Quarterly Economic Observer

Autumn 2018



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About NERI and this publication

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

This is the 27th *Quarterly Economic Observer* (QEO) of the Institute. The purpose of the QEO is to provide regular, accessible and timely commentary so as to equip trade unions and others in articulating and advancing a new economic paradigm where the old has failed. Unless otherwise stated, the data cited in this Observer are the latest available as of the 18th of October 2018. The final draft of this document was completed on the 22nd of October 2018.

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

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The Nevin Economic Research Institute Quarterly Economic Observer Autumn 2018

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 1) and examines labour productivity on the island of Ireland (Section 2).

Economic Outlook for the Republic of Ireland

- The economy of the Republic of Ireland (ROI) is growing strongly and the short-term outlook remains generally positive. We project real GDP growth of 8.1 per cent in 2018 and 3.9 per cent in 2019.
- The labour market should continue to improve with substantial employment growth forecast in the short term, albeit at a slower pace than in recent years.
 The unemployment rate should fall to close to 5 per cent by the end of 2019.
- Labour market improvements will tighten the labour market and lead to faster real wage growth. We project nominal average hourly earnings growth of 2.9 per cent in 2018 and 3.4 per cent in 2019.

Macroeconomic performance & projection, Republic of Ireland

	2017	2016	2017	2018	2019	
Real Output		Percentage real change over previous year				
Gross Domestic Product	€294.1bn	5.0	7.2	8.1	3.9	
Personal Consumption	€99.9bn	4.0	1.6	3.0	2.5	
Government Consumption	€29.6bn	3.5	3.9	3.5	3.0	
Investment	€69.0bn	51.7	-31.0	-7.3	9.7	
Exports	€352.6bn	4.4	7.8	7.0	5.6	
Imports	€263.3bn	18.5	-9.4	-0.1	7.0	
Earnings		Percentage no	ominal change	e over previou	s year	
Average Hourly Earnings	€22.43	0.8	1.7	2.9	3.4	
Government Finances		Percentage of	GDP			
General Government Balance	-€0.7bn	-0.5	-0.2	-0.1	0.0	
Gross Debt	€201.3bn	73.4	68.4	64.0	61.4	
Labour Force		Percentage ch	anae over pre	evious vear		
Employment	2,194,150	3.7	2.9	2.9	2.3	
		Percentage of labour force				
Unemployment	157,850	8.4	6.7	5.7	5.2	

Economic outlook for Northern Ireland

- Continued uncertainty around the terms of the UK's exit from the EU and the political direction of Northern Ireland (NI) in the absence of a devolved government contribute to ongoing weakness in the region's economic outlook.
- Despite these tailwinds, some improvement has occurred in overall output, and the *Manufacturing* sector in particular has seen some recovery. Concerns remain about productivity growth in the sector however, which is still substantially below 2016 and 2017 levels.
- Though labour market conditions appear to have tightened, there is very little evidence that real wages have grown as a result. This points to sustained issues with employment quality in Northern Ireland.

Productivity on the Island of Ireland - A tale of three economies

- The divide in productivity between foreign and domestic controlled enterprises, we argue, conceals weaknesses in the economy of ROI, leading to three relatively distinct economies on the island; a foreign dominated ROI economy; a domestic ROI economy; and the NI economy.
- There is a significant gap in labour productivity is apparent between NI and ROI. While ROI has improved relative to the EU15, since the turn of the century NI had a consistent negative gap to the EU15.
- The latest complete regional data set indicate that there is a large variation in the performance of sub regions in both economies. Dublin predominates, while Belfast is the only NI sub-region to make the top half of the 13 sub regions on the island and is the only NI sub region above the ROI average.
- Whereas the domestic sector produced about three quarters of Gross Value Added (GVA) in NI and in the EU15, the foreign controlled sector generated over half (53.1 per cent) of GVA in ROI. This points to a divide in labour productivity hidden in aggregate statistics.
- On average, foreign-controlled firms in ROI are consistently much more productive than their counterparts in the EU15, though this is likely tied to tax planning activity distorting the statistics. The domestic controlled sector, on the other hand, was slightly underperforming the domestic controlled EU15 average up to 2014, after which measured labour productivity in "domestic ROI" begins to exceed the EU15 average.

- Comparing the structure of the **domestic** economy of ROI with that of the NI and EU15 domestic economies, we observe similarities and differences. Negative gaps in the domestic sector in ROI appear where the foreign sector dominates particularly in *Manufacturing*.
- Examining productivity by sector in 2012 and 2014, we see that ROI performs well in comparative terms **domestically** in *Manufacturing, Transportation and Storage, Professional, Scientific and Technical activities,* and *Administrative and support service activities.* The domestic economy underperforms relative to the EU15 in *Information and Communication* and *Real Estate Activities* in both years. However, it appears that tax-planning activity upwardly distorts productivity in the *Administrative* sector (*Rental and Leasing*).
- The **foreign** controlled sector of the ROI economy is, in general, substantially more productive than the domestic economy. While this is not unusual, the differential appears to be relatively pronounced in ROI. However, foreign controlled performance varies by sector. Labour productivity in the *Accommodation and food service activities, Real estate activities* and *Professional, scientific and technical activities* sectors are all below EU15 averages. Two principal sectors drive aggregate over performance *Manufacturing* and *Information, and communication*.
- The NI economy comes behind both sectors of the ROI economy in all but one industry, *Wholesale and Retail*. The foreign sector in ROI is driving high measured productivity levels. There appears to have been some positive spill over into the domestic economy in ROI. This spill over has not been as large as could be expected, in *Information and Communication* and less in *Manufacturing*. For Northern Ireland, having a higher level of Foreign Direct Investment (FDI) than the EU15 has not resulted in a higher level of productivity overall.
- In policy terms, the success of FDI should be measured by spill over effects rather than simply scale. FDI success or otherwise is tied to a number of factors including local firm integration and human capital. This appears to be particularly true in NI. While there is some evidence of spill over in ROI, data indicate that the effects are limited and productivity issues remain in the domestic sector. Policy in both jurisdictions should emphasise higher productivity sectors that can support long-term growth and higher wages.

1 Economic Trends and Outlook

1.1 World

Northern Ireland and the Republic of Ireland are small and heavily trade-dependent economies. Their future economic performances depend on conditions in their main trading partners as well as the health of the global economy. Of particular importance in this context are the United Kingdom (UK), the euro area and the United States (US). We show the recent performance of these economies in Table 1.1.

Table 1.1 Dashboard of Macroeconomic Indicators, Selected Regions*

Table 1.1 Dashboaru						
	2013	2014	2015	2016	2017	2018
Real GDP			Percentage v	olume cho	ange over	previous year
Euro area	-0.2	1.4	2.1	1.9	2.4	2.0
United Kingdom	2.0	2.9	2.3	1.8	1.7	1.4
United States	1.8	2.5	2.9	1.6	2.2	2.9
Unemployment**			Percentage o	f active po	opulation	
Euro area	12.0	11.6	10.9	10.0	9.2	8.7
United Kingdom	7.6	6.2	5.4	4.9	4.4	4.4
United States	7.4	6.2	5.3	4.9	4.4	4.1
Inflation***			Percentage a	nnual ave	rage rate	of change
Euro area	1.3	0.4	0.0	0.2	1.5	1.7
United Kingdom	2.6	1.5	0.0	0.7	2.7	2.5
United States	1.5	1.6	0.1	1.3	2.1	2.4
Compensation per Employee			Percentage c	hange fro	m previou	is period
Euro area	1.6	1.4	1.4	1.2	1.6	2.4
United Kingdom	2.8	0.5	1.1	3.3	2.9	2.9
United States	1.5	2.9	3.1	1.0	1.9	3.3
			_			_
Employment			ercentage chan			
Euro area	-0.8	0.7	1.1	1.8	1.4	0.9
United Kingdom	1.2	2.4	1.7	1.4	1.2	0.7
United States	1.0	1.6	1.7	1.7	1.2	0.9
Current Account Balance			Percentage o	f Gross Do	mestic Pr	l roduct
Euro area	2.2	2.5	3.2	3.6	3.5	3.0
United Kingdom	-5.1	-4.9	-4.9	-5.2	-3.8	-3.5
United States	-2.1	-2.1	-2.2	-2.3	-2.3	-2.5
Fiscal Balance			Percentage of C			
Euro area	-3.0	-2.5	-2.0	-1.5	-0.9	-0.6
United Kingdom	-5.3	-5.4	-4.2	-2.9	-1.8	-2.0
United States	-4.1	-3.7	-3.2	-3.9	-3.8	-4.7

*2018 figures for Real GDP, Inflation, *Fiscal Balance, Unemployment Rate, Employment* and *Current Account* are latest IMF projections. 2018 figure for *Compensation per Employee* is latest European Commission projection.

Eurostat definition, *Harmonised consumer prices (national definition for the US)

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

The global economy appears on course to grow reasonably quickly in the rest of 2018 and again in 2019. The OECD and IMF project growth of 3.7 per cent in both years. The OECD projects growth of 2.3 per cent in the advanced economies. However, both the OECD and the IMF have been downgrading their forecasts in the context of rising uncertainty and a number of risks.

These concerns include:

- A) Increasing protectionism and an escalating trade war between the US and China that could impact on global trade;
- B) Tightening monetary policy in the US and a stronger US dollar that are already leading to destabilising capital flight from emerging markets such as Turkey and Argentina along with growth impeding interest rate hikes; a chaotic hard Brexit that could trigger a recession in the UK and slower growth in the EU²;
- C) A re-emergence of the euro area crisis centred on Italy that could provoke a fiscal and borrowing crisis with contagion risks;
- D) A reversal of the lending boom in China that slows or reverses growth in that country, and/or a rise in oil prices that would force businesses and consumers to cut back spending on other areas and fuel inflation. Finally, the IMF and the OECD are both warning that financial risks have built up in the global economy in recent years

Even so, the overall outlook is still positive and we should consider the above risks alongside the genuine improvements in advanced economies in recent years. OECD-wide unemployment is close to its lowest level in almost 40 years. In the longer-run economic growth will depend on the future path of innovation, technology diffusion and productivity growth. In this context, the weak growth in the productive capital stock in recent years in most advanced economies suggests a continuation of weak productivity growth. Increasing the productive capital stock should receive increased priority as a policy goal in all OECD countries.

The **euro area's** unemployment rate has been falling now for six years and was 8.1 per cent in August. The job vacancy rate in the EU has been trending upwards since 2013 implying a gradually tightening labour market and Romania was the only EU country to experience declining annual employment growth in the second quarter. The labour

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² The outcome of the October Brexit summit was unclear at the time of writing.

market appears to be at or close to full employment in a number of EU countries including the Czech Republic (unemployment rate of 2.5 per cent), Germany (3.4 per cent) and Poland (3.4 per cent). On the other, a number of countries including Greece, Spain and Italy are still experiencing very high unemployment rates. The euro area annual inflation rate was 2.1 per cent in September an increase driven by rising energy costs (inflation excluding energy was 1.3 per cent), while hourly wage growth was 1.9 per cent the euro area in the second quarter. This means that average real hourly wage growth is close to zero in the euro area. The euro area grew by a somewhat disappointing 0.4 per cent in the second quarter of 2018, and 2.1 per cent over the previous year. Personal consumption increased by just 0.2 per cent over the previous quarter and 1.3 per cent over the previous year. This may suggest the cyclical upswing of recent years is petering out. On the other hand, the lack of real wage growth and relatively low job vacancy rate suggests at least some scope for cyclical expansion in the short-term. Given the rising price pressure and improving labour market conditions we expect continued tapering of the ECB's asset purchases and an ending of the asset purchases programme in 2019. There is now a real possibility that the ECB will begin to increase its policy rates towards the end of 2019.

Annual GDP growth in the **UK** was 0.4 per cent in quarter two over the previous quarter, and 1.3 per cent over the previous year. The Office for Budget Responsibility forecasts real growth of 1.3 per cent in 2019 and 2020 and for weak growth to persist out to 2022. With inflation running at 2.7 per cent in August (partially reflecting a decline in sterling relative to the euro), and a seasonally adjusted unemployment rate of close to 4 per cent, we see monetary policy continuing to tighten in the short-term. Despite the economy being near to full-employment, average real wage growth was just 0.4 per cent in June. This partially reflects the high level of inflation but also the poor productivity growth in recent years.

The **US** economy grew at an annualised rate of 4.2 per cent in the second quarter. This was the highest rate of GDP growth since 2014. The Trump tax cuts are providing a short-term boost to demand though this is at the expense of widening inequality and widening fiscal deficits. The unemployment rate of 3.7 per cent in September was close to a 50-year low, while annual inflation was running at 2.7 per cent in August. Average hourly earnings increased 2.9 per cent in August. Given the inflationary context and low unemployment rate, it is almost certain that the US Federal Reserve will tighten monetary policy significantly over the short-to-medium term.

1.2 Republic of Ireland

Trends and analysis

Real GDP grew 9.1 per cent year-on-year in the first half (H1) of 2018. It is now generally well understood that headline GDP is distorted by the activities of a small number of multinationals and does not accurately reflect economic activity in the Republic. Even so, other indicators show that the domestic Irish economy grew very quickly in the first half of 2018, amidst an ongoing cyclical upswing characterised by strong employment growth (Table 1.2). Total employment has returned to its precrisis peak although deprivation and poverty rates remain above pre-crisis levels.

Table 1.2 Dashboard of Macroeconomic Indicators, Republic of Ireland

Table 1.2 Dashboard of Macroeconomic indicators, Republic of Heland							
	2013	2014	2015	2016	2017	Latest	
I	Percentage v	olume cha	nge over j	previous y	vear		
Gross Domestic Product	1.3	8.8	25.1	5.0	7.2	9.1 (H1'18)	
Modified Domestic Demand	2.5	4.1	4.8	5.6	3.2	6.3 (H1'18)	
Personal Consumption	-0.6	2.1	3.6	4.0	1.6	3.6 (H1'18)	
Retail Sales	0.7	6.3	8.4	5.9	3.9	2.6 (M8'18)	
GNI* (current prices)	8.3	8.6	8.6	9.0	3.0	3.0 (2017)	
I	Percentage a	nnual ave	rage rate	of change	?		
Employment	3.0	2.6	3.5	3.7	2.9	3.4 (Q2'18)	
Average Hourly Earnings	-0.3	-0.3	0.1	8.0	1.7	2.8 (Q2'18)	
Average Weekly Earnings	-0.5	0.3	1.2	1.1	2.0	3.3 (Q2'18)	
Inflation (CPI)	0.5	0.2	-0.3	0.0	0.4	0.9 (M9'18)	
Per	centage of c	annual G	DP or que	arterly G	DP		
Investment	18.7	20.7	24.1	35.7	23.5	20.8 (H1'18)	
Current Account Balance	1.5	1.1	4.4	-4.2	8.5	12.8 (H1'18)	
Government Balance (GGB)	-6.1	-3.6	-1.9	-0.5	-0.4	-2.0 <i>(Q1'18)</i>	
Gov. Gross Debt (end-year)	119.7	104.1	76.8	73.4	68.4	69.3 <i>(Q1'18)</i>	
I	Percentage	of labour	force				
Unemployment (SA)	13.7	11.9	9.9	8.4	6.7	5.4 (M9'18)	
Long-term Unemployment	8.0	6.7	5.4	4.3	3.0	2.0 (Q2'18)	
Percentage of households							
Deprivation	30.5	29.0	25.5	21.0	-	21.0 (2016)	
At Risk of Poverty	16.5	17.2	16.9	16.5	-	16.5 (2016)	
-	Percentage	2					
Gini Index	32.0	32.0	30.8	30.6	-	30.6 (2016)	

Notes:

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

Sources:

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

The CSO's new 'modified final domestic demand' indicator gives a reasonable barometer of activity in the domestic economy as it strips out the effect of intellectual property investment and purchases of aircraft by leasing companies. Modified domestic demand grew 6.3 per cent year-on-year in the first half of 2018, while personal consumption grew 3.6 per cent. In addition, employment growth in the second quarter was running at a very healthy 3.4 per cent over the previous year, while the unemployment rate continued its downward trend, reaching a 10-year low of 5.6 per cent.

While the economy is growing strongly its position along the economic cycle is less clear. Many of the traditional indicators are of limited use given the distortion to the national accounts. For example, there was a current account surplus of 12.8 per cent in the first half of 2018, but this surplus includes a significant amount of contract manufacturing activity that actually happens outside the Republic. In addition, the Irish national accounts are susceptible to often-significant revision so that caution is required when interpreting high-level data.

Even so, most of the relevant indicators suggest to us that the economy is not, as of yet, overheating. Consumer price inflation has been below 1 per cent since 2012 and grew just 0.9 per cent year-on-year in September. The weakness of sterling is dampening import costs and inflationary pressure. The housing savings rate was 9.7 per cent of gross disposable income in the first quarter of 2018, a figure that is comfortably above the long-run average of 8.4 per cent. Housing completions are well below the long-run average and below the rate of new household formation. In addition, the Republic's labour market performance, while improving in recent years, is unremarkable by EU standards, with unemployment and employment rates significantly worse than the best performers in the EU. The Republic's unemployment rate is higher than in 14 other EU countries and higher than the OECD average. The job vacancy rate, a measure of labour market tightness, is one of the weakest in the entire EU at 1.1 compared to 2.2 in the EU as a whole and 5.4 in the Czech Republic. Taken as a whole, the evidence suggests there is some additional slack remaining in the labour market.

On the other hand, underlying investment in the economy (i.e. stripping out IP assets and aircraft) has been growing by double digits year-on-year in each of the last three quarters, while personal consumption and retail sales are both growing relatively quickly. There is also significant asset price inflation with residential property prices

experiencing double-digit growth, although property prices are still only four fifths of peak levels. In addition, average weekly and hourly wages were up 3.3 per cent and 2.8 per cent respectively year-on-year in the second quarter. As such, real wage growth is currently over 2 per cent, which in turn is suggestive of a tightening labour market. However, these recent gains should be viewed in the context of an almost decade long stagnation in wage growth. Similarly, the fast growth in personal consumption in the first half of 2018 follows relatively subdued growth of 1.6 per cent in 2017.

Box 1.1 Budget 2019

In the wake of Budget 2019, the Department of Finance is projecting a broadly balanced budget with a deficit of just €75 million in 2019, along with a projected surplus of 0.3 per cent of GDP in 2020. Gross voted current expenditure is to increase from €56.9 billion in 2018 to €59.3 billion in 2019. This represents a nominal increase of 4.1 per cent. The real per capita increase will be closer to 1.5 per cent given projected population growth of 1.1 per cent and assumed inflation of 1.5 per cent. Gross voted capital spending is to increase from €5.9 billion to €7.3 billion – a nominal increase of 23.5%. The Department projects headline end-2019 general government debt to GDP at 61.4 per cent. The government set aside €0.5 billion for its new Rainy Day Fund (effectively a sovereign wealth fund).

The most significant policy changes on the revenue side were the elimination of the 9 per cent VAT rate for hotels and restaurants, the disappointing decision not to increase the carbon tax, and the decision to raise the marginal income tax threshold and reduce the 4.75 per cent USC rate. The income tax/USC changes will benefit a single person on €20,000 by €0.27 per week and a single person on €175,000 by €5.50 per week or 20 times as much as the person on €20,000. A single person on €35,000 will see his/her effective tax rate fall to 17.1 per cent, which will be the lowest rate in the EU15. On the expenditure side, the largest proportional increases in nominal current spending in 2019 are in *housing and planning* (+14.7 per cent) and *children and youth affairs* (+9.1 per cent). *Health* gets an additional (5.8 per cent or €900 million), but spending on *employment and social protection* (+2.4 per cent) will actually stagnate in terms of real per capita spending.

Overall, the Republic of Ireland will remain a low-tax and low-spend economy with the 2^{nd} lowest level of per capita spending amongst the group of 11 high-income EU countries.

Outlook

The short-term outlook for the economy remains positive despite a number of risks and uncertainties (see Box 1.2). Given the strong growth performance in the first half of the year, it now appears likely that real GDP will increase by close to 8 per cent in 2018. While net exports accounted for most of the headline growth in the first half of the year, modified domestic demand grew by over 6.2 per cent, and should continue to

expand rapidly. The PMIs suggest broad-based growth in the short-run, with manufacturing, services, and construction in all in very positive territory. In the absence of a major negative shock to the economy, the strong cyclical upswing generating above trend growth in real output should continue for a further 12-to-18 months, before the economy settles down to medium-term trend growth rates of between 2.5 and 3 per cent per annum. We project real GDP to grow by 3.9 per cent in 2019 (see Table 1.3) with a particularly strong uptick in investment. The economy is likely to be modestly overheating in 2019, in the absence of tighter fiscal policy or a macroeconomic shock such as a hard Brexit.

Table 1.3 Macroeconomic performance & projection, Republic of Ireland

	2017	2016	2017	2018	2019		
Real Output		Percentage real change over previous year					
Gross Domestic Product	€294.1bn	5.0	7.2	8.1	3.9		
Personal Consumption	€99.9bn	4.0	1.6	3.0	2.5		
Government Consumption	€29.6bn	3.5	3.9	3.5	3.0		
Investment	€69.0bn	51.7	-31.0	-7.3	9.7		
Exports	€352.6bn	4.4	7.8	7.0	5.6		
Imports	€263.3bn	18.5	-9.4	-0.1	7.0		
Earnings		Percentage n	ominal chang	e over previo	us year		
Average Hourly Earnings	€22.43	0.8	1.7	2.9	3.4		
Government Finances		Percentage of	F GDP				
General Government Balance	-€0.7bn	-0.5	-0.2	-0.1	0.0		
Gross Debt	€201.3bn	73.4	68.4	64.0	61.4		
Labour Force	Labour Force		Percentage change over previous year				
Employment	2,194,150	3.7	2.9	2.9	2.3		
1 3	, , ,	Percentage of labour force					
Unemployment	157,850	8.4	6.7	5.7	5.2		

Notes:

Projections for *Gross Domestic Product* and components refer to real economic activity; *Investment* refers to Gross Fixed Capital Formation; *Employment*, *Unemployment* and *Earnings* all represent the average value over the four quarters.

We make the technical assumption of offsetting or minimal further volatility to the national accounts arising from multinational tax avoidance activities.

Sources: See Table 1.2. NERI estimates for 2018-2019.

The labour market outlook remains very positive and we are projecting strong employment growth over the next 12-to-18 months, albeit slower than current levels of growth. Likewise, the unemployment rate will continue to fall but a slower pace than in recent years. The unemployment rate will be close to 5 per cent by the end of 2019. The tightening labour market will lead to faster real wage growth. We project real average hourly earnings will increase by over 2 per cent in 2019 as nominal wages

outstrip price increases. Workers in sectors likely to grow particularly quickly, such as the construction sector responding to housing demand, should experience even faster wage growth. House prices and rental costs are likely to continue their fast growth given the supply and demand mismatch in the sector. Underlying imports (i.e. non-R&D imports) should grow quickly in 2019 given the expected growth in domestic incomes and demand. Exports should benefit from the general strengthening of the euro area economy, notwithstanding risks from US protectionism and Brexit.

Box 1.2 Selected Macroeconomic Risks and Uncertainties: Republic of Ireland

- A) Brexit. Our expectation is that, at minimum, the 21-month Brexit transition period will still take place. If so, this will delay much of the macroeconomic consequences of Brexit until beyond our forecast horizon. A transition period with a hard Brexit tagged on the end will still damage consumer and investor confidence in the short-term. Increased tariffs and regulatory burden would put additional pressure on exporters. A hard Brexit would also likely induce a crash in sterling with implications for Irish exporters.
- **B)** Rising interest rates. The ECB will tighten its monetary policy over the short-to-medium-term. If the ECB increases interest rates earlier or more aggressively than expected then there would be negative consequences for the Irish economy given the still-high public and private debt ratios. Higher interest rates will reduce domestic demand and could expose fragilities in the economy.
- **C) International corporation tax policy**. From a tax justice perspective, the momentum towards a Common Consolidated Corporate Tax Base is welcome. Even so, the impact on the Republic's economy will be negative. Most obviously, a portion of corporate tax receipts will be lost to the exchequer implying a deterioration in the public finances. However, there could also be an effect on investment decisions in 2019.
- **D) Protectionism and trade wars**. The unpredictable nature of the US administration and its imposition of trade tariffs on China and other countries could lead to an escalating trade war. The potential for a decline in global trade would have negative implications for a small open economy like the Republic.
- **E) Energy prices.** A rise in energy prices, for example caused by geopolitical instability in an oil producing country, would mean an increase in input costs for business and would reduce real disposable income for households. Such an event would reduce corporate investment and private consumption.
- **F) Financial sector and emerging market vulnerabilities crisis.** A number of emerging markets are at risk from rising interest rates in the US. Higher interest rates could lead to capital flight and market instability. In addition, countries with dollar denominated debts are at risk from a strengthening US dollar. There are concerns that debt levels have risen too far in a number of countries including China and that the probability of another financial sector crash has risen.

1.3 Northern Ireland

Many of the short-term indicators for the Northern Ireland economy appear to be largely benign. Employment and jobs are increasing and output growth, while not impressive, is at least positive. However, on closer inspection the health of the labour market does not appear to extend much beyond job numbers and there are few indications that increases in employment are impacting positively on living standards. The absence of any political direction for the economy, especially with regard to the process of exiting the European Union, weighs heavily on the outlook for the Northern Ireland economy.

Table 1.4 Dashboard of Macroeconomic Indicators (Northern Ireland)

	(1111)								
	2013	2014	2015	2016	2017	Latest			
	Percenta	ge volume ch	nange over p	revious year					
Gross Value Added	0.1	1.6	3.4	1.8	-	1.8 (2016)			
NICEI	-0.1	0.7	16	1.6	8.0	1.2 (Q2 2018)			
Index of Services	0.5	1.0	1.1	2.9	1.7	1.3 (Q2 2018)			
Index of Production	1.2	2.3	1.7	0	-2.9	0.2 (<i>Q2 2018</i>)			
Percentage annual average rate of change									
Employment Rate	-0.6	1.8	0.2	2.1	-1.2	-0.6 (<i>M6-M8'18</i>)			
Average Hourly Earnings	2.5	-1.3	4.2	1.5	2.8	2.8 (2017)			
Price Inflation (UK)*	2.3	1.5	0.4	1	2.6	2.2 (M9'18)			
	Percenta	ge of GVA							
Exports	29.1	27.2	25.7	26.6	-	26.6 (2016)			
Government Spending	58.5	57.5	55.5	54.0	-	54.0(2016)			
	Percenta	ge of labour	force			,			
Unemployment	7.5	6.4	6.1	5.8	4.6	4.3(<i>M6-M8 '18</i>)			
Youth Unemployment	22.5	19	19.3	14.9	-	8.4 (<i>M8 -M10 '17</i>)			
Long-term Unemployment	4	3.4	3.6	2.6	2.3	2.2(<i>M6-M8'18</i>)			
	Percenta	ge of popula	tion						
Relative Poverty	21	22	18	-	-	18 <i>(2015)</i>			

Notes:

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

Source:

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

The rate of inflation unexpectedly increased to 2.4% in August, before dropping again to 2.2% in September. Given that inflation had been static at 2.3% for May through July, it would appear that the downward trend that began late last year is continuing. This situation makes it harder to argue for an increase in interest rates, but it is quite possible, given recent decisions, that the Bank of England's Monetary Policy Committee will continue with policy tightening in spite of this.

The Northern Ireland Composite Economic Index increased by 1.2 in the second quarter of 2018 due in large part to a very significant turnaround in construction sector output. The index of Construction increased by 6.2% in the second quarter having fallen by over 8% between Q2 of 2017 and Q1 of 2018. The Index of Services in Northern Ireland increased by 1.3% over the quarter but *Business Services and Finance*, which would be considered as one of the higher value-added service sectors, contracted by 1.2% over the quarter. Output in this sector experienced a rapid decline during the economic crash of 2008 and has yet to significantly recover. *Wholesale and Retail* experienced a substantial contraction in 2017 but output growth has returned to trend following a string rebound in early 2018.

120
100
80
60
40
20
20
0
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018
Output Employment

Chart 1.1 Index of Manufacturing Output and Employment Northern Ireland 2005-2018 (2016=100)

Source: NISRA Index of Production; NISRA Annual Population Survey

The Index of Production reordered an increase of 0.9 per cent in Q2 2018. This is the third successive increase in output following a decline of more than 6% over the course of 2017. However, the level of output is only marginally above where it was this time last year and still 2.2% below where it was in 2016. Much of that decline had been confined to the *Food, Beverage and Tobacco* section of *Manufacturing* which experienced a dramatic contraction in 2017. This subsector has begun to recover and consequently so too has the *Manufacturing* index as a whole, but the quarterly figures for the *Production* sector are also bolstered by a significant increase in *Mining and Quarrying* output. Output in *Mining and Quarrying* represents a very small part of the *Production* sector and output tends to be very volatile and so the improved performance of *Manufacturing* is more noteworthy.

Output in the *Food, Beverage and Tobacco* sector, which accounts for 22.3% of all *Manufacturing*, increased by 5.9% over the quarter but there were also increases in *Basic and Fabricated Metal Products* (7.3%) and *Other Manufacturing* (2.1%) which between them account for 26.1% of all *Manufacturing* output. While this represents a welcome recovery in the *Manufacturing* sector there is a concern over the trend of productivity in the sector. While output in *Manufacturing* overall increased by 1.3% in the last quarter, productivity only increased by 0.3%. Productivity is still 5% below where it was in 2017 and 9% below where it was in 2016. Output and Employment in *Manufacturing* have often diverged in the past but the gap this time is larger and more persistent. This has implications for the economy as whole because over the last 10 years, on average, three quarters of all productivity growth has come from Manufacturing sector.

Employment growth in Northern Ireland over the last number of quarters has been strong. The total number of people in employment reached 849,000 in January of this year, the highest level recorded in the current Labour Force Survey. Importantly the employment rate also reached a record high of 69.8% in January as did the unemployment rate which fell to 3.2%. Unemployment in Northern Ireland actually fell below the rate for the UK as a whole. Both of those measures have fallen back slightly toward the middle of this year and while economic inactivity remains a persistent weakness, the positive trend in terms of active labour market participants appears incontestable.

Given these tight labour market conditions, it might be expected that wages would begin to come under significant pressure, but there is very little evidence that this is the case. The Annual Survey of Hours and Earnings provides the only reliable data on wages in Northern Ireland and the results for 2017 showed that Median full-time weekly wages grew by 2% that year, less than the 2.2% growth for the UK. Her Majesty's Revenue and Customs have begun releasing more up to date information on pay levels on an experimental basis. The HMRC figures show that Northern Ireland had the joint lowest increase in median weekly wages (2.9%) in the 12 months ending in March 2018. Such a divergence in employment and pay has drawn further attention to the quality of employment that is being created in the economy. Research in this area is already under way and Box 1.3 examines these issues in further detail.

Box 1.3 Measuring Job Quality: The 'Better Jobs Index'

This increased concern over job quality in the UK was initially formalised by Prime Minister Theresa May when she commissioned Matthew Taylor, Chief Executive of the RSA to undertake a review of modern working practices. One of the key recommendations made by the Commission in its report was that the UK Government should identify a set of metrics against which it will measure success in improving work, and report annually on the quality of work on offer in the UK. Responding to this recommendation the UK Government committed to enact this recommendation and engaged with a Working Group chaired by the RSA and the Carnegie Trust. They sought to respond directly to this specific recommendation and consider the practical steps required to implement a set of national job quality metrics.

Similarly, the importance of job quality has now been recognised separately in Northern Ireland. Specifically, the draft Programme for Government published just prior to the collapse of the Assembly in 2016 had included a commitment to increase the number of people working in 'better jobs' and to track the quality of work in Northern Ireland via a 'Better Jobs Index'. Such a measure does not currently exist, although a commitment remains for its development – and indeed work to this end is ongoing in the Department for the Economy.

There has, however, been little information to date as to what might be included in the final 'Better Jobs Index', how it will be presented or the steps being taken to reach a consensus on the metric that will be used. This is made all of the more complicated by the fact that there is no commonly agreed set of metrics used to describe job quality, track it over time, compare it between different contexts or groups of people and analyse whether the quality of jobs is improving or worsening. That said the recently published report from the RSA and the Carnegie Trust titled 'Measuring Good Work' provides, from a Northern Ireland point of view, a particularly useful summary of existing measures of job quality and also gives policy pointers for the development of a measure of job quality. In terms of the development of the 'Better Jobs Index' it is a very timely publication. Specifically, there are two recommendations made in the 'Measuring Good Work' report that are of particular pertinence to the 'Better Jobs Index' and which should be seriously reflected upon by those involved in its development.

The first relates to the conclusion that an accurate assessment of job quality cannot be achieved through a single metric such as that proposed in Northern Ireland. The point is made that because job quality is a complex, and multi-faceted concept and so may require varied policy interventions, the different aspects of job quality need to be understood, measured and reported on separately. To this end the report recommends that seven dimensions should be used to assess quality of work annually by the UK Government, and presented via a dashboard. These include pay and benefits; job design and the nature of employment including job security; health and safety at work; work-life balance; social support and cohesion; voice and representation. Previous research conducted on job quality by the NERI leads us to share this view, as it becomes clear when a number of measures of job quality are collapsed together not only is the nuance lost and variations in particular indicators masked behind an average, but also as a result it is more difficult to determine the correct policy levers to improve particular aspects of job quality.

Secondly, the 'Measuring Good Work' report recommends that consideration needs to be given to the concept of a minimum baseline of job quality. This recommendation is particularly important in Northern Ireland given that the proposed measure is called a 'Better Jobs Index'. The immediate follow-on from this from a policy point of view needs to be 'Better than what?'. Will a 'better job' be one that has seen small improvements across many aspects of job quality? Or will a 'better job' be defined as one that has seen big improvements across one aspect of job quality? or will there be some threshold or description given as to what is a poor-quality job with only growth in jobs above some agreed upon threshold being counted as demonstrating an increase in better jobs? The NERI has been following very closely the developments in relation to the measurement of job quality both in the UK and in Northern Ireland, and are specifically engaged in the issue of how the RSA and Carnegie Trust's recommendations relates to the 'Better Jobs Index' in Northern Ireland.

2 Productivity on the Island of Ireland – A tale of three economies

2.1 Introduction

Northern Ireland (NI) and the Republic of Ireland (ROI) form two distinct, but interrelated, economic entities on the island of Ireland. Despite their common origin and isolated geographical proximity, they have experienced markedly different economic trajectories in the century since one part of the island gained independence from the United Kingdom.

The scale of foreign direct investment (FDI) into ROI has dramatically altered measures of economic output and opened a chasm between the two economies in terms of output per capita. Similarly, the structure of output and employment has changed significantly in ROI compared to both NI and the EU15³. In this edition of the Observer, we explore what this change implies for productivity in the two jurisdictions in aggregate terms as well in terms of firm control. The divide in productivity between foreign and domestic controlled enterprises, we argue, conceals a great deal of weakness in the economy of ROI, leading to three relatively distinct economies on the island; a foreign dominated ROI economy; a domestic ROI economy; and the NI economy.

2.2 Aggregate Productivity in Northern Ireland and The Republic of Ireland

A significant gap in labour productivity is apparent between NI and ROI from the turn of the century. Chart 2.1 outlines Gross Value Added (GVA) per hour worked in both NI and ROI as a percentage of the EU15 between 1997 and 2016. The chart shows that the gap between NI and the EU remains relatively stable over the period with NI declining in relative terms up to 2008 after which it maintains a level trend. However, ROI shows gradual improvement relative to the EU15 up until 2007. Following a small blip in 2008, the rate of growth in productivity substantially increased even before the 2015 level jump in output. ⁴

³ The 15 Member States of the European Union as of 2003. These states are comparable in terms of developmental levels, unlike the broader EU28, which includes middle-income countries.

⁴ This level shift largely reflects accounting practices on the part of multinationals, which have distorted national statistics in the Republic. These activities have biased aggregate statistics in

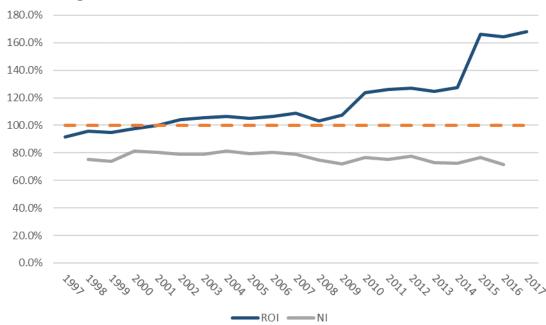


Chart 2.1: Gross Value Added per Hour ROI and NI 1997-2016 as percentage of EU15 Average

Source: Eurostat (2018) & ONS (2018). See Goldrick-Kelly and MacFlynn (2018).5

The latest complete regional data set corresponding to 2014 indicate that there is a large variation in the performance of sub regions in both economies. In PPS terms⁶, the leading region Dublin has a measured productivity level of over three and a half times the weakest performer. The scale of the performance gap is noteworthy, though it likely partially reflects multinational activity in the region.

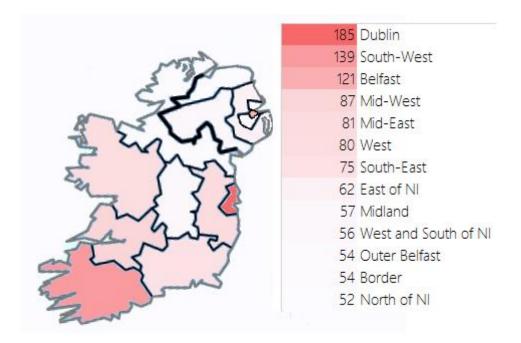
Of the 13 sub regions on the island, Belfast is the only NI sub-region to make the top half and is the only NI sub-region with a productivity level higher than that of the ROI average. Chart 2.2 shows that the, northern, border and midlands areas of both NI and ROI have the lowest productivity levels. Without the Belfast sub-region, the productivity divide on the island would look much like the North/South division in prosperity in the UK. Nonetheless, the Dublin region has an output per head of population one and a half times that of the Belfast region, which exceeds the ratio of London to Belfast GVA per capita.

ROI, which should be interpreted with caution. The shift represented an increase in the scale of these distortions, though they have been present for some time.

⁵ All sources and citations are available in the accompanying working paper.

⁶ Purchasing power standard (PPS) is used by Eurostat to adjust for price differences between different Member States.

Chart 2.2: Gross Value Added per Capita by ROI and NI Sub region 2014 as percentage of All-Island Regional Average



Source: CSO (2018) & NISRA (2017)

Notes: Measures of output per head of population are not ideal for assessing true productivity levels, but they do give some indication of regional performance. The output of city regions tends to be overstated. This is because we calculate populations on a residence basis, but measure output at the workplace level. As cities generally have larger populations of workers than residents, productivity performance measured by head of population tend to be biased.

Restricting measured GVA to the non-financial business economy, we see that ROI is an exceptional case.⁷ When dividing GVA by enterprise control, we observe that unlike the EU15 and NI cases, where the domestic sector produced about three quarters of GVA in 2014, the foreign controlled sector generated a majority (53.1 per cent) of GVA in ROI. This points to a potential divide in labour productivity in ROI hidden in aggregate statistics.

(NACE REV.2 Sector K) and Public Sector/non-market activities (NACE REV.2 Sectors O-U). See Eurostat Glossary (2018).

⁷ The Business economy refers to industry (NACE REV.2 Sectors B-E), Construction (NACE Rev.2 Sector F) and Services (NACE REV.2 Sectors G-J and L to N). This aggregate excludes Agriculture Forestry and Fishing (NACE REV.2 Sector A), Financial and Insurance Activities

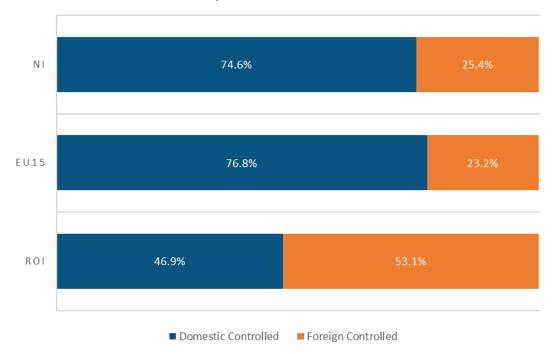


Chart 2.3: Gross Value Added by firm control 2014

Sources: Eurostat (2018).

Notes: We use 2014 data here as SBS statistics for that year offer more complete sectoral data and also because 2014 predates the major step change in output that likely biases GVA results in both the foreign and domestic sectors.

2.3 Trends in Foreign and Domestic Controlled Productivity in the Republic of Ireland

Chart 2.4 displays labour productivity in GVA per person employed in ROI in the foreign controlled and domestic sectors as a ratio of their matching values in the EU15. We compare productivity in domestically controlled enterprises in ROI with domestically controlled enterprises in the EU15. We do likewise for foreign-controlled in ROI and in the EU15. We see that, on average, foreign-controlled firms in ROI are consistently much more productive than their counterparts in the EU15. While the ratio of ROI to EU15 in this sector declines in 2012 and 2014, foreign firms in ROI remain over twice as productive on average. Apparent GVA per person employed in the foreign controlled sector was nearly five times the EU15 average in 2015. This change is tied, however, to the level shift apparent in the national accounts that year, which overstate productivity.

The domestic controlled sector, on the other hand, is slightly underperforming the EU15 average for most of the period only exceeding that level from 2014, where measured labour productivity was some 18 per cent higher than the EU15 average in

current PPS terms. Notwithstanding this, domestic productivity improved relative EU15 averages between 2011 and 2015.

5.00 4.50 4.00 3.50 3.00 2.50 2.00 1.50 1.00 0.50 0.00 2008 2009 2010 2011 2012 2013 2014 2015

Chart 2.4: Ratio of Domestic and Foreign Productivity in ROI to Corresponding EU15 2008-2015 (Current PPS)

Sources (Eurostat, 2018a, 2018b)

Note: No data are available for ROI in 2013

2.4 The Structure of the three economies

■ ROI to EU15 Foreign Controlled

The scale of FDI in ROI clearly has an impact on the size of output in the economy but also on the levels of labour productivity. This effect is even more pronounced in certain sectors of the economy where multinational firms dominate.

■ ROI to EU15 Domestic Controlled

Comparing the domestic economy of ROI with that of the NI and the EU15 domestic economy, we observe similarities and differences.⁸ In terms of output, Table 2.1 shows that the *Manufacturing* sector's share in domestic ROI is significantly smaller than in NI or the EU15 average. On the other hand, the domestic *Accommodation and Food* sector in ROI accounts for a much larger share of output than is the case in NI. Since the NI figure includes foreign and domestic, such a large difference might be expected. However, the domestic ROI *Accommodation and Food* sector is also significantly larger

⁸ It has not been possible to separate out NI domestically owned (UK level) and foreign-owned (non-UK level).

than the average for EU15 domestic firms, and so the NI figure appears to be more conventional than the ROI figure. There is a large increase in the share of output in *Administrative and Support Service* between 2012 and 2014.

Table 2.1: Output share ROI Domestic, EU15 Domestic and NI

	ROI Domestic		EU 15 Domestic		NI	
Sector	2012	2014	2012	2014	2012	2014
Manufacturing	12.7	13.6	23.3	23	23.3	24.5
Wholesale and retail	21.5	19.4	18.0	17.9	28.4	26.1
Transportation and storage	11.8	11.1	8.7	8.5	7.5	7.7
Accommodation and food	7.3	5.9	4.1	4.0	3.7	4.0
Information and communication	5.5	6.2	7.5	7.3	5.3	5.6
Real estate activities	2.0	2.1	4.9	4.8	3.0	2.6
Professional, scientific and technical	13.0	12.8	11.1	11.5	6.3	7.0
Administrative and support service	6.8	13.9	7.1	7.8	5.8	6.5
Other	19.4	15.0	15.3	15.2	16.8	16

Source: Eurostat (2018) & NISRA (2018)

Table 2.2 shows the same breakdown for employment structure and many of the gaps in output share between the ROI domestic economy and the EU15 are reflected in the structure of employment. In the ROI domestic economy, *Manufacturing* has a comparatively small share of employment similar to its smaller share of output, which is not the case in the economy at large. Overall, it would appear that the ROI domestic sector is relatively concentrated in lower productivity sectors.

Table 2.2: Employment share ROI Domestic, EU15 Domestic and NI

Table 2.2: Employment share KOI Domestic, E015 Domestic and Ni							
	ROI Domestic (%)		EU 15 Dome	stic (%)	NI (%)		
Sector	2012	2014	2012	2014	2012	2014	
Manufacturing	9.5	11.8	19.1	18.6	17.6	18.3	
Wholesale and retail	29.3	27.0	24.5	23.9	31.1	29.9	
Transportation and storage	7.9	8.7	7.9	7.7	5.8	6.1	
Accommodation and food	17.1	14.7	9.1	9.3	10.0	10.6	
Information and communication	4.3	4.7	4.3	4.5	4.0	4.3	
Real estate activities	2.6	2.0	2.3	2.5	2.0	2.1	
Professional, scientific and technical	10.7	10.8	9.7	10.0	6.3	6.2	
Administrative and support service	8.6	7.9	10.3	10.9	11.2	11.0	
Other	10.0	12.3	12.7	12.6	12.0	11.3	

Source: Eurostat (2018) & NISRA (2018)

Comparing the foreign sector in ROI to its EU15 equivalent, we see that ROI has a considerably larger share of output devoted to *Manufacturing* and *Information and Communication*. In terms of employment, ROI *Manufacturing* employment in foreign firms is much the same as it is in the EU15. ROI has a large gap with the EU15 when it

comes to the share of foreign output in the *Information and Communication* sector, but this gap is also present in the share of employment in the same sector.

Table 2.3: Share of Output and Employment by Sector ROI and EU15 Foreign 2014

	ROI Foreig	n (%)	EU 15 Foreign (%)		
Sector	Employment	Output	Employment	Output	
Manufacturing	25.6	47.0	32.4	33.2	
Wholesale and retail	27.6	11.8	25.6	22.0	
Transportation and storage	3.5	1.3	6.3	5.4	
Accommodation and food	8.0	1.1	4.6	1.7	
Information and communication	12.2	30.7	7.3	12.5	
Real estate activities	1.3	0.5	1.0	1.0	
Professional, scientific and technical	6.4	2.5	6.2	7.5	
Administrative and support service	12.5	3.4	11.0	7.6	
Other	2.9	1.8	5.0	9.1	

Source: Eurostat (2018)

NI appears quite similar to average domestic activity in the EU15 compositionally, while the domestic sector of ROI is comparatively distinct. Gaps in the domestic sector appear where the foreign sector dominates. This is especially true of *Manufacturing*.

2.5 Foreign and Domestic Productivity in the Republic of Ireland

Average labour productivity in the domestic non-financial business economy was comparable to EU15 levels in 2012 and 2014. Aggregate statistics, however, disguise differences in sectoral performance. ROI performs well in comparative terms domestically in *Manufacturing, Transportation and Storage, Professional, Scientific and technical activities* and *Administrative and support service activities* in both years. The domestic economy sees relative underperformance compared to the EU15 in *Information and Communication* and *Real Estate Activities* in both years, albeit with improvement in the relative position between 2012 and 2014.

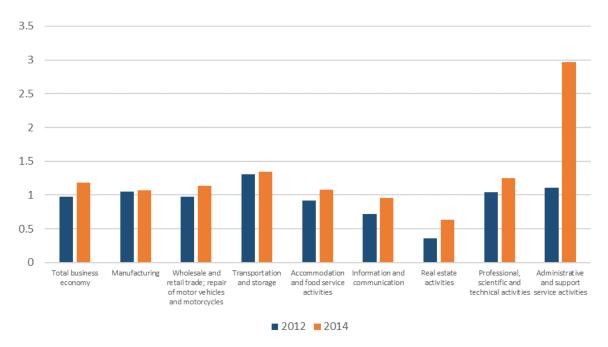
On the other hand, some sectors such as *Wholesale and retail trade; repair of motor vehicles and motorcycles, Accommodation and food service activities* go from relative underperformers to over performers between 2012 and 2014, perhaps reflecting demand side improvement as the economy began to grow. Relative improvement is most noticeable in the *Administrative and support service activities* sector.

Total domestic GVA per person employed in the non-financial business economy moved from 0.97 to 1.18 times the EU15 value between 2012 and 2014. This amounts to a relative move of 21.6 per cent. *Administrative and support service activities,* on the

other hand, moved from 1.11 times its EU15 counterpart in 2012 to 2.97 times in 2014. The relative move here is nearly eight times the corresponding move for the non-financial business economy as a whole.

The drastic shift between 2012 and 2014 is explained by growth in measured productivity changes in the *Rental and Leasing* subsector.⁹ This is likely consistent with phenomena noted in the development of GNI* in the aircraft leasing sector.

Chart 2.5: Ratio of GVA per person employed (Current PPS) ROI to EU15 Domestic Controlled 2012 and 2014



Sources: Eurostat (2018a), Eurostat, 2018b.

While this category represented a relatively high productivity component of the overall *Administrative and support service activities* sector compared to other subsectors in 2012, labour productivity was over 6 per cent below EU15 levels in 2012. By 2014, output per person employed in *Rental and Leasing* in ROI was more than 5.5 times as high as it was in the EU15. This effect is large enough to substantially bias measured productivity in the non-financial business sector (Chart 2.6). While this exclusion has marginal effects in 2012, measured productivity in the domestic economy in ROI falls by over 10 per cent compared to a decline of just 1.2 per cent in the EU15 case in 2014. This raises questions about the reliability of aggregate domestic

 9 This accounts for 93.9 per cent of the change in measured GVA. No commensurate gain in employment occurs.

-

data which appear to be affected by many of the same forces afflicting the national accounts.

60,000 1.2 50,000 1 40,000 0.8 30,000 0.6 20,000 0.4 10,000 0.2 0 Ω 2012 2014

■ Ireland ■ EU15 ◆ Ratio ROI to EU15

Chart 2.6 GVA per person employed ROI and EU15 2012 and 2014 in nonfinancial business sector excluding rental and leasing

Sources: Eurostat (2018a), Eurostat, 2018b.

The foreign controlled sector of the ROI economy is substantially more productive than the domestic economy in general. While we observe that this is not unusual, this differential is relatively pronounced in the ROI case. The foreign controlled economy in ROI also significantly exceeds the corresponding EU15 average, with measured productivity levels double aggregate levels there.

However, this performance varies by sector. Labour productivity in the *Accommodation and food service activities, Real estate activities* and *Professional, scientific and technical activities* sectors is below EU15 averages. Aggregate performance appears to be driven by two principal sectors: *Manufacturing* and Information *and communication*. Aggregate *Manufacturing* is approximately 4 times as productive as the EU15 average in 2012 and 2014.

Information and Communication is also the sector that most improved its position relative the EU15 average. While aggregate non-financial business sector productivity fell by 4.8 per cent in ratio terms, *Information and Communication* improved its relative ratio position by 64 per cent.

2.6 A comparison of Productivity in the Three Economies

Making comparisons between the foreign and domestic economies in ROI and the whole economy for NI is inexact but it does show some interesting results. The NI economy comes behind both sectors of the ROI economy in all but 1 industry, *Wholesale and Retail*. High levels of measured productivity are clearly driven by the foreign sector in ROI with two exceptions. *Transportation and Storage* is more productive in the ROI domestics sector, but only marginally so.

It is the case then that foreign controlled firms drive that higher levels of apparent productivity in ROI but there has been some positive spill over into the domestic economy. The spill over has not been as large as could be expected particularly so in *Information and Communication* and less so in *Manufacturing*. For Northern Ireland, a higher level of FDI than the EU15 has not resulted in a higher level of productivity overall. We do not have any indication of how much more productive the foreign sector is to the domestic sector in NI, but either the productivity profile of foreign firms in NI is lower than expected or the degree of spill over from foreign to domestic is lower than expected. Either scenario raises serious questions for policy in NI.

Table 2.4 GVA per Employment ROI, Domestic and Foreign, and NI 2014 (PPS)

(FF3)			
Sector	Domestic ROI	ROI Foreign	NI
Total	53,527	179,603	45,357
Manufacturing	61,492	330,220	56,331
Wholesale and retail	38,474	76,555	40,193
Transportation and storage	67,887	67,289	56,855
Accommodation and food	21,576	23,856	16,748
Information and communication	69,726	452,418	50,654
Real estate activities	55,137	62,488	54,103
Professional, scientific and technical	63,576	69,880	51,252
Administrative and support service	94,595	48,866	23,213

Source: Eurostat (2018) & NISRA (2018)

Note: Sectoral productivity in the Republic of Ireland and EU15 was compiled using Factor GVA. In the case of Northern Ireland, the matching structural business statistics data set reports GVA data in basic terms. GVA at Factor cost+ (Production Taxes – Production subsidies) = GVA at basic prices. As a result, relative comparisons are imperfect, though they point to the relative scale of productivity differentials. Eurostat Purchasing Power Standard is used to adjust for price differences. For a discussion of the limitations of this approach see Goldrick-Kelly and MacFlynn (2018).

2.7 Conclusions

Foreign direct investment has been a key plank of industrial strategy in ROI since as early as 1949. Alongside its corporate tax rate and tax regime, the state used a programme of financial grants and assistance through the Industrial Development

Agency (IDA) to attract foreign investment. The apparent success of this strategy drove attempts in NI to replicate many of these policies. Invest Northern Ireland and its precursor organisations have sought to imitate the IDA strategy particularly during the years that NI also enjoyed Assisted Status. Similarly, since 2007/08 it has also been the policy of successive Northern Ireland Executives to reduce corporation tax in NI to the same level as ROI, specifically in order to compete in attracting FDI.

The motivation for such policies in NI is understandable. ROI surged ahead of NI in the years in which it seemed to attract the most FDI, and its recovery after the financial crash appears to be inextricably linked to the performance of foreign dominated industries. While measured productivity in foreign controlled enterprises exaggerates economic performance in ROI, the foreign sector does contribute to real activity and domestic productivity also made some modest improvement. However, the range of policy levers available to the ROI government and state agencies is far greater than anything that would ever be available to NI. Attempting to use the limited policy tools available to a Northern Ireland Executive in order to replicate seemingly successful policies in ROI would likely be futile. However, when assessing the success of FDI in ROI it is also necessary to look beyond scale. FDI bolsters ROI's productivity because of the presence of foreign firms, but it also likely has an effect on the productivity of domestic firms.

Measuring the success of FDI by the proportion of output or the number of firms or employment that is accounted for by foreign controlled firms is to partially miss the point of FDI. The goal of attracting FDI is not simply to lure in more productive firms. It is also to attract foreign firms in particular industries which will either lift the performance of existing domestic firms within that industry or create a new set of domestic firms within that industry. Ideally, FDI must add more to the economy than simply the value of foreign firms, their employees and output. In essence, the true value of FDI includes the spill-over effect generated.

The success of FDI is very much tied to the initial conditions within an economy. The literature indicates that <u>FDI can be negatively associated with host country productivity</u> and <u>effects can vary significantly by sector and industry</u>. The effect of FDI from sector to sector is very much tied to the state of that sector in the host economy, with strong evidence to suggest that <u>impacts reflect the extent to which local firms are integrated into the production process related to FDI activity</u>.

Many issues such as **geography and the technological intensity of the investment are determinants of the extent of spill over effects**. The most important factor, however, is the absorptive capacity of the domestic economy, in essence whether existing firms are able to take advantage of the growth opportunities that FDI brought. Absorptive capacity is a theme that is present in nearly all evaluations of FDI spill overs, yet it is one of the most under examined in terms of FDI policy. On absorptive capacity, there is evidence that **NI is underperforming in skills and that the economy may be incapable of coordinating skills demand and supply to meet the opportunities of FDI.** Human capital investment is a necessary precondition for FDI to add value to the economy and a new skills framework is required to address this shortcoming in NI.

For ROI, the results from the productivity performance of the domestic side of some sectors also point to significant policy issues. In particular, the underperformance of the *Information and Communications* sector at the domestic level in 2014 is striking. This sector has seen some of the most intensive and high value FDI in recent years, yet domestic performance is still below that of the EU15 average. Furthermore, the underperformance of the Retail sector in ROI compared to NI shows that in terms of the largest sector in the domestic economy, ROI is actually the weaker region. Greater levels of competition in the UK and NI may be a factor in this regard.

Recent firm level work by the Department of Finance suggests that averages may understate the extent of the productivity problem, given the divergence between the best and worst performing firms, something that appears relatively pronounced in ROI. Indeed, their data indicate that the median firm in the broad Manufacturing or Services have experienced a decline in productivity since 2006. Changes in measured productivity in Administrative and support service activities between 2012 and 2014 are suggestive of bias in measured productivity in the domestic sector. The domestic sector may be considerably less productive than apparent labour productivity indicates. The question of management capacity in firms is a recurrent weakness in studies of the NI economy but research has found that poor management performance is also a factor in domestic ROI firms.

In addition to this the relative preponderance of economic activity in sectors such as *Accommodation and food service activities* in the ROI puts into question policy support in these areas by way of tax inducements or other incentives. A developmental policy

for ROI might be better constructed by focusing on industries where the domestic economy has a productive edge, or has the potential to gain one, particularly where such a sector remains relatively underdeveloped in output or employment terms. The relative opportunity costs of directing (or forgoing) resources towards lower productivity areas suggest the state could attain better outcomes in other sectors. These sectors could, in turn, support employment with higher wages and long-term growth prospects, helping address issues such as low pay in ROI.

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