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The Economic Implications of BREXIT for Northern Ireland

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THE ECONOMIC IMPLICATIONS OF BREXIT FOR NORTHERN IRELAND

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ABSTRACT

The government of the United Kingdom has decided to hold a referendum on membership of the European Union on the 23rd of June 2016. While Northern Ireland constitutes just under 3 per cent of the total UK population, it is likely to be the region most affected by a UK exit from the EU. Northern Ireland is the most peripheral region of the United Kingdom both geographically and politically and it is also the only region to share a land border with the EU. There is no way of predicting exactly what relationship the UK will have with the EU after a BREXIT and thus longer term impacts are difficult to forecast. However, the mechanisms by which BREXIT could affect Northern Ireland can be assessed by examining the areas of the economy that would be most vulnerable to a disruption in EU trade and supplementary issues such as EU funding, foreign direct investment and cross-border cooperation.

Northern Ireland goods trade with the European Union is focused heavily in the Agri-food, Textiles, Transportation and other smaller manufacturing sectors. Manufacturing employment in Northern Ireland is skewed towards sectors that have greater trade with the EU and are therefore more vulnerable to disruption from BREXIT. Service exports are concentrated within the Wholesale and Retail sector and are skewed toward the Republic of Ireland. The Wholesale and Retail sector is Northern Ireland's largest employer and along with the tourism sector it could see the largest labour market impact.

Leaving the EU may put a further strain on Northern Ireland's public finances through a loss of CAP and structural funds, but a variety of outcomes are possible in this regard. The attractiveness of Northern Ireland as a destination for Foreign Direct Investment and the sustainability of the All-Island economy also pose unique challenges for Northern Ireland in the event of a BREXIT.

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THE ECONOMIC IMPLICATIONS OF BREXIT FOR NORTHERN IRELAND

Paul Mac Flynn: Nevin Economic Research Institute Belfast

1. INTRODUCTION

In early 2013 the UK Prime Minister David Cameron, outlined his plans to put the issue of the United Kingdom's membership of the European Union to a national referendum, if the Conservative Party won an outright majority in the 2015 general election. Following that Conservative victory, David Cameron announced his intention to hold a referendum on the 23rd of June 2016. The origins of this referendum reach back to the signing of the Maastricht Treaty in 1992 which began a growing disenchantment among Conservative politicians about the future direction of the European Union. A hardening of that attitude and the subsequent rise of parties such as the UK independence Party have forced the issue to national prominence.

Somewhat uniquely among European countries, the UK does not have a long or varied history of referendums. In the 2010-2015 Parliament there was a referendum on the voting system for the House of Commons, but that remains the only UK wide referendum to take place since the 1975 referendum on the UK's membership of what was then the European Economic Community. While many seek to draw parallels between the current situation and the 1975 referendum, it is more likely that debate will resemble the most recent plebiscite to take place within the United Kingdom, that on Scottish independence.

In the 2014 Scottish referendum the debate quickly narrowed to economic issues and specifically how could an independent Scotland survive outside of the UK. The circumstances are of course different this time; the EU is a Customs Union with enhanced economic and political cooperation, while the UK is a unitary state with regionally devolved administrations. The common thread running through both debates is firstly what would the economic impact of secession be and secondly to what extent any future arrangement would be better or worse than the status quo?

The latter of these questions is the hardest to deal with. Her Majesty's Treasury (2016) have released their analysis which assumes three post-BREXIT scenarios in which the UK forms a trading relationship through the European Economic Area; a bilateral agreement or through World Trade Organisation. They find that GDP by 2030 could be 3.8, 6.2 or 7.5 per cent lower in each of those scenarios respectively. Interestingly the modelling exercise undertaken by HMT attaches importance to trade patterns with countries based on issues such as a common language and whether that country was a former colony. A recent ESRI (2015) report identified

six possible scenarios for the UK outside the EU. They model the impact on the Republic of Ireland estimating that for every 1 per cent reduction in UK GDP, GNP in the republic of Ireland would fall by 0.3 per cent. An Oxford Economics report (2016) identified nine scenarios for a post BREXIT trade and economic settlement. For the UK they find that Gross Value Added could be between 0.1 per cent and 3.8 per cent lower than the non-BREXIT baseline scenario by 2030. For Northern Ireland they find that in eight out of the nine scenarios NI fares worse than the UK as a whole. Reductions in GVA for Northern Ireland range from 0.1 per cent to 5.6 per cent lower by 2030.

Each of these reports posits multiple post-BREXIT scenarios because none can in truth accurately predict what trading relationship the UK will have with the EU or the wider world. The more interesting aspect of the Oxford Economic report was the difference between possible outcomes for Northern Ireland and the UK under each of the different scenarios. This highlights the central question in this paper, how and why will the impact of BREXIT differ in Northern Ireland? It will reflect the scoping exercise carried out in the ESRI report in order to provide a better understanding of the outcomes of the Oxford Economics report.

In order to examine what the impact of BREXIT might be, this paper will look at the patterns of trade for Northern Ireland and the sectors of the economy involved. It will seek to examine the impact of trade disruption on the Northern Ireland labour market within sectors and industries most affected. It will also analyse issues such as Foreign Direct Investment, EU funding and the All-Island economy.

It is important to note from the outset that the analysis presented here details the mechanisms by which BREXIT may affect the Northern Ireland economy. Previous studies have outlined a number of different post-BREXIT scenarios and it is up to the reader to decide which of those scenarios is most likely. It is also up to the reader to decide whether the divergence in outcomes between Northern Ireland and the UK as a whole are warranted based on analysis presented here of their differing interaction with the EU.

2. BREXIT AND NORTHERN IRELAND TRADE

The existing dataset for Northern Ireland's trade is somewhat incomplete. For tradeable goods there are reliable statistics from Her Majesty's Revenue and Customs. The figures on service exports are less conclusive. The new Broad Economy Sales and Exports Survey (NISRA, 2015) estimates that total exports (goods and services) from Northern Ireland in 2014 were £9.7bn¹. Of this, 60 per cent is accounted for by goods and services in the Manufacturing sector. Overall

¹ Northern Ireland Exports are sales from Northern Ireland to countries outside the UK. Sales to the UK are categorised as 'external sales'

56 per cent of goods and services exports go to the EU and two thirds of all EU exports are bound for the Republic of Ireland. Table 1.1 shows the broad outline of industries by exports and their destination; however figures for the EU and the rest of the world are patchy in areas.

Table 1 Northern Ireland Exports by Industry and Destination 2015 (£ m)

Industry	Exports	ROI	REU*	ROW**
Agriculture	25	6	-	-
Mining and quarrying	36	32	-	-
Manufacturing	6020	1,414	1,498	3,107
Electricity & Gas	41	35	-	-
Water & Sewerage	140	12	74	54
Construction	324	273	38	13
Wholesale & Retail	1,982	1,307	307	368
Transportation & Storage	290	179	93	17
Accommodation & Food	17	12	-	-
Information & Comm	385	89	3	272
Real Estate Activities	17	14	3	1
Professional & Scientific	220	93	60	66
Administrative	228	113	51	64
Other	37	18	14	6
Total	9761	3,559	2,174	3,988

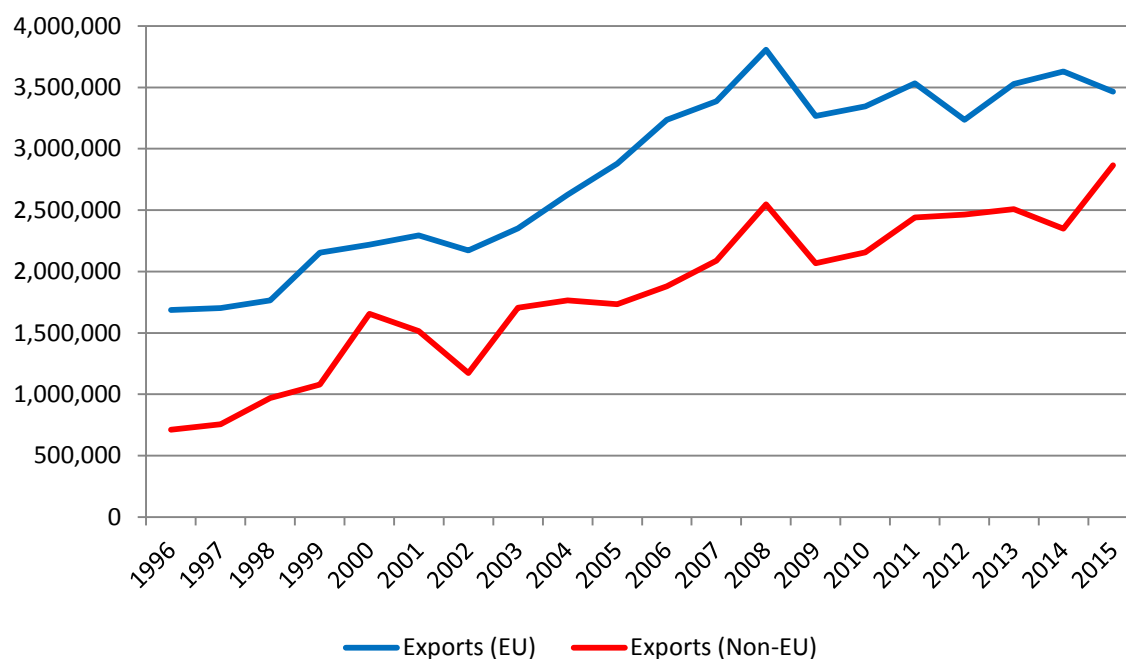
Source: Broad Economy Sales Exports Survey (NISRA)

Note: *REU = European Union excluding UK & ROI **ROW = Rest of World excluding EU

2.1 Goods

Data on goods exports from HMRC give a breakdown of goods exports based on Standard Industrial Trade by Classification. The latest figures for 2015 show the breakdown of goods exports by EU and non-EU destination over the last 19 years.

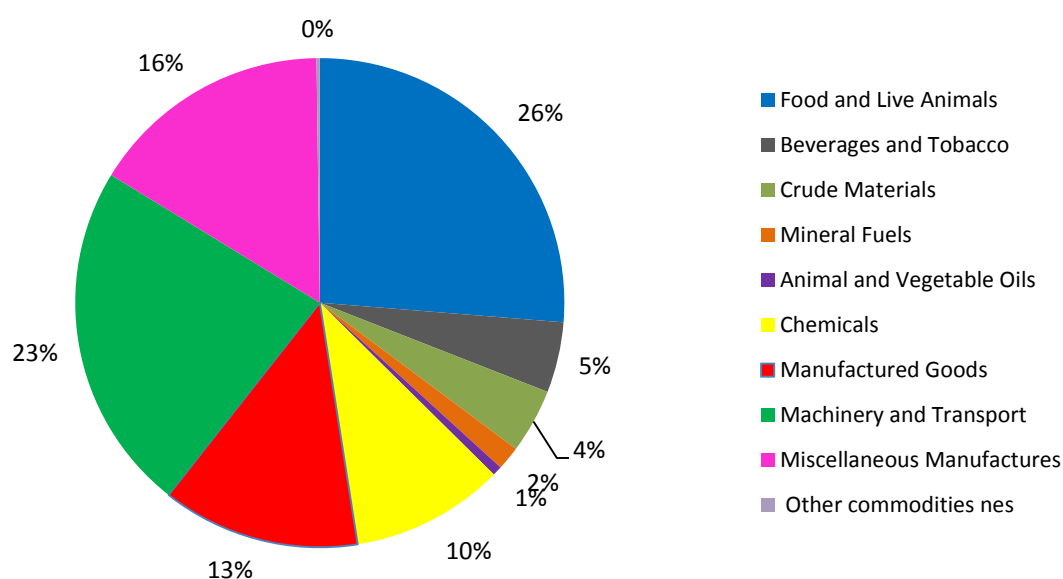
Figure 1 Northern Ireland Goods Exports Destination 2015 (£m)



Source: Regional Trade Statistics (HMRC)

Trade was steadily increasing in nominal terms for both measures until 2009 when it contracted sharply. Since then there has been a limited pickup with EU trade faring marginally better than non-EU trade in the last two years. In 2015 EU goods exports amounted to £3.5bn versus £2.8bn for non-EU.

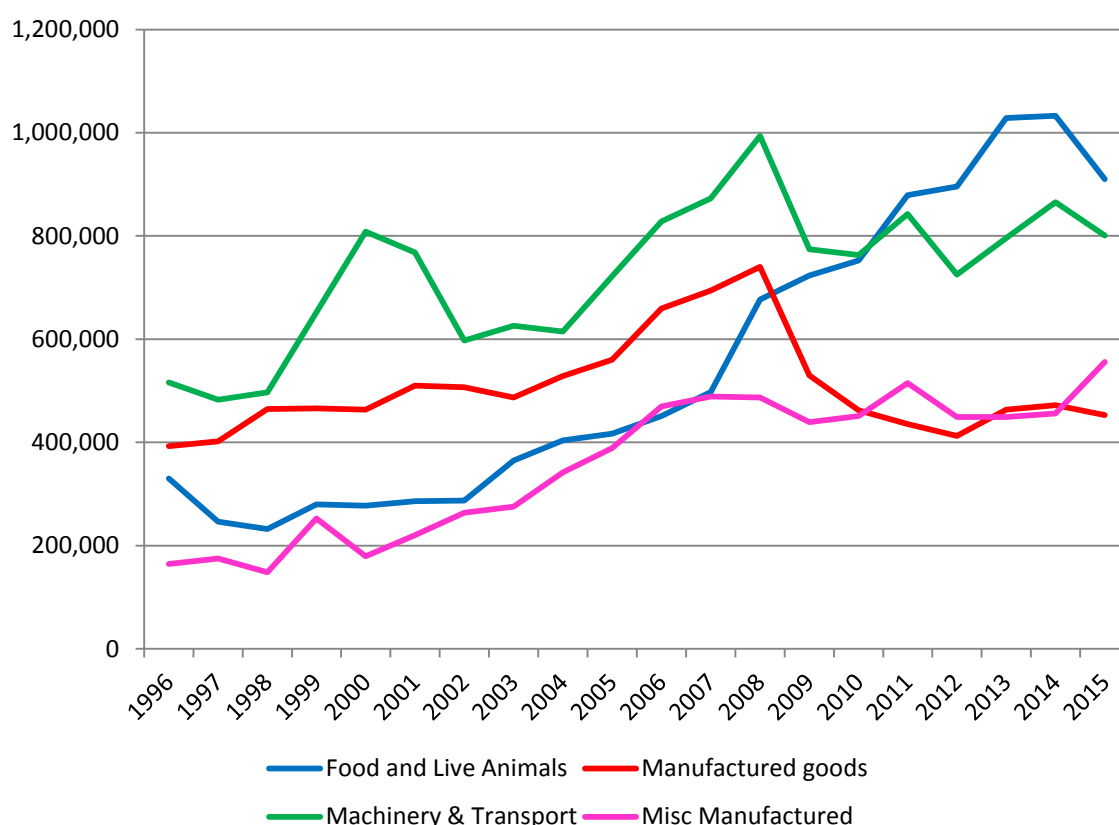
Figure 2 Northern Ireland EU Goods Exports by Industry 2015



Source: Regional Trade Statistics (HMRC)

Figure 2 shows the breakdown of EU goods exports by SITC classification with Food and Live Animals accounting for just over 26 per cent of all exports. Machinery and Transport Equipment accounted for 23 per cent while Manufactured Goods and Miscellaneous Manufacturing accounted for 16 per cent each. The latter two sectors account for broad swathes of manufacturing including textiles, metals and furniture, pre-fabricated buildings, plumbing, household fixtures and even watches. Chemicals accounted for 10 per cent of trade and this sector also includes pharmaceuticals.

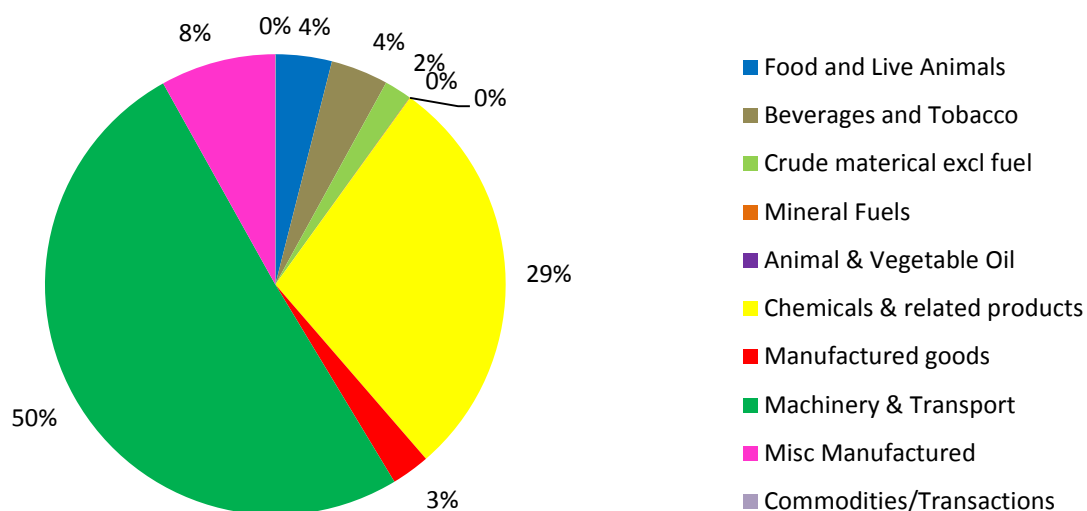
Figure 3 Northern Ireland Prominent EU Goods Exports 1996-2015 (£m)



Source: Regional Trade Statistics (HMRC)

Figure 3 shows the recent trends in Northern Ireland's top EU exporting industries since 1996. Growth in the Food sector has been particularly impressive, increasing in nominal terms despite the onset of recession in 2008. Transport and machinery has also grown strongly while manufactured goods such as textiles, metals and wood products have slumped significantly since the 2008 crash.

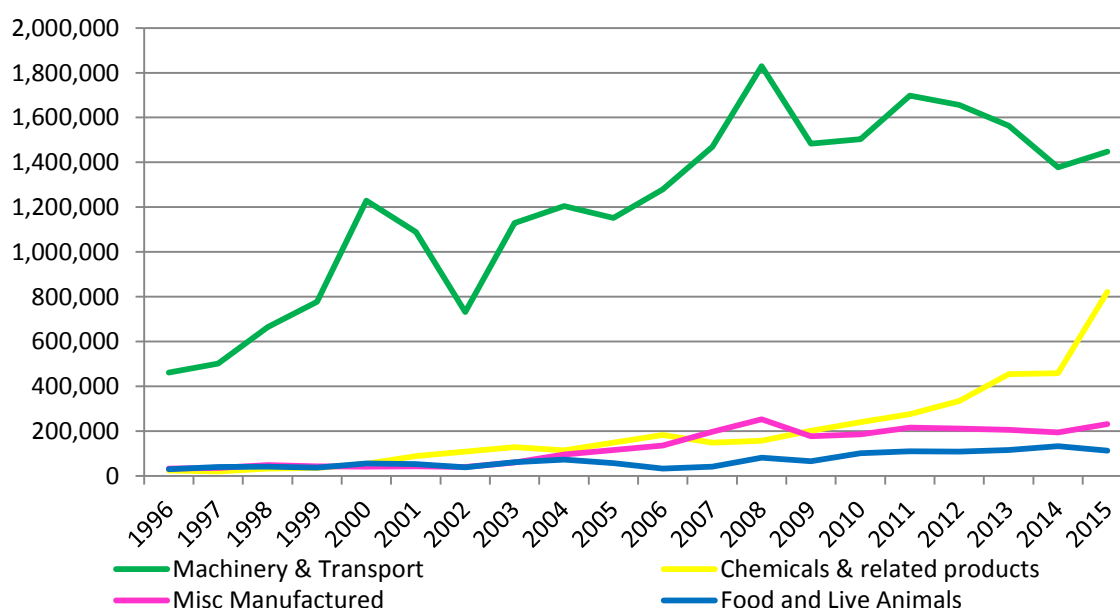
Figure 4 Northern Ireland non-EU Goods Exports 2015



Source: Regional Trade Statistics (HMRC)

Turning to the £2.8bn of non-EU goods exports, Figure 4 shows the mixture of goods is more heavily skewed towards Machinery and Transport which accounted for £1.5bn of non-EU exports in 2015 compared to £865m for EU exports. There was a significant spike in non-EU exports of Chemicals and Pharmaceuticals in 2015, jumping to £822m from £460m in 2014, much larger than the £350m of EU trade in 2015. As Figure 5 shows, since 1996 the trade in Machinery and Transport has accounted for nearly all the increase in non-EU exports.

Figure 5 Northern Ireland Prominent non-EU Goods Exports 1996-2015 (£m)

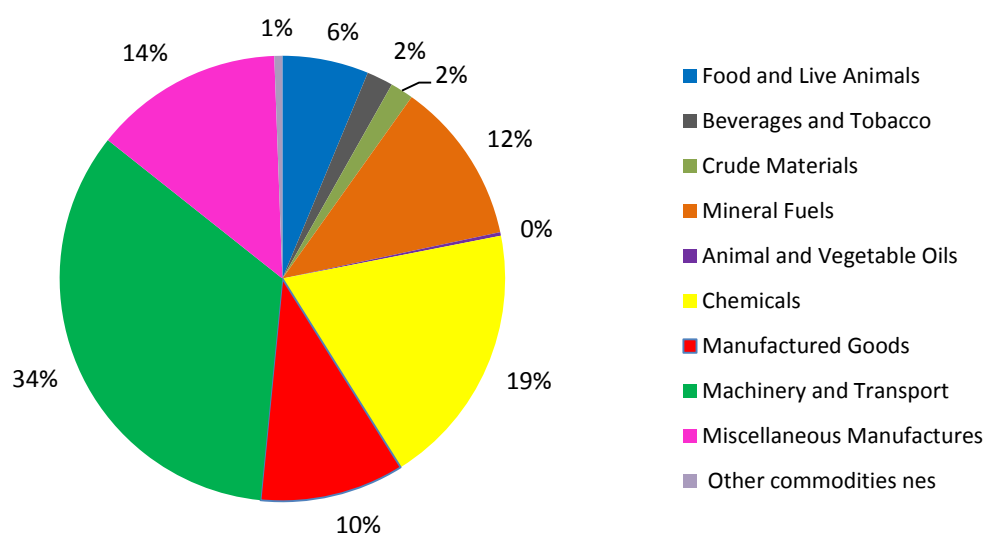


Source: Regional Trade Statistics (HMRC)

Looking at goods exports it is quite clear that EU trade has consistently outstripped non-EU trade and the gap between the two has remained static for almost 20 years. The Food and Agriculture sectors and the broader mineral manufacturing sector look to be most vulnerable to disruption to trade with the EU. Leaving the EU would raise the issue of tariffs and quotas that the EU applies to goods from outside the Union but also the issue of standards. This is particularly important for the food sector and indeed has been one of the major concerns raised by objectors to the Transatlantic Trade and Investment Partnership (Felbermayr & Larch, 2013). Outside the EU, the UK would no longer be subject to the food standards that apply in the single market governing the production of food and the use of pesticides or genetically modified crops. If the UK were to drop these standards in order to increase trade with the US this might have adverse consequences for Northern Ireland agri-food trade particularly with the Republic of Ireland.

While Machinery and Transport have sustained much of non-EU trade over the last 20 years, this industry would be significantly impacted by a reduction in EU trade as well. Agri-food and mineral-based manufacturing make up a much smaller proportion of non-EU trade and it is unclear if these industries could expand their markets to make up for lost EU trade.

Figure 6 Great Britain EU Goods Exports 2015



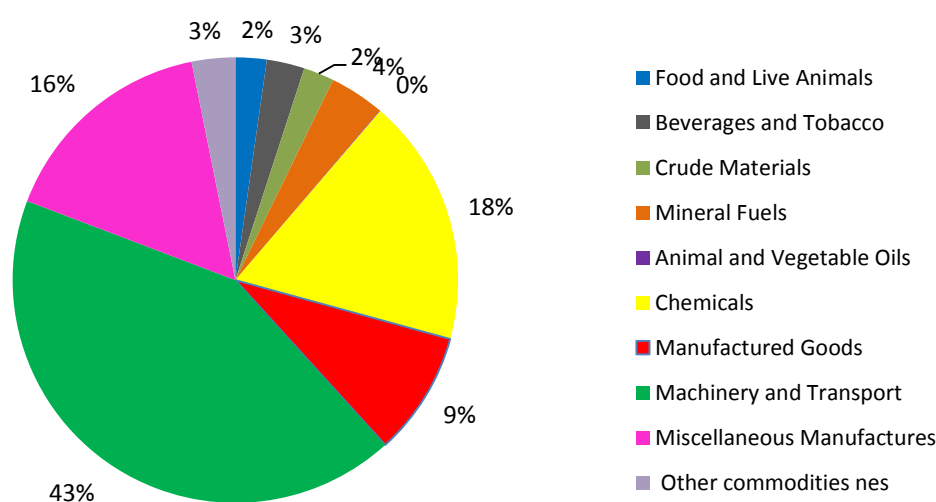
Source: Regional Trade Statistics (HMRC)

When comparing Northern Ireland's goods trade to the rest of the United Kingdom some interesting differences arise. Looking at EU exports, while Food, Beverages and Agricultural products make 35 per cent of NI's total, the equivalent for the rest of the UK is only 10 per cent. Exports of pharmaceuticals account for almost 20 per cent of EU trade in Great Britain, double

the equivalent figure for Northern Ireland. As the UK is the largest producer of oil and gas within the EU (ONS, 2015) mineral fuels account for 9 per cent of Great Britain's exports to the EU while Machinery and Transport accounted for over one third. Given such large disparities in the make-up of trade, it follows that disruption to EU trade will affect Northern Ireland and Great Britain in different ways.

Trade in fuels and pharmaceuticals may prove more robust to limited trade barriers than food and agricultural produce. In particular the system of non-tariff barriers operated by the EU would severely limit trade in food sector irrespective of any favourable negotiations on tariffs on other products. Many of the same non-tariff barriers also exist in the US thus further limiting the ability of the food sector to rapidly expand trade to that market in the event of a BREXIT. Moreover, as of 2015 Great Britain exports more goods to non-EU countries than it does the EU. The EU accounts for 47 per cent of Great Britain's total goods exports compared to almost 55 per cent of Northern Ireland. Furthermore the make-up of exports from Great Britain to non-EU countries bears greater resemblance to the make-up of its EU trade. It may therefore be easier for exporters in Great Britain to expand existing non-EU trade links in the event of a BREXIT.

Figure 7 Great Britain non-EU Goods Exports 2015



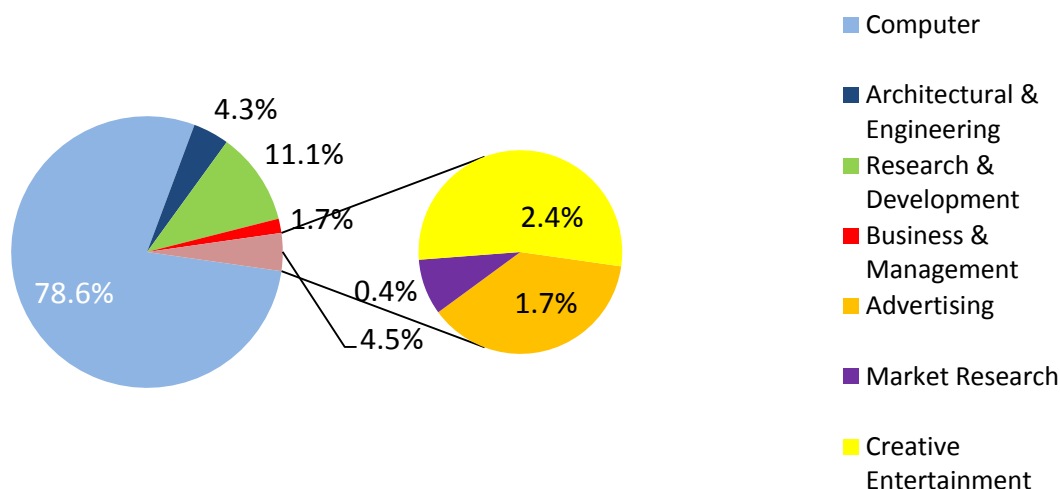
Source: Regional Trade Statistics (HMRC)

In summary, the EU is a more important export market for Northern Ireland than it is for the rest of the UK. Within EU trade Northern Ireland's exports could be more vulnerable to trade barriers while the rest of the UK may be able to expand non-EU trade to make-up for EU losses.

2.2 Services

Looking at Service sector exports, the statistics are still quite primitive in Northern Ireland. The latest estimates for Northern Ireland indicate that total exports of goods and services were in the region of £9.7bn in 2014. HMRC figures for goods exports in 2014 account for £6bn of this figure. This leaves a gap of £3.7bn from the BESES data. In 2014 the BESES figures estimates that HMRC data missed out on up to £500m of goods exports, but clearly the largest gap remains in services exports. The Exporting Northern Ireland Survey identifies £635m of service exports in 2013. However, the survey only focuses on construction, manufacturing and industries deemed to have 'high export potential' (HEP). HEP sectors accounted for £354m of the £635m service exports in 2013. Service exports from Construction accounted for £178m while service exports related to the manufacturing industry accounted for £130m. Looking at the High-Export Potential (HEP) group Figure 6 shows the breakdown of these industries by export volume in 2013.

Figure 8 Northern Ireland HEP Service Exports 2013

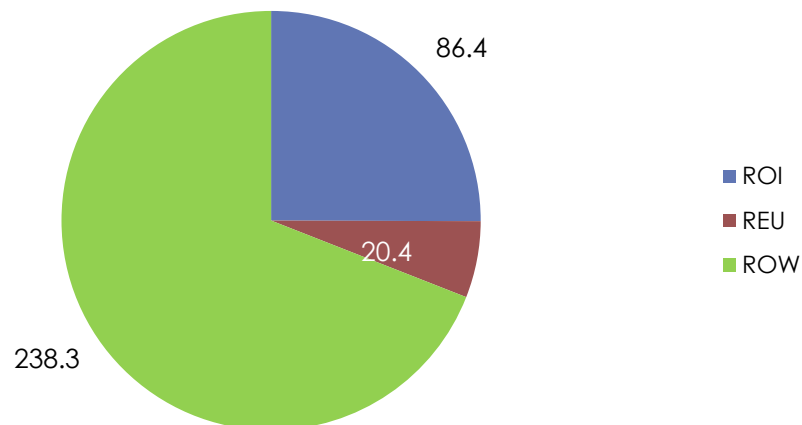


Source: Exporting Northern Ireland Services (NISRA)

The Computer sector, which includes computer gaming, software development and data processing, accounts for the vast majority of exports within this group. Research and Development, which accounts for 11 per cent of exports, deals with R&D in both social science as well as areas such as biotechnology. It is worth emphasising that although the ENIS does provide some good data, more recent research has highlighted a significant proportion of

services exports come from sectors beyond manufacturing, construction and the HEP group, but at present this gives the most accurate picture.

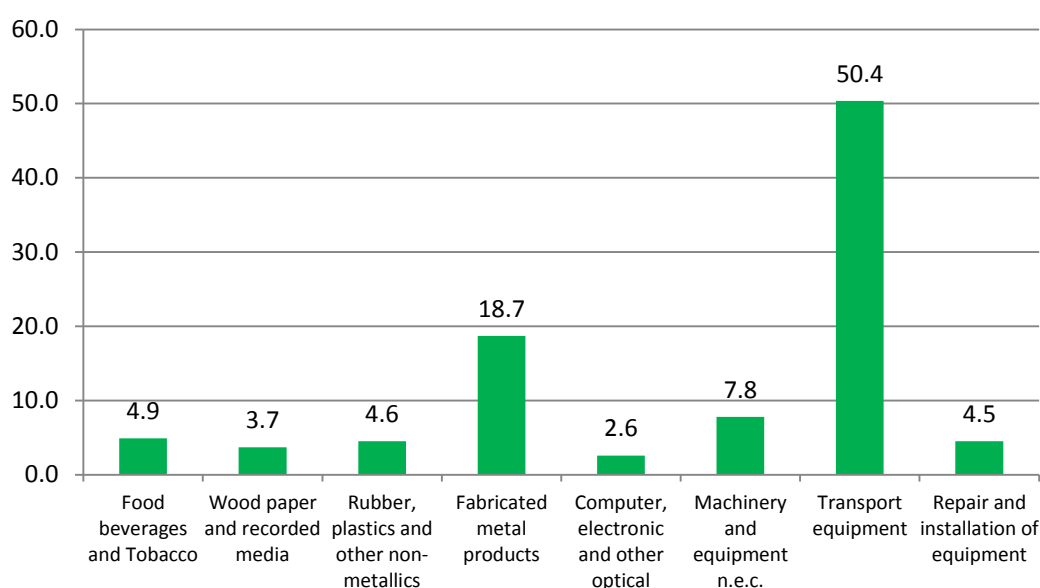
Figure 9 Northern Ireland HEP Service Exports Destination 2013 (£m)



Source: Exporting Northern Ireland Services (NISRA)

Figure 7 shows the destination of HEP service exports showing the importance of exports beyond the EU. However, of the £238m exports going beyond the EU over 80 per cent of these are within the computer and related technologies sector. HEP service exports have increased by 161 per cent in nominal terms over the last 10 years and while service trade with the Republic of Ireland has almost doubled, the overall figure has been largely driven by a 250 per cent nominal increase in exports to the world beyond the EU. However it is worth emphasising that while the HEP sector is more reliant of non-EU trade it accounts for just over 4per cent of total exports.

Figure 10 Northern Ireland Manufacturing Service Exports 2013 (% of Total)



Source: Exporting Northern Ireland Services (NISRA)

Figure 8 shows that Transport Equipment, Metal Products and Machinery account for a large proportion of service exports within the manufacturing sector. These largely mirror the export breakdown of goods exports in the manufacturing sector.

While the figures from the ENIS may be instructive they only account for just over one quarter of the estimated £2.3bn of services exports from Northern Ireland. Unfortunately the BESES data do not to date provide separate estimates for goods and services exports, thus it is impossible to identify to what extent services are concentrated in particular industries. However subtracting HMRC goods exports and non-UK tourism from the BESES export figures can give an indication as to the level of service exports to EU and non-EU countries. Tourism statistics imply that the breakdown in tourists between EU and non-EU tourists in 2014 was almost exactly 2:1 and that total expenditure by non-UK visitors in 2014 was £373m. When tourism expenditure is subtracted along with goods exports for both EU and non-EU, estimates would imply that the EU accounts for roughly £1.9bn of service exports while non-EU countries account for £1.5bn.

Previous research has identified that EU membership enhances the trade volumes across many sectors but in particular the areas of agriculture, textiles, trade services and transport equipment (Nahuis, 2004). The dearth of data on services exports exposes a key challenge in estimating the impact of a BREXIT on the Northern Ireland economy, but the most recent data on goods exports expose certain sectoral vulnerabilities.

3 BREXIT AND THE NORTHERN IRELAND LABOUR MARKET

Key to evaluating the impact of a BREXIT is to assess how Northern Ireland's labour market would react to a disruption to EU trade. How would the sectoral vulnerabilities identified in trading patterns impact on employment across Northern Ireland? In order to explore this question it is instructive to place Northern Ireland's economy in a European context. While Northern Ireland is a regional economy of the United Kingdom, in many respects it shares many characteristics found in other economies within the EU.

Table 2 Share of Employment by Economic Sector in 2015 (% of Total)

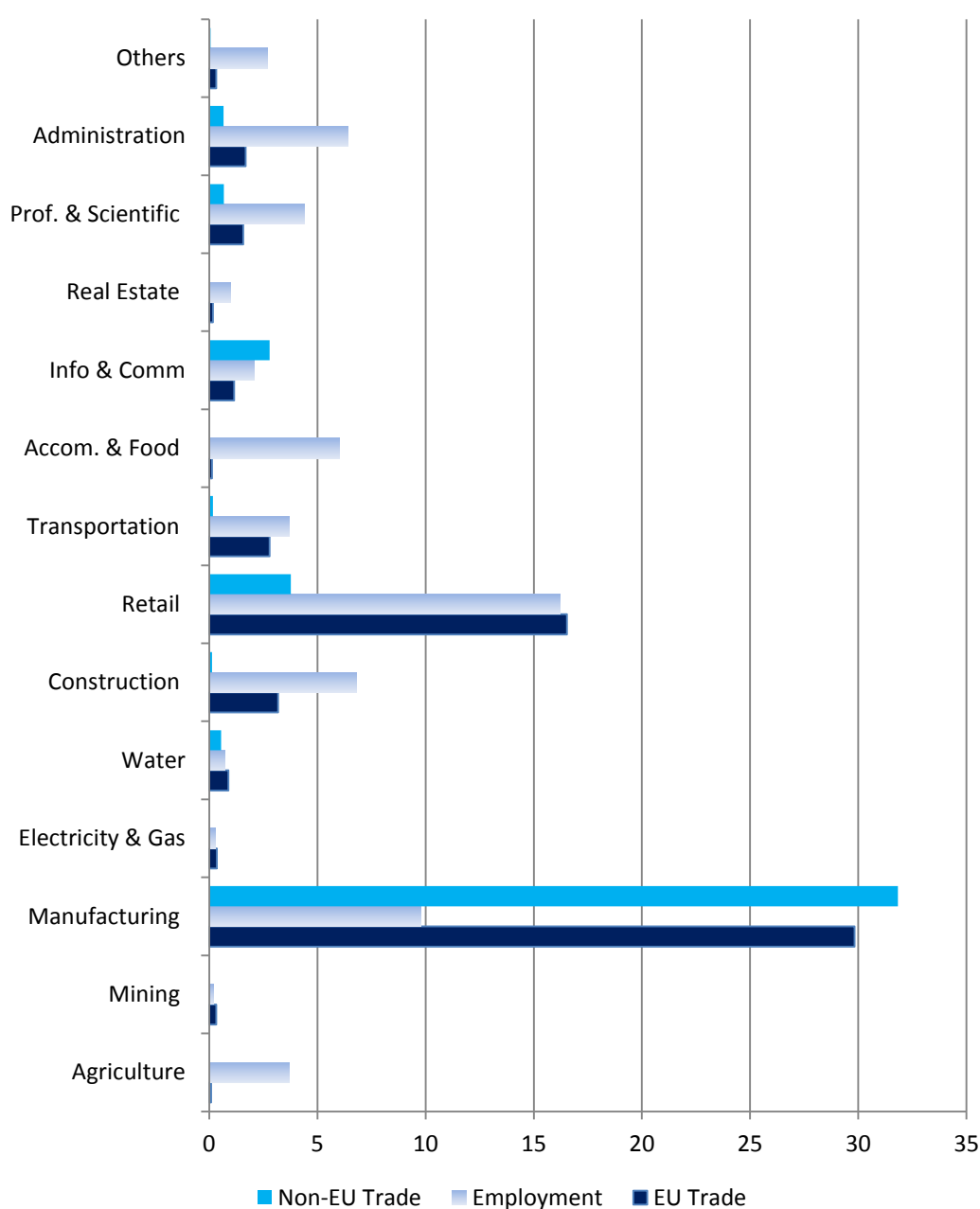
	EU28	Belgium	Ireland	France	UK	NI
Agriculture	4.3	1.1	4.7	2.7	1.0	3.7
Mining	0.4	0.1	0.4	0.1	0.6	0.2
Manufacturing	15.5	13.2	11.4	12.5	9.8	9.8
Electricity & gas	0.7	0.4	0.4	0.6	0.6	0.3
Water	0.8	0.9	0.6	0.7	0.7	0.7
Construction	6.8	6.8	6.5	6.5	7.1	6.8
Retail	13.9	13.1	14.0	12.6	12.9	16.2
Transportation	5.1	5.5	4.7	5.5	4.9	3.7
Accomm. & Food	4.7	3.4	7.0	3.7	5.4	6
Info & Comm.	3.0	3.3	4.3	2.8	4.1	2.1
Financial	3.0	3.1	4.7	3.3	4.0	2.3
Real estate	0.8	0.6	0.6	1.6	1.0	1
Prof. & Scientific	5.4	5.0	5.9	5.5	6.8	4.4
Administration	4.2	5.6	3.3	3.9	4.8	6.4
Public Admin.	7.0	8.6	5.2	9.2	6.0	6.7
Education	7.7	9.8	7.8	7.7	10.6	9.1
Health	10.9	14.7	12.9	14.7	13.5	15.7
Arts	1.7	1.5	2.2	1.7	2.6	2.1
Other	2.4	2.2	2.4	2.4	2.7	2.7
Households	1.1	0.0	0.4	1.1	0.2	0

Source: Eurostat (2016) & NISRA (2016)

Figure 9 shows that in many ways Northern Ireland's labour market is quite similar to that of the UK as a whole but with a few important differences. NI has an unusually large Retail sector, even by European standards and a very large Accommodation & Food sector, although it shares these characteristics with the Republic of Ireland. Agriculture is another area where Northern Ireland is more similar to the Republic and the EU average than it is to the UK. The Financial sector in Northern Ireland is small compared to the EU average and much smaller than that in the UK, perhaps unsurprisingly given the dominance of the City of London. However Northern Ireland also falls significantly behind the EU and UK average when it comes to the Professional and Scientific and Information and Communications sectors.

Figure 11 shows how Northern Ireland's labour market compares with EU and non EU trade. Two sectors stand out when employment is compared with trade. Firstly, trade with both EU and non-EU countries, is vitally important to the Manufacturing sector. Secondly the Retail sector, which has the largest share of employment of any sector in Northern Ireland (Healthcare is the second highest) also has the second largest share Northern Ireland exports and these are heavily skewed towards EU countries and the Republic of Ireland in particular (also see table 1.1).

Figure 11 Northern Ireland Share of Employment and Exports by Economic Sector 2014

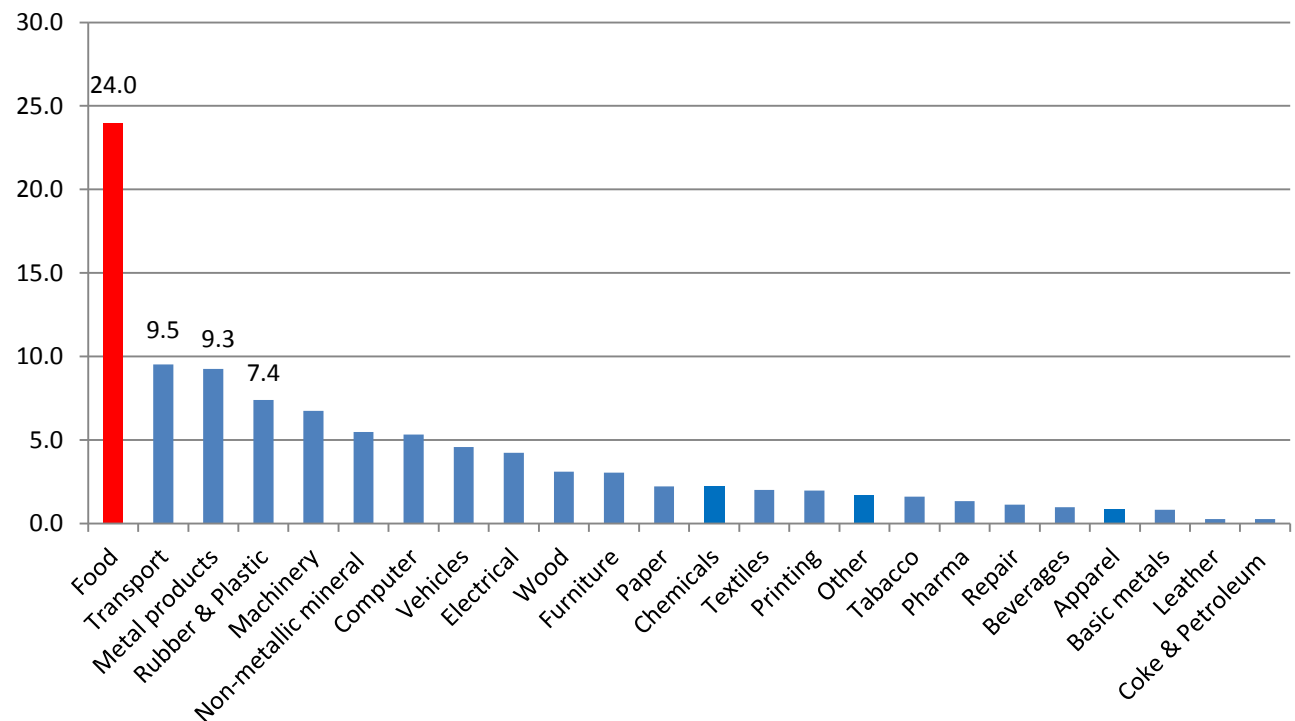


Source: Northern Ireland Quarterly Employment & Broad Economy Sales and Exports Survey (NISRA)

3.1 Manufacturing

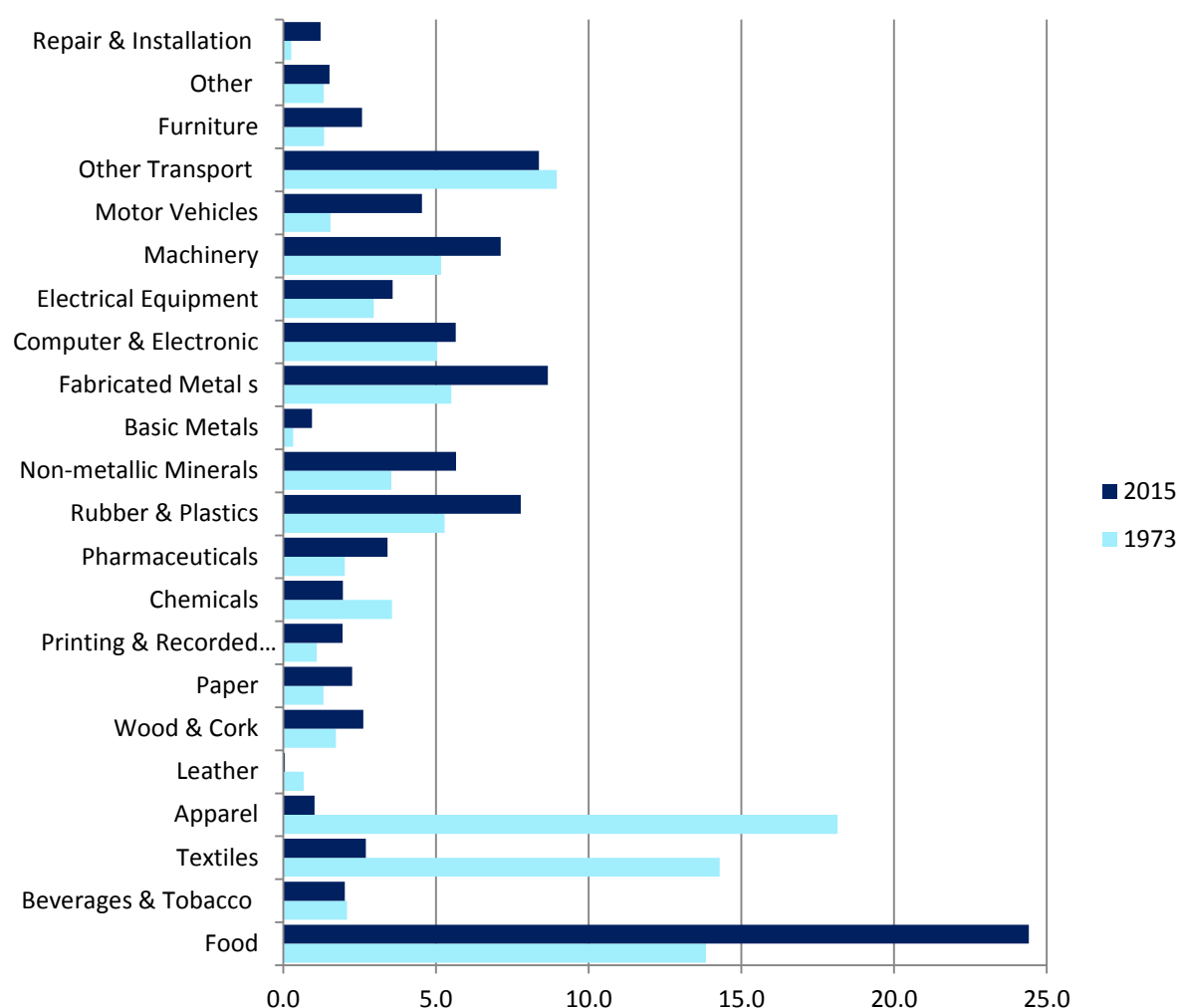
Figure 12 shows the breakdown of manufacturing jobs by sub sector within Northern Ireland. Food manufacturing accounts for almost one quarter of all manufacturing jobs in Northern Ireland, followed by Transport Equipment, Metal Products and Rubber & Plastics. While transport manufacturing is important to both EU and non-EU trade, it is quite clear that the labour market is more focused towards output in areas more heavily traded with the EU. Figure 13 shows how the Northern Ireland manufacturing sector has changed in employment terms since the UK joined the European Community, as it was then, in 1973.

Figure 12 Northern Ireland Manufacturing Jobs by sub-sector 2015 (% of total Manufacturing employment)



Source: Northern Ireland Census of Employment (NISRA)

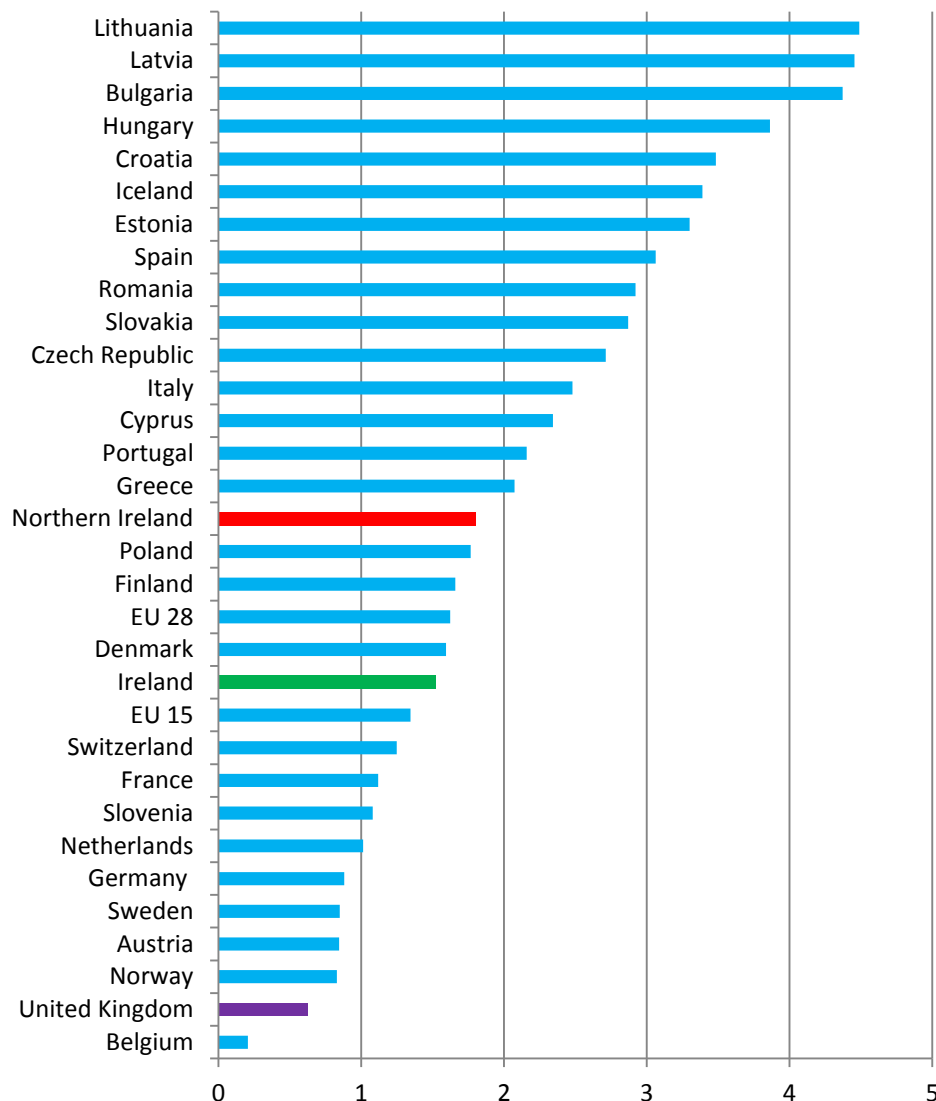
Figure 13 Northern Ireland Manufacturing Jobs by sub-sector 1973 & 2015 (% of total employment)



Source: Northern Ireland Quarterly Employment Survey (NISRA)

Figure 13 shows that Food manufacturing has replaced Textiles as the largest manufacturing industry employer, mirroring its increasing importance in EU trade over the last 20 years. Metal, rubber and plastics have each grown their employment share while Chemicals have been one of the few sectors to have declined. Other Transport manufacturing has seen a small decline but this has been surpassed by an increase in the manufacturing of Motor vehicles. Overall the number of manufacturing jobs in Northern Ireland has declined from 164,100 in 1973 to 79,340 in 2015, however it is the sectoral distribution of those jobs that could be most impacted by a disruption to EU trade.

Figure 14 Food Manufacturing as a share of total Manufacturing Employment 2015 (% of total employment)

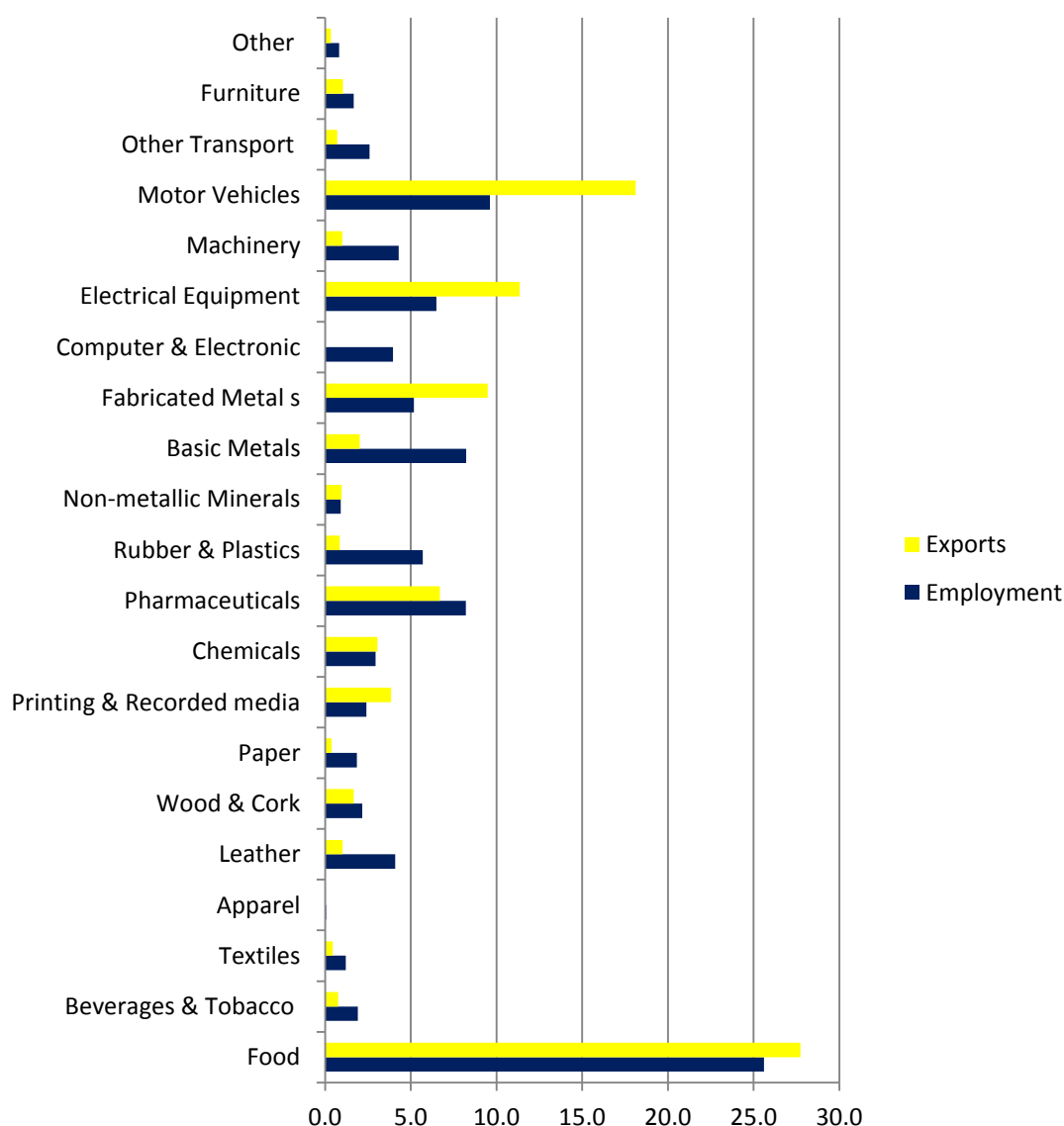


Source: Eurostat (2016)

Figure 14 shows Food manufacturing employment as a percentage of total manufacturing employment across the EU. Importantly the UK is second last when comparing the importance of food manufacturing to overall employment. Northern Ireland is toward the middle of the table and above both the Republic of Ireland and the European Union average. This confirms what the statistics on goods exports alluded to, specifically that employment from the food manufacturing sector would be highly sensitive to a BREXIT and while this sector is very important to Northern Ireland's economy, it has much less significance for the UK as a whole.

Looking at how overall manufacturing jobs might be affected by a BREXIT, Figure 15 compares the share of total employment each sub-sector of manufacturing and the share of total exports.

Figure 15 Northern Ireland share of Manufacturing Jobs and Exports 2015

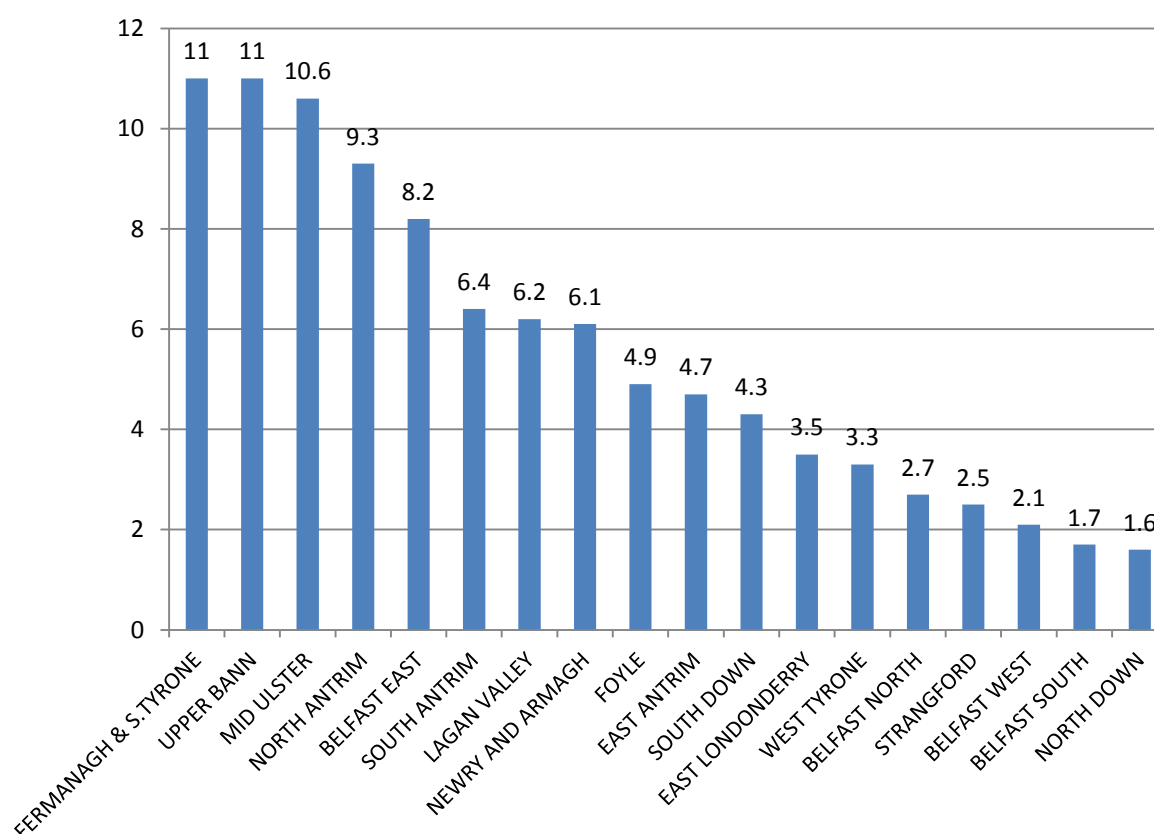


Source: Northern Ireland Quarterly Employment & Broad Economy Sales and Exports Survey (NISRA)

Food and Pharmaceuticals are almost evenly matched in terms of their importance to trade and local employment. Motor vehicles, electrical equipment and Fabricated Metals all have a greater share of exports however Basic Metals, Machinery and Rubber & Plastics all have a larger share of employment. Unfortunately the data at present don't provide a breakdown of manufacturing subsector exports by destination.

Figure 16 shows how manufacturing jobs are spread across Northern Ireland. While it is not possible to present a regional breakdown of manufacturing jobs by subsector, the data do point to a significant manufacturing employment in rural constituencies. While there are significant manufacturing bases within Belfast, female manufacturing employment is higher in rural areas particularly in food which accounts for a third of all female manufacturing employment, suggesting a possible gender differential arising from the impact of BREXIT.

Figure 16 Northern Ireland Manufacturing Jobs by Parliamentary Constituency 2013 (% of total Manufacturing employment)



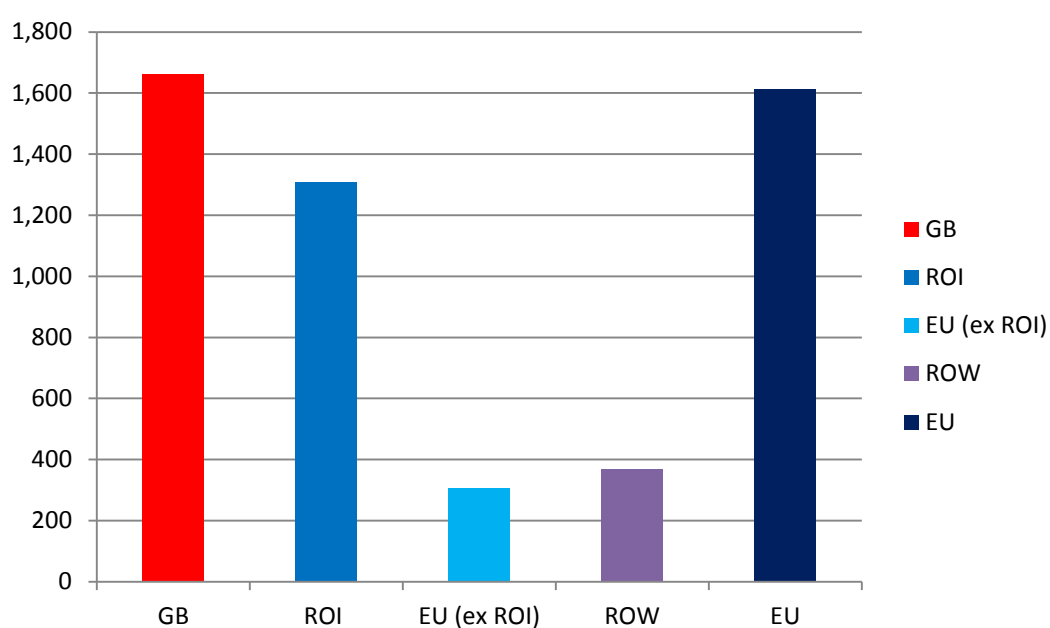
Source: Northern Ireland Census of Employment (NISRA)

Fermanagh and South Tyrone, Upper Bann and Mid-Ulster have the highest proportion of manufacturing jobs in Northern Ireland and while no direct relationship exists, these constituencies could be expected to see disproportionate losses to a disruption in EU trade. In particular the higher rate of female manufacturing employment in these areas is largely confined to food manufacturing and that could be disproportionately hit by a reduction food exports arising from a fall in EU trade.

3.2 Retail

Figure 11 also highlighted the value of exports to the Retail sector, the largest sector of employment in Northern Ireland. As Figure 17 shows the EU and the Republic of Ireland in particular accounts for the vast majority of foreign sales. In 2014 sales from Northern Ireland to the EU were almost equal to the value of sales to Great Britain. While the Northern Ireland market naturally accounted for the majority of overall sales (£4.3bn), the importance of the EU/ROI market highlights a possible vulnerability for the Retail sector in the event of a BREXIT.

Figure 17 Northern Ireland External Retail Sales by Destination 2014 (£m)

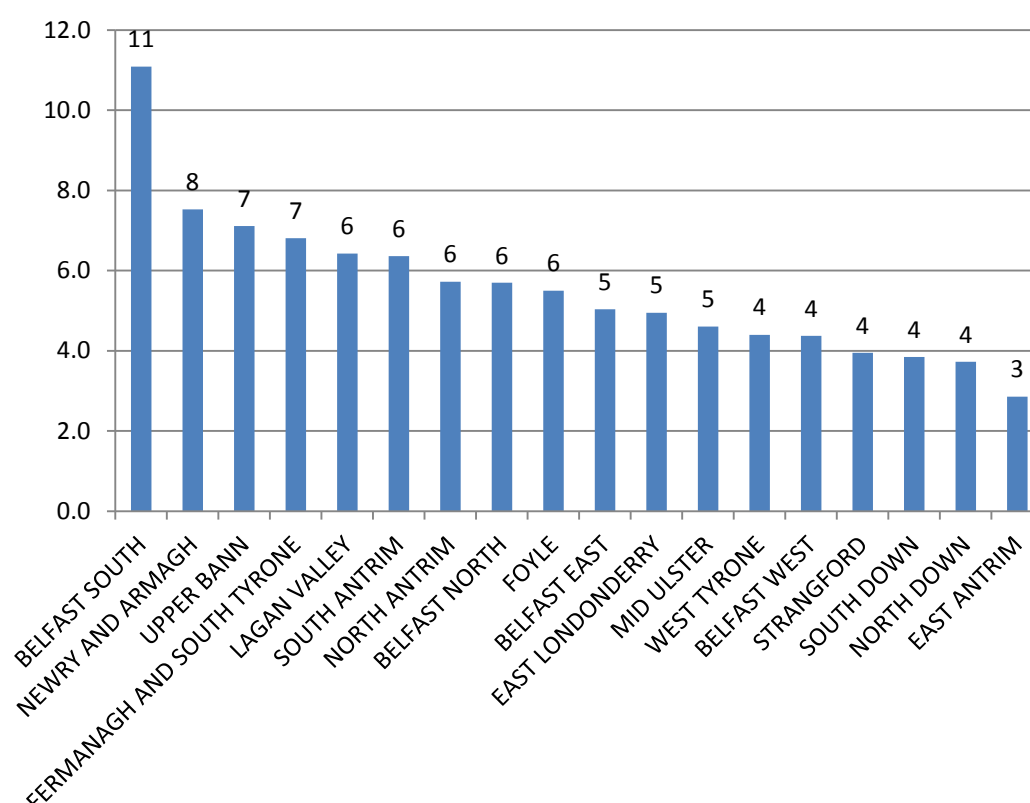


Source: Broad Economy Sales Exports Survey (NISRA)

The Retail sector in 2015 accounted for 17.6 per cent of all jobs in Northern Ireland and this is up from 12.5 per cent recorded in 1973 when the UK joined the EU. For the UK as a whole, the Retail sector accounted for 14.7 per cent of all jobs in 1978, almost exactly the same percentage as in 2015. The Retail sector in Northern Ireland contains the largest number of low paid workers (Mac Flynn, 2014) and a comparatively large Retail sector may have contributed to low levels of productivity in Northern Ireland (Mac Flynn, 2015). However, at present the retail sector provides employment to a large section of the population and it is likely that a disruption to EU trade, particularly with the Republic of Ireland, may cause significant uncertainty and possible job losses in the sector.

Figure 18 shows how retail jobs are spread across Northern Ireland, with South Belfast containing the largest proportion of Northern Ireland Retail sector employment. Unfortunately the data at present do not show where Retail businesses with large external sales are located within Northern Ireland, but Figure 18 gives some idea as to where the impacts of any possible disruption to jobs may be felt. Newry & Armagh and Fermanagh & South Tyrone Could face a disproportionate hit as they are border constituencies.

Figure 18 Northern Ireland Retail Jobs by Parliamentary Constituency 2013



Source: Northern Ireland Census of Employment (NISRA)

3.3 Tourism

The final area where a BREXIT could have a substantial impact on the Northern Ireland labour market is tourism. According to the latest Tourism Statistics for Northern Ireland, in 2014 external tourist activities accounted for £373m of Northern Ireland exports (NISRA, 2015). The tourism sector also accounts for almost 8 per cent of all jobs in Northern Ireland, up from just 2.6 per cent in 1973. As Table 1.3 shows, employment in all areas of the tourism sector has increased substantially since joining the European Community in 1973. However tourism statistics for Northern Ireland also indicate that 78 per cent of all overnight visitors in Northern Ireland came from elsewhere in Northern Ireland or Great Britain. The tourism statistics

indicate that 9 per cent of overnight visitors were from the Republic of Ireland but there are no indications of where the remaining 13 per cent of tourists originated from.

As the Northern Ireland tourist industry is quite domestically focused the threat of a disruption to visitor numbers from BREXIT can be overstated. However the Republic of Ireland should be a key growth area for Northern Ireland in the medium term and as a recent evaluation of the Northern Ireland Tourist Board (DETI, 2014) found there has been a worrying decline in tourism numbers particularly from the Republic of Ireland. It is likely that the strengthening of Sterling in the last two years has further exasperated this situation.

Table 3 Northern Ireland Tourism Jobs 1973 & 2015

Sector	1973	2015
Accommodation	0.4	1.4
Food and beverage service activities	1.1	4.5
Travel agency and tour operator	0.2	0.2
Libraries, Museums and other cultural	0.2	0.4
Gambling and Betting	0.1	0.3
Sports, Amusement and Recreation	0.5	1.1
All Tourism	2.6	7.8

Source: Quarterly Employment Survey (NISRA)

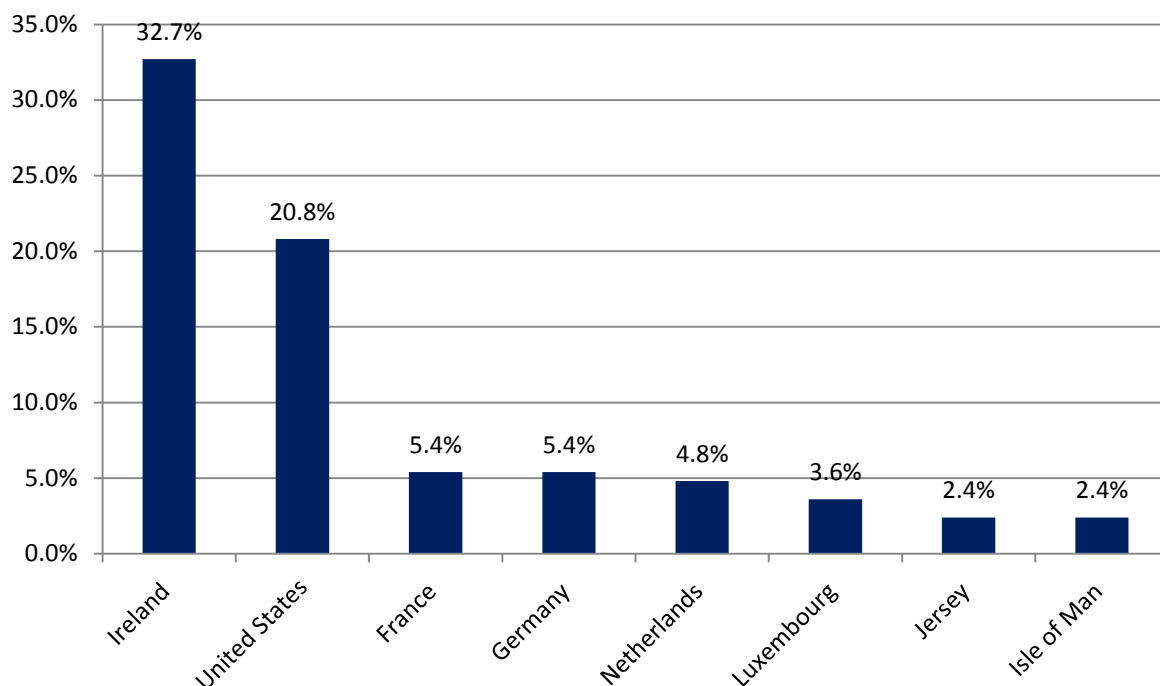
Current policies aimed at boosting Northern Ireland tourism include support for reciprocal visa arrangements between the UK and the Republic of Ireland. Whether the Republic of Ireland agrees a renewed Common Travel Area with the UK or if it becomes obligated to join the Schengen Area will determine how much disruption that

4 BREXIT AND FOREIGN DIRECT INVESTMENT

Whilst the Northern Ireland Executive and the government of the Republic of Ireland place possibly too much importance on the role of Foreign Direct Investment in economic growth, there is no doubt that it plays a significant role in boosting productivity, attracting talent and raising overall skills levels. There is also little doubt as well that this is an area of economic development that will be significantly impacted by Northern Ireland's continuing relationship with the EU.

In Northern Ireland 99 per cent of firms are owned by residents of either Northern Ireland or Great Britain. However these firms only account for 86 per cent of total employment in Northern Ireland. 13 per cent of employees work for externally owned firms and almost a third of these are owned by residents of the Republic of Ireland. As Figure 12 shows the US accounts for 20 per cent with France and Germany each accounting for just over 5 per cent.

Figure 17 Externally-owned firms in Northern Ireland 2014



Source: Inter Departmental Business Register (2014)

Northern Ireland, as a region of the UK, does comparatively well in attracting foreign direct investment. While the most recent figures from UK Trade and Investment (2016) show that Northern Ireland attracted the least number of inward investments of any region it had the highest number of jobs created per investment. However while Northern Ireland suffers as the most peripheral region of the UK it has perhaps in the past benefited from the continuing success of FDI projects in the Republic of Ireland.

Most recent studies of the determinants of Foreign Direct Investment identify trade openness as one of the most significant factors in a firm's decision to locate, but there are important distinctions. An IMF report (Walsh & Yu, 2010) categorises FDI as primary, secondary or tertiary based on the industry. It found that openness is the most important of the macroeconomic determinants of FDI, and that this is particularly true for the tertiary or services sector. As most service sector FDI is aimed at selling to the market in which it is located, this result is strange but appears that trade openness can be perceived by investors as a guarantee of general liberalization of the economy and therefore more powerful determinant of sentiment towards the economy as a whole.

Blonigen & Piger (2011) find that regional trade agreements and Customs Unions are far more important than business costs or government support for FDI. Agiomirgianakis, Asteriou & Papathoma (2003), examining 20 OECD countries, identified human capital, trade regime and

infrastructural investments as the statistically significant determinants under differing econometric specifications.

Once again, the degree to which capital inflows such as FDI will be affected by BREXIT will be determined by the exact trading structures that will be adopted in the event of a vote to leave. An exit from the EU could deprive Northern Ireland of inward investment by boosting the attractiveness of the Republic of Ireland as a location and reinforcing the peripheral position of Northern Ireland within the UK. Given the existing levels of government support for FDI in Northern Ireland it could prove difficult to provide further support for FDI to counteract any negative effects of BREXIT. However, leaving the EU could lift existing restrictions on State Aid and allow a more active role for government investment. FDI into Northern Ireland will be adversely affected in the short term if access to the single market and bilateral trade agreements take longer than expected to negotiate. If the UK can re-establish trade arrangements with the EU and establish new trade arrangements with the US quite quickly, the threat to future investment abates.

5 BREXIT AND EU FUNDING IN NORTHERN IRELAND

Much of the debate on BREXIT at the national level in the UK has focused on how much the country would lose or gain financially from either decision. Once again it is not possible to be definitive on this matter. The ambiguity arises in attempting to calculate what Northern Ireland's notional 'EU contribution' is and matching that against what it actually receives. A further ambiguity arrives in deciding how much the UK Treasury will benefit from no longer being a member of the EU because most post-BREXIT scenarios posit some form of close relationship with the single market, and that relationship is not without cost.

It is possible to ascertain how much the UK government pays to the EU each year and to work out a notional 'Northern Ireland Contribution' from that. In 2015 the UK paid £17.6bn to the EU, however this was automatically reduced by £4.9bn which is the rebate which the UK has negotiated since 1985, bringing its total contribution down to £12.9bn. This is up from the £8.7bn paid in 2009 and it is forecast to rise to £15.2bn by 2020. Using Northern Ireland's share of UK population it is possible to calculate a hypothetical Northern Ireland total contribution of £366m (2.9 per cent of the total figure).

However Northern Ireland's hypothetical contribution could also be more accurately calculated. There is no particular reason to use a population based percentage to account for Northern Ireland's share. Given that the contributions to the EU are funded through revenue raised by the UK exchequer it may be more accurate to calculate Northern Ireland's contribution on the basis of its share of UK tax revenues. The Net Fiscal Balance report produced by the Department of

Finance and Personnel estimates that Northern Ireland produces 2.5 per cent of the UK's tax revenue meaning that NI's hypothetical contribution could be as low as £322.5m. It could be even lower if the HMRC Disaggregated Receipts figure of 2.1 per cent is used which would bring Northern Ireland's contribution to as low as £270.9m.

Treasury figures estimate that UK public sector institution received approximately £4.4bn back from the EU which was then disbursed to the private sector. This leaves the UK's net contribution at £8.5bn in 2015. This does not count EU money paid directly to the private sector which was thought to be in the region of £1.3bn in 2013. If we take a simple population based Northern Ireland estimate for public sector receipts from the EU then Northern Ireland technically received only £124.9m in EU funds in 2015. However, this introduces another problem with using population based estimates, because it is also possible to examine the individual EU funds that are paid into Northern Ireland each year. Looking only at the Common Agriculture Fund, the Common Fisheries Fund and the Investment for Growth and Jobs Initiative, Northern Ireland received £320m in 2015 (DFP, 2016), £200m more than the population based estimate. Special EU funds such as the PEACE IV initiative and the INTERREG fund could add another £50m annually, but these funds are set to be phased out after 2020. In the next five years Northern Ireland would on conservative estimates only 'break even' in the event of a BREXIT.

All of the above discussion is clearly hypothetical. The information on what Northern Ireland receives is more complete, but even if there were an agreed figure on what Northern Ireland contributes, this sum of money may not return to Northern Ireland in its entirety in the event of a BREXIT. This money is in the gift of the Treasury and part of it may need to be spent on establishing a trade relationship with the EU. Norway is currently a member of European Economic Area which keeps it outside the EU but which grants it access to the Single Market. Norway has agreed to pay on average €866m or roughly £680m annually for the period 2014-2021². Norway has a GDP per capita roughly 1.6 times that of the UK so adjusting for the size of the economy as a whole (rather than on population measures), the UK would pay roughly £4.97bn for the same arrangement. This would amount to nearly one third of the UK's existing total EU contribution and would significantly reduce any net gain for Northern Ireland. However if the UK decides only to apply for entry to the European Free Trade Area, this payment would significantly reduce, but this would leave Northern Ireland with no access to the Single Market.

Depending on exactly how Northern Ireland's contribution is calculated it would fair to suggest that the best Northern Ireland could hope for would be to break even in the event of a BREXIT.

² Figures from Norway Mission to the EU, correct as of 12.04.16

It would also be fair to say that there are a range of more negative outcomes for Northern Ireland which are not beyond the bounds of reasonable expectation.

6 BREXIT AND THE ALL-ISLAND ECONOMY

One of the key tenets of the Good Friday Agreement was the establishment of cross-border cooperation with institutions such as the North-South Ministerial Council. However cross border cooperation was meant to extend beyond political intuitions and so the establishment of Inter-Trade Ireland sought to promote increased cross-border trade and ultimately the promotion of an All-Island Economy. A recent report for Inter-Trade highlighted the scale of that ambition (Morgenroth, 2011). It found that trade levels between Northern Ireland and the Republic of Ireland are significantly below what could be expected of two regions as geographically, politically and culturally interconnected as they are.

One area where cooperation has been established is in the energy sector with the establishment of the Single Electricity Market in 2007. Northern Ireland is heavily dependent on both coal (19%) and gas (72%) for its electricity generation (ONS, 2014). Northern Ireland's gas supply is also heavily reliant on imports which are transmitted through an interconnector from Scotland that comes on shore in Islandmagee. Should the UK leave the EU it could put energy imports from mainland Europe at risk. This prospect is equally concerning for the Republic of Ireland but its reliance on gas for electricity generation is lower (60%) and it will have access to a limited supply from the Corrib gas field when that comes on stream (SEI, 2011).

Northern Ireland needs to heavily invest in renewable energy in order to maintain energy security whilst almost meeting international climate change targets. The creation of the single electricity market has significantly enhanced the ability of NI firms to invest in renewable technology by providing a larger prospective market. The uncertainty caused by a BREXIT could affect investment decisions by firms that are vital to the creation of a renewable energy sector on the Island of Ireland that is so crucial to security of output. High energy costs have become one of the main barriers to inward investment in Northern Ireland and have directly contributed to significant job losses across the manufacturing sector in 2015. BREXIT could add significant disruption to on-going government efforts to drive down energy costs for firms operating within Northern Ireland.

The share of North-South trade on the Island of Ireland has flat-lined since the 2008 crash (InterTrade Ireland, 2016), but the Republic of Ireland remains a more important export market for firms in Northern Ireland than it does vice versa. This means that to whatever degree BREXIT disrupts the All-Island economy it is likely to be more damaging to Northern Ireland firms.

7 CONCLUSIONS

It was noted at the beginning of this paper that the long-term impact of BREXIT would be determined by the shape of the resulting relationship between the UK and the EU. Research to date has forecast that GDP in the UK could be disrupted by as little as 1 per cent or as much as 9 per cent in a worst case scenario. In reality the nature of the UK's trading relationship will be decided by political factors and there is no economic modelling that can predict such outcomes. It is harder to avoid the conclusion that there will be disruption to trading links with the EU in the short-term due to uncertainty if nothing else. Northern Ireland is vulnerable to this disruption particularly across the agriculture and food sector and many areas of manufacturing. That Northern Ireland could replace this trade by seeking greater links outside the EU is speculation confined to the longer term.

BREXIT would introduce disruption to the development of an All-Island economy which has undeniably failed to live up to the expectations set out in the Good Friday Agreement. BREXIT therefore represents a disproportionate risk for Northern Ireland in the short to medium term, and any evaluation of long-term impacts requires individual judgement about the future prospects for a post-BREXIT UK economy.

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