for 2017 (FOMC, 2015). The Fed expects PCE inflation to increase gradually to 2 per cent before settling close to the 2 per cent target in 2017. The Fed did not increase interest rates in its September meeting but is still expected to do so by the end of the year.

3.3 Macroeconomic Projections for the Republic of Ireland

Real GDP increased by 5.2 per cent in 2014 with real GNP increasing by 6.9 per cent. GDP was €189 billion in 2014 while GNP was €162.9 billion. Based on existing data and our medium-term forecasts we now project that real GDP will grow by close to 6 per cent in 2015 (see Table 3.1). Given 7 per cent growth in the first half of the year this implies growth of close to 5 per cent in the second half. Growth in the first half was driven primarily by investment and exports with consumption also playing a role. The solid growth in employment is boosting real disposable incomes and consumption.

The first half growth figures, while impressive, must be viewed with a large degree of caution. Macroeconomic data in the Republic is extremely volatile and subject to substantial revision (Conroy, 2015). In addition, the Republic is a small open economy with a large financial sector and a large multinational sector. The behaviour of a few large multinationals can have an outsize effect on macroeconomic aggregates given the small size of the Irish economy. The tax planning activities of multinationals adds further confusion to interpretation of the GDP figures, as indeed does the phenomenon of re-domiciled PLCs and recent changes in contract manufacturing patterns. Even so, it is evident that growth in the real economy will be very strong in 2015.

The Republic was the fastest growing economy in the EU in the first half of 2015 and the main survey indicators of economic performance are suggestive of strong growth for the rest of the year. Such strong growth is based on a number of tailwinds including the depreciation of the Euro against the US dollar and UK Sterling, the boost to private consumption and investment from the fall in oil prices, the ECB's programme of quantitative easing, the mild stimulus announced in Budget 2015, pent up demand and

improving confidence translating into consumption and investment after years of weak domestic demand and, finally, the closing of the output gap as employment continues to fall. The weakening of the Euro is particularly important for a small open economy like the Republic, while lower energy prices are boosting real disposable income.

Table 3.1 Projections for Output, Earnings, the Public Finances and the Labour Market, (Rep. Ireland)

	2014	2014	2015	2016	2017
Real Output		*Percentage real change over previous year*			
Gross Domestic Product	€189.0bn	5.2	5.9	4.1	3.3
Personal Consumption	€89.0bn	2.0	2.7	2.3	2.2
Government Consumption	€27.2bn	4.6	2.4	1.6	1.2
Investment	€36.5bn	14.3	17.4	10.0	7.5
Exports	€215.0bn	12.1	12.2	5.8	4.7
Imports	€180.3bn	14.7	14.6	6.2	5.1
Earnings		*Percentage nominal change over previous year*			
Average Hourly Earnings	€21.68	-0.6	1.2	1.7	2.0
Government Finances		*Percentage of GDP*			
General Government Balance	-€7.5bn	-4.0	-1.7	-1.1	-0.4
Gross Debt	€203.3bn	107.6	101.2	95.4	91.3
Labour Force		*Percentage change over previous year*			
Employment	1,913,900	1.7	2.7	2.0	1.6
		Percentage of Labour Force			
Unemployment	242,817	11.3	9.5	8.6	8.3

Notes: Projections for GDP and its components refer to real economic activity; Investment refers to Gross Domestic Fixed Capital Formation; Employment, unemployment and average hourly earnings all represent the average value over the four quarters.

Sources: NERI estimates for 2015-2017; 2014 data is from CSO National Accounts (2015a), CSO Earnings and Labour Costs Survey (2015i), Government Finance Statistics (CSO, 2015l) and CSO Quarterly National Household Survey (2015g).

We forecast that nominal GDP will exceed €203 billion in 2015 and €214 billion in 2016. Our projection is for above trend growth in 2016 (4.1 per cent), with growth then decelerating to 3.3 per cent in 2017 as actual output closes in on potential output. GDP growth in 2016 and 2017 are expected to come on the back of further improvements in the labour force as well as strong growth in private investment. Table 3.2 compares our real GDP projections to those of other agencies. It should be noted that most of the other agency projections were all made before the publication of national accounts data for the first two quarters of 2015 and therefore do not take account of the very robust growth in the first half of 2015.

Table 3.2 Range of Projections for Annual Change in Real GDP, (Republic of Ireland)

	2015	2016	2017	2018	2019	2020
NERI (September)	5.9	4.1	3.3	-	-	-
Department of Finance (April)	4.0	3.8	3.2	3.2	3.0	3.0
Central Bank of Ireland (July)	4.1	4.2	-	-	-	-
European Commission (May)	3.6	3.5	-	-	-	-
IMF (April)	3.9	3.3	-	-	-	2.5
OECD (September)	5.0	4.0	-	-	-	-
ESRI (June)	4.4	3.7	-	-	-	-

Sources: DOF: Stability Programme Update 2015 (DOF 2015b); CBI: Quarterly Bulletin 03 2015, (CBI 2015c); European Commission: European Economic Forecast Spring 2015, (EC, 2015a); IMF: World Economic Outlook April 2015 (IMF 2015b); OECD: Economic Survey of Ireland, (OECD 2015); ESRI: Quarterly Economic Commentary, Summer 2015 (ESRI, 2015a)

Personal Consumption

Personal consumption grew by a healthy 3.3 per cent in the first half of the year. Retail sales have been very positive and grew 9.1 per cent y-on-y in the first quarter and 8 per cent y-on-y in the second quarter. VAT receipts are up 7.9 per cent in the first eight months of the year while Excise receipts are up 7.1 per cent. The short-term outlook is also positive. The *KBC/ESRI Consumer Sentiment Index* was 101.1 in August suggesting consumer sentiment remains strong and that there will be healthy growth in personal consumption over the next few months (ESRI, 2015b).

We expect that personal consumption will grow by 2.7 per cent in 2015, by 2.3 per cent in 2016 and by 2.2 per cent in 2017. Growth in personal consumption is being driven by strong employment growth, particularly full-time employment, and by falling energy prices. The jobs growth, negligible inflation, Budget 2015 and gradual increase in average weekly earnings are all boosting real disposable household income. Higher consumption levels are also being supported by the ECB's quantitative easing programme and improving household net worth.

Household debt continues to fall and should gradually become less of a drag on consumption. We anticipate the savings rate will fall over the next few years as less and less debt as a proportion of income is paid off. Finally, rising house prices and household net worth should eventually filter through into higher levels of consumption as householders perceive greater capacity to support consumption in the short-run.

Government Consumption

While government consumption reflects demand pressures it is also very much a policy instrument. The government's Spring Economic Statement (DOF, 2015c) anticipates government consumption will increase by 1.1 per cent in real terms in 2015, by 1.6 per cent in 2016, and by 1.0 per cent in 2017. We expect electoral pressures and commitments will place greater pressure on government consumption in 2017, and perhaps even 2016. Government consumption, somewhat surprisingly, increased by 3.5 per cent in the first half of the year. In this context we are upgrading our 2015 government consumption forecast to 2.4 per cent, with growth of 1.6 per cent and 1.2 per cent respectively in 2016 and 2017.

Investment

Investment continues to show immense volatility with sharp swings from year to year. Gross domestic capital formation (investment) increased by 21.7 per cent in the first half of the year increasing from €17.5 billion to €21.2 billion in constant prices. The inclusion of R&D within investment, while conceptually sensible, is making investment more difficult to project going forward. The CSO notes that a once-off intellectual property purchase is inflating the investment figures, with *intangibles* growing by 83.9 per cent in the second quarter compared to 11.6 per cent for *machinery and equipment* and 2.4 per cent for *building and construction*. The Construction PMI has fallen for the last two months but remains very positive. The new orders component of the PMI remains strong and business expectations are positive. Sentiment is particularly strong for the commercial sector (Ulster Bank, 2015b).

We now project that investment will grow by 17.4 per cent in 2015 with robust growth in investment continuing in 2016 (10 per cent) and 2017 (7.5 per cent). Improving private sector balance sheets, supportive monetary policy and access to capital will support private investment, while improvements in the public finances will help support modest increases in public capital investment from its historically low level as a percentage of GDP. Years of subdued investment in housing combined with increased housing pressures in urban areas suggest potential for house building to grow strongly over the forecast horizon while the low investment/GDP ratios of the last five years

suggest above trend capacity for volume growth in investment in machinery and equipment as firms move to replenish capital stock levels.

Net Exports

Exports (13.9 per cent) and imports (16.2 per cent) both increased strongly in the first half of the year and are headed for double digit growth in 2015. The increase in imports has mostly offset the increase in exports with net exports increasing by just €400 million in the first half of the year. The trade data remains somewhat distorted by contract manufacturing. Even so, both of these projections are well in excess of our earlier year expectations. We now forecast that exports will increase by 12.2 per cent and imports by 14.6 per cent in 2015.

Exports are benefitting from the depreciation of the Euro with the Republic's small open economy particularly well placed to benefit from a weak Euro. The relatively strong performances in the US and the UK are also helping exports. The *Investec Manufacturing PMI* (2015a) showed a substantial monthly increase in new export orders in August, despite the rate of expansion slowing from the previous month. All monitored groups posted higher new export orders. The Services PMI (Investec, 2015b) reported a sharp monthly rise in new exports in August. The high import content of Irish exports is helping to drive growth in imports, as are the increases in real disposable household income and private investment.

We anticipate that future growth in exports will be more in line with external demand indicators adjusted for movements in exchange rates and other elements of competitiveness. We project the volume of exports will grow by 5.8 per cent in 2016 and 4.7 per cent in 2017 with exports gradually declining down to trend growth in the Republic's trading partners. Our projection for imports is 6.2 per cent in 2016 and 5.1 per cent in 2017. Growth in imports in will mainly be driven by the expected increases in real disposable household income, domestic consumption and investment. Investment growth will increase demand for goods imports while income growth will increase demand for service imports including tourism. On the other hand the depreciation of the euro will dampen demand for tourism imports.

Labour Market

Employment increased by 2.8 per cent in the first half of 2015 and we are projecting employment growth of 2.7 per cent in 2015. Our forecasts suggest this will decline to a still robust 2 per cent in 2016 and to 1.6 per cent in 2017. The employment growth will be driven by the anticipated improvements in domestic demand. The anticipated increase in investment will boost employment growth in the construction sector while the overall recovery in consumption should increase employment in the retail sector and the accommodation and food services sector. Total employment will exceed 2,000,000 sometime around the middle of 2016. We forecast the unemployment rate averaging 9.5 per cent in 2015, 8.6 per cent in 2016 and 8.3 per cent in 2017. Unemployment should fall below 200,000 sometime in early 2016 or perhaps very late in 2015. The scarring effect of the recession and the high-rate of long-term unemployment suggest that the equilibrium structural rate of unemployment is higher now than it was before the recession and that the decline in the unemployment rate will start to stall well before it reaches pre-crisis levels. This implies a need for innovative labour market policies in the years ahead. Table 3.3 shows a range of baseline projections for unemployment made by other institutions.

Table 3.3 Projections for Unemployment as a Per Cent of the Labour Force, (Rep. Ireland)

	2015	2016	2017	2018	2019
NERI (September)	9.5	8.6	8.3	-	-
Department of Finance (April)	9.6	8.8	8.4	7.8	7.3
Central Bank of Ireland (July)	9.7	8.5	-	-	-
European Commission (May))	9.6	9.2	-	-	-
IMF (April)	9.8	8.8	-	-	-
OECD (September)	9.6	8.4	-	-	-
ESRI (June)	9.6	8.3	-	-	-

Sources: See Table 3.2.

Average weekly earnings increased by 1.8 per cent in the second quarter compared to the previous year while average hourly earnings increased by 1.5 per cent over the same period. Average hourly earnings should increase by close to 1.2 per cent in 2015 and we forecast growth of 1.7 per cent in 2016 and 2 per cent in 2017. The still high rate of unemployment combined with the absence of significant inflationary pressures and relatively weak labour demand will dampen growth in average hourly earnings across the economy as a whole. These effects will become less significant as we move

further out into the forecast horizon. Earnings growth will vary from sector to sector reflecting sectoral differences in the tightness of labour supply but will begin to rise across the economy from 2016 onwards provided the unemployment rate continues to fall.

Public Finances

In light of our projections for economic output and the labour market, as well as our assumptions for Budget 2016, we are projecting that the government's general budget deficit will fall to 1.7 per cent of GDP in 2015, to 1.1 per cent in 2016 and to 0.4 per cent in 2017. The reductions in the numbers unemployed will lead to reduced expenditure on income supports while more people employed and rising disposable incomes will generate additional direct and indirect revenue flows. In nominal terms we estimate the deficit will be a little under €1 billion by the end of 2017 assuming a €1.5 billion fiscal expansion in Budget 2016. We project that the gross debt to GDP ratio will fall to 91.3 per cent of GDP in 2017. This is still a high level and the Republic will remain vulnerable to an adverse interest rate shock.

Risks to the Outlook

There is a wide range of downside risks to our baseline projection including:

- Rising energy prices would reduce real household disposable income with negative consequences for consumption and investment,
- Rising interest rates would be particularly damaging to growth (consumption and investment) given the still high private and public sector debt overhangs,
- Brexit, including market perceptions of the likelihood of Brexit, could affect exports and delay or postpone investment decisions,
- Financial instability and recession in energy exporters arising from lower energy prices or a sharp decline in the Chinese economy would lead to a slowdown in world trade with knock-on effects for exports,
- Deflation and stagnation in the Euro area or an appreciation in the value of the Euro would slow exports,
- Austerity and a slowdown in the UK economy would damage Irish exports,

- The outcome of the OECD's Base Erosion and Profit Shifting project might reduce inward multinational investment to the Republic, as might the outcome of the Common Consolidated Corporate Tax Base (CCCTB) project.

On the other hand there are upside risks to our projection. For example, further depreciation in the value of the Euro would benefit exports. In any event our 2015 projection is arguably somewhat cautious given the extremely positive first half data and the strong sentiment and high frequency indicators.

3.4 Macroeconomic Outlook for Northern Ireland

There are tentative signs of economic recovery in Northern Ireland. However, concerns remain over the capacity of the construction sector to maintain current momentum and over the comparatively weak performance of the services sector. In addition to domestic turbulence, any recovery in Northern Ireland could be quickly dampened by destabilising events in the global economy. The greatest economic concern for Northern Ireland at present is the economy's medium to long-term growth potential, and the greatest threat to that is short-term instability.

Table 3.4 Projections for Northern Ireland Economy

	2014	2015	2016
Economic Activity	n/a		
Ernst & Young (GVA)	-	2.0	-
PWC (GVA)	-	1.8	1.7
Danske Bank (GVA)	-	2.0	2.3
NICEP	-	1.9	1.1
Employment	0.3		
NERI		1.1	0.6
Ernst & Young	-	0.8	-
NICEP	-	0.7	0.6
Unemployment (%)	6.4		
Danske Bank		6.2	6.1

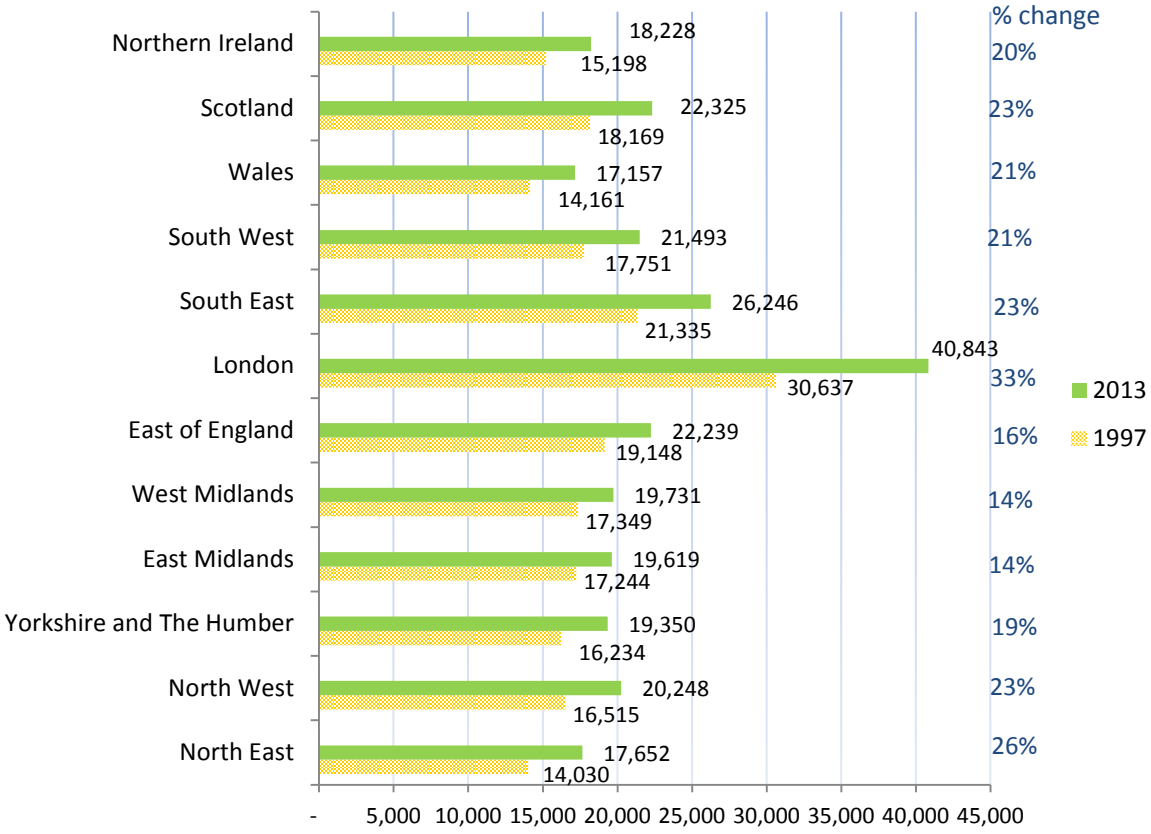
Sources: Ernst and Young: Economic Eye, Summer 2015; PWC: Northern Ireland Economic Outlook August(2015); Danske Bank Quarterly Economic Overview Q3 2015 (August 2015), NICEP Spring Outlook (May 2015)

Note: Gross Value Added differs from GDP by the difference between taxes and government subsidies. 2014 is an outturn. 2015 and 2016 are projections.

Northern Ireland currently contributes in or around 2 per cent of total UK GDP and it is the most geographically peripheral region of the UK. It should be fairly uncontentious to remark that economic policies pursued by governments at Westminster are no more

tailored to the Northern Ireland economy than they are to that of Yorkshire or Cornwall. Decisions about how to stimulate economic development and investment in the UK are taken at national or macro level and the degree to which any one region of the UK benefits over another is the luck of the draw. However, for the past eight years Northern Ireland has had the benefit of managing its own economic development budget, its own skills strategy and its own infrastructural priorities, to mention but a few areas. This has given Northern Ireland, along with Wales and Scotland, an advantage over the English regions. That positive situation may be about to change.

Chart 3.1 Regional GVA per capita in Great Britain and Northern Ireland, 1997 & 2013 (2014 prices)



Source: ONS (2014) Gross Value Added Income Approach

George Osborne, in his Summer budget (covered in more detail in box 3.1), announced his intention to begin a massive programme of English devolution. This would be mainly concentrated around cities and the idea of directly elected mayors, but the programme also envisages transferring to the regions competency and spending powers over a number of areas from public services to infrastructure and enterprise policy. As chart 3.1 shows, the per capita growth performance of Northern Ireland

since devolution in 1998 has been at best middling (ranking 8th out of 12 regions). Regions like the North East, North West, South East and South West have all surpassed Northern Ireland's growth. If these regions do get real control over areas like economic development, they could push further ahead of regions like Northern Ireland.

At the time of writing the Northern Ireland Executive is close to collapse due to a domestic political crisis. While the economic record of the Northern Ireland Executive is at best mixed, it is still preferable to the alternative of direct rule. Not only does the current political crisis risk Northern Ireland's short-term economic stability, it could do lasting damage to long-term economic planning and investment that is vital for future economic growth. That this is happening at a time when other regions of the UK are about to take control of their own economic decision making is all the more concerning. The crucial threat to Northern Ireland therefore is that a key institutional advantage over other regions of the UK is lost and Northern Ireland falls even further behind in its economic development.

Box 3.1 UK Summer Budget – Considerations for Northern Ireland

On the 8th of July George Osborne unveiled his second budget of 2015. The Budget delivered in March was largely seen as a pre-electoral statement of objectives, and having since won that contest the new Conservative government set out policies for the remainder of the fiscal year and priorities for the coming parliament. There were some noteworthy announcements on pay and wages, tax and welfare, many of which will have a significant impact in Northern Ireland.

On pay the Chancellor outlined his intention to cap public service pay awards at 1% for the next four years. If inflation increases above 1 per cent in the coming years, as forecast by the Bank of England (2015), public sector employees will start to realise real terms pay reductions. As Northern Ireland has almost one third of its total employees in the public sector, this policy may hold down domestic spending power for some time to come, particularly if pay awards in the private sector remain weak. The Chancellor also announced an increase in the National Minimum Wage to £7.20 in 2015 (from £6.50 in 2014), which has now also been renamed as the National Living Wage. This should not be confused with the existing UK Living Wage which is calculated by researchers and is presently £7.85 throughout the UK and £9.25 in London. The increase will boost pay packets for many employees, especially in a low wage region such as Northern Ireland where 10 per cent of workers earned the minimum wage in 2014.

However, on welfare, the Chancellor outlined a number of changes to tax credits in terms of income thresholds, number of children and rate of reduction. The combined impact of changes to in-work benefits will vastly outweigh any benefit that the higher minimum wage may have brought. Those who lose in-work tax credits may not be on the minimum wage, and even if they were the scale of the cuts are far greater. On corporation tax the chancellor announced that the UK rate would fall to 18 per cent by 2020, thus blunting the impact of any proposals for a reduction in Northern Ireland. Overall, despite a welcome boost for low-paid workers, the cuts to in-work credits and stagnant public sector pay will, on balance, leave a largely negative mark on the Northern Ireland economy.

4 Policies for Long-Run Growth[1]

4.1 Introduction

After over half a decade of decline and stagnation the Republic's economy is now recovery strongly. Quality of life improvements in future years will depend on the ability of the economy to grow. However, there is great uncertainty about future growth rates and debate about which policies to pursue. Economic growth comes from the accumulation of labour and capital inputs combined with improvements in the productivity of labour and capital arising from on-going technological change and scientific progress. For Romer (1990) 'influencing the cost of finding and using new ideas' is the key to economic growth. In many respects the stories of economic growth and human history are the stories of technological change and changing beliefs and ideas (Mokyr, 2002). The standard of material wellbeing for most people living in the developed world today is superior in almost every respect to the living standards of even the wealthiest people just one hundred years ago. A simple consideration of developments in health, nutrition, education, communication, transport and entertainment bears out this claim.

Improvements in living standards reflect the real growth in per capita economic output. Per capita output is determined by: (A) the proportion of the working-age population to the total population, (B) the percentage of the working age population working for pay or profit, (C) the average number of hours worked per person working and, crucially, (D) the average output per hour worked (labour productivity). Growth friendly policies are policies that sustainably increase the amount of labour inputs employed and/or policies that increase average labour productivity. This section of the QEO identifies and briefly discusses a non-comprehensive set of policies to increase the long-run productive capacity of the Republic of Ireland's economy.

The Republic's growth potential depends on the economy's ability to generate productivity gains year-on-year. Productivity growth has been falling in the Republic since the 1980s (OECD, 2015). We argue that the best way to sustain growth in productivity over the long-term is to invest in education and skills, in productivity

[1] This section is derived from one part of a forthcoming research paper entitled '*Policies for Long-Run Growth in the Republic of Ireland*' (McDonnell, 2015). The NERI acknowledges the input of external reviewers and their comments and suggestions prior to publication.

enhancing infrastructure, and in the production and diffusion of new technologies. Insufficient investment in skills, infrastructure and innovation will constrain future economic growth. Underlying all of this is the need for a supportive institutional environment. It was prior investments in infrastructure and in the education and knowledge capacity of the workforce that enabled the Republic to come this far out of the great recession and it is similar investments that will enable the Republic's economy to thrive in the future.

In this context we propose a series of high-level policies to increase the economy's future potential output. For example, we propose the establishment of an infrastructure bank, increased funding for research and development (R&D), increased funding for early years learning and supports to prevent child poverty, and a phasing out of most though not all government subsidies and tax breaks.

Growth in per capita output also depends on growth in employment and the number of hours worked across the economy. In this context we propose a number of reforms to reduce barriers to labour market entry. Examples of such policies include subsidised childcare infrastructure and the gradual tapering of family supports along with income. On the other hand, we argue that the economic case for reducing the Republic's revenue/GDP ratio in forthcoming budgets is very weak. There is little evidence that this ratio has much if any effect on long-run growth in advanced economies.

Finally, the policy goal is not economic growth itself; the policy goal is sustainable and inclusive improvements in the quality of life. Sustained quality of life improvements are incompatible in the long-run with environmental degradation, and, as such, therefore economic policy must always account for environmental costs and benefits.

4.2 Policies for Productivity Growth

Sustainable long-run growth in per capita output is contingent on improvements in labour productivity. Investing in education and skills (human capital), equipment and infrastructure (physical capital), and in the production, diffusion and use of new ideas (innovation), is the only way to sustain growth in productivity over the long-term. Insufficient investment in skills, infrastructure and innovation will constrain future

economic growth. Underlying all of this is the need for supportive institutions to incentivise innovation and ensure the efficient use of labour and capital.

Education and skills

Labour productivity increases as learning and experience increase (Arrow, 1962). Human capital represents the knowledge, skills, competences, creativity and other attributes embodied in individuals that are relevant to economic activity (OECD, 1998). Education spending can generate positive externalities for the wider economy to the extent that the education provided represents genuine investment in human capital. Human capital not only enhances labour productivity but is also a necessary input for innovation and technology adoption (Barro and Sala-i-Martin 2003). Strong education systems are empirically associated with increases in the long-run rate of per capita economic growth and the OECD contends that half of the growth achieved by OECD countries since World War II has been driven by progress in education.

We cannot directly measure human capital. Skill levels and educational achievement are sometimes used as proxies. Skill levels for the population as a whole, as well as for the top of the achievement distribution, have been found to exert positive and independent effects on growth (Hanushek and Wößmann, 2007). Thus, while it is important to have large numbers of scientists and engineers, it is also important to have a well-educated population in aggregate. Population-wide improvements in human capital enable more inclusive growth and less economy-wide inequality. Increasing the skills of disadvantaged children provides the largest potential dividend to society, both in terms of economic growth and lower inequality.

Hanushek and Wößmann (2007) use data from educational achievement tests held between 1964 and 2003 across fifty countries to estimate the impact of educational achievement on economic growth between 1960 and 2000. They find that countries with better educational achievement scores had higher growth rates and that this effect was robust to the inclusion of a range of control variables. In the long-run, the average annual growth rate for a country would increase by 1.2 percentage points for a one standard deviation improvement in measured cognitive skills, based on test scores. Short-run effects are, of course, much more limited and the benefits of improvement in cognitive skills can take years to filter through into higher rates of growth. The Republic performs a little above average in these tests (OECD, 2014a).

There are serious questions about the quality of schooling in many European countries Hanushek and Wößmann, (2012). Extra resources, improved buildings, formative assessment and smaller classroom sizes all have positive effects on outcomes. However, the quality of teachers and teaching in schools appears to be the key to better outcomes. Increased teacher autonomy, transparency, accountability, salary levels, as well as life-long learning, and training all have roles to play in obtaining higher standards for teachers. A strong accountability framework centred on quality provides the best hope for improving teaching performance.

Human capital is not just about schooling. The child's home environment determines much of the early development in cognitive and non-cognitive skills. Parental investment of time and the fostering of learning attitudes and habits are important inputs to the creation of human capital (OECD, 1998). The early years are the most important for development, and external factors, like poverty, can have extremely damaging and lasting effects on human capital. Family and childcare supports and in-kind public health services are positively associated with long-run growth because these supports decrease the risk of child poverty, which in turn boosts the formation of human capital (Cournede, Goujard and Pina, 2013).

Children possess powerful learning abilities in their early years and Heckman (2000) argues that investing in learning in early childhood brings greater returns than at any other stage in life. Early learning makes it easier to go on learning throughout life. In particular, early learning of creativity and scepticism leads to better learning of all kinds, and early learning of creativity and scepticism may be more cost effective than trying to teach these abilities at university level or beyond. The inference is that additional resources for education should target early years learning. Extra resources for pre-school education should be concentrated first on disadvantaged families where the risks of falling behind are likely to be highest. Well-planned education for pre-schoolers also has the potential to help ease the impact of poverty on young lives.

Human capital development is a life-long process. Arrow's (1962; 1991) learning-by-doing models emphasise the importance of life-long on-the-job learning for economic growth. Training programmes providing market-relevant skills can generate economy-wide employment gains under conditions of skill shortages or mismatches. Well-designed active labour market programmes with market linkages can help lower structural unemployment and boost potential output. However, there is an on-going need to ensure that education and training systems are adapting to the new economic environment. There must be a willingness to continuously change the type and scale of

training and education places provided and to cease or reduce programmes and schemes that are becoming less relevant in terms of the skills demanded in the labour market.

Innovation

R&D and innovation are key determinants of international competitiveness, productivity gains and economic growth. Belitz et al. (2015) find that an increase of one percentage point of R&D spending in the economy leads to a short-term average increase in GDP growth of approximately 0.05 to 0.15 percentage points. Gross domestic expenditure on R&D in the Republic was just 1.6 per cent of GDP in 2012 compared to 2.4 per cent for the OECD (OECD, 2015).

However, innovation, and how it is generated, including in useful ideas and their diffusion, is different from R&D, and often does not result from R&D. An economy's 'innovative capacity' refers to the ability to generate original ideas and communicate and assimilate existing innovations (Stern, Porter and Furman, 2002). Innovative capacity is itself a function of education levels, government policies that support R&D, and the quality of capital markets, among other things. For example, there is evidence the diffusion of information communication technologies (ICT) has been aided by complementary investments in intangible capital and high-quality human capital, while the availability of finance has implications for a firm's ability to invest in R&D and new technology. Differences in human capital and educational attainment explain much of the variation in technology adoption rates between firms (Caselli and Coleman, 2001). The Republic ranks 8th in the Global Innovation Index (WIPO, 2015).

Rates of technological change and adoption vary greatly across countries, regions, industries, firms, households and individuals. The concept of 'national systems of innovation' (NSI) was developed in the late 1980s and early 1990s to explain why different economies and societies differ in their rates of innovation (Edquist, 2005). According to Jacobson (2013) 'the interacting institutions at the heart of a system of innovation include the educational, cultural, social and economic, as well as the policy and political factors that influence how creative, entrepreneurial and change-oriented people are, in the social formation of which the system of innovation is part.'

The NSI approach emphasises the systemic nature of innovation processes. The level and types of knowledge flows in the economy as well as the nature, density and strength of the relationships between people and organisations are seen as crucial to innovation. There is an emphasis on the importance of horizontal linkages allowing new knowledge to diffuse throughout the economy. This suggests that innovation is enhanced by having an open society with multiple transparent flows of knowledge and a robust system of institutional and personal networks.

The characteristics of knowledge generate productivity gains and increasing returns to scale and scope at the level of the economy. However, the characteristics of knowledge also make it difficult for knowledge producers to appropriate all of the benefits of knowledge production. The inability of knowledge producers to internalise all of the benefits of R&D investments reduces the incentive to undertake such activity and leads to a socially suboptimal level of knowledge production. In addition, the production of new knowledge is inherently uncertain. There can be no guarantee that useful knowledge will be produced at the rate hoped for by the knowledge producer. This uncertainty of production further diminishes the private incentive to invest in R&D and reduces the overall level of knowledge produced. The result is market failure in the production of knowledge.

The standard responses of most governments have been to incentivise private sector R&D and/or to engage in direct government investment in R&D. Common policies include the awarding of patents as well as the provision of subsidies and tax breaks. The public sector directly invests in R&D through the creation and support of research institutions such as universities, and invests indirectly through expenditure on R&D inputs such as human capital. Ó Riain (2013) argues that government has played a critical role in the growth of successful innovation economies in countries as different as Finland, the US, Israel and Taiwan, while Mazzucato (2013a) argues that Germany's competitiveness strategy has been driven by its ability to build a strong innovation system, with patient long-term finance (e.g. KfW), strong science-industry links (Fraunhofer institutes) and above average R&D/GDP spending. Ó Riain (2013) notes that, in relative terms, Irish state investments fall well behind the scale of the investments in promising firms made by other countries, including the US. An increasing number of the best technological innovations in the US come from federal labs, federally funded R&D and networks of firms supported through government schemes (Block and Keller, 2009; Mazzucato, 2013b).

The costs of knowledge search and knowledge production are crucial determinants of the volume of innovative activity. Falling cost of knowledge acquisition means higher expected returns to innovative effort and therefore a higher volume of innovative effort. The implication is that technologies, institutions and incentives that reduce the cost of producing, acquiring or using knowledge will increase the rate of technological change and in so doing increase the economy's potential growth rate.

Policymakers can incentivise the production and diffusion of innovations through measures to increase the productivity of R&D and other knowledge production activities. This can be achieved by reducing the cost of innovation inputs or by improving the quality and efficiency of those inputs. One way to increase the productivity of knowledge production is to invest in human capital. This is because human capital is a complement to the production and exploitation of ideas. A second way to increase the productivity of knowledge production is for governments to support and invest in those technologies which themselves reduce the cost of knowledge search and the diffusion of useful ideas.

Ruttan (2008) makes the point that ICTs have become increasingly pervasive as inputs into the process of technological change. He argues that this is because they greatly increase the productivity of knowledge search and R&D investments, thus encouraging greater private investment in R&D and reducing the degree of market failure in the production of knowledge. This creates a case for public intervention to support the development and diffusion of Internet access technologies such as broadband.

Broadband access is of particular importance to economic growth because it is a General Purpose Technology that boosts the productivity of innovation effort across a wide range of economic sectors including, crucially, the R&D sector (McDonnell, 2013). While investment in certain forms of infrastructure, for example roads, may only provide a once-off shift in productivity, investment in broadband infrastructure may permanently boost the annual rate of innovation and therefore permanently boost the rate of productivity growth. The flip side is that poor quality broadband infrastructure may contribute to lower rates of growth. Ó Riain (2013) argues that weak state investment in broadband in the Republic has constrained the diffusion of new technology industries capabilities into the broader private sector.

The patent system's net effect on innovation levels is unclear. There is little empirical evidence to suggest patents increase innovation and productivity (Boldrin and Levine, 2012) and there may be benefits to reforming the patent system. The unique capabilities of a successful firm to achieve repeated product, process and organizational innovation are better protection of their ideas than patents. Appropriate reforms to the patent system would prevent market incumbents from locking-in advantages, excluding new entrants and impeding the process of creative destruction so crucial to long-run growth. In particular, patent protection could be made shorter and weaker in certain industries such as ICT. Patents could also be subject to use-it-or-lose-it rules. If the inventor hasn't commercialised the invention after a certain number of years other firms could use the invention subject to a modest royalty payment for the duration of the patent.

Infrastructure

Investment in infrastructure is strongly related to long-run increases in the economy's productive capacity. A meta-analysis of 68 studies by Bom and Ligthart (2014) concludes that public capital investment has positive long run effects on output while the IMF (2014) argue that increased 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. They further argue that the net benefits are particularly high during periods of economic slack, where the cost of borrowing is low, and where investment efficiency is high. Investment multipliers also tend to be higher in a liquidity trap environment where central bank interest rates are close to zero. The Republic's cost of borrowing (circa 1.4 per cent in September 2015) is close to its all-time low while the still-high unemployment rate is suggestive of ongoing economic slack.

The net benefit to any investment project hinges on the efficiency of the investment process and public capital investment carries risks. Most obviously there is a danger that unevaluated projects will be given the go-ahead for political and electoral reasons. To safeguard against this all major project proposals should be subjected to rigorous and independent cost-benefit evaluation, including evaluation of the opportunity costs. There is also a danger that public projects will operate with soft budget constraints and with low levels of efficiency.

Certain types of investment contribute to knowledge based growth and are therefore particularly beneficial in the long-run. Examples include school buildings, broadband infrastructure and research institutions such as universities. However, not all forms of investment are equally productive and market distortions can arise in favour of speculative, wasteful or socially destructive investment. The period leading up to the 2008 crash is a good example of this phenomenon, with an overly generous system of tax breaks and cheap credit fuelling a misallocation of capital towards private investment in non-productive assets such as residential and commercial property.

Even so, private investment is fundamental to growth and it is important to create an environment conducive to private investment. This does not imply we should distort the market by incentivising particular types of investment through tax breaks. The implication is that we should ensure potential investors have adequate access to finance at a reasonable cost and that barriers to investment are low. Access to funding requires well-functioning and competitive capital markets. However, the Republic currently ranks just 61st in the world for financial market development and 117th for ease of access to loans (World Economic Forum, 2015). While venture capital funding has increased substantially since 2013 such funding remains highly concentrated in the Dublin region. The Republic has historically had low rates pf productive investment for a number of reasons and Irish banks have a poor record in providing capital for investment. Capital was systematically misallocated in the 2000s and there is concern that banking organisations may lack the relevant skills and orientation to promote productive investment (Ó Riain, 2013).

Public spending in the Republic on gross fixed capital formation is close to 2 per cent of GDP in 2015 (EC, 2015b). This is well below the EU average (2.9 per cent) and almost certainly lower than the Republic's medium-term growth potential. Such a low rate of public investment, if maintained, is likely to produce infrastructure bottlenecks and impede the Republic's growth potential. The Republic's productive infrastructure already lags that of Western Europe in a number of respects. There are infrastructural deficits in transport, renewable energy, schools, wastewater management, and next generation broadband. There are also acute shortages in areas of key need including provision of suitable and affordable accommodation for a rising population. The total fixed capital investment rate as a percentage of GDP is the sixth lowest in the EU (EC, 2015b).

Crafts (2014) projects the Republic's long-run growth potential at close to 3 per cent. According to Kamps (2005) the 'optimal' (i.e. growth-maximising) public investment to GDP ratio is 3 per cent for an economy with a trend growth rate of 3 per cent. This suggests a need to increase public investment from its current levels by around €2 billion per annum. Given the recent years of persistent underinvestment and infrastructure deficits this figure should be considered a floor rather than a target. The World Economic Forum (2015) places the Republic just 36th in the world in terms of the overall quality of infrastructure. Inadequate supply of infrastructure is also ranked as the second most problematic factor for doing business after access to financing. In this context a public investment rate of closer to 4 per cent of GDP may be more appropriate in the short and medium term.

The Republic could benefit from the creation of a dedicated national development or Strategic Investment Bank (SIB) owned wholly or in part by the Irish Government but independent from government (Duggan, 2013). The government's role would be to set high level objectives for the SIB. For example, the SIB could be mandated to focus on projects aimed at enhancing national innovative capacity and projects to boost the quality of physical infrastructure. The SIB model has been shown to work well in Germany and elsewhere (Duggan, 2013). The European Investment Bank (EIB), Germany's KfW, and the UK's Green Investment Bank all provide templates for such a vehicle. The establishment of public investment banks is currently under discussion in a number of countries, for example the US and France.

The weakness of financial market development in the Republic adds to the case for establishing an independent SIB or fund. The Republic's cost of borrowing is close to historical lows and an SIB could centralise and leverage financing for investment in infrastructure and innovative capacity. Special purpose vehicles could be established within the SIB to focus on investment in particular sectors of the economy such as housing or green energy. Additional seed funding for the SIB could be obtained from the proceeds of selling off the state's equity stake in AIB.

Ideally, the SIB would be given the capacity to draw on a group of international and domestic experts to periodically evaluate future infrastructural needs and provide expertise in determining the relative value and costs and benefits of different projects. Crucial for this evaluation would be an understanding of evolving demographic and structural shifts in the economy. Such a body of experts could be required to produce

regular reports on infrastructural needs and evaluation methodologies used and should be answerable to the Dáil.

The Irish government announced the Ireland Strategic Investment Fund (ISIF) in June 2013. The National Treasury Management Agency controls and manages the fund, which was established in December 2014. The ISIF was set up to be a sovereign development fund and the plan is to reorient €6.8 billion of the National Pension Reserve Fund (the Republic's sovereign wealth fund) towards commercial investments in the Irish economy. The ISIF has a dual mandate – investment return and Irish economic impact. This mandate enables it to be deployed as a vehicle for the strategic development of the Republic's productive and innovative capacity. It is intended that fund allocation will be to those sectors with the highest economic impact and the lowest levels of deadweight and displacement. This will include infrastructure that enables competitiveness in areas such as water, energy, transport, broadband, critical real estate for foreign direct investment, R&D and education. The ISIF appears the institution best placed within the Republic to evolve into a fully formed SIB.

Irish SMEs still face onerous credit constraints in many cases thus restricting their capacity to invest and grow. The Strategic Banking Corporation of Ireland (SBCI), established in 2014 as a lending vehicle for SMEs, could be incorporated within the SIB and expanded to include a network of branches in each major urban area and provincial location to advise and assist SMEs. One of the problems with SBCI is that its function is merely to provide the funding for banks to lend to SMEs, not to lend to SMEs itself. As such there is a concern that much of the SBCI funding will simply replace funding that otherwise would have come anyway from the banks themselves and that there won't be an increase in the volume of funding available for investment and innovation. SBCI funding should directly target SMEs and high-potential start-ups looking to borrow for investment purposes. A whole range of financial instruments should be considered including a willingness to take equity stakes in start-ups. It should be possible to draw on, and expand, European Investment Bank funding for SMEs especially in areas of new green technology.

Efficiency of capital and labour

Productivity and technological progress are not the same things. Scale economies and improvements in the efficiency of capital and labour use will also contribute to productivity growth, and changes in productivity arise not just from technology but also from changing policies and institutions (Easterly and Levine, 2001). Cross-country differences in productive and allocative efficiencies may be just as, if not more, important for output per worker than technology differences. For example, in a large cross-country study Jerzmanowski (2007) estimates that 69 per cent of cross country variation in output per worker was attributable to total factor productivity in 1995. However, just 26 per cent of the variation actually came from technology differences while 43 per cent of the variation came from differences in efficiency of use.

All economic and institutional structures generate inefficiencies to some degree. Lack of competition will lead to allocative and technical inefficiency in the absence of robust regulatory measures. Yet the economic crash makes clear that competition is not sufficient to ensure efficiency (Sweeney, 2013). Strong regulatory frameworks, including independence and investigative and enforcement powers for regulators, is necessary to ensure product and service markets operate efficiently. Regulation is particularly important in the case of natural monopolies or where there is a danger of market dominance by firms or other interest groups. This includes independent regulation of professional bodies (e.g. legal and accounting services) to ensure that non-essential barriers to entry are not being set and to ensure that service providers are not colluding to inflate service costs.

Political lobbying and economic rent seeking in the form of requests for subsidies and tax breaks always present a danger to economic development. Subsidies for home ownership, business and agriculture are deleterious to long-run growth because they skew economic activity and distort resource allocation (Ford and Suyker, 1990; OECD, 2004). There are some areas where well-designed subsidies can be appropriate. Good examples include subsidies for R&D and for childcare. Tax breaks 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 breaks negatively affect growth by distorting allocative efficiency, by creating inefficiencies in production and consumption, and by diverting economic activity toward rent-seeking behaviour.

4.3 Other Policy Issues

Table 4.1 describes a set of policy reforms designed to boost long-run potential output.

Table 4.1 Selected Policy Reforms to increase Potential Output

Area		Measure
Barriers to labour market entry	1	Provide substantial state subsidies for childcare
	2	Gradually taper down housing and welfare supports with increases in income instead of making supports conditional on employment status
	3	Remove barriers to inward migration and migrants working legally in the economy
Infrastructure	4	Spend more on independently evaluated public infrastructure projects (circa 3% to 4% of GDP)
	5	Establish an infrastructure bank to facilitate the provision of stable, long-term finance for infrastructure and to engage in counter cyclical investment
	6	Establish an expert group to independently evaluate infrastructure needs and co-ordinate evaluation of specific projects
Human capital	7	Increase teacher autonomy and accountability and reduce classroom sizes
	8	Increase education budget for early years learning
	9	Use fiscal policy to reduce economic inequality (income and wealth) and promote social and economic inclusion
	10	Protect childcare, family and housing supports and healthcare services at sufficient levels to avert child poverty
	11	Annually review the efficacy of activation programmes and training schemes and reallocate resources to well-performing programmes and schemes
Innovation	12	Spend more on basic and applied research as % of GDP as well as on seed funding for high potential start-ups
	13	Incentivise (subsidise) take-up of science, technology, engineering and mathematics courses at undergraduate and postgraduate levels
	14	Reform the patent system to promote innovation and the use of new technologies
	15	Establish a state investment bank to raise affordable funding for innovating enterprises
	16	Provide grants to SMEs for adoption of new technology
	17	Increase support for horizontal links between the state, higher level institutes and enterprises
	18	Reform bankruptcy law to not overly penalise failure
Efficiencies	19	Phase out the system of tax expenditures (simplify the tax code) and ensure horizontal equity of tax treatment across all asset classes to the greatest extent possible (though see no.23 below)
	20	Phase out most subsidies for home ownership, business and agriculture (though see no.1, no.13 and no.16)
	21	Guarantee independence for all existing regulators including the Central Bank. This includes powers to break-up dominant market operators and enforce macro prudential policies as appropriate
	22	Establish independent regulators with enforcement powers for all professional bodies
	23	Rebalance the tax system with increased taxes on land, property, wealth, inheritances, passive income and gifts

Note: See McDonnell (2015)

Increasing potential output is not just about labour productivity. Output also depends on the level of employment and the average number of hours worked. We can therefore increase output by increasing the number of hours worked in the economy. As Table 2.1 shows, the Republic has a low employment rate for persons of working age compared to the US, the UK and the Euro area. One way to increase the number of hours worked is to remove barriers to labour market entry. The cost of childcare is one such barrier and the Republic has very high costs of childcare (as per cent of average wage) compared to other OECD countries. 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. Accessible and affordable childcare is particularly important as a tool for enabling labour force participation by lone parents. More generally, labour force participation and employment can be incentivised by gradually tapering down housing and welfare supports along with increases in income, instead of removing these supports completely along with employment.

We can also increase labour supply by adopting an open-door policy in relation to inward migration and by abandoning policies that prevent migrants from working legally in the economy. Migration tends to boost the working-age population and aggregate GDP. In addition, migrants arrive with skills and contribute to human capital development in receiving countries (OECD, 2010), while also contributing to knowledge spill-over and technological progress. These benefits would be enhanced by support for English language training for new immigrants. In most countries migrants also contribute more in taxes and social contributions than they receive in benefits (OECD, 2014b). Thus, in addition to the strong human rights arguments for an open-door policy there are also strong economic arguments.

Any additional resources for infrastructure, education, R&D or childcare will have to be funded from somewhere. While in the short-run such policies could be funded through debt financing, in the long-run they must be funded by taxes and charges or by cuts to other areas of public spending. The report of the LSE Growth Commission (2013) in the UK points out that: 'there is no reliable evidence that the growth potential of an economy is limited by the size of the government over the wide range we see in OECD countries.' IMF (2015c) projections show that, whether measured as a percentage of GDP or as a percentage of GNP, government revenue and government

spending on public services will both be substantially lower in the Republic in 2019 than they were prior to the crisis, and substantially lower than EU averages. This implies intense pressure on key public services and suggests there is no scope for budgetary measures to reduce the tax take. Instead, whatever fiscal space there is should be channelled to the growth enhancing areas outlined above as well as to measures to fight poverty and promote social inclusion.

The IMF (2015d) highlights the link between rising inequality and the fragility of growth. They estimate that lower net inequality (i.e. after taxes and transfers) is robustly correlated with faster and more durable growth. The fund also estimates that redistribution is generally benign in terms of its impact on growth and that the combined direct and indirect effects of redistribution are on average pro-growth. Arguments that redistribution is bad for growth therefore appear to have little if any empirical grounding. On the other hand the OECD finds that there is evidence to suggest that taxes on property, wealth and passive income have minimal negative consequences for economic growth (Johansson et al., 2008) and are highly redistributive. Taxes on immovable property and land appear to be particularly pro-growth. Given the Republic's low revenue/GDP ratio, at least by EU standards, there appears to be some scope for increasing taxes on wealth (inheritances, gifts, net wealth, property, land) for redistributive purposes as well as for more directly growth enhancing policies.

4.4 Conclusion

Productivity growth is crucial to sustainable quality of life improvements and should be a priority for economic policymakers. We argue that the best way to sustain growth in productivity over the long-term is to invest in education and skills, in productivity enhancing infrastructure, and in the production, diffusion and use of new technologies. Careful attention should be paid to the investment/GDP ratio, the fraction of labour allocated to R&D and the fraction of output spent on education, particularly spending on disadvantaged groups and on early years learning. Insufficient investment in skills, infrastructure and innovation will constrain future economic growth. Underlying all of this is the need for supportive institutions to enable and incentivise innovation.

Alongside productivity growth is employment growth and in this area we propose a set of reforms to reduce barriers to labour market entry. In particular, we propose that the state take a much more activist role in the provision of childcare infrastructure. Reduced costs for childcare will increase employment rates for second earners and lone parents. We also propose the gradual tapering down of housing and welfare supports along with increases in income, instead of removing these supports completely along with employment. If properly designed, this change will remove potential disincentives to work and increase the employment rate.

We propose the establishment of an infrastructure bank, increased funding for basic and applied research, a phasing out of subsidies and tax breaks, and increased funding for early years learning, childcare infrastructure, and supports to prevent child poverty. Many of the policies proposed in the section of the QEO will cost the exchequer money and as the Irish Fiscal Advisory Council (2014) point out the current budgetary plan already implies considerable pressure on government services, public investment and social payments. Indeed budgetary projections suggest the primary government expenditure share of economic output will, by the end of the decade, be at a very low level by modern historical standards. In this context, while acknowledging the need for reform of the tax and social contribution system, we urge the government to reconsider its plans to cut the overall level of taxes in Budget 2016 and to take a more strategic and long-term approach to growing the economy.

5 Conclusion

The Republic of Ireland is now the fastest growing economy in the EU. Employment is also growing quickly and the public finances are improving. Our medium-term outlook is for reasonably robust growth in output and employment in 2016, albeit slower than 2015, with the economy then returning close to trend growth levels by 2017.

The outlook is less positive for Northern Ireland. The UK government's programme of cuts to public spending will reduce domestic demand while the North's uncertain position within the EU remains a barrier to private sector investment including FDI.

Our analysis in Section 4 has focussed on policies for long-run growth in the Republic of Ireland. The economy's potential to grow depends on its ability to generate productivity gains year-on-year. We argue that the best way to sustain growth in productivity over the long-term is to invest in education and skills, in productivity enhancing infrastructure, and in the production and diffusion of new technologies. We propose a range of policy reforms including the establishment of an infrastructure bank, increased funding for research and development and early years learning, increased support to prevent child poverty, and a phasing out of most though not all government subsidies and tax breaks. We also propose a number of reforms to reduce barriers to labour market entry. Examples include subsidies for childcare and the gradual tapering of family supports along with income.

Budgetary projections suggest the primary government expenditure share of economic output will, by the end of the decade, be at a very low level by modern historical standards. While acknowledging the need for reform of the tax system, we urge the government to reconsider its plans to cut the overall level of taxes in Budget 2016 and to take a more strategic and long-term investment based approach to growing the economy.

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7 Appendix

Appendix 7.1. Overview of recent economic trends – Republic of Ireland

	2010	2011	2012	2013	2014
Total Expenditure					
Consumption €m	83,666	84,617	84,579	85,724	88,959
Investment: private and public €m	29,584	29,921	33,450	31,677	36,511
Government current spending €m	26,455	26,155	25,955	26,110	27,236
Exports €m	171,332	176,112	187,427	191,434	214,961
Imports €m	-144,748	-144,811	-157,399	-156,765	-180,287
Domestic Demand €m	139,136	141,473	144,281	144,283	154,611
Total Income					
GDP €m	166,157	173,940	174,845	179,448	189,046
GNP €m	139,732	141,813	143,331	152,042	162,877
Income from Agriculture €m	2,545	3,282	3,099	3,190	3,393
Income non-Agriculture: Wages €m	67,775	67,800	67,328	67,672	70,027
Income non-Agriculture: Other €m	56,022	63,847	62,608	64,363	67,856
Employment					
Labour Force	2,196,700	2,173,700	2,165,800	2,182,100	2,172,400
Labour Force Participation Rate %	61.0%	60.4%	60.2%	60.7%	60.4%
Employment	1,886,100	1,845,600	1,841,300	1,899,300	1,926,900
Employment full-time	1,459,700	1,411,300	1,395,000	1,448,600	1,474,700
Employment part-time	426,400	434,300	446,300	450,700	452,200
Underemployment	112,500	140,800	147,600	139,300	124,300
Unemployment	310,600	328,100	324,500	282,900	245,500
Unemployment %	14.1%	15.1%	15.0%	13.0%	11.3%
Long-term Unemployment	152,600	191,700	193,000	165,100	139,200
Long-term Unemployment %	6.9%	8.8%	8.9%	7.6%	6.4%
Migration					
Immigration	41,800	53,300	52,700	55,900	60,600
Emigration	69,200	80,600	87,100	89,000	81,900
Net Migration	-27,500	-27,400	-34,400	-33,100	-21,400

	2010	2011	2012	2013	2014
Public Finances					
Total General Gov. spending €m	103,544	76,550	69,844	70,371	n/a
Total General Gov. revenue €m	55,149	55,331	56,623	58,866	n/a
General Gov. Balance €bn	-48.40	-21.22	-13.22	-11.50	n/a
General Gov. Gross Debt €bn	144.2	190.1	210.2	215.3	203.3
General Gov. Gross Debt % GDP	87.4%	111.2%	121.7%	123.2%	109.7%
Earnings and Prices					
Average earnings € per week	693.70	687.67	691.93	677.13	670.53
Average earnings % change	-0.8%	-0.9%	0.6%	-2.1%	-1.0%
Private sector av. earn. % change	-0.8%	0.7%	1.2%	-1.2%	-0.6%
Public sector av. earn. % change	-2.4%	-2.5%	1.0%	-1.3%	-1.1%
Inflation CPI %	-1.0%	2.6%	1.7%	0.5%	0.2%
Inflation HICP %	-1.6%	1.1%	2.0%	0.5%	0.4%
Inequality and Poverty					
Gini coefficient	31.4	31.1	31.2	31.3	n/a
Quintile ratio	4.8	4.9	5.0	4.8	n/a
Relative poverty %	14.7%	16.0%	16.5%	15.2%	n/a
Consistent poverty %	6.3%	6.9%	7.7%	8.2%	n/a
Deprivation rate %	22.6%	24.5%	26.9%	30.5%	n/a

Sources: CSO Quarterly National Accounts; CSO National Income and Expenditure; CSO Quarterly National Household Survey; CSO Population and Migration Estimates; CSO Earnings and Labour Costs; CSO Consumer Price Index; CSO SILC Reports; and Eurostat online database.

Notes: Earnings and labour market data are for Q3 in all years.
Domestic Demand is Total Domestic Demand.
National accounts data reported at current market prices.
Public Finance indicators from Eurostat.

Appendix 7.2 Overview of recent economic trends– Northern Ireland

	2010	2011	2012	2013	2014
Total Expenditure					
Personal consumption £m	-	-	-	-	-
Investment: private and public €m*	9,353	7,332	-	-	-
Government consumption £m	-	-	-	-	-
Exports £m	5,438	5,910	5,627	5,985	5,924
Imports £m	5,417	5,774	5,690	5,821	5,955
Domestic Demand £m	-	-	-	-	-
Total Income					
GVA £m	31,444	31,961	32,444	32,841	-
GNP £m	-	-	-	-	-
Income from Agriculture £m	373	374	385	-	-
Income non-Agriculture: Wages £m	17,420	17,890	18,287	-	-
Income non-Agriculture: Other £m	13,651	13,697	13,772	-	-
Employment					
Labour Force	841,000	862,000	865,000	865,000	873,000
Labour Force Participation Rate	59.8%	61.0%	60.8%	60.5%	60.7%
Employment	765,500	781,500	780,000	776,500	795,000
Employment full-time	598,000	611,000	597,000	594,000	618,000
Employment part-time	177,250	185,000	194,000	199,000	194,000
Underemployment	27,000	32,000	41,500	43,000	34,000
Unemployment	60,000	62,500	65,000	65,000	56,000
Unemployment rate %	7.1%	7.2%	7.5%	7.5%	6.4%
Long-term Unemployment	26,000	27,500	33,000	34,500	30,000
Long-term as % of Unemployed	42.9%	44.1%	50.7%	53%	53.5%
Migration					
Immigration	24,544	23,724	23,255	23,100	24,381
Emigration	23,394	25,218	24,570	25,438	22,810
Net Migration	1,150	-1,494	-1,315	-2,338	1,571

	2010	2011	2012	2013	2014
Public Finances					
Total General Gov. spending £m	18,840	19,081	19,350	19,834	-
Total General Gov. revenue £m	-	-	-	-	-
General Gov. Balance £m	-	-	-	-	-
General Gov. Debt nominal £m	-	-	-	-	-
General Gov. Debt % GDP	-	-	-	-	-
Nominal earnings and Prices					
Average earnings £ per week	354.4	354.6	360.1	365.2	359.6
Average earnings % change	-0.1%	0.1%	1.6%	1.4%	-1.5%
Private sector av. earn. % change	0.6%	0.1%	-2.3%	2.5%	0.4%
Public sector av. earn. % change	6.5%	1.9%	5.4%	-1.7%	2.3%
Inflation CPI %	-	-	-	-	
Inflation HCPI %	-	-	-	-	
Inequality and Poverty					
Gini coefficient	31	31	30	28	30
Quintile ratio	3.9	3.7	3.7	3.7	3.6
Relative poverty %	22%	20%	21%	19%	21%
Consistent poverty %	20%	20%	23%	20%	23%
Deprivation rate %	-	-	-	-	-

Sources: HMT Public Expenditure Analysis 2014; HMRC RTS; ONS Gross Value Added (Income Approach); LFS Quarterly Supplement; NISRA Northern Ireland Migration Flows; NISRA Annual Survey of Hours and Earnings; Department of Social Development Poverty Bulletin

Notes: Where cells are blank the data are unavailable.
*Investment as Gross Fixed Capital Formation (estimated)