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Eóin Murphy, Michael Scholes and Aidan Stennett

Finance and Economics Research Team

The Executive's Forthcoming Revised Economic Strategy for Northern Ireland: Preliminary Considerations

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This Research Paper was commissioned by the Committee for the Economy (CfE), to assist in the CfE's scrutiny of the Executive's forthcoming revised Economic Strategy, once available.

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Key Points

This Research Paper, commissioned by the Committee for the Economy (the CfE), is intended to support the CfE's scrutiny of the Executive's forthcoming revision of the Economic Strategy.

Following an analysis of Northern Ireland (NI) economic data, the Finance and Economics Research Team within the Assembly's Research and Information Service (RaISe) highlights key potential areas for the CfE 's consideration when scrutinising the revised Economic Strategy (once available). Those areas of particular concern include:

- Although the NI economy is growing, its growth rate slowed since the Great Recession, and has not yet returned to its pre-recession peak;
- Low productivity is a persistent and sector-wide issue in NI;
- The economy has sub-regional imbalances in total and *per capita* gross value added;
- Since 1997 the economy has increasingly become service sector orientated;
- Exports have grown over the period examined in this Paper. However, there has been a decrease in the net gain to the economy from exports;
- NI has a lower business survival rate than the rest of the United Kingdom (UK);
- NI's employment rate lags behind the UK's, and its economic inactivity rate is higher than the UK's; and,
- NI is ranked 11th out of 12 UK regions when it comes to innovation, despite increased Research & Development (R&D) expenditure.

The CfE may also wish to consider potential impacts of a forecasted slowdown global growth, trade and investment, as well as potential impacts of the European Union (EU) Referendum result.

It is within the above context that any revised Economic Strategy will be based.

It also should contemplate findings of a recent analysis undertaken by the RaISe Finance and Economics Research Team, which reveals concerns about the Executive's 2012 Economic Strategy (the current Economic Strategy), including:

- Its cross-cutting principles on sub-regional growth, equality and sustainability did not have any ***direct*** actions attached to them; and,
- Its most recent 'Comprehensive Action Plan: Progress Against Actions' highlights issues regarding the Executive's data used to base outcomes, its reporting methods.

Such revision also should note that globally the economic environment has shifted considerably since 2012, with international organisations increasingly signalling a move away from economic models in which any economic growth is to be welcomed, to model in which a more nuanced approach is needed; one which encourages a more equal spread of development, incentivising a greater portion of a population into economic activity, to the benefit of all.

Executive Summary

A key part of the Northern Ireland (NI) policy and strategy framework is the Executive's Economic Strategy. Intended to run to 2030, the Executive regularly revises the Strategy, to take into account changing economic and financial circumstances.

This Paper, commissioned by the Committee for the Economy (CfE), provides information to support the CfE in its scrutiny of the forthcoming revised Strategy. It addresses the following:

- The Executive's current (2012) Economic Strategy;
- An Overview of the NI economy;
- The NI economy in a global context;
- Review of the Executive's current Economic Strategy;
- Models of economic development; and,
- Conclusion and key issues of note.

In addition, the main body of the Paper is supplemented by two annexes:

- **Annex A:** A statistical annex on the current NI economy; and,
- **Annex B:** An analysis of the Executive's progress on its 2012 Strategies against its identified actions focusing on reporting and data methodologies.

The Executive's current Economic Strategy

- By making the economy its number one priority, the Executive's Programme for Government (PfG) 2011-15 put NI's economic recovery from the Great Recession at the heart of policy-making throughout its 2011-15 mandate. Correspondingly, the current Economic Strategy became a key policy document in this regard.
- The overarching goal of the current Economic Strategy was to improve NI's competitiveness through a focus on export-led growth. That Strategy was the Executive's plan to grow NI into a more prosperous economy over the short, medium and longer term, to 2030.
- Twin themes of rebalancing and rebuilding the NI economy were key pillars with which the current Strategy would move the NI economy forward. The balancing theme centred on initiatives designed to move NI away from a public sector driven economy, towards a private sector based recovery. The rebuilding initiatives focussed mainly on shorter term employment measures, such as job promotion and training opportunities.
- Cross-cutting themes of sub-regional growth, equality and sustainability also were included in the current Economic Strategy. However, the perception of a Belfast- centred economy still exists and many Members of the Legislative Assembly (MLAs) believe that parts of NI have been left behind by the

Executive's investment decisions. This has been borne out in a recent Assembly debate on the issue of the forthcoming revised Strategy. Whilst the current Strategy lists key performance indicators and includes a methodology for reporting progress against various stated actions, it does not identify actions directly related to equality and sustainability, which arguably relegate them to the side-lines in terms of policy-making.

An overview of the NI Economy

In scrutinising the forthcoming revised Economic Strategy, when available, the CfE may wish to consider the following:

- Both economic growth measures – the NI Economic Composite Index' (NICEI) and 'Gross Value Added' (GVA) data - point to a growing economy. The GVA data shows that this growth rate has slowed considerably since the recession;
- If we look at Gross value added data, we see that the service sector grew significantly between 1997 to 2014 (an increase of £12.9bn or 101%). NI's manufacturing and construction sectors also increased. The agriculture sector contracted (by 25%) in the same period;
- Low productivity is a persistent and sector-wide problem within NI. NI is a low productivity region, within a country that performs poorly against comparator economies;
- GVA and GVA *per capita* is consistently higher in Belfast than other NI sub-regions. The gap between Belfast and the other sub-regions as measured by GVA and GVA per capita widened between 1997 to 2014;
- NI *GVA per capita* is amongst the lowest in the UK, higher than only two regions – Wales and the North East of England. The gap between UK GVA *per capita* and NI GVA capita grew by 2.75 times between 1997 and 2014;
- GVA, jobs and business number data all show that the NI economy has become increasingly more orientated towards the service sector over the period examined;
- Goods exports have more than doubled between 1996 and 2015. Though an analysis of NI's trade balance suggests that the net impact of this trade has lessened in recent years. NI has not run a large trade surplus since 2008, meaning the net gain to the economy through export sales has decreased;
- Although the EU remains NI's most significant export market, the relative significance of the market in terms of export value has decreased over time;
- NI has consistently had one of the lowest business survival rates of the UK regions;
- There was a considerable increase in the number of foreign-owned businesses (the number of foreign business in NI increased 33%) and associated employment (employment associated with foreign companies increased by 41%) between 2008 and 2015;

- NI employment is recovering, but still lags behind that of the UK's;
- Economic inactivity in NI is significantly higher than that of the UK;
- Women have become increasingly active in the labour market since 1984. This can be seen in the economic activity and employment data;
- Long-term unemployment continues to be a significant issue in NI. In 2016, NI's long-term unemployment was 51% of total unemployment, whereas the UK figure was 28%;
- NI's median weekly earnings are consistently lower than those of the rest of the UK, with a gap of £43.9 per week between NI and the UK in 2015;
- Part-time and full-time female hourly earnings are higher than those of males, with female full-time hourly earnings having exceeded those of males in 2013;
- In 2016, UK private sector earnings were £82.8 higher than those in NI. The gap between NI and UK private sector wages has been consistent for the period shown; and,
- Despite an overall increase in R&D spending of 66% between 2011 and 2014, and 89% in business R&D expenditure over the same period, NI ranks 11th out of 12 UK regions over the period 2012-2014.

The NI economy in a global context

The RaISe Finance and Economics Research Team examined the global context in which NI operates and found the following issues which the CfE may wish to consider:

- Global growth is expected to slow in 2016, followed by a recovery in 2017;
- Global trade has slowed since 2012, this expected to continue during 2016;
- Despite growth in 2015, global foreign direct investment flows are expected to slow in 2016; and,
- The EU-Referendum result has introduced a degree of uncertainty into NI's trade and FDI position going forward. The impact of this remains uncertain and is predicated on the results of negotiations between the UK and the EU. Of particular significance here is NI's future trading relationship with the Republic of Ireland (RoI), given it is the destination for 37% of NI's exports, as outlined in section 2 of this Paper.

Review of the Executive's current Economic Strategy

Based on the information provided in the Executive's 'Progress Against Actions' (PPA) monitoring document, the current Economic Strategy has met the vast majority of its targets.

However, the RaISe Finance and Economics Research Team identified a number of issues regarding specific Actions, including on the data used to base outcomes, reporting methods used and the need to take into account the impact of the Great Recession and the subsequent slow recovery.

Models of economic development

Since the publication of the current Economic Strategy there have been a number of developments amongst international bodies regarding issues which should be considered when attempting to stimulate future economic growth.

The Organisation of Economic Cooperation and Development (OECD) and a number of other bodies have placed an emphasis on 'inclusive growth', reflecting a growing change in the narrative surrounding how economic growth can be best achieved.

Both the OECD and the United Nations (UN) identified the need for green sustainable growth, in order to ensure that there were sufficient resources available for future generations and to take advantage of changes in technology.

The need to take into consideration the swiftly changing technological and socio-economic landscape was espoused by the World Economic Forum (WEF) and the Institute of Public Policy Research (IPPR). The WEF highlighted that the rapid changes in technology could act as a disruptive force within the labour market and that governments would need to take steps to ensure that these changes are to the advantage, rather than the disadvantage, of economies.

Conclusion

The NI economy has faced a range of challenges in recent years, from the global downturn since the financial crisis in 2007, to the on-going uncertainty generated by the EU referendum vote in June 2016.

The current Economic Strategy has largely 'weathered the storm', with a majority of its actions met and with new economic drivers introduced, such as the devolution of Air Passenger Duty and Corporation Tax (due to come into effect in April 2018).

The RaISe Finance and Economics Research Team identified a number of key issues for consideration when scrutinising the revised Economic Strategy, once available.

Key Issues for Consideration

Global economy:

- Global growth, trade and FDI forecasts are subdued. What impact will these economic conditions have on the revision of NI's economic strategy?
- The outcome of the EU Referendum has the potential to adjust NI's trading relations with the EU and the rest of the world. It may also have implications for FDI and employment. The referendum result has introduced a degree of uncertainty, which is reflected in IMF and OECD forecasts for global economic growth. The result may also open opportunities and introduce barriers to NI economic growth. Though this will depend on the outcome of negotiations between the UK and the EU. How will the Executive's revision of its Economic Strategy be shaped by the new Brexit reality?

The NI Economy:

- GVA data shows that although NI has returned to growth following the 'Great Recession', growth has slowed considerably since in the post-recession years. Will the Executive's revised Economic Strategy include measures to revitalise NI's economic growth?
- The data shows that low productivity has been a persistent and sector-wide problem for NI. Although labour productivity has risen, it is consistently below the UK level. This means NI is a low productivity region, within a country that performs poorly against comparator economies. An overarching aim of the current Economic Strategy was to increase private sector productivity. This was to be achieved through a range of innovation, skills, FDI, growth and economic infrastructure actions. The strategy did not, however, include a direct target for improving productivity either in of itself, or relative to the UK average. Given the persistent nature of this issue, is there value in including such a target in the revised Strategy?
- NI GVA per capita is amongst the lowest in the UK, higher than only two regions – Wales and the North East of England. The gap between UK GVA per capita and NI GVA per capita grew by 2.75 times between 1997 and 2014. What measures will the revised Economic Strategy introduce to narrow this gap?
- Goods exports have more than doubled between 1996 and 2015. Though an analysis of NI's trade balance suggests that the net impact of this trade has lessened in recent years. NI has not run a large trade surplus since 2008, meaning the money gained to the economy through export sales has decreased. Growing exports is a key pillar of the current Economic Strategy: this is likely to continue with the revised Strategy. Given the findings of this Paper's analysis, is there scope for extending this target to include not only growing the value of exports, but also increasing the net gain to the NI economy through exports?

- The data shows that although the EU remains NI's most significant export market, its significance has decreased. The NI Minister for the Economy recently announced a NI Trade Plan, which will seek to *'seize the opportunities presented by the UK exiting the European Union'.* As the revised Strategy develops, a potential key area of focus for measures therefore should be further diversification of NI's export markets.
- The data shows NI employment to be recovering; although it still lags behind the UK. Economic inactivity remains significantly higher in NI than the UK as a whole. Will the revised Economic Strategy take new approaches to growing employment and to tackling economic inactivity?
- NI's median weekly earnings are consistently lower than those of the rest of the UK, with a gap of £43.9 per week between NI and the UK in 2015. UK private sector earnings were £82.8 higher than those in NI. What measures will the revised Economic Strategy include to address this earnings gap?

The Economic Strategy 2012 (the current Economic Strategy):

- Balancing sub-regional growth is a cross-cutting theme of the current Economic Strategy. The Strategy received criticism, however, that it did not fully address regional imbalances. Addressing this issue now forms a key part of the PfG 2016-21. In light of this, how will the revised Strategy seek to address regional imbalance in the NI economy?
- A review of the current Economic Strategy's most recent PPA has identified issues surrounding the presentation of results, target revisions and variations in reporting methodologies. When scrutinising the revised Economic Strategy, the CfE may wish to consider:
  - What information/data is used to assess outcomes?
  - How robust is this data in terms of its availability and other potential limitations?
  - Are the methods used to report the Economic Strategy's achievements the most effective?
- A key aim of the current Economic Strategy was to secure the devolution of the corporation tax. This now has been achieved, with the NI Rate of corporation tax to be introduced in April 2018. How will the anticipated revision of the Economic strategy be revised to reflect the devolution of this new power?
- The PfG 2016-21, once agreed, is to introduce a new outcomes-based methodology to public policy in NI. The current Economic Strategy is focussed on outputs. How will the revised Strategy be amended to reflect this new approach to public policy?

Models of Economic Development:

- The former DETI carried out a series of research projects into best practice in economic development. These identified elements that played an important role in generating growth for small economies. It is unclear whether this research has been updated to inform the revised Strategy. The CfE may wish to establish whether such action has been carried out.
- Since the publication of the current Economic Strategy, there have been a number of developments in economic theory. This has fed into economic development policy within the UK, most notably Scotland's incorporation of inclusive growth models into its economic strategy. The CfE may wish to establish the economic thinking underpinning the Executive's revision of its Economic Strategy and the extent to which the DfE has considered developments in economic policy, as put forward by international organisations such as the OCED, the UN and the WEF.

Contents

Abbreviations used in this paper			
Assembly	Northern Ireland Assembly	**MLA**	Member of the Legislative Assembly
BERD	Business Expenditure on R&D	**NI**	Northern Ireland
bn	Billion	**NIECI**	Northern Ireland Economic Composite Index
CAP	Comprehensive Action Plan	**NIESR**	National Institute of Economic and Social Research
CCEA	Council for the Curriculum, Examination and Assessment	**NILA**	Northern Ireland Literacy Assessment
CfE	Committee for the Economic	**NINA**	Northern Ireland Numeracy Assessment
DARD	Department for Agriculture and Rural Development	**NISRA**	Northern Ireland Statistics and Research Agency
DE	Department for Education	**NPF**	National Performance Framework
DEL	Department for Employment and Learning	**NUTS**	Nomenclature of Territorial Units for Statistics
DETI	Department for Enterprise, Trade and Investment	**OECD**	Organisation for Economic Cooperation and Development
DfE	Department for the Economy	**ONS**	Office for National Statistics
DHSSPS	Department for Health, Social Services and Public Safety	**PFG**	Programme for Government
DOE	Department of the Environment	**PMI**	Purchase Manger's Index
DRD	Department for Regional Development	**PPA**	Progress Against Actions
EU	European Union	**R&D**	Research & Development
FDI	Foreign Direct Investment	**RaISe**	Assembly Research and Information Service
FSME	Free School Meal Entitlement	**RoI**	Republic of Ireland
G7	Group of Seven	**ROW**	Rest of the World
GB	Great Britain	**SA**	Statistical Annex
GDP	Gross Domestic Product	**SDG**	Sustainable Development Goal
GVA	Gross Value Added	**SME**	Small and Medium Enterprise
HR	Human Resources	**STEM**	Science, Technology, Engineering and Mathematics
ICT	Information and Communication Technology	**Current Economic Strategy**	Executive's 2012 Economic Strategy
ILO	International Labour Organisation	**The Executive**	The Northern Ireland Executive
IMF	International Monetary Fund	**UK**	United Kingdom
IPA	Investment Promotion Agency	**UN**	United Nations
IPPR	Institute for Public Policy Research	**UNCTAD**	United Nations Conference on Trade and Development
KS2	Key Stage 2	**UUEPC**	Ulster University Economic Policy Centre
KS3	Key Stage 3	**WEF**	World Economic Forum
LOP	Level of Progression	**WTO**	World Trade Organisation
m	Million		

Introduction

In Northern Ireland (NI), the Executive's Economic Strategy helps to define the parameters in which Executive policy and strategy is made. At regular intervals the Executive revises the Economic Strategy, to take into account changing economic and financial circumstances.

Taking into consideration the goals stated in the draft Programme for Government (which is currently out for consultation), the Executive is in the process of revising the Economic Strategy, dated 2012. The revised Strategy is expected shortly.

This Research Paper, commissioned by the Committee for the Economy (CfE), is not intended to fully assess all aspects of the NI economy or the pre-2012 versions of the Executive's Economic Strategy. Rather, in the limited time available, this Paper provides information, data and analysis regarding key elements of the NI economy, to support the CfE's scrutiny of the forthcoming revised Economic Strategy.

To establish a basis for the rest of this Paper, section 1 provides an overview of the Executive's current Economic Strategy. It highlights the Strategy's main elements, objectives and outputs. This overview is central to understanding the present economic context in NI - discussed in section 2 of the Paper - and how NI's economy is impacted by global trends – explained in section 3. Section 4 draws on the findings of Sections 1-3 to review the current Strategy. This is followed in section 5 by consideration of developments in economic literature, which may be of note scrutinising the revised Economic Strategy, once available. Finally, Section 6 provides a conclusion and key issues for consideration.

The Paper is presented as follows:

- **Section 1:** The Executive's Current Economic Strategy;
- **Section 2:** An overview of the NI economy;
- **Section 3:** The NI economy in a global context;
- **Section 4:** Review of the Current Economic Strategy
- **Section 5:** Review of Economic Development Goals; and,
- **Section 6:** Conclusion.

Throughout scrutiny points are highlighted for the CfE's consideration.

1 The Executive's Current Economic Strategy

In its Programme for Government 2011-15 (PfG 2011-15), the Executive announced its commitment to the economy, stating:

> *The Executive has taken the important step of making the economy the top priority in this Programme for Government.*

And:

> *The aim of the rebuilding and rebalancing of the Northern Ireland economy, in the aftermath of a sustained global economic downturn, will remain the principal goal of the Executive's collective efforts.*[1]

The theme of rebuilding and rebalancing carried through to the Executive's economic policy. In March 2012, the Executive published a document titled "*Economic Strategy: Priorities for sustainable growth and prosperity*".[2] The document set out the Executive's plan to grow a prosperous economy over the short, medium and longer term to 2030.

The overarching goal of the 2012 Strategy is to:

> *Improve the economic competitiveness of the NI economy as this remains the international benchmark against which developed economies continue to be developed.*[3]

The Executive committed to achieving this goal through a focus on **export-led** economic growth. The current Strategy hailed innovation, research and development and skills as the key drivers of this. Reflecting the PfG 2011-15, it listed **re-balancing** and **re-building** the economy as the top priorities for the NI economy.

Now under consultation, the PfG for this new mandate makes reference to a refresh of the current Economic Strategy. This revised Strategy is expected shortly. To aid the CfE's scrutiny, this section provides an overview of the current Economic Strategy, setting out its key priority areas in the following sub-sections:

- 1.1: Re-balancing the Economy;
- 1.2: Rebuilding the Economy;
- 1.3: Cross-cutting Principles;
- 1.4: Strategic Framework;
- 1.5: Measuring Success; and,
- 1.6: Summary.

[1] Northern Ireland Executive (2011) *Programme for Government : building a better future*: http://www.northernireland.gov.uk/pfg-2011-2015-final-report.pdf

[2] Northern Ireland Executive (2012): *Economic Strategy: Priorities for sustainable growth and prosperity*: https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

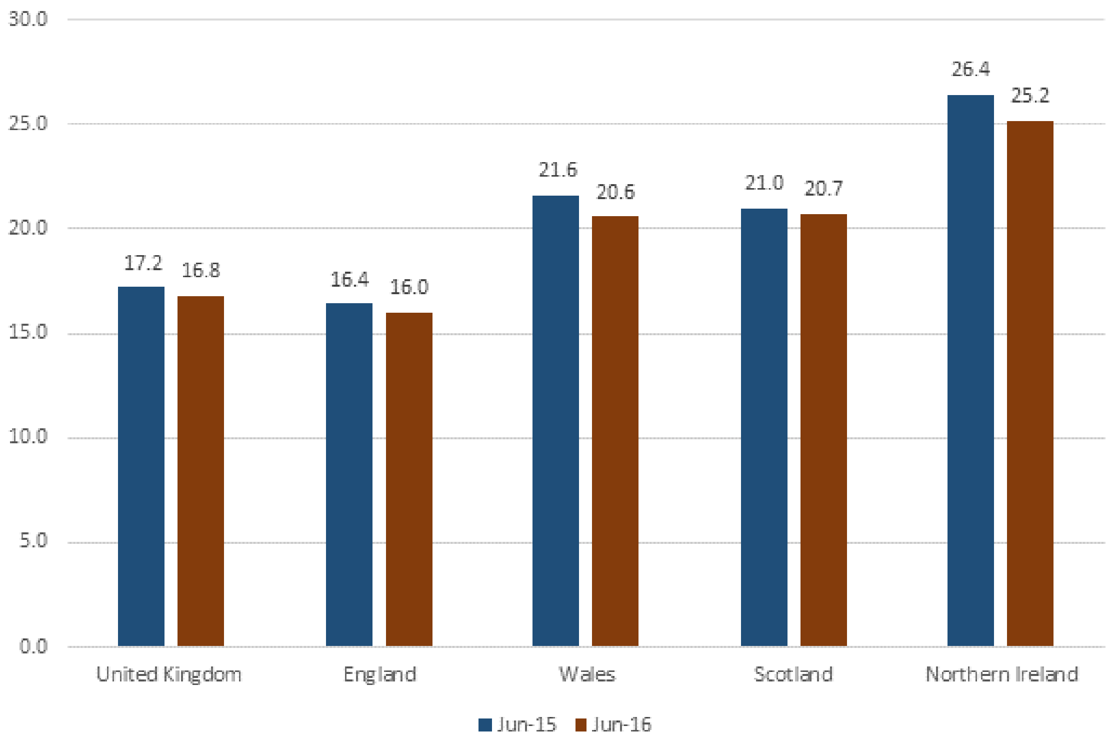
[3] Northern Ireland Executive (2012): *Economic Strategy: Priorities for sustainable growth and prosperity*: https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

1.1 Re-balancing the Economy

The re-balancing priority is based on the assumption that the NI economy is overly dependent on the public sector in terms of both employment opportunities and driving economic growth. In 2016, the NI public sector made up 25.2% of all employee jobs.[4]

It is noteworthy that in 2015, public sector employment in NI was 26.4%. The decrease in public sector employment from 2015 to 2016 may be attributable to voluntary redundancies across the public sector arising from the NI Voluntary Exit Scheme. Public sector employment in NI is still significantly higher than in the other constituent parts of the UK, with 16% in England, 20.6% in Wales and 20.7% in Scotland. Figure 4 below shows total public sector employment across the UK.

Figure 1 Regional Public Sector employment as a % of total employment June 2015 and June 2016.[5]



The current Economic Strategy cites an over reliance on the public sector as a driver of economic growth in NI, as a long-term challenge, further stating:

> *The comparatively small private sector also contributes to a very large fiscal deficit.*[6]

[4] NISRA (2016) *Northern Ireland Quarterly Employment Survey*:https://www.economy-ni.gov.uk/sites/default/files/publications/economy/20162%20QES%20publication.pdf

[5] ONS Datasets Public Sector Employment June 2016 (14 September 2016) http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/publicsectorpersonnel/bulletins/publicsectoremployment/june2016/relateddata

[6] Northern Ireland Executive (2012): *Economic Strategy: Priorities for sustainable growth and prosperity* (Page 25): https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

To overcome this challenge, the current Economic Strategy states that:

> *The targeting of resources under […] themes will bring forward actions and interventions which deliver increases in the size, structure and strength of our private sector.*[7]

The five strategic rebalancing themes are as follows:

- Innovation, Research & Development (R&D) and Creativity;
- Skills and Employability;
- Business Growth;
- Competing Globally; and,
- Economic Infrastructure.

In order to rebalance the NI economy, the current Economic Strategy announced several key rebalancing measures. Table 1 below summarises the initiatives using each theme outlined in that Strategy.

Table 1: Key Rebalancing Initiatives[8]

Rebalancing Themes	Rebalancing Initiatives
Innovation, R&D and Creativity	Support £300m investment by businesses in R&D, with at least 20% coming from SMEs; Support 500 businesses to undertake R&D for the first time and secure 120 Collaborative Projects in R&D; Support 200 projects through the Creative Industries Innovation Fund by 2015; Support our Universities to establish 8 spin-out companies by 2013; and, Support our Universities and Further Education colleges to undertake 155 knowledge transfer projects on behalf of local businesses by 2014.
Skills and employability	Increase to 70%, the proportion of young people leaving school having achieved at least 5 GCSEs at A*-C (or equivalent) including English and Maths by 2020; Deliver 210,000 qualifications at Levels 2, 3, 4 and above by 2015, through Higher Education, Further Education, Essential Skills and Training; Increase skills in subject areas important to the NI economy such as STEM (implement the actions within the STEM Strategy) and Sales & Marketing; and, Improve support to companies and increase the number of people gaining skills in management and leadership.

[7] Northern Ireland Executive (2012): *Economic Strategy: Priorities for sustainable growth and prosperity (*Page 41*)*: https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

[8] Table compiled by RaISe using information from: Northern Ireland Executive (2012) *Economic Strategy: Priorities for sustainable growth and prosperity.*

Rebalancing Themes	Rebalancing Initiatives
Business Growth	Promote £400m of investment and 6,300 jobs in locally owned companies (with 50% paying salaries above the Private Sector Median) and a further 6,500 new jobs in new start-up businesses; Increase visitor numbers and revenue to 4.2m and £676m respectively by December 2014; Support projects that improve competitiveness, encourage diversification of the rural economy, improve quality of life in rural areas and that protect and enhance the environment, including through the introduction of National Parks; Reform planning by introducing spatial Local Development Plans; a marine spatial plan and deliver faster and more predictable processing of planning applications; and, Invest in social enterprise growth to increase sustainability in the voluntary and community sector.
Competing Globally	Agree with the UK Government on devolving the power to vary corporation tax in a timely and affordable manner to the NI Executive / Assembly; Develop direct air links with international long haul markets by eliminating Air Passenger Duty on direct long haul flights departing from NI; Promote £375m of investment and 5,900 jobs from inward investors with 75% paying salaries above the Private Sector Median; Allocate £3m per annum for the Assured Skills programme to help attract and embed FDI and meet the skills needs of indigenous companies creating new employment; Increase the value of manufacturing exports by 20% and the value of exports to the emerging economies by 60% by 2014/15; and, Develop an agri-food strategy and action plan to drive export led growth in the agri-food sector to 2020 Economic Infrastructure.
Economic Infrastructure	Progress the upgrade of key road projects and improve the overall road network to ensure that by March 2015 journey times on key transport corridors are reduced by 2.5%; Encourage the achievement of 20% of electricity consumption from renewable sources and 4% renewable heat by 2015; Improve the landscape in public areas to promote private sector investment in towns and cities across Northern Ireland; and, Develop Regional Sports Stadiums as agreed with the IFA, GAA and Ulster Rugby.

It is worth noting that a major aspect of the re-balancing initiatives was the devolution of Corporation Tax to NI. As stated in the current Economic Strategy:[9]

> *We will not be able to make the necessary step change in our economy without significant new policy levers. That is why this Strategy assumes a successful outcome to the current negotiations with the UK Government on granting the Executive powers to vary the rate of corporation tax.*

The devolution of Corporation Tax was integral to supporting a number of other actions under the Strategy, such as a lower rate acting as an incentive to FDI firms wishing to locate in NI and allowing local firms to re-invest profits into business expansion plans.

[9] Northern Ireland Executive (2012): Economic Strategy: Priorities for sustainable growth and prosperity (Page 9): https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

The legislation devolving Corporation Tax to NI was enacted by the Houses of Parliament in March 2015.[10] At present, it is anticipated that this new power will be used in NI in April 2018.[11]

However, it should be noted that the current Economic Strategy was designed by the Executive so that it could still reach its objectives of re-balancing and re-building the economy without the devolution of Corporation Tax. This was reflected in the Strategy, where it stated:[12]

> *Irrespective of the outcome on corporation tax, we are confident that the measures outlined in this Strategy will strengthen our competitiveness.*

1.2 Re-building the Economy

The re-building priority focused mainly on measures to boost business activity and re-building the local labour market in the aftermath of the 2008 Great Recession (see section 3 for the effect of the Great Recession on the NI economy).

The current Economic Strategy included the following short to medium-term labour market **re-building** themes:

- Improving employment opportunities and employability; and,
- Promoting employment.

Table 2 summarises key short to medium-term re-building initiatives outlined in the current Economic Strategy.

[10] Legislation.gov.uk, Corporation Tax (Northern Ireland) Act 2015, http://www.legislation.gov.uk/ukpga/2015/21/introduction
[11] Irish News, 17 November 2015, McDonald, G, Corporation tax rate to fall to 12.5 per cent from 2018, http://www.irishnews.com/business/2015/11/17/news/corporation-tax-rate-to-fall-to-12-5-per-cent-from-2018-326713/
[12] Ibid, page 45

Table 2: Key Re-building Initiatives[13]

Re-building Initiatives
Promote £225m of investment and 6,300 jobs with 4,000 to be created by March 2014 under the Jobs Fund.
Develop and implement a strategy to reduce economic inactivity through skills, training, incentives and job creation.
Help the construction industry by delivering key road and rail projects and approximately 8,000 social and affordable homes over the budget period.
Deliver 6,000 work experience and training opportunities for young people by 2015 in priority sectors.
Stimulate 1,150 new employment opportunities in rural areas under the Rural Development Programme by 2015.
Develop and start to implement a Childcare Strategy with key actions to provide integrated and affordable childcare.
Implement the Social Investment Fund to improve pathways to employment, tackle systemic issues linked to deprivation, increase community services and address dereliction.
Increase the number of working age customers in receipt of work-focussed benefits to support them to move into work.
Move 114,000 working age benefit clients into employment by March 2015.
Provide an Employer Subsidy for businesses to recruit individuals who have been unemployed or economically inactive for a period of more than 13 weeks.
Offer a period of supported self-employment for those interested in running their own business.
Explore options to further address graduate unemployment, with a particular focus on ensuring that our actions assist with the longer term re-balancing agenda.

1.3 Cross-cutting principles

The actions contained within the current Economic Strategy cut across a number of Executive departments, both in terms of responsibilities for carrying them out and in terms of related strategies that both support the Strategy and, in turn, are supported by it.

All of the previous twelve departments had responsibility for ensuring actions were met. However, these actions were concentrated amongst the former Department of Enterprise, Trade and Investment (DETI) and the former Department for Employment and Learning (DEL). Although it should be noted that other departments played larger roles in relation to specific themes, such as the former Department for Regional Development (DRD) and the former Department of the Environment (DOE).

A number of related strategies are also interlinked with the current Economic Strategy, including:

- The former DETI's Innovation Strategy, now the new DfE's;
- The former DETI's Exporting Matters Strategy, now the new DfE's;

[13] Table compiled by RaISe using information from: Northern Ireland Executive (2012) *Economic Strategy: Priorities for sustainable growth and prosperity.*

- The former DEL's Success Through Skills, the skills strategy, now the new DfE's;
- The former DEL's Graduating to Success, the higher education strategy, now the new DfE's;
- The former Department for Education's (DE) Every School a Good School, the school improvement policy, now the new DE's;
- The former Department for Social Development's (DSD) Neighbourhood Renewal Strategy, now the new Department for Communities (DfC);
- The former Department for Agriculture and Rural Development's (DARD) Rural Development Programme, now the new Department for Agriculture, Environment and Rural Affairs (DAERA); and,
- The former Department for Health, Social Services and Public Safety's (DHSSPS) Investing for Health Strategy, now the new Department of Health (DH).

Each of these strategies interconnect and support the current Economic Strategy.

The Executive announced three cross-cutting principles to aid the re-balancing and re-building of the NI economy:[14]

- Balanced sub-regional growth;
- Equality; and,
- Sustainability.

1.3.1 Balanced sub-regional growth

The issue of economic regional imbalance and the Economic Strategy was debated on 7 June 2016 during a private member's motion, which called for:

> *…the Executive to focus on creating more and better jobs in Northern Ireland and to bring forward an updated economic strategy alongside the new Programme for Government 2016-2021.*[15]

During the debate the following amendment was proposed (and resolved):

> *Leave out all after "creating" and insert*
>
> *"high-value, highly skilled and highly paid jobs in Northern Ireland and to bring forward an updated economic strategy alongside the new Programme*

[14] Northern Ireland Executive (2012): Economic Strategy: Priorities for sustainable growth and prosperity (Page 9): https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

[15] Northern Ireland Assembly Plenary Debate. 7 June 2016: http://aims.niassembly.gov.uk/officialreport/report.aspx?&eveDate=2016/06/07&docID=265615#2270784

> *for Government 2016-2021, which focuses on achieving* ***a regionally balanced economy."***[16] **[emphasis added]**

Having been passed by the Assembly, this highlights the importance placed on encouraging economic investment across the whole of NI.

Implicit in this amendment is the notion that not only do regional imbalances exist in the NI economy, but the current Economic Strategy did not include measures to address these imbalances. That Strategy lists 'balanced sub–regional growth' as one of the cross-cutting principles to aid re-balancing and re-building. However, none of the actions listed in the Executive's 'Comprehensive Action Plan' appear to explicitly address regional imbalance in the NI economy.

As highlighted in section 2 of this Paper, sub-regional GVA over the period 1998 – 2014 was consistently higher in Belfast than any other NI NUTS 3[17] region. Belfast has also seen the highest level of actual and proportionate growth in GVA over the period. Furthermore, the gap between Belfast and the other NUTS 3 regions has widened in this period.

The lack of sub-regional targets for employment in the current Economic Strategy was raised in the Committee for Enterprise Trade and Investment's 2015 report *Growing the Economy and Creating Jobs with Lower Corporation Tax*:

> *…the consensus from the business sector was that it would be difficult for Invest NI to identify realistic targets at local level. It is Invest NI's belief that it is responsible for setting targets for Northern Ireland as a whole and that local councils have a responsibility to establish a proposition for their region which Invest NI can use to promote Northern Ireland at sub-regional level. This would suggest that there should be more responsibility on local councils to develop propositions and set their own targets for job creation based on what they have to offer.*[18]

Invest NI state that it has little say in where companies choose to locate and view local councils as having a key role to play in promoting economic growth in NI at a sub-regional level.

The new PfG appears to address regional imbalance directly as Outcome 1 of the new of the consultation document states:

[16] Northern Ireland Assembly Plenary Debate. 7 June 2016: http://aims.niassembly.gov.uk/officialreport/report.aspx?&eveDate=2016/06/07&docID=265615#2270784

[17] Using Nomenclature of territorial units for statistics (NUTS) 3 classifications for NI – this is the smallest sub-regional level for which data is available.

[18] Committee for Enterprise , Trade and Investment (2015) *Opportunity for Excellence - The Report on the Committee's Inquiry into Growing the Economy and Creating Jobs with Lower Corporation Tax:* http://www.niassembly.gov.uk/assembly-business/committees/archive/enterprise-trade-and-investment/reports/opportunity-for-excellence---the-report-on-the-committees-inquiry-into-growing-the-economy-and-creating-jobs-with-lower-corporation-tax/

We prosper through a strong, competitive ***regionally balanced economy****.*[19] **[emphasis added].**

The Draft PfG Framework 2016–21 explains Outcome 1 further:

This outcome is about increasing the productivity and success of local business in a sustainable and responsible way, ensuring that growth is balanced on a regional basis.[20]

1.3.2 Equality

The current Economic Strategy states that:[21]

The actions identified will also ensure that economic growth is spread to all sections of our society. This goes beyond ensuring that initiatives do not discriminate against any section of society, but rather we have included actions which will be taken to address particular challenges.

The Strategy identifies that deprivation in NI is an important issue, with employment a key method of lifting people out of poverty. Added to this is tackling barriers that stop people from being able to access employment.

Whilst the Strategy does not directly identify which actions are related to equality measures, there are a number, which would certainly have direct and indirect impacts. Examples include:

- **Action B1:** Deliver 210,000 qualifications at Levels 2, 3 4 and above (through Higher Education, Further Education, Essential Skills and Training) to encourage people to move up the skills ladder;
- **Action B26:** Ensure that pupils have, access to high quality careers education, information, advice and guidance supported by labour market information and the promotion of STEM and other innovation relevant subjects; and,
- **Action F15:** Develop and implement a Strategy to reduce economic inactivity through skills, training, incentives and job creation.

1.3.3 Sustainability

The cross-cutting themes identify sustainability as an important issue:[22]

[19] NI Executive (2016) *Draft Programme for Government Framework 2016–21:* https://www.northernireland.gov.uk/publications/programme-government-consultation

[20] NI Executive (2016) *Draft Programme for Government Framework 2016–21:* https://www.northernireland.gov.uk/publications/programme-government-consultation

[21] Northern Ireland Executive (2012): Economic Strategy: Priorities for sustainable growth and prosperity (Page 78): https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

[22] Northern Ireland Executive (2012): Economic Strategy: Priorities for sustainable growth and prosperity (Page 78): https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

> *Our actions are aimed at providing economic prosperity and opportunities for current generations, without compromising the ability of future generations to enjoy a quality of life that is both positive and rewarding.*

It goes on to state that the actions in the current Economic Strategy will be subject to "*sustainability proofing*" to ensure the economy retains and improves its competiveness over the longer term.[23]

Whilst there are no specific actions that refer to sustainability, some do fall under related areas such as:

- **Action C11:** Develop the Executive's Social Economy Action Plan – as part of the wider Enterprise Strategy – to support the development and sustainability of the social economy sector; and
- **Action C14:** Delivery of an integrated programme of measures to support the development of the land based renewable energy sector.

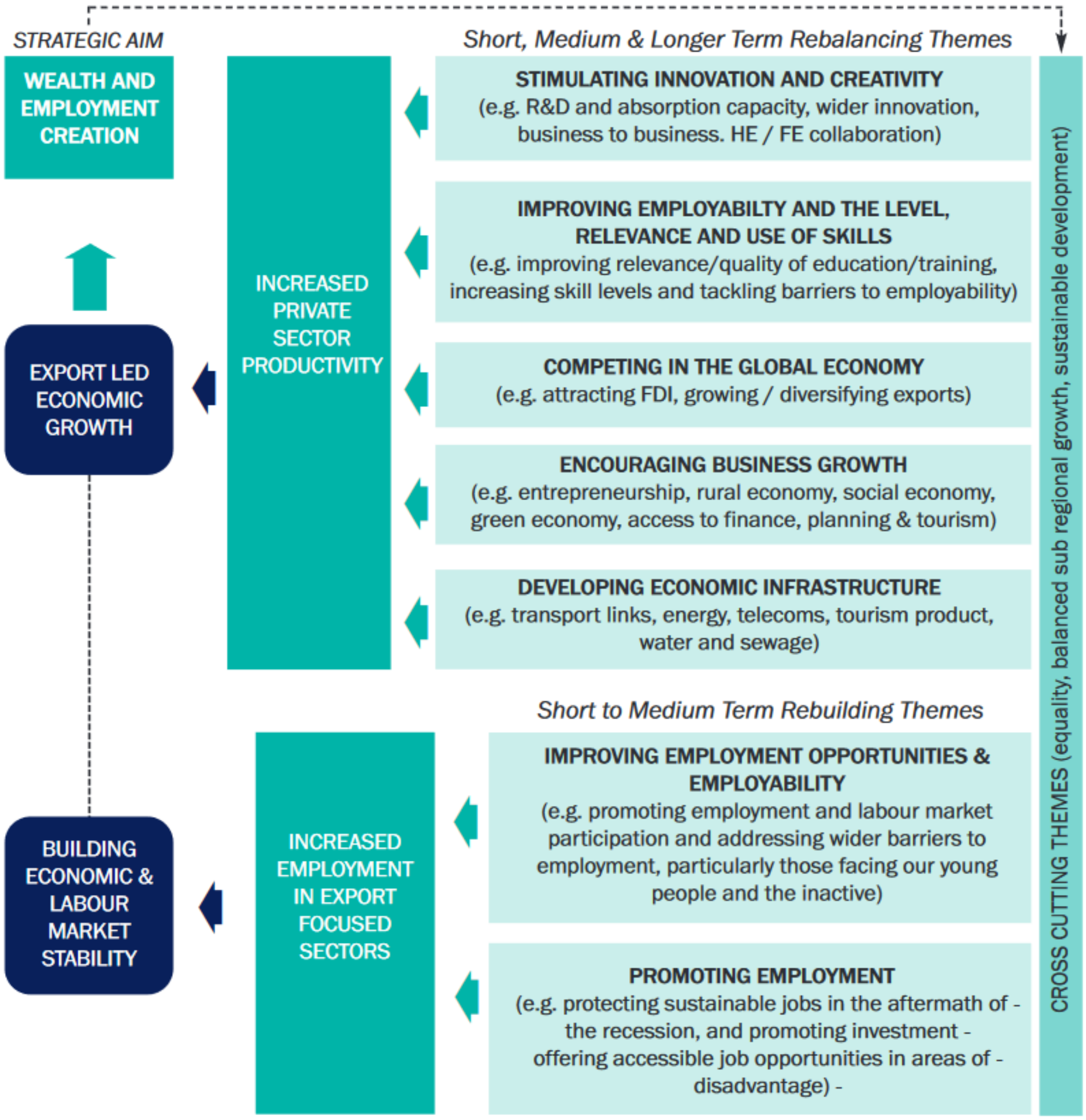
Regarding each of the cross-cutting principles, it should be noted that in both the Annual Monitoring Reports and the Progress Against Actions reports, there is no provision to monitor any of these cross-cutting themes.

1.4 Strategic Framework

The current Economic Strategy also included an overarching framework for economic growth. This is an attempt to graphically illustrate the strategic aims, re-balancing and re-building themes overarching economic goals and the cross-cutting principles of the current Economic Strategy. The Strategic Framework is shown in Figure 2 on the page following.

[23] Ibid

Figure 2: Strategic Framework for the Economic Strategy[24]



Source: NI Executive Economic Strategy (2012)

1.5 Measuring Success

The current Economic Strategy listed a commitment to measure the performance of the actions contained in table 2 and table 3 above. It stated:[25]

> *We are determined to implement the actions set out in this Strategy and to measure performance regularly and transparently.*

[24] Figure sourced from page 42 of Northern Ireland Executive (2012): *Economic Strategy: Priorities for sustainable growth and prosperity (*Page 15*)*: https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

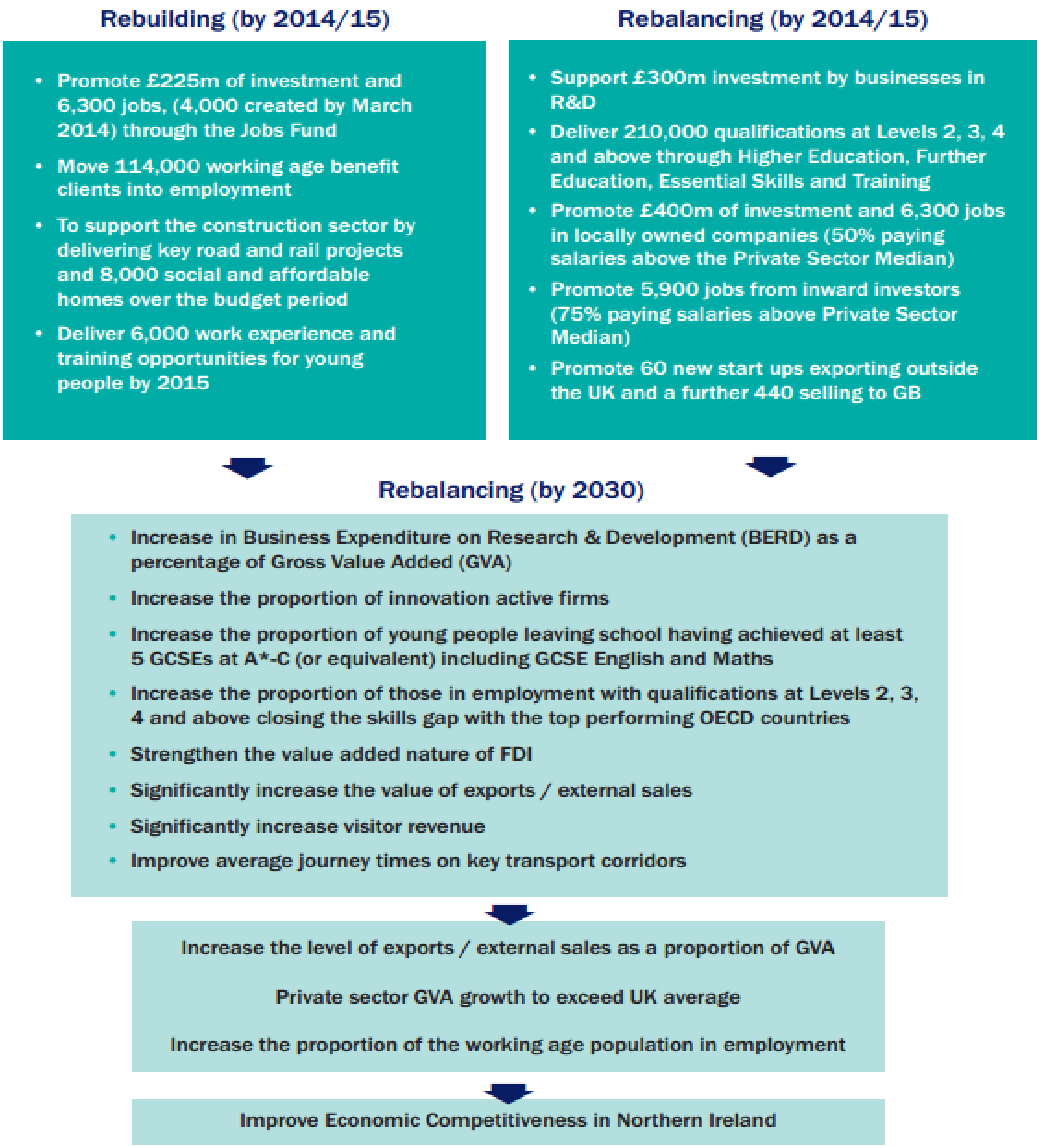
[25] Northern Ireland Executive (2012): Economic Strategy: Priorities for sustainable growth and prosperity (Page 15): https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

And: [26]

> *We will publish an updated Economic Strategy, including a detailed list of actions and targets for the post 2014/15 period, when the outcome of the UK Government's next Spending Review is known.*

The Executive tracks the Strategy's performance against its key indicators. Figure 3 summarises those key performance indicators and targets:

Figure 3: Key Performance Indicators and Targets[27] Source: NI Economic Strategy (2012)



[26] Ibid

[27] Figure sourced from page 16 of Northern Ireland Executive (2012): Economic Strategy: Priorities for sustainable growth and prosperity (Page 15): https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf

In addition, the Executive published a ‘Comprehensive Action Plan’ (CAP), which was to be considered in conjunction with the current Economic Strategy.[28] The CAP set out the actions needed to deliver the objectives listed in the Strategy. The actions are structured around the re-balancing and re-building themes outlined in it.

The CAP form the main basis for reporting back on the Executive Departments’ progress in achieving the economic strategies targets, with a yearly report, ‘*Progress Against Actions*’ (PAA), tracking the outcomes of 172 Actions.

The Actions are presented under six themes:

- **Innovation, R&D and Creativity:** 39 Actions;
- **Skills and Employability:** 30 Actions;
- **Business Growth:** 37 Actions;
- **Competing Globally:** 18 Actions;
- **Economic Infrastructure:** 26 Actions; and,
- **Rebuilding:** 22 Actions.

Each Action is attributed to the responsible Executive department, with current progress and achievement indicators. Section 4 of this Paper discusses the PAA and the progress of the current Economic Strategy in more detail.

1.6 Summary

By making the economy its number one priority, the PfG 2011-15 put NI’s economic recovery from the Great Recession at the heart of decision-making throughout the 2011-15 mandate. Correspondingly, the current Economic Strategy became a key policy document in that regard.

The overarching goal of that Strategy was to improve NI’s competitiveness through a focus on export-led growth. It was the Executive’s plan to grow NI into a more prosperous economy over the short, medium and longer term, to 2030.

Twin themes of re-balancing and re-building the NI economy were key pillars with which the Strategy was to move the NI economy forward. The balancing theme centred on initiatives designed to move NI away from a public sector driven economy, towards a private sector based recovery. The re-building initiatives focussed mainly on shorter term employment measures, such as job promotion and training opportunities.

Cross-cutting themes of sub-regional growth, equality and sustainability were also included in the current Economic Strategy. However, the perception of a Belfast-centred economy still exists and many MLAs believe that parts of NI have been left behind by Executive investment decisions. This has been borne out during a recent

[28] Northern Ireland Executive (2012): Comprehensive Action Plan: https://www.northernireland.gov.uk/publications/comprehensive-action-plan

Assembly debate on the revised strategy.[29] While the current Economic Strategy lists key performance indicators and includes a methodology for reporting progress against various stated actions, it **does not** identify actions directly related to equality and sustainability, which arguably relegate these issues to the side-lines in terms of policy-making.

The CfE may wish to consider the following:

- **How will current and planned strategies interconnect and support the Executive's forthcoming revised Economic Strategy?**
- **How have these strategies been affected by the re-organisation of NI's departmental structure, and have all related budget lines transferred alongside the functions?**
- **How will the revised Strategy encourage a joined-up approach to addressing economic imbalances across NI?**
- **What specific actions has the Executive taken to ensure that the current Economic Strategy is regionally balanced throughout the period it has been in operation?**
- **How has the Executive monitored the strategic outputs to ensure it has spread economic growth to all sections of NI society?**
- **How was sustainability proofing carried out in relation to the current Economic Strategy?**

[29] Northern Ireland Assembly Plenary Debate. 7 June 2016: http://aims.niassembly.gov.uk/officialreport/report.aspx?&eveDate=2016/06/07&docID=265615#2270784

2 An overview of the NI economy

To facilitate the CfE's scrutiny of the Executive's forthcoming revised Economic Strategy, including its associated goals and objectives, it is important to understand NI's historical and current economic position.

According to the Department for the Economy's (DfE) latest *'Monthly Economic Update'* (March 2016):

> *Despite some bumps along the way, the [NI] economy continues to move in the right direction with key measures of economic activity and jobs both increasing over the medium term. The private sector is driving this growth.*[30]

Available economic data does show that the economy is growing and that both economic activity and jobs are increasing. However, an analysis of the data identified some findings that the CfE may wish to consider in its scrutiny of the revised Economic Strategy, when available.

This section aims to provide a balanced overview of the NI economy, setting out key findings for a range of economic measures following a review of available data and analyses, including sources from both within and outside government. Those sources are outlined in the Statistical Annex (Annex A) appended to this Paper. Where the data allows, the findings take a long-term view of the NI economy.

The section is presented as follows:

- 2.1 Economic growth;
- 2.2 *Per capita* growth;
- 2.3 Labour market productivity;
- 2.4 Earnings;
- 2.5 Business demography;
- 2.6 Foreign-owned business and externally-owned Invest NI client companies;
- 2.7 Exports;
- 2.8 Employment;
- 2.9 Unemployment;
- 2.10 Economic activity and Inactivity;
- 2.11 Expenditure on Research & Development;
- 2.12 Skills development;
- 2.13 Tourism; and,
- 2.14 Key observations.

Throughout Annex A references are provided if additional detail is sought.

[30] Department for the Economy, March 2016, Monthly Economic Update, https://www.economy-ni.gov.uk/publications/deti-monthly-economic-update

2.1 Economic growth

The 'NI Economic Composite Index'[31] (NIECI) is a quarterly measure of NI's economic performances, which enables a comparison with Gross Domestic Product (GDP) growth in other economies. Figure 1 of Annex A is sourced from the NIECI. It shows that the NI economy is growing, and is growing broadly in line with the United Kingdom (UK) and Scotland. NI's rate of growth has been behind the Republic of Ireland (ROI) since late 2013. Specifically, Figure 1 shows that economic activity increased by 1% in real terms between Quarter 1 (January – March) 2016 and Quarter 2 (April – June) 2016. This is stronger than the quarterly growth witnessed in the UK economy, where GDP grew by 0.7% over the same period. Annual growth, averaged over the previous four quarters, was 1.3%. This is lower than growth in the UK economy over the same period (1.9%).[32]

Gross Value Added (GVA) measures the total income generated in an economy by production of goods and services. It is a measure of the increase in the value of the economy. The ONS Statistics publishes data on GVA going back to 1997. This is presented in Figures 2 and 3 of Annex A. This data shows that NI GVA in 2014 (£34,384m) was £15,774m (or 85%) greater than it was in 1997 (GVA in 1997 was £18,610m).[33]

GVA has grown year-on-year with the notable exceptions of 2008 and 2009, during which time the economy was in recession. It is significant, however, that the rate of growth has slowed in the post recessionary period. Between 1998 and 2007 GVA growth averaged 5.5%, between 2010 and 2014 growth average 2.3%.

The service sector is the largest contributor overall to GVA and GVA growth. In 2014, the sector contributed to 75% of NI's GVA. In 1997, the sector contributed 69% to overall GVA (see Figure 3 of Annex A), suggesting the economy has become more service orientated over this period. Service sector GVA has also increased from £18.6bn in 1997 to £25.7bn in 2014, an increase of £12.9bn, or 101% (see Figure 5 of Annex A).[34]

Both manufacturing and the construction industry have also grown over this period. In 2014 manufacturing GVA was valued at £5.4bn, an increase of £1.6bn (or 44%) since 1997. However, in proportional terms, the contribution that manufacturing makes to overall GVA has decreased from 20% in 1997 to 16% in 2014.[35]

NI's construction industry GVA has also grown. In 2014 it was valued at £1.9bn, an increase of £749m (or 68%) since 1997. Again, there has been a (slight) decrease in

31 Department for the Economy, Northern Ireland Economic Composite Index (13 October 2016) https://www.economy-ni.gov.uk/sites/default/files/publications/economy/NI-Composite-Economic-Index-Statistical-Bulletin-Q2-2016_0.pdf

32 *Ibid*

33 Department for the Economy, Regional Gross Value Added (Income Approach) Tables December 2015 (revised 25 February 2016 https://www.economy-ni.gov.uk/sites/default/files/publications/deti/Regional-GVA-Income-Approach-1997-2014-2.xls

34 *Ibid*

35 *Ibid*

the proportional contribution construction makes to overall GVA, from 6% in 1997 to 5% in 2014.

In contrast to these sectors (and the smaller sectors of electricity and water, and mining and quarrying), NI's agriculture is the only sector to show a contraction over the period examined. In 1997 the sector's GVA was valued at £546m. This decreased by £138m (of 25%) in 2014 when the sector's GVA was valued at £408m. The sector's contribution to overall GVA decreased from 3% in 1997 to 1% in 2014.[36] The Ulster University Economic Policy Centre (UUEPC) note that agricultural GVA data may be imperfect. There are two reasons that this might be the case:

1. Profits from the agriculture sector may be recorded in the manufacturing, distribution or retail sectors; and,
2. NI's agriculture sector is very subsidy heavy. Subsidies are subtracted during the GVA calculation.[37]

Looking more closely at changes to GVA within the services (Figure 6 of Annex A) and manufacturing (Figure 7 of Annex A) sectors, it is evident that all services subsectors have experienced growth over the period examined with the biggest increase seen in the wholesale and retail, human health and social work, and public administration and defence subsectors. In contrast, three manufacturing subsectors have contracted over the period - the manufacture of chemicals, the manufacture of wood and paper products and printing, and the manufacture of textiles.

At a sub-regional level, Belfast's GVA has consistently been greater than all other sub-regions of NI (Figure 8 Annex A). The East of NI has had the second largest GVA across the period measured. All region's experienced GVA growth over the period measured.

Despite this growth, the gap between Belfast's GVA and the GVA of all other regions has grown over the period 1997 to 2014.

The largest percentage increase in regional GVA (Figure 9 of Annex A) over the period was seen in the West and South of NI, which grew by 106%. The smallest percentage increase in GVA was seen in the North of NI, which grew by 66%.

2.2 Per capita growth

GVA per capita is a measure of individual income and can be used to compare standards of living across different economies.

Figure 10 of Annex A compares changes to NI GVA per capita with that of the UK. It is evident from the figure that NI's GVA per capita has increased by 68% (or £7,547 per

[36] *Ibid*

[37] University of Ulster Economic Policy Centre, Understanding productivity in Northern Ireland (September 2016) p11 https://www.ulster.ac.uk/__data/assets/pdf_file/0008/118385/Understanding_productivity_in_Northern_Ireland_27_September_2016.pdf

person between 1997 (£11,135) and 2014 (£18,682). However, it has remained consistently below the UK's, which grew by 8.4% (11,377) per person in the same period. Not only has NI's GVA per capita been consistently below the UK's, the gap between the two has actually widened over the period. In 1997, NI GVA per capita was £2,446 below UK levels. By 2014 this gap was 2.75 times wider at £6,726.[38]

Overall, individual income in NI, as measured by GVA per capita, is amongst the lowest of all UK regions. In 2014, NI was only ahead of Wales and the North-East of England.[39]

At a sub-regional level (Figures 11 and 12 of Annex A), all NI sub-regions experienced GVA per capita growth. The level of this growth was uneven however, with the greatest proportional growth experienced in Belfast, followed by the West and South of NI. The East of NI experienced the least amount of growth in relative terms.[40]

2.3 Labour market productivity

Labour market productivity:

> *… measures the amount of output produced by a unit of labour input. A higher level of productivity means that a higher level of output is being produced per unit of labour input.*[41]

It is important because:

> *…increasing productivity is critical to increasing economic growth in the long run. This follows from the fact that economic output can only be increased by either increasing the amount of inputs or by raising productivity. Increasing productivity is, therefore, an important aim for both national and local economies.*[42]

The following section makes use of GVA per hour worked as a measure of labour market productivity. This is the Office of National Statistics' (ONS) preferred measure (as opposed to GVA per job filled), as it takes into:

> *… consideration regional labour market structures or different working patterns, such as the mix of part-time and full-time workers, home workers and job shares.*[43]

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[38] Department for the Economy, Regional Gross Value Added (Income Approach) Tables December 2015 (revised 25 February 2016 https://www.economy-ni.gov.uk/sites/default/files/publications/deti/Regional-GVA-Income-Approach-1997-2014-2.xls

[39] At NUTS 1 - major socio-economic regions (12 in all in the UK).

[40] Office of National Statistics, Regional Gross Value Added (Income Approach) (December 2016) http://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/regionalgrossvalueaddedincomeapproach

[41] Office of National Statistics, Sub-regional productivity (8 March 2016) https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/subregionalproductivity/march2016#results-for-england-scotland-wales-and-northern-ireland-by-nuts3-subregions

[42] *Ibid*

[43] *Ibid*

Overall, NI's productivity grew by 35.6% between 2004 and 2014 (Figure 13 of Annex A), albeit starting from a lower base. Of the UK regions, only Scotland had a higher increase. Despite this, NI productivity has remained consistently below the UK average, with the indexed data showing the NI GVA per hour worked has been persistently 81-83% of the UK's as a whole.[44]

The gap between the two has widened over the period examined. In 2012 NI GVA per hour worked was 16.6% below the UK's and in 2014 it was 17.5%. Moreover, NI has ranked either 11th or 12th out of the 12 UK NUTs 1 regions[45] in each year between 2004 and 2014.[46]

It should be noted that UK productivity does not perform well against comparator economies. As shown in Figure 14 (of Annex A), since 2012 the UK's productivity has been the second-lowest in the G7, with only Japan showing lower levels of productivity in recent years. This means NI is a low productivity region of an economy with comparatively low productivity itself.[47]

In September 2016 the UUEPC analysed NI productivity at sectoral level (see Figures 15 and 1 of Annex A).[48] According to this analysis, 16 out of 20 industrial sectors in NI have productivity below that of the UK, with only utilities, water supply & waste, real estate and public administration more productive in NI than the UK. Within the manufacturing sector, 8 of 13 sub-sector are less productive in NI than the UK. Textiles and food & beverages perform well relative to the UK. In the latter case, however, the UUEPC expresses concern that this is skewed by tobacco production in Ballymena. This production is expected to end in 2017, which could place downward pressure on this sector's productivity going forward. The UUEPC analysis also highlights 'surprisingly' low relative productivity in NI's information, communication and technology (ICT), pharmaceutical and transport manufacturing sectors.[49]

[44] Office of National Statistics, Subregional Productivity: Labour Productivity (GVA per hour worked and GVA per filled job) indices by UK NUTS2 and NUTS3 subregions (26 August 2016) https://www.ons.gov.uk/file?uri=/employmentandlabourmarket/peopleinwork/labourproductivity/datasets/subregionalproductivitylabourproductivitygvaperhourworkedandgvaperfilledjobindicesbyuknuts2andnuts3subregions/current/nutsindeceslevels2016unlinkedjuly2016.xls

[45] NUTS – Nomenclature of territorial units for statistics. These are used within the EU to divide up its economic territory for the purpose of socio-economic analysis. NUTS 1 regions refers to major socio-economic regions within a country.

[46] Office of National Statistics, Subregional Productivity: Labour Productivity (GVA per hour worked and GVA per filled job) indices by UK NUTS2 and NUTS3 subregions (26 August 2016) https://www.ons.gov.uk/file?uri=/employmentandlabourmarket/peopleinwork/labourproductivity/datasets/subregionalproductivitylabourproductivitygvaperhourworkedandgvaperfilledjobindicesbyuknuts2andnuts3subregions/current/nutsindeceslevels2016unlinkedjuly2016.xls

[47] Office of National Statistics, International Comparisons of Productivity - First Estimates, 2015 http://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/datasets/internationalcomparisonsofproductivityfirstestimates

[48] Ulster University Economic Policy centre, September 2016, Understanding productivity in Northern Ireland

[49] University of Ulster Economic Policy Centre, Understanding productivity in Northern Ireland (September 2016) pp 10-11 https://www.ulster.ac.uk/__data/assets/pdf_file/0008/118385/Understanding_productivity_in_Northern_Ireland_27_September_2016.pdf

2.4 Earnings

Figure 17 of Annex A provides data on NI's median gross weekly earnings with that of the other UK countries.[50]

It shows that employees median weekly earnings have increased relatively consistently since 1997. However, between 2009-11 this growth slowed considerably, and there was almost no change in weekly earnings. This is most likely a result of the impact of the Great Recession and the slow recovery which followed.

It highlights that for the period shown gross weekly earnings in NI have been consistently lower than that of the rest of the UK. In 2015 there was a gap of £43.9 per week between NI and the UK.

Wales is the closest performing region to NI; although throughout 1997-2015 it has higher weekly earnings (with the occasional cross-over point).

This low-level of earnings reflects NI productivity position relative to the rest of the UK (and discussed earlier in this paper) and highlights that NI is a low wage, low productivity region.

Figure 18 of Annex A considers the differences in hourly earnings for males and females in NI.[51]

Of particular note is that male total earnings (which includes full time and part time earnings) are higher than those of females, with a pay gap of £1.13 in 2016.

However, once this data is broken down, both female full-time and female-part-time earnings are higher than males, albeit by a relatively small amount. NISRA notes that this disparity is a result of:[52]

> *For all employees, males earned more than females as there are more full-time male employees.*

Public earnings in NI, as in the UK, continues to outstrip those of the private sector (Figure 19 of Annex A).[53] In addition, NI public earnings have slightly overtaken those of the UK as a whole.

The gap between NI and UK private sector ages has been consistent for the period shown, with UK private sector weekly earnings £82.8 higher than NI's in 2016.

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[50] NISRA, Northern Ireland Survey of Hours and Earnings – Historical publications 1997-2016, https://www.economy-ni.gov.uk/publications/ashe-previous-publications Table 6.1a, gross weekly pay, median 1997-2016

[51] Ibid, Table 6.5a, Hourly pay gross, median 1997-2016

[52] NISRA, April 2016, Northern Ireland Annual Survey of Hours and Earnings, https://www.economy-ni.gov.uk/publications/ni-ashe-2016-publication

[53] NISRA, Northern Ireland Survey of Hours and Earnings – Historical publications 1997-2016, https://www.economy-ni.gov.uk/publications/ashe-previous-publications Median gross weekly earnings (NI versus UK) for full-time employees in the public and private sectors, 1997-2016

NISRA notes that these differences in earnings between the public and private may be a result of a number of factors including differences in the composition of the workforce.[54] The public sector, in NI and the UK, tends to recruit a larger proportion of graduates and professional occupations. The private sector, on the other hand, has a much broader range of skills needs, with a number of lower paid occupations such as elementary sales positions.

NI also has a proportionally larger public sector workforce than that of the UK and given the lower private sector wage levels in NI, the higher pay available in the public sector could act to emphasis the differences in earning levels.

Figure 20 of Annex A provides a breakdown of earnings by industry in NI.[55] In most cases weekly earnings have increased between 2008 and 2016, although there is a significant difference in earnings. For example, in 2016, the median gross weekly earnings for accommodation and food services was £300 whilst for education it was £711.00 (a difference of £411 per week).

A number of industries have seen fluctuations in weekly earnings over the period shown, for example, finance and insurance activities had a fall in earnings in 2011, reaching a low of £517.9 in 2014. It has since exceeded its previous peak.

2.5 Business demography

Figure 21 of Annex A tracks the number of businesses in the NI economy between 2009 and 2015. There were 3,505 fewer business in 2015 (total business 68,085) compared to 2009 (total businesses 71,590). Of this decrease, 94% of the decrease in businesses numbers was attributable to declining numbers in the construction sector.[56]

In terms of business numbers, services are the prominent sector, accounting for between 54% and 55% of total business numbers in each year. Agricultural business represents approximately a quarter of all business in each year.[57]

Figure 22 looks at the survival rate of newly formed business in NI and compares that with other regions of the UK. The date shows that NI has consistently the lowest or second survival rate of the UK regions examined. For example, of the 3,945 business formed in 2009, 85.3% survived for one year, 67% for two years, 55.3% for three years, 45.5% for four years and, 39.7% for five years. In each case this was the lowest survival rate of all the UK regions examined.[58]

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[54] NISRA, 2013, Average earnings and composition of the public and private sector workforces,

[55] NISRA, Northern Ireland Survey of Hours and Earnings – Historical publications 1997-2016, https://www.economy-ni.gov.uk/publications/ashe-previous-publications

[56] Department for the Economy, Interdepartmental Business Register, VAT and PAYE Tables 2015 (January 2016) https://www.economy-ni.gov.uk/sites/default/files/publications/deti/IDBRTable1.xlsx

[57] *Ibid*

[58] ONS, Business Demography (November 2015) http://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/businessdemographyreferencetable

The majority of NI businesses are microbusinesses (88.9% in 2014) or small to medium enterprise (11.2%) (see Figure 23 of Annex A).[59] Together, these businesses made up 99.7% of NI business numbers in 2014. On average, SMEs and microbusinesses made up 99.49% of total businesses numbers in NI over the period 2006 to 2015. This is consistent with the patterns across the UK[60] and the EU (see Table 1 of Annex A).

2.6 Foreign-owned business and externally-owned Invest NI client companies

Over the period 2008 to 2015, the number of foreign-owned businesses has increased by 33% (220 businesses), whilst associated employment has grown by 41% (28,885 employees) (see Figure 23 of Annex A). These businesses are predominately found in the service sector (77% of all foreign-owned businesses were service businesses in 2015).[61]

Measured by the number of businesses operating within the NI market, the RoI is the most common source market for foreign-owned business. RoI firms made up 32.8% (290) of all foreign-owned business in 2015. The United States (US) was the second most common source for foreign-owned business, accounting for 19.8% (175 of all foreign owned businesses). When measured by associated employment these positions are reversed with US businesses responsible for 24.3% of all associated employment (24,225 employees) and RoI businesses responsible for 17.5% of all associated employment.[62]

Figure 25 of Annex A shows that Invest NI client externally-owned business invested £1.71bn in the NI economy and created between 12,335 between 2011/12 and 2015/16. Total support for externally-owned companies was £211.83m. There was a considerable decrease between 2014/15 and 2015/16 in investment from externally-owned Invest NI client companies. Reversing a trend of year-on-year growth in external investment since 2011/12. Total investment fell from £683.64m in 2014/15 to £170.97m in 2015/16, a fall of 75%.[63]

Table 2, of Annex A, shows that, as of the end of 2015/16, Invest NI had exceeded the job, investment and export targets set in its Corporate Plan 2011/12 to 2015/16. This includes:

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[59] *Ibid*

[60] Office of National Statistics, Enterprise/local units by 2 Digit SIC, Employment size band and Region (October 2016) http://web.ons.gov.uk/ons/data/web/explorer/dataset-finder/-/q/dcDetails/Economic/UKBABa?p_p_lifecycle=1&_FOFlow1_WAR_FOFlow1portlet_dataset_navigation=datasetCollectionDetails

[61] Department for the Economy, Interdepartmental Business Register, Foreign Ownership Tables 2015 (January 2016) https://www.economy-ni.gov.uk/sites/default/files/publications/deti/IDBRTable3.xlsx

[62] *Ibid*

[63] Invest NI, Invest NI Support 2011-12 to 2015-16 http://secure.investni.com/static/library/invest-ni/documents/a-desktop/investni-support-all-northern-ireland.pdf?_ga=1.35243686.62852542.1469092808

- 42,448 jobs promoted;
- Total investment commitments of £3bn;
- Securing private sector investment in R&D of £589m;
- Securing £189m investment in skills development; and,
- Increasing the value of manufacturing exports by 9.1% over a 2014/15 baseline.[64]

2.7 Exports

Annex A looks at two measures of NI's export and trade performance. Figures 26 and 27 are sourced from NISRA's 'Broad Economy Sales and Exports Statistics'[65]. This provides an overview of exports from the all industries within NI including service exports. The dataset is, however, only available for a short timeframe. The second source used is Her Majesty's Revenue and Customs (HMRC) data on trade in goods (Figures 26 and 27 of Annex A). This dataset is focused on goods exports only, and is thus able to give only a partial picture of NI exports. It does, however, cover a much longer period and allows for an analysis of long-term trends.

NISRA's Broad Economy Sales and Exports (Figures 28 and 29 of Annex A) show that:

- Exports from all NI industrial sectors were valued at £9.8bn in 2014, an increase of 7% from 2011;
- As a proportion of GVA, broad industry exports have fluctuated slightly between 28% and 30% of GVA over the period;
- Exports to the EU in 2014 accounted for 59% of total exports;
- Exports to the RoI accounted for 37% in 2014;
- Exports to the rest of the world (ROW) accounted for 41% of total exports in 2014; and,
- Manufacturing exports made up the largest proportion of exports in each year.[66]

HMRC trade data shows that:

- NI exports of goods were valued at £6.308bn in 2015 and had increased by £3.9bn (or 163%) since 1996. Imports were valued at £6.1bn in 2015 and had increased by £3.8bn (or 166%) since 1996.
- Between 2003 and 2011 NI ran a trade surplus, meaning that more money entered the economy through the sale of exports than left it through the purchase of imports. This surplus decreased between 2007 and 2012. Since 2012 NI has fluctuated between surplus and deficit.

[64] Invest NI Annual Report and Accounts 2015/16, p11 (8 August 2016) http://secure.investni.com/static/library/invest-ni/documents/annual-report-investni-2015-16.pdf?_ga=1.262922507.62852542.1469092808

[65] Department for the Economy, Broad Economy Sales and Export Statistics (17 February 2016) https://www.economy-ni.gov.uk/sites/default/files/publications/deti/BESES-internet-tables-2011-2014.xlsx

[66] *Ibid*

- Over the period examined, the EU was the destination of the majority of NI's exports. The proportion of exports going to this market has decreased over time, from 70% in 1996 to 55% in 2015.
- NI has tended to run a trade surplus with the EU and a trade deficit with the ROW.[67]

2.8 Employment

Figures 30 to 33 of Annex A examine trends in NI employment data between 1984 and 2016. It also compares NI with the UK. The data shows: [68]

- NI's employment rate shows continued signs of recovery but still lags behind that of the UK. Despite narrowing over the last number of years, a gap of 5.4% existed between the NI and UK employment rates in 2016.
- In 2016 74.3% (or 449,000) of males aged 16-64 were employed, in comparison to 63.7% (383,000) of females.
- There has been a higher rate of growth in female employment. Between 1984 and 2016, male employment grew by 6.7%, whilst female employment increased by 14.1%.
- Employment amongst those aged 50-64 and 65+ has begun to increase, with those in employment aged 50-64 increasing from 113,000 in 1992, to 212,000 in 2016.

Changes to employment by sector are outlined in Figures 34 and 35 of Annex A.[69] Figure 32 shows that the services sector has increased its number of employees over the period shown, from 438,500 to 599,720 (an increase of 36.8 percentage points) between 1997 and 2016. This is consistent with growth in service sector GVA and business numbers, as outlined in sub-sections 2.2 and 2.5. The three sub-sectors within the services sector with the greatest growth in employment were (see Figure 35 of Annex A):

- Human health and social work;
- Whole sale and retail trade; and,
- Administrative and support service activities.

Figure 36 of Annex A provides a further breakdown of changes in sectoral employment. Five sectors have shown an overall decline in employment numbers:[70]

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[67] HMRC UK Trade Info, Regional Trade Database (extracted 18 October 2016) https://www.uktradeinfo.com/Statistics/BuildYourOwnTables/Pages/Table.aspx

[68] NISRA, Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016), https://www.economy-ni.gov.uk/publications/labour-force-survey-historical-data-october-2016 Headline data table 2.1a, March to May

[69] NISRA, Quarterly Employment Survey, Historical data, (June 2016) https://www.economy-ni.gov.uk/publications/quarterly-employment-survey-historical-tables-june-2016 Table 5.12 NI Employee jobs by SIC Code and Table 5.13 Employee jobs by broad industry sector, 2nd Quarter

[70] Ibid

- Manufacturing (-22.5% or 25,580 fewer employees);
- Public administration and defence (-15.5% or 9,170 fewer employees);
- Agriculture, forestry and fishing (-21.3% or 3,510 fewer employees);
- Electricity, gas, steam and air conditioning supply (-37.2% or 1,180 fewer employees); and,
- Mining and quarrying (-1.6% or 30 fewer employees).

There have been significant changes in the employment patterns over the years examined. For example, in 1997 manufacturing was NI's single largest employment sector, with 104,730 employees. By 2016 it was the third largest (with 81,150 employees), with wholesale and retail the largest at 126,310 employees.

The agriculture sector has had a decline in employment. In 1997 16,450 people were employed in the sector. Employment in the sector reached a low in 2010 at 11,920, but has increased slightly to 12,940 in 2016.[71]

Public administration, which included public sector workers, has also shown a relatively consistent fall in employment. Between 1997 and 2016 the sector saw a 9,170 decrease in employment. Approximately 68% of this decline took place in the years, 2014 to 2016, during which time there was drop of 6,200 employees in the sector. This is likely the impact of the Voluntary Exit Schemes, which were introduced to reduce costs in the sector.

2.9 Unemployment

Trends in NI unemployment data are explored in Figures 38 to 43 of Annex A.[72] There a number of key findings arising from the analysis accompanying those figures:

- NI's unemployment rate has yet to recover from the recession although it should be noted that the gap between the UK and NI was 1% in March to May 2016 (NI 5.9%, UK 4.9% (Figure 38 of Annex A).[73]
- NI historically has a higher rate of unemployment than the UK average. However, in 2004 NI's unemployment rate fell below that of the UK for the first time in decades, and remained below until the impact of the 2007 financial crisis and subsequent recession was experienced (Figure 38 of Annex A).
- The unemployment rate for the 18-24 age group is significantly higher than any other group (Figure 39 of Annex A).[74]
- Unemployment amongst 18-24 year olds continued to remain high until 2016 when it fell from 21,000 to 15,000. This high level of unemployment reflects the vulnerable nature of this group (Figure 39 of Annex A).

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[71] Ibid

[72] NISRA, Labour Force Survey – Historical data 1984-1991 and LFS historical data series, https://www.economy-ni.gov.uk/publications/labour-force-survey-historical-data-october-2016

[73] Ibid, Table 2.1a, March to May

[74] Ibid, Table 2.8, March to May

- Both male and female unemployment levels follow a similar pattern, reflecting the overall trends in the economy. However, it should be noted that female unemployment is consistently lower than that of males and of NI rate (Figure 40 of Annex A).[75]
- The majority of those who considered themselves unemployed had been out of work for over 12 months (Figure 41 of Annex A).[76]
- In 2016, of the 51,000 people who declared themselves unemployed, 26,000 (or 51%) were long-term unemployed (Figure 42 of Annex A).
- In 2016, 51% of NI's unemployed were long-term unemployed, in comparison to 28% for the UK as a whole (Figure 43 of Annex A).
- High levels of long-term unemployment may indicate a structural unemployment issue in NI, whereby the labour market is unable to meet the changing needs of employers.

2.10 Economic Activity and Inactivity

NI rates of economic activity and inactivity are explored in Figures 44 to 47 of Annex A. The data shows that:[77]

- The level of economic activity in the UK is consistently higher than that of NI. This reflects the continued issues NI has in encouraging people into employment or looking for work (the main measures of economic activity) (Figure 44 of Annex A).
- Since 2010 NI has had its rate of economic activity above 71% consistently, reaching its highest level in the period shown in 2016 (Figure 44 of Annex A).
- Female activity rates have increased throughout the period shown, rising from 262,000 economic active females in 1984 to 403,000 in 2016 (an increase of 141,000 people). Male economic activity on the other hand has grown at a slightly lower rate, increasing from 401,000 in 1984 to 482,000 in 2016 (81,000 more economically active males) (Figure 45 of Annex A).[78]
- NI has a consistently higher rate of economic inactivity than the UK for the period 1992-2016. In 2016 NI has an economic inactivity rate of 26.8%, in comparison to 21.6 in the UK (Figure 46 of Annex A). [79]
- Economic inactivity is broken into two main groups: Those who do not want a job (89% of the economically inactive in 2016); and, those who do want a job but do not satisfy the International Labour Organisation (ILO)[80] requirement to

[75] Ibid, Table 2.1a, March to May
[76] Ibid, Table 2.10, March to May
[77] NISRA, Labour Force Survey – Historical data 1984-1991 and LFS historical data series, https://www.economy-ni.gov.uk/publications/labour-force-survey-historical-data-october-2016 Table 2.1a, March to May
[78] Ibid
[79] Ibid, Table 2.1a March to May
[80] The International Labour Organisation, which designed the Labour Force Survey methodology used to gather labour market information in the UK.

be considered an active job seeker (11% of the economically inactive in 2016) (Figure 47 of Annex A).[81]

- The largest group economically inactive group are those who have family commitments (30.6% of those who are economically inactive in 2016) (Figure 47 of Annex A).[82]

2.11 Expenditure on Research &Development

NI has increased its total expenditure on Research & Development (R&D) by £239.3m or 66% between 2011 and 2014 (Figure 48 of Annex A). This has been largely driven by increases in Business Expenditure on R&D (BERD). BERD has been the largest component part of total expenditure on R&D since 2006. As of 2014 it contributed 67% (£405.m) of total R&D expenditure (Figure 49 of Annex A).[83]

All of the components parts of total R&D expenditure increased between 2001 and 2014 (Figure 48 of Annex A):

- BERD increased by £190.2m, or 89%;
- Higher Education expenditure on R&D increased by £41.7m, or 31%; and,
- Government expenditure on R&D increased by £7.3m, or 53%.[84]

Total R&D expenditure was equivalent to 1.9% of GVA in 2014 (up from 1.7% in 1996). Business expenditure on R&D equalled 1.2% of GVA (up from 1% in 1996).[85]

Despite these increases, the March 2016 edition of the Regional Innovation Survey Ranks NI 11th out of 12 UK regions over the period 2012-2014.[86]

2.12 Skills development

Figure 50 of Annex A details essential skills qualifications by National Qualifications Framework (NQF) level between 2003/04 and 2015/16.[87] The figure shows that in recent years, the number of qualifications in total have fallen from 40,851 in 2013/14, to 26,443 in 2015/16.

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[81] Ibid, Table 2.4a and 2.4b, March to May

[82] Ibid

[83] Department for the Economy, Research and Development 2014 detailed result (21 December 2015) https://www.economy-ni.gov.uk/sites/default/files/publications/deti/2014%20R%26D%20detatiled%20results%20v3%20%28footnotes%20amended%29.pdf

[84] *Ibid*

[85] *Ibid*

[86] NISRA, PFG Measurement Annex, Indicator 22: Increase innovation in our economy (accessed 03 November 2016) http://www.nisra.gov.uk/pfg/Measurement-Annex-PfG-2016-2021-Indicator22-Increase-innovation-in-our-economy.docx

[87] NISRA, Essential Skills Qualifications (July 2016) https://www.economy-ni.gov.uk/articles/essential-skills-qualifications Table 5: Essential Skills qualifications by level achieved and academic year

The majority of qualifications were gained in level 1 and level 2 essential skills, with qualifications at level 2 reaching a high of 24,923 in 2013/14, but has since fallen to 15,766 in 2015/16.[88]

Figure 51 of Annex A shows the qualifications gained by NI domiciled students studying in NI Higher Education Institutes.[89] There has been a slight increase in the number of qualifications gained over time. The vast majority of qualifications are gained in undergraduate degrees. However, there has been a slight drop in the number of degree qualifications since 2011/12, with 605 fewer qualifications in other undergraduate degree.[90]

2.13 Tourism

Overall trips to NI and tourism expenditure has increased between 2011 and 2015. In 2015 there were 4,531,618 overnight trips to NI; an increase of 563,856 or 14%. Tourist expenditure was £764m in the same year; an increase of £123m or 19% (see Figure 52 of Annex A).[91]

Domestic tourism was the largest tourism market, accounting for 49% all overnight trips in 2014. In comparison, GB visitors accounted for 29% of overnight trips, rest of the world visitors 15%, and RoI visitors 7%.[92]

The tourism industry is currently valued at £764m. GB visitors contributed the greatest proportion to this, accounting for 36% of total tourist expenditure in 2014. However, when measured as expenditure per visitor ROW visitors are shown to be the most lucrative visitor group (see Figure 53 of Annex A).[93]

2.14 Key observations

The above sub-sections outline findings following a review of relevant information, data and analyses. Outlined below are key observations arising from those findings, which the CfE may wish to consider when scrutinising the forthcoming revised Economic Strategy:

- Both measures of economic growth for the NI economy examined, the NICEI and GVA data, point to a growing economy. The GVA data shows that the rate of this growth has slowed considerably since the recession.

[88] Ibid

[89] NISRA, Students gaining higher education qualifications: Northern Ireland, https://www.economy-ni.gov.uk/articles/higher-education-qualifications Table 6: Students gaining qualifications at Northern Ireland HEIs by level of qualification, mode of study and country of domicile - 2005/06 to 2014/15

[90] Ibid

[91] Department for the Economy, Northern Ireland annual Tourism Statistics 2015 additional tables (26 May 2016) https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Tables-and-Charts-for-Annual-2015-revised-HTS-as-of-August-2016_0.xlsx

[92] *Ibid*

[93] *Ibid*

- Low productivity is a persistent and sector-wide problem within NI. NI is a low productivity region, within a country that performs poorly against comparator economies.
- The gap between Belfast GVA and GVA per capita and that of the other NUTs3 regions widened between 1997 to 2014.
- NI GVA per capita is amongst the lowest in the UK, higher than only two regions – Wales and the North East of England. The gap between UK GVA per capita and NI GVA capita grew by 2.75 times between 1997 and 2014.
- GVA, jobs and business number data all show that the NI economy has become increasingly more orientated towards the service sector over the period examined.
- Goods exports have more than doubled between 1996 and 2015. Though an analysis of NI's trade balance suggests that the net impact of this trade has lessened in recent years. NI has not run a large trade surplus since 2008, meaning the net gain to the economy through export sales has decreased.
- Although the EU remains NI's most significant export market, the relative significance of the market in terms of export value has decreased over time.
- NI has consistently had one of the lowest business survival rates of the UK regions.
- There was a considerable increase in the number of foreign (the number of foreign business in NI increased 33%) owned businesses and associated employment (employment associated with foreign companies increased by 41%) between 2008 and 2015.
- NI employment is recovering, but still lags behind that of the UK.
- Economic inactivity in NI is significantly higher than that of the UK.
- Women have become increasingly active in the labour market since 1984. This can be seen in the economic activity and employment data.
- Long-term unemployment continues to be a significant issue in NI. In 2016, NI's long-term unemployment was 51% of total unemployment, whereas the UK figure was 28%.
- NI's median weekly earnings are consistently lower than those of the rest of the UK, with a gap of £43.9 per week between NI and the UK in 2015.
- Part-time and full-time female hourly earnings are higher than those of males, with female full-time hourly earnings having exceeded those of males in 2013.
- In 2016, UK private sector earnings were £82.8 higher than those in NI. The gap between NI and UK private sector wages has been consistent for the period shown.
- Despite an overall increase in R&D spending of 66% between 2011 and 2014, and 89% in business R&D expenditure over the same period, NI ranks 11th out of 12 UK regions over the period 2012-2014.

3 The NI economy in a global context

In today's globalised world, local economies such as NI's are impacted to a greater extent by global economic fluctuations.[94] Critical to assessing the Executive's forthcoming revised Economic Strategy will be an understanding of the NI economy in a global context.

This section identifies key linkages between the NI economy and the global economy, which have impacted on NI's economic performance in the past. Thereafter it considers recent economic forecasts and their impact on the NI economy. Finally, it looks at the potential implications of the EU Referendum result on two key pillars of the current Economic Strategy, namely trade and foreign direct investment.

The section is presented as follows:

- **3.1:** An Overview: Key global economic events relevant to NI's economic performance 2006-2016;
- **3.2:** Economic Forecasts: Global, UK and NI;
- **3.3:** EU Referendum Impact Forecasts; and,
- **3.4:** Key observations.

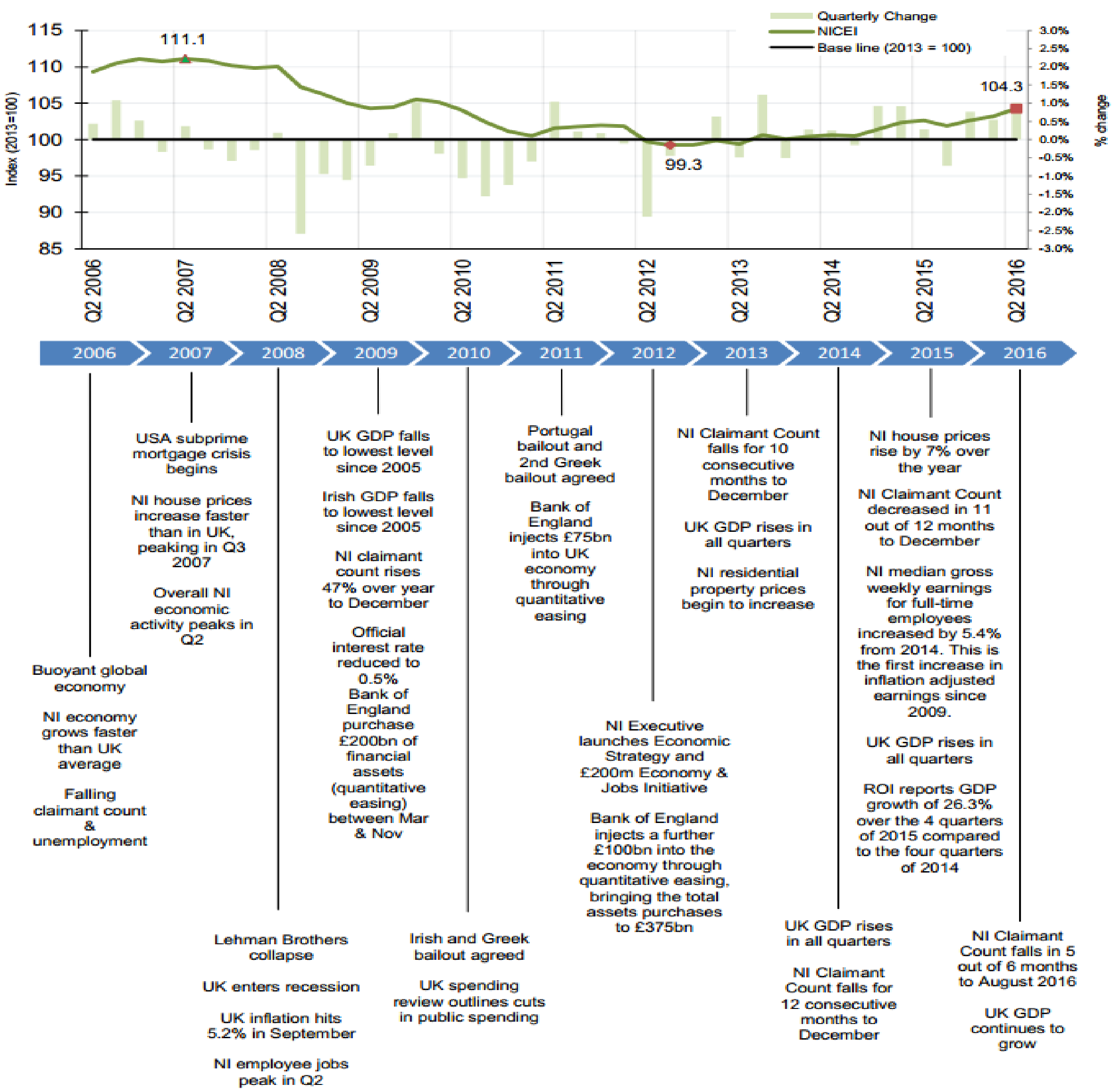
3.1 An Overview: Key global economic events and NI's economic performance 2006-16

Figure 4, produced by the DfE, provides an overview for 2006-16 of key global economic events and the performance of the NICEI.

The figure highlights how the NI economy has been impacted by major global events, such as the sub-prime mortgage crisis or the collapse of Lehman Brothers, and also the impact of more localised events, such as the Bank of England's quantitative easing programme.

[94] Department for the Economy, Northern Ireland Composite Economic Index, quarter 2 2016 (October 2016) p9 https://www.economy-ni.gov.uk/sites/default/files/publications/economy/NI-Composite-Economic-Index-Statistical-Bulletin-Q2-2016_0.pdf

Figure 4: Overview of the performance of the Northern Ireland Composite Economic Index, alongside a timeline of key economic events, 2006-16[95]



Source: Department for the Economy (October 2016)

3.2 Economic Forecasts: Global, UK and NI

The following sub-section outlines a range of economic forecasts, the findings of which, are expected to impact on NI's economic growth. Those forecasts concern:

- 3.2.1 Growth forecasts – Global, UK and NI;
- 3.2.2 Trade forecasts – Global; and,
- 3.2.3 Foreign Direct Investment forecasts – Global, UK and NI.

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[95] Department for the Economy, Northern Ireland Composite Economic Index, quarter 2 2016 (October 2016) p9 https://www.economy-ni.gov.uk/sites/default/files/publications/economy/NI-Composite-Economic-Index-Statistical-Bulletin-Q2-2016_0.pdf

3.2.1 Growth forecasts – Global, UK and NI

The International Monetary Fund (IMF)'s latest economic forecast projects global growth:

> *…to slow to 3.1 percent in 2016 before recovering to 3.4 percent in 2017. The forecast, revised down by 0.1% percentage point for 2016 and 2017 relative to April* [IMF's previous forecast]*, reflects a more subdued outlook for advanced economies following the June UK vote in favour of leaving the European Union (Brexit) and weaker-than-expected growth in the United States. These developments have put further downward pressure on global interest rates, as monetary policy is now expected to remain accommodative for longer.*[96]

The IMF's forecast is slightly more optimistic for growth than an earlier (June 2016) forecast by the OECD. The OECD forecast global GDP to grow by 3.0% in 2016 and 3.3% in 2017.[97] The key issues identified by the OECD are summarised in Figure 5.

[96] The International Monetary Fund, World Economic Outlook, Subdued Demand: Symptoms and Remedies (October 2016) http://www.imf.org/external/pubs/ft/weo/2016/02/

[97] OECD, Global Economic Forecast (June 2016) Policymakers: Act now to keep promises! (1 June 2016) p1 http://www.oecd.org/eco/outlook/OECD-Economic-Outlook-June-2016-handout.pdf

Figure 5: Key issues from OECD forecast June 2016[98]

The global economy is stuck in a "low-growth" trap

- Growth in advanced economies is low and has declined in many emerging economies
- Weak trade and sluggish investment continue
- Risks: Brexit, high credit growth and debt exposures in emerging economies, volatile financial markets

Productivity growth has slowed and inequality has risen

- Prolonged demand weakness is damaging long-term growth prospects
- Productivity gains are not being widely shared
- Wage growth is even lower than productivity growth

Comprehensive and collective action is needed to keep promises

- Monetary policy alone cannot break out of the low growth trap and may be overburdened
- Fiscal space is eased with low interest rates; use public investment to support growth
- Structural reform packages needed to boost productivity, wages and equality

Source: OECD (June 2016)

For the UK, the IMF's October 2016 forecast predicted growth of 1.8% in 2016 (down from 2.2% in 2015) and 1.1% in 2017.[99] The OECD's March 2016 forecast predicted growth of 1.7% in 2016 (down from 2.3% in 2015) and 2.0% in 2017. It should be noted that the latest GDP figures (27 October 2016, preliminary estimates) for the UK show that UK GDP showed quarterly growth of 0.5% in quarter 3 2016. GDP was 2.3% percentage points higher in quarter 3 2016, than the same quarter in 2015.[100] Commenting on the figures, which are the first estimates to be released following the EU Referendum, the Office of National Statistics (ONS) stated:

> *This is the first release of GDP covering a full quarter of data following the EU referendum. The pattern of growth continues to be broadly unaffected*

[98] *Ibid* p3

[99] http://www.imf.org/external/pubs/ft/weo/2016/02/images/Overview.jpg

[100] Office of National Statistics, Gross Domestic Product, preliminary estimate: July to Sept 2016, (27 October 2016) https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/grossdomesticproductpreliminaryestimate/julytosept2016#main-points

following the EU referendum with a strong performance in the services industries offsetting falls in other industrial groups.[101]

The ONS data shows that this GDP growth has been service sector led. In contrast, output in the other three main industrial sectors, construction, production and agriculture, declined in quarter 3 2016.[102]

With respect to the NI economy, Table 3 below outlines a range of forecasts of future growth from local commentators.[103] All four forecasts predict growth in the NI economy for 2016 and 2017. It is striking that the two forecasts with the strongest predictions for growth, by the UUEPC and Ernst & Young, were both published prior to the EU Referendum. All four forecasts were produced prior to the most recent ONS GDP publication (as outlined above).

Table 3: Forecast for the NI economy 2016-2017[104]

Organisation	2015 position	2016 forecast	2017 forecast	Date of forecast
Ulster University Economic Policy Centre	1.90%	1.60%	1.30%	Spring 2016
PwC	2.30%	1.80%	0.70%	Sep-16
Oxford Economics for Danske Bank	-	1%	0.50%	Sep-16
Ernst & Young	1.70%	1.60%	1.70%	Nov-15

Source: Compiled by RaISe (October 2016)

3.2.2 Forecast for global trade

The latest trade forecasts from the World Trade Organisation (WTO) (September 2016) predict that trade in 2016 will grow at its slowest pace since the financial crisis. In its September 2016 forecast the WTO predicted that trade will grow globally at a rate of 1.7%. This is a downgrade of its trade forecast from April 2016, which predicted a 2.8% increase in international trade during 2016. The forecast for 2017 was also revised to between 1.8% and 3.1%, down from 3.6% in the previous forecast.[105]

[101] *Ibid*

[102] *Ibid*

[103] The four forecasts are as follows: The Ulster University Economic Policy Centre Spring Outlook 2016 https://www.ulster.ac.uk/__data/assets/pdf_file/0008/82961/UUEPC-Spring-2016-Outlook-PDF.pdf; the PwC Northern Ireland Economic Outlook September 2016 http://www.pwc.co.uk/who-we-are/regions/northernireland/nieo-130916.pdf; The Oxford Economics/Danske Bank Sectoral Forecasts September 2016 https://www.danskebank.co.uk/SiteCollectionDocuments/economic/2016/Sectoral_Forecasts_Sept_16.pdf; and, Ernst & Young's Economic Eye, Winter 2015 http://www.ey.com/Publication/vwLUAssets/EY-economic-eye-winter-forecast-2015/$FILE/EY-Economic-Eye-Winter-2015.pdf

[104] Table 1 was compiled by the Business and Employment Unit of the Finance and Economics Research Team within the RaISe in October 2016, relying on data produced by the Ulster University Economic Policy Centre, PwC, Oxford Economics for Danske Bank, and Ernst & Young

[105] World Trade Organisation, Trade in 2016 to grow at slowest pace since the financial crisis (27 September 2016) https://www.wto.org/english/news_e/pres16_e/pr779_e.htm

The WTO states that the 2016 slowdown in trade is the result of a decline in the trade of manufactured goods driven by slowing GDP in developing economies, such as China and Brazil, and a slowing of imports into North America.[106]

The IMF's *World Economic Outlook 2016* notes a longer-term decline in global trade:

> *Global trade growth has decelerated significantly in recent years. After its sharp collapse and even sharper rebound in the aftermath of the global financial crisis, the volume of world trade in goods and services has grown by just over 3 percent a year since 2012, less than half the average rate of expansion during the previous three decades. The slowdown in trade growth is remarkable, especially when set against the historical relationship between growth in trade and global economic activity. Between 1985 and 2007, real world trade grew on average twice as fast as global GDP, whereas over the past four years, it has barely kept pace. Such prolonged sluggish growth in trade volumes relative to economic activity has few historical precedents during the past five decades.*[107]

The main factors cited as the reason for this decline in international trade is:

> *The overall weakness and economic and the slowdown in investment growth appear to be the key restraint on trade growth since 2012.*[108]

Other factors have also impacted growth:

- A slowdown in the pace of trade liberalisation and a rise in protectionist measures; and,
- A decline in the growth of global value chains.[109]

The IMF forecast growth in world trade in goods and service to decline in 2016 to be 2.3%, down from 2.6% in 2015. World trade is forecast to perform better in 2017, when it is predicted to grow by 3.8%. Both these estimates are revised down from the IMFs previous 2016 forecasts.[110]

3.2.3 Foreign direct investment (FDI) forecasts

The Financial Times *FDI Intelligence – FDI Report 2016* highlights growth in global FDI during 2015:

- Capital investment increased by 9% to $713billion (bn);
- Job creation increased 1% to 1.89 million (m);

[106] *Ibid*

[107] International Monetary Fund, World Economic Outlook 2016, Chapter 2 Global Trade: What's behind the slowdown? (October 2016) P63 http://www.imf.org/external/pubs/ft/weo/2016/02/pdf/c2.pdf

[108] Source???

[109] *Ibid* p65

[110] International Monetary Fund, World Economic Outlook 2016, Chapter , Global Prospects and Policies (October 2016) p62 http://www.imf.org/external/pubs/ft/weo/2016/02/pdf/c1.pdf

- The Asia-Pacific region was the leading destination for FDI in 2015; and,
- The UK and Republic of Ireland (ROI) both witnessed increases in FDI in 2015, with project numbers rising by 3% and 4% respectively. This bucked the trend for Europe overall, where project numbers fell by 9%.[111]

The number of FDI projects declined by 7% to 11,930 in the same year, however. The forecast going forward is a 5% decline in FDI during 2016. This is based on global GDP growth being revised down for the year. In the longer-term, global FDI is forecast to grow by 3% to 5% per year between 2017 and 2020.

The United Nations Conference on Trade and Development (UNCTAD) noted that in 2015:

> *Global flows of foreign direct investment rose by about 40 per cent, to $1.8 trillion, the highest level since the global economic and financial crisis began in 2008.*[112]

It further stated that in Europe:

> *Inflows…rose to $504 billion, accounting for 29 per cent of global inflows. This rebound was driven by large increases in Ireland, the Netherlands and Switzerland. Other major recipients were France and Germany, both of which recovered sharply from low points in 2014. Inflows into the United Kingdom of Great Britain and Northern Ireland fell to $40 billion but remained among the largest in Europe.*[113]

This latter point is significant since securing FDI has been a key pillar of the Executive's current Economic Strategy. Given declining FDI inflows, this may serve to undermine this element of the Strategy, if included in the revised Strategy.

During 2015, the largest investor region was Europe, with the largest FDI inflows heading towards Asia.[114]

Looking forward, the UNCTAD states:

> *FDI flows are expected to decline by 10-15 per cent in 2016, reflecting the fragility of the global economy, persistent weakness of aggregate demand, sluggish growth in some commodity exporting countries, effective policy measures to curb tax inversion deals and a slump in MNE* [multi-national enterprise] *profits. Over the medium term, global FDI flows are projected to*

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[111] FDI Intelligence, FDI Report 2016 http://www.fdiintelligence.com/Utility-Nav/Highlights-Bar/The-fDi-Report-2016 (sign in required)

[112] UNCTAD, World Investment Report 2016, Key Messages (21 June 2016) p1 http://unctad.org/en/PublicationChapters/wir2016_KeyMessage_en.pdf

[113] UNCTAD, Prospects for foreign direct investment remain muted in most regions, report finds (21 June 2016) http://unctad.org/en/pages/PressRelease.aspx?OriginalVersionID=305

[114] UNCTAD World Investment Report 2016, 21 June 2016) p11 http://unctad.org/en/PublicationsLibrary/wir2016_en.pdf

resume growth in 2017 and to surpass $1.8 trillion in 2018, reflecting an expected pick up in global growth.[115]

3.3 EU Referendum Impact Forecasts

On 23 June 2016 a majority of voters across the UK voted to leave the EU. The implications of this decision on the NI economic position are as yet unknown. It may, however, particularly impact on two key pillars of the current Economic Strategy – trade and FDI.

In the short-term, the UK remains a member of the EU. As such, NI firms will continue to trade with the EU on the same terms as they did before the EU Referendum. The most immediate impact of the EU Referendum result on trade is that the fall in the pound has served to make NI's exports less expensive in international markets. This is already a notable development. The Ulster Bank's first 'Purchase Manger's Index' (PMI) (a cross-sectoral survey of business, which provides a measure of business output and activity) since the Referendum found: [116]

> *In contrast to the picture for total new business, new export orders increased during the month, as the weakness of sterling helped companies to secure new work from clients in the Republic of Ireland.*[117]

However, businesses importing raw material for inclusion in their own products may face increased costs, as many of these commodities are traded in dollars, with sterling weaker than the dollar in the currency market. This was also recognised in the Ulster Bank's PMI:

> *Input prices increased at a much faster pace in July as the weakness of sterling resulted in higher costs for imported items.*[118]

The longer-term picture is more uncertain. The deal struck between the UK and EU, following negotiations, will not determine only the barriers (or lack of) NI firms may encounter in accessing the EU Single Market, but may also determine the opportunities available to trade with the rest of the world. Depending on the deal struck, NI exporters could be exposed to increased tariffs and customs burdens. Post-Brexit, NI firms may be required to ensure they are compliant with EU product standards.

On the other hand, the deal will also determine the degree of autonomy the UK will have in securing its own trade agreements going forward. Should the UK adopt an existing post-EU model, such as the Norwegian,[119] Swiss and WTO models, it will be

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[115] *Ibid* p10

[116] The Ulster Bank Northern Ireland PMI (8 August 2016) https://ulstereconomix.com/2016/08/08/output-declines-for-first-time-in-15-months/#more-2021

[117] *Ibid*

[118] *Ibid*

[119] HM Government, Alternatives to membership: possible models for the United Kingdom outside the European Union pp 16-35 (March 2016)

able to negotiate its own trade agreements. However, should the UK choose to remain part of the Customs Union, and follow what can be described as the 'Turkish Model', it would more constrained in its ability to negotiate trade agreements. Turkey has the freedom to enter into trade agreements with countries outside of the EU, but in doing so its external tariffs must be aligned to the EU. Furthermore, as noted by the UK Government in a pre-referendum briefing:

> *When the EU signs a trade agreement with a third country, such as South Korea, Turkey must give that country access to its own market on the same terms. But this obligation is not reciprocal. The third country is not required to open its market on the same terms to Turkish exports. Instead, Turkey has to negotiate separate trade deals with these countries.* [120]

Finally, on trade, the outcome of negotiations may also impact the UK's opening trade position once Brexit is complete. Currently, by way of its EU Membership, the UK is party to 53 free trade agreements with countries outside of the EU.[121] The extent which these agreements are retained, or require renegotiation (and the extent to which the UK Government believes it desirable to renegotiate these deals), may impact on UK (and by extension NI) trade relationships.

From an FDI perspective, the extent to which Brexit will impact FDI into NI is likely to depend on:

- The deal struck between the UK and EU;
- The importance placed on single market access by investors;
- The impact on the effectiveness of the NI corporation tax rate; and,
- Invest NI's ability in the future to support investors beyond what is currently allowed under EU State Aid rules.

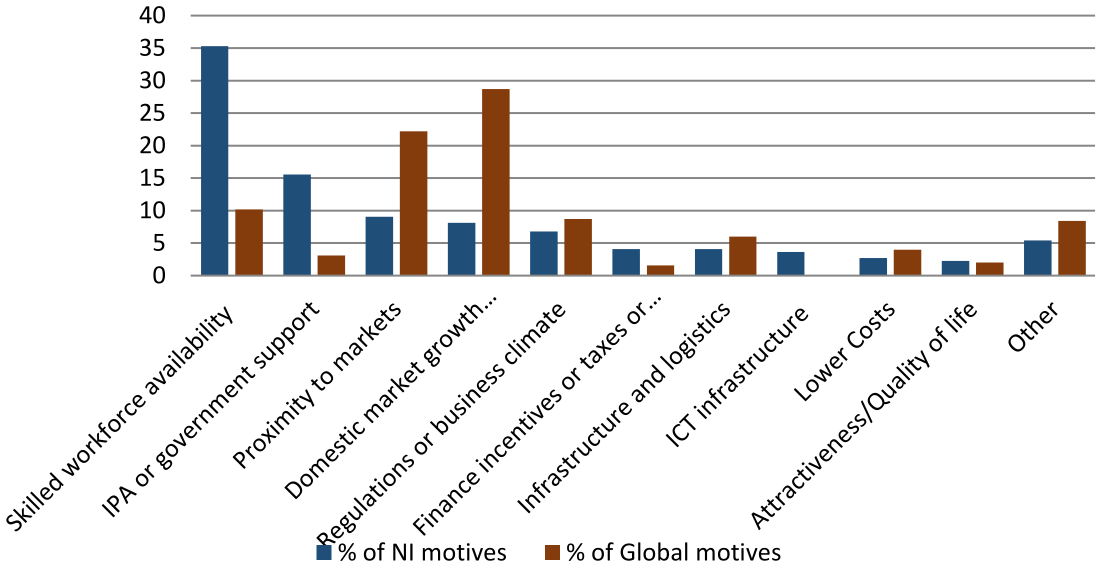
FDI Intelligence data (2014), outlined in Figure 6, contrasts motivations cited by firms engaging in FDI globally, with those cited by firms engaging in FDI in NI. The figure shows us that by a considerable margin, the availability of a skilled workforce was the most significant motivation of firms locating in NI, followed by the existence of an Investment Promotion Agency (IPA) or government support. It further highlights that these factors are less significant globally. The main motivating factors for global FDI where domestic market growth potential and proximity to markets.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/504604/Alternatives_to_membership_-_possible_models_for_the_UK_outside_the_EU.pdf

120 *Ibid* p30

121 European Commission, State of EU Trade http://trade.ec.europa.eu/doclib/docs/2012/june/tradoc_149622.pdf

Figure 6: Motives of FDI in NI v Motives of FDI Globally[122]



Source: FDI Intelligence (2014)

3.4 Key observations

The above sub-sections outline findings following a review of relevant information, data and analyses. Outlined below are key observations arising from these findings, which the CfE may wish to consider when scrutinising the forthcoming revised Economic Strategy:

- Global growth is expected to slow in 2016, followed by a recovery in 2017;
- Global trade has slowed since 2012, this expected to continue during 2016;
- Despite growth in 2015, global foreign direct investment flows are expected to slow in 2016; and,
- The EU Referendum result has introduced a degree of uncertainty into NI's trade and FDI position going forward. The impact of this remains uncertain and is predicated on the results of negotiations between the UK and the EU. Of particular significance here is NI's future trading relationship with the RoI, given, as outlined in Section 2, it is the destination for 37% of NI's exports.

[122] Figure 1. Created with data from Barklie, G (2014). "Why are firms establishing a presence in NI?" fDi Markets

4 Review of the current Economic Strategy

In light of sections 1-3 of this Paper, which have set out the NI economy and how global trends impact it, this section now turns back to the current Economic Strategy. It reviews the most recently available key data on that Strategy, and considers both the outputs and the methodologies used by the Executive to assess what it has identified as ‘achievements of actions’.

As stated in Section 1, the *Comprehensive Action Plan: Progress Against Actions (PAA)* reports are produced each year in order to monitor departmental progress in achieving the current Economic Strategy’s overarching aims of re-building and re-balancing the NI economy.

It should be noted that this discussion is based on the most recently published PAA and that it is possible that since its publication further progress has been made in achieving actions. As such, the purpose of this section is to highlight issues of note regarding the Executive’s reporting methodologies and action outcomes.

The section is presented as follows:

- **4.1:** RaISe review of the Executive’s PPA; and,
- **4.2:** Issues of Note.

4.1 RaISe review of the Executive’s PPA

The most recently available PAA,[123] published by the Executive in September 2015, provides information and data on progress up until the 31 March 2015. In all, it monitored 172 actions across the various themes. A RaISe review of the PAA, undertaken by the Finance and Economics Research Team, noted that the PAA reported 150 actions had been achieved, with 20 not met and a further 2 partially met. But the RaISe assessment found that the Executive had met only 141 of the actions, with 19 not met and 12 partially met.[124]

RaISe further noted a number of issues about the Executive’s Action findings, which potentially merit the CfE’s consideration when scrutinising the forthcoming revised Economic Strategy.

Annex B to this Paper provides more detail of RaISe’s review.

The review’s main findings are highlighted below:

- The reporting methods used, including the establishment of a clear evidence base for results;

[123] Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan

[124] RaISe examined the data provided in the PAA, assessing it based on whether or not the achievement stated met the stated actions. In situations where the actions had not been met RaISe assessed these as having not been achieved. Where some or part of the Action had been met RaISe found these to have been partially achieved.

- Actions that have been stated to be achieved, but on closer review have not been met; and,
- Issues beyond the control of the Executive.

The above issues are explored using three case studies, which RaISe compiled using Actions A25, B15 and C4, and are respectively provided below in Boxes 1-3.

Box 1

Action A25: Increase the number of businesses involved in cross border innovation and trade activity by 2,745.[125]

Whilst the PAA lists this action as having been achieved, it clearly states that:[126]

To date in 2015 InterTradeIreland has increased the number of business involved in cross-border innovation and trade activity by a further 1,134 through access to, and exploitation of, InterTradeIreland's information, advice services and business support programmes.

Based on the information provided in the PAA, it is unclear: if the 1,134 businesses are additional to the target of 2,745: if the target figure is annual; or, if it covers the full term of the current Economic Strategy. The lack of a date by which this figure should be achieved compounds its lack of clarity.

When the PAA from the previous year was examined to identify if there was further information available, it was found that the action was somewhat different:[127]

*Increase the number of businesses involved in cross border innovation and trade activity by **10,000**, through access to, and exploitation of, IntertradeIreland information, advice services and business support programmes.* **[emphasis added]**

This matches the original target set in the Comprehensive Action Plan.[128]

A clear evidence base reporting on Economic Strategy achievements, which reflect the targets listed in each action, is essential to assessing the success of the current Economic Strategy. Whilst in the majority of cases this is the approach taken by the Executive in reporting on Action, there are some cases where clearer initial objective setting, and subsequent reporting, would be beneficial in assessing outcomes.

An additional issue is the availability of up-to-date data. In a number of cases data is not gathered yearly, with reported achievements based on information from previous

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125 Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan p.11 Please note, the title is a truncated version of original action for ease of reading.

126 Ibid

127 Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2014, https://www.northernireland.gov.uk/publications/comprehensive-action-plan p.10

128 Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan, https://www.northernireland.gov.uk/publications/comprehensive-action-plan p.7

years (for example, Action A17[129] regarding the Higher Education Innovation Fund uses data from 2012/13). In a number of cases this is a result of data limitations, and is subsequently the only information available to assess outcomes. However, it does result in a delay in assessing how effective aspects of the current Economic Strategy has been.

Box 2

Action B15: Raise education standards for all and close the educational attainment gap.[130]

There are three issues to note regarding this Action.

The first issue concerns the comparability of the initial targets set in B15 to those reported in the PAA. Instead of four reported targets, the PAA lists six. The PAA achievements have four measures related to Key Stages 2 and 3, unlike the two listed in the Action:[131]

- 90%+ of pupils achieve expected levels at Key Stage 2 (KS2);
- 85%+ of pupils achieve expected levels at Key Stage 3 (KS3);
- 70% of school leavers achieve 5+ GCSEs at A*- C including GCSE English and Maths; and
- 65% of school leavers with Free School Meal Entitlement (FSME) achieve 5+ GCSEs at A*-C including GCSE English and Maths.

The progress to 31 March 2015, and listed as achieved was:

- KS2 Communication in English achieving the expected level 2013/14: 79.8%;
- KS2 Using Maths achieving the expected level 2013/14: 80.3%;
- KS3 Communication in English achieving the expected level 2013/14: 74.1%;
- KS3 Using Maths achieving the expected level 2013/14: 77.1%;
- School leavers achieving 5+ GCSEs at A* - C including GCSE English and Maths 2013/14: 63.5%;
- FSME School leavers achieving 5+ GCSEs at A* - C including GCSE English and Maths 2013/14: 34.9%.

[129] Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan p. 6
[130] Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan p. 22
[131] Ibid

Review of the methodological data used to assess Levels of Progression (LOP) at KS 2 and 3 found that the data is reported as two separate indicators as shown in the achievement in the PAA, rather than the two measures used in Action B15.

This raises concerns regarding the comparability of the achievement to the initial target.

The second issue of note is that the results achieved clearly do not match those set as the B15 targets. Yet in the column entitled “Achieved at 31 March 2013”[132] it states that the action has been achieved.

Using publicly available resources, RaISe has been unable to find any reason for this decision.[133]

The final issue of note is the use of Levels of Progression (LOP) to monitor outcomes for KS 2 and KS3. As stated in the results for Action B16: Develop new Levels of Progression:[134]

Implementation of the new assessment arrangements has been impacted upon by industrial action, which is on-going.

Indeed, during the implementation of the LOP in 2013, the Minister for Education noted that there was wide spread dissatisfaction with the system. He stated that many teachers questioned the link between assessment outcomes and their own judgement.[135]

At that time, the Minister stated that, as a result of the findings, the DE would not specify the NI Numeracy Assessment (NINA) and the NI Literacy Assessment (NILA) for mandatory use in the autumn term of 2013/14. He noted that there would be no statutory requirement for schools to assess pupils for diagnostic purposes (although the legislation would remain in place).[136]

Although schools currently may choose not to administer the NILA and the NINA, in 2013 the Minister noted that they are still expected to use diagnostic testing and to report on pupil progress to parents.[137]

Many teachers have taken industrial action due to assessments relating to the LOP, for example, refusing to submit tasks or portfolios to CCEA or engage in moderation.[138] In

[132] Ibid

[133] Please note, it was not possible to contact DE for clarification on this matter as a result of time constraints.

[134] Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan p. 22

[135] Department of Education (2013) Minister for Education’s Statement to the Assembly ‘Computer Based Assessment’ John O’Dowd MLA Bangor: DE

[136] Department of Education (2013) *Minister for Education’s Statement to the Assembly ‘Computer Based Assessment’ John O’Dowd MLA* Bangor: DE

[137] Department of Education (2013) *Minister for Education’s Statement to the Assembly ‘Computer Based Assessment’ John O’Dowd MLA* Bangor: DE

[138] NAUWT (2013) *Say ‘No’ to CCEA Assessments* Belfast: NASUWT

its 2014/15 Annual Report, the CCEA stated that uptake of the computer-based assessments had been limited, undermining analysis of the results.[139]

Indeed, the 2013/14 LOP methodology paper states that:[140]

Due to ongoing industrial action, under a third of all primary schools (30% for KS1; 29% for KS2), and 57% of post-primary schools submitted KSA data in 2013/14.

Whilst recently some teaching unions have agreed to end their industrial action, the lack of use of the LOP by schools to feed data back to the DE calls into question the accuracy of the PAA using LOP data to assess targets being met for KS2 and 3.

Box 3

C4: Support the development of the 'One Plan' to promote 4,045 jobs (by ILEX and key partners in the public, community and private sectors)[141]

This case study highlights the difficult economic conditions that have existed throughout the period of the 2012 Strategy. A circumstance that was largely beyond the control of the Executive for the reasons noted below.

As stated in the PAA regarding the achievement of Action C4:[142]

The jobs promoted target for the first two years of the PfG period were exceeded with 2,863 jobs promoted in the Derry City Council area. Although almost a further 1,000 jobs were promoted or safeguarded in 2014-15, ***it was not possible to fully achieve the target because of challenging economic circumstances.*** **[emphasis added]**

Section 2 of this Paper provides a review of the NI economy over the last twenty years, highlighting the difficult economic circumstances NI has faced since the 2007 financial crisis and the subsequent Great Recession. Economic growth slowed considerably over the last number of years, and has yet to fully recover to pre-recession rates of growth.

This is reflected in a number of actions which either have not been met or have been revised back to take into account the on-going situation.

The on-going slow growth should be taken into consideration when reviewing the current Economic Strategy, as well as when developing the revised Strategy. Issues

[139] Council for the Curriculum, Examinations and Assessment (2015) *CCEA Annual Report 2014/15* Belfast: CCEA

[140] Department of Education, Key Stage Assessments: Levels of Progression 2013/14 Methodology Paper, https://www.education-ni.gov.uk/publications/key-stage-assessments-levels-progression-201314-methodology-paper

[141] Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan p. 30

[142] Northern Ireland Executive, Northern Ireland Economic Strategy Comprehensive Action Plan: Progress against actions – to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan

such as the commencement of the Brexit negotiations could also play a part, with continuing instability in the value of sterling, and recent forecasts that inflation could rise between 2.7% (Bank of England) to 4% (NIESR) in 2017, effecting real disposable income of households. All this could play a role in the revised Economic Strategy's future impact.[143]

4.2 Issues of Note

Based on the information provided in the recent PAA, the current Economic Strategy has met the vast majority of its targets.

However, a RaISe review of the PAA findings identified a number of issues regarding specific Actions, including: the data used to base outcomes; reporting methods used; the need to take into account the impact of the Great Recession; and, the subsequent slow recovery.

The CfE may wish to consider the following key issues when examining the revised Economic Strategy:

- What information and data are to be used to assess outcomes?
- How robust is that information and data in terms of their availability and other potential limitations?
- Are the methods used to report the economic strategies achievements the most effective?

[143] National Institute of Economic and Social Research, 1 November 2016, NIESR Press Release: The UK economy will grow 2% in 2016 before slowing to 1.4% in 2017 http://www.niesr.ac.uk/media/niesr-press-release-uk-economy-will-grow-2-2016-slowing-14-2017-12691#.WBm55OTnmRt and BBC News, 3 November 2016, Bank sees sharp rise in inflation in 2017, http://www.bbc.co.uk/news/business-37860880

5 Economic Development Goals

Four years can be a long time in economics. As seen in section 3 of this Paper, the global economy has seen a great deal of instability in the last number of years. Hence, NI's economic environment has changed considerably since the development and publication of the current Economic Strategy.

A potential basis to inform the revised Strategy is work carried out by a number of organisations on the issue of economic policy development, which may merit the CfE's consideration when scrutinising the forthcoming revised Economic Strategy.

In addition, lessons can be learned from the current Economic Strategy in terms of measures that have proven to be effective and ineffective. Both the changed economic context and the lessons learned should inform the revised Economic Strategy.

First the section provides a short review of research undertaken by the former DETI when developing the current Economic Strategy. Thereafter, recent work on economic development is discussed, which could inform the CfEs scrutiny of the revised Strategy.

With the above in mind, this section is presented as follows:

- **5.1:** DETI research: lessons from best practice;
- **5.2:** Recent research: examples of economic development goals; and,
- **5.3:** Issues of note.

5.1 DETI research: lessons from best practice

Prior to the publication of the current Economic Strategy, the former DETI carried out a series of research reports to identify best practice in various areas.

The research projects were:[144]

- Building Economic Competitiveness: Lessons from Small Peripheral European Economies;
- Productivity, Innovation and Competitiveness in Small Open Economies;
- The Changing Face of Innovation Policy: Lessons for NI; and,
- Promoting Investment and Creating Employment among the Economically Inactive.

These projects included case studies on various countries, from which useful lessons could be learned and used to develop the forthcoming revised Economic Strategy.

It should be noted that this research was undertaken with the DETI's remit in mind, rather than the DfE's broader portfolio. The review document identified the main areas

[144] DETI, 2011, DETI Research Agenda: Lessons from best practice, https://www.northernireland.gov.uk/topics/work-executive/economic-strategy

of relevance to the development of the current Economic Strategy. Examples of these are provided in Table 4.[145]

Table 4: DETI Lessons from Best Practice

Main area	Description	Best Practice actions
Stimulating innovation and R&D	Innovation and R&D is a key part of economic development across all countries reviewed. Some countries have developed an advanced innovation system over a number a number of decades while others are at an earlier stage of this process.	• Significant government expenditure is directed towards innovation and R&D; • Innovation policy is focused on strategic target sectors; and, • Support for innovation and R&D is mainly targeted at SMEs
Connections to the global economy	An outward-focus is shown to be essential for all small open economies to expand and improve their economic performance.	• Successful small open economies have an intense focus on export markets; • A low rate of Corporation Tax; and, • All economies were found to explicitly target high value FDI sectors based on key industry strengths in the local economy.
Encouraging business growth	Developing competitive indigenous companies is a key part of a small economy.	• Anchor companies used to base economic activity for SMEs; • A range of assistance is provided to support the development of high potential SMEs; and, • Adequate access to finance for SMEs is essential to support their growth.
Developing economic infrastructure	Investing in strong economic infrastructure helps support economic policy.	• Establishing research institutes which are based on traditional industry strengths/existing institutes and required to be commercially focused; and, • Infrastructure improvements are used to attract FDI.
Improving levels of skills	Skills are a vital part of economic success in all successful small open economies.	• Focused pedagogy, support for the poorest students and having a flexible education system encourage high achievement; • A higher education system where vocational and technical training complements universities can increase third-level participation and ensure the economy can rapidly respond to changing skills needs; and, • Improvements in research skills can be achieved through funding long-term research programmes and attracting leading external researchers to work alongside domestic researchers.
Promoting employment	Efforts to increase employment can encourage the unemployed into work and help tackle regional disparities.	• Incentives are used to promote employment in economically weak areas; and, • Some economies actively promote the social economy through a combination of financial assistance and social clauses.
Improving employment opportunities and employability	A wide range of initiatives are in place in each of the best practice economies to create employment opportunities for the low skilled, long-term unemployed and economically inactive.	• Both companies and individuals can receive incentives aimed at getting the disadvantaged into work; and, • Training incentives for companies.

[145] DETI, 2011, DETI Research Agenda: Lessons from best practice, https://www.northernireland.gov.uk/topics/work-executive/economic-strategy

The DETI stated that:[146]

> *…the intention of the research projects was to expand the evidence base on successful approaches to economic development elsewhere and suggest transferable lessons and initiatives. They should therefore be viewed as a tool to assist with policy development.*

As such, the research carried out by the DETI provided best practice examples to help inform the development of potential measures for the 2012 Strategy.

Based on publicly available information, it is presently unknown if similar actions have been taken in relation to the forthcoming revised Strategy.[147]

5.2 Recent independent research: examples of economic development goals

The following sub-sections provide examples of economic development goals that have emerged from research independently undertaken by a number of organisations. It may facilitate the CfE when considering goals for the forthcoming revised Economic Strategy:

- **5.2.1:** Inclusive growth model
- **5.2:2:** Sustainable economic development
- **5.2.3:** Technological change and the future of jobs

5.2.1 Inclusive growth

A recent shift in economic development is a move away from traditional approaches based around the 'Kuznets Curve' model to Inclusive Growth (as it is referred to by the OECD).

The Kuznets Curve has played a significant role in arguments surrounding economic development.

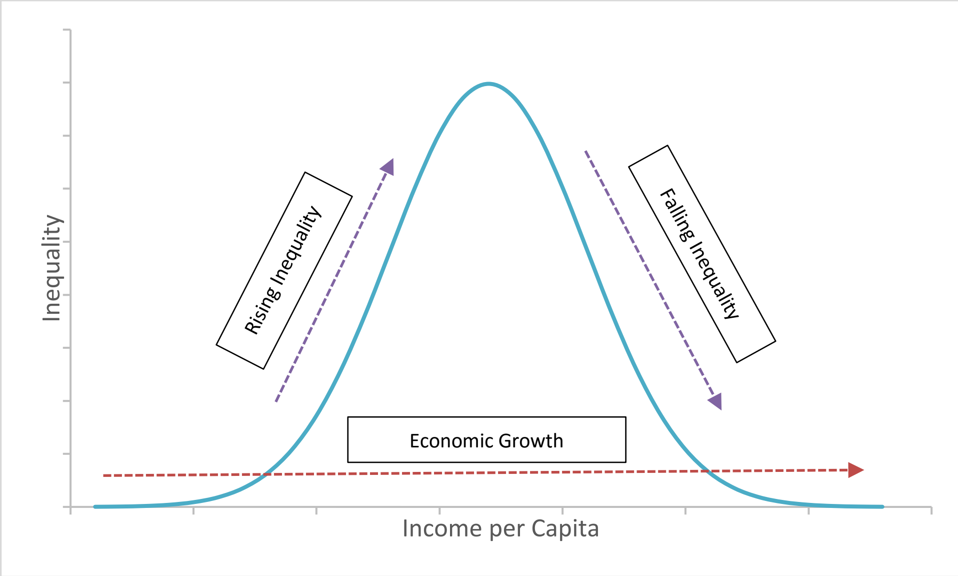
Simon Kuznets, an economist based at the US Treasury (and instrumental in the development of methods to track national income, which are ubiquitous today), carried out an extensive piece of work in the 1950s examining the factors that influence economic growth.

Kuznets argued that the world economy (especially developed countries) had entered a new era of economic growth, best exemplified by the 'Kuznets Curve' - see Figure 7 below.

[146] DETI, 2011, DETI Research Agenda: Lessons from best practice, https://www.northernireland.gov.uk/topics/work-executive/economic-strategy

[147] Please note, due to time constraints in the preparation of this paper it was not possible to receive clarification from DfE regarding this issue.

Figure 7: The Kuznets Curve[148]



Source: RaISe, 2016

Kuznets argued that economic growth first creates inequality as gaps open between those who are receiving the initial benefits of economic growth, and those that are not. This can be seen by the rise of the bell curve (in Figure 7 above).

However, he further asserted that eventually inequality will begin to decline as the benefits of economic growth begin to spread throughout a society, closing the gap between rich and poor, as seen by the fall in the curve.

Wilkinson and Pickett (2009), commenting on the Kuznets Curve, state that:[149]

> *Income inequality would automatically decrease in advanced phases of capitalist development, regardless of economic policy choices or other differences between countries, until eventually it stabilised at an acceptable level.*

At the time Kuznets was writing (the 1950s), this was certainly the case. In the period following World War 1 inequality fell significantly, a trend which continued right up until the 1970's. However, in the 1980's and 1990's inequality began to rise, and in recent years a number of high profile studies have called into question the accuracy of the Kuznet Curve. These studies essentially argue that economic development does not necessary lead to sustained prosperity for everyone within a developed country. Piketty (2013) argues that:[150]

> *The magical Kuznets curve theory was formulated in large part for the wrong reasons, and its empirical underpinnings were extremely fragile. The*

[148] The Kuznets Curve provided above was produced by RaISe researchers.
[149] Wilkinson, Richard and Pickett, Kate, 2009, The Spirit Level
[150] Piketty, Thomas, 2014, Capital in the Twenty-First Century

sharp reduction in income inequality that we observe in almost all the rich countries between 1914 and 1945 was due above all to the world wars and the violent economic and political shocks they entailed (especially for people with large fortunes). It had little to do with the tranquil process of intersectoral mobility described by Kuznets.

Piketty goes on to state that:[151]

The reduction of inequality that took place in most developed countries between 1910 and 1950 was above all a consequence of war and of policies adopted to cope with the shocks of war. Similarly, the resurgence of inequality after 1980 is due largely to the political shifts of the past several decades, especially in regard to taxation and finance.

Wilkinson and Pickett argue that the law of diminishing returns[152] becomes prominent within a developed economy, with the returns on economic growth no longer as beneficial when country becomes more developed.[153] As a result, the benefits of investing further in economic growth provide fewer returns to the economy as a whole. As found by Piketty, only a small proportion of those who already hold a significant portion of the wealth in an economy see significant benefits and those at lower income levels face increasing barriers to social mobility.

An OECD working paper by Cingano (2014) reported the findings of an extensive literature review on research into income inequality. It also further examined thirty years of economic data across OECD countries.[154] Cingano concluded that:

Income inequality has a negative and statistically significant impact on subsequent growth.

In addition, the evidence suggested to Cingano:

…that it is inequality at the bottom of the distribution that hampers growth.

Cingano found that the link between income inequality and economic growth has implications for policy makers. He argued that:

It points to the importance of carefully assessing the potential consequences of pro-growth policies on inequality: focusing exclusively on growth and assuming that its benefits will automatically trickle down to the

[151] Ibid

[152] Whereby an increase in a factor of growth, for example increasing capital investment without an increase in other factors, the rate of return falls. For example, Malthus argued that an increasing population, working on a fixed supply of land would result in a fall in the amount of food available to feed the population.

[153] Wilkinson, R and Pickett, K, 2009, The Spirit Level

[154] OECD, Cingano, Frederico. (2014), "Trends in Income Inequality and its Impact on Economic Growth", OECD Social, Employment and
Migration Working Papers, No. 163, OECD Publishing. http://dx.doi.org/10.1787/5jxrjncwxv6j-en

> *different segments of the population may undermine growth in the long run inasmuch as inequality actually increases.*

Cingano identified a number of policy approaches a government could take to tackle income inequality, including:

- Redistribution of wealth policies such as using the tax system or transfer of wealth (such as through the social security system);
- Not just focusing on poverty amongst the bottom 10%, and instead broadening policies to consider the bottom 40% (including the lower middle class) who may be at risk of not benefiting from the recovery;
- Access to, and quality of, education; and,
- Promoting employment of disadvantaged groups through active labour market policies, childcare support and in-work benefits.

This growing reassessment of the Kuznets Curve, or at least the acknowledgment that economic growth may not be the most effective and efficient method of reducing inequalities in an economy, has been translated into policies in a number of countries. The underlying intention is to reduce (but not eliminate) income inequality.

In its flagship report *All on Board (2015)*, the OECD, put forward an analytical framework to assess economic growth based on a measurement of multidimensional living standards[155] and provided examples of policies, which:[156]

> *…can deliver stronger growth and greater inclusiveness in areas such as: macroeconomic policies, labour market policies, education and skills, infrastructure and public services and development and urban policies.*

Policy levers for inclusive growth include:

- Progressive tax schedules;
- Better targeted social protection;
- Active labour market policies (to develop worker's employability);
- Pro-competition reform in product markets; and,
- Increasing pre-school enrolment among economically and socially deprived households.

It is worth noting that not all of these measures are available to NI as a result of the prevailing devolution arrangements.[157]

[155] This refers to a measure developed by the OECD that includes changes in household income, health and labour market outcomes.

[156] OECD, May 2015, All on Board: Making Inclusive Growth Happen, http://www.oecd.org/inclusive-growth/all-on-board-9789264218512-en.htm

[157] Under the devolution settlement with the UK Government, NI was given responsibility over a number of matters, including employment law, health policy and education. However, a large portion of fiscal responsibility lies with the UK government, including taxation which is a major fiscal lever.

A number of other international bodies have recognised the role inclusive growth plays in economic development, including the International Monetary Fund (IMF)[158] and the International Labour Organisation (ILO)[159]

However, it is worth noting that Scotland has included inclusive growth targets within its National Performance Framework (a ten-year policy), its Programme for Government (one-year policy positions based around the NPF) and its economic Strategy.

Its economic strategy states that:[160]

> *A fairer and more equitable society underpins a strong economy.*
>
> *It is therefore becoming widely recognised that reducing inequality and promoting growth are complementary goals. Creating a fairer society is not just a desirable goal in itself, but is essential to the sustained, long-term prosperity of the Scottish economy. This is a central theme of this Economic Strategy.*

It has the following key measures related to inclusive growth:[161]

- **Fair work:** The Scottish Government believes that a labour market that is fair and inclusive, and that provides sustainable and well paid jobs, is key to tackling income inequality and addressing wider issues within the economy;
- **Business pledge:** This aims to develop a partnership between the Scottish Government and businesses by supporting businesses in return for a private-sector commitment to a range of business and social policies;
- **Promoting equality and tackling inequality:** This seeks to promote equality and reflect and understand the diverse needs and characteristics of people and thereby unlock their potential. The Scottish Government believes that promoting equality and reducing inequality are inter-linked; and,
- **Place and regional cohesion:** Ensuring all parts of Scotland benefit from sustainable economic growth and contribute to it. The economic strategy considers the dynamic of Scotland's cities, wider regions, and rural areas, in order to encourage success and opportunity shared across the whole of Scotland.

Each of these key measures include specific actions the Scottish Government will undertake in order to reduce income inequality. These actions include: tackling the barriers that people face when trying to access the job market; encouraging employers to take-up the Living Wage; and, advancing greater gender equality.

[158] International Monetary Fund, 23 January 2014, IMF Policy Paper – Fiscal Policy and Income Inequality, IMF Staff Discussion Note, February 2014, Ostry, J, Berg, A and Tsangarides C, Redistribution, Inequality and Growth

[159] ILO, January 2014, Wage-led Growth: An equitable strategy for economic recovery, http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_218886/lang--en/index.htm

[160] Scottish Government, March 2015, Scotland's Economic Strategy, http://www.gov.scot/Publications/2015/03/5984/downloads#res-1

[161] Ibid

There is some consideration made towards equality measures in the 2012 Strategy, as seen in Section 1, with both a reference to its need and in a few actions which would contribute to promoting economic equality. However, it is not an explicit action, theme or measure.

5.2.2 Sustainable Economic Development

Sustainable development as a concept has been in use for at least twenty years. Indeed, as found by Hess (2013), it was defined in 1987 by the World Commission on Environment and Development as:[162]

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Hess discusses research by Harris *et al* (2001), who identified three basic components to sustainable development:[163]

- **Economic:** An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt and to avoid sectoral imbalances that damage agriculture or industrial production;
- **Environmental:** An environmentally sustainable system must maintain a stable resource base, avoid overexploitation of renewable resource systems or environmental sink functions and depleting non-renewable resources only to the extent that investment is made in adequate substitutes; and,
- **Social:** A socially sustainable system must achieve fairness in distribution and opportunity, adequate provision of social services, including health and education, gender equity, and political accountability and participation.

Both the OECD and the UN have developed strategies based around sustainable development.

First published in 2011, the OECD's *Towards Green Growth Strategy* was designed to support OECD countries to achieve economic recovery post-recession but to also do so alongside environmental and sustainable growth, with green growth acting as a sub-set of sustainable growth.[164]

The OECD found that:[165]

[162] Hess, P, 2013, Economic Growth and Sustainable Development, p. 316
[163] Ibid, p 317, quoting Harris et al, 2001 A survey of sustainable development: Social and Economic Dimensions
[164] OECD, 2015, Towards green growth? Tracking progress, https://issuu.com/oecd.publishing/docs/brochure_-_final__en_issuu?e=3055080/13241151
[165] OECD, Green growth and sustainable development: Key OECD documents, http://www.oecd.org/greengrowth/green-growth-key-documents.htm

Long-term projections suggest that without policy changes, the continuation of 'business-as-usual' economic growth and development will have serious impacts on natural resources and the ecosystem.

That strategy identified a number of sources of green growth, including productivity and innovation.[166]

The OECD identified that there is no one size fits all approach to green growth, with the actions available to a member country based on factors such as: existing policy; level of development; and a countries available resources. There are common factors, however, that can be used to develop a general framework for growth.

An OECD review of the 2011 strategy found that whilst progress had been made, there were difficulties in aligning economic and environmental priorities.

The OECD subsequently developed Green Growth Indicators to help member countries to assess and track their progress. These were based under four headings:[167]

- Environmental and resource productivity;
- The natural asset base;
- The environmental dimension of quality of life; and,
- Economic opportunities and policy responses.

Under these headings 25-30 indicators are used by the OECD to track progress by member-countries. These cover a wide range of topics, including energy productivity, technology and innovation, skills and training and economic growth and structure.

Another review by the OECD of the strategy, carried out in 2015, found that governments have taken steps towards adopting green growth with each member country adopting some of its measures. However, it went on to find that greater effort was needed to align environmental and economic priorities.[168]

The UN has developed a series of Sustainable Development Goals (SDGs) (replacing its previous 'Millennium Development Goal'). These are backed by UN Member States (including the UK).

As part of the UN Declaration on Sustainable Development, the UN stated:[169]

We resolve, between now and 2030, to end poverty and hunger everywhere; to combat inequalities within and among countries; to build

[166] OECD, 2011, Towards Green Growth, http://www.keepeek.com/Digital-Asset-Management/oecd/environment/towards-green-growth/executive-summary_9789264111318-2-en#.WBCrjuRIiRs#page3

[167] OECD, September 2015, Work on Green Growth 2015-16, https://issuu.com/oecd.publishing/docs/gg_brochure_2015_a5_final_issuu

[168] OECD, 2015, Towards green growth? Tracking progress, https://issuu.com/oecd.publishing/docs/brochure_-_final__en_issuu?e=3055080/13241151

[169] United Nations, Transforming our world: the 2030 Agenda for Sustainable Development, https://sustainabledevelopment.un.org/post2015/transformingourworld

peaceful, just and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources. We resolve also to create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all, taking into account different levels of national development and capacities.

The SDGs are based on five key elements:[170]

- **People:** This focuses on the ending of poverty and hunger;
- **Planet:** Protecting the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change;
- **Peace:** The UN (and its Member States) undertook to foster peaceful, just and inclusive societies which are free from fear and violence;
- **Prosperity:** Ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature; and,
- **Partnership:** Mobilise the means required to implement this Agenda through a revitalised Global Partnership for Sustainable Development.

Within these elements there are 17 SDGs and 169 associated targets.[171] These came into effect on the 1 January 2016, and are intended to guide Member State governments' decision-making until 2030.

As stated by the IMF:[172]

Development needs to be economically, socially and environmentally sustainable.

It goes on to state that:

At the country level, governments should strive to create a sound macroeconomic environment and take action for strong and sustainable growth. Efforts should focus on building strong institutions to foster investor confidence, strengthening public finances, ensuring efficient and well-targeted public spending, investing in infrastructure, maintaining debt sustainability, deepening financial markets and access while safeguarding financial stability, and promoting inclusion and environmental sustainability.

[170] Ibid
[171] United Nations, Sustainable Development, https://sustainabledevelopment.un.org/resourcelibrary
[172] IMF, 29 September 2016, The IMF and the Sustainable Development Goals, http://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/46/Sustainable-Development-Goals

A number of these areas fall within the Executive's remit and whilst the 2012 Strategy does have some references to sustainability measures (as seen in Section 1) the SDGs merit consideration in the context of the forthcoming revised Economic Strategy.

Progress on the SDGs will be monitored by the UN on a country-wide basis.

5.2.3 Technological change and the future of jobs

The World Economic Forum (WEF) has carried out an extensive analysis on the future of jobs and skills. Its report, The Future of Jobs, published in January 2016, included an extensive research framework receiving input form academic experts, international organisations and professional service firms.[173]

The WEF found that:[174]

> *Disruptive changes to business models will have a profound impact on the employment landscape over the coming years.*

The basis of the report is the fourth industrial revolution, in which technological, socio-economic, geopolitical and demographic change is resulting in disruption to industries across the world. This ever shifting landscape is increasing pressure on the ability of firms and governments to respond to new operating environments through skills development and education for labour forces.

Meyer (2015), an academic based at the London School of Economics, discussed research into the future structure of work. He found that up to 47% of work in the UK was at risk as a result of technological change.[175]

Indeed, the WEF states that:[176]

> *In many industries and countries, the most in-demand occupations or specialties did not exist 10 or even five years ago, and the pace of change is set to accelerate.*

The Institute for Public Policy Research (IPPR) found that:[177]

> *Innovations in technology are likely to continue to reduce the need for labour to do routine work. While innovation may also generate the need for complementary skilled labour, the former is likely to be the larger effect.*

[173] World Economic Forum, January 2016, The Future of Jobs: Employment, skills and workforce strategy for the Fourth Industrial Revolution, https://www.weforum.org/reports/the-future-of-jobs

[174] Ibid

[175] Dolphin T (ed) (2015) Technology, globalisation and the future of work in Europe: Essays on employment in a digitised economy, IPPR. http://www.ippr.org/publications/technology-globalisation-and-the-futureof-work-in-europe

[176] Ibid, p1

[177] Ibid, p30

The WEF found that these rapid developments could have a number of impacts, both positive and negative, including:[178]

- A total loss of up to 7.1 million jobs due to labour market changes, with the majority of this concentrated in white collar jobs;
- A gain of 2 million jobs in Computer and Mathematical and Architecture and Engineering related fields;
- Further ‘bottoming out’ of manufacturing and production roles, but with potential for up-skilling as a result of technology changes; and,
- Widening skills gaps.

A survey by IPPR[179] found that there appeared to be some evidence (albeit from a single survey) that employers across Europe are recruiting from specific groups, with the workforces in some industries becoming more skilled, and others recruiting low-skilled staff (primarily retail, hospitality and leisure). This is of particular note to NI as a result of the ever growing services sector, with its high levels of employment in these areas.[180]

The changes in the needs of the labour market could result in substantial challenges both for business and government, with the WEF stating that:[181]

> *Not anticipating and addressing such issues in a timely manner over the coming years may come at an enormous economic and social cost for businesses, individuals and economies and societies as a whole.*

Many of the necessary responses are required from business, with the WEF suggestions including:[182]

- Leveraging flexible working arrangements and online talent platforms;
- Reinventing the HR Function; and,
- Making Use of Data Analytics.

However, there is a role for government to play in responding to the changing labour market, including:[183]

- **Incentivising lifelong learning:** Governments and businesses need to collaborate on ensuring workers are able to access lifelong learning to ensure continued skill development, especially in areas with ageing populations;

[178] World Economic Forum, January 2016, The Future of Jobs: Employment, skills and workforce strategy for the Fourth Industrial Revolution, https://www.weforum.org/reports/the-future-of-jobs

[179] Dolphin T (ed) (2015) Technology, globalisation and the future of work in Europe: Essays on employment in a digitised economy, IPPR. http://www.ippr.org/publications/technology-globalisation-and-the-futureof-work-in-europe

[180] Ibid

[181] World Economic Forum, January 2016, The Future of Jobs: Employment, skills and workforce strategy for the Fourth Industrial Revolution, https://www.weforum.org/reports/the-future-of-jobs p6

[182] Ibid

[183] Ibid

- **Cross-industry and public-private collaboration:** Partnerships between public bodies, education institutions and the private sector may be required to ensure the skills needs of the economy are met;
- **Policy reform:** Governments may need to reform existing policies in order to meet and facilitate the changing needs of the economy.

Meyer found that a policy goal for government should be *creating the economic preconditions for and incentivising the reallocation of work*.[184]

Meyer concluded that:[185]

> *It is…imperative to think about sustainable policy solutions now, in order to be prepared to minimise the adverse effects and take full advantage of the extraordinary opportunities of the digital revolution.*

5.3 Issues of note

During the development of the current Economic Strategy, the former DETI carried out a series of research projects to identify best practice in economic development. These projects identified key elements that play an important role in generating growth for small economies.

Since the writing of those reports, and the publication of that Strategy, further research has been undertaken by a number of independent organisations, which have identified important issues when seeking to stimulate future economic growth.

As noted earlier, amongst this research is, the OECD's and that of a number of other bodies, which emphasise inclusive growth, reflecting a growing change in the narrative surrounding how best to achieve economic growth.

Both the OECD and the UN identified the need for green sustainable growth, in order to ensure that there were sufficient resources available for future generations and to take advantage of changes in technology.

The need to take into consideration the swiftly changing technological and socio-economic landscape was espoused by the WEF and the IPPR. The WEF highlighted that the rapid changes in technology could act as a disruptive force within the labour market and that governments would need to take steps to ensure that these changes are to the advantage, rather than the disadvantage, of economies.

As this is just a short review of the literature it is likely that there are other broad, considerations which would help in the development of the forthcoming revised Economic Strategy.

[184] Dolphin T (ed) (2015) Technology, globalisation and the future of work in Europe: Essays on employment in a digitised economy, IPPR. http://www.ippr.org/publications/technology-globalisation-and-the-futureof-work-in-europe p98
[185] Ibid p98

Scrutiny points:

The CfE may wish to consider the following:

- In a similar manner to the work carried out by the former DETI, has the DfE carried out research projects into existing best practice for economic development?
- Following the work of the UN, and the UK signing up to its sustainable development goals, how have these been taken into consideration when developing the forthcoming revised Economic Strategy?
- Has the Executive followed the example of the Scottish Government by including inclusive growth within its aims and objectives for the NI economy?

6 Conclusion

The NI economy has faced a range of challenges in recent years, from the global downturn since the financial crisis in 2007, to the on-going uncertainty generated by the EU Referendum vote in June 2016.

The Executive's current Economic Strategy, now under revision, reflects the broad priorities of the PfG 2011-2015, which focused on re-balancing and rebuilding the NI economy. Review of that Strategy's achievements found that by March 2015 at least 155 of these priorities were achieved or partially achieved. It is not possible, based on the available data, to state whether the remaining targets have subsequently been met. Nonetheless, in a number of cases the PAA states that the targets are on course for being achieved.[186]

Economic growth has largely returned in NI, driven in the main by the services sector; although both manufacturing and construction still have an important, albeit somewhat reduced, role to play as economic drivers in NI.

Exports continue to grow, with the balance in recent years shifting slightly from Europe, to more international markets. This is a positive step in that it allows NI to diversify and expand its trade base and provides additional insulation against potential Brexit impacts. However, the extent will depend on the outcomes of the Article 50 negotiations.

There has been a shift in the overall economic environment in which the current Economic Strategy is presently undergoing revision. In addition, international organisations are increasingly signalling a move away from models where all economic growth is to be welcomed (as with the Kuznet's Curve, Section 5), to a more nuanced approach whereby growth is inclusive of all members of society, thereby encouraging economic equality. Sustainable growth is also becoming more of an issue, and it will be of note to see how these global shifts in economic policy-making are reflected in the Executive's revised Economic Strategy.

As part of this preliminary examination of the NI economy and its related strategies, RaISe has identified a number of issues throughout this Paper, which could inform the CfE's scrutiny of the forthcoming revised Economic Strategy. Those that appear to be of particular significance to the CfE are listed below:

[186] Northern Ireland Executive, Northern Ireland Economic Strategy: Comprehensive Action Plan – Progress Against Actions to 31 March 2015, https://www.northernireland.gov.uk/publications/comprehensive-action-plan

Key Issues for Consideration

Global economy:

- Global growth, trade and FDI forecasts are subdued. What impact will these economic conditions have on the revision of NI's economic strategy?
- The outcome of the EU Referendum has the potential to adjust NI's trading relations with the EU and the rest of the world. It may also have implications for FDI and employment. The referendum result has introduced a degree of uncertainty, which is reflected in IMF and OECD forecasts for global economic growth. The result may also open opportunities and introduce barriers to NI economic growth. Though this will depend on the outcome of negotiations between the UK and the EU. How will the Executive's revision of its Economic Strategy be shaped by the new Brexit reality?

The NI Economy:

- GVA data shows that although NI has returned to growth following the 'Great Recession', growth has slowed considerably since in the post-recession years. Will the Executive's revised Economic Strategy include measures to revitalise NI's economic growth?
- The data shows that low productivity has been a persistent and sector-wide problem for NI. Although labour productivity has risen, it is consistently below the UK level. This means NI is a low productivity region, within a country that performs poorly against comparator economies. An overarching aim of the current Economic Strategy was to increase private sector productivity. This was to be achieved through a range of innovation, skills, FDI, growth and economic infrastructure actions. The strategy did not, however, include a direct target for improving productivity either in of itself, or relative to the UK average. Given the persistent nature of this issue, is there value in including such a target in the revised Strategy?
- NI GVA per capita is amongst the lowest in the UK, higher than only two regions – Wales and the North East of England. The gap between UK GVA per capita and NI GVA per capita grew by 2.75 times between 1997 and 2014. What measures will the revised Economic Strategy introduce to narrow this gap?
- Goods exports have more than doubled between 1996 and 2015. Though an analysis of NI's trade balance suggests that the net impact of this trade has lessened in recent years. NI has not run a large trade surplus since 2008, meaning the money gained to the economy through export sales has decreased. Growing exports is a key pillar of the current Economic Strategy: this is likely to continue with the revised Strategy. Given the findings of this Paper's analysis, is there scope for extending this target to include not only growing the value of exports, but also increasing the net gain to the NI economy through exports?

- The data shows that although the EU remains NI's most significant export market, its significance has decreased. The NI Minister for the Economy recently announced a NI Trade Plan, which will seek to *'seize the opportunities presented by the UK exiting the European Union'.* As the revised Strategy develops, a potential key area of focus for measures therefore should be further diversification of NI's export markets.
- The data shows NI employment to be recovering; although it still lags behind the UK. Economic inactivity remains significantly higher in NI than the UK as a whole. Will the revised Economic Strategy take new approaches to growing employment and to tackling economic inactivity?
- NI's median weekly earnings are consistently lower than those of the rest of the UK, with a gap of £43.9 per week between NI and the UK in 2015. UK private sector earnings were £82.8 higher than those in NI. What measures will the revised Economic Strategy include to address this earnings gap?

The Economic Strategy 2012 (the current Economic Strategy):

- Balancing sub-regional growth is a cross-cutting theme of the current Economic Strategy. The Strategy received criticism, however, that it did not fully address regional imbalances. Addressing this issue now forms a key part of the PfG 2016-21. In light of this, how will the revised Strategy seek to address regional imbalance in the NI economy?
- A review of the current Economic Strategy's most recent PPA has identified issues surrounding the presentation of results, target revisions and variations in reporting methodologies. When scrutinising the revised Economic Strategy, the CfE may wish to consider:
    - What information/data is used to assess outcomes?
    - How robust is this data in terms of its availability and other potential limitations?
    - Are the methods used to report the Economic Strategy's achievements the most effective?
- A key aim of the current Economic Strategy was to secure the devolution of the corporation tax. This now has been achieved, with the NI Rate of corporation tax to be introduced in April 2018. How will the anticipated revision of the Economic strategy be revised to reflect the devolution of this new power?
- The PfG 2016-21, once agreed, is to introduce a new outcomes-based methodology to public policy in NI. The current Economic Strategy is focussed on outputs. How will the revised Strategy be amended to reflect this new approach to public policy?

Models of Economic Development:

- The former DETI carried out a series of research projects into best practice in economic development. These identified elements that played an important role in generating growth for small economies. It is unclear whether this research has been updated to inform the revised Strategy. The CfE may wish to establish whether such action has been carried out.
- Since the publication of the current Economic Strategy, there have been a number of developments in economic theory. This has fed into economic development policy within the UK, most notably Scotland's incorporation of inclusive growth models into its economic strategy. The CfE may wish to establish the economic thinking underpinning the Executive's revision of its Economic Strategy and the extent to which the DfE has considered developments in economic policy, as put forward by international organisations

Northern Ireland Economy - Annex A: Statistical Annex

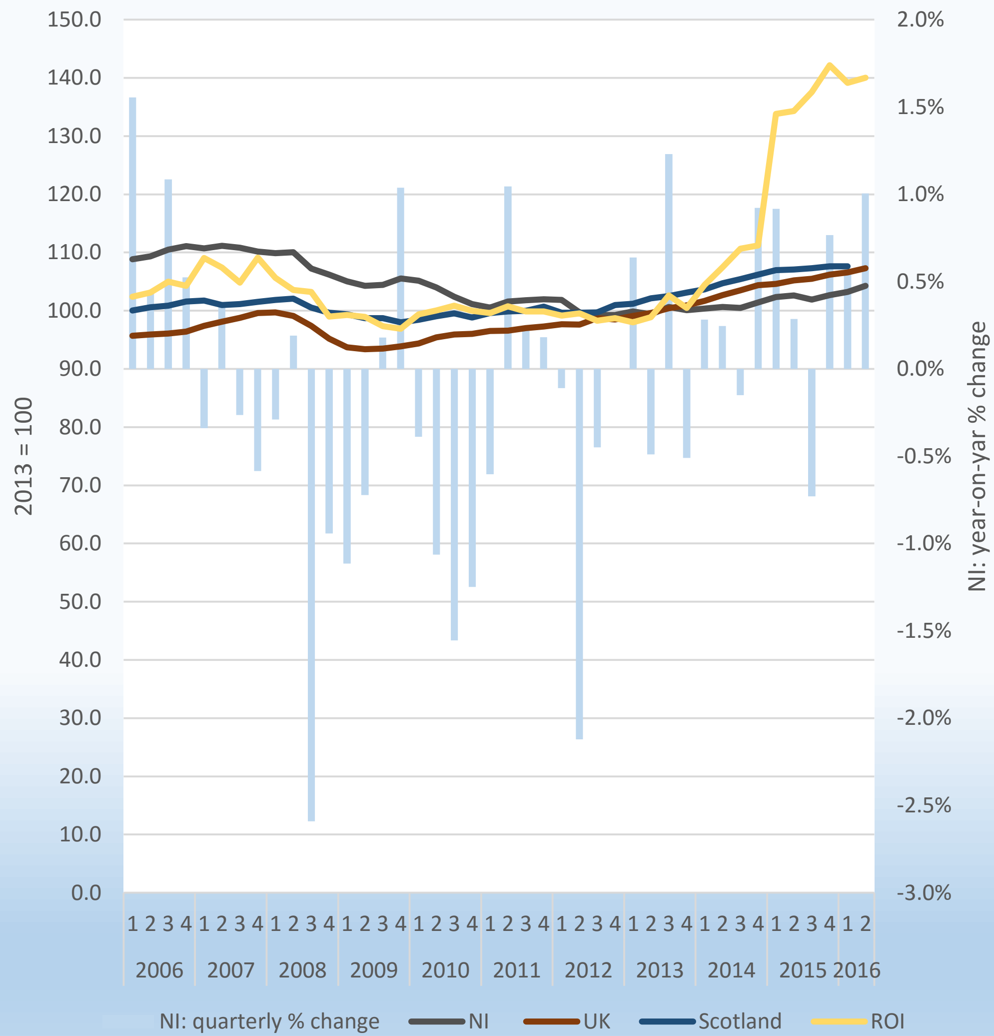
Prepared by:
Business and Employment Unit,
Finance and Economics Research Team,
Research and Information Service

3 November 2016

Northern Ireland Economic Composite Index (NI Composite Index)

- The NI Composite Index measures the performance of the NI economy. It is based a range of other measure of economic performance, including the Index of Services, Index of Production, the Index of Construction, and public sector employee jobs data from the Quarterly Employment Survey (QES), plus unpublished agricultural output data from DARD.
- Figure 1 plots NI's quarterly Composite Index against United Kingdom (UK), Scotland and the Republic of Ireland (RoI) Gross Domestic Product (GDP).
- NI economic activity was estimated to have increased by 1.0% in real terms between Quarter 1 (January – March) 2016 and Quarter 2 (April – June) 2016. The index also increased by 1.6% over the year (Quarter 2 2015 to Quarter 2 2016) in real terms.
- The annual rate of growth in NI over the last year (1.6%) is the strongest since that recorded in Quarter 2 2015 (2.0%) and the quarterly growth (1.0%) is the strongest since that recorded in Quarter 3 2013 (1.2%).

Figure 1: Quarterly NI Composite Index compared to UK, Scotland and RoI GDP

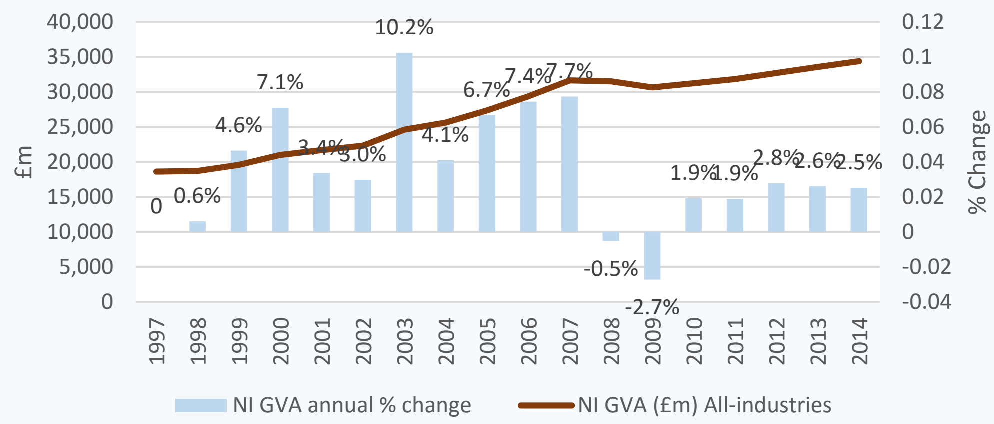


Source: NI Economic Composite Index (October 2016)

NI Gross Value Added (GVA - all industries) 1997-2014 and annual % change

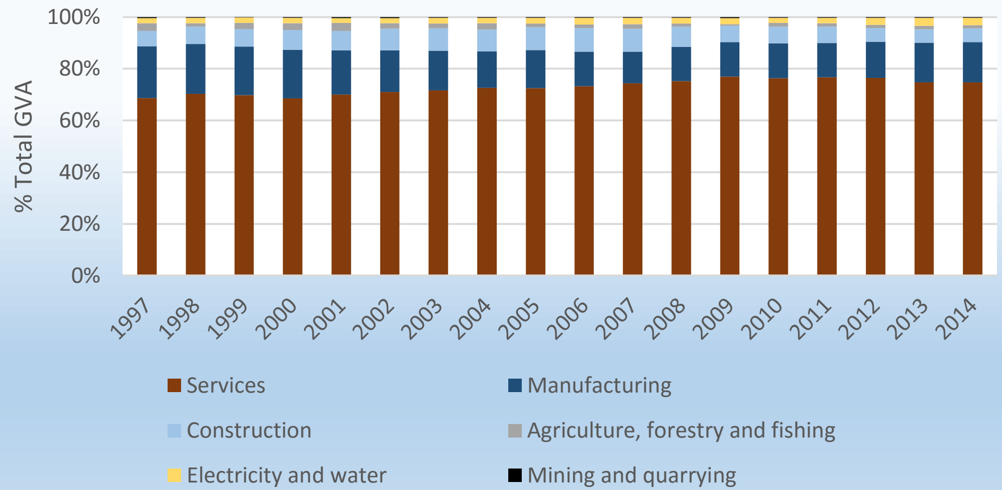
- GVA measures the total income generated in an economy;
- NI GVA in 2014 was £34,384 million (m). This was £15,774m (or 85%) greater than it was in 1997; (GVA in 1997 was £18,610m);
- GVA has grown in each year, barring two recessionary years in 2008 and 2009. The pace of growth has slowed considerably, however. In the 10-years leading up to the recessionary years of 2008 and 2009, annual growth in GVA averaged 5.5%. In the five-years after 2008 and 2009, growth averaged at 2.3%;
- NI's services industry has consistently been the largest component element of NI GVA between 1997 and 2014. As of 2014 it was valued at £25.7bn, an increase of £12.9bn from 1997.
- The NI economy has become more reliant on the service industry over the given period. In 1997 it contributed 69% of total GVA, and by 2014 this had increased to 75%. The overall contribution of other sectors has decreased – manufacturing fell from 20% in 1997, to 16% in 2014; construction from 6%, to 5%; and, agriculture from 3% to 1%.

Figure 2: NI GVA (all industries) 1997-2014 and annual % change



Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

Figure 3: GVA contribution by broad industry sector 1997 to 2014

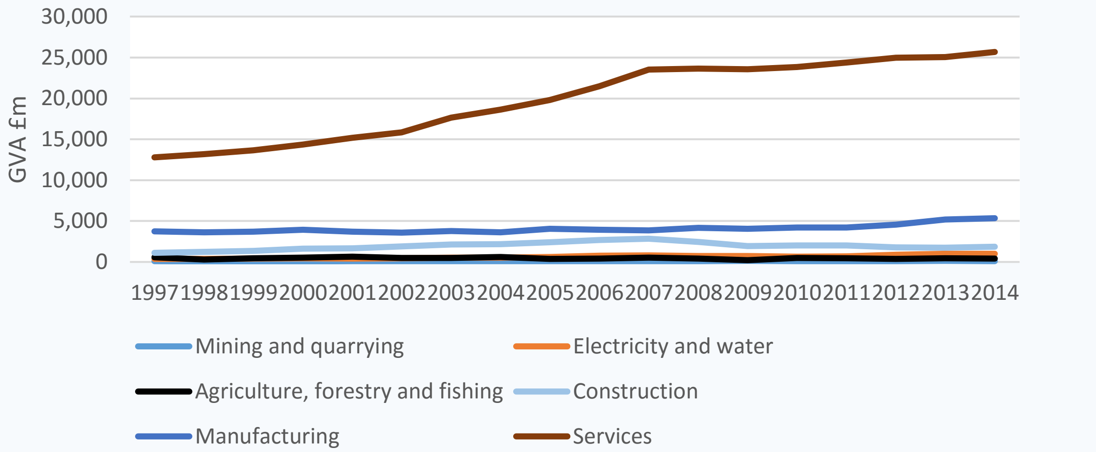


Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

NI GVA 1997-2014 sectoral changes

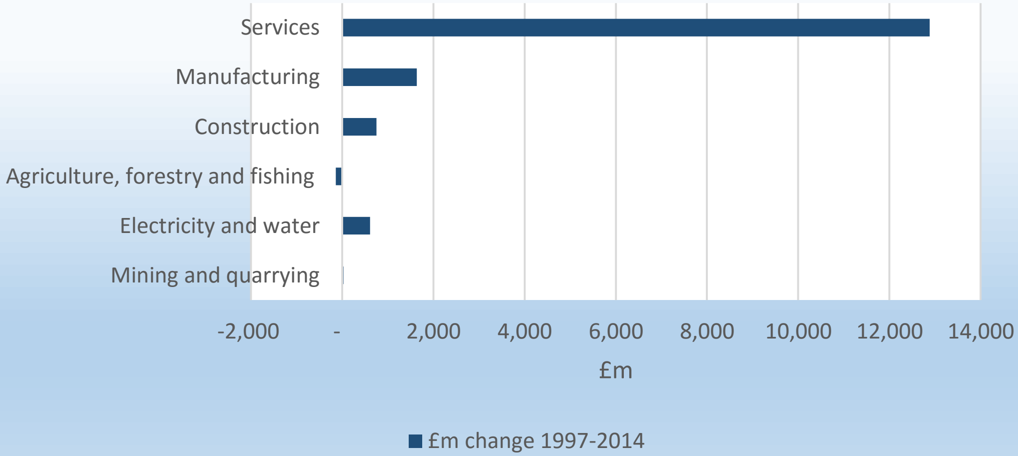
- Services have not been the only single largest contributing sector to overall NI GVA over the period examined. It has also shown the largest levels of increase.
- Service sector GVA increased from £18.6 billion (bn) in 1997, to £25.7bn in 2014; an increase of £12.9bn, or 101%.
- NI's construction industry GVA was valued at £1.9bn in 2014, an increase of £749m (or 68%) since 1997.
- Manufacturing GVA was valued at £5.4bn in 2014, an increase of £1.6bn (or 44%) since 1997.
- NI's agriculture is the only sector to show a contraction over the period examined. In 1997 the sector's GVA was valued at £546m. This decreased by £138m (of 25%) in 2014, when the sector's GVA was valued at £408m.

Figure 4: GVA by broad industry sector 1997 to 2014



Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

Figure 5: Over all change in GVA contribution by broad industry sector 1997 to 2014

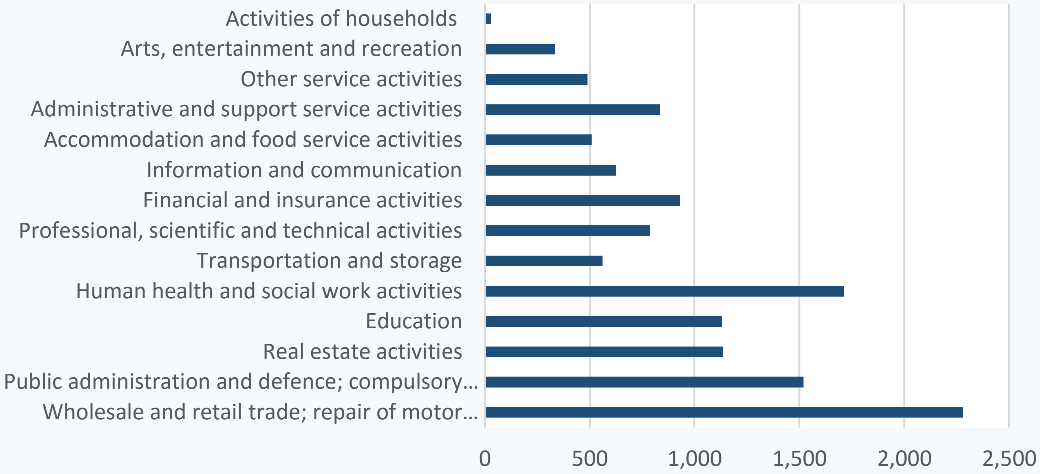


Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

NI GVA 1997-2014 sectoral changes

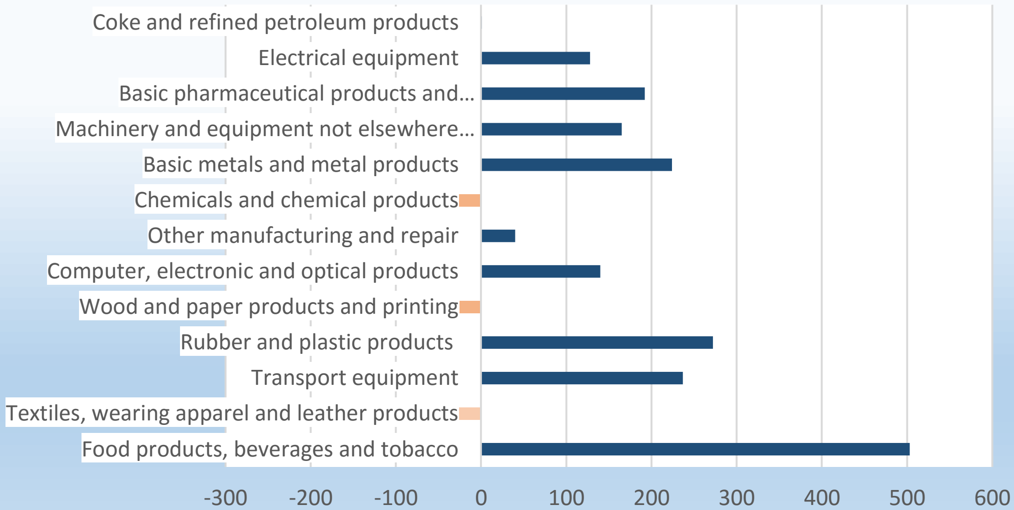
- Within the broad industry grouping of services, all sub-sectors experienced growth over the period 1997-2014.
- The biggest increases were in the wholesale and retail, human health and social work, and public administration and defence subsectors.
- In contrast, there were a number of manufacturing sub-sectors which experienced a contraction over the same period, namely the manufacture of chemicals, the manufacture of wood and paper products and printing, and the manufacture of textiles.

Figure 6: Changes to GVA within the services sector 1997 to 2014



Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

Figure 7: Changes to GVA within the manufacturing sector 1997 to 2014

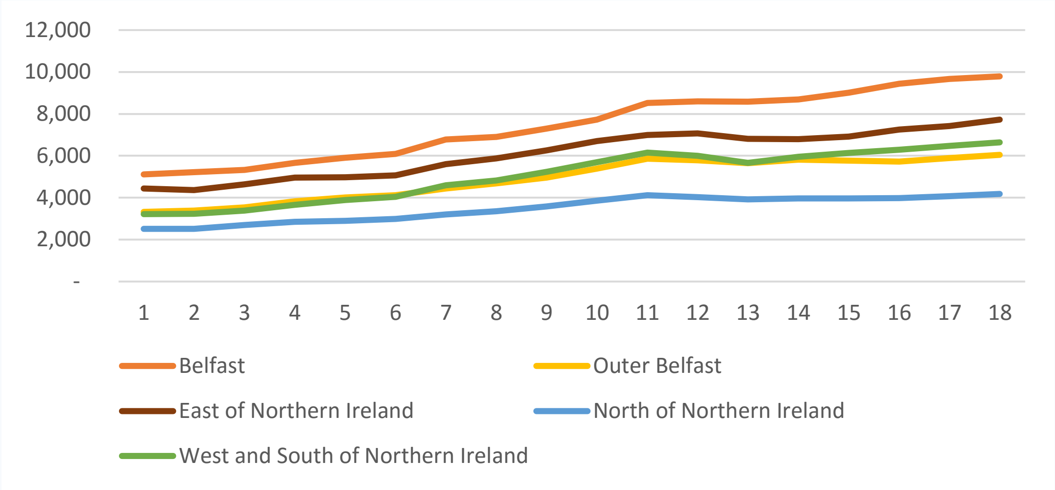


Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

NI Sub-regional GVA 1997-2014

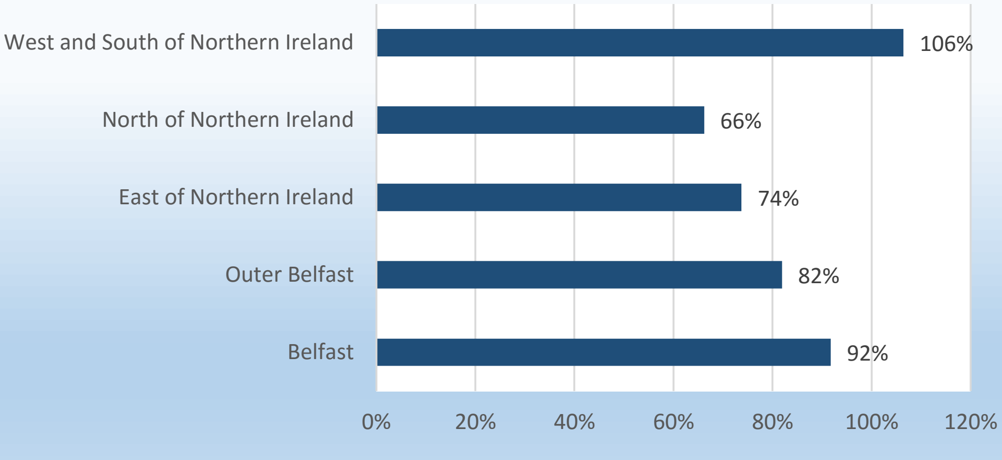
- At a sub-regional level, Belfast's GVA has consistently been greater than all other sub-regions of NI (Figure 8).
- The East of NI has had the second largest GVA across the period measured.
- All region's experienced GVA growth over the period measured.
- The gap between Belfast's GVA and the GVA of all other regions has grown over the period 1997 to 2014:
    - The gap between Belfast and Outer Belfast increased from £1,781m to £3,743m;
    - The gap between Belfast and the East of NI increased from £664m to £2,074m;
    - The gap between Belfast and the North of NI increased from £2,590m to £5,610; and,
    - The gap between Belfast and the West and South of NI increased from £1,891m to £3,154m.
- The largest percentage increase in regional GVA (Figure 9) over the period was seen in the West and South of NI, which grew by 106%. The smallest percentage increase in GVA was seen in the North of NI, which grew by66%.

Figure 8: NI Sub-regional GVA (NUTs3 level) 1997 to 2014 (£m)



Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

Figure 9: Changes to GVA within the manufacturing sector 1997 to 2014

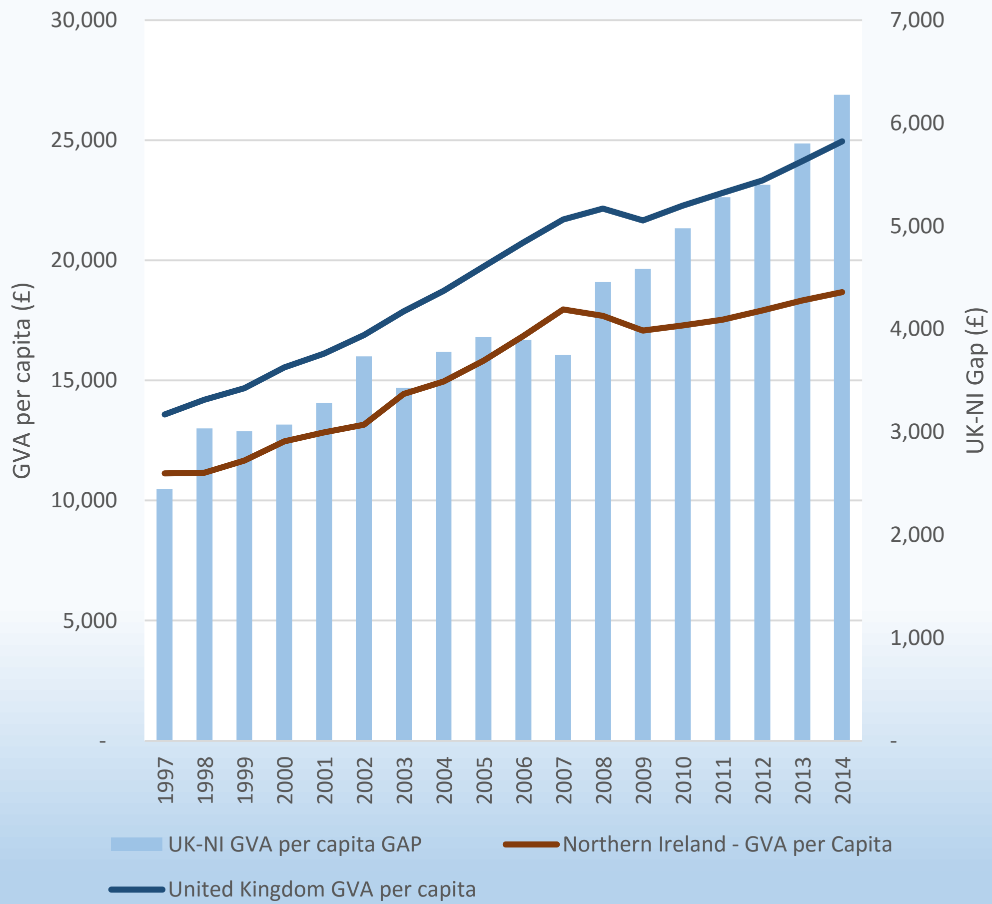


Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

Comparison of NI and UK GVA per capita 1997- 2014 (£)

- GVA per capita is a measure of individual income and can be used to compare standards of living across different economies (University of Ulster Economic Policy Centre 2016, 'Understanding Productivity in NI' p4).
- NI's GVA per capita increased by 68%, or £7,547 per person between 1997 (£11,135) and 2014 (£18,682);
- In the same period, UK GVA per capita increased by 84%, or £11,377 person.
- NI's GVA per capita in 2014 was £18,682 was greater than only two UK regions – Wales and the North East of England.
- NI GVA per person has been consistently below that of the UK as a whole over the period examined.
- The gap between the two has widened over the period examined from £2,446 in 1997, to £6,726 in 2014.

Figure 10 : Comparison of NI and UK GVA per capita 1997- 2014 (£)

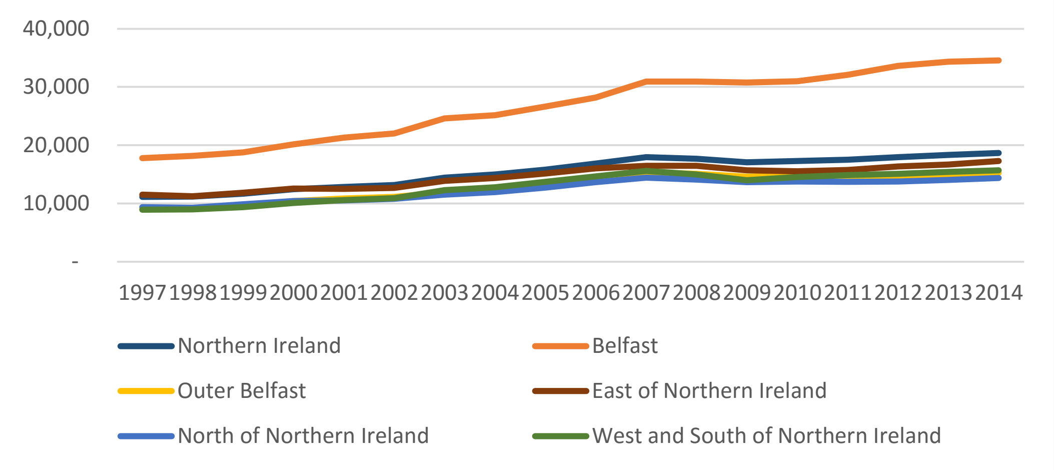


Source: Regional Gross Value Added (Income Approach) Tables (December 2015)

Growth in NI GVA by sub-region 1997-2014

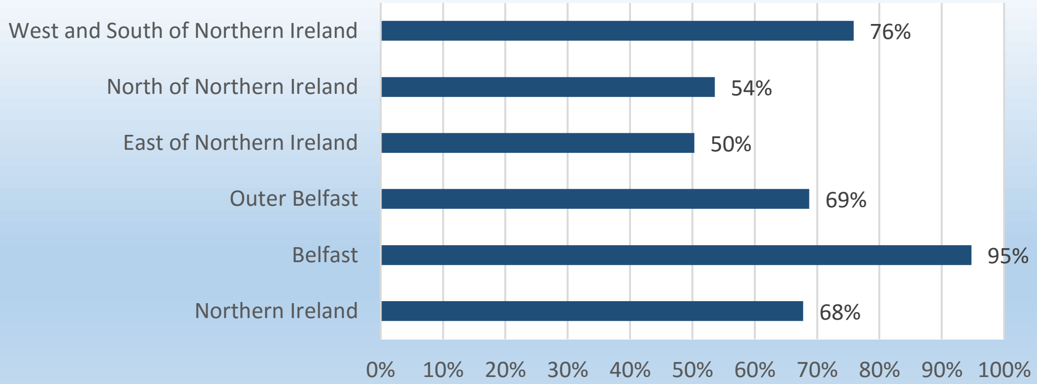
- As is the case with overall GVA, Belfast has again consistently had the highest GVA per capita of all NUTs 3 regions over the period.
- All regions saw growth in GVA per capital over the period. This growth was most acute in Belfast, followed by the West and South of NI. The East of NI experienced least amount of growth in relative terms.
- Despite this growth, The gap between GVA per capita in Belfast and GVA per capita in all other regions has widened over the period:
  - The gap between Belfast and Outer Belfast grew by £10,607;
  - The gap between Belfast and the East of NI grew by £11,047;
  - The gap between Belfast and North of NI grey by £11,819; and,
  - The gap between Belfast and West and South of NI grew by £10,049.

Figure 11: NI GVA (income approached per head at sub-regional level 1997-2014 (£) (current basic prices)



Source: ONS Regional GVA (Income approach) (March 2016)

Figure 12: Sub-regional growth in GVA per head 1997-2014 (%)



Source: ONS Regional GVA (Income approach) (March 2016)

GVA per hour worked UK and NI comparison (Index and £)

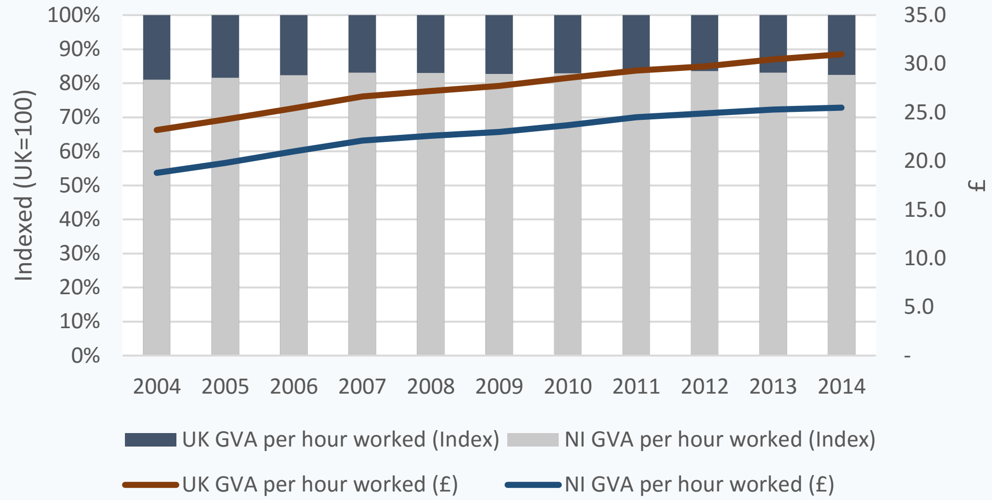
- NI's GVA per hour worked experienced the second highest proportional growth of UK regions after Scotland – 35.6% between 2004 and 2014.

- Despite the growth in NI productivity, it has ranked either 11th or 12th out of the 12 UK NUTs 1 regions in each year between 2004 and 2014.

- It has remained consistently below the UK's, with the indexed data showing the NI GVA per hour worked has been persistently 81-83% of the UK's as a whole. The gap has widened in recent years: in 2012 NI GVA per hour worked was 16.6% below the UK's, in 2014 it was 17.5%.

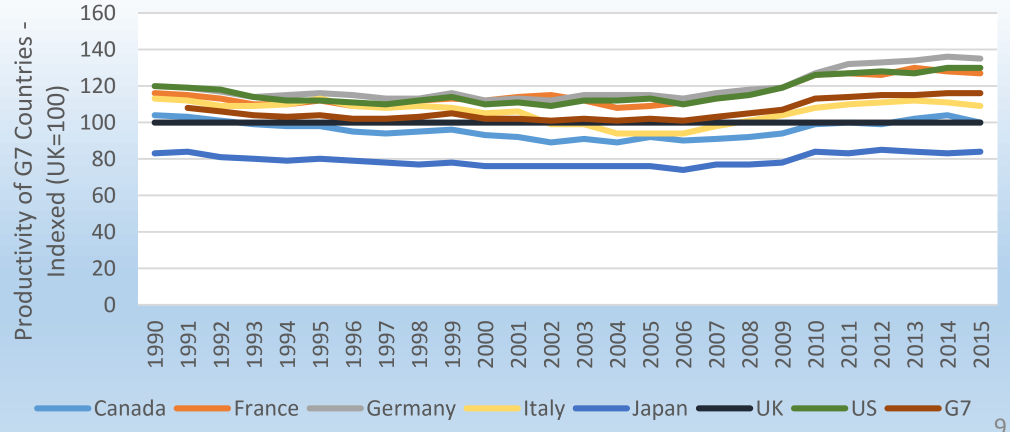
- The UK's productivity has been the second-lowest in the G7, with only Japan showing lower levels of productivity in recent years. Meaning NI is a lower productivity region of a country with a productivity lower than comparator economies.

Figure 13: GVA per hour worked UK and NI comparison (Index and £)



Source: ONS Sub-regional productivity (March 2016)

Figure 14: Productivity of G7 nations: GDP per hour worked 1990-2015 (UK=100)

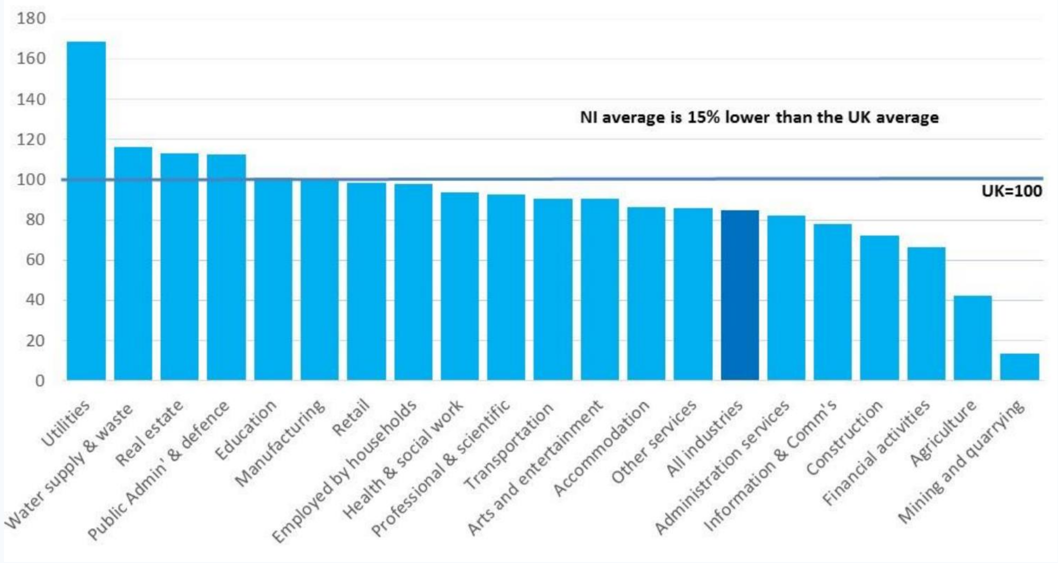


Source: ONS International Comparison of Productivity (2015)

Sectoral productivity

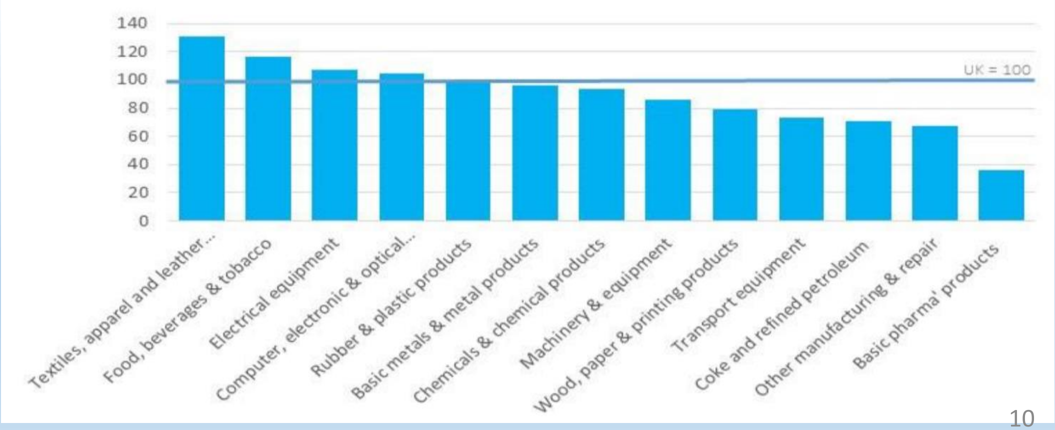
- Findings here are from the UUEPC's 2016 study 'Understanding Productivity in NI'.
- NI's sectoral productivity is below the UK average in 16 out of 20 sectors (Figure 15). For manufacturing sub sectors, 8 out of 13 NI sub sectors are below the UK average (Figure 16).
- Public administration is among NI's most relatively productive sectors. It's productivity is 13% higher than the UK. This is likely driven by non-market capital consumption and a higher proportion of people working within the sector at higher grades.
- ICT is 22% lower than the UK. This is 'surprising' given the activity undertaken within the sector.
- Agriculture sector has the second lowest relative productivity. Profits from this sector may appear in food production, distribution or retailing. The sector is also subsidy heavy, which is not recorded in GVA.
- Manufacturing is 1% below UK average. Textiles, and food and beverages perform well. Food and beverages, may have profits from agriculture allocated to it, or, may be skewed by tobacco production in Ballymena which will cease in 2017. Pharmaceuticals and transport have low relative given the high profile companies in these sectors. This may be a feature of the measurement of GVA or the global location of profits declared.

Figure 15: NI sectoral productivity relative to the UK average nominal terms, 2014, UK=100



Source: UUEPC (Sept 2016)

Figure 16: NI sub sectoral manufacturing productivity relative to UK average in nominal terms, 2014 (UK=100)

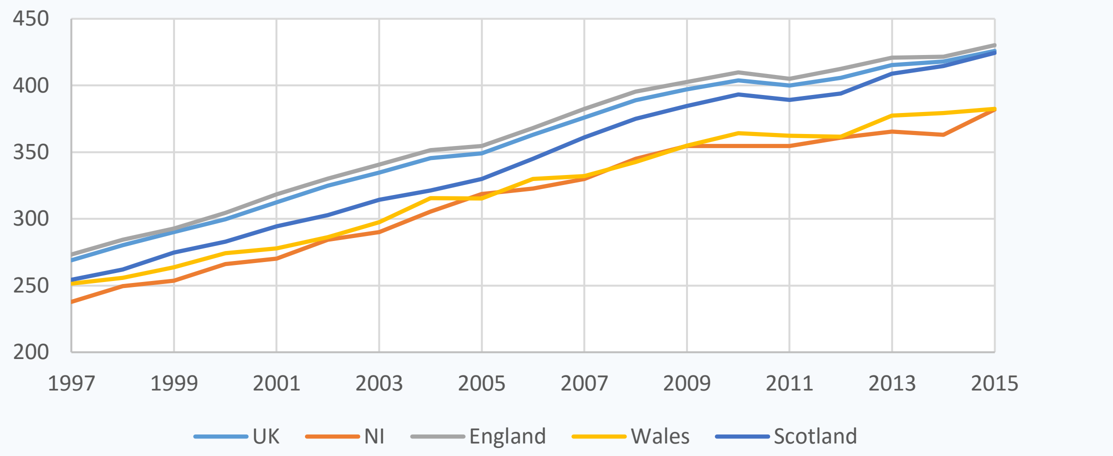


Source: UUEPC (Sept 2016)

Earnings in NI

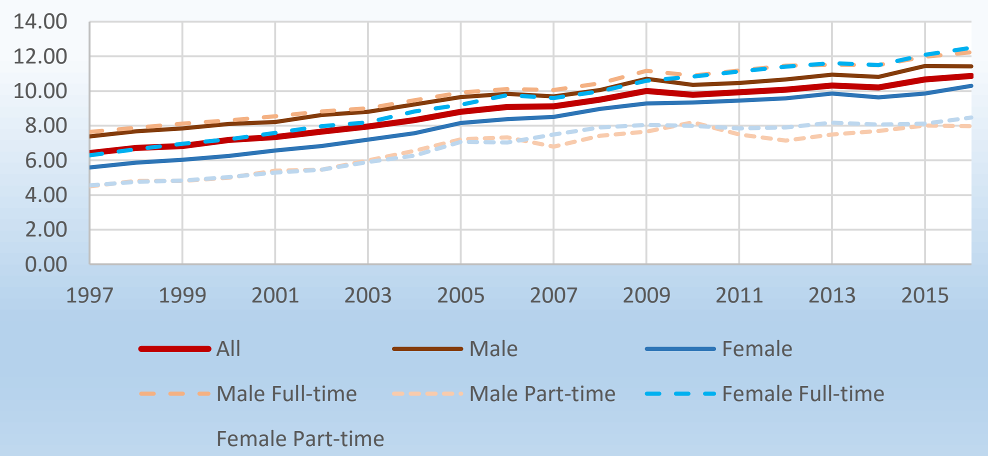
- Figure 17 compares NI's median gross weekly earnings with that of the other UK countries for 1997 – to 2015.
- NI's median weekly earnings are consistently lower than those of the rest of the UK, with a gap of £43.9 per week between NI and the UK in 2015.
- NI's median weekly earnings are similar to, but still lower, than those of Wales.
- Figure 18 Compares hourly earnings for males and females in NI, including by work type for 1997-2016.
- As can be seen, male total earnings on an hourly basis are consistently higher than those of females, with a pay gap of £1.13 in 2016. This a result of there being more full-time male employees than females.
- However, both part-time and full-time female hourly earnings are higher than those of males, with female full-time hourly earnings having exceeded those of males in 2013.
- The difference between full-time and total earnings may be a result of differences in overtime payments, with male weekly overtime pay £45.2 higher than females.

Figure 17: UK regions weekly earnings, 1997-2016



Source: NISRA, Northern Ireland Survey of Hours and Earnings – Historical publications 1997-2016 (April 2016)

Figure 18: Hourly earnings by sex, 1997-2016

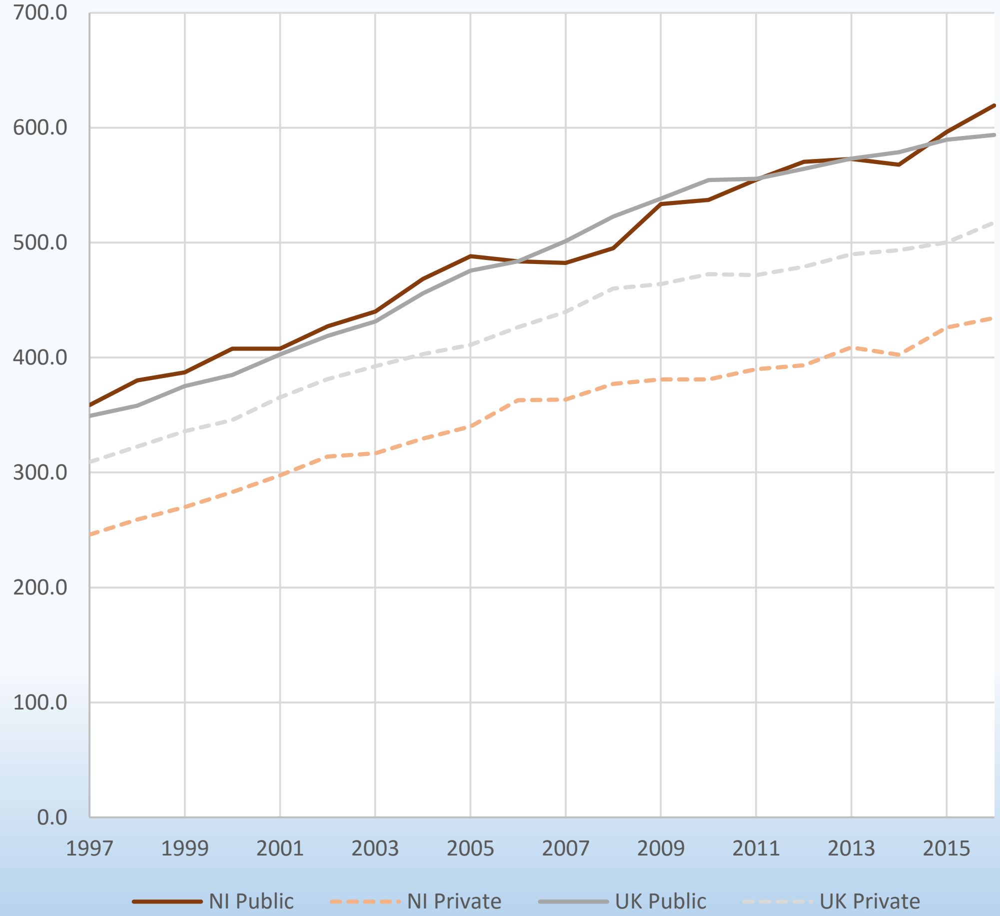


Source: NISRA, Northern Ireland Survey of Hours and Earnings – Historical publications 1997-2016 (April 2016)

Full time weekly earnings in the public and private sector

- Figure 19 provides data on public and private earnings in NI and the UK for 1997-2016.
- In both NI and the UK public sector earnings are higher than those in the private sector.
- However, NI public sector earnings were higher than those of the UK until 2007.
- Earnings subsequently fluctuated, but have grown in the last two years to be higher than the UK figure.
- Of particular note is the low level of private sector weekly earnings.
- In 2016, UK weekly private sector earnings were £82.8 higher than those in NI. The gap between NI and UK private sector ages has been consistent for the period shown.
- The gap between NI public and private sector earnings are therefore significantly higher than the gap for the UK.

Figure 19: Median gross weekly earnings for the public and private sectors (NI and UK)

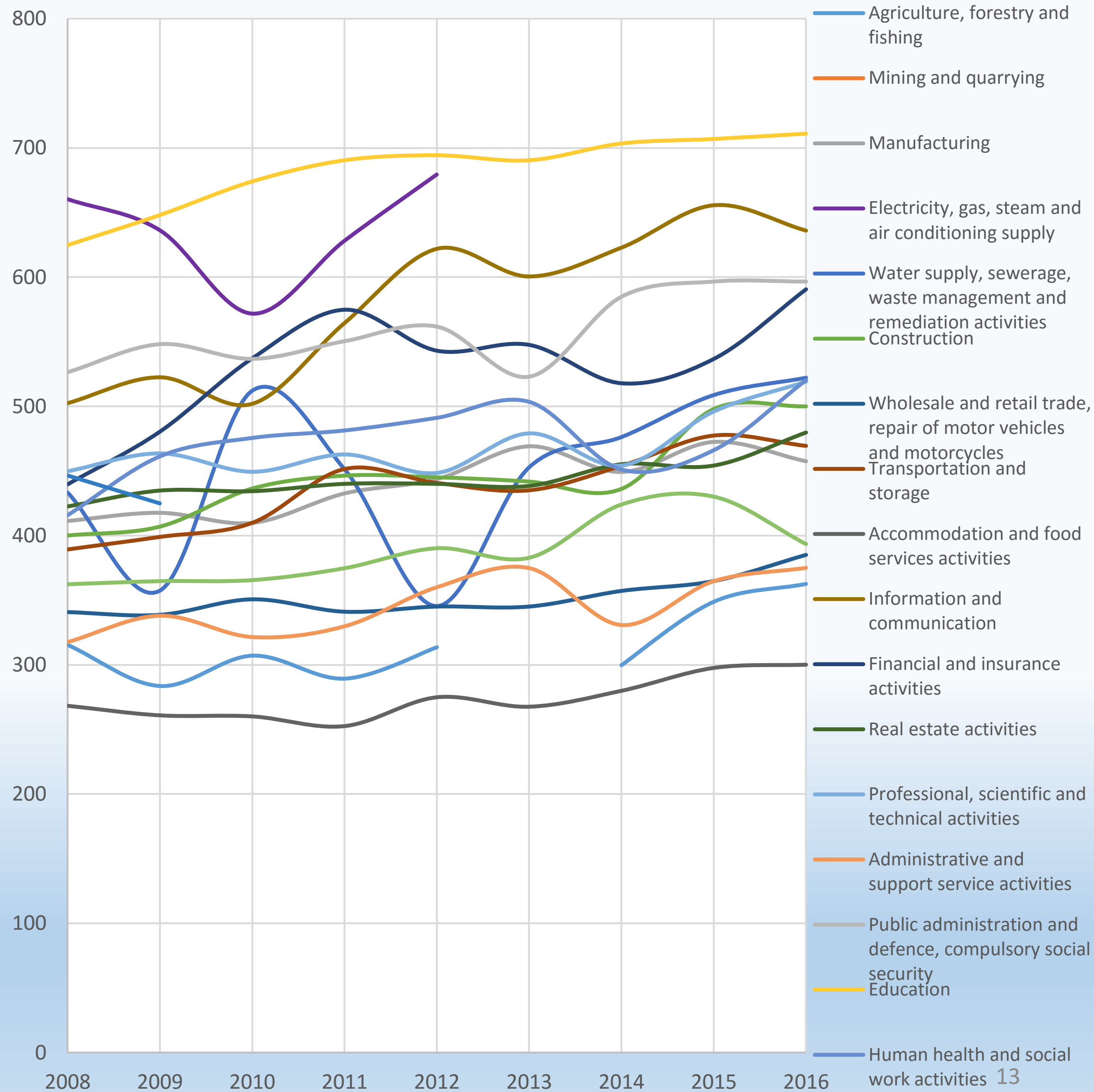


Source: NISRA, Northern Ireland Survey of Hours and Earnings – Historical publications 1997-2016 (April 2016)

Earnings by industry

- Figure 20 compares weekly earnings in NI industries for the period 2008 – 2015.
- Weekly earnings in most industrial sectors have increased throughout the period shown.
- Weekly earnings by industry range from £300 to £711, a range of £411.
- The education sector has the highest weekly earnings, rising from £624.8 in 2008 to £711.1 in 2016.
- Accommodation and food services has the lowest weekly wage at £300 in 2016.
- A number of industries have seen fluctuations in weekly earnings over the period shown, for example, finance and insurance activities had a fall in earnings in 2011, reaching a low of £517.9 in 2014. It has since exceeded its previous peak.

Figure 20: Median gross weekly earnings by Industry

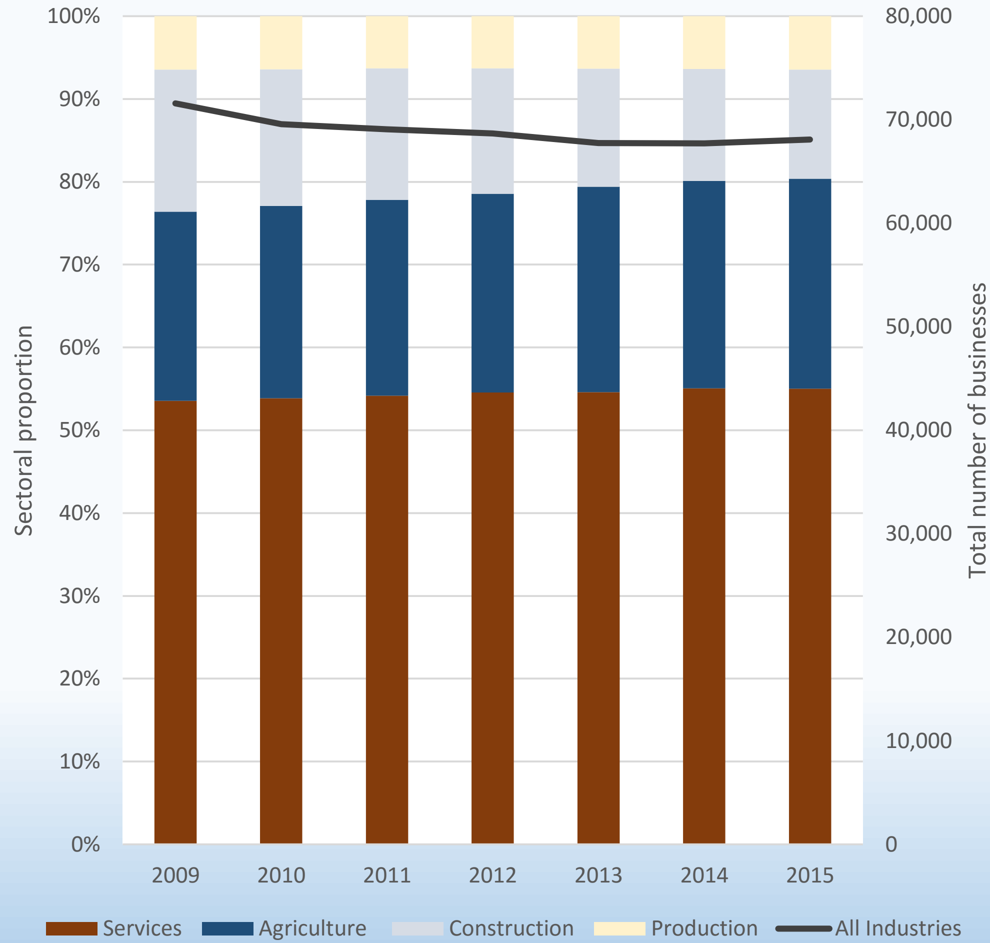


Source: NISRA, Northern Ireland Survey of Hours and Earnings – Historical publications 1997-2016 (April 2016)

Business numbers 2009-2015

- There were 3,505 fewer business in 2015 (total business 68,085) compared to 2009 (total businesses 71,590) (Figure 21).
- 94% of the total reduction in business number over the period 2009 to 2015 was a result of declining numbers in the construction sector.
- In terms of business numbers, services are the prominent sector, accounting for between 54% and 55% of total business numbers in each year. Agricultural business represents approximately a quarter of all business in each year.
- In 2014,the services sector accounted for 55% of all businesses and 75% of NI total GVA.
- The agriculture sector accounted for 25% of all businesses and 1% of NI total GVA;
- The construction sector accounted 13% of businesses and of 5% GVA.
- The production sector accounted for 6% of business and 19% of GVA.

Figure 21: NI total Value Added Tax and Pay as You Earn registered business and sectoral profiles 2009-2015

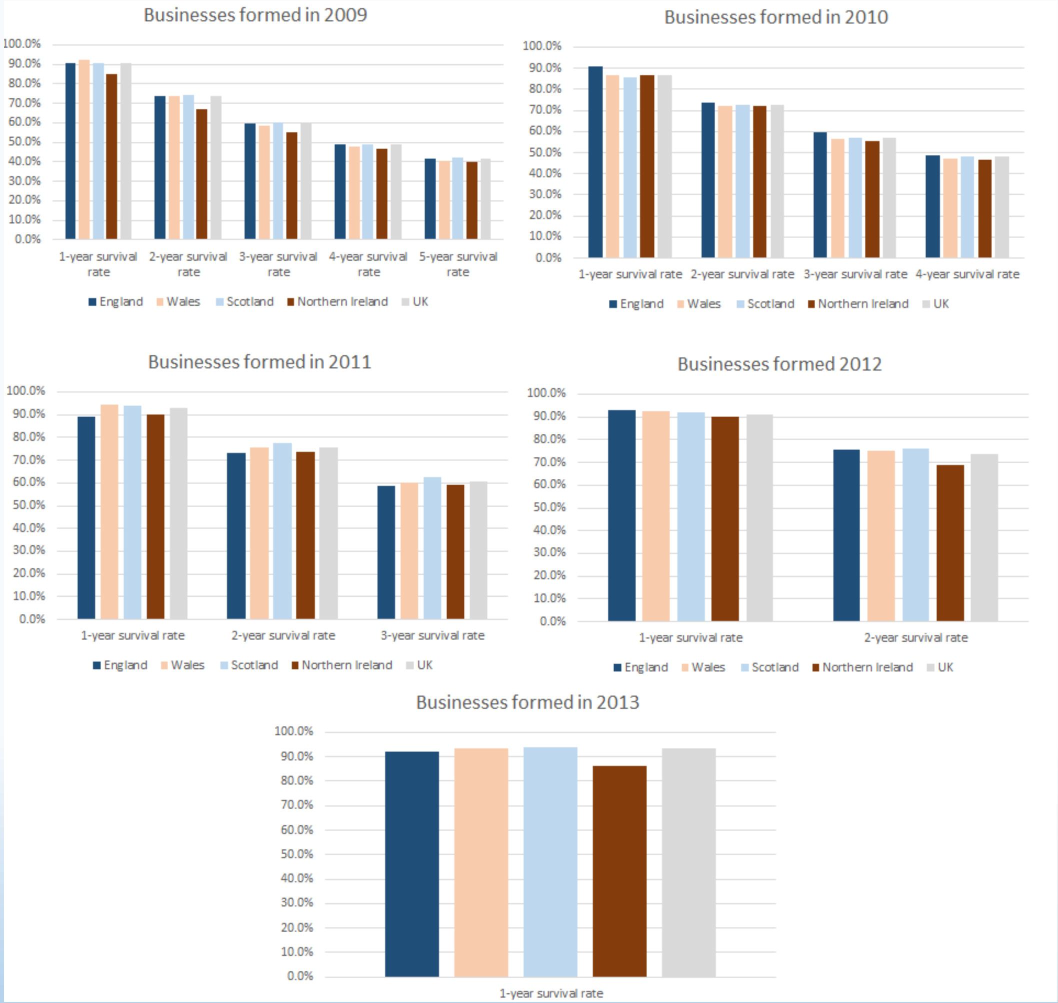


Source, Interdepartmental Business Register, VAT and PAYE Tables 2015 (January 2016)

Business survival rates UK

- Of the 3,945 business formed in 2009, 85.3% survived for one year, 67% for two years, 55.3% for three years, 45.5% for four years and, 39.7% for five years. In each case this was the lowest survival rate of all the UK regions examined (Figure 22).
- Of the 4,590 business formed in 2010, 86.9% survived for one year, 72% for two years, 55.6% for three years, and 46.6% for four years. This was lowest survival rate of all UK regions examined in years two, three and four.
- Of the 3,745 business formed in 2011, 90.1% survived for one year, 73.6% survived for two years, and 59.3% survived for three years. This was the second lowest survival rate in each year. England had a lower survival rate than NI in each year.
- Of the 3,935 businesses formed in 2012, 90.3% survived year one and 68.9% survived year two. In both cases this was the lowest survival rate of all UK regions.
- Of the 4,855 business formed in 2013, 86.4% survived year one. This was the lowest survival rate of all regions.

Figure 22: Business survival rates UK

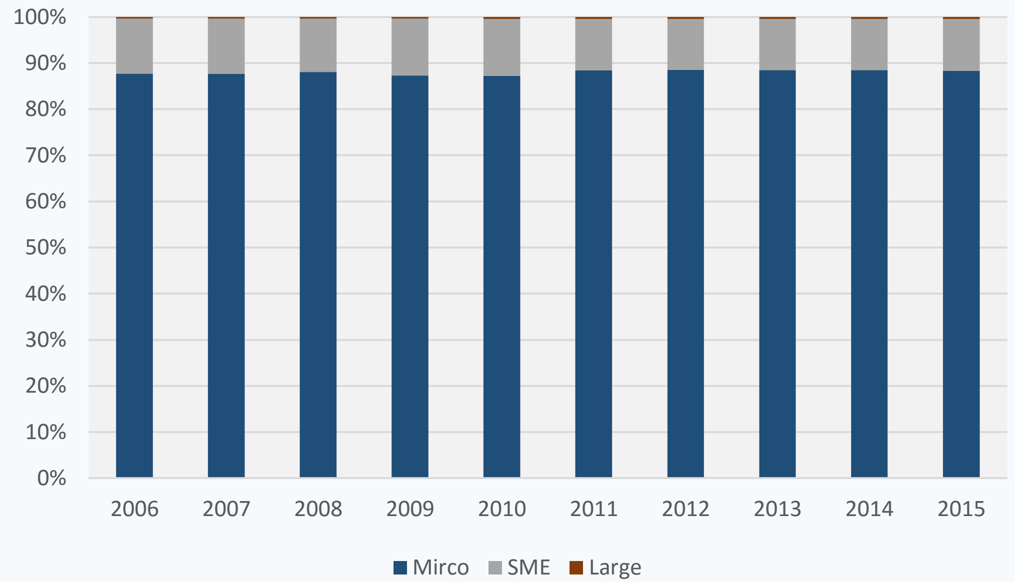


Source: ONS, Business Demography (November 2015)

NI Businesses by Size 2006-2015

- Microbusinesses in NI, that is businesses with fewer than 10 employees consistently made up between 83% and 84% of business numbers between 2006 and 2015 (Figure 23).
- Small to medium enterprises (SMEs), businesses with between 10 and 250 employees, made up between 11% and 12% of all business.
- Large businesses, those with more than 250 employees, made up just 0.4% of business.
- On average, SMEs and microbusinesses made up 99.49% of total businesses numbers in NI over the period 2006 to 2015.
- This is consistent with the pattern across the UK, with the notable exception of Scotland, which has a greater proportion of microbusiness than any other region.
- The prevalence of SME and microbusinesses is again similar across the European Union (EU), where 99% of businesses are defined as either a microbusiness or a SME.

Figure 23: NI Business by Size 2006-2015



Source, Interdepartmental Business Register, VAT and PAYE Tables 2015 (January 2016)

Table 1: UK Breakdown of Enterprises by Size 2015

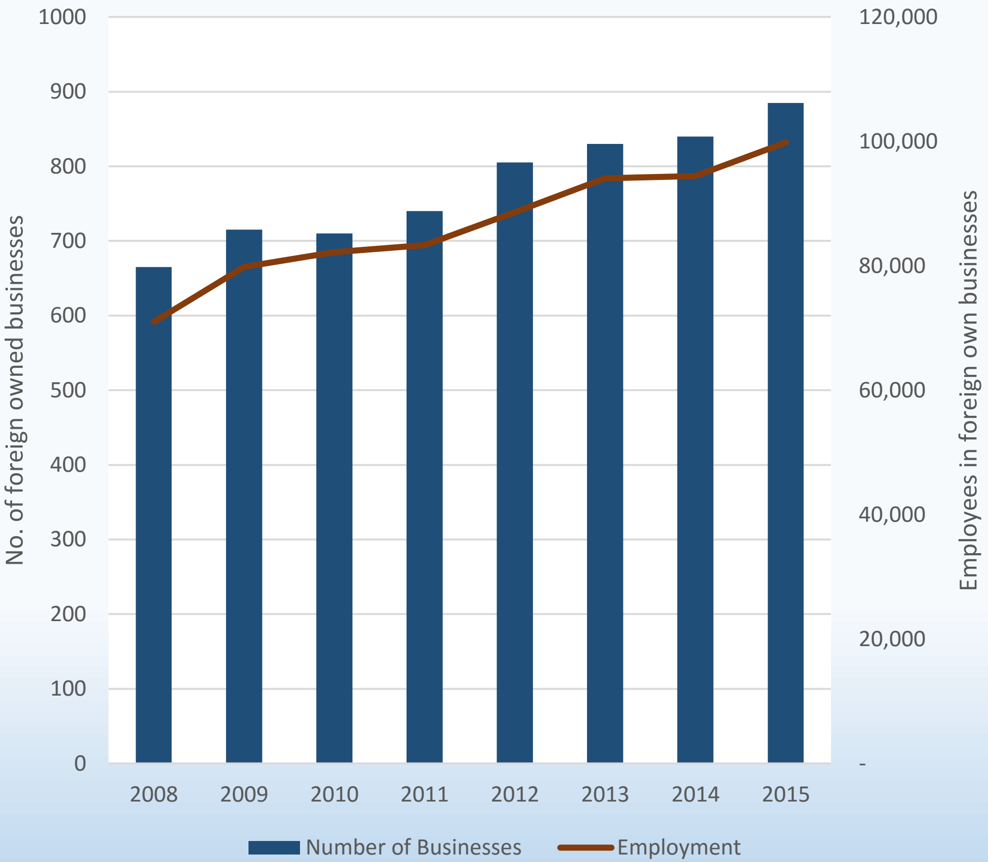
	% Micro	%SMEs	% Micro or SMEs	% Large
UK	88.7%	10.9%	99.6%	0.4%
England	88.4%	11.2%	99.6%	0.4%
Scotland	93.1%	6.5%	99.6%	0.4%
Wales	88.8%	10.9%	99.7%	0.3%
NI	88.9%	10.8%	99.7%	0.3%

Source, ONS , Employment size band and Region (October 2016)

Number of foreign owned businesses and associated employment 2008-2015

- Over the period 2008 to 2015, the number of foreign owned business has increased by 33% (220 businesses), whilst associated employment has grown by 41% (28,885 employees).
- These businesses have predominately in the services sector, 77% of all foreign owned business were operated in the service sector in 2015.
- Measured by number of business, the largest source market for foreign businesses is the RoI. RoI businesses made up 32.8% of all foreign owned businesses in 2015 (290 businesses). The United States (US) was the second most common source market accounting for 19.8% of all foreign owned businesses in the same year (175 businesses).
- When measured by employment in foreign owned businesses, this positioning was reversed. In 2015, US companies were responsible for the largest proportion of employment in foreign owned businesses – 24,225 employees in total, or 24.3% of all employment in foreign owned businesses. The RoI was responsible for 17.5% of all employment in foreign owned businesses.

Figure 24: Number of foreign owned businesses and associated employment 2008-2015

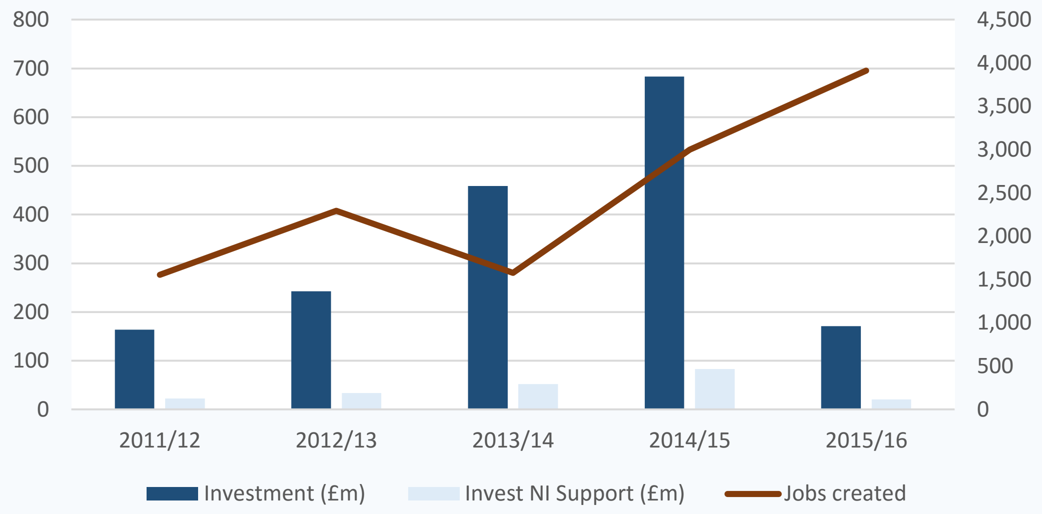


Source: Interdepartmental Business Register Foreign Ownership Tables 2015 (January 2016)

Externally owned businesses and Invest NI support

- Invest NI support for externally owned businesses totalled £211.83m between 2011/12 and 2015/16.
- These business created 12,335 jobs in the same period.
- Total investment associated with Invest NI external client businesses between 2011/12 and 2015/16 was £1.71bn.
- According to figures from Invest NI's Annual Report and Accounts 2015/16 (Table 2), the agency has exceed all of the targets set in its corporate plan 2011/12 to 2015/16.

Figure 25: Investment, jobs and support – Invest NI client companies



Source: Invest NI Support 2011/12 to 2015/16 (2016)

Table 1: Invest NI performance against targets 2011/12 to 2015/16

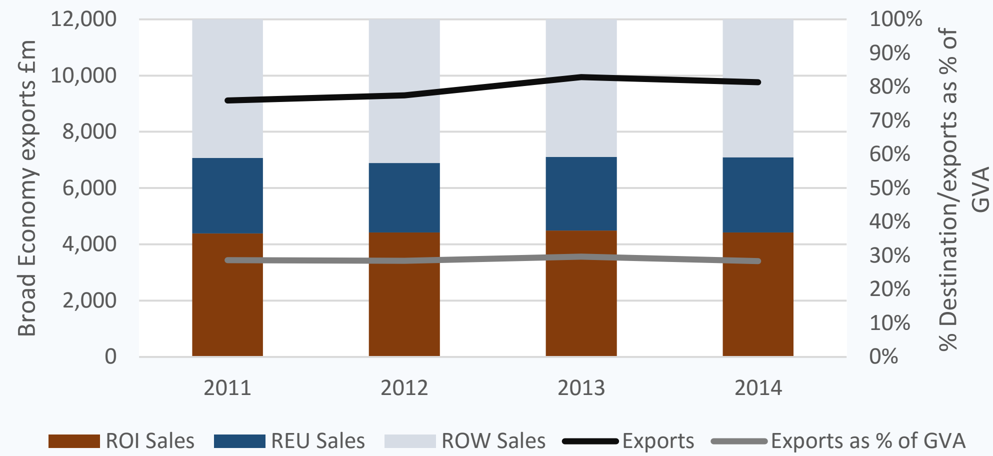
Corporate plan 2011/12 to 2015/16	Out run 2015/16	Ahead of target
41,000 jobs	42,488	3.60%
Total investment commitments £2.82bn	£3bn	6.30%
Private sector investment in R&D £565m	£589bn	4.20%
£172m investment in skills development	£181m	5.20%
Increase value of manufacturing exports by 3% (over a 2014/15 baseline	9.10%	6.1pps

Source: Invest NI Annual Report and Accounts 2015/16 (2016)

NI broad economy exports 2011-2014

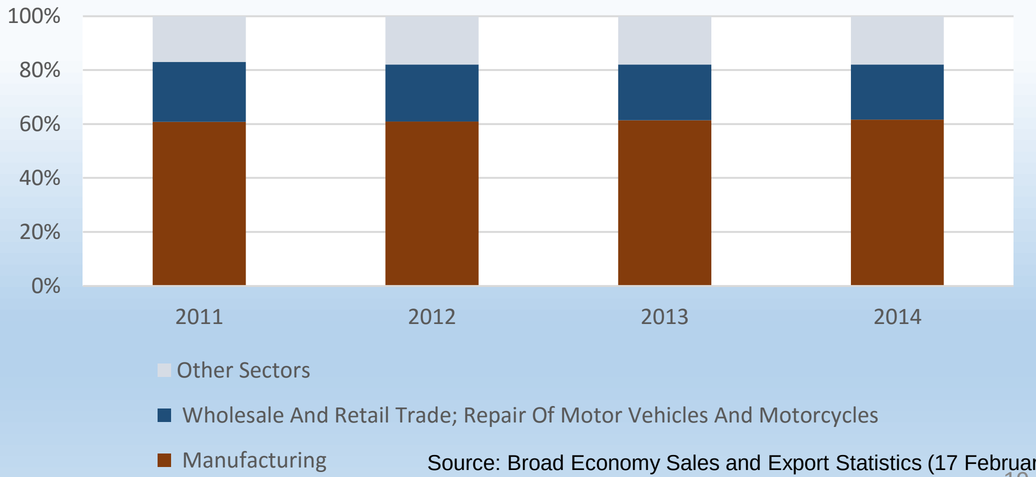
- Broad economy exports (all sectors), from NI were valued at approximately £9.8bn in 2014, an increase of 7% or £645m since 2011.
- As a proportion GVA, exports have fluctuated slightly between 28% and 30% of GVA between 2011 and 2014.
- Exports to the EU in 2014 accounted for 59% of total exports. This is true each examined apart from 2012 when EU exports fell to 57% of total exports.
- Exports to the RoI accounted for 37% of total exports in each year examined.
- Exports to the rest of the world (ROW) accounted for 41% of total exports in 2014. This is true for each year examined, apart from 2012 when they accounted for 43% of total exports.
- Manufacturing exports made up the largest proportion of total exports, accounting just over 60% in each year. In 2014, exports from this sector were valued at £6bn, an increase of 9% from 2011.

Figure 26: NI broad economy exports 2011-2014



Source: Broad Economy Sales and Export Statistics (February 2016)

Figure 27: Exports by broad industry sector 2011-2014

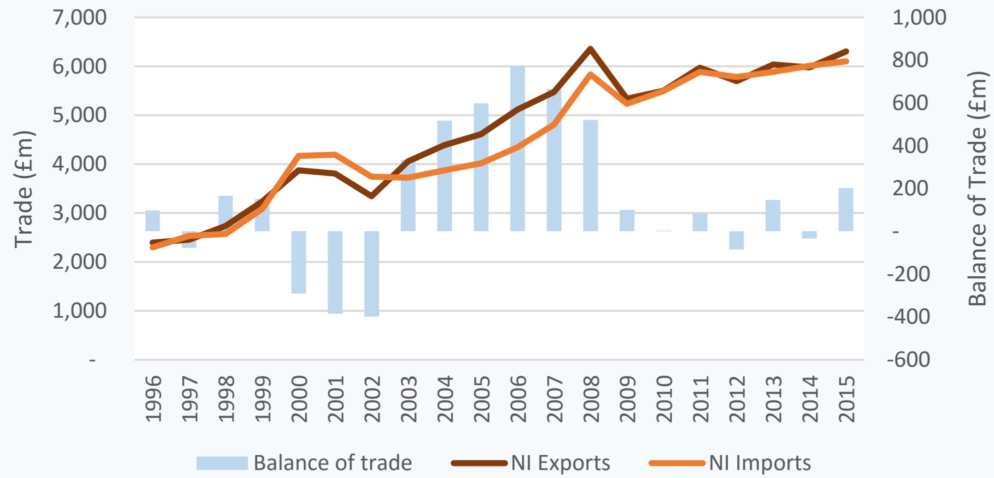


Source: Broad Economy Sales and Export Statistics (17 February 2016)

Trade in goods and balance of trade

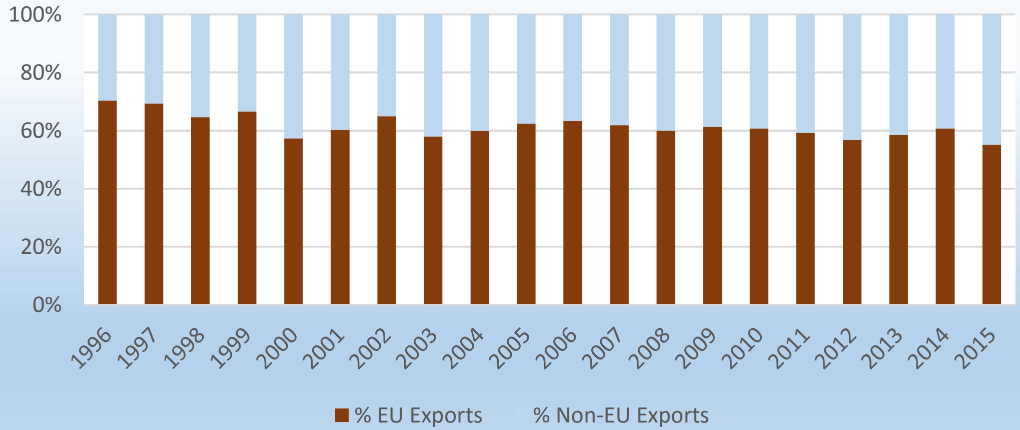
- In 2015 NI exports of goods were valued at £6.308bn – an increase of £3.9bn since 1996 (163%).
- Imports in 2015 were valued at £6.1bn – an increase of £3.8bn or 166%.
- Between 2003 and 2011 NI consistently ran a trade surplus, meaning that more money entered the economy through the sale of exports than left it through the purchase of imports. The value of this surplus decreased from 2007 onwards.
- Since 2012 NI has fluctuated between surplus and deficit.
- Over the period examined, the EU has been NI's most significant export market. As of 2015, it was the destination of 55% of NI goods, down from 70% in 1996.
- NI has tended to run a trade surplus with the EU and a trade deficit with the ROW.

Figure 28: NI Goods exports, imports and balance of trade 1996 - 2015



Source: Broad Economy HMRC Regional Trade Database (October 2016)

Figure 29: NI Goods exports EU and Non-EU proportion

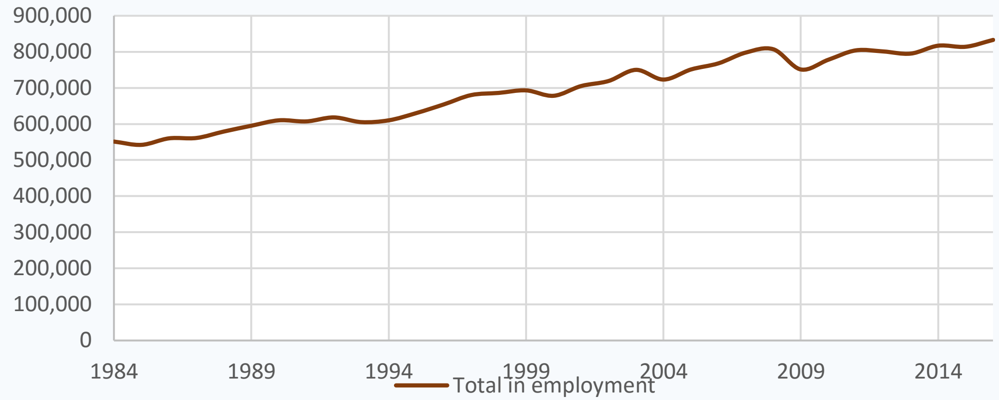


Source: Broad Economy HMRC Regional Trade Database (October 2016)

Employment in NI, 1984-2016

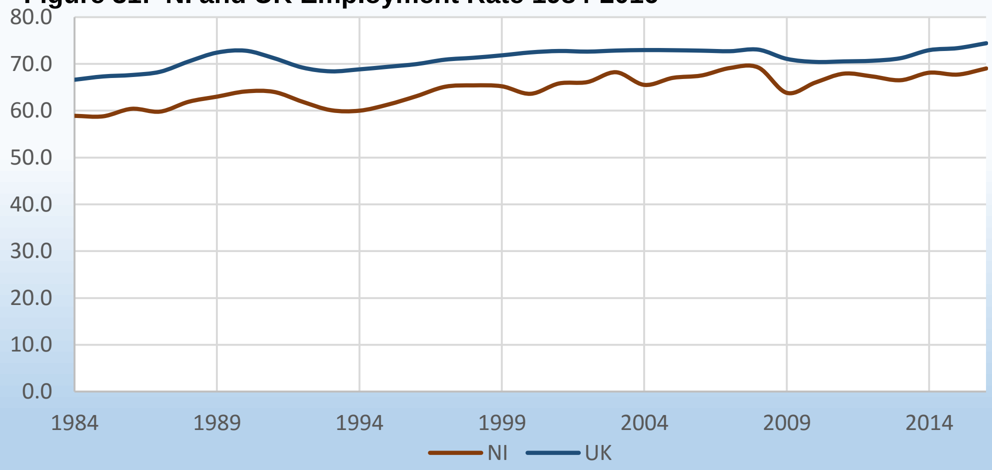
- Figure 30 plots NI employment figures for 1984-2016.
- NI has a relatively steady increase in employment over the 32-year period shown.
- There have been some significant falls in employment, including in 2008, when total employment fell from 807,000 to 751,000. This was a result of the 2007 financial crisis and the resultant recession.
- Figure 31 compares the UK's and NI's 16-64 (working age) employment rate for this same period.
- It highlights that NI's employment rate has ran historically lower than that of the UK for at least 32 years.
- Whilst the gap between the two rates has closed over time, NI's employment rate was heavily impacted by the 2007 recession in comparison to the UK.
- In 2016, a gap of 5.4% existed between the NI and UK employment rates.

Figure 30: NI Total 16+ Employment 1984-2016



Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Figure 31: NI and UK Employment Rate 1984-2016

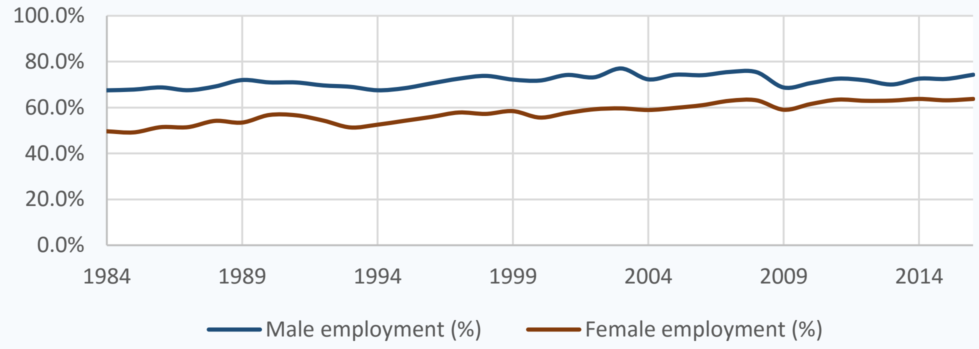


Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Employment by sex and age

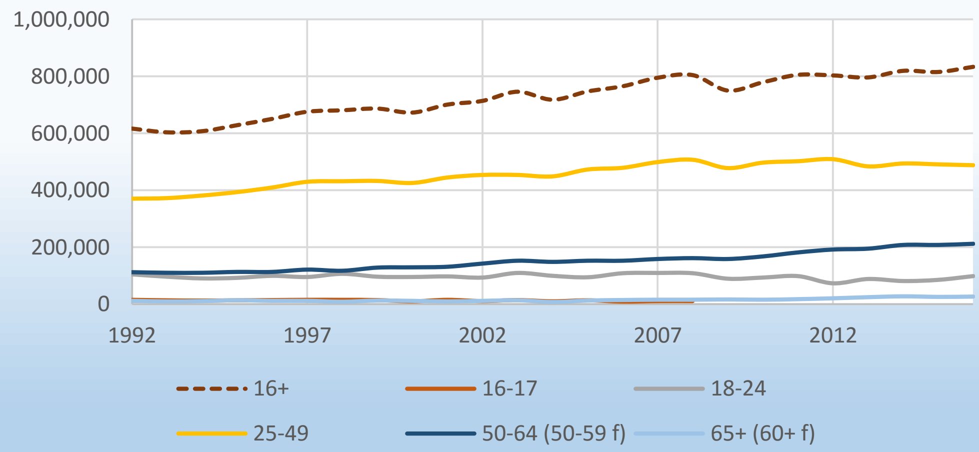
- Figure 32 considers the employment rate by sex.
- The figure highlights the ongoing convergence of male and female employment within the NI economy.
- In 2016 74.3% (or 449,000) of males aged 16-64 were employed in comparison to 63.7% (383,000) of females.
- Between 1984 and 2016, male employment grew by 6.7% whilst female employment increased by 14.1%, suggesting a higher rate of growth in female employment.
- Figure 33 considers Employment by age for 1992-2016.
- Unsurprisingly, the majority of those employed are aged between 24-49, the largest grouping of the employed.
- Employment amongst those aged 50-64 and 65+ has begun to increase, with those in employment aged 50-64 increasing from 113,000 in 1992 to 212,000 in 2016.
- Employment amongst 18-24 year olds has fluctuated throughout the period shown, although since the recession it has largely been in decline. This may be a result of this age group being amongst the most vulnerable to changes in employment.

Figure 32: Employment rate (16-64) by sex, 1984-2016



Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Figure 33: Total in employment (16+) by age, 1992-2016

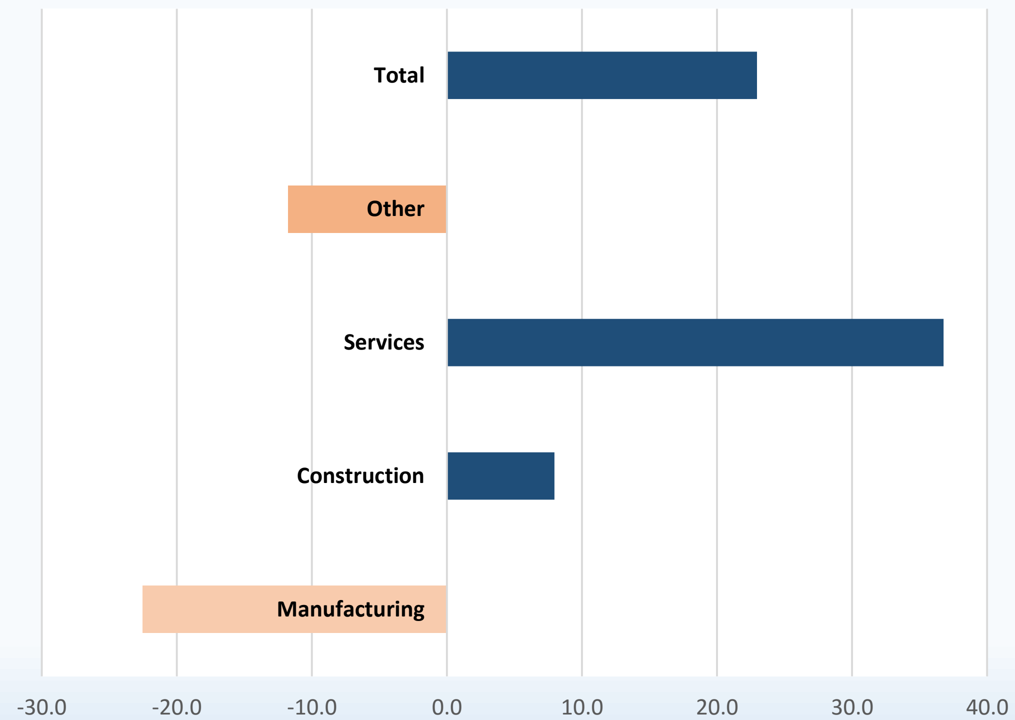


Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Employment by Industry

- Figure 34 considers changes in employment in NI's main industrial sectors between 1997 and 2016.
- As shown by the figure, the services sector has increased its number of employees over the period shown, from 438,500 to 599,720 (an increase of 36.8 percentage points).
- Construction also saw an increase in employment throughout this period of 8 percentage points.
- It is worth noting that the construction sector had a large increase in the period leading up to 2008, reaching 44,860 employees. However, once the effects of the Great Recession started to impact on the construction sector, employment fell to 28,800 by 2014. It has since started to increase but remains significantly below the 2008 figure.
- Manufacturing has the largest decline of the industrial sectors of 22.5 percentage points (from 104,730 employees to 81,150).

Figure 34: Changes in employment by industrial sector (1997- 2016)

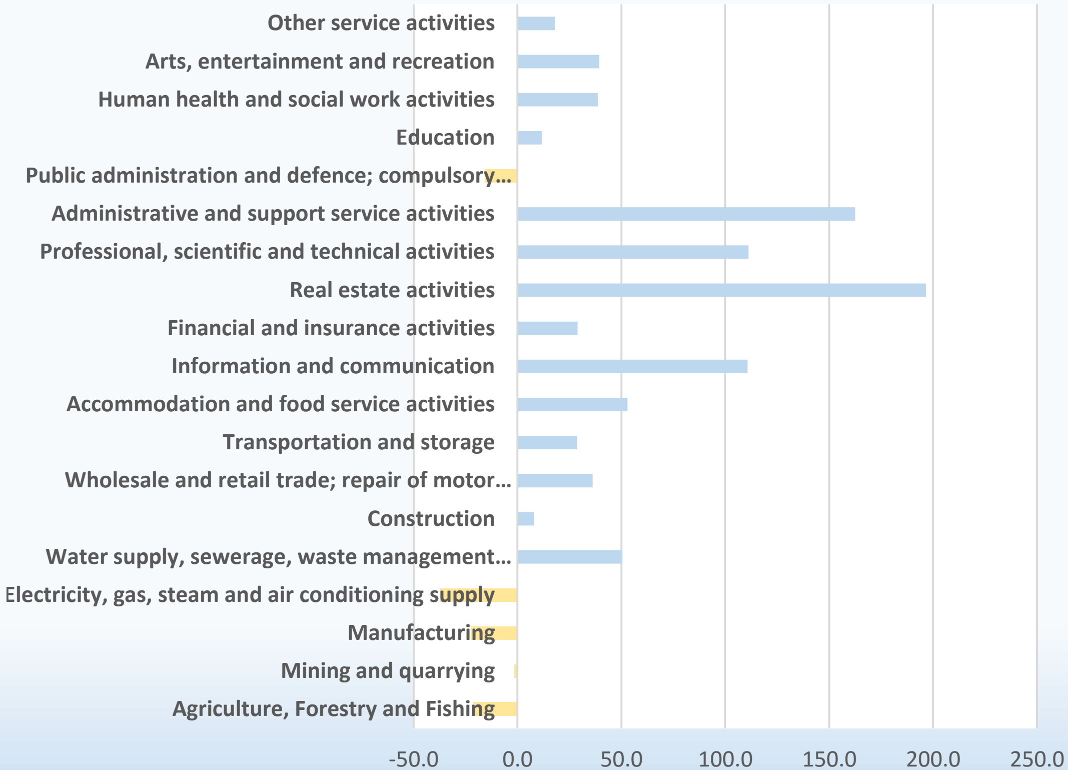


Source: Quarterly Employment Survey Historical Data (June 2016)

Change in Employment by Standard Industrial Classification (SIC) 2007

- Figure 35 further breaks down the NI business sectors for the period 1997 – 2016. Most sectors have seen an increase in employment throughout this period.
- In all, the number of employee jobs has increased (based on the Quarterly Employment Survey data) from 598,127 in 1997 to 733,040 in 2016.
- Five sectors have seen an overall decline:
    - Public administration and defence (-15.5% or 9,170 fewer employees);
    - Electricity, gas, steam and air conditioning supply (-37.2% or 1,180 fewer employees);
    - Manufacturing (-22.5% or 25,580 fewer employees);
    - Agriculture, forestry and fishing (-21.3% or 3,510 fewer employees); and,
    - Mining and quarrying (-1.6% or 30 fewer employees).
- As with Figure 34, manufacturing has seen the greatest fall in the number of employees. Following a slight increase in employees in 2008, employment in the sector again fell, most likely as a result of the recession, with a 10% drop.

Figure 35: Changes in employment by SIC 2007(1997- 2016)

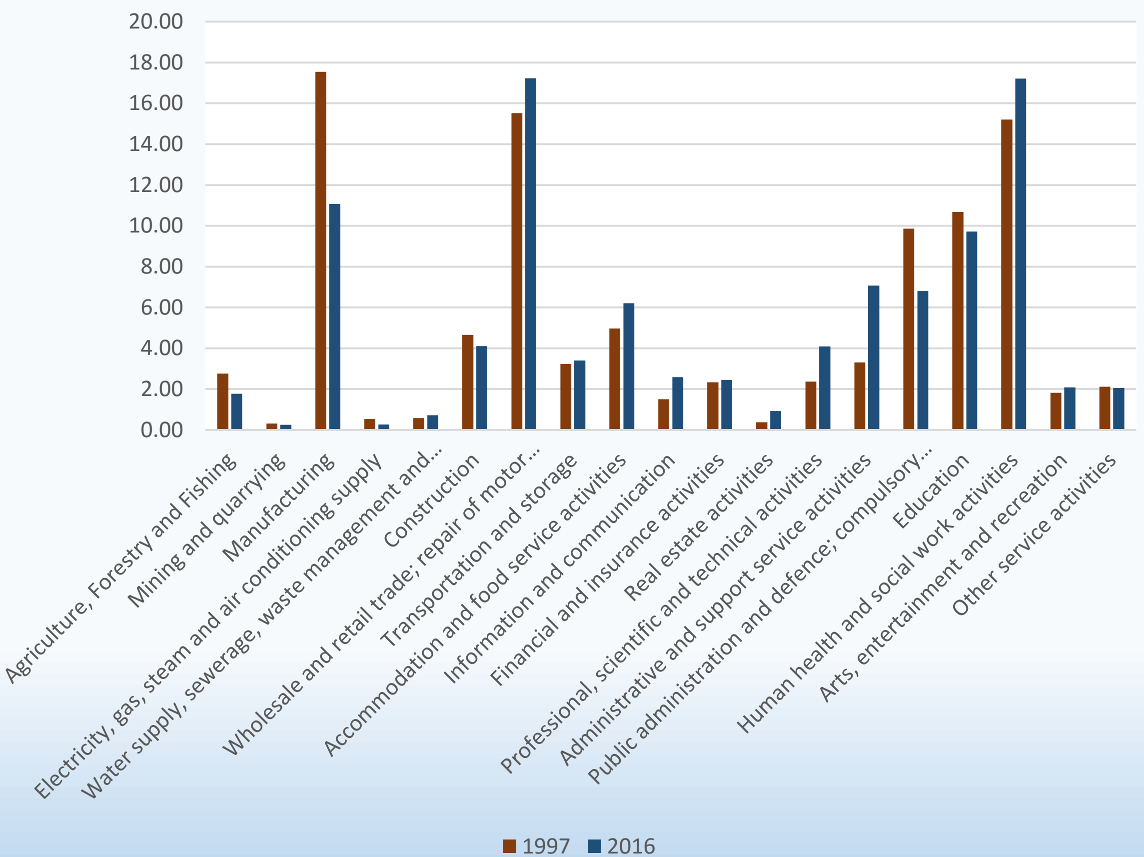


Source: Quarterly Employment Survey Historical Data (June 2016)

Change in Employment by Industry (cont'd)

- In 1997 manufacturing was NI's single largest employment sector. By 2016 it was the third largest, with wholesale and retail the largest at 126,310 employees.
- Public administration, which includes public sector workers has also seen a relatively consistent fall in employees. Between 1997 and 2016 the number of employees in this sector fell by 9,170. Between 2015 and 2016, it saw a drop of 8% in the number of employees (4,060 people).
- This is most likely the impact of the voluntary exit schemes which operated across the public sector in order to reduce costs. The previous year had a fall of 4%, adding to a total drop between 2014 and 2016 in public sector employees of 6,200.
- Agriculture has also shown declining employment. In 1997 16,450 people were employed in the sector. This fell to 12,940 in 2016. Employment in the sector reached a low in 2010 at 11,920. Since then it has shown a slight recovery, reaching to 12,940 employees in 2016.
- Some sectors have seen significant employment growth. The administrative and support services sector has grown more or less consistently throughout 1997-2016, from 19,750 employees to 51,830.
- When considered as a whole, it can be seen that there has been a slight shift in NI as to what sectors are the main employers and it fits with the shift in NI towards a services based economy.

Figure 36: Percentage difference in employment by SIC 2007, 1997-2016

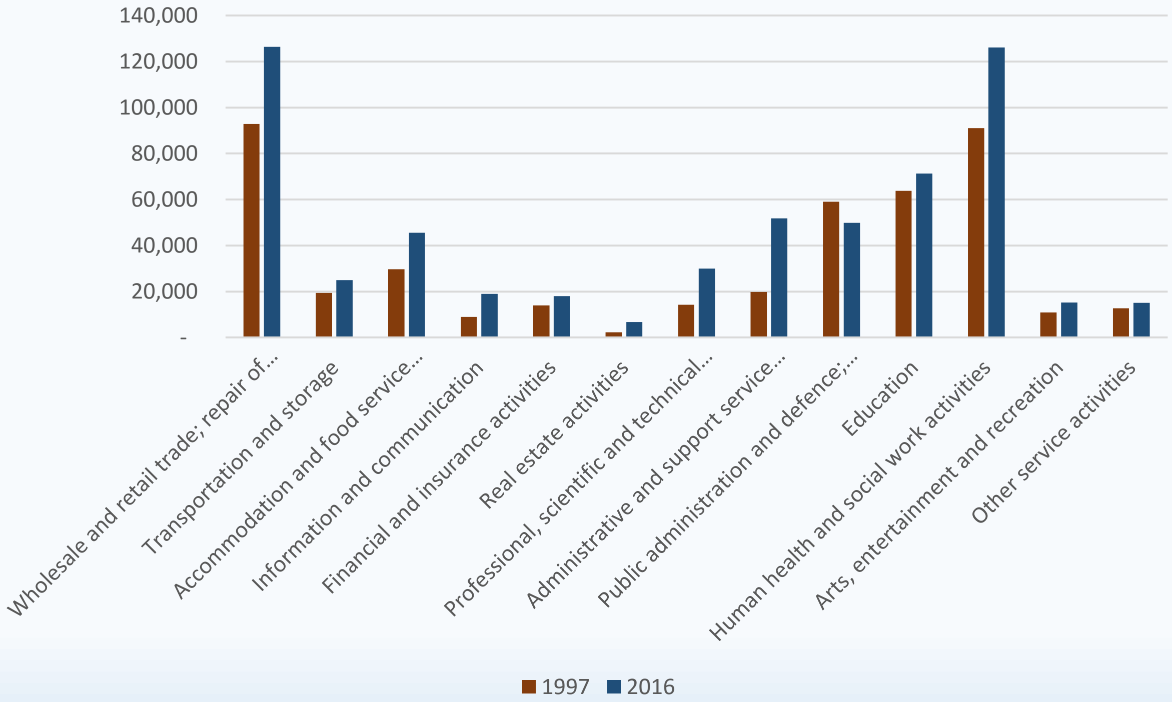


Source: Quarterly Employment Survey Historical Data (June 2016)

Employment Growth in the Services Industry

- Figure 37 takes a closer look at employment within the services sector and changes within when comparing1997 to 2016.
- The services sector grew in size from 438,520 employees in 1997, to 599,740 in 2016.
- Between 1997 and 2016 almost all of the SIC service industries increased in size, with public administration the only one to see a reduction in numbers.
- Three sub-industries show a large amount of growth:
    - Human health and social work activities (35,140 additional employees);
    - Wholesale and retail trade (33,520 additional employees); and,
    - Administrative and support service activities (32,080 additional employees).

Figure 37: Changes in employment in the services sector 1997 and 2016

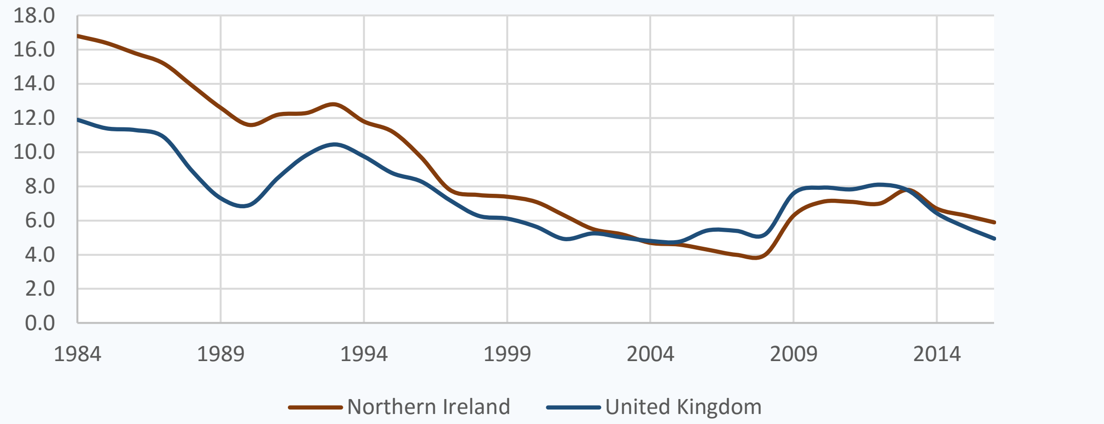


Source: Quarterly Employment Survey Historical Data (June 2016)

Unemployment data

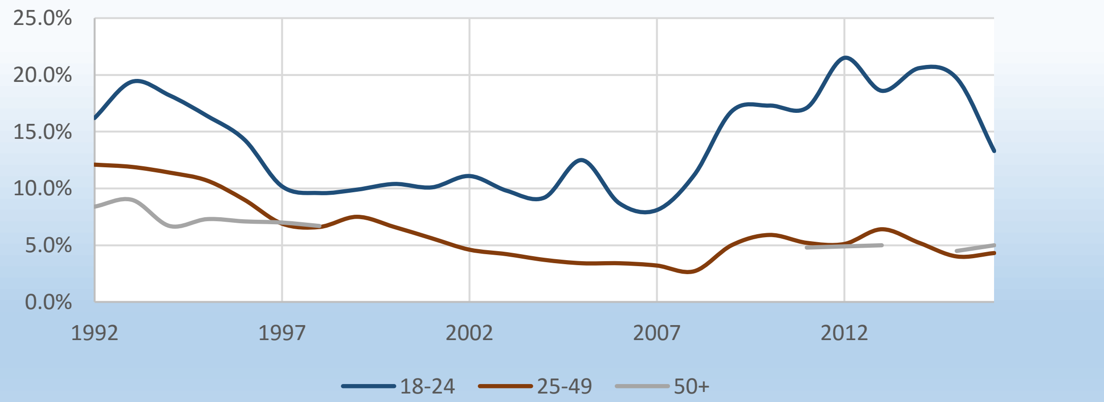
- Figure 38 compares the UK and NI unemployment rate for 1984 to 2016.
- NI has, historically, a higher rate of unemployment than the UK average. However, in 2004 NI's unemployment rate fell below that of the UK for the first time in decades, and it remained below until the effects of the 2007 financial crisis and subsequent recession were felt.
- NI's unemployment rate has yet to recover from the recession; although it should be noted that the gap between the UK and NI was only 0.5% in March to May 2016.
- Figure 39 considers the unemployment rate by age. As can be seen the unemployment rate for the 18-24 age group is significantly higher than any other group.
- Unemployment for this age group falls until the late 1990s and early 2000s, when it begins to rise.
- The impact of the financial crisis can be seen earlier amongst this group with unemployment increasing in 2007 (from 10,000 to 14,000).
- Unemployment amongst 18-24 year olds continued to remain high until 2016 when it fell from 21,000 to 15,000. This high level of unemployment reflects the vulnerable nature of this group.

Figure 38: UK and NI Unemployment Rate (16+) 1984 - 2016



Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Figure 39: Unemployment rate by age, 1992-2016

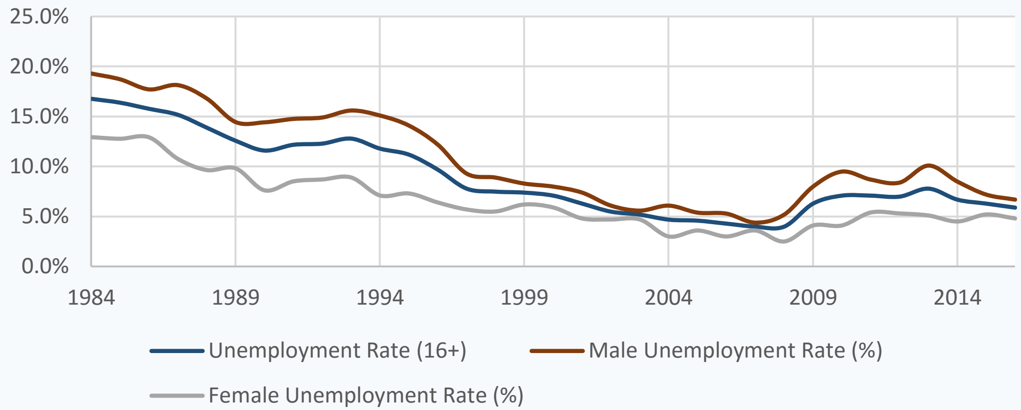


Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Unemployment (cont'd)

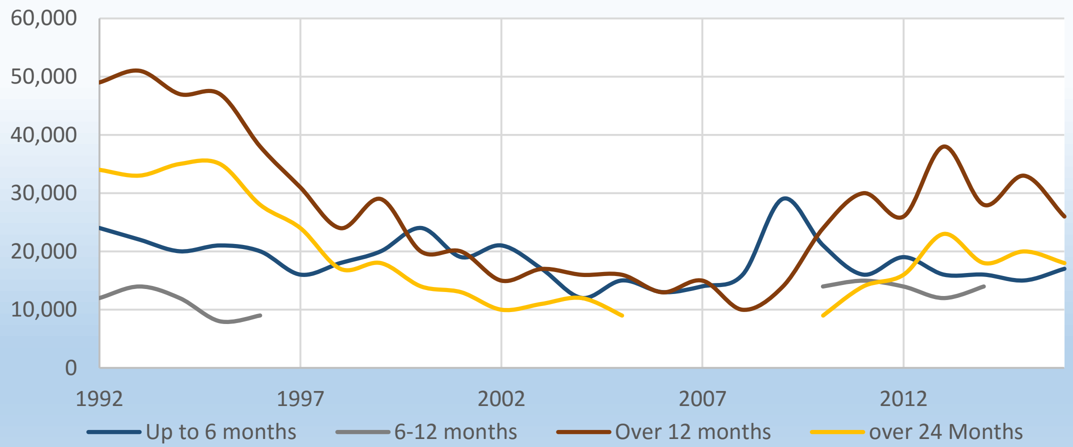
- Figure 40 details the unemployment rate by sex.
- Both male and female unemployment follows a similar pattern, reflecting the overall trends in the economy, including the impact of the Great Recession, as seen from 2008 on.
- However, it should be noted that female unemployment is consistently lower than that of males and of the NI rate.
- Figure 41 provides data on unemployment by duration.
- Importantly, the longer someone remains out of work, the more difficult it becomes for them to re-enter the workplace. This becomes a significant problem if someone remains unemployment for over 12 months.
- As can be seen from 2011 on, the majority of those who considered themselves unemployed had been out of work for over 12 months.

Figure 40: Unemployment rate by sex, 1984-2016



Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Figure 41: Unemployment by duration, 1992-2016

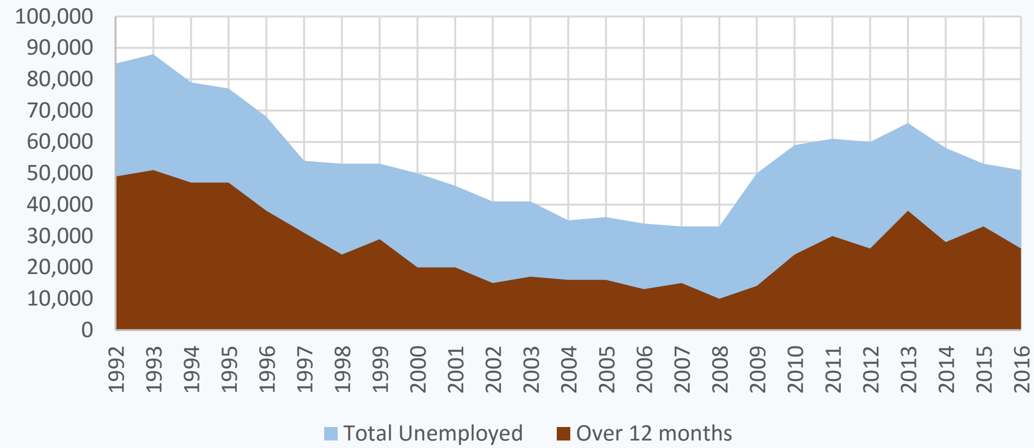


Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Long-term unemployment

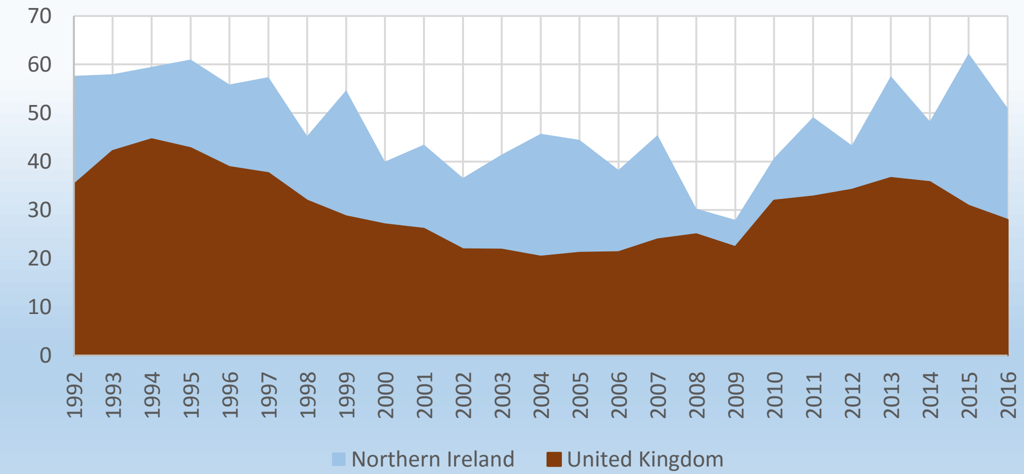
- Figure 42 highlights the significant proportion long-term unemployment makes up of total unemployment.
- As can be seen, in 2016 of the 51,000 people who declared themselves unemployed, 26,000 (or 51%) were long-term unemployed.
- Long-term unemployment hit its lowest level in the data series in 2009 when it was 28% of the unemployed (14,000 people long-term unemployed to 50,000 unemployed in total).
- This may reflect the sudden increase in unemployment that occurred in 2007 and 2008, as the recession started to impact on employment.
- Figure 43 compares NI's long-term unemployment to that of the UK.
- NI's long-term unemployment rate is significantly higher than that of the UK.
- In 2016, 51% of NI's unemployed were long-term unemployed, in comparison to 28% for the UK as a whole.
- High levels of long-term unemployment may potentially indicate a structural unemployment issue in NI, whereby the labour market is unable to meet the changing needs of employers.
- Other factors, such as recent slow rates of economic growth and the high costs of retraining for those who are outside the labour market may exacerbate the problem of long-term unemployment.

Figure 42: Long-term unemployment in comparison to total unemployed



Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Figure 43: NI and UK long-term unemployment, 1992 - 2016



Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Economic Activity

- Figure 44 compares NI's economic activity rate with that of the UK.
- The level of economic activity in the UK is consistently higher than that of NI. This reflects the continued issues NI has in encouraging people into employment or looking for work (the main measures of economic activity).
- Whilst the UK rate of economic activity stays relatively stable (with a range of 75.7% to 78.4% between 1984 and 2016), NI's shows a much greater degree of variation, with a range of 68.1% to 73.4% for the same period.
- It should also be noted that since 2010 NI has had its rate of economic activity above 71% consistently, reaching its highest level in the period shown in 2016.
- Figure 45 considers economic activity rates by sex.
- Female activity rates have increased throughout the period shown, rising from 262,000 economic active females in 1984 to 403,000 in 2016 (an increase of 141,000 people), making up a much greater percentage of those who are economically active.
- Male economic activity on the other hand has grown at a slightly lower rate, increasing from 401,000 in 1984 to 482,000 in 2016 (81,000 more economically active males).

Figure 44: NI/UK Economic Activity rates (16-64), 1984-2016

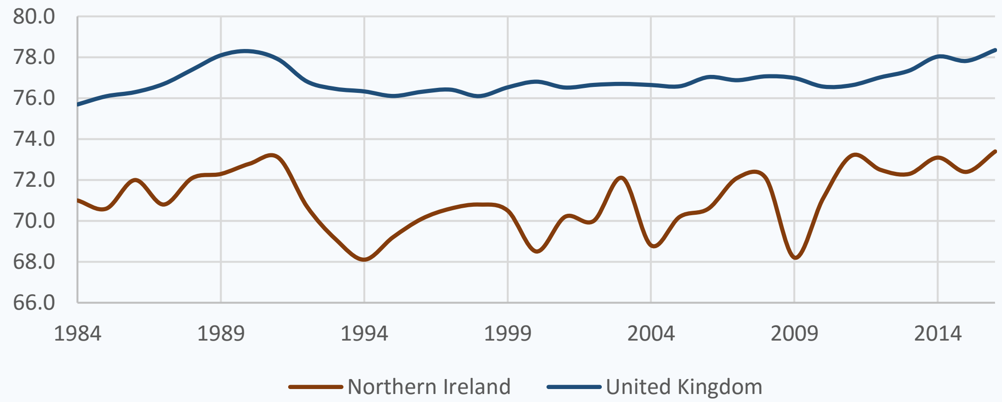
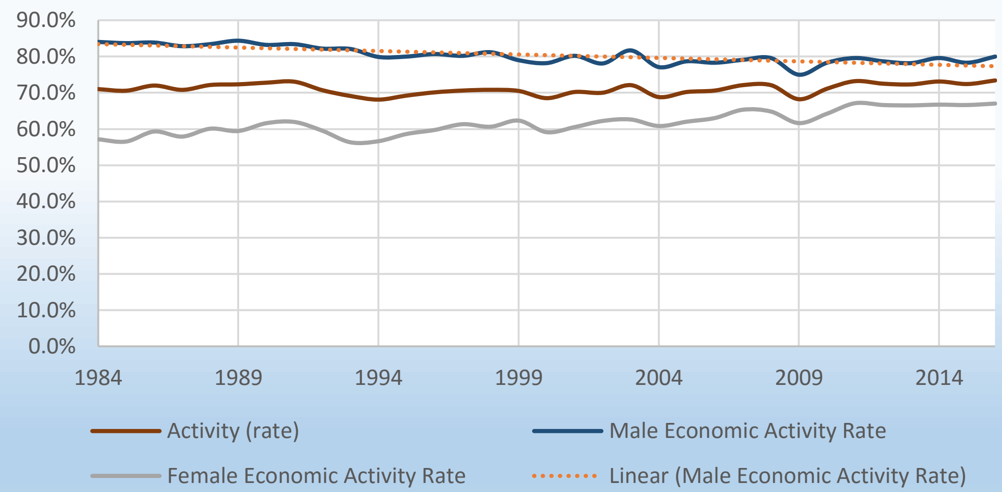


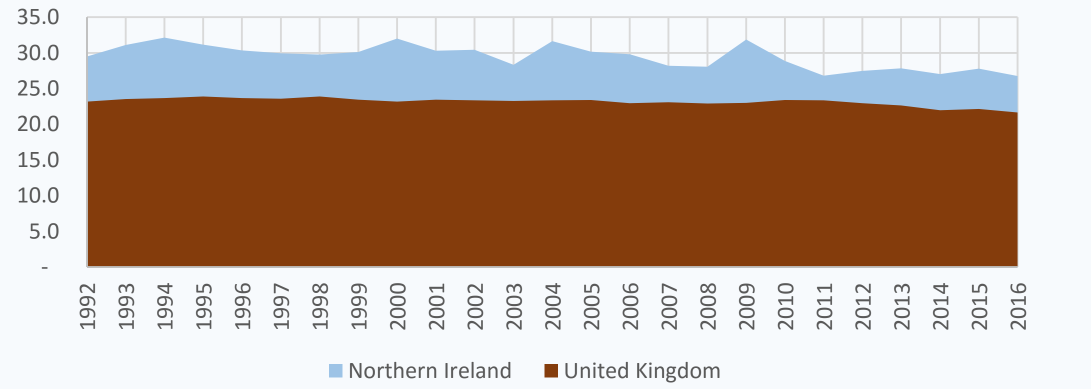
Figure 45: Economic Activity rate by sex, 1984 - 2016



Economic Inactivity

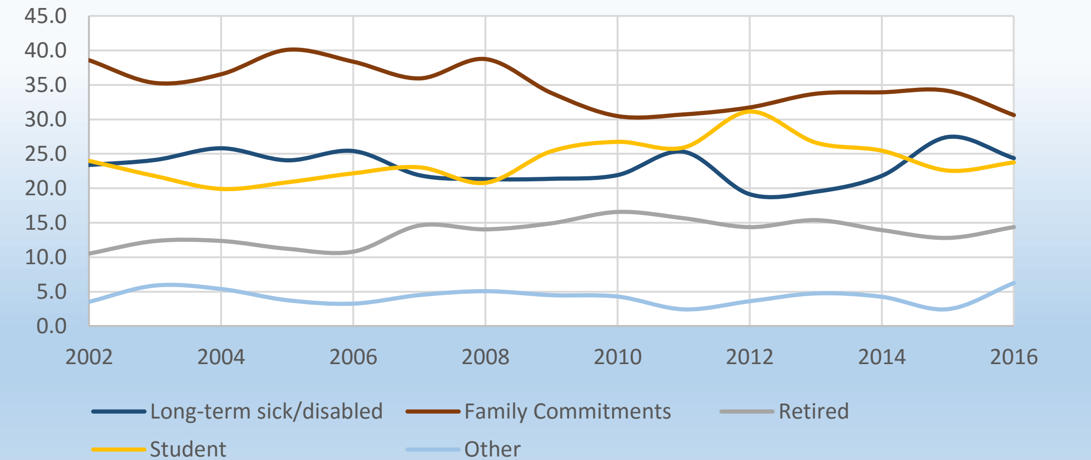
- Figure 46 compares economic inactivity rates in NI and the UK. NI has a consistently higher rate of economic inactivity than the UK for the period 1992-2016.
- In 2016 NI has an economic inactivity rate of 26.8% in comparison to 21.6% for the UK as a whole.
- NI economic inactivity is prone to sharp increases and decreases, whilst the UKs is relatively steady.
- The general trend for UK economic inactivity has been downwards, whilst NI's has fallen somewhat since its most recent peak in 2009.
- Figure 47 considers economic inactivity by reason for not working. Please note, economic inactivity falls into two main groups: Those who do not want a job (89% of the economically inactive in 2016); and, those who do want a job but do not satisfy the ILO requirement to be considered an active job seeker (11% of the economically inactive in 2016). Those who do not want a job are represented in Figure 19.
- The largest group not interested in employment are those who have family commitments (30.6% of those who are economically inactive in 2016). The long–term sick and disabled are the second largest groups.
- Both of these groups have been targeted for additional support to encourage them into employment through "Enabling Success", the NI Executive's economic inactivity strategy.

Figure 46: NI and UK Economic Inactivity rate 1992 - 2016



Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Figure 47: Economic Inactivity by reason for not working (those that do not want a job), 2002-2016

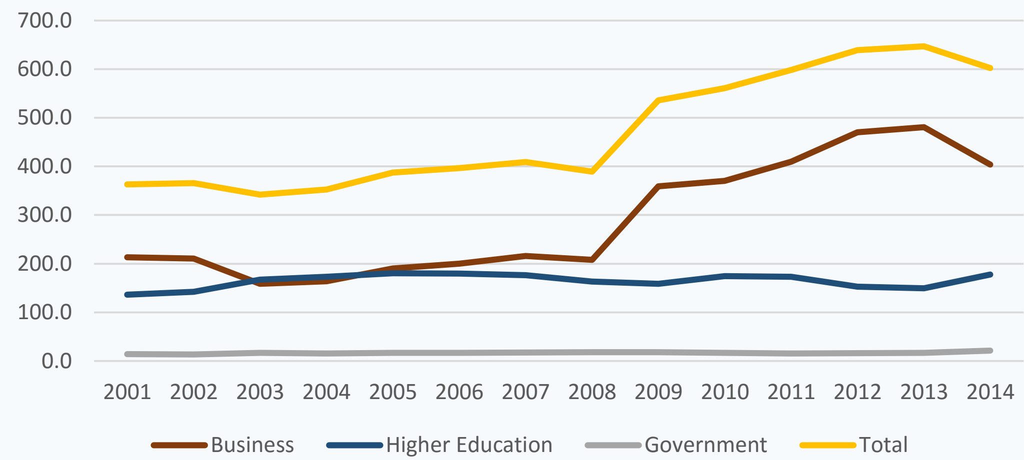


Source: Labour Force Survey – Historical data 1984-1991 and LFS historical data series (October 2016)

Expenditure on Research & Development (R&D)

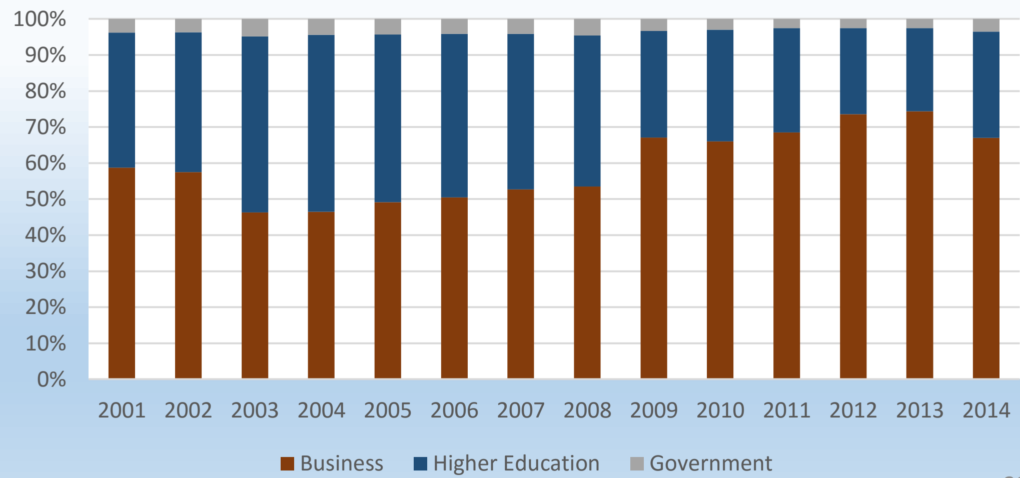
- Total NI expenditure on R&D increased by £239.3m or 66% between 2011 and 2014.
- Business has consistently been the largest contributor to total NI R&D expenditure since 2006. As of 2014 it contributed to 67% (£403.5m) of total R&D expenditure.
- Between 2001 and 2014 business expenditure increased by 89% (£190.2m), HE R&D expenditure increased by 31% (£41.7m), government expenditure increased by 53% (£7.3m).
- As of 2014 total R&D expenditure was equivalent to 1.9% of GVA, up from 1.7% in 1996.
- In the same year, business expenditure on GVA was equivalent to 1.2% of GVA, up from 1% in 1996.

Figure 48: NI Expenditure on R&D 2001- 2014



Source: Research and Development 2014 (December 2015)

Figure 49: Sectoral contribution to R&D expenditure 2001-2014

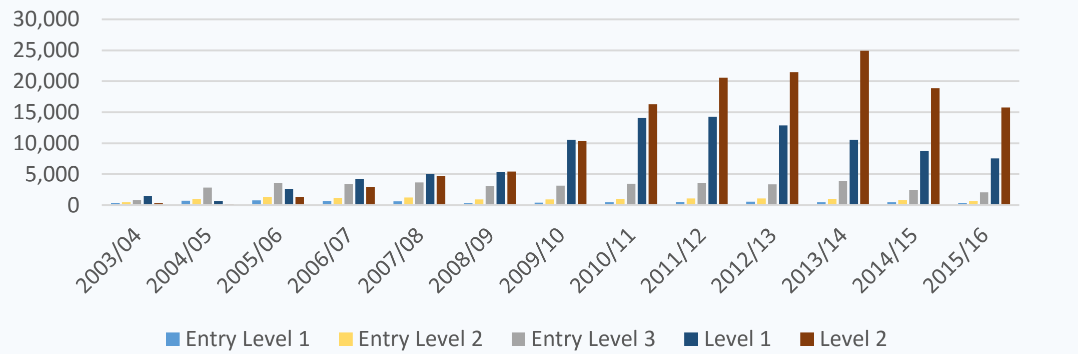


Source: Research and Development 2014 (December 2015)

Skills Development

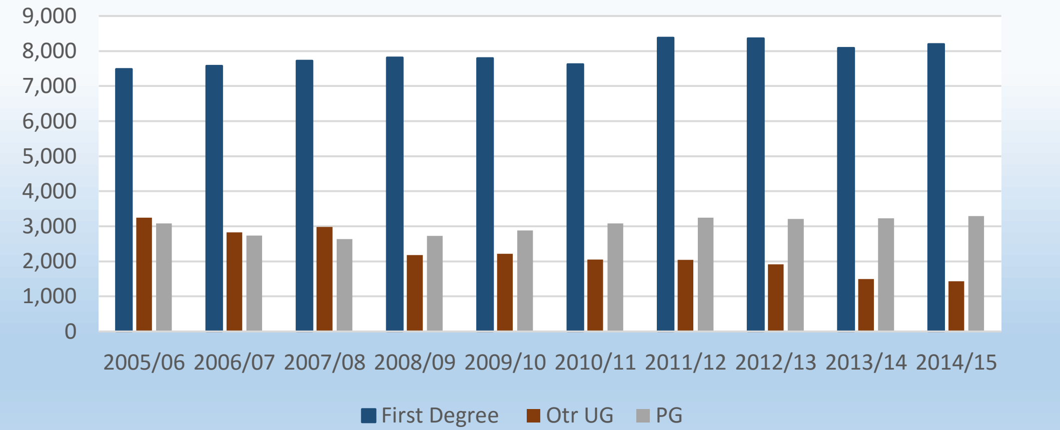
- Figure 50 details the qualifications gained by level and academic year on the NI Executive's 'Essential Skills' programme.
- In total, 300,268 qualifications in Essential Skills were gained during the series period.
- For the period 1 August 2012 to 31 July 2015, 65,317 Level 2 qualifications were achieved through the Essential Skills programme (the target date in the 2012 strategy was March 2015 so this figure may be higher than what was achieved in the required period).
- Review of the published data also found that the majority of those who received support throughout 2003/04 to 2015/16 were aged 16-25 (210,512 qualifications).
- It should also be noted that this data tracks qualifications, not people. Enrolments data finds that just over 163,500 individuals enrolled in Essential Skills courses since the strategy began in October 2002.
- Figure 51 shows the number of NI domiciled students gaining qualifications from NI HEIs from 2005/06 to 2014/15.
- The vast majority of qualifications attained, unsurprisingly, are first undergraduate degrees. In 2014/15, 8,200 NI students gained an undergraduate degree qualification. This is slightly lower than the series peak of 8,380 in 2011/12.
- Postgraduates on the other hand hit their highest level in the data series in 2014/15 at 3,290.

Figure 50: Essential Skills qualifications by level achieved and academic year



Source: NISRA, Essential Skills Qualifications (July 2016)

Figure 51: Qualifications gained by NI domiciled students studying at NI HEIs, 2005/06 to 2014/15

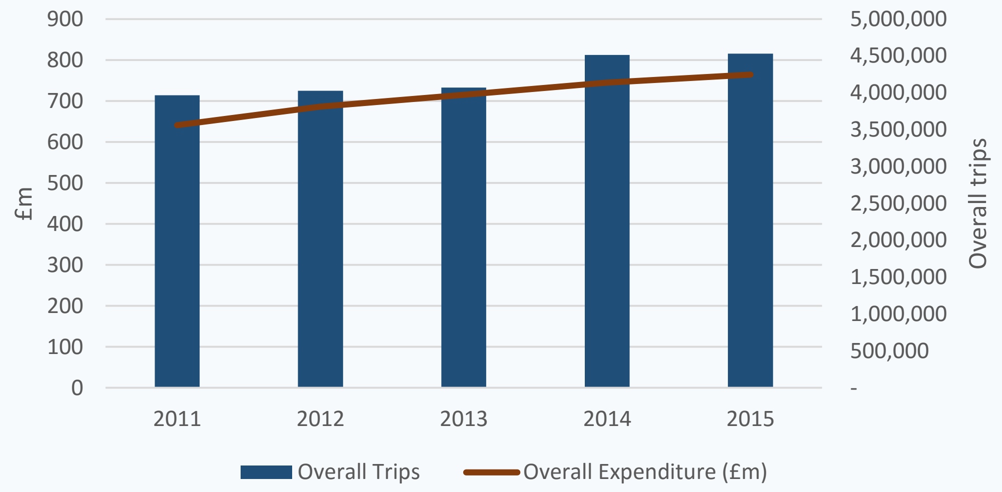


Source: NISRA, Essential Skills Qualifications (July 2016)

Tourism

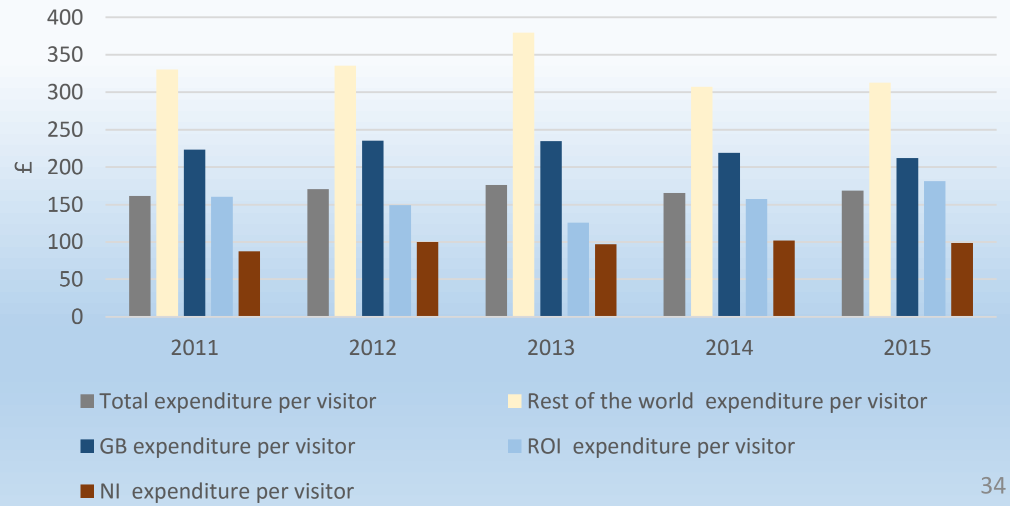
- In 2015 there were 4,531,618 overnight trips to NI, an increase of 563,856 or 14%. Tourist expenditure was £764m in the same year, an increase of £123m or 19%.
- Domestic tourism accounted for 49% of all overnight trips in 2015, GB visitors accounted for 29%, ROI visitors 7% and ROW visitors 15%.
- GB visitors accounted for the largest proportion of tourist expenditure in 2015 – 36%. NI visitors accounted for 29%, ROW visitors 27% and RoI visitors 8%.
- If measured by expenditure per visitor, ROW visitors were consistently the most lucrative visitor group between 2011 and 2015 – spending approximately 1.9 times expenditure per visitor (all visitors) in 2015.

Figure 52: Overall tourism trips and expenditure 2011 to 2015



Source: NI Annual Tourism Statistics (May 2016)

Figure 53: Expenditure per visitor 2011 to 2015



Source: NI Annual Tourism Statistics (May 2016)

Endnotes

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Annex B: RaISe Review of the Northern Ireland Economic Strategy 2012 - Progress Against Actions to 31 March 2015

Please note, the assessment of outcomes is limited to information published in the 'Northern Ireland (NI) Economic Strategy Comprehensive Action Plan: Progress Against Actions to 31 March 2015' (PAA). The results of this assessment are based on a RaISe review of PAA information, and where appropriate, RaISe's application of additional information and data extracted from external sources.

Colour Key:
- PAA Achieved
- PAA Partially Achieved
- PAA Not Achieved

Theme	Number	Action	Achieved as per the Progress Against Actions report	Achieved as per RaISe review of PAA evidence	Comments, as appropriate
Innovation, Research & Development (R&D) and Creativity	A1	Maximise returns from the grant for R&D programme by securing £300 million (m) investment in R&D (with at least 20% from Small and Medium-sized Enterprises (SMEs)).			
	A2	Support 500 businesses to undertake R&D for the first time.			
	A3	Secure 120 Collaborative Projects in R&D.			
	A4	Secure up to £5.6m additional investment in agri-food R&D (50% from SMEs/industry organisations and 50% from DARD) by implementing further tranches of the DARD Agri-food Research Challenge Fund.			
	A5	Expand the Innovation Voucher Scheme by delivering 800 Innovation Voucher projects to stimulate increased levels of innovation within small enterprises (with less than 50 employees).			
	A6	Support the higer education (HE) and further education (FE) sectors to undertake 120 Knowledge Transfer Partnership (KTP) projects on behalf of local businesses.			
	A7	Support our universities and FE colleges to undertake 155 knowledge transfer projects on behalf of local businesses.			
	A8	Introduce an enhanced Proof of Concept (PoC) scheme to support 40 PoC projects (University or Health and Social Care (HSC) based).			
	A9	Support SMEs to increase productivity through improved efficiencies by identifying £60m of resource and waste prevention savings.			
	A10	Support 600 E-business projects to assist SMEs to increase innovation and productivity.			
	A11	Improve awareness and understanding of Intellectual Property and the commercialisation of products and services, and deliver 440 Technical Projects to assist commercialisation.			
	A12	Maximise participation with Invest NI's Design Service to encourage 1,200 companies to utilise design as a key driver and enabler of innovation.			
	A13	Increase the commercialisation of knowledge by establishing 4 'Competence Centres'.			
	A14	Expand the Collaborative Network Programme, targeting the future market opportunities identified by MATRIX, to support establishment of 25 networks.			
	A15	Increase engagement between NI companies and researchers to: Encourage NI based companies/researchers to engage with INI Collaborative Support Service leading to 100 applications for transnational R&D funding; and, Secure 36 Transnational Technology Transfer Agreements through Enterprise Europe Network.			
	A16	Develop a mechanism to facilitate NI businesses to exploit the market opportunities identified by MATRIX.			
	A17	Maintain the core funding of the universities' knowledge transfer activities through NI Higher Education Innovation Funding (£3m per annum) with targets for the universities to: Undertake 1,140 business engagements; Secure £863k income from Intellectual Property; and, Establish 8 spin out businesses.			
	A18	Provide £50m funding for university research based on quality-assessed outcomes.			The universities received an allocation of £49m for Quality-related Research funding in A/Y 2014/15. Departmental budget reductions had an impact on the availability of such funding.
	A19	Maintain strategic investment (£1m per annum) in collaborative HE/FE engagement with business through the Connected programme, with a target for the universities and FE colleges to establish 14 major sectoral projects with local businesses involving at least one university and one regional college.			
	A20	Develop a framework to grow the creative industries and a broader culture of creativity and design-thinking.			
	A21	Invest £4m via the Creative Industries Innovation Fund and wider sectoral initiatives to stimulate innovation, R&D and creativity.			
	A22	Support 200 innovation projects through the Creative Industries Innovation Fund.			

	A23	Develop, demonstrate and encourage adoption of the latest technologies to the agri-food sector, with a target of at least 1500 technologies adopted on an annual basis.			
	Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
	A24	Provide funding for up to £3m per annum for new R&D projects through the Agri-food and Bio-sciences Institute Research Work Programme.			In 2014/15 an extensive portfolio of on-going research was funded within the DARD, but there was insufficient headroom in the 2014/15 AFBI budget to commission new research. Work is currently progressing, with the aim of commissioning new research and development projects for 2015/16.
	A25	Increase the number of businesses involved in cross border innovation and trade activity by 2,745, through access to, and exploitation of, IntertradeIreland information, advice services and business support programmes.			The progress against actions report states that the target has been achieved. However only 1,134 business have been involved. As such, it is not clear as to how the target has been reached. This is discussed further in the main body of the paper in Section 4.1, page 57.
	A26	Complete a study on the innovation eco-system that will identify opportunities and remove barriers.			
	A27	Develop a pilot programme to deliver enhanced innovation capability leading to transformational change – the Innovation Challenge Programme.			
	A28	Increase North/South participation in European Union (EU) Research & Development programmes.			There is no target for this, and as such any increase would result in it being met. The PAA states: '*To achieve the target of €175m over the duration of the project there will be additional activities in consultation with the Northern Ireland and Ireland national contact points*'. This implies there is a target, but no mention of it can be found in the Economic Strategy 2012.
	A29	Provide support for wider North/South research connections.			
	A30	Facilitate the expansion of the United States-Republic of Ireland R&D Partnership.			
	A31	Explore how the NI Science Park can further evolve into an Open Innovation Centre, to create the environment where partnerships and collaboration can flourish across sectors.			
	A32	Based upon the views of MATRIX and the Foresight process, progress the alignment of publically funded research with our economic priorities, in order to increase the potential for greater knowledge transfer between business and academia to maximise the economic return.			
	A33	Examine ways to increase the rate of commercialisation of publically funded research and public sector Intellectual Property.			
	A34	Foster the degree of innovation through increased use of innovative forms of public procurement.			As stated in the PAA: '*There is more potential to foster innovation, particularly on foot of the new Public Contracts Regulations which open up a wider range of procurement methods. The commitment is therefore to be rolled forward as: "Promote innovation through commissioning and public procurement".*'
	A35	Within the context of the Connected Health and Prosperity Memorandum of Understanding, develop an agreed Strategic Action Plan identifying areas for greater collaboration between the health sector and business, in order to improve patient care and develop economic development opportunities.			
	A36	Examine the need for the establishment of an Innovation Council, to ensure that at the highest level, the Executive, academia and business work together to further embed innovation across the NI economy.			
	A37	Maximise the returns from Health and Social Care R&D funding and examine and exploit opportunities, to increase R&D funding through UK-wide or international funding partnerships or investment.			
	A38	Support Health and Social Care (HSC) innovations, to manage the commercialisation of intellectual property arising from HSC Trusts.			
	A39	Develop and launch a new strategy for Health and Social Care R&D for 2012 – 2017.			
Skills and Employability	B1	Deliver 210,000 qualifications at Levels 2, 3 4 and above (through Higher Education, Further Education, Essential Skills and Training), to encourage people to move up the skills ladder.			
	B2	Increase skills in subject areas important to the NI economy and implement the actions within the STEM (Science, Technology, Engineering and Maths) Strategy contributing towards achievement of the strategic goals set out in the NI Skills Strategy 'Success through Skills – Transforming Futures'.			
	B3	Develop a collaborative action plan, to address the specific skill needs of the ICT sector.			
	B4	Develop an integrated framework that will assist companies and individuals, to identify their key management and leadership development needs and provide effective signposting to relevant support.			

B5	Work with the relevant professional bodies, to identify the key skill issues in relation to sales and marketing, with a focus on developing NI's capacity for export led growth and to develop appropriate actions.			
Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
B6	Introduce a 'Skills Solutions' Service, which will act as a single point of contact for employers, so that they can more easily identify and access the support they need.			
B7	Maintain Higher Education tuition fees for local students studying here at current levels subject only to inflationary uplifts, while providing additional student places in areas of economic relevance.			
B8	Expand Foundation Degrees, to undertake a publicity and promotion campaign for Foundation Degrees, to increase enrolments to 2,500 by 2015, from a baseline of 1,132 in 2010.			
B9	Re-launch the BITP programme, to secure £110m investment in skills from companies.			
B10	Invest £18m per annum in education and training provision in the land-based food and rural sectors: • College of Agriculture, Food & Rural Enterprise (CAFRE) to deliver at least 1,600 people entering employment or working within the agrifood sector achieving a new qualification at Level 2 or above each year; and, • CAFRE Development Service to continue delivering industry training programmes to 10,000 participants on an annual basis.			
B11	Under the Skills Training Element of the NI Rural Development Programme 2007-2013, improve the competitiveness of farm and horticulture businesses in NI through the provision of a range of innovative and focused training and information actions to 3,120 people.			
B12	Simplify the current skills advisory infrastructure, so that employers are able to more effectively articulate their current and future demand for skills. This will include close integration with the MATRIX and wider Foresight programme.			
B13	Conduct research to assess how the demand for skills and labour market capacity will alter in a lower corporation tax environment and consider how skills and employment policy can help realise the full benefits of lower corporation tax.			
B14	Identify the future demand for, and returns from, education, skills and lifelong learning within land-based businesses and the food and rural sectors within NI.			
B15	Raise education standards for all and close the educational attainment gap, so that: • 90%+ of pupils achieve expected levels at Key Stage 2; • 85%+ of pupils achieve expected levels at Key Stage 3; • 70% of school leavers achieve 5+ GCSEs at A*-C including GCSE English and maths; and, • 65% of school leavers with FSME achieve 5+ GCSEs at A*- C, including GCSE English and maths.			The PAA uses data from 2013/14. For 5+ GCSEs at A*- C, it reports that a rate of 63.5% was achieved. For the FSME target (65%), only 34.9% of pupils achieved this. However, the PAA states its targets have been achieved. In addition, the robustness of the data used may be an issue, with a large proportion of primary schools not providing the necessary data to the Department. This is discussed further in Section 4.1, page 58 of the main paper.
B16	Develop new 'Levels of Progression' that will set out the progress pupils should be able to demonstrate if they are to build the literacy, numeracy and ICT skills needed to function effectively in life and in the world of work. • 'Levels of Progression' in 'Communication' and 'Using Maths', to be introduced in 2012/13 school year; and, • 'Levels of Progression' in 'Using ICT', to be introduced in the 2013/14 school year.			Stated as achieved. However, the statutory use of UICT LoPs will not be introduced until 2015/16 at the earliest. Implementation of the new assessment arrangements has been impacted by on-going industrial action. The DfE officials are continuing to work with the teaching unions to address concerns. These arrangements appear to be partially implemented with the introduction of LOPs in Communications and Using Maths. However, the majority of schools are not using LOPs, with many teachers contesting their use. As such, it appears that it is not possible to state that the LOPs have been implemented in the NI schools system.
B17	Reform education administration through the creation of the Education and Skills Authority, with a stronger focus on improving educational outcomes.			
B18	Support the HE and FE sectors, to further develop their economic focus. This will include consideration of the recommendations from MATRIX and from other Foresight studies and activities.			
B19	Maintain investment of £37m in university programmes to deliver skills supporting STEM areas, to enable employment in health and social care and to assure the provision of services for the population.			
B20	Incentivise employment of the long-term unemployed through linking the former Department for Employment and Learning's (DEL) 'Steps to Work' Programme to the Invest NI Jobs			Invest NI ceased funding for new starts on this initiative after March 2014.
B21	Implement the European Social Fund to reduce economic inactivity and increase workforce skills. €414m of which 40% from the EU, 25% by the Department and the remaining 35% by other Government and public bodies.			This is the 2007-2013 ESF programme, which was in operation prior to the writing of the Economic Strategy 2012.

	Number	Action	Achieved as per the Progress Against Actions report	Achieved as per RaISe review of PAA evidence	Comments, as appropriate
	B22	Develop Strategic Employment Strategies for Belfast and Derry/Londonderry, which are aimed at increasing employment and reducing economic inactivity in NI's two main cities.			It should be noted that this Action was originally expected to be developed by March 2013. In addition, it has been achieved through the publication of the Economic Inactivity Strategy, which does not include any specific reference to either city.
	Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
	B23	Work across departments to tackle the increasing issue of those 'Not in Employment, Education or Training' (NEETs). Agree and introduce an Executive strategy for young people who are NEETs by April 2012 and produce a report on implementation by Autumn 2014.			
	B24	Implement the Neighbourhood Renewal Investment Fund to improve the educational attainment levels among school leavers and a greater proportion of adults qualified to level 2 and above, to narrow the gap between the NI average and that in Neighbourhood Renewal areas.			
	B25	Continue to help prepare NI young people for the future world of work, by ensuring that relevant materials and teaching resources have a much greater focus on the NI business and science base.			
	B26	Ensure that pupils have access to high quality careers education, information, advice and guidance, supported by labour market information, the promotion of STEM and other innovation relevant subjects.			
	B27	Develop a European Social Fund 2014-2020 programme, which is aimed at enhancing employability and increasing the overall employment rate, in particular for those groups at a disadvantage in the labour market.			
	B28	As the economy grows, encourage skilled people (including those non-domiciled in NI), to consider NI as a place to live and work.			Actions appear to be targeted at only ICT professionals.
	B29	Promote early resolution of workplace disputes as an alternative to formal litigation through employment tribunals.			
	B30	Ensure our health strategies and actions (including the new Public Health Strategy), contribute to developing and supporting a healthy and productive workforce.			
Business Growth	C1	Promote 6,300 jobs in locally owned companies, with 50% paying salaries above the NI private sector average.			
	C2	Secure £400m investment commitments reflecting growth of local businesses, securing £120m in additional wages & salaries.			
	C3	Introduce extension of Small Business Rate Relief Scheme to 2015.			
	C4	Support the development of the 'One Plan', to promote 4,045 jobs (by ILEX and key partners in the public, community and private sectors).			*"It was not possible to fully achieve the target because of challenging economic circumstances. However, 2,863 jobs promoted in the Derry City Council area."*
	C5	Promote 6,500 jobs through Business Start, which includes a new Business Start Programme (BSP), which focuses on identifying new entrepreneurs with local business start ideas and facilitating business plans.			
	C6	Develop, in partnership with councils, enterprise-led initiatives targeted toward increasing the capability of a wide business base, in terms of marketing, management, skills, networking, product development and other key capabilities.			
	C7	Enable 300 SMEs to access funding through Invest NI's Access to Finance Strategy. This includes equity through the NISPO, Co-investment and Development funds and debt through the £50m Growth Loan Fund. Also have Invest NI investigate the need for a further small loan fund aimed at micro enterprises as well as SMEs.			
	C8	Secure the maximum financial and non-financial support available for growing the NI economy by engaging effectively with the European Union to maximise the level/range of EU funding accessed. Facilitate delivery of the Executive's 20% target for increased drawdown of competitive EU funds.			
	C9	Develop a European Regional Development Fund (ERDF) 2014-2020 programme, to include actions supporting R&D and innovation, business competitiveness and growth, climate change and environment, telecommunications, energy and transport infrastructure.			
	C10	Introduce a new Social Entrepreneurship Programme to support 160 Social Economy start ups, with 25% having capability to move to mainstream Invest NI support.			
	C11	Develop the Executive's Social Economy Action Plan – as part of the wider Enterprise Strategy – to support the development and sustainability of the social economy sector.			

C12	Invest in Social Enterprise growth, to increase sustainability in the voluntary and community sector: • Develop a policy framework for Community Asset Transfer and implement across Government to provide an asset base for social enterprise growth. • Provide opportunities to support social enterprise growth.			
Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
C13	Have MATRIX conduct an analysis of major future Sustainable Energy Market Opportunities and bring forward recommendations. Deliver a programme of activities, to promote the uptake of resource efficient technologies in local business. Deliver a programme of activities and support, to promote the growth of indigenous businesses in wind, marine and bioenergy supply chains. Stimulate and attract inward investment related to renewable energy, by promoting NI as a European hub in the			The PAA states that this action was achieved. The Report was completed in 2013. However, there is no evidence provided in the PAA, or found by RaISe, that any of the other actions have been undertaken. This may just be a technical issue caused by the PAAs reporting methods.
C14	Deliver an integrated programme of measures, to support the development of the land-based renewable energy sector encompassing: • Completion of a suite of R&D programmes and projects; Delivery of a programme of knowledge and technology transfer to the agri-food and rural sectors; • Support for supply chain development; and, • Completion of a capital grant investment programme aimed at developing farm and forestry renewable energy from bio-mass.			
C15	Diversify non-agricultural activities targeting 600 beneficiaries.			
C16	Support for Business Creation and Development by supporting 1,200 microenterprises, of which 20% should be new.			The economic downturn was cited as to why the target was not met. It should be noted that the target was revised to 450 microenterprises and extended to 2015/16. The revised target was not met.
C17	Encourage tourism activities by supporting 300 tourist actions.			
C18	Support agricultural business development through participation in the Benchmarking Programme – targeting 1,800 benchmarks and development plans on an annual basis.			
C19	Progress the development of the 2014-2020 Rural Development Programme, aiming to have a new Programme developed, agreed with the EU Commission and in place for 2014.			Initial target date missed.
C20	Provide financial and other support across government to maximise the opportunities presented by ni2012 'Our Time Our Place' initiative. ni2012 will deliver a number of world class events to provide the shop window including: • Centenary of Titanic's Maiden Voyage; • Arrival of Clipper Round he World Yacht Race to Derry/Londonderry; • Opening of Giant's Causeway Visitor Experience; • 50th Belfast Festival at Queen's; and • The opening of the Crumlin Road Gaol visitor and conference centre.			
C21	Host the World Police and Fire Games (WPFG) 2013, to attract 10,000 competitors and 15,000 visitors from outside NI; 180,000 bed nights over the 10 days of the 2013 WPFG.			
C22	Provide financial and other support across government, to maximise the tourism opportunities presented by Derry/Londonderry being City of Culture 2013, including: • Develop a creative industries hub at Ebrington; • Support to double visitor numbers to the City and visitor spend in 2013/14; and, • Host a significant international event by 2015, as a legacy of the City of Culture.			Whilst a Creative Hub was developed at Ebrington, the target for doubling visitor numbers and expenditure to Derry/Londonderry was not met. DE data shows that visitor numbers for 2013 increased by 54% from 2012, and fell by 10% between 2013 and 2014. Expenditure did increase significantly by 75% between 2012 and 2013, but fell by 16% the following year. It should be noted that this data is for the new District Council area of Derry and Strabane.
C23	Successfully host the 2012 Irish Open.			
C24	Support the skills needs of the tourism and hospitality sector by designating it as a priority area and providing £255,000, to assist 1500 staff in hospitality and tourism achieve the Level 2 World Host qualification.			
C25	Legislate to reorganise local government, including the transfer of planning powers to councils.			
C26	Publish a single, strategic planning policy document, which clearly will address how economic considerations should be taken into account within the planning system, along with social and environmental considerations.			The final draft of the Strategic Planning Policy Statement was completed in March 2015. The DoE Minister intends to publish the SPPS in final form as soon as possible following Executive committee consideration.

	C27	Deliver faster and more predictable processing of planning applications, including ensuring 90% of large scale investment planning decisions are made within 6 months, and applications with job creation potential are given additional weight.			There has been a sustained improvement in performance over the PfG target period (2011-2015) in terms of progressive increases in the percentage of planning applications being concluded within the target period. However this trend was interrupted during the latter part of the last financial year with extensive preparations required for the transfer of planning functions to local government on 1 April 2015. This major restructuring impacted negatively on performance in the latter half of the year.
	Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
	C28	Establish a Regulatory Reform Group, to develop a Simplification & Rationalisation Programme for regulations on the NI statute book.			As stated by the PAA: *This action has been overtaken by a wider and more in-depth Review of Business Red Tape – announced in December 2013 and report produced for DETI Minister in November 2014. Senior level inter-departmental group is currently considering the recommendations of the Report with a view of producing a proposed regulatory reform agenda for NI for consideration by the NI Executive.*
	C29	Review the Regulatory Impact Assessment and put in place new guidance for policy-makers, to support them in making better regulation.			
	C30	Develop proposals for primary legislation, to improve environmental regulation and reduce the regulatory burden on businesses.			
	C31	Implement the DARD Better Regulation Action Plan, to reduce the administrative burden placed on agri-food industry.			Whilst the action plan has been implemented, therefore meeting the action, it should be noted that only a 10.4% reduction was achieved against the 25% target set
	C32	Carry out research to establish the difficulties faced by SMEs in discharging their employment rights/relations responsibilities and determine what cost-effective support measures can be put in place to address identified challenges.			
	C33	Undertake a review of NI employment law, consistent with Better Regulation Principles, with the aim of ensuring an effective employment law framework, which will stimulate business confidence, while maintaining the rights of individual employees.			
	C34	Continue to support local businesses, to develop linkages with globally competitive companies and research organisations, taking account of the MATRIX market and technology priority area.			
	C35	Further develop the Venture Capital (VC) market in NI, by developing ways of increasing the level of investments from externally based VC companies into NI companies.			The level of co-investment by NI funds with externally based funds is still low.
	C36	Develop a 2014-2020 Rural Development Programme (co-financed from the EU), which supports economic growth in NI through measures addressing innovation, knowledge transfer, improved competitiveness and job creation in rural areas.			Work is continuing on the necessary business cases and the design of schemes so that schemes can open once the EU and business case approvals are in place.
	C37	Support the tourism sector, focusing investment on strategically significant areas, including developing the capability of the industry and the quality of the visitor experience and delivering sustained marketing programmes to priority customers, with a view to delivering £1bn in visitor revenue and 4.5m visitors by 2020.			
Competing Globally	D1	Successfully conclude on the negotiations with the UK Government to secure the power to vary the rate of corporation tax in a timely and affordable manner.			
	D2	Ensure the best possible outcome for NI Regional Aid cover / ceilings post 2013 – working in conjunction with the Whitehall Department of Business, Innovation and Skills.			
	D3	Establish an Agri-food Strategy Board, to develop an Agri-food strategy and action plan, to drive export-led growth in the sector to 2020.			
	D4	Promote 5,900 jobs from inward investors of which 75% will pay salaries above NI Private Sector Median (PSM).			
	D5	Secure total investment of £375m by establishing and growing externally owned companies.			
	D6	Secure £145m in additional wages and salaries.			
	D7	Allocate £3m per annum for the Assured Skills programme, to help attract and embed FDI and meet the needs of indigenous companies creating new employment.			
	D8	Agree with the UK Government on the proposals to devolve the powers to set Air Passenger Duty (APD) for flights departing from NI airports and seek to eliminate APD on direct long haul flights.			
	D9	Promote 60 start ups selling outside UK markets.			

	D10	Introduce a new Export Start Programme (achieving 440 Export Starts selling to Great Britain) and focus on identifying and supporting entrepreneurs with business start ideas capable of trading in external market.			
	D11	Engage with the UK Future of Manufacturing Study, and, through MATRIX, conduct a NI-specific analysis of future opportunities and requirements.			Whilst a report on the Future of Manufacturing had been completed, the foresight study had only commenced by the time of publication. As such, the action is only partially met. However, it may, of course, have been completed since then.
	D12	Provide 7,200 trade interventions of which 20% will be Stage 1 exporters (i.e. exports with less than 25% of sales outside the UK).			
	Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
	D13	Increase the value of manufacturing exports to emerging economies by 60%.			No reason cited. Exports to the emerging economies grew 15.7% on the baseline year (2010/11) from £231m to £267m. This is significantly below the target.
	D14	Stimulate trade and innovation on a North/South basis by promoting 150 first-time exporters and 500 jobs created or sustained.			The PAA states that this Action has been achieved. However, the progress column states that: *Substantial progress has been made in 2015 to date with a further 14 first time exporters being reported and a jobs impact of 378.* This refers only to 2015. It is not known what has occurred in previous years, including the number of exporters prior to this and the number of jobs created or sustained. As such, it is not possible for RaISe to state categorically, based on the available evidence, that the target has been met.
	D15	Further hone the focus of the NI FDI effort to target investment aligned to global market opportunities and NI research strengths, as identified by MATRIX and NI's on-going foresight work.			
	D16	Improve NI support to assist local companies to compete internationally by forging strategic partnerships / relationships with specified regions in fast growing emerging economies, where there are alignments with NI research and skills capabilities and global market opportunities.			Contact made with Turkey and Dubai. No quantitative data proved in the PAA regarding impact. As such, whilst the action has been met, the outcome of it has not been clarified.
	D17	Work in collaboration with partners (local government and business organisations), to develop and deliver a full range of support, and remove unnecessary duplication, for companies throughout the export lifecycle, covering those who are already competing in international markets, to those considering exporting for the first-time.			
	D18	Support the development of local export-focused clusters, targeting niche global markets, based on priorities identified by MATRIX.			
Economic Infrastructure	E1	Invest through the Regional Transportation Strategy over £500m in a programme of measures, to secure more sustainable modes of travel, in order to achieve an annual average of 77m passenger journeys by public transport, including: By 31 March 2014 increase park and ride provision for traffic entering the Belfast Metropolitan Area by 55% over 2010 levels; Increase dedicated bus lanes by 22% over 2010 levels; By 2012 initiate a series of Active Travel demonstration projects; and, By 2013 provide 126 public charge posts for electric vehicles.			
	E2	Progress the upgrade of key road projects and improve the overall road network to ensure that, by March 2015, journey times on key transport corridors are reduced by 2.5%.			The 2013 Journey Time Survey reported an increase in journey times over the 2003 baseline. A final survey was undertaken in November 2014 to establish the final journey times position in advance of the March 2015 deadline. The results of this survey reported an overall increase in journey times of just over 3% over the 2003 baseline.
	E3	Substantially complete phase 2 of the upgrade to the Coleraine to Derry/Londonderry railway line.			
	E4	Maintain the road infrastructure to keep it safe, effective and reliable through sustainable maintenance regimes and the timely repair of road defects.			Capital funded Structural Maintenance targets met in respect of resurfacing of roads and footways and surface dressing. Resource funded Structural Maintenance targets not met due to insufficient funding.
	E5	Ensure 65% of the motorway and trunk road network is in satisfactory structural condition.			

E6	Maintain a high quality of drinking water and improve compliance with waste water standards by investing over £600m in water and sewerage infrastructure to: Ensure the standard of drinking water quality is maintained at 99.7% Mean Zonal Compliance, in line with Water Quality Regulations (NI) 2007; and, Ensure that the percentage of the population equivalent served by waste water treatment works with a population equivalent greater than 250 achieving compliance with the Water (NI) Order 1999 consents maintained at an acceptable level.			All targets achieved.
E7	Improve NI's infrastructure to reduce leakage, cut unsatisfactory sewerage discharges, lower energy consumption and allow for future growth, by focusing leakage detection and reduction with the aim of achieving and maintaining the level of leakage reported in ML/day.			
Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
E8	Deliver the 2011-15 objectives within the Strategic Energy Framework (SEF) 2010, aimed at: Encouraging achievement of 20% of electricity consumption from renewable sources and 4% from renewable heat by 2015; Building competitive energy markets, e.g., promoting the longer-term integration of the Single Electricity Market within a British Isles and European wholesale electricity market; Ensuring security of supply, e.g., supporting the development of a range of renewable technologies, to ensure the most cost-effective and reliable mix of generation, which maximises NI's sustainable energy resources; and, Enhancing sustainability and development of our energy infrastructure, e.g., ensuring that support mechanisms for renewable electricity are tailored and appropriate to NI's needs, within the context of the wider wholesale electricity market.			
E9	Ensure that all premises in NI have access to broadband services of at least 2 megabits per second (mbps).			
E10	Increase 3G mobile coverage and optimise mobile networks for delivery of superfast mobile broadband services (4G).			The Mobile Infrastructure Project (MIP) being led by DCMS, is currently being rolled out across Northern Ireland with the potential deployment of up to 70 new mast sites. While primarily targeted towards 2G technology it is expected that operators will take the opportunity to "future proof" their infrastructure to further support 3G and 4G services. This does not necessarily mean they will, however.
E11	Increase access to high-speed telecoms services by delivering 200 additional multifunctional fibre access points.			
E12	Complete the tourism signature projects and continue to invest in relevant tourism products: Opening of Titanic Belfast; Opening of Giant's Causeway Visitor Experience; Walled City Built Heritage Programme; and, Mourne Mountain Bike Project.			
E13	Improve the quality of NI tourism offered through the delivery of the Tourism Development Scheme.			
E14	Develop a holistic approach to urban planning, which fosters vitality, viability and excellence in urban design, making our towns and cities better places to live, work and invest by: Having locally-agreed and up to date Masterplans for each city and large and medium sized town in NI; Creating Comprehensive Development (CD) opportunities and bringing at least 18 CD opportunities to the market for consideration by March 2015; Investing in the public realm of NI's towns and cities to deliver 45 Public Realm schemes by March 2015; Levering in an average of £3 of private investment for every £1 of public expenditure in Urban Development Grant scheme; and, Bringing forward legislation to support the creation of Business Improvement Districts, to have primary legislation in place by 2012.			PAA states yes, but only reports on three of the sub-actions.
E15	Legislate to reform and modernise the planning system so that it supports the future economic development needs of NI. This will result in faster decisions on planning applications, faster and fairer appeals, stronger and simpler enforcement and a new duty to further sustainable development and well-being.			

	E16	Devolve to councils, responsibility for creating spatial Local Development Plans for managing most development within their areas and for enforcing planning decisions.			
	E17	Increase certainty for investors in the marine area by legislating to provide for a marine spatial plan and further streamlining of certain energy licenses.			
	E18	Provide new opportunities for sustainable economic development in NI's most scenic areas by legislating for the designation of National Parks.			National Park legislation not taken forward, no reason cited.
	E19	Maintain and improve the Health Estate infrastructure, in line with the Investment Strategy for NI.			
	E20	Develop regional Sports Stadiums, as agreed with the IFA, GAA and Ulster Rugby.			Ongoing issues with Casement Park project. However, the other projects are either complete or well on their way to being complete.
	E21	Prepare and adopt a marine spatial plan for NI waters, which will promote more efficient use of marine resources and provide greater certainty of outcomes for investors.			Consultation still to take place (October 2016)
	E22	Invest to improve the transport infrastructure and do so in a smarter and more sustainable way.			
	Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
	E23	Overhaul NI's energy infrastructure to ensure it will be 'fit for purpose' through to 2050 by: Encouraging long-term investment in the electricity grid; Exploring prospects for further development of the natural gas network; Encouraging proposals aimed at increasing the security of NI's energy supply; and, Underscoring NI's commitment to further integration of EU gas and electricity markets.			
	E24	Continue to make targeted interventions in telecommunications infrastructure, to ensure that NI keeps ahead of its competitors.			
	E25	Continue to explore options for further investment in NI tourist / cultural amenities, including a fully integrated conference and exhibition facility, development of a new links Golf Course, upgrading our museums and cultural assets and creating efficient visitor friendly gateways.			
	E26	Invest £55m in HE infrastructure and £8m in FE infrastructure, to ensure the provision of modern, 'fit for purpose', teaching and research facilities.			
Rebuilding	F1	Secure total investment of £225m through the Jobs Fund.			
	F2	Provide Employment Grant support to promote 4,030 additional new jobs across a range of business sectors by March 2015, with 1,730 new jobs to be created by March 2014 and 150 new jobs to be created through a new 'Business Growth Programme'.			
	F3	Provide a Business Start Grant leading to the creation of 1,500 jobs for residents of Neighbourhood Renewal Areas (NRA) and 280 jobs for young people NEETs who have completed an Invest NI approved business plan.			Please note, in the PAA this Action is stated as having been achieved up to 2014. Between the 1st April 2011 and 31st March 2014, Invest NI created 776 new jobs through its jobs fund support targeted at Neighbourhood Renewal Areas (NRA) and 363 jobs for young people Not in Education, Employment or Training (NEETs).
	F4	Create 340 new jobs through a range of measures aimed at strengthening the Social Economy sector, including development and implementation of a new 'Social Economy Franchising Programme'.			
	F5	Help the Construction sector by delivering approximately 8,000 social and affordable homes over the budget period.			
	F6	Help the Construction sector by delivering key road and rail projects, including phase 2 of the upgrade to the Coleraine to Derry/Londonderry railway line, and investing to maintain NI roads infrastructure.			
	F7	Help the Construction sector by substantially completing the construction of the new Police, Prison and Fire Service Training College, utilising at least 70% of the programme capital budget by 2015.			
	F8	Move 114,000 working age benefit clients into employment by March 2015.			
	F9	Stimulate 1,150 new employment opportunities in rural areas under the Rural Development Fund by 2015.			At the end of March 2015, a total of 773 new employment opportunities had been stimulated in rural areas. While the target has not been achieved by March 2015, it is expected to be met by December 2015 once all projects have been completed and results are validated.
	F10	Under the 'Steps to Work' programme, offer a period of supported self-employment for those who have an interest in running their own business.			
	F11	Take an Area-Based Approach by replicating examples of good practice within the Social Economy sector, in areas where the sector is not working as effectively, in line with Social Investment Fund priorities.			

F12	Within a wider strategy which encourages young people to enter employment, education and training, address the issue of youth unemployment by delivering 6,000 work experience and training opportunities by 2015.			
F13	Explore options to further address graduate unemployment, with a particular focus on ensuring that NI actions in this area will assist with the rebalancing of the economy.			
F14	Ensure job opportunities in emerging growth sectors are supported by the new work programme and training provision available to the unemployed. This is the next generation of the 'Steps to Work' programme. It is currently under development and will be the main adult 'back to work' programme funded by the Department.			
F15	Develop and implement a Strategy to reduce economic inactivity through skills, training, incentives and job creation.			Whilst the strategy has been written, it has only been partially implemented as a result of a lack of funding.
Number	**Action**	**Achieved as per the Progress Against Actions report**	**Achieved as per RaISe review of PAA evidence**	**Comments, as appropriate**
F16	Through Neighbourhood Renewal and Community Development, improve the employment opportunities of those people living in the most deprived neighbourhoods, by helping them secure the skills they need to participate in the labour market. This includes helping people with poor basic literacy and numeracy skills, and helping overcome any barriers to work, such as a lack of affordable childcare.			
F17	Publish and implement a Childcare Strategy, with key actions to provide integrated and affordable childcare.			Work to develop the full Childcare Strategy is underway. This is being taken forward on a co-design basis with the main childcare stakeholders.
F18	Provide £40m to address dereliction and promote investment in the physical regeneration of deprived areas through the Social Investment Fund (SIF).			To date commitments of £26.9 million have been made to projects address dereliction and promote investment in the physical regeneration of deprived areas through SIF.
F19	Invest £40m to improve pathways to employment, tackle systemic issues linked to deprivation and increase community services through the Social Investment Fund.			To date commitments of £26.6 million have been made to projects to improve pathways to employment, tackle systemic issues linked to deprivation and increase community services through SIF.
F20	Develop and implement a Financial Capability Strategy for consumers.			
F21	Publish for consultation a Public Health Strategy in 2012, recognising the interrelationship between improved health and well-being and economic development.			
F22	Maximise the social benefits of investment through the inclusion of social clauses in all public procurement contracts for supplies, services and construction.			