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# Quarterly Economic Review

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Economic Research  
Summer 2008

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Stimulating  
**innovation**  
**enterprise** and  
**competitiveness**

# FOREWORD



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Minister for Enterprise, Trade  
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This is a very challenging period for businesses in Northern Ireland, particularly as the impact of the global economic slowdown takes effect. At a time when firms are already suffering from the fall-out of the 'credit crunch', rising oil and energy prices are particularly unwelcome. Moreover, the recent reductions in house prices could further dampen consumer confidence.

This Quarterly Economic Review highlights the slowdown being experienced in the majority of developed economies around the world. It is, however, encouraging to note that recent forecasts indicate that Northern Ireland is reasonably well placed to 'weather the storm', particularly due to the recent growth in the labour market.

Furthermore, with businesses in key investment markets such as the US and Europe feeling the impact of the slowdown, recent investments in Northern Ireland highlight the confidence that external investors continue to have in our economy. For example, Bombardier recently announced the largest ever single investment in Northern Ireland, with Invest NI supporting investment of over £500m in

the economy. We have also recently had key investments by firms such as Citi, Fujitsu and Tech Mahindra. Events such as the recent US NI investment conference – which was attended by over 150 influential business leaders – will help to build on these successes.

The Executive also continues to prioritise the economy through the Programme for Government (PfG). As part of this, DETI's targets and actions, outlined in its Corporate Plan<sup>1</sup>, are aimed at strengthening the competitive position of local businesses.

This Review also outlines the work that DETI has been undertaking to promote the importance of strengthening private sector productivity in Northern Ireland. There is also a section on the Department's research agenda, 2008-11, and the current efforts being taken to ensure that our policy interventions continue to be made on the basis of a sound evidence base.

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<sup>1</sup> Available at <http://www.detini.gov.uk/cgi-bin/downutildoc?id=2196>

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# 1

## GLOBAL REVIEW AND OUTLOOK

A number of factors are currently having a negative impact on world economic growth.

These include the ongoing fall-out from the credit crunch, declining house prices in many of the major industrialised economies and rising commodity prices.

The latest figures from the International Monetary Fund (IMF) estimate that while the global economy grew by 5.0% in 2007, prospects for growth in 2008 are lower at 4.1%. It remains unclear as to how protracted the reduced levels of growth will be, and the IMF predicts that an immediate recovery is unlikely. In 2009, GDP growth is expected to be broadly unchanged at 3.9%.

### US Economy Slows

Weak growth in the fourth quarter of 2007 continued into early 2008, mainly due to the impact of problems within the US financial markets. A range of other economic indicators have also deteriorated, including unemployment, consumer confidence, and further reductions in house prices.

The US has also seen inflation levels increase sharply, driven by high energy, food and other commodity prices, alongside the weakening dollar.

Real GDP Growth (%)

**Table 1**

	2007	2008 <sup>1</sup>	2009 <sup>1</sup>
World	5.0	4.1	3.9
US	2.2	1.3	0.8
Eurozone	2.6	1.7	1.2
Germany	2.5	2.0	1.0
France	2.2	1.6	1.4
Ireland***	5.3	-0.4	2.0
UK**	3.0	1.75-2.25	2.25-2.75
N Ireland*	3.5	1.8	2.0
Japan	2.1	1.5	1.5
China	11.9	9.7	9.8
India	9.3	8.0	8.0
Russia	8.1	7.7	7.3

Note: <sup>1</sup> Forecast

Sources: IMF World Economic Outlook; \* Oxford Economics (GVA Growth); \*\* HM Treasury: 2008 Budget; \*\*\* ESRI Quarterly Economic Commentary

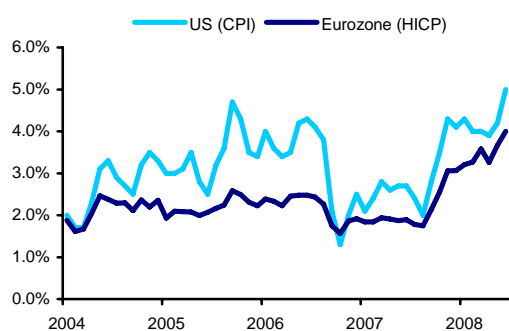
In response to the slowdown, the US Federal Reserve has made successive cuts in interest rates which, along with recent tax rebates, have helped consumer spending. This recently prompted Federal Reserve Chairman Ben Bernanke to state that the risk of a “substantial downturn appears to have diminished over the past month or so.” The IMF now forecast that the US economy will grow by 1.3% this year, although growth is expected to fall further in 2009 to 0.8%.

### Eurozone and Japan

The IMF estimates that, in 2007, Eurozone growth was robust at 2.6%. However, the economies are expected to be hit by the current global economic uncertainty in 2008 and 2009, with growth forecast at 1.7% and 1.2% respectively. The European Central Bank (ECB) has raised interest rates by 0.25 percentage points to help slow Eurozone inflation, which reached a high of 4.0% in June – double the 2.0% target.

Annual Change in Consumer Prices

Figure 1



Sources: Eurostat; US Department of Labor

Japan is not expected to be as strongly affected by the global economic slowdown, with rising prices less of a concern due to almost two decades of deflationary pressure. The IMF forecast the Japanese economy to grow by 1.5% in 2008 and 2009, a reduction of around half a percent from 2007 levels.

### Developing Economies Continue to Grow

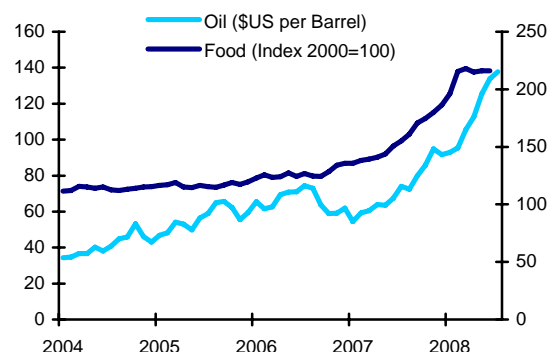
There continues to be impressive growth in the world’s developing economies (estimated at 8.0%). This is expected to reduce slightly in 2008, with the IMF forecasting growth of 6.9% - still well above the 1.7% predicted in the advanced economies. The Chinese economy, which has been driving Developing Asia, is expected to continue rapid growth of 9.7% in 2008 and 9.8% in 2009.

### Global Inflationary Pressures Rising

Oil prices reached a new record high in July, peaking at well over 140 US dollars per barrel. High energy prices, along with recent increases in the price of basic food commodities, have contributed to rising inflation in many economies. There are some signs, however, that oil price inflation is beginning to slow.

Crude Oil and Food Prices

Figure 2



Note: Oil prices on left axis; food prices on right axis  
Oil prices are a monthly average of daily prices  
Sources: US Energy Information Administration; United Nations FAO Food Price Index

### Summary

The credit crunch and other factors such as rising energy and food prices will lead to a major slowdown in growth during 2008 for advanced economies. The IMF forecast this to continue well into next year, however, other commentators such as the ESRI and Oxford Economics are more optimistic about the prospects for 2009.

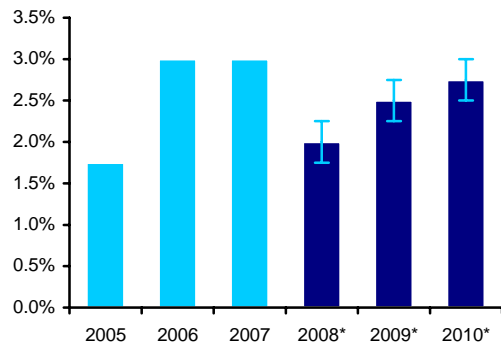
## UK REVIEW AND OUTLOOK

The UK economy experienced real GDP growth of 3.0% in 2007 - the fastest growth within the G7. However, in light of the disruption to the global financial markets, coupled with the increase in energy and commodity prices, the UK is expected to experience a period of reduced growth during 2008.

The IMF estimate that the UK economy will grow by 1.8% in 2008 (within the HM Treasury Budget estimate of 1.75%-2.25%). The latest GDP data suggests that activity has been relatively slow this year, with growth of just 0.3% and 0.2% respectively in the first two quarters of 2008. In 2009, GDP performance is expected to improve to between 2.25% and 2.75%.

### GDP Growth

Figure 3



Note: \*HM Treasury forecast ranges  
Source: Budget 2008

### Sector Performance Slowing

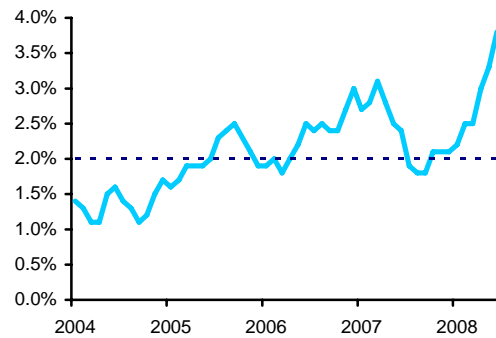
Both manufacturing and services are feeling the impact of the economic slowdown. Manufacturing output in the three months to May 2008 was down 0.2% over the quarter and 0.1% over the year. While the service sector has continued to grow, at 0.4% over the three months to May 2008, this is the fourth consecutive month of growth below 0.5% - the first time since the start of the series in 1995.

### Inflation Rises Sharply

UK inflation is now at its highest level since 1992. Rising food, energy and petrol prices pushed up annual Consumer Price Inflation (CPI) from 3.3% in May to 3.8% in June. The inflation rate is now well above the Monetary Policy Committee (MPC) target of 2%, and the Bank of England has warned that inflation is likely to rise in the second half of this year to over 4%.

### Annual Change in Consumer Price Index

Figure 4



Source: Office of National Statistics

The MPC has maintained interest rates at 5% since the 0.25 percentage point reduction in April. Although rates were held during the most recent July meeting, there was a three way split on whether to raise, lower or maintain interest rates at their current level. With the economy slowing and inflation rising, this highlights the challenge facing the MPC to both boost the economy and manage rising prices.

Although consumer prices have shown sharp increases, house prices have begun to stabilise. Annual house price inflation was 3.7% in May 2008, with the average mix-adjusted house price in the UK at £218,151. Although house prices have risen over the year, latest data indicates that they have levelled since mid-2007.

### Labour Market Performance Steady

Despite the slowing economy, the UK labour market continues to perform relatively well. In March-May 2008, the number of people in employment rose by 1.4% over the year to 29,587,000. The employment rate has also increased, by 0.4 percentage points over the past 12 months, to stand at 74.9%.

Unemployment increased by 12,000 over the quarter, although this still represents an annual decrease of 47,000, with the unemployment rate now at 5.2%. The economic inactivity rate has also experienced a marginal decrease of 0.2 percentage points over the year, and is currently 20.9%.

### Exports Show Strong Growth

Whilst demand from key export markets is likely to slow, UK exports have remained resilient. The weak pound relative to the Euro has helped and the latest data indicates that exports from the UK have continued to grow, increasing by 10.4% over the 12 months to March-May 2008.

### Summary

The UK economy is experiencing the same challenges facing the majority of developed economies around the world. With the impact of the 'credit crunch' and rising inflation, economic growth will slow in 2008. However, the labour market remains strong and the economy is expected to recover in 2009.

## Key UK Economic Statistics

**Table 2**

	Period	Level	Change over 12 months
Total Employment <sup>1</sup>	March-May 2008	29,587,000	1.4 %
Unemployment Rate <sup>1</sup>	March-May 2008	5.2%	-0.2 p.p <sup>4</sup>
Economic Activity Rate <sup>2</sup>	March-May 2008	79.1%	0.3 p.p <sup>4</sup>
Manufacturing Employee Jobs <sup>3</sup>	March 2008	2,887,357	-1.1 %
Service Employee Jobs <sup>3</sup>	March 2007	22,496,469	0.9 %
Total Gross Value Added	2006	£1,128,790m	5.1 %
Manufacturing Output (2003=100)	May 2008	102.7	-0.1 %
Services Output (2003=100)	May 2008	117.3	2.3 %
Average House Prices	May 2008	£218,151	3.7 %

<sup>1</sup> All aged 16 & over

<sup>2</sup> Working age

<sup>3</sup> Unadjusted

<sup>4</sup> Change in percentage point

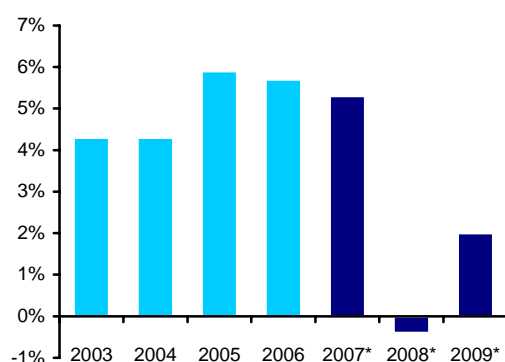
Sources: ONS Labour Market Statistics, ONS Regional GVA, ONS Index of Production, ONS Index of Services, Department for Communities and Local Government House Price Index

## REPUBLIC OF IRELAND REVIEW AND OUTLOOK

The global economic slowdown is expected to have a severe impact on the Republic of Ireland. Forecasts from the latest ESRI Quarterly Economic Commentary (Summer 2008) estimate that the Irish economy will contract by 0.4% in 2008 (compared to strong growth of 5.3% in 2007). This would be the first recession in the Republic of Ireland since 1983.

GDP Growth

Figure 5



Note: \*Forecasts  
Sources: ESRI, OECD

### Labour Market Slowing

While the Irish labour market remains relatively strong, there are signs that it is slowing. Although employment grew by 2.6% over the year to 2.135m in Q1 2008, annual growth has fallen from 3.8% and the number in employment has decreased over the past two quarters. This slowdown is reflected in the ESRI forecasts, which estimate that employment will decline during 2008 and 2009.

The ESRI also predict that the unemployment rate will increase to over 7% by the end of 2008. Provisional figures indicate that there has been a sharp increase in the unemployment rate during 2008 - from an average of 4.6% in 2007. The unemployment rate is estimated to have risen to 5.9% in July 2008.

### Sectoral Downturns

Conditions in the manufacturing sector fell significantly in June, according to the NCB Purchasing Managers Index (PMI). The PMI was 44.7 (values below 50 represent a contraction), which represents the survey's lowest reading and the seventh month of contraction in a row. Both output and new orders continued to decrease, while employment in the production industries has fallen by 7,500 over the year to Q1 2008.

The latest NCB PMI Report on Services also highlights significant challenges in the service sector. Activity fell at a record rate in June, with the PMI at 41.9 – the lowest level in the survey's eight year history. Despite this, service sector employment continued to grow over the year to Q1 2008, driven by strong growth in financial and business services (+26,300) and retail trade (+21,100).

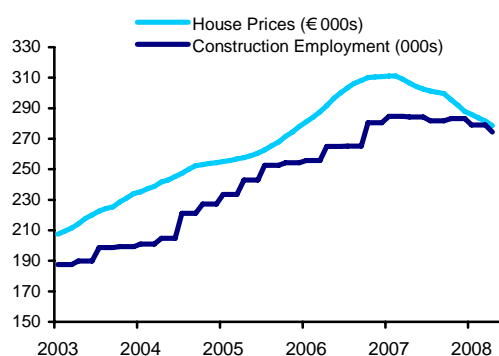
### Rising Inflationary Pressures

Inflation has started to become more prevalent in the Irish economy. Over the year to June 2008, the Consumer Price Index (CPI) increased by 5.0%. The increase was mainly driven by increases in energy products and food & non-alcoholic beverages. Given the inflationary pressures in the Eurozone, the European Central Bank (ECB) increased interest rates to 4.25% in July. This was the first increase in more than a year, with the rate having been maintained at 4.0% since June 2007.

The Permanent TSB / ESRI House Price Index illustrates that average house prices fell by 4.4% in the first five months of 2008, following an annual decrease of 7.3% in 2007. With average house prices increasing by 11.8% in 2006 and 9.3% in 2005, this decline represents a major correction in the market with prices now around late 2005 levels.

## National Average House Prices (€000's)

**Figure 6**



Sources: Permanent TSB/ESRI; CSO

The slowdown in the housing market has had a severe impact on the Irish construction sector. Following employment growth of over 100,000 (+54.6%) during 2002-07, construction employment has fallen by almost 10,000 (-3.6%) over the past year. The latest Ulster Bank Construction PMI Report also highlights that the Irish construction sector registered record declines in June, with a new survey low for the third month running.

## Summary

The ESRI forecast that the current difficult global economic conditions will have major implications for Irish growth, with the first recession predicted in 25 years. The Irish economy is heavily reliant on FDI and trade and is therefore highly exposed to shocks in the global economy. There are also other factors such as high inflation, a slowing labour market and declining house prices which all contribute to a more negative economic outlook. However, forecasts indicate that the economy is likely to recover into 2009.

## Key Labour Market Statistics

**Table 3**

	Period	Level	Change over 12 months
Total Employment <sup>1</sup>	December-February 2008	2,135,100	2.6 %
Unemployment Rate	July 2008	5.9 %	1.4 p.p. <sup>3</sup>
Economic Activity Rate <sup>2</sup>	December-February 2008	63.5 %	0.2 p.p. <sup>3</sup>
Manufacturing Output (2000=100)	May 2008	153.9	9.3 %
Average House Prices	May 2008	€275,176	-9.5 %

<sup>1</sup>Not seasonally adjusted

<sup>2</sup>Rol economic activity rate is based on all aged 15+ rather than working age

<sup>3</sup>Change in percentage points

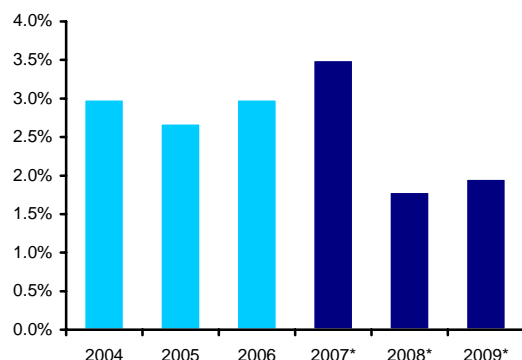
Sources: Quarterly National Household Survey, CSO Volume Indices of Production for Manufacturing, Permanent TSB/ESRI House Price Index

## NORTHERN IRELAND REVIEW AND OUTLOOK

Oxford Economics estimate that the Northern Ireland economy grew, in real terms, by 3.5% in 2007. However, in line with the global economic slowdown, growth is forecast to slow to 1.8% in 2008.

### Real GVA Growth Forecasts

**Figure 7**



Note: \*Forecasts  
Source: Oxford Economics

In nominal terms, GVA in Northern Ireland increased by 5.6% in 2006, above the UK average of 5.1% and second only to London (5.7%). However, GVA per head in Northern Ireland – the most common measure of regional economic prosperity – was 81% of the UK average, which is the lowest of all UK regions with the exception of Wales. The region has remained around this comparative level for the past decade.

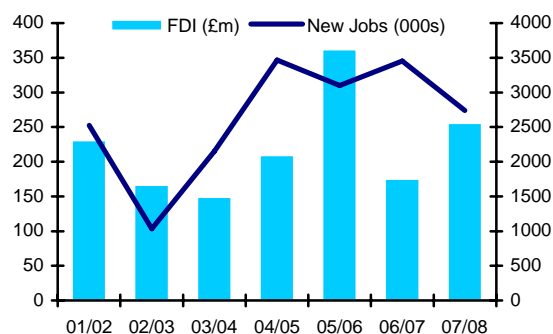
### Productivity the Key Challenge

Research has highlighted that the main reason for low economic prosperity in Northern Ireland is labour productivity. In 2006, Northern Ireland's output per filled job was 87.1% of the UK – again, aside from Wales, the lowest of all the UK regions. The Programme for Government has targeted manufacturing and private services productivity as a key priority, particularly through improvements in factors such as FDI, exports, R&D investment and skills.

Provisional figures for 2007/08 indicate that Invest NI secured around £256m of inward investment, promoting over 2,700 new jobs. In the current economic conditions, there is likely to be less available inward investment. However, firms are continuing to invest in the economy. For example, Bombardier recently announced an investment of over £500m – the largest ever single investment in Northern Ireland by any company – and there have also been other significant recent investments from Fujitsu, Tech Mahindra and Citi.

### Foreign Direct Investment (Invest NI)

**Figure 8**



Note: FDI on left axis; Jobs on right axis  
Source: Invest NI

For a small open economy such as Northern Ireland, developing a strong export base is vital. Manufacturing exports (sales outside the UK) from Northern Ireland were worth £5.1bn in 2006/07, having grown by 10% during the year and 69% over the previous decade. However, the global economic slowdown is likely to reduce demand.

Business Expenditure on R&D (BERD) increased by 6.0% (in real terms), to £155.4m in 2006. Despite the continuing growth of BERD by SMEs (increasing by 9% over the year and 88% since 2001), the level, as a proportion of GVA in Northern Ireland, was only 0.5% in 2006 – the joint lowest of all the UK regions.

### Private Sector Output Weak

The latest Ulster Bank Purchasing Managers' Index (PMI) Report signaled record falls in private sector output and new orders in June. Northern Ireland had the fastest decline in business activity of the UK regions, although it was not as sharp as that experienced by the Republic of Ireland. Firms also reported a range of inflationary pressures, mainly due to rising oil prices and higher import costs due to the weak Pound against the Euro.

The Index of Production highlights that although manufacturing output fell by 0.5% over the first quarter, it has increased by 3.0% over the year. This was driven by improvements in manufacturing productivity, which increased annually by 2.1%. There are also signs of an upturn in manufacturing employment, with the number of employee jobs in the sector increasing by 0.9% over the year to 88,290 in March 2008.

In contrast, the performance of the service sector – which has been the main driver of the economy – has been relatively flat. In Q1 2008, output increased by 0.3% over the quarter but fell by 0.1% compared to one year earlier. Despite this, job growth in services has continued, increasing by 1.5% over the year to 572,430 (March 2008).

### Housing Market Slows

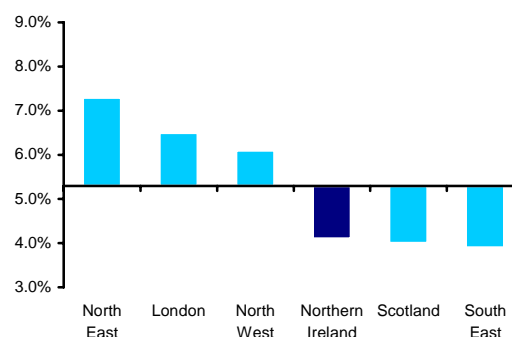
Over the past couple of years, Northern Ireland's house prices have increased faster than any other UK region. Having peaked at £249,264 in August 2007, prices have now started to fall with the average house price down 7.8% over the year to £215,655 in May 2008. The rapid of growth of house prices has proved to be unsustainable, particularly given that Northern Ireland has the lowest average earnings of all the UK regions at £17,225 (April 2007).

### Labour Market Remains Strong

The Northern Ireland labour market continues to perform well. The number of employee jobs is currently the highest figure on record, growing by 1.5% over the year to March 2008. Northern Ireland also had the second fastest employment growth of all the UK regions during the last decade (16.3%), while the current unemployment rate (March-May 2008 - 4.1%) is considerably below the UK average of 5.2%.

Unemployment Rate (Relative to UK)

Figure 9



Note: UK rate is 5.2%

Source: DETI Labour Force Survey

Despite recent improvements in the economy, a number of key challenges remain. Northern Ireland's inactivity rate, at 26.1% during March-May 2008, is the highest of all the UK regions and well above the UK rate of 20.9%. Furthermore, despite the growth in employment, the employment rate remains the lowest in the UK at 70.5%.

In terms of skills, over one fifth (21.7%) of the working age population in Northern Ireland have no qualifications compared to the UK average of 12.3%. There is also an issue around the 'brain drain', with 26% of students leaving Northern Ireland to study abroad in 2005/06, and only 35% return.

## Summary

The current global economic conditions will have an inevitable impact on Northern Ireland's economic performance. Although growth is forecast to decline in 2008, it is expected to remain relatively robust at around 1.8%. A strong labour market, and recent successes in FDI and export markets, should help to limit the impact of the slowdown on the economy.

Although recent developments in the world economy are important, it is the long-term structural weaknesses in the economy that the Executive is continuing to address. For example, factors such as low productivity and high economic inactivity are the priority areas for the Programme for Government.

Central to achieving the PfG targets is Northern Ireland's ability to attract FDI. With businesses potentially deferring investment decisions at this time, events such as the recent US NI investment conference – which was attended by over 150 influential US business leaders – are important to maximise the potential opportunities for future investment. However, as the PfG has already stated, economic growth in Northern Ireland will be inevitably influenced by the scale and depth of the current economic slowdown.

## Northern Ireland Key Economic Statistics

**Table 4**

	Period	Level	Change over 12 months
Total Employment <sup>1</sup>	March-May 2008	798,000	0.6 %
Unemployment Rate <sup>1</sup>	March-May 2008	4.1 %	-0.1 p.p. <sup>3</sup>
Economic Activity Rate <sup>2</sup>	March-May 2008	73.9 %	-0.3 p.p. <sup>3</sup>
Manufacturing Employee Jobs	March 2008	88,290	0.9 %
Services Employee Jobs	March 2008	572,430	1.5 %
Total Gross Value Added	2006	£26,429m	5.6 %
Manufacturing Output (2003=100)	Q1 2008	111.6	3.0 %
Services Output (2003=100)	Q1 2008	117.8	-0.1 %
Average House Prices	May 2008	£215,655	-7.8 %

<sup>1</sup> All aged 16 and over

<sup>2</sup> Working Age

<sup>3</sup> Change in percentage points

Sources: DETI Labour Market Statistics, ONS Regional GVA, DETI Index of Production, DETI Index of Services, Department for Communities and Local Government Monthly House Price Statistics.

# 2

## **SUB SECTORAL PRODUCTIVITY IN NORTHERN IRELAND**

DETI's Corporate Plan (2008-2011) has made productivity in manufacturing and private services as its top priority. This is in support of the Programme for Government (PfG) which has defined the following as a key goal:

***“Aim to halve the private sector productivity gap with the UK average excluding the Greater South East of England by 2015”***

As will be discussed later, DETI is committed to evidence based policy making and, in that context, it recently organised a public policy seminar on sub-sectoral productivity<sup>2</sup>. The seminar, held in conjunction with the Economic and Social Research Council (ESRC), sought to examine the trends and policy options required to prioritise and grow private sector productivity in Northern Ireland.

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<sup>2</sup> Further information on the seminar is available by contacting [economics@detini.gov.uk](mailto:economics@detini.gov.uk)

The seminar featured contributions from two leading UK academics – Dr Chiara Criscuolo<sup>3</sup> and Professor Richard Harris<sup>4</sup>. This section of the QER provides an overview of the key issues discussed, and is structured around two research questions:

- Why productivity is a key issue for Northern Ireland?
- What are the key factors determining sub-sectoral productivity?

### **WHY PRODUCTIVITY IS A KEY ISSUE FOR NORTHERN IRELAND?**

As the previously section has illustrated, the Northern Ireland economy has performed well in many respects. For example, over the last decade, economic growth has been above the UK average, and the labour market remains strong, with record numbers in employment and a low unemployment rate.

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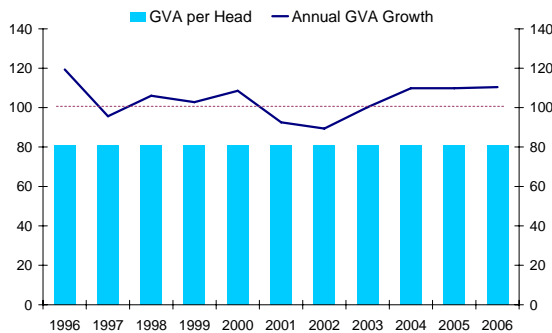
<sup>3</sup> Research Fellow at the Centre for Economic Performance, London School of Economics

<sup>4</sup> Director of the Centre for Public Policy for Regions (CPPR) and Professor at the University of Glasgow

However, as shown in Figure 10, Northern Ireland's economic prosperity – measured by GVA per capita – is around 20% below the UK average and has remained at this level over the past decade.

### Northern Ireland's Economic Growth and Prosperity Relative to UK

**Figure 10**

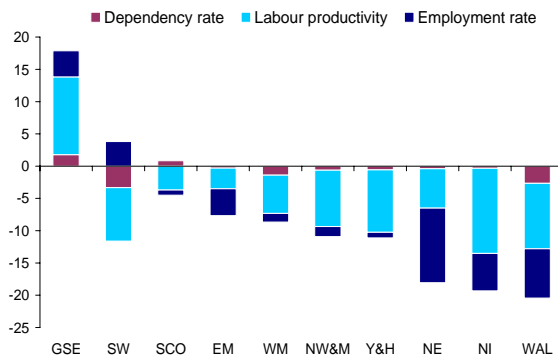


Note: UK=100  
Source: ONS Regional GVA

Relatively low productivity has been identified as the key factor behind Northern Ireland's low prosperity levels. As outlined in Figure 11, around three-quarters of the prosperity gap is due to lower productivity, with the remaining quarter attributed to a lower employment rate.

### Decomposing the Prosperity Gap

**Figure 11**



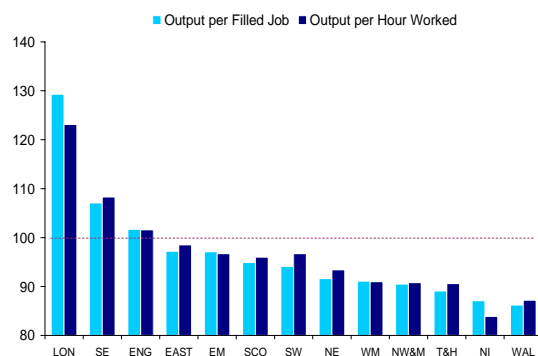
Source: Oxford Economics

The analysis presented in Figure 11 is based on a definition of labour productivity measured by GVA per filled job (a proxy for value added per worker). Productivity is also measured using GVA per hour worked.

This is a better measure of productivity since it takes into account differences in working patterns. However, there are difficulties breaking down hours worked data at a sub-sectoral level. Therefore, references to labour productivity tend to refer to GVA per filled job<sup>5</sup>.

### Productivity in UK regions (2006)

**Figure 12**



Note: UK=100  
Source: Office for National Statistics

Figure 12 shows that on either measure (per filled job, or per hour worked), productivity in Northern Ireland is more than 12 per cent lower than the UK average (2006). Furthermore, Northern Ireland's position has remained largely unchanged over the period 2002-06.

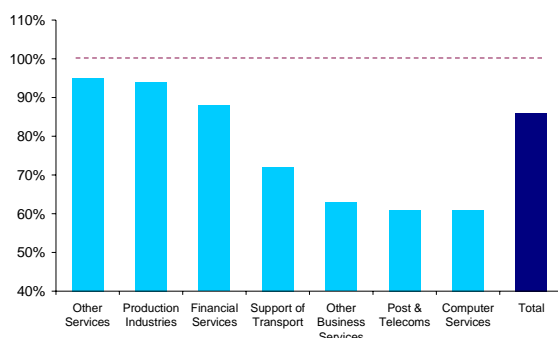
### WHAT ARE THE FACTORS DETERMINING SUB-SECTORAL PRODUCTIVITY?

Analysis of industrial sector workplace data for 2006 revealed significant variation in productivity levels across sectors. Figure 13 illustrates this point. Overall, the analysis indicates that market-based sectors of the economy are some 14 per cent below the UK productivity average. However, this masks important sectoral differences.

<sup>5</sup> A better measure of productivity is Total Factor Productivity (TFP) – the productivity of all factors of production, not just labour. Up-to-date data on TFP in Northern Ireland are not currently available.

## Labour Productivity in Northern Ireland by Sector Relative to UK (2006)

**Figure 13**



Note: UK=100

Source: ABI

Manufacturing industries, for example, tend to perform better in terms of relative productivity than service sectors. The capital intensive nature of these industries, and the financial assistance historically provided by Government, were cited as key factors behind this performance. Figure 13 also shows that in the transport sector, telecoms, financial intermediation, computer and related business, and especially other business services, productivity is considerably below the UK average. These five industries account for a significant proportion of Northern Ireland market-sector GVA (some 20.8 per cent in 2006).

Research was also presented which demonstrates that firms exporting and/or undertaking R&D are more competitive, producing significant new products and services, and generally display above average productivity levels. It was suggested that an important explanatory factor behind this was the ability of firms to exploit knowledge-based assets (such as propriety know-how, intellectual property, workforce skills and world-class supply networks / brands).

Making better and more extensive use of these assets, enables firms to break down the barriers to entering overseas markets. Consequently, promoting R&D and increasing the absorptive capacity to exploit knowledge-based assets, is an important means of promoting productivity improvements.

Table 5 provides information on the performance of certain sectors in terms of R&D intensity (spending on R&D divided by GVA); the proportion of turnover accounted for by products introduced during 2002-04 that were new to the market / industry of the firm; and the percentage of firms that exported outside the UK.

## Innovativeness and Exporting in Northern Ireland and UK (2004-06)

**Table 5**

Sector (SIC92)	Relative Labour Productivity	R&D Intensity		% Share New Products		Exporters		Share of GVA
		NI	UK	NI	UK	NI	UK	
Production Industries	0.94	0.49	1.07	8.8	7.8	42.6	34.8	39.3
Support of Transport	0.72	0.69	0.05	12.5	2.7	46.8	40.1	1.4
Post & Telecommunications	0.61	0.24	1.12	4.3	19.5	20.8	27.2	2.7
Financial Intermediation part	0.88	0.05	0.06	3.1	7.5	12.5	29.4	6.3
Computer & Related	0.61	11.83	3.95	17.2	22.0	68.6	52.5	1.5
Other Business Activities	0.63	0.46	0.35	5.5	36.2	14.4	27.7	8.9
Other Services	0.95	0.02	0.43	0.6	9.0	21.9	18.3	39.8
All Industries	0.86	0.15	0.48	2.4	10.8	29.0	26.8	100.0

Sources: ABI; CIS4

R&D intensity, which indicates the importance placed on developing new products and processes, is (i) considerably lower in Northern Ireland for manufacturing industries, post and telecoms, financial intermediaries and remaining service sector industries; but (ii) is higher in support for transport, other business services and especially the computer and related industry. However, for other business services, higher R&D intensity does not translate into products being sold that are classified as new-to-market or new to the industry. This is also an issue for most of the other service industries covered in table 4.

Overall, the analysis suggests that products being sold by firms in Northern Ireland tend to be of an older vintage i.e. they have been available for longer periods than those available from firms operating in the rest of the UK. Manufacturing firms in Northern Ireland are more likely to sell overseas, but exports are considerably lower in service sectors such as financial intermediaries and other business services – the key growth sectors for Northern Ireland.

## CONCLUSIONS

The analysis presented by Dr Criscuolo and Prof Harris reveal that a significant productivity gap exists in some of Northern Ireland's sub-sectors. It was suggested that firms in Northern Ireland produce fewer new goods and services, and in some important services sectors, are less export orientated. The academic contributors commented that while Northern Ireland does have 'world-class' firms, the data suggests that there is an opportunity for considerable 'catch-up' by firms lower down the productivity distribution.

From a policy perspective, DETI and Invest NI are committed to addressing the productivity gap. As indicated earlier, the PfG has set an ambitious goal which aims to halve the private sector productivity gap with the UK average excluding the Greater South East of England by 2015. As part of the Delivery Agreement underpinning private sector productivity improvements, DETI, in conjunction with DEL and DRD, has identified seven strategic objectives:

- **No 1:** Promote a competitive and outward looking economy – with DETI and Invest NI working with companies to increase exports.
- **No 2:** Attract and support high quality investment – both foreign and locally owned. A key target is to create 6,500 new jobs from inward investment, of which the majority will provide salaries above the private sector average.
- **No 3:** Ensure a modern sustainable economic infrastructure to support businesses. Key actions include opening up energy markets to external competition, increase the role of renewable energy and strengthen NI's telecommunications network.
- **No 4:** Promote higher value added activity through innovation and the commercial exploitation of R&D.
- **No 5:** To develop / sustain an HE research sector, principally to work alongside DEL to secure appropriate funding for NI's Universities to increase knowledge and spillovers to industry.
- **No 6:** Increase the level of skills to aid productivity improvements in manufacturing and tradable services (DEL) - details in the PfG.
- **No 7:** Improve the strategic road network by the advancement of a range of important works schemes (DRD) – details in the PfG.

As the previous section to this Review has indicated, the capacity to make sustained improvements in these objectives will be influenced by the current economic slowdown. However, further detail on the actions currently being taken in relation to each of these strategic objectives can be obtained in the Productivity Delivery Agreement (available at [www.detini.gov.uk](http://www.detini.gov.uk)).

## DETI RESEARCH AGENDA 2008/09 – 2010/11

The Programme for Government (PfG) states that 'growing a dynamic innovative economy' is the Executive's top priority for the period 2008-2011. DETI has a crucial role to play in this regard, particularly through the formulation and delivery of economic development policy. In performing this role, the Department is also committed to evidence based policy making. In this context, DETI recently published its Economic Research Agenda 2008-2011<sup>6</sup>, the aim of which is to build on DETI's existing evidence base and:

*'identify research projects to better inform policy development in support of our departmental goal to grow a dynamic, innovative economy'*

The Agenda provides an overview of the key research projects that DETI has commissioned over the past three years. It also invites proposals from interested organisations to undertake research projects in the priority areas DETI has identified as part of the PfG.

### DEPARTMENTAL PRIORITIES

Three DETI priorities have been identified and they have been incorporated within the Northern Ireland Executive's framework of twenty-three Public Service Agreements (PSAs). These priorities are:

- **Productivity growth (PSA 1)** – improve manufacturing & private sector productivity;
- **Increasing employment (PSA 3)** – raising employment levels; and
- **Tourism (PSA 5)** – develop the tourism sector.

Departmental policy is focused on delivering on these PSAs, and the previous section has already indicated that improving manufacturing and private services productivity is the top priority. Given the important role that research has to play in building the evidence base for policy interventions, the Departmental priorities are also reflected in the research priorities for 2008-11.

### RESEARCH FRAMEWORK

The DETI Research Agenda has identified a number of cross-cutting themes that ongoing economic research needs to address. These themes, outlined in Figure 14, together with the priorities stated previously, form the Department's research framework for the next three years. In addition, the PfG also identifies two strategic goals in relation to growing a dynamic and innovative economy referred:

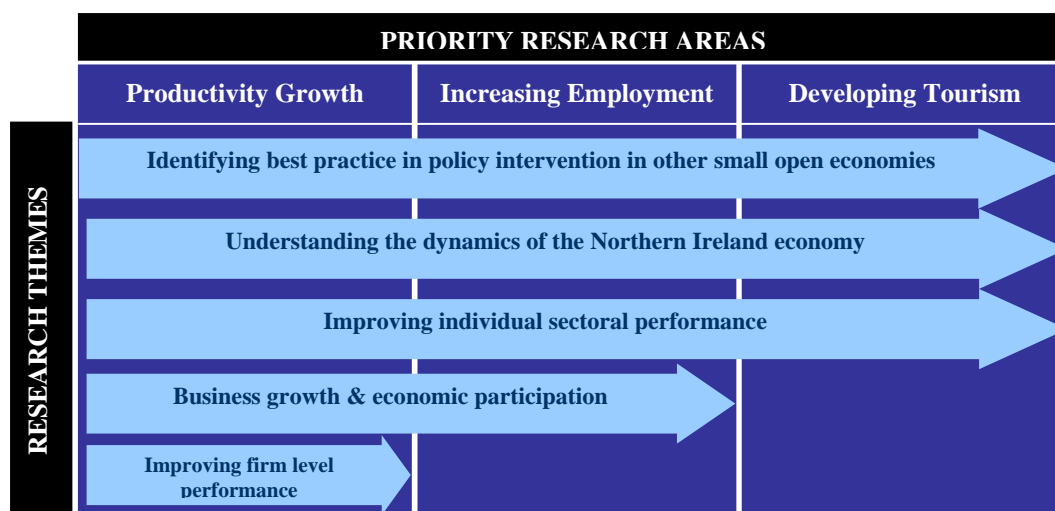
- Aiming to halve the private sector productivity gap with the UK excluding the Greater South East of England by 2015; and
- Increasing the employment rate from 70% to 75%.

In order to provide a better evidence-base for policies designed to address these goals, the Research Agenda indicates that DETI is particularly interested in developing research in two areas:

- To identify best practice policy interventions which boost private sector productivity in small open economies in the EU and beyond; and
- To examine how economic development agencies in the EU and elsewhere have created job opportunities to attract back into employment those previously classified as economically inactive.

<sup>6</sup> Available at [www.statistics.detini.gov.uk](http://www.statistics.detini.gov.uk)

**Figure 14**



A key focus of DETI’s Research Agenda is to explore what lessons Northern Ireland can learn from other small open economies. The economic performance of Europe’s larger economies has been well documented. However, it is also important to recognise that many of the smaller advanced economies of Europe have also performed well, and provide a useful benchmark for Northern Ireland. Table 6 reveals that many of the smaller Northern and Scandinavian nations report prosperity levels (GDP per inhabitant) well in excess of the EU27 average.

European Comparison (2005)

**Table 6**

	GDP per Inhabitant (EU27=100)	GDP per Person Employed (EU27=100)	Employment Rate (%)
Luxemburg	265	176	63.6
Norway	180	156	74.8
Republic of Ireland	144	134	67.6
Iceland	135	109	83.8
Switzerland	134	106	77.2
Netherlands	131	114	73.2
Austria	129	121	68.6
Denmark	127	110	75.9
Sweden	124	113	72.5
<b>Northern Ireland</b>	<b>97</b>	<b>96</b>	<b>61.8</b>

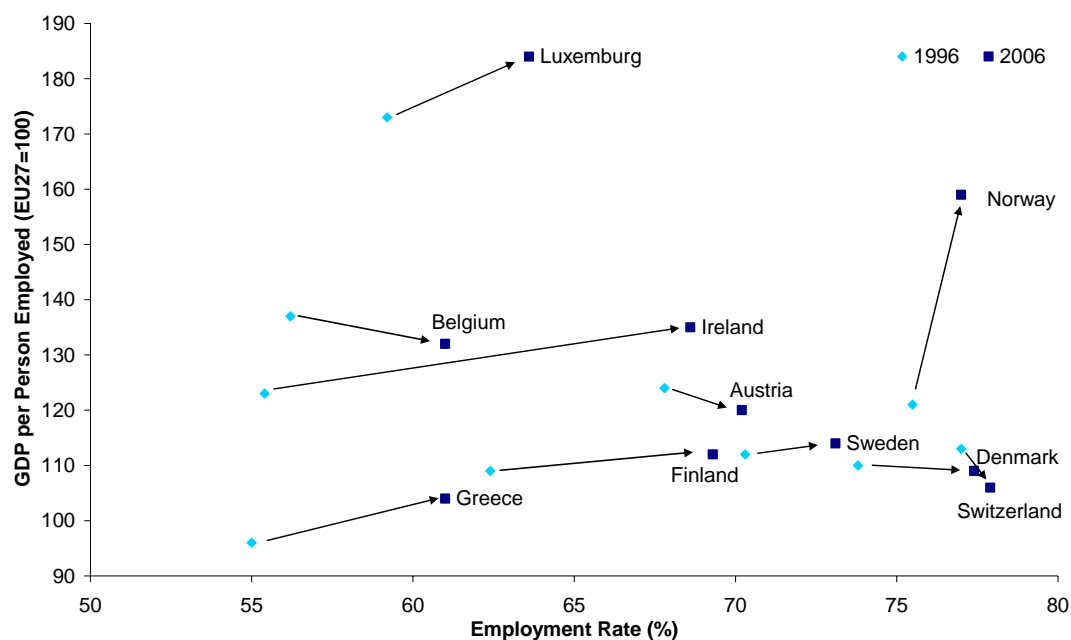
Notes: GDP converted using Purchasing Power Standards (PPS). Northern Ireland employment rate for those aged 15-64 (not seasonally adjusted). Sources: Eurostat; DETI calculations

Table 6 also indicates that relatively high productivity (GDP per employee) and employment rates are key factors underpinning the high level of prosperity in these countries. In particular, while Northern Ireland’s productivity level is only marginally below the EU average, the top performing small economies, highlighted in Figure 15, are well above the EU average. Many of these small nations have been successful in increasing both productivity and employment rates over the last decade.

The previous article in this QER set out the challenge facing Northern Ireland if the PfG productivity goal is to be achieved. Delivering on this will mean emulating the success of other small open economies. DETI’s research agenda therefore seeks to identify the critical factors driving economic growth in these areas and also the extent to which the policies are transferable to the NI context.

## Changes in Productivity and Employment Rates amongst Selected Small European Economies

**Figure 15**



Sources: Eurostat, Statistics Norway

### CONCLUSIONS AND NEXT STEPS

Economic research has an important role to play in policy development. As the Department now focuses on delivering on the ambitious goals in the PfG, it is vital that policy interventions are informed by a sound evidence base. DETI's Research Agenda 2008-11 has therefore been designed to identify research projects that will enhance the evidence base for future policy development.

The Department is keen to receive proposals from a broad range of organisations in the research community, both locally and, further afield. Consequently, the Department has circulated the Research Agenda as widely as possible. It has been published on the DETI website (available at [www.statistics.detini.gov.uk](http://www.statistics.detini.gov.uk)); advertised in the local press and the Economist magazine; and sent directly to many of the leading Universities and consultancy houses in the UK and Ireland.

To be considered, interested organisations have been asked, in the first instance, to submit Expressions of Interest to the Department (by a deadline of 15<sup>th</sup> August). DETI will then work with these organisations in the Autumn to develop detailed terms of reference, and commission research that will help inform policy in DETI's priority areas.