UNDERSTANDING THE DRIVERS OF FOREIGN DIRECT INVESTMENT FROM THE UNITED STATES

FULBRIGHT SCHOLARSHIP REPORT 2

NOVEMBER 2017

Author

Thomas Byrne, DfE Analytical Services

Department for the Economy
www.economy-ni.gov.uk

Contents

1 Introduction

This research represents the second report carried out under a Fulbright Scholarship exploring how Northern Ireland can attract Foreign Direct Investment from the United States. This report focuses on reviewing key factors that determine company investment decisions.

1.1 Context

Attracting Foreign Direct Investment (FDI) is central to successfully growing the economy in Northern Ireland (NI). The Economic Strategy, published in 2012, included a key theme aimed at "competing in the global economy", with FDI attraction a key part of this. More recently, Economy 2030: A consultation on a draft Industrial Strategy for Northern Ireland includes "succeeding in global markets" as one of its five themes.[1] Specific priorities identified within this theme include "a strong global presence as the location of choice to invest" and "competing globally for investment by promoting across the world as the top United Kingdom region from which to do business."[2]

The first report published under this scholarship highlighted that the United Kingdom (UK) is hugely successful at attracting inward investment from the United States (US), and NI is one the most popular UK locations for US investors, particularly in tradable services.[3] Despite this success, the Republic of Ireland (ROI) has established itself as the most successful European location for US investors with a proposition centred on being a pro-business location within Europe offering talent, competitive taxes and a strong track record.[4] Given the similarities between NI and ROI in many areas, the differential in corporate tax rates has often been cited as a key differentiator for investment decisions.

There have been a number of recent developments which will impact on the ability of NI to attract inward investment. First, NI is now limited in the extent to which it can provide financial support to large firms for investments, a key part of its prior proposition to investors, due to changes in the European Commission's Regional Aid Guidelines.[5] These changes mean that whilst NI can continue to offer financial support in areas such as skills development and R&D, it can only provide investment grants to large companies for the initial project they establish in NI and not for further expansions (unless these investments are in a new sector for the company). Direct financial incentives will therefore become less important in attracting and retaining FDI to the region.

Second, the UK Government has announced its plans to devolve the powers to vary the rate of corporation tax to the NI Executive, subject to meeting a range of conditions outlined in the Stormont

---

1 https://www.northernireland.gov.uk/sites/default/files/publications/nigov/ni-economic-strategy-revised-130312_0.pdf
2 https://www.economy-ni.gov.uk/sites/default/files/consultations/economy/industrial-strategy-ni-consultation-document.pdf
3 https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Fulbright-Report-1-Trends-in-US-FDI.pdf
4 http://www.idaireland.com/how-we-help/resources/infographics/fdi-value-proposition/IDA_FDI_Infographic_v14.pdf
5 http://secure.investni.com/static/library/invest-ni/documents/annual-report-investni-2013-2014.pdf

House Agreement.[6] The latest estimates on the economic impact of reducing the corporate tax rate to 12.5% by the Ulster University Economic Policy Centre (UUEPC) suggest that 32,500 jobs could be created across the economy by 2033.[7]

Finally, the UK voted to leave the European Union in a referendum in June 2016. The UK government formally notified the European Council on 29 March 2017 that it was leaving the EU, triggering Article 50 of the Treaty of Lisbon, which allows for a two year period until the terms of the withdrawal agreement are negotiated. As part of the EU single market, investors choosing NI have been able to operate with and sell into other EU markets in the same manner as the GB market. With negotiations around the future relationship between the UK and EU currently ongoing, it is uncertain how this might change going forward.

1.2 Aims and Objectives

This is the second report produced as part of a Fulbright Scholarship undertaken in the US during September to December 2015. The aim of this report is to better understand the factors that influence US investment decisions. Specific objectives are to:

- Identify the most important motives and incentives that influence the locations of US overseas investment decisions;
- Review the importance of market access for US investors, including the potential impact of a UK exit from the EU and potential new trade agreements;
- Assess how the availability of talent influences US investors location decisions, including the role that skills levels and costs play in this;
- Consider the international competitiveness of the US corporate tax system and how this influences companies to invest overseas; and
- Draw overall conclusions on the key drivers of US FDI decisions and the implications for NI in attracting such investment.

1.3 Methodology

This second report combines a review of relevant literature, data analysis and consultations with US businesses, representative organisations, government, development bodies, academics, researchers, experts and investment promotion agencies (see Annex B for details). The analysis and consultation findings are based on work carried out during September to December 2015, although the review of relevant literature has been updated to reflect more recent developments such as the UK referendum decision to leave the EU in June 2016 and the changing US policy approach following the Presidential election in November 2016.

1.4 Acknowledgements

This research could not have happened without the scholarship awarded by the UK-US Fulbright Commission; this has enabled me to spend three months in Boston from September to December 2015 focusing on this topic, and my thanks are extended to all the staff in the commission, particularly

[6] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/390672/Stormont_House_Agreement.pdf
[7] https://www.detini.gov.uk/publications/economic-impact-corporation-tax

Rebecca Cobby, who helped to facilitate this. I am also very grateful to the Sawyer Business School in Suffolk University and my Fulbright host, Professor Richard Torrisi, for accommodating me during my time in Boston. Finally, my thanks are also extended to all those who took part in consultations and provided advice and assistance along the way.

2 Drivers of US FDI

US firms consider a range of issues when making investment decisions, with Corporation Tax, operating costs and financial incentives emerging as key factors. However, these need to be supplemented by a much wider value proposition, something which the ROI has achieved.

2.1 Economic Competitiveness

The starting point for considering the drivers of US FDI is to look at the domestic business environment in place which motives their decision; if firms operated in an economy with a low cost base, a pro-business tax system, a highly skilled labour supply that fully meets their needs and no trade barriers to global markets there would be very few reasons for them to invest elsewhere.

The business environment a key part of economic competitiveness, although it is broader than this and also brings in wider economic, political, social and environmental factors too. There are two main sources of international competitiveness benchmarking – the Global Competitiveness Report and the World Competitiveness Scoreboard. A summary of US international competitiveness rankings on these measures over recent years is shown in Table 1.

Table 1: US Competitiveness Rankings

Measure	2011	2012	2013	2014	2015
WEF	5	7	5	3	3
IMD	1	2	1	1	1

Sources: WEF Global Competitiveness Report; IMD World Competitiveness Scoreboard

Whilst the methodologies (and thus results) of the two reports differ somewhat, the overall finding is that the US is a highly competitive economy in an international context. In addition, the WEF measure highlights that competitiveness in the US has been improving. If this international comparison is extended to look at the ease of doing business and innovation performance, the US also compares relatively well at seventh and fifth respectively (see Table 2).

Table 2: US Doing Business and Innovation Ranking

Measure	2011	2012	2013	2014	2015
Doing Business	5	4	4	7	7
Innovation	7	10	5	6	5

Sources: World Bank Doing Business; WIPO Global Innovation Index

Each of the international comparators are made up of a large number of measures, and the US will obviously have weaknesses in specific areas relative to its competitors; but the overall message from these is that US businesses operate in a competitive and innovative economy that is generally easy to do business in. So why do they seek to invest abroad?

To help understand some answers to this question, we need to look specific components of competitiveness that are most relevant for business investment decisions. Modern thinking on economic competitiveness is routed in Porter (1990), which presents a competitiveness diamond based around four key themes:

- **Factor conditions:** the nation's position in factors or production, such as skilled labour or infrastructure which are necessary to compete in a given industry;
- **Demand conditions:** the nature of home market demand for the industry's product or service;
- **Related and supporting industries:** the presence or absence in the nation of the supplier industries and other related industries that are internationally competitive; and
- **Firm strategy, structure and rivalry:** the conditions in the nation governing how companies are created, organised and managed, as well as the nature of domestic rivalry.

This starts to highlight some ways of thinking about competitiveness issues that might encourage domestic firms to invest aboard. Three of these four themes are highlight relevant in terms of FDI drivers (the final component relating to firm strategy is largely determined by individual companies and is not so much of a direct factor that leads companies to decide to invest abroad).   For example:

1. If companies operate in a domestic market which is not growing, or indeed see significant growth opportunities elsewhere around the work, they will look to expand into these markets either by exports or FDI;
2. If companies cannot get the factors they need to produce their goods and services they will need to look elsewhere for this; and
3. If companies see strong clusters in existence elsewhere that do not exist in the domestic economy they may wish to move or expand operations near these.

2.2 FDI Literature

In order to understand what factors influence investor's decisions, it is important to look at existing thinking in this area. A brief summary of key literature which has underpinned some of the drivers considered in this report is provided below. There are two broad categories of FDI to take into consideration: horizontal and vertical. Ramondo et al (2012) summarises these as follows:

- **Horizontal FDI** is where companies locate production in an external market to save on transportation costs, which means that FDI and trade are substitutes here. This effectively duplicates an activity at the same stage of the value chain located in the home country; and
- **Vertical FDI** is where companies identify comparative advantages from locating activities in foreign economies, which means that FDI and (intra-firm) trade are complementary. This is effectively locating different stages of the value chain from the home country elsewhere.

Dunning (1993) extends this and outlines four motives for FDI. Market-seeking FDI is where firms serve external customers by locating in an external market; resource-seeking FDI is where firms look to acquire resources not available at home; efficiency-seeking FDI is where firms look for advantage in costs and economies of scale; and asset-seeking FDI relates to firms acquiring new assets rather than exploiting an existing asset or developing it themselves.

Franco et al (2008) reviews a wide variety of literature on FDI motives and finds that, in practice, there is overlap between a number of these motives and confusion as to where exactly specific drivers should sit (for example, is cheaper labour about companies seeking a resource they cannot get at home to become more efficient, thus covering both motives). The authors propose that the essential thing to consider is the underpinning motive behind the decisions both to choose an FDI-based approach and then, once they have, to pick a specific location. The new model amending and extending the Dunning approach is summarised in Table 3.

Table 3: Framework for FDI Motives

Motive	Objective	Alternatives	Location Determinants
Resource Seeking	To acquire specific resources present in a foreign market or location	Outsourcing; trade with intermediaries	Cost, scarcity and productivity of the resource in question
Market Seeking	To exploit a foreign market by supplying either the host market or as a platform for adjacent markets	Exports; licenses	Market size, growth, absolute and comparative advantage (host market); differences in costs and regulations (export platform)
Asset Seeking	To acquire assets that are not directly transferable via markets	Joint venture; acquisition of core personnel	Available infrastructure and technology capability gap of home and host countries

Source: Franco et al (2008)

The above model starts to consider specific determinants that influence FDI decision making, which is the level that this study will be looking at, and also demonstrates how different FDI motives will have different location determinants. The list of determinants is, however, not extensive, and there are a number of studies which summarise the existing literature which are briefly considered below.

Assuncao et al (2011) provides a literature review of both theories and empirical studies on the determinants of FDI. An initial observation from this is that different studies produce different findings depending on the approach taken and the countries and sectors looked at; factors that appear significant is some studies therefore do not in others. There are many different factors highlighted in this review under the following headings:

- Market size;
- Market growth;
- Openness to trade;
- Endowments of natural resources;
- Financial and economic incentives;
- Political institutions;
- Infrastructure;
- Economic stability;
- Production costs; and
- Human capital.

A limitation with the empirical literature available on FDI determinants is that factors are mainly considered in a linear fashion; they either are significant in explaining FDI decisions or are not. However, consultations for this research highlight that, in practice, there is normally a two-stage approach for companies deciding on an FDI location. The first stage is to shortlist a number of locations based on important characteristics for the project which are broadly common across them all. The second stage is to rank them on location-specific factors which are likely to sway a decision.

This two-stage approach is consistent with that put forward by the European Commission (2006), which differentiates between national characteristics (i.e. factors that get locations on a shortlist) and regional characteristics (i.e. factors that encourage companies to choose a specific location from the shortlist) for FDI within the EU. The factors highlighted for each are shown in Table 4 below.

Table 4: FDI Location Decision Determinants in the EU

Characteristics	Location Determinants
National Factors	Access to markets, similar culture, English-speaking, low corporate taxes, higher GDP per capita, low unemployment
Regional Factors	Educated workforce, high R&D spending, strong regional clusters, technologically advanced, good infrastructure, well-functioning Investment Promotion Agency, regional economic strategies, FDI incentives

Source: European Commission (2006)

The specific factors from the above list that determine FDI location decisions will vary depending on the type of project. Let us consider an example; a US company seeking to set up an EU Headquarters for its operations may initially shortlist locations that have sufficient English-speakers, access to the EU market and low corporate taxes (allowing the firm to retain more of their profits in the market). For locations that make it on the shortlist, companies may then be swayed by those that can offer attributes such as skilled labour, competitive costs, existing FDI and additional incentives from the Investment Promotion Agency (IPA). There are two implications from this:

1. Locations which cannot offer the broader requirements of the company (English-speaking, access to EU markets and corporate taxes in the above example) will not make it onto the initial shortlist, meaning other benefits that locations can offer do not come into play; and

2. Locations which do meet these requirements will still not win FDI projects if they cannot also offer region-specific factors, otherwise known as "deal breakers" (which are skilled labour, existing FDI clusters and IPA incentives in the above example).

These implications are particularly relevant for the Corporation Tax debate in NI. Firstly, they suggest that relatively high corporate taxes may have meant that NI is not getting on the shortlist for many types of projects where this is important. However, they also suggest that corporate taxes by itself is not enough to actually win projects, and must be accompanied by other factors which can differentiate NI from its main FDI competitors. NI therefore needs a competitive overall value proposition for FDI, of which reduced Corporation Tax is only one part (albeit a key part).

2.3 Company Motives

An obvious starting point for trying to understand the drivers of FDI is to find out what companies say were their key reasons for investing were when announcing a project. Information is available from fDi Markets on the top 10 motives cited for each location by US investors when announcing a project. Before getting into the results of this, it is worth noting up front two weaknesses with the data.

Firstly, responses are based on what companies cite in investment announcements and therefore give a "media" interpretation of motives, meaning companies will be less likely to reference motives that have a negative perception such as lower costs and favourable taxes. Second, motives are presented in a linear list and do not take into account the difference between generic factors and key differentiators. Nonetheless, these data do allow for a useful comparison of motives across locations to assess which factors appear relatively more or less important.

A comparison of the top three motives for US investors into NI, UK and ROI is shown below in Table 5. A number of things are evident from this list. Firstly, market size and growth potential is more important for a large economy like the UK, although access to large markets will still be important for a smaller economy. Second, access to skilled labour and availability of IPA or government support becomes more important for the two smaller economies which do not have a large market to attract companies. And finally, businesses perceive the ROI to have a pro-business environment.

Table 5: Top Three Motives for US Investors in NI, UK and ROI, 2003-15

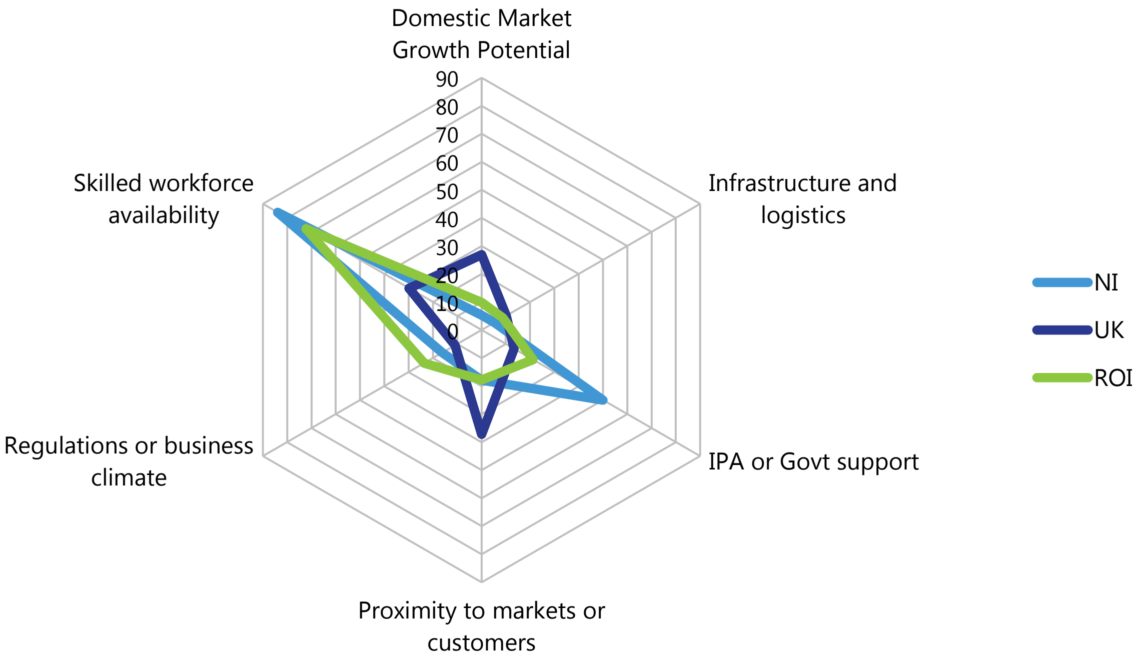
Rank	NI	UK	ROI
1	Skilled workforce availability	Proximity to markets or customers	Skilled workforce availability
2	IPA or government support	Skilled workforce availability	Regulations or business climate
3	Proximity to markets or customers	Domestic market growth potential	IPA or government support

Source: fDi Markets

Figure 1 presents a comparison of the percentage of respondents for six "common" motives that appear in the top 10 cited by US companies for NI, UK and ROI. This highlights how much more similar the motives for investors into NI and ROI are compared with the UK, with a heavy reliance on skilled labour over market access and growth potential. It also demonstrates just how important IPA or government support is to business in NI, even more so than the ROI.

In addition to these six "common" motives, there are a further four "other" motives which do not appear in the top 10 motives across all three (shown in Table 6). This highlights that motives for investors into NI can be quite different that UK or ROI, with a greater reliance on financial incentives and lower costs alongside a strong ICT infrastructure and attractive quality of life. US investors into both UK and ROI tend to be more attracted to "higher value" motives such as an existing industry cluster, available technology or innovation and access to universities or researchers. Interestingly, companies are also likely to cite language skills as a reason for investing in the ROI, something which would be important for a company setting up a European base serving multiple countries which speak different languages.

Figure 1: Common Motives Cited by US Investors, 2003-15



Source: fDi Markets

Note: Each line represents 10% of companies citing the motive

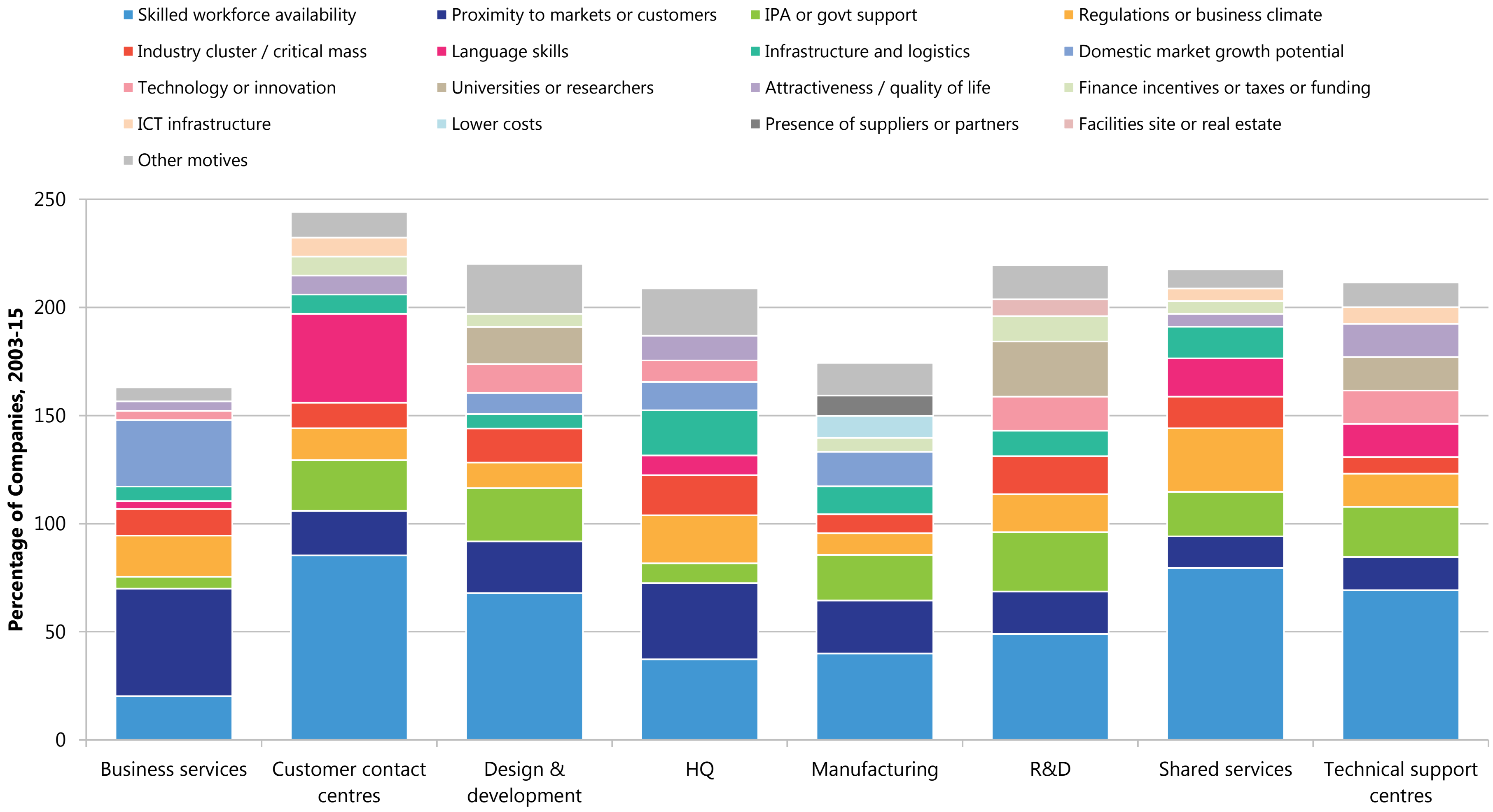
Table 6: Other Motives Cited by US Investors, 2003-15

NI	UK	ROI
Financial incentives, taxes or funding (10.7%)	Industry cluster / critical mass (11.1%)	Industry cluster / critical mass (15.3%)
ICT infrastructure (8.9%)	Technology or innovation (6.9%)	Technology or innovation (10.8%)
Lower costs (7.1%)	Attractiveness / quality of life (6.0%)	Language skills (9.5%)
Attractiveness / quality of life (7.1%)	Universities or researchers (5.2%)	Universities or researchers (8.7%)

Source: fDi Markets

Whilst these analyses give an overview of how locations compete for US FDI more broadly, there are significant differences in motives cited for FDI projects depending on the activity being carrying out. Figure 2 presents the top ten motives cited by US investors for selected business activities into all European locations since 2003. In considering this analysis, it should be noted that companies can give multiple responses and the overall figure will therefore not add up to 100%.

Figure 2: Motives Cited by US Investors for Selected Business Activities, 2003-15



Source: fDi Markets

Some observations are made from this analysis as follows:

- **Proximity to markets and customers** is very important for all projects, much more so than **domestic market growth potential**. This suggests that locations need to be able to access large markets but not necessarily be located within them to be attractive to investors. Business services is the activity considered that is most drawn to growing domestic markets;

- **IPA or government support** continues to underpin investor decisions across the board. Of the eight activities considered, business services and HQ projects were less reliant on this support, whilst R&D projects placed the greatest importance on this. Many of the activities specifically reference **finance or taxes** as motives which attracted them, although **lower costs** only comes up in the top ten for one activity (manufacturing);

- Creating a **pro-business environment** with less regulations is important for supporting all types of investment projects, particularly shared services, HQs and business services;

- The presence of **existing investors and clusters** is helps to attract projects, with HQs and design, development & testing projects citing this most often. Consultations for this research often referred to investors considering which factors make locations appear less risky, and a strong track record of existing companies will certainly be important here. This may be an advantage for larger markets which can play host a greater number of companies;

- **Language skills** are a driver of support projects which require both communicating with US parent companies (i.e. English-speaking) but also serving customers across a range of markets which speak different languages (as those in Europe do). This is most evident in customer contact centres, shared services and technical support centres;

- Motives relating to "quality" such as **technology, innovation, universities or researchers** are only key drivers for some types of projects such as design, development & testing, R&D and technical support centres. But where these factors are cited, they do tend to be very important as a motive for choosing a location; and

- "Softer" motives such as **attractiveness and quality of life** are considered by investors, being cited in the top ten motives for five of the eight activities reviewed (largely in project such as HQs or technical support centres which involve attracting talent).

Five of these motives – skills, access to markets, government support, business climate and industry clusters – appear in the top 10 motives for all eight activities reviewed and therefore represent the core value proposition that any location needs to base itself on. Other factors such as incentives, taxes, language skills, research base, costs and quality of life then become more important for attracting certain types of projects over others.

2.4 Economic Characteristics

Having reviewed the literature and companies own motives to explain FDI decisions, we need to compare this with actual data on FDI decisions and location characteristics. There have been a number of studies taken forward that follow and econometric modelling approach to answer this question, with two in particular looking at the drivers of FDI specifically for NI against comparable benchmarks. Economic Advisory Group (2011) built a model looking at seven factors across 12 small open economies, finding that three (corporation tax, wage rates and labour market regulation) were significant in explaining FDI success. fDi Intelligence (2012) considered 17 factors across 28 European locations, ultimately concluding that four were significant in explaining FDI success (market size, corporate tax rates, wage rates and previous track record).

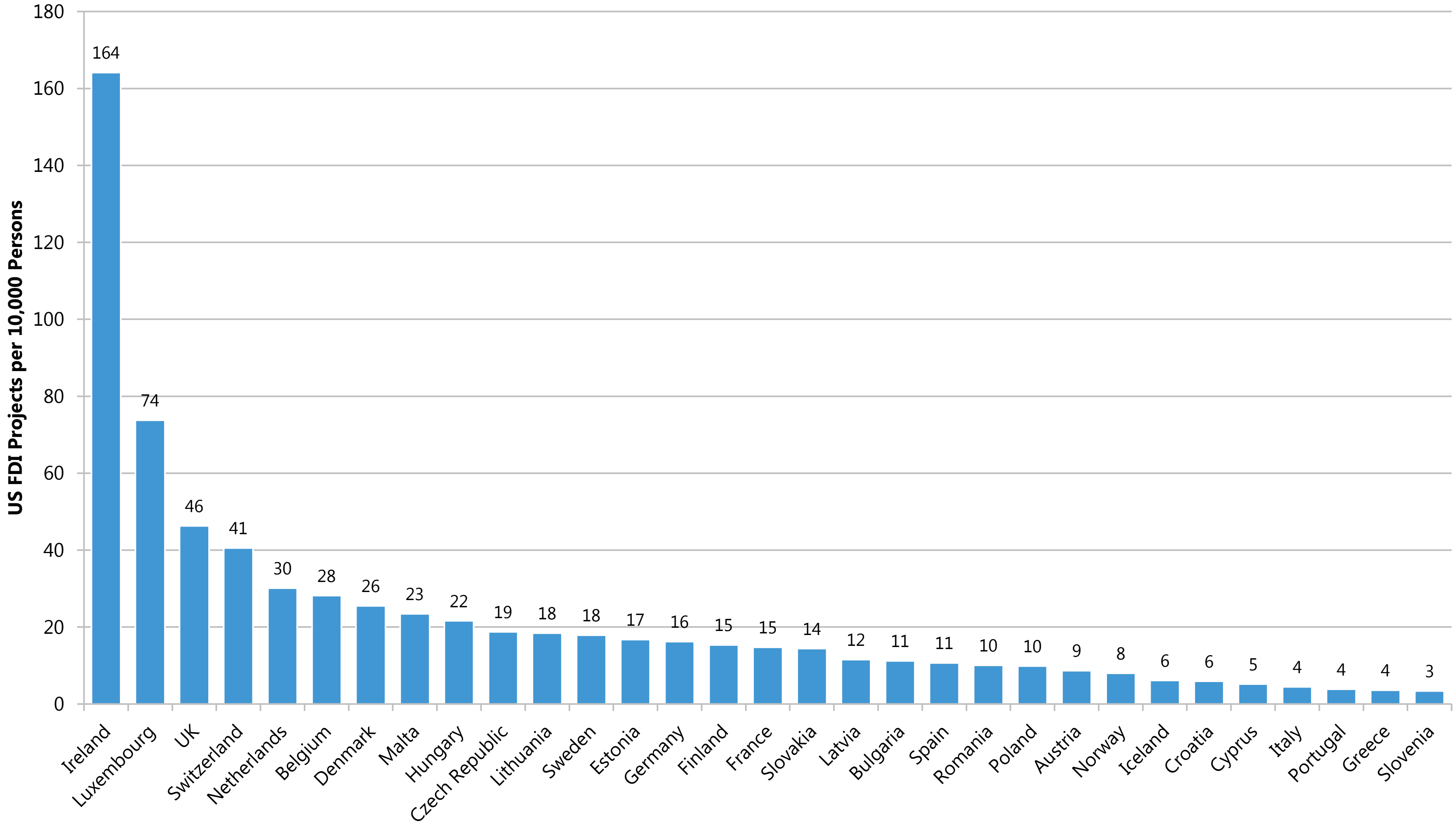
Rather than replicating the econometric modelling, this report will seek to take an approach which is perhaps more closely aligned to how investors or those advising them might look at locations. It will consider the key measures of FDI success – projects and jobs – alongside the economic characteristics of each location to understand which are most common amongst the best performing locations and where differences are observed. It will also look in more depth at how these characteristics correlate with the different types of activities attracting by the UK, ROI and NI.

Overall Location Assessment

An overall measure of success at attracting US FDI projects and jobs in "export sectors" – defined as the tradable services and manufacturing sectors considered in the first report – since 2003 for 31 European countries is presented in Figures 3 and 4. This presents findings consistent with similar success charts earlier in this report; the ROI clearly outperforms elsewhere with Luxembourg second, and highly developed Western Economies are better at attracting projects rather than jobs, where CEE economies tend to be very strong.

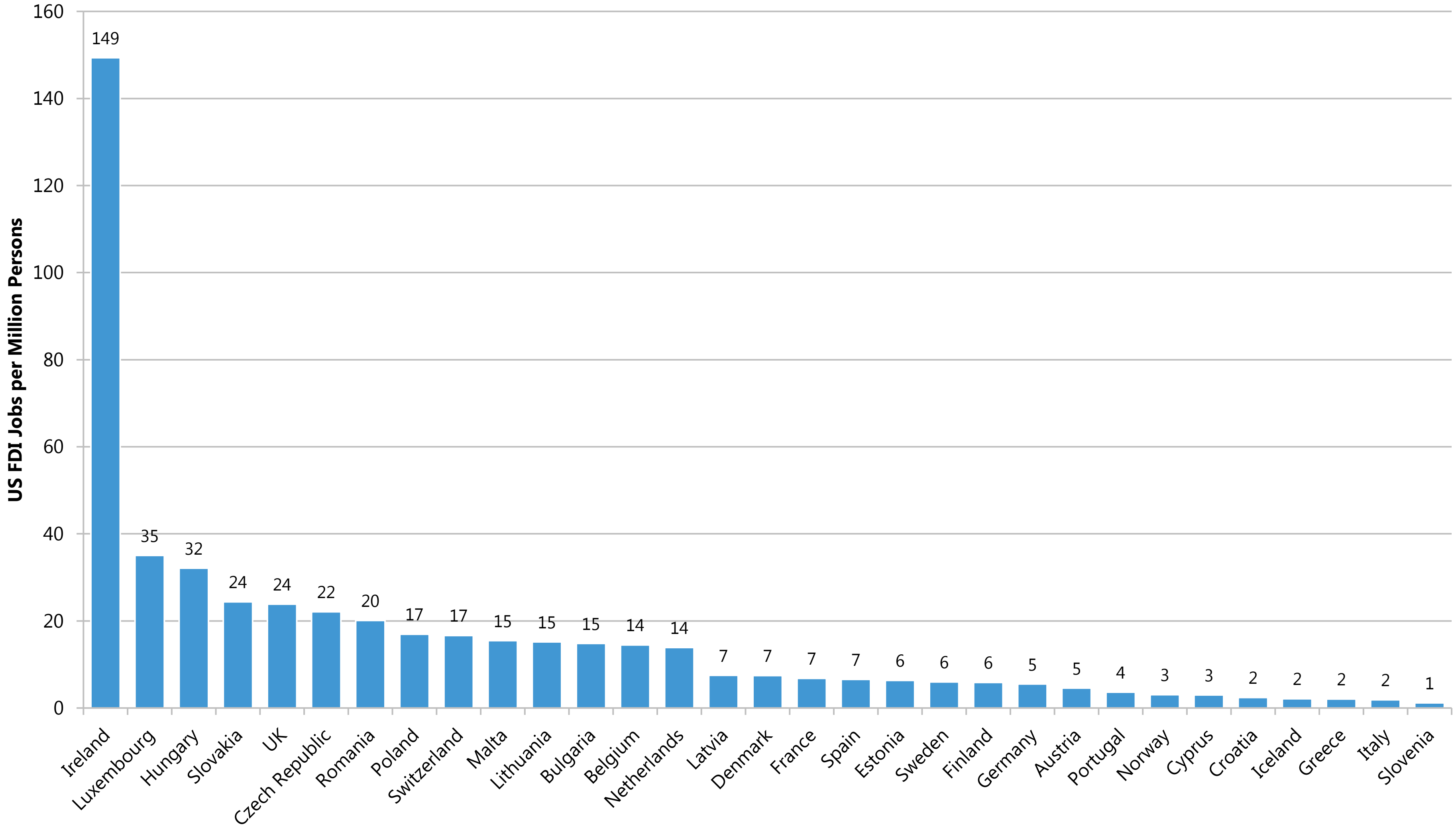
An overview of key characteristics which tend to be cited in both literature and by companies as the reasons for differences in success is shown in Table 7 for each European FDI location. This allows us to make some observations around the overall FDI proposition that European countries can put forward to US investors, ranked by FDI jobs success.

Figure 3: Success of European Locations at Attracting US Tradable Services and Manufacturing FDI Projects, 2003-15



Source: fDi Markets

Figure 4: Success of European Locations at Attracting US Tradable Services and Manufacturing FDI Jobs, 2003-15



Source: fDi Markets

Table 7: Profiles of European FDI Locations (Ranked by FDI Jobs Success), 2003-15

Rank	Market Size	Economic Wealth	Economic Growth	Eurozone Member	Population	Skills	English Speakers	Ease of Doing Business	Operating Costs	Corporate Tax	Financial Support
Rep of Ireland	🟡	🟢	🟡	🟢	🟡	🟢	🟢	🟢	🟡	🟢	🟡
Luxembourg	🔴	🟢	🟢	🟢	🔴	🟡	🟡	🔴	🔴	🟢	🔴
Hungary	🟡	🔴	🟡	🔴	🟡	🔴	🔴	🟡	🟢	🟡	🟢
Slovak Rep	🔴	🔴	🟢	🟢	🟡	🔴	🔴	🟡	🟢	🟡	🟢
UK	🟢	🟢	🟡	🔴	🟢	🟢	🟢	🟢	🟡	🟡	🟡
Czech Rep	🟡	🔴	🟢	🔴	🟡	🟡	🔴	🟡	🟢	🟡	🟢
Romania	🟡	🔴	🟢	🔴	🟢	🔴	🔴	🟡	🟢	🟡	🟢
Poland	🟡	🔴	🟢	🔴	🟢	🟡	🔴	🟡	🟢	🟡	🟢
Switzerland	🟡	🟢	🟡	🔴	🟡	🟢	🟡	🟡	🔴	🟢	🟢
Malta	🔴	🟡	🟡	🟢	🔴	🟡	🟢	🔴	n/a	🟢	🟢
Lithuania	🔴	🔴	🟢	🟢	🟡	🟡	🔴	🟡	🟢	🟢	🟢
Bulgaria	🔴	🔴	🟢	🔴	🟡	🔴	🔴	🟡	🟢	🟢	🟢
Belgium	🟡	🟢	🟡	🟢	🟡	🟢	🔴	🟡	🔴	🔴	🟡
Netherlands	🟡	🟢	🟡	🟢	🟡	🟢	🟢	🟡	🔴	🟢	🔴
Latvia	🔴	🔴	🟢	🟢	🟡	🟡	🔴	🟡	🟢	🟢	🟢
Denmark	🟡	🟢	🔴	🔴	🟡	🟢	🟢	🟢	🔴	🔴	🔴
France	🟢	🟢	🟡	🟢	🟢	🟡	🔴	🟡	🔴	🔴	🔴
Spain	🟢	🟡	🟡	🟢	🟢	🟡	🔴	🟡	🟡	🔴	🟡
Estonia	🔴	🔴	🟢	🟢	🔴	🟢	🟡	🟢	🟢	🟡	🟢
Sweden	🟡	🟢	🟡	🔴	🟡	🟢	🟢	🟢	🔴	🟡	🟡
Finland	🟡	🟢	🟡	🔴	🟡	🟢	🟡	🟢	🟡	🟡	🟡
Germany	🟢	🟢	🟡	🟢	🟢	🟢	🟡	🟢	🔴	🔴	🔴
Austria	🟡	🟢	🟡	🟢	🟡	🟢	🟡	🟡	🔴	🔴	🔴
Portugal	🟡	🟡	🔴	🟢	🟡	🟡	🔴	🟡	🟡	🔴	🟡

Rank	Market Size	Economic Wealth	Economic Growth	Eurozone Member	Population	Skills	English Speakers	Ease of Doing Business	Operating Costs	Corporate Tax	Financial Support
Norway	Amber	Green	Amber	Red	Amber	Green	Green	Green	Red	Red	Red
Cyprus	Red	Amber	Amber	Green	Red	Amber	Amber	Amber	n/a	Green	Amber
Croatia	Red	Red	Amber	Red	Amber	Red	Red	Amber	Green	Amber	Green
Iceland	Red	Green	Green	Red	Red	Green	Amber	Green	Red	Amber	Green
Greece	Amber	Amber	Red	Green	Amber	Amber	Amber	Red	Amber	Red	Green
Italy	Green	Green	Red	Green	Green	Amber	Red	Amber	Amber	Red	Amber
Slovenia	Red	Amber	Amber	Green	Amber	Amber	Amber	Amber	Amber	Amber	Green

Sources: World Bank Databank; World Economic Forum Competitiveness Report 2015/16; Eurobarometer 2012, Europeans and their Languages; World Bank Doing Business 2016; fDi Benchmark; OECD Tax Database; tradingeconomics.com; Gravelle 2015, International Tax Avoidance and Evasion; Tax Foundation 2015, International Tax Competitiveness Index; European Commission 2013, Ex-post Evaluation of Regional Aid Guidelines

Notes: Market size is average GDP, $bn, 2003-14; Green=1,000+, Amber=100-999, Red=0-99
Economic wealth is average GDP per capita, EU=100, 2003-14; Green=100+, Amber=50-99, Red=0-49
Economic growth is average % GDP growth, 2003-14; Green=2.5+, Amber=1-2.4, Red=0.9
Population is average population, millions, 2003-14; Green=20+; Amber=2-20; Red=0-1.9
Skills is average WEF HE & Training Pillar competitiveness rank, 2006-07 to 2015-16; Green=1-20, Amber=21-50, Red=50+
English speakers is percentage of population who can hold a conversation in English, 2012; Green=80+; Amber=50-79; Red=0-49
Ease of doing business is ranking, 2015; Green=1-20; Amber=21-50; Red=50+
Operating costs is the average total cost of 10 different types of operations (customer support centre, IT tech support centre, regional HQ, software development centre, accountancy office, data centre, biopharma manufacturing, life sciences R&D centre, electronic components manufacturing, renewable energy tech support) across 29 European locations, 2015; Green=75% or below, Amber=76%-124%, Red=125%+
Corporate tax is average combined tax rate, 2003-15; Green=0-16, Amber=17-22, Red=23+; except for Malta, Netherlands and Luxembourg (based on preferntial tax arrangements), Switzerland (based on variable rates in Cantons which can be very low along with preferential tax arrangements); and UK (where rate has fallen significantly since 2010.
Regional aid is maximum intensity rates for large companies 2007-13; Green=30%+ with large coverage; Amber=<30% with limited coverage; Red=no aid or very little coverage

The colours assigned to each FDI driver reflect whether it is amongst the top performing and might attract companies in itself (green), something which is broadly acceptable and would not put companies off although would not necessarily attract them (amber), or something which may cause companies concern without further assurances (red). Spain, for example, might be attractive because it has a large market, is part of the Eurozone and has access to lots of people. However, it has high corporate taxes and few English speakers which, depending on the project, may dissuade companies. Others factors such as economic growth, wealth, skills, ease of doing business, operating costs and availability of financial incentives are neither good enough nor bad enough to sway companies either way unless they are specifically looking for a location which excels in these.

Republic of Ireland

Table 8 highlights that the ROI value proposition for FDI is strong, with many strengths and no major weaknesses. Many of the factors listed as strengths are common across many European countries but, importantly, no other European country is able to offer *all* these – the ROI is the only one which does not have a "red" assessment for any single variable.

Table 8: Assessment of ROI Value Proposition

Key Strengths	• Highly-developed economy • Part of the Eurozone • Pro-business environment • High level of skills • English speaking population • Financial support in some parts of the country • One of the simplest and lowest corporate tax regimes across the EU
Acceptable Characteristics	• A medium size market that has shown growth • Enough people to support relatively large scale investments • Competitive costs in a Western European context • Financial support in some parts of the country
Weaknesses	• None

Source: fDi Markets

Corporate tax rates are a particular differentiator with other locations, most of which are "amber" or "red". There are many countries than can offer some or indeed much of what the ROI does, but there are none that have offered such a wide proposition. Many competitors lag behind on corporation tax and those that do not tend to fall down in other areas. When people say there are a range of factors why the ROI is so successful at attracting US FDI this is true – it is the very fact that it can offer a wide proposition *along with* corporation tax as a key differentiator which underlies its success. Tax is not the reason why US companies choose the ROI, tax along with everything else it can offer is.

The importance of corporate tax rates can be seen elsewhere too. Countries such as Netherlands, Switzerland and Luxembourg (along with ROI) make up four of the five most successful locations at attracting FDI projects. Low tax can therefore supplement their other strengths (be they wealth, skills, language or market access) to make them very attractive destinations for US investors. However, other locations with low tax rates which do not perform as well (Malta and some CEE countries) show that corporate tax is not necessarily enough on its own to make up for other structural weaknesses when there are Western European economies able to offer low tax without these. An assessment of other locations with favourable tax regimes is shown below in Table 9.

Table 9: Assessment of Other Low Corporate Tax Locations

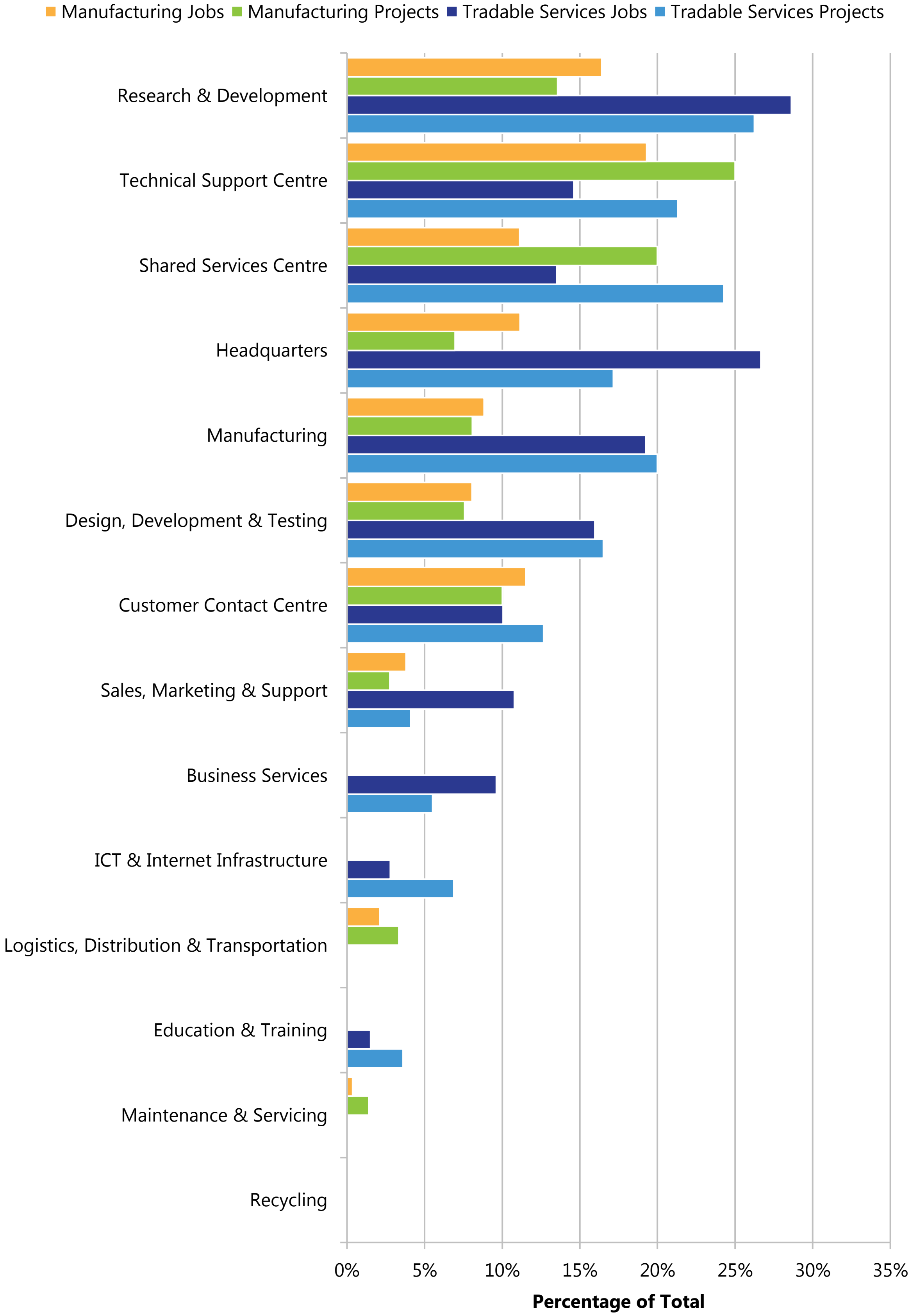
Location	UK
Switzerland	Switzerland only has low tax rates in some of its Cantons, meaning companies are not freely able to avail of this in any location. It is also a very expensive place to operate from and is not part of the Eurozone.
Netherlands	Netherlands is attractive from a tax perspective due to arrangements it has in place which allow companies to benefit from lower rates in other locations; but its headline rate of 27% is high meaning that companies have to set up additional arrangements to benefit from lower rates. This also means that low taxes are not available freely to all businesses, and the Netherlands also has very high costs and offers very limited financial assistance.
Malta, Luxembourg	Both Malta and Luxembourg have high headline corporate rates and companies therefore have to go to additional lengths to take advantage of lower rates (for example through setting up secondary tax arrangements or rebates on certain activities). This adds complexity and is coupled with populations that are too small to support a critical mass of jobs and unfavourable business environments.
Latvia, Lithuania, Bulgaria	Latvia and Lithuania both have similarly low and straightforward tax rates but are much less developed economies and do not have anywhere near as many English language speakers. They will also culturally be much more removed from the US along with an additional two hours time difference. Bulgaria is much the same but is also not part of the Eurozone.

Source: fDi Markets

A key consideration here is which FDI activities the ROI value proposition, centred around low taxes alongside a range of strong FDI fundamentals, is most likely to attract. Figure 5 presents an overview of the share of US FDI going to European locations that the ROI attracts by sector and business activity. Some key things to note from this are:

- Activities where the ROI has been most successful are R&D, technical support centres, shared services centres and headquarters;
- A relatively large share of US FDI in manufacturing, customer contact centres and design, development & testing activities has located in the ROI;
- The ROI has not been as successful at attracting sales, marketing & support, business services and ICT & internet infrastructure FDI activities; and
- Very little FDI carrying out activities in logistics, distribution & transport, education & training, maintenance & servicing and recycling has located in the ROI.

Figure 5: ROI Share of US FDI into European Locations, 2003-15



Source: fDi Markets

United Kingdom

The UK stands out as the only European country which is successful at attracting FDI projects despite having had high taxes during much of the period under review. It is also the only large economy that is still highly successful after population size has been taken into account. To understand why, an overview of the UK value proposition for FDI is shown in Table 10.

Table 10: Assessment of UK Value Proposition

Key Strengths	• Large domestic economy, and host to the biggest EU market in London • Highly-developed and wealthy economy • Very large population to support a critical mass of investments • High level of skills • English speaking population • Pro-business environment
Acceptable Characteristics	• Steady but not spectacular economic growth • Competitive costs in a Western European context • Financial support in some parts of the country
Weaknesses	• Not part of the Eurozone, although has had full access to EU market • High corporate tax rates over the period, albeit falling significantly recently

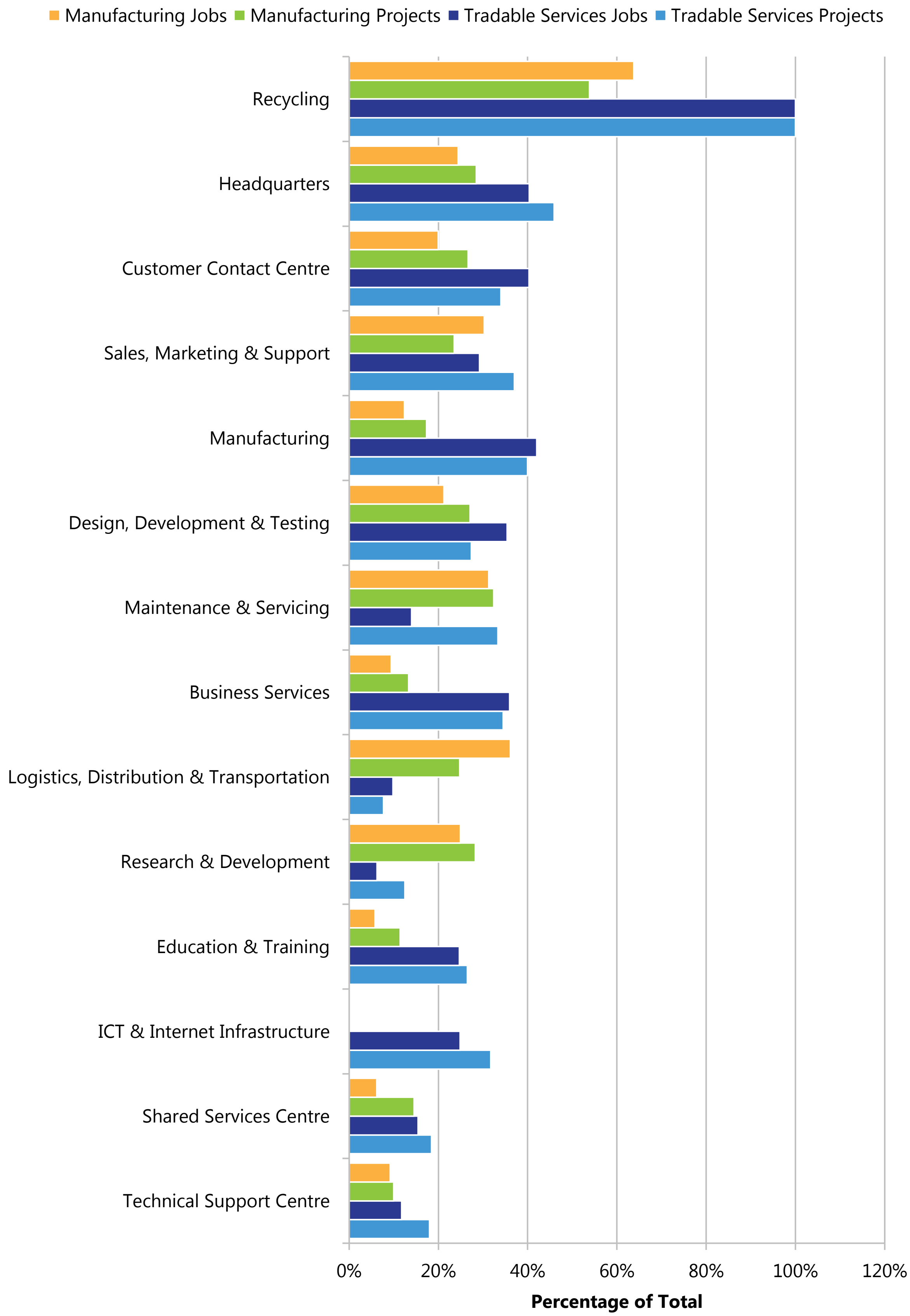
Source: fDi Markets

This assessment shows that, with the exception of Eurozone membership and corporate taxes, the UK has a very strong proposition for FDI. And these two areas are not actually as weak as they might seem. Firstly, although it is not part of the Eurozone, it plays host to London which is one of the largest global markets. US companies seeking to access this key market therefore have to locate within the UK if the wish operate as part of the same currency regime. Second, UK corporate tax rates have fallen significantly from 30% in 2008 to 20% in 2015, with further reductions planned to 17% in 2020. FDI into the UK has risen substantially during this period, so although the average corporate tax rate was high during 2003-15, in effect it was much lower for the final few years of this period when performance was exceptionally strong.

We can compare the UK with Germany, which has a similarly strong FDI proposition but does not have anywhere near as much success with US investors. Whereas companies seeking to serve the London market must locate in the UK to work within one currency, those seeking to serve Munich, Dortmund or Dusseldorf do not have to locate in Germany as the Euro is common across many countries. Another key comparison here to make is English speakers. Although this reflects only the percentage of people who can carry a conversation in English, the higher ranking for the UK also relates to its must closer cultural and historic linkages (something with the ROI also can, but not strong English speaking countries such as Norway, Sweden and Denmark). Investors may not necessarily choose a location because of cultural closeness, but they are likely to naturally think of it first over another location with an otherwise similar proposition. The UK reductions in the corporate tax rate will also have made it a much more attractive choice in recent years, something which not happened to the same extent in Germany, alongside the ability of certain regions to offer financial incentives.

In order to understand the type of FDI that this proposition has attracted, an assessment of the activities that have located in the UK since 2003 is shown in Figure 6.

Figure 6: UK Share of US FDI into Europe by Sector and Activity, 2003-15



Source: fDi Markets

Some key things to note from this are:

- The UK is highly successful at attracting recycling projects, and is also a key location for US headquarters, customer contact centres and sales, marketing & support projects.
- A large proportion of projects in manufacturing, design, development & testing and maintenance & servicing have located in the UK.
- The UK has been competitive for business services, education & training and ICT & internet infrastructure projects in tradable services but not as much within manufacturing; and
- Conversely, projects carrying out logistics, distribution & transport and R&D have chosen to locate within the UK for manufacturing much more so than within tradable services.

In contrast with the ROI, which was much more heavily concentrated on certain activities, the UK is competitive across all types of business activities. This is likely due to its much larger size and corresponding ability to compete in a broader range of areas. Consultations for this research rarely mentioned the UK and ROI being direct competitors for the same FDI projects. There are clearly projects which are in direct competition when we consider differ parts of the UK and ROI against one another, but investors looking to serve and support the large UK market will be naturally attracted to UK locations, whereas those looking for a Eurozone base with a low corporate tax rate will naturally think of the ROI (with factors such as costs, skills and ease of doing business much the same between the). GB (not NI as it is physically separate) also has the advantage of scale as it can support much larger projects with its 62 million population compared with the 4.6million in ROI.

Northern Ireland

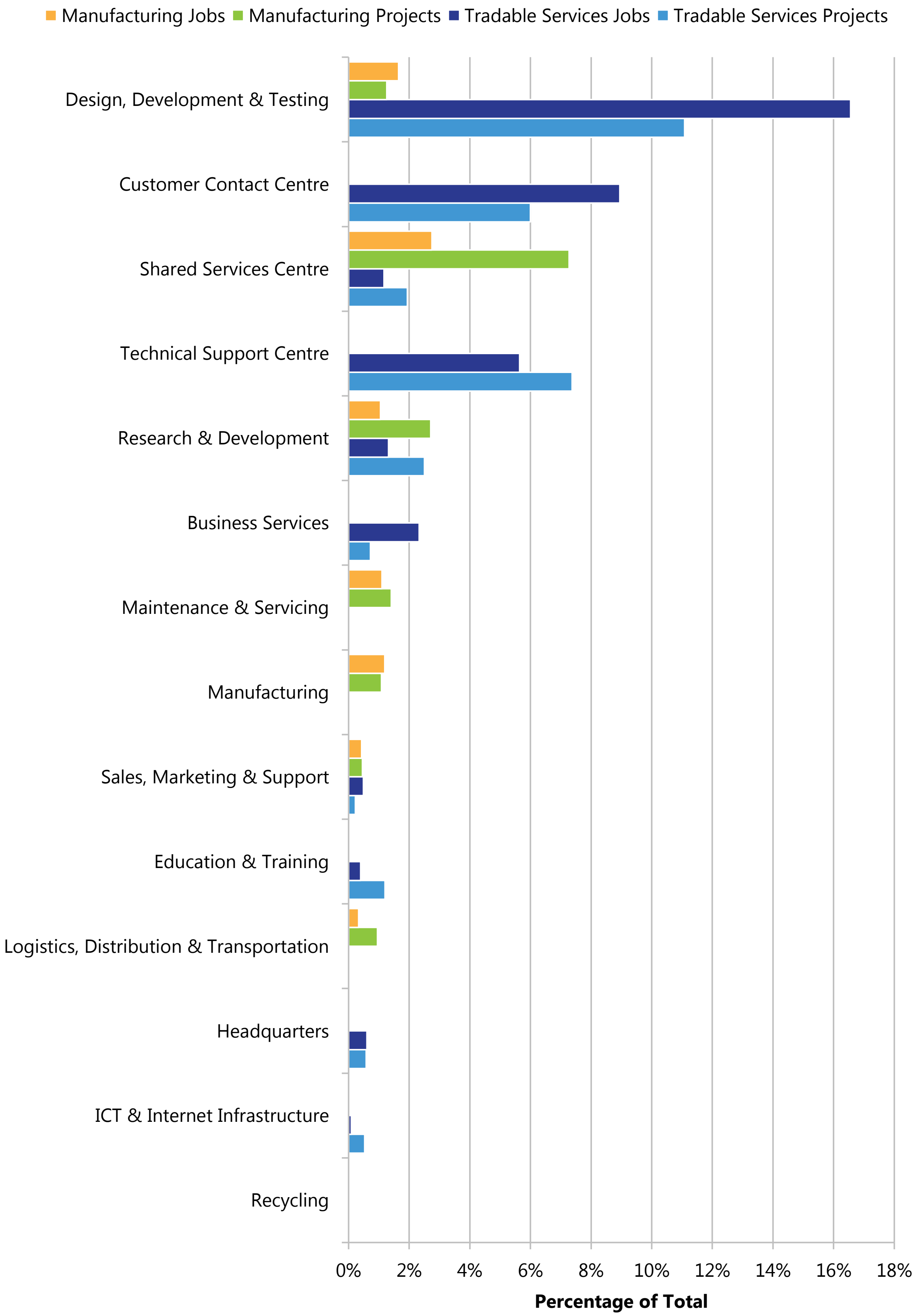
Many of the advantages of size and scale that the UK holds over the ROI are not directly available within NI. Table 11 highlights that NI's proposition centres around skills and cost competitiveness, alongside the ability to offer financial support. An overview of the types of activities that this FDI proposition has attracted is shown in Figure 7.

Table 11: Assessment of NI Value Proposition

Key Strengths	• High level of skills • English speaking population • Part of the wider UK pro-business environment • Highly competitive costs in a Western European context • Ability to offer financial support throughout the region
Acceptable Characteristics	• Developed economy that is relatively wealthy • Small domestic market, but part of the larger UK market • Mixed economic growth performance
Weaknesses	• Small population • Not part of the Eurozone, although has had full access to EU market • High corporate tax rates over the period, but falling significantly recently

Source: fDi Markets

Figure 7: NI Share of US FDI into Europe by Sector and Activity, 2003-15



Source: fDi Markets

Some key things to note from this are:

- US FDI into NI has been very heavily concentrated on relatively few activities, even more so than the ROI;
- NI is a leading European destination for design, development & testing FDI within Europe. For a small region of just 1.8 million people to have attracted over 16% of all US FDI into the 31 European locations reviewed in this study represents a significant success story;
- Other tradable services activities which have been particularly attracted to NI are customer contact centres and technical support centres;
- Within manufacturing, NI has been very attractive for shared services centres and has also been able to compete for R&D activities as well. Other projects have involved design, development & testing, manufacturing and maintenance & servicing; and
- NI has had very limited success in activities such as headquarters, sales, marketing & support, business services, education & training, logistics, distribution & transport, ICT & internet infrastructure and recycling.

Hungary

Central and Eastern European (CEE) economies have had significant success in attracting US FDI since 2003, which broadly corresponds with the period when many of these have joined the EU. As the third most successful European location for US FDI jobs, Hungary presents a good comparator to assess the type of FDI that is heading to CEE countries instead of Western Europe. An overview of Hungary's proposition is shown in Table 12.

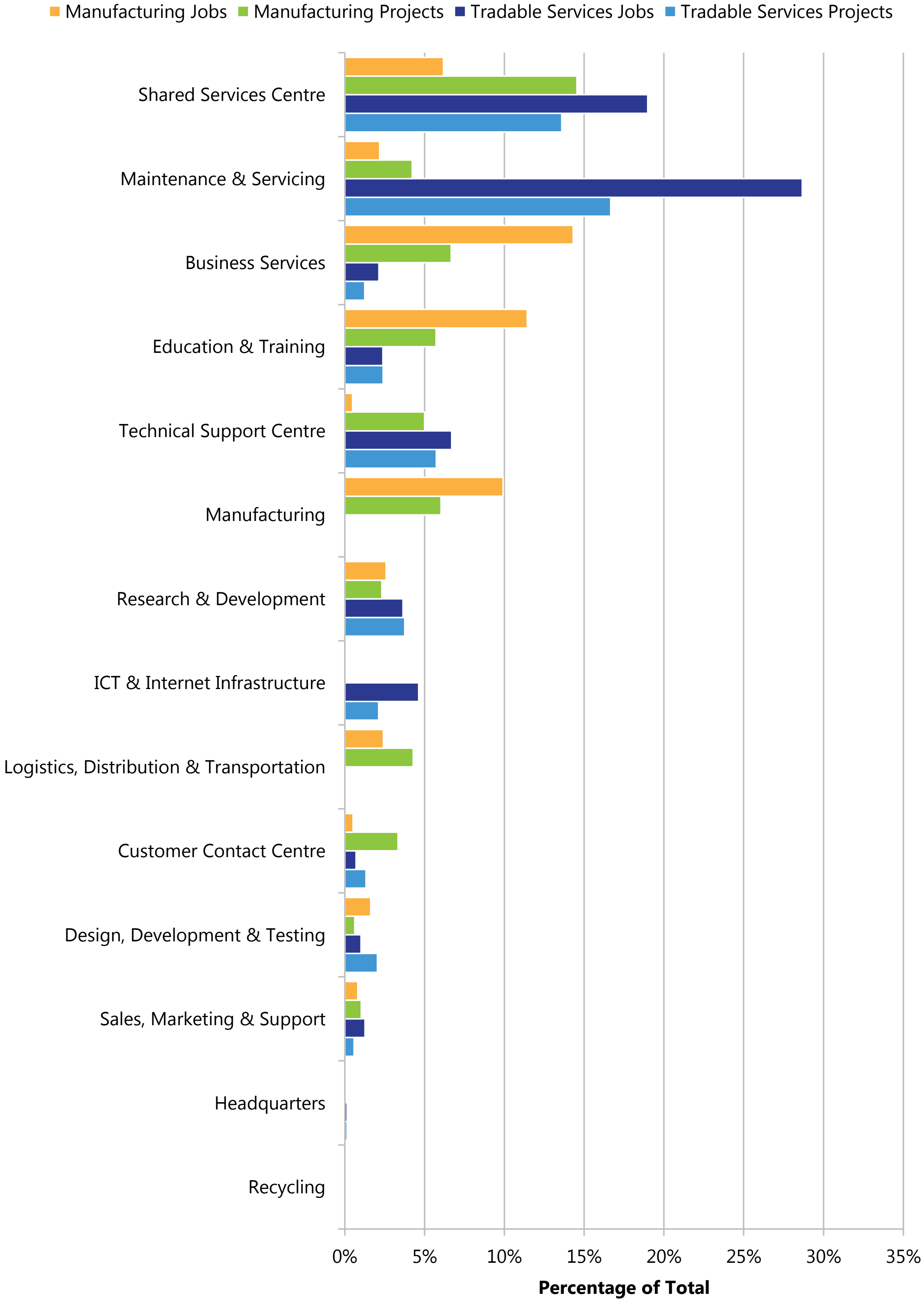
Table 12: Assessment of NI Value Proposition

Key Strengths	• Low operating costs • High levels of financial assistance available
Acceptable Characteristics	• A medium size market that has shown growth • Enough people to support relatively large scale investments • Fairly pro-business environment • Relatively low corporate tax rates
Weaknesses	• Less developed economy that has been rapidly improving • Not part of the Eurozone, although has had full access to EU market • Lower skills across society, but highly skilled in certain sectors • Smaller proportion of English speakers

Source: fDi Markets

This highlights that whilst Hungary has does not have as strong fundamentals as locations such as the UK or ROI, it has been able to succeed at attracting US FDI through an offer based around low costs, high levels of financial assistance, and relatively low corporate tax rates. Whilst an overall assessment might rank Hungary's skills competitiveness as lagging behind elsewhere, this will mask significant differences whereby it exhibits high skills in certain sectors (e.g. automotive manufacturing). An overview of activities where Hungary has been successful is shown in Figure 8.

Figure 8: Hungary Share of US FDI into Europe by Sector and Activity



Source: fDi Markets

Some key things to note from this are:

- Hungary's most successful activity relates to shared services centres across both tradable services and manufacturing sectors;
- Outside of this, manufacturing sector FDI to Hungary has tended to focus on business services, education & training and manufacturing activities;
- Within tradable services, Hungary has been particularly attractive for maintenance & servicing projects and, to a lesser extent, technical support centres, R&D and ICT & internet infrastructure; and
- Hungary has had very little success in attracting customer contact centres, design, development & testing, sales, marketing & support, headquarters and recycling activities from US FDI projects.

2.5 Summary

There is no simple answer to the question "what determines a US firm's investment decision?" Ultimately this will depend on a range of factors, including the original motive for seeking to invest overseas and the types of activities being located elsewhere. Nonetheless, a range of analyses has been carried out in this chapter to try and help explore this further.

The literature would suggest that there are key factors which get locations on a shortlist for an investment (e.g. access to markets or low corporate taxes) and then key differentiators (e.g. talent, clusters, financial support) which will sway the decision between those locations shortlisted. For NI, this suggests that relatively high corporate tax rates mean that it has not been getting on the shortlist for many types of projects where tax is important, but it also means that low tax still needs to be accompanied by other factors which will make it an attractive location relative to its competitors.

The motives that US companies cite when making investment decisions suggest that the core value proposition of any location competing for any FDI activity needs to be built on a solid foundation of skilled labour, access to markets, government support, business climate and industry clusters. Other factors such as incentives, taxes, language skills, research base, costs and quality of life then become more attractive for attracting certain types of activities over others. Again, this reinforces the need to supplement key "deal breakers" for certain activities with a strong underlying broad value proposition.

Ultimately, when we look at locations which have been successful at attracting US FDI the key factors which tend to be important are corporate taxes, operating costs and financial incentives within a pro-business environment. That is not to say that these are the only factors which are important, nor that any one country can offer all of these, nor indeed that these incentives will attract all types of FDI activities. But, on a macro level looking at the investment decisions of US multinationals since 2003, almost all the most successful locations have been able to offer at least one of these three factors.

The ROI emerges as the most successful US FDI location and offers a straightforward 12.5% corporate tax rate. It would be wrong to suggest that tax is the sole reason why US firms have chosen the ROI as an investment location, particularly as the analysis has shown that it has the strongest and most broad value proposition for US FDI compared with any other European location. Low corporate tax is a key differentiator for the ROI, and its strong overall FDI proposition allows it to use this tool effectively in competing successfully not only for higher value activities such as R&D, headquarters, design & development and technical support, but also for wider support services activities and manufacturing.

The UK is the only successful location that US companies choose which has not offered low corporate taxes, low costs or high financial incentives over the period reviewed (although its recent and planned reductions to a tax rate of 17% in 2020 will move it into this space). The UK offers a broad value proposition and is a natural first location for expanding US firms seeking to access overseas markets (particularly London) and well-educated, English-speaking talent. Even if a US company is attracted to London initially, it can subsequently observe the wide range of skills and cost savings that can be made across other parts of the UK as well. This has made the UK an attractive destination for US headquarters, contact centres, sales & marketing and manufacturing.

Lacking in the UK's scale and diversity, and the ROI's low tax and track record in certain areas, the key drivers of US FDI to NI have been more narrowly focused around strong talent, competitive costs and government support. This existing proposition has delivered considerable success for NI amongst US investors, particularly for design, development & testing, customer contact centres, shared services centres, technical support centres and R&D activities. These activities reflect the proposition on offer, and much less success has been evident in areas such as headquarters and manufacturing which both the ROI and UK have been able to attract (even with having very different propositions themselves).

It would be expected that the reduction in NI's corporate tax rate to 12.5% would help it to become more attractive for these kinds of activities, particularly headquarters. Attracting HQs will naturally bring with it a range of support activities and, once an investor has established in a location and had an opportunity to have first-hand sight of the available talent pool and research base on offer, they will then be more disposed to bring other types of activities at a later date. On an even more practical point, multinationals wanting to attribute larger proportions of profits to a low tax location need to have more activity in place there to do so to meet international tax rules. Reduced corporate tax rates can therefore be a stimulus for a range of activities, including those that are cost rather than profit driven, by getting the headquarters to establish there in the first place.

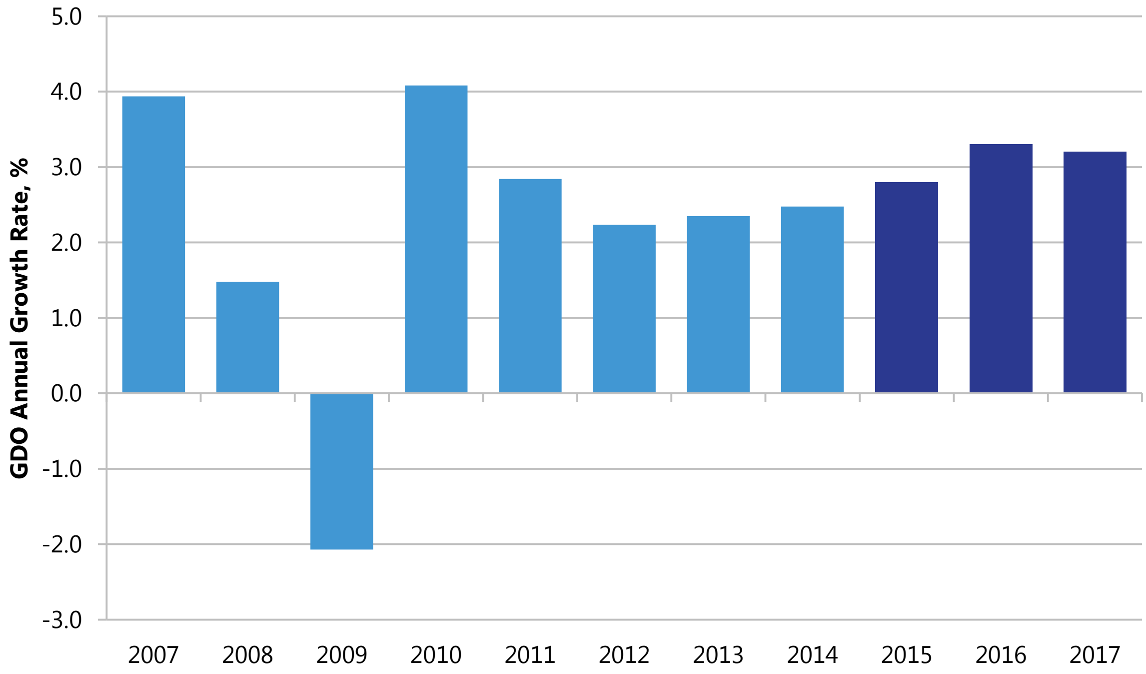
3 US FDI and Market Access

Access to markets is a key driver of US overseas investment, and London is natural first step for US companies entering Europe. The extent to which US investors can access markets going forward will depend on the agreement reached following the UK's decision to leave the EU.

3.1 Economic Growth

FDI is closely linked to economic growth, with growing markets likely to have more companies seeking to expand internationally (outward FDI) and being more attractive to investors (inward FDI). Figure 9 highlights that the strong recovery in 2010 following the global downturn in 2008 and 2009 was not been maintained, with growth dipping again in 2011 and 2012. Performance more recently has been solid rather than spectacular, although the outlook for 2015-17 onwards is positive (but still below the average growth rate for 2004-07 of 3.9% per annum).

Figure 9: World GDP Growth Rates, 2007-17



Source: World Bank Databank; World Bank Global Economic Prospects: June 2015
Note: 2015 data onwards are forecasts

Table 13 presents a breakdown of average annual growth rates for 2012-14 and 2015-17 by broad country group. This highlights that the main driver of increased world growth up to 2017 is expected to come from high income countries, although the absolute growth rate is still expected to be much lower than in developing economies. Much of the growth in developing markets is expected to come from East Asia and Pacific (China in particular despite its recent slowdown) and Sub-Saharan Africa.

Table 13: Breakdown of Growth Rates

Annual Average %	2012 to 2014	2015 to 2017
High income	**1.5**	**2.2**
US	2.3	2.6
UK	1.7	2.5
Euro area	-0.1	1.6
Japan	1.1	1.3
Russia	1.8	0.2
Developing economies	**4.9**	**5.0**
East Asia and Pacific	7.1	6.7
Europe and Central Asia	2.7	2.9
Latin America and Central America	2.2	1.7
Middle East and North Africa	1.3	3.2
Sub-Saharan Africa	4.3	4.6

Source: World Bank Global Economic Prospects: June 2015

Of particular relevance from the table above is that the US is expected to have the strongest growth out of the five high income groups shown, with the UK second. This means that over the coming years, the economic growth context in both these economies will be favourable to FDI. Growth in the Euro area (which the ROI is part of) is also expected to significantly improve.

Global Market Size

In considering overseas markets as a "pull" factor for US FDI, there are a number of things to take account of – how big the market is, how fast it is growing, how wealthy it is and how fast its wealth is growing. A comparison of market conditions for the 20 largest global economies is highlighted in Table 14. US companies benefit from being part of the largest market of any country, as well as one of the wealthiest. The US market has also been growing faster than many of its wealthy comparators, and the outlook for the next five years is generally stronger too. Outside of the US, there are essentially three groups of countries that US firms will want to serve, either via exports or FDI.

The first group includes long-established developed economies which do not exhibit strong growth but still have large and wealthy markets (e.g. Japan, Germany, the UK). The second group includes economies which are not historically wealthy but now are (e.g. Korea, Saudi Arabia). And the third group represents countries which are still relatively poor but are experiencing strong growth in size and/or wealth (e.g. China, India). Whilst US companies can serve these markets via exports, it is likely that firms (particular larger firms or existing MNCs) will choose an FDI approach once they build up a critical mass of customers overseas and/or are looking to establish a greater market share.

Table 14: GDP Market Size, Growth and Wealth by Country

Country	GDP Size (share of world GDP 2014)	Ave Annual GDP Growth (2007-14)	Ave Annual GDP Growth Forecast (2015-20)	GDP per Capita (2014, PPP, US=100)	GDP per Capita Growth (2000-14)
United States	22.5%	1.1%	2.5%	100	50%
China	13.4%	8.8%	6.3%	24	352%
Japan	6.0%	0.1%	0.8%	68	47%
Germany	5.0%	0.7%	1.4%	84	55%
United Kingdom	3.8%	0.5%	2.3%	72	53%
France	3.7%	0.3%	1.6%	74	42%
Brazil	3.0%	3.0%	1.6%	29	76%
Italy	2.8%	-1.3%	1.0%	65	24%
India	2.7%	6.9%	7.6%	11	187%
Russia	2.4%	1.7%	0.1%	45	137%
Canada	2.3%	1.6%	2.0%	82	51%
Australia	1.9%	2.5%	3.0%	85	62%
Korea	1.8%	3.2%	3.6%	65	114%
Spain	1.8%	-0.7%	1.9%	62	39%
Mexico	1.7%	1.9%	3.5%	33	49%
Indonesia	1.1%	5.9%	5.7%	19	129%
Netherlands	1.1%	0.0%	1.7%	87	43%
Turkey	1.0%	3.3%	3.5%	36	92%
Saudi Arabia	1.0%	5.2%	3.1%	96	78%
Switzerland	0.9%	1.4%	1.5%	106	50%

Source: IMF World Economic Outlook Database: April 2015

3.2 Access to Markets

For this study, it is going to be access to the UK and broader EU market which are most relevant. The US economy has close linkages to both the EU and UK. In terms of trade, the EU is the second largest trading partner for the US, and the UK represents the fifth biggest export market for US overseas sales. [8] The US also represents the largest source of FDI inflows into both the EU[9] and the UK[10].

The EU represents a single market with a regulatory framework that fosters the free movement of goods and services, removes barriers to intra-EU trade, and promotes a business and consumer-friendly environment. [11] 19 of the 28 EU economies are part of the Euro area, which provides a single currency within the EU market[12]. A comparison of market size is shown in Table 15.

[8] http://www.trade.gov/mas/ian/build/groups/public/@tg_ian/documents/webcontent/tg_ian_003364.pdf
[9] http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Top_10_countries_as_extra_EU-27_partners_for_FDI_positions,_EU-27,_end_2010%E2%80%9312_(billion_EUR)_YB15.png
[10] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/435646/UKTI-Inward-Investment-Report-2014-to-2015.pdf
[11] http://ec.europa.eu/growth/single-market/index_en.htm
[12] Bulgaria, Croatia, Czech Republic, Denmark, Hungary, Poland, Romania, Sweden and the UK are not in the Euro area.

Table 15: EU Market Size, Growth and Wealth

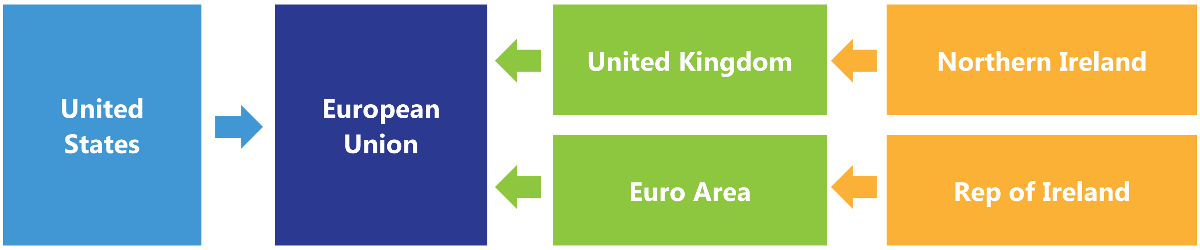
	GDP Size (share of world GDP 2014)	Average Annual GDP Growth (2007-10)	Average Annual GDP Growth (2011-14)	GDP per Capita (2014, PPP, US=100)
United States	22.4%	0.3	2.1	100
European Union	23.7%	0.3	0.7	66
Euro area	17.2%	0.3	0.3	71
UK	3.8%	0.0	1.6	72

Source: World Bank Databank

Note: Figures may vary from Table 14 due to change in source

The attraction of the EU for US firms is clear, with a relatively wealthy population which has an overall market size that is larger than the US. A US firm locating in any member state can serve the entire of the EU due to the single market, with a key differentiator between countries being access to the Euro area. A summary of how NI sits within these markets (until the UK leaves the EU in 2019) is shown in Figure 10.

Figure 10: Overview of US Access to EU Market



In the context of seeking to attract US FDI, smaller regional economies such as NI and ROI will not typically be the direct market that firms are seeking to serve. [13] However, that does not mean that these locations cannot be attractive to market-seeking US FDI. Let us consider two examples here:

1. A US FDI project which is seeking to exploit a specific EU or UK market due to its size (e.g. retail, construction, tourism) or specialism (e.g. City of London) will put its customer-facing operation in this market. However, there may be mobile investment opportunities for supporting activities in nearby locations to service these operations; or

2. A US FDI project may be seeking to set up an EU or UK regional base (either customer-facing or support services) to service a number of markets via exports. The overall project will be much more mobile across the EU for IPAs to contest due to the single market.

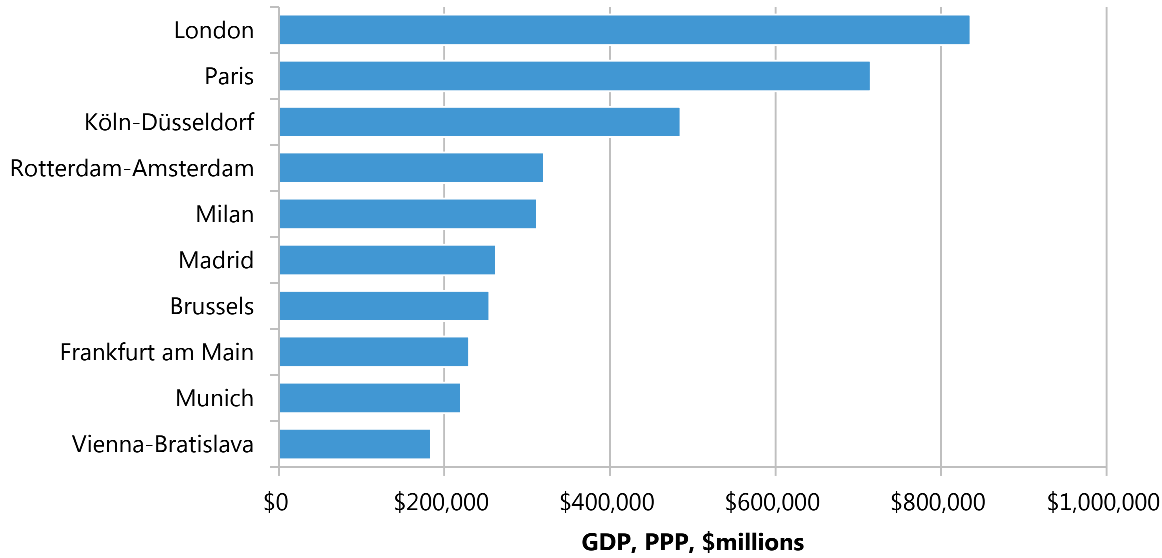
In the second example, the lack of trade barriers mean that the key market factor to date has been whether the company wants to be in the Euro area or not (along with logistics of distance of language depending on what its main EU markets are). This decision is likely to be swayed by the extent to which the US firm is seeking to serve the UK market – those whose primary EU market is the UK may wish use the Pound Sterling and then trade freely with other EU members accepting that there will be currency fluctuations with the Euro. NI (as a region of the UK) is not part of the Euro area is therefore

[13] Eurostat data shows that NI GDP in 2013 was equivalent to 0.3% of the EU28 total, whilst ROI GDP made up 1.3%.

most likely to be competitive for EU regional operations which serve the UK and want to be part of the single market, but do not need to be part of the Euro area.

In the first example, a key factor for a secondary support service will be the primary market that the US firm is seeking to operate in. A comparison of the largest EU metro areas is presented in Figure 11. This highlights that London is the biggest EU metro market, followed by Paris. As a region of the UK, NI is therefore strongly position to compete for support service activities for US FDI which primarily seeks to serve the large London market.

Figure 11: Largest EU Metro Areas, 2014



Source: Brookings Global Metro Monitor 2014

3.3 UK Exit from European Union

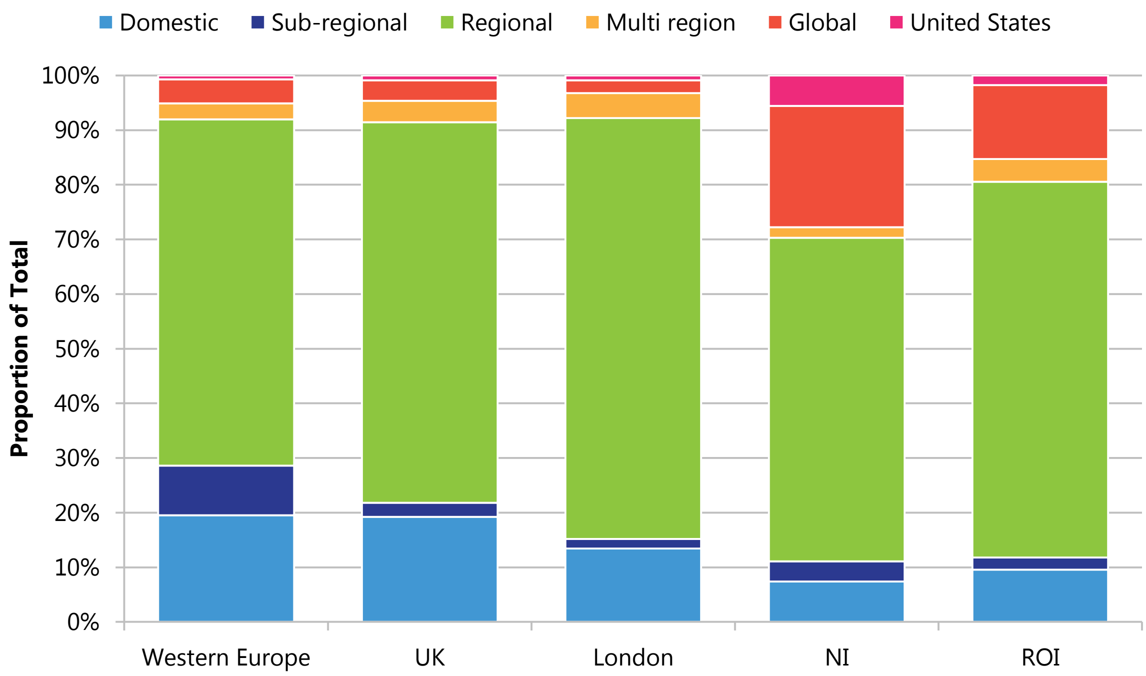
This overview of the EU and UK markets holds true over the period that this research has largely focused on (2003-15). However, subsequent to the primary research for this study being carried out, the UK voted to leave the EU in June 2016. The UK Government has since confirmed that the UK will not be seeking membership of the single market, but will pursue instead a new strategic partnership with the EU, including an ambitious and comprehensive Free Trade Agreement (FTA) and a new customs agreement.[14] The economic relationship between the UK and EU, and therefore the manner in which US investors can access the EU market from within the UK, will be different going forward.

Market access has been identified earlier as a core part of a location's value proposition for US FDI. To understand the importance of the EU market to US investors, Figure 12 presents information on the main markets that US FDI projects have served during 2003-15 across a range of UK locations, as well as the ROI and Western Europe. This highlights that one-fifth of US FDI to Western Europe has sought to serve the domestic market of the country it establishes in, which is almost identical to the market served by projects into the UK. Conversely, this means that 80% of US FDI projects seek to serve

[14] https://www.gov.uk/government/publications/the-united-kingdoms-exit-from-and-new-partnership-with-the-european-union-white-paper

export markets from these destinations, which rises to 90% or more for NI and ROI given the small size of their domestic market. The EU market therefore appears to be very important for US FDI projects in all locations, although this will mask significant sectoral differences.

Figure 12: Market Served of US FDI, 2003-15



Source: fDi Markets

However, leaving the EU does not mean that US investors cannot still not serve the single market from the UK in the future. Principle 8 of the aforementioned UK Government policy paper on the United Kingdom's exit from, and new partnership with, the European Union is "ensuring free trade with European markets". In addition, Principle 9 of this paper is "securing new trade agreements with other countries" which could deliver better access to certain markets for the UK than it had as part of the EU. It has already been suggested that the UK and US are working on a major trade deal which could make the UK more attractive for US investors.[15]

There has been much debate over the potential impact of exiting the EU on the UK's attractiveness for FDI. Dhingra et al (2016), Simionescu (2016) and Emerson et al (2017) amongst others[16] [17] suggest that leaving the EU would significantly reduce UK FDI, with export-focused manufacturing FDI most at risk but domestic-market seeking FDI much more resilient.[18] This has led to suggestions that the ROI can attract FDI from the UK,[19] [20] [21] and even competitors such as Sweden[22] are considering the FDI opportunities that the UK's exit from the EU may bring. Wavteq (2016) indicates that, within the UK, NI is the most at risk region given its greater reliance on export-based FDI activities.

[15] http://www.bbc.co.uk/news/uk-politics-40716317
[16] http://theconversation.com/how-brexit-would-reduce-foreign-investment-in-the-uk-and-why-that-matters-57909
[17] http://www.wbs.ac.uk/news/brexit-will-harm-foreign-investment-into-the-uk/
[18] http://www.wavteq.com/uploads/Impact%20of%20Brexit%20on%20FDI%20(Feb%209,%202017).pdf
[19] https://www.grantthornton.ie/insights/blogs/brexit/brexit-opportunities-for-ireland/
[20] http://economia.icaew.com/en/opinion/june-2017/ireland-is-in-prime-position-to-profit-from-brexit-relocations
[21] http://wtcdublin.ie/brexit-opportunity-or-headache-for-ireland/
[22] http://www.business-sweden.se/globalassets/international-investment-after-brexit.pdf

Others argue that FDI will remain robust after the UK leaves the EU[23] regardless of whether it is a "hard or soft Brexit"[24] by pointing towards the continued strong performance of the UK at attracting investment after the referendum.[25] The announcement of a £240m investment by Toyota in the UK in March 2017[26] is seen as a sign of investor confidence is a sector that was seen as one of the most threatened once the UK leaves the EU.[27] On a regional level, Invest NI has suggested that investors choose NI due to its skilled workforce and cost competitiveness, meaning that market access to the EU is generally not an issue.[28]

Ultimately, there is no way to make an accurate assessment of how leaving the EU might impact on US FDI to the UK until two key factors are known: firstly, the future economic relationship that is agreed between the UK and EU; and, second, whether any new free trade agreement is signed with the US. Table 16 demonstrates that there are many potential scenarios which could deliver a multitude of outcomes ranging from positive to negative; indeed, there will be many more scenarios beyond these.

Table 16: Potential FDI Scenarios from an EU Exit

EU-UK Economic Relationship	UK-US Economic Relationship	FDI Outcome
The UK signs a deep and comprehensive FTA with the EU and maintains a closely aligned regulatory environment.	The UK signs an FTA with the US which makes it easier for US investors to establish in and trade with the UK.	**Better off.** UK continues to attract the FDI it would already have but becomes more attractive for US investors.
The UK signs a deep and comprehensive FTA with the EU and maintains a closely aligned regulatory environment.	The UK struggles to agree an FTA with the US and faces similar tariffs and regulatory barriers as before.	**Unchanged.** UK will continue to attract the FDI it would have but is not more attractive for US investors.
The UK does not sign an initial FTA with the EU and changes its economic model and regulatory environment to compete.	The UK signs an FTA with the US which makes it easier for US investors to establish in and trade with the UK.	**Mixed.** FDI from the EU and serving the EU market will fall, but will be at partly offset by greater levels of US FDI.
The UK does not sign an initial FTA with the EU and changes its economic model and regulatory environment to compete.	The UK struggles to agree an FTA with the US and faces similar tariffs and regulatory barriers as before.	**Worse off.** FDI from the EU and serving the EU market will fall, including US investors who seek other locations.

Consultations for this research were carried out with stakeholders during September to December 2015, well before the referendum result. There was a general expectation from consultees at this time that a vote for the UK to leave the EU was unlikely and, as a result, many in the US were not giving serious consideration to the implications of this. The consistent view amongst those involved in investment promotion was that an EU exit would have a detrimental impact on FDI into the UK, and would make it more difficult to market any UK location as an investment proposition in the US. However, others were generally much more relaxed about the impact of an EU exit and believed that

[23] http://blogs.lse.ac.uk/brexit/2017/03/20/foreign-direct-investment-will-remain-robust-post-brexit/
[24] https://www.cnbc.com/2016/10/05/hard-or-soft-brexit-is-unlikely-to-dent-foreign-investment-in-the-uk.html
[25] http://www.telegraph.co.uk/business/2017/04/27/foreign-investors-back-brexit-britain/
[26] http://www.bbc.co.uk/news/business-39289269
[27] http://www.telegraph.co.uk/business/2017/03/29/car-makers-warn-brexit-biggest-threat-generation-uk-car-industry/
[28] http://www.huffingtonpost.com/alastair-hamilton/brexit-northern-ireland_b_14632320.html

ultimately the UK would come to an agreement similar to Norway or Switzerland which gives businesses the access they need.

It was, however, reinforced a number of times that companies mainly want certainty and consistency in locations where they do business, and therefore the uncertainty being caused during the period of negotiation could lead to delayed or lost projects to the UK and NI (and also to the EU for those projects which need to serve the UK market). It is therefore in the interests of both the EU and UK to come to an agreement on the future trading relationship between these two markets.

3.4 Free Trade Agreements

The discussion on Free Trade Agreements (FTAs) has become much more prominent since the UK decided to leave the EU. FTAs create a trade area between two or more countries which reduce or eliminate both tariff and non-tariff barriers to trade. The US currently has 20 FTAs, with countries such as Australia, Canada, Mexico, Korea and Singapore.[29] No FTA exists between the US and EU; however, since 2013, the US and European Commission has been negotiating a major trade and investment deal – the Transatlantic Trade and Investment Partnership (TTIP).[30] There are three components:

1. **Better access** for companies in the two markets to trade and invest through removing existing trade barriers and tariffs;
2. **Less red tape** through regulatory cooperation to avoid companies having to go through two different regulatory procedures where standards are broadly the same; and
3. **New rules** to provide protections for businesses (for example around Intellectual Property) and mechanisms for resolving disputes.

TTIP is expected to help make EU locations easier for US investors to do business in. The agreement is estimated to have a strongly positive net economic benefit, with analysis carried out for the European Commission in CEPR (2013) estimating that the TTIP would benefit the EU economy by €120bn, with CEPS (2014) concluding that these findings appeared to be reasonable. Analysis of the impact of TTIP on the ROI by Copenhagen Economics (2015) suggests a positive impact of €2bn, equivalent to a 1.1% increase in Irish GDP, with the main impacts expected to be seen in manufacturing.

Consultations for this research reinforced the view that TTIP could have a significant economic impact on EU locations, making it much easier for companies to sell their products in both markets. However, it was mentioned that there may be a trade-off between the impact on trade and investment, meaning that if US companies can now trade much more easily into the EU it may reduce their need to invest and set up dedicated plants in the market. There will always be strong logistical reasons to have in-market presence for US companies operating in the EU, and TTIP should make it easier for firms to operate in the other market, but in welcoming the economic benefits TTIP could bring it is worth being aware of this potential downside for some FDI projects.

Consultees reinforced that TTIP is a much more advanced trade agreement than others, which tend to focus mainly on reducing trade barriers between a developed and developing economy; TTIP is seen as very ambitious and brings in much wider regulatory and investment issues which are expected to set global standards for others to follow. It has been commented that TTIP is almost too ambitious,

[29] https://ustr.gov/trade-agreements/free-trade-agreements
[30] http://ec.europa.eu/trade/policy/in-focus/ttip/

which may result in it either being delayed until agreement can be reached on the many issues which need to be considered, or will have to reduce its ambition and focus on areas where agreement can be sought in the more immediate future.

One particular area which was identified in a number of consultations was the need for TTIP to provide clarity on some of the data privacy issues raised around MNCs sharing digital consumer information between their EU and US operations, with the European Court of Justice recently ruling that the existing international agreement was invalid.[31] This is particularly important for tradable services companies which rely on sharing this kind of information as a routine part of their business, and any barriers to doing this could act as a deterrent for FDI.

Despite the anticipated economic benefits of TTIP, there have been a number of delays and its future is now unclear. The recent experience with the EU-Canada Comprehensive Economic and Trade Agreement (CETA), which eliminates 98% of tariffs on exported goods, has demonstrated how difficult it will be for TTIP to be agreed. CETA took five years to negotiate[32] and a further three years to come into effect; it was initially blocked by the regional Belgian government of Wallonia in 2016[33] before being agreed in February 2017 by the European Parliament by 408-254 votes.[34] The level of anti-CETA sentiment was demonstrated by protests outside the Parliament during this vote,[35] with critics believing it will lead to greater inequality and opens public services up to privatisation.[36] Even after agreeing CETA, there were still negotiations needed around specific areas of the deal relating to cheese and pharmaceuticals, and it is now due to come into effect in September 2017.[37] Given the scale of TTIP protests from those who believe it will lead to reduced standards and too much power for companies,[38] this may be even more difficult than CETA to pass.

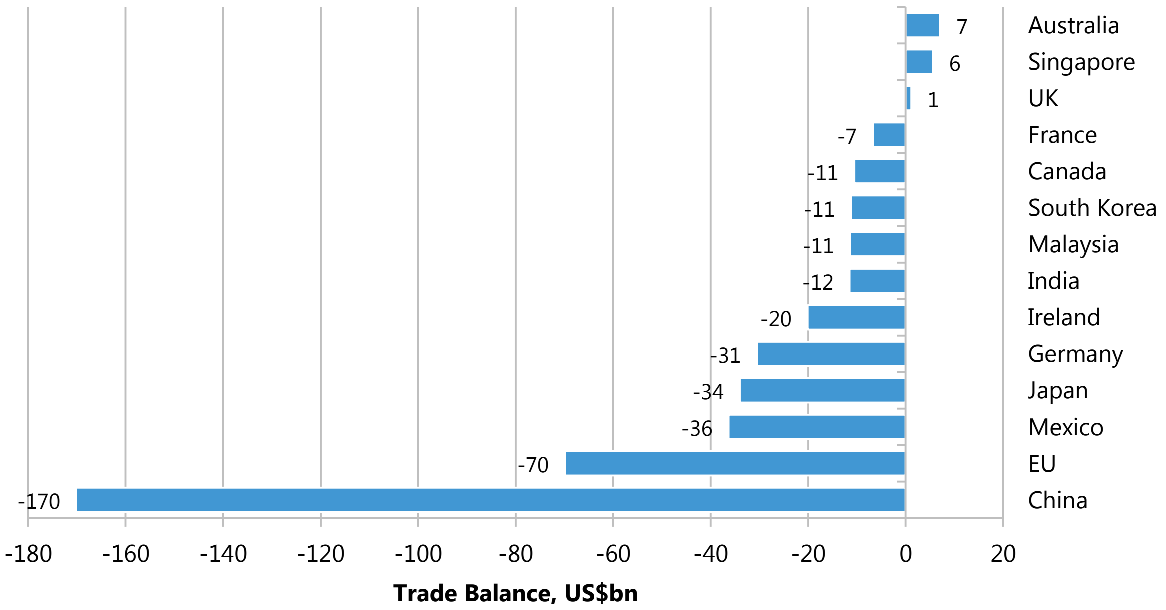
The US presidential election result has added another major uncertainty for TTIP. A key part of President Trump's campaign centred on the negative effects of free trade on American manufacturing jobs, with promises to bring these jobs back and impose tariffs on goods from China and Mexico.[39] The President is therefore seen as being against free trade deals,[40] and one of his first acts was to withdraw from the newly signed Trans-Pacific Partnership (TPP),[41] which would have reduced trade barriers between the US and 11 other countries including Japan, New Zealand and Malaysia.[42] President Trump has also begun to renegotiate the North America Free Trade Agreement (NAFTA) between the US, Canada and Mexico, which he has described as "the worst trade deal in the history of the world".[43] However, as noted by Freund (2017), imposing tariffs on Mexico would likely lead to a depreciation of the Peso which could more than offset any tariffs and make Mexican imports cheaper

[31] http://www.nytimes.com/2015/10/07/technology/european-union-us-data-collection.html
[32] http://www.canadainternational.gc.ca/eu-ue/policies-politiques/trade_agreements-accords_commerciaux.aspx?lang=eng
[33] https://www.economist.com/news/europe/21709060-tiny-region-belgium-opposes-trade-reasons-are-hard-understand-wallonia
[34] http://www.bbc.co.uk/news/world-europe-38979901
[35] https://www.theguardian.com/business/2017/feb/15/ceta-trade-deal-canada-eu-passed-european-parliament
[3636] http://www.independent.co.uk/news/world/europe/eu-parliament-canada-free-trade-deal-approve-vote-strasbourg-nafta-ttip-a7581156.html
[37] https://www.euractiv.com/section/global-europe/news/eu-canada-agree-start-of-free-trade-agreement/
[38] http://www.spiegel.de/international/world/protest-movement-threatens-ttip-transatlantic-trade-deal-a-1091088.html
[39] http://www.politifact.com/truth-o-meter/article/2016/jul/15/donald-trumps-top-10-campaign-promises/
[40] https://www.economist.com/news/united-states/21709921-americas-next-president-wants-pull-out-existing-trade-deals-and-put-future-ones
[41] http://www.bbc.co.uk/news/world-us-canada-38721056
[42] https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text
[43] http://www.washingtonexaminer.com/trump-i-agreed-to-renegotiate-nafta-to-avoid-shock-to-the-system/article/2621458

and more competitive than before. This could perversely increase the trade deficit with Mexico rather than reducing it.

Despite these concerns with existing FTAs, the President's approach to a UK-US agreement has been very positive to date with the suggestion of a "very big and exciting" trade deal.[44] A key issue that President Trump has with TPP and NAFTA relates to scale of trade deficits with countries in these deals, which has seen the US develop a total deficit of over $500bn in 2016 (this is due to being a net importer of goods despite being a net exporter of services).[45] Figure 13 demonstrates significant trade deficits with the NAFTA partners of Mexico and Canada as well as countries such as South Korea, Malaysia and Japan which were part of the TPP. The largest trade deficit is with China, and reducing this has been a key part of President Trump's economic approach.[46]

Figure 13: US Trade Balance with Selected Countries, Jan-Jun 2017



Source: US Census Bureau, International Trade in Goods and Services, Exhibit 14

The significant trade deficit with the EU is also apparent; President Trump has already drawn attention to Germany which, along with the ROI, contributes the majority of the negative trade balance.[47] Given the withdrawal from TPP and the renegotiation of NAFTA, it is questionable whether President Trump would sign up to TTIP which would allow EU companies further access to the US market. The US, however, has a small positive trade balance with the UK which makes it much more likely that a US-UK FTA would be seen by President Trump as being good for the US economy and therefore face much less resistance than TTIP. It is worth noting that the US has existing trade deals with Australia and Singapore (where the US has positive trade balances) and many Central and South American countries (again where the US has very positive trade balances), and these have not been singled out as areas to

[44] http://www.independent.co.uk/news/world/americas/us-politics/donald-trump-us-uk-trade-deal-uk-brexit-leave-eu-protections-liam-fox-twitter-a7859101.html
[45] https://www.census.gov/foreign-trade/Press-Release/current_press_release/exh1.pdf
[46] http://www.firstpost.com/world/us-china-agree-to-reduce-trade-deficit-in-first-economic-talks-under-trump-administration-3832759.html
[47] http://money.cnn.com/2017/05/30/news/economy/trump-german-trade-deficit/index.html

increase trade barriers. This suggests the President's approach is not anti-trade per se, but rather about increasing trade with partners which are seen to be good for US businesses and workers.

3.5 Summary

Access to the markets has been, and will continue to be, a key driver of US international investment. Although US firms can access a large and wealthy domestic market, they will ultimately look at overseas markets in order to support their growth. The EU and UK represent large and developed economies for US firms to expand into, and London in particular is a natural first step for US firms seeking to expand internationally as it shares a similar culture, language and wealth alongside being the single largest metro market area in the EU.

The ability of US investors in the UK to access the single market once it leaves the EU is uncertain at present; the outcome of negotiations between the EU and UK on the future trading relationship will determine this. Should the UK sign a deep and comprehensive free trade agreement with the EU it is likely that US investors will be able to access the single market in a similar (albeit not identical) manner to before. The UK also has plans to sign a trade agreement with the US which would make the UK more attractive for such investors. There are therefore a range of outcomes resulting from an EU exit which could impact on US FDI to the UK and NI in many different ways.

Since the referendum result, FTAs have become a prominent discussion point, as they improve market access for companies and can support increased trade and investment. In the case of developed economies, where tariffs and trade barriers are relatively low, these agreements tend to focus more on adopting consistent standards and regulations, and ensuring investors are afforded the same protections and opportunities as domestic firms. The US had been negotiating TTIP with the EU, which would have supported increased investment between the two markets, but this now appears to have stalled. There are more positive indications that a potential FTA between the US and UK can now be agreed, and support greater investment between the two economies, although such agreements often take many years to negotiate and come into place given their complexity.

4 US FDI and Talent

US firms face significant domestic competition for the best talent, with significant difficulties reported in recruiting staff for highly skilled roles and high wages needing to be offered. FDI locations which offer strong skills and competitive wage costs are therefore attractive propositions.

4.1 Quality of Skills

Consultations with IPAs for this research consistently reinforced that talent was at the core of their value proposition to US investors. It is assumed here that graduate-level skills will largely (though not necessarily always) be required to meet the demands of investors, particularly as developing countries with low wages will be more attractive for basic skilled jobs. The starting point for considering human capital as a driver of US outward FDI is to ask whether the Higher Education (HE) system is producing a high enough level of skills for employers. The WEF competitiveness rankings have a specific HE pillar, which shows that the US is ranked just outside the top five countries for education in sixth (see Table 17). This ranking has been improving even from just four years ago when the US was 13th and is above both the ROI and UK in 15th and 18th respectively.

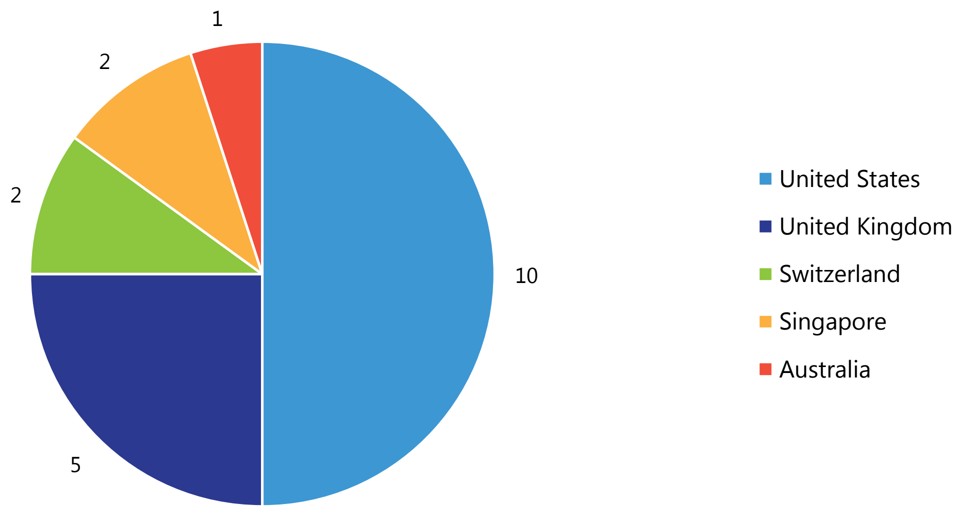
Table 17: Higher Education Competitiveness Rankings

	2015-16	2014-15	2013-14	2012-13	2011-12
Singapore	**1**	2	2	2	4
Finland	**2**	1	1	1	1
Netherlands	**3**	3	6	6	8
Switzerland	**4**	4	4	3	3
Belgium	**5**	5	5	4	5
United States	**6**	7	7	8	13
Rep of Ireland	**15**	17	18	20	22
United Kingdom	**18**	19	17	16	16

Source: WEF Global Competitiveness Report

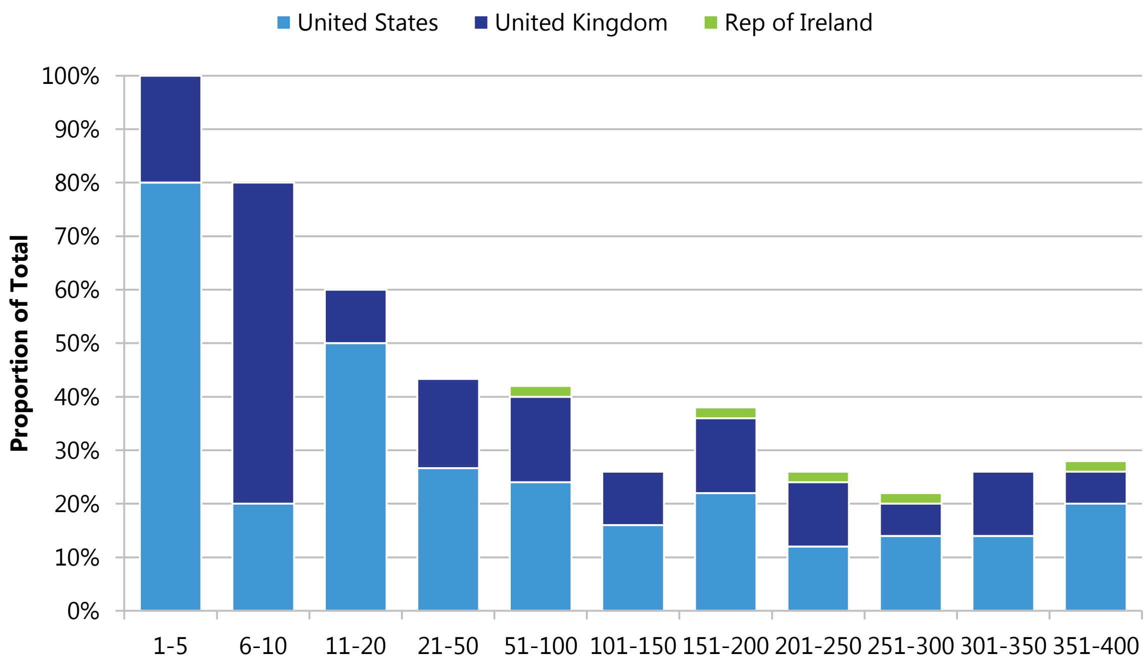
The above rankings are based on a range of different variables which contribute to an economy's educational competitiveness. Focusing specifically on the quality of universities which are producing graduates for businesses, the QS World University Rankings highlights that the US accounts for half of the 20 top ranked universities in the world (see Figure 14).

Figure 14: Country Breakdown of Top 20 Global Universities, 2015/16



Source: QS University Rankings 2015/16

Figure 15: Breakdown of Top 400 Global Universities by Ranking, 2015/16



Source: QS University Rankings 2015/16

A further breakdown covering the top 400 global universities is shown above in Figure 15. The US accounts for four of the top five universities around the world, and a high proportion of universities in the top 100 (particularly the top 50). The UK also does well here, contributing the only top five ranked university not in the US and a disproportionately large number of universities throughout the top 100. The ROI has one university in the top 100 (Trinity College Dublin at 78) and another ranked between 101 and 200 (University College Dublin at 154), with a further six ranked elsewhere. The highest ranked university in NI is Queens University Belfast at 183, with Ulster University placing in the range of 551 to 600. Despite the small size of NI, its top ranked university (Queens) is higher than 108 universities from the US, 41 elsewhere in the UK and six in the ROI.

The US clearly has many of the best universities in the world, and it would be expected that these produce graduates for businesses that are highly skilled. To understand why US firms might seek to invest elsewhere for talent despite having many the world's top universities, we will turn to look at whether there is enough of this skilled labour and evidence of skills shortages in the US.

4.2 Availability of Skilled Labour

With a civilian labour force of 157 million people[48], which is around the same size as the Euro area and smaller only than China and India[49], the US has access to one of the largest pools of talent in the world. The five countries that are above the US in the international HE competitiveness rankings all have a much smaller pool of labour; the top five (Singapore, Finland, Netherlands, Switzerland and Belgium) have a combined labour force that is just 15% of the US at 24 million. Relative to the US, the UK has a smaller economically active workforce of 33 million[50], and both the ROI (2.2 million) [51] and NI (869k)[52] are considerably smaller.

Of course, not all the 157 million people in the US labour force will be relevant for businesses in sectors which need higher-level skills. A breakdown of the skills levels of the US labour force is shown in Table 18; this highlights that although a large proportion of the labour force have at least a bachelor's degree, the unemployment rate amongst this group is low at just 2.5%.

Table 18: US Labour Force Status by Education Attainment, Age 25 Years and Over

	Labour Force (000s)	Employed (000s)	Unemployed (000s)	Unemployment Rate (%)
Less than high school diploma	10,608	9,773	835	**7.9**
High school graduates, no college	35,250	33,408	1,842	**5.2**
Some college or associated degree	37,209	35,604	1,605	**4.3**
Bachelor's degree and higher	52,693	51,396	1,297	**2.5**

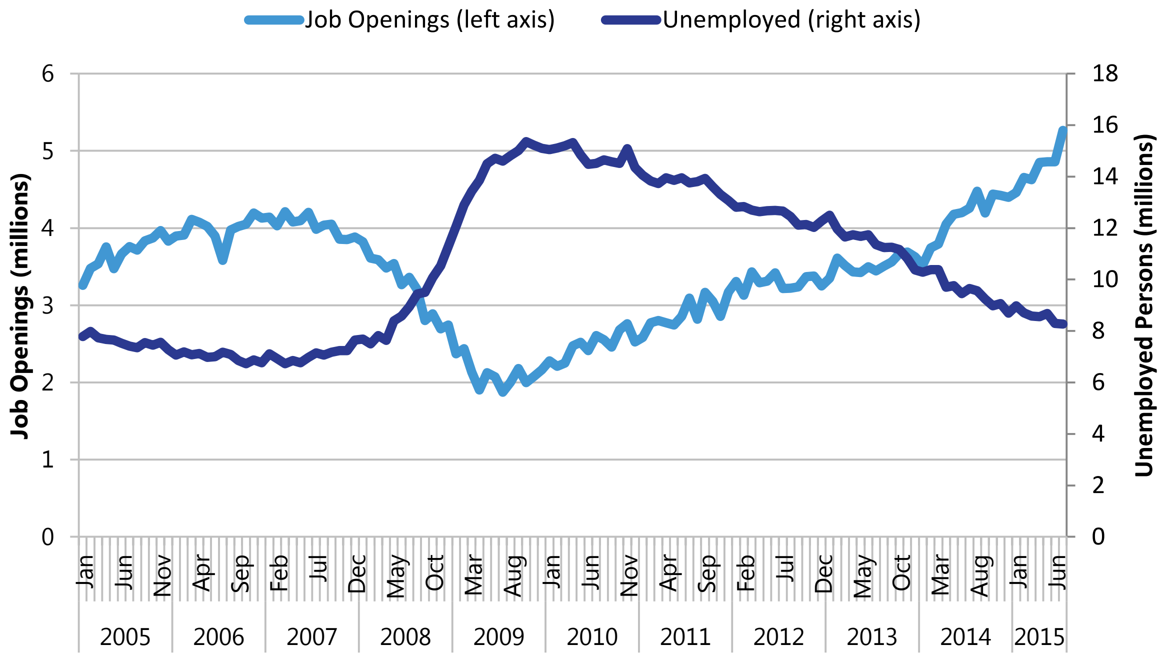
Source: US Bureau of Labor Statistics, Employment Situation Summary, Sept 2015

With a strong and growing US economy, businesses are seeking to expand and take on new staff; job openings in private sector non-farm businesses reached a record high in July 2015 at 5.8 million (see Figure 16).[53] At the same time, unemployment numbers have fallen from a high of 15.4 million in October 2009 to 8.3 million in July 2015. At the peak of the downturn, there were 7.7 unemployed person for every job opening, whereas this figure fell to just 1.6 more recently (which is the equal to

[48] Source: US Bureau of Labor Statistics, Sept 2015
[49] Source: World Bank Databank, 2013
[50] http://www.ons.gov.uk/ons/dcp171778_414231.pdf
[51] http://www.cso.ie/en/releasesandpublications/er/qnhs/quarterlynationalhouseholdsurveyquarter22015/
[52] https://www.detini.gov.uk/sites/default/files/publications/deti/labour_market_report_-_september_2015__final__0.pdf
[53] http://www.bls.gov/news.release/pdf/jolts.pdf

the lowest figure just before the economic downturn). In addition, US employers are reporting that it is taking them 29 days on average to fill a vacancy – the longest delay since the series began in 2001[54]. The unemployed labour pool may not necessarily have the right skills for the job openings, but this does give an indication that the US labour market as a whole is currently tight.

Figure 16: US Job Openings and Unemployment Numbers



Source: US Bureau of Labor Statistics, Job Openings and Labor Turnover, Sept 2015

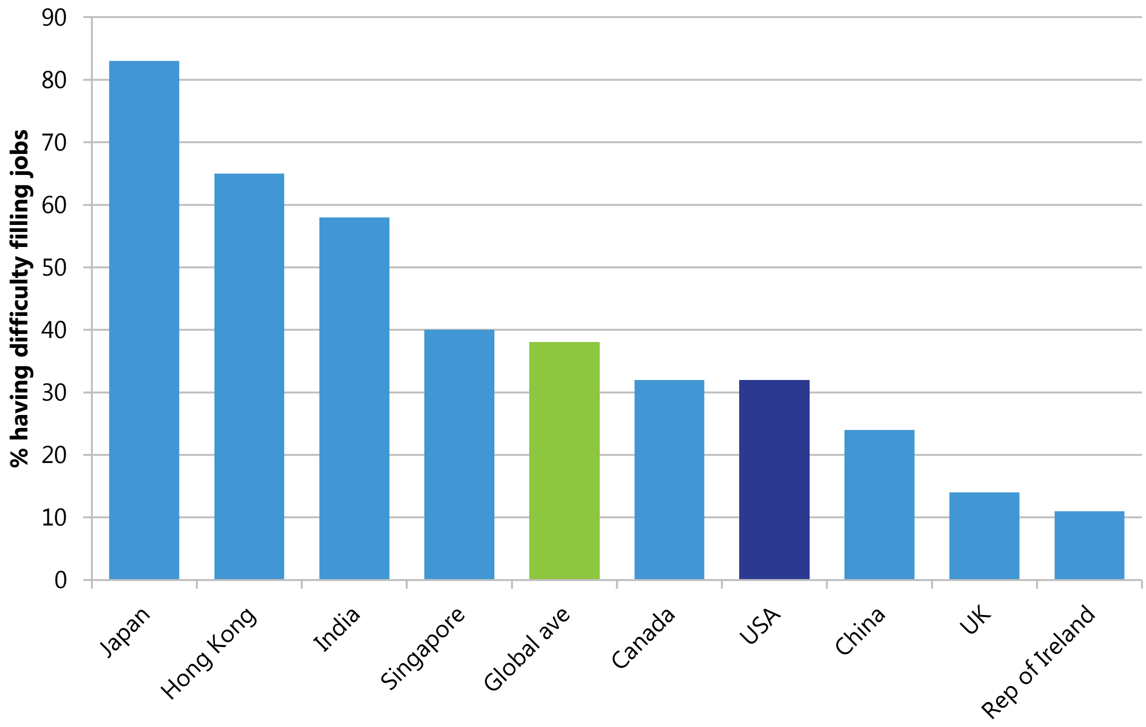
Sectors which are growing fastest will be most likely to experience difficulties in recruiting enough skilled labour, and Bureau of Economic Analysis (BEA) data shows that professional and business services was the second fastest growing industry in 2014 at 4.9%[55], and also had the largest number of job openings in July 2015 at 1.3 million. Information (including software and data processing) was the third fastest growing industry at 3.3%. These two sectors (along with financial services, which grew at 1.6%) are areas where strong growth may be leading to talent constraints, and also correspond with the main US FDI sectors that have been attracted to NI in recent years.

More direct evidence on skills shortages facing US employers is available from other sources. Over one-third (35%) of respondents to the National Association for Business Economics (NABE) Business Conditions Survey in July 2015 experienced skills shortages,[56] and 32% of US employers in the ManpowerGroup 2015 Talent Shortage Survey reported that they had difficulty filling jobs.[57] Deloitte (2015a) estimate that nearly 3.5 million US manufacturing jobs will be needed over the next decade, but skills shortages means that 2 million of these may go unfilled.[58]

[54] http://dhihiringindicators.com/
[55] http://www.bea.gov/newsreleases/industry/gdpindustry/gdpindnewsrelease.htm
[56] http://www.nabe.com/NABE_Business_Conditions_July_2015_Summary
[57] http://www.manpowergroup.com/wps/wcm/connect/408f7067-ba9c-4c98-b0ec-dca74403a802/2015_Talent_Shortage_Survey-lo_res.pdf?MOD=AJPERES&ContentCache=NONE
[58] http://www.themanufacturinginstitute.org/~/media/827DBC76533942679A15EF7067A704CD.ashx

A comparison of how the US compares against other countries is shown in Figure 17; whilst the US is just below the global average, it is well above the UK and ROI (which rank as the two countries which report the fewest skills shortages). Globally, many of the hardest jobs to fill tend to be related to key FDI sectors, including engineers (third), management and executives (sixth), accounting and finance staff (seventh), office support staff (eighth) and IT staff (ninth). The main reasons cited for struggling to fill jobs were availability of skilled labour (35%) and lack of technical skills (34%).

Figure 17: International Talent Shortages, 2015



Source: ManpowerGroup Talent Shortage Survey, 2015

Table 19 presents information on specific skills gaps facing US employers, presenting overall hiring difficulties[59] separately from those specifically for college graduates[60]. This suggests that jobs which require specific technical skills (e.g. scientists, engineers, programmers) are where companies struggle to recruit people the most. Conversely, jobs which require more general skills (e.g. admin support, customer services) are much easier for firms to recruit. Areas where skills shortages are being reported US employers present significant opportunities for economies to attract projects, particularly for these technical roles which employers find difficult to fill.

[59] http://www.shrm.org/research/surveyfindings/articles/pages/shrm-economic-conditions-recruiting-skill-gaps.aspx
[60] http://www.shrm.org/Research/surveyfindings/articles/pages/shrm-hiring-college-graduates-2015.aspx

Table 19: Difficulty for US Employers in Filling Selected Job Roles

	All Industries (2014)	College Graduates (2015)
Engineers	72%	75%
IT/computer specialists	69%	n/a
Scientists	67%	77%
Managers and executives	65%	74%
Skilled technicians	63%	72%
Sales representatives	54%	48%
HR professionals	45%	45%
Accounting and finance	35%	46%
Customer services	22%	33%
Admin support staff	14%	25%

Source: Society for Human Resource Management

Note: Percentage of employers reporting either somewhat difficult or very difficult; figures are higher than those reported from other sources due to the inclusion of employers reporting "somewhat difficult" which are grouped together with "very difficult"

Talent is a core part of NI's attractiveness for US investment, and the region promotes itself as location that can help US companies find skills that they struggle to fill domestically. Some of the key selling messages put forward by Invest NI include: a young and fastest growing population; an enthusiastic and steady stream of smart, talented people; low staff turnover; an education system recognised as among the best in Europe; consistently outperforming all other UK regions in academic qualifications; two world-class universities and an extensive network of further education colleges; and over 4,000 people graduating each year with business qualifications in Northern Ireland.[61]

A number of consultees highlighted that a successful track record in a particular sector is a strong selling point in demonstrating to potential investors in similar areas that an economy can meet its skills needs. For NI, these sectors would include software development, financial services and legal outsourcing. Cyber security[62] and financial technology[63], in particular, are areas where NI is getting an international recognition as a location which can deliver highly-skilled talent for investors. These types of investments are supported by the Assured Skills programme,[64] which develops bespoke training solutions for companies through further and higher education institutes.

In competing for US investment, consultations highlighted a number of areas to consider. The scale of investments that any small economy can support will naturally be limited, and NI has typically focused on mainly small to medium sized investments supplemented by a few larger projects. This ensures that the labour market is able to meet the needs of investors without significant skills gaps emerging. It was observed that NI, and indeed both the ROI and Scotland to an extent, are at a natural disadvantage compared with English cities which can draw from much larger labour pools in geographically nearby areas. Inward migration can therefore be important to supplement smaller domestic labour pools, and this is something that the UK's future immigration policy outside the EU will need to consider. The greater demands on the skills base that a reduced rate of Corporation Tax

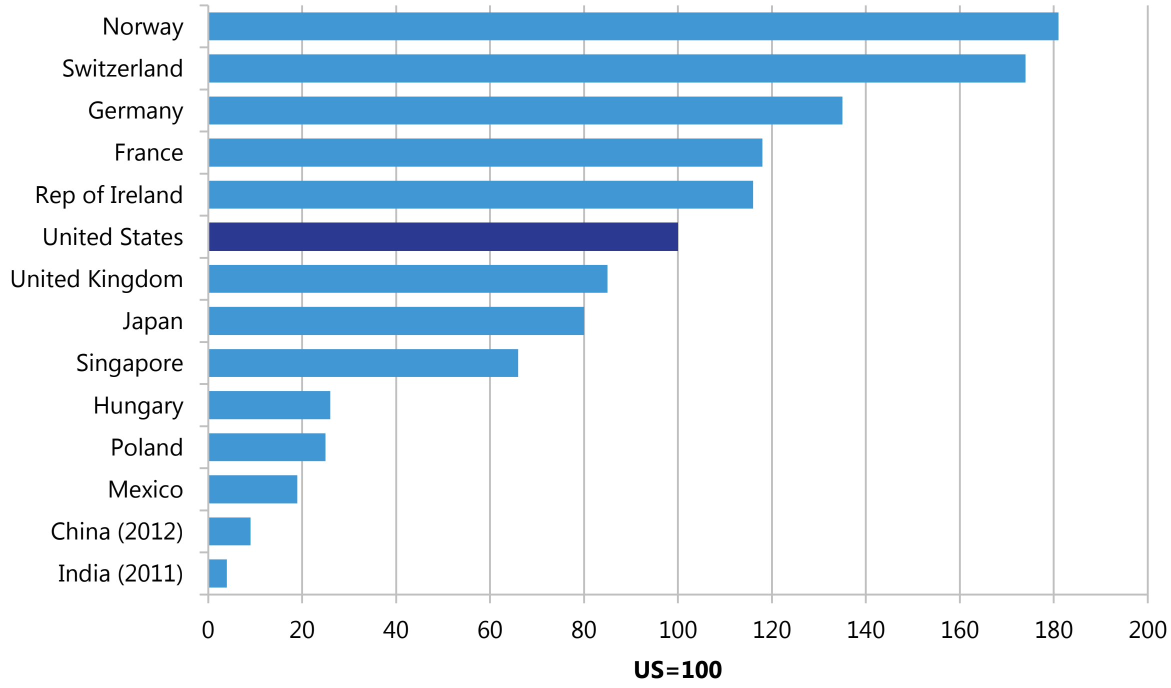
[61] https://www.investni.com/invest-in-northern-ireland/skilled-workforce.html
[62] http://www.irishnews.com/business/2017/05/16/news/ni-is-number-one-location-in-the-world-for-cyber-security-investment-1019871/
[63] https://www.ft.com/content/060e7350-10ea-11e5-9bf8-00144feabdc0
[64] https://www.economy-ni.gov.uk/articles/assured-skills-programme

could bring, both in terms of numbers of people needed and potentially different skillsets and experience levels, was also viewed as important for government to consider.

4.3 Labour Costs

Wages are invariably going to influence whether US companies choose to locate staff domestically or abroad. An international comparison of US hourly manufacturing wages against other international comparators is shown in Figure 18. This highlights that US salaries are relatively competitive against other developed economies but still significantly above those in locations such as Hungary (26% of the US), Mexico (19%), China (9%) and India (4%). There is therefore little cost rationale for the US to locate manufacturing activities in other developed countries, many of which are as or more expensive, but significant cost advantages to be found in locating manufacturing jobs in Central and Eastern Europe (CEE), Central and South America and Asia.

Figure 18: International Hourly Manufacturing Labour Costs, 2013



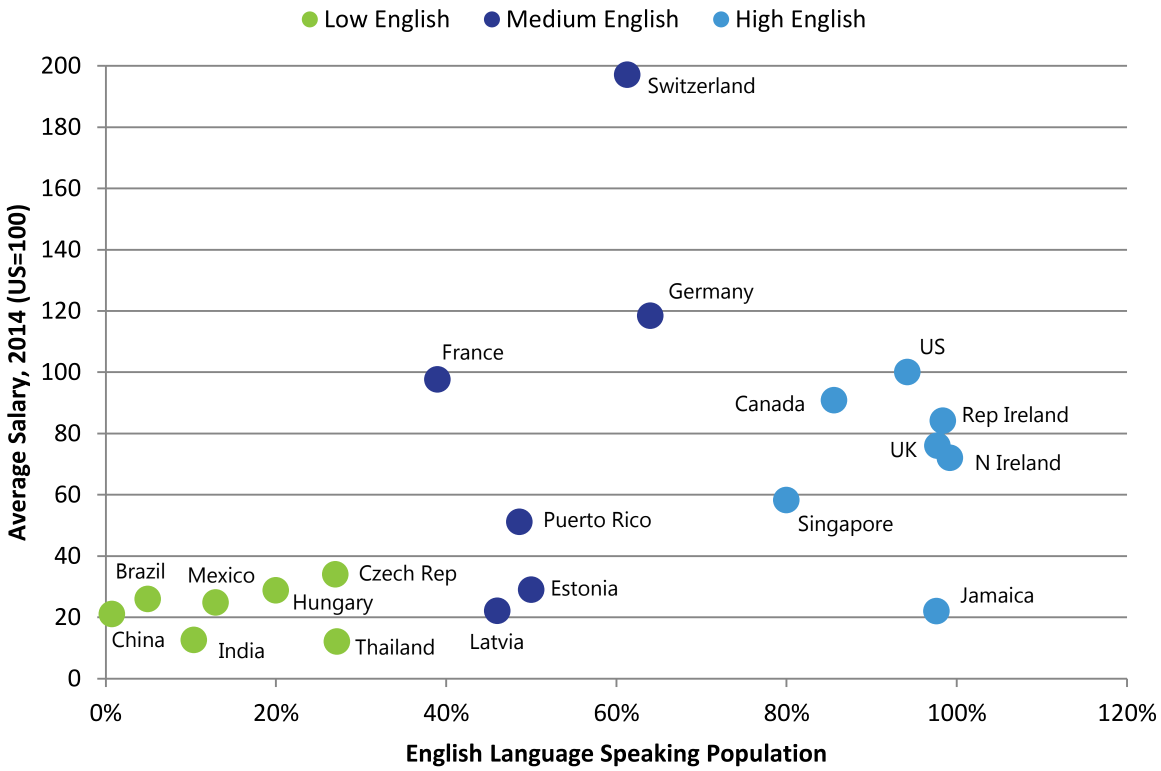
Source: The Conference Board, International Labour Comparisons

These data relate solely to manufacturing, which accounts for just 12% of the US economy and is therefore not going to be relevant for the broader US economy.[65] Whilst international wage comparisons are not available for services industries, comparisons for specific job roles can be used to assess US wage competitiveness. The importance of costs for US FDI decisions is likely to vary depending on the complexity of the job role and the skills requirement for the post. Location decisions for investments that create jobs which US MNCs can easily fill domestically should be much more sensitive to wage rates compared to those where US employers are seeking to address skills shortages (although costs will still play a role in influencing the company's return on its investment).

[65] http://data.worldbank.org/indicator/NV.IND.MANF.ZS

The earlier analysis of skills shortages showed that the main areas where US companies were able to recruit with fewest difficulties domestically were admin support staff and customer services. Data on the salary for three job roles in these areas – administrator, customer services representative and office services assistant – have been averaged for a range of international locations in Figure 19. This not only presents the salary data but also factors in the proportion of the population in each country that speaks English as a proxy for how suitable the labour pool in each are for support services jobs which will likely need to be able to communicate both with colleagues and customers in the US.

Figure 19: Average Salaries of Jobs Roles with Low Skills Shortages, US=100



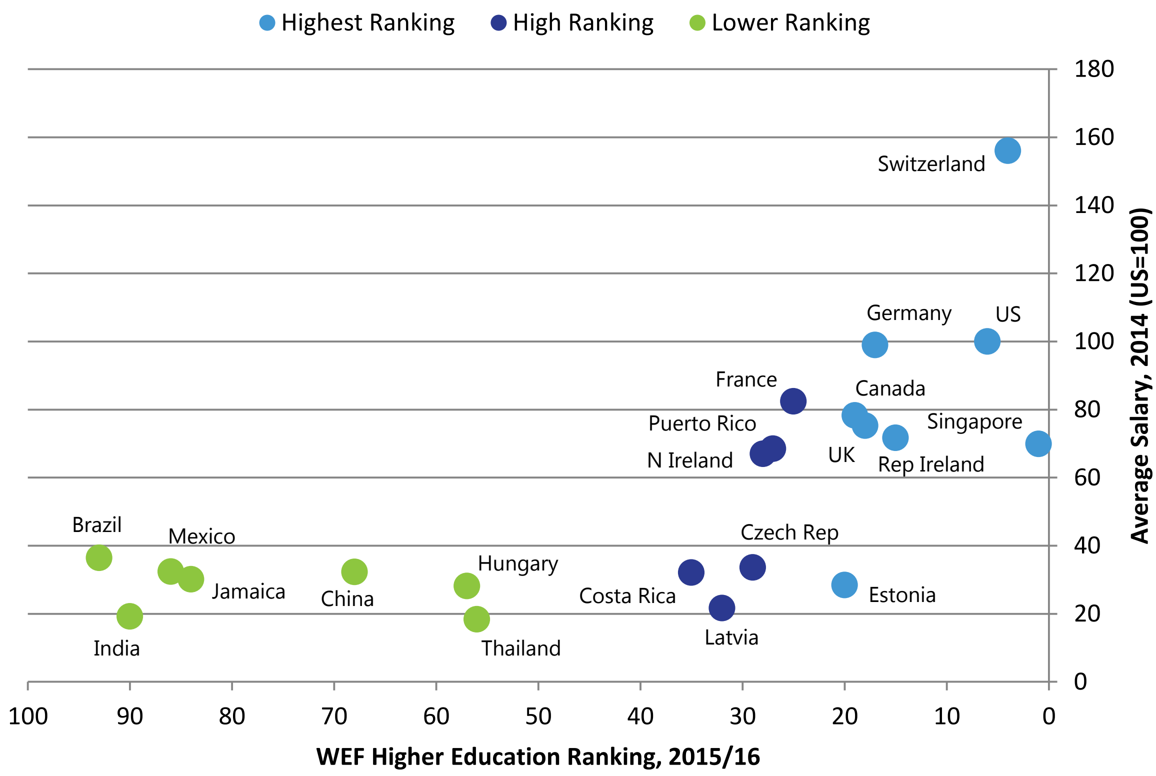
Source: fDi Benchmark; Wikipedia (all figures used have been sourced from external publications)
Note: Salary includes both wages and social security contribution to give overall wage burden in each location

The combined average US salary for these three job roles is $30,593, lower than Germany and Switzerland. The US has significantly higher wages for these admin services jobs than places such as China, India, Thailand, Mexico and Hungary, but these locations also have relatively small proportions of English speakers (albeit this can still be very large numbers in absolute terms for countries such as India with a large population). Jamaica is the only genuinely low cost location that is fluent in English, with Singapore also significantly cheaper than the US for these roles and with many people that speak English. The NI average salary for these roles was $22,027, or 72% of the US figure, placing it below the ROI and UK figures.

Consultations for this study have suggested that competition for US FDI amongst Western locations often tends to be for higher value jobs which US employers may struggle to fill domestically, something which The Economist (2013) also backs up. Average salary data for three jobs which US firms have difficulty filling – engineers, software programmers and scientists – is shown in Figure 20.

The WEF competitiveness ranking for higher education has also been included here as a broad proxy for the ability of each location to provide higher level skills needed to address these skills shortages.

Figure 20: International Salaries of Job Roles with High Skill Shortages, US=100



Source: fDi Benchmark; World Economic Forum Competitiveness Report; EAG Competitiveness Index
Note: Salary includes both wages and social security contribution to give overall wage burden in each location; NI HE ranking is from 2012/13; Puerto Rico HE ranking is from 2014/15

The average US salary for these jobs is $50,815, below only Switzerland. Singapore is the only country with an HE system ranked higher than the US and with lower salaries for these high skilled jobs. Other locations such as Canada, UK and ROI and NI have skill sets not far behind the US but with lower salaries (the average salary in NI, for example, at $34,038 was just 67% of the US figure). Many very low cost locations such as Brazil, India and Mexico come at the expense of much lower ranked education systems. However, there is a small group of countries – Estonia, Czech Republic, Latvia and Costa Rica – which have salaries that are less than half the US level but also relatively strong HE systems. These are all small countries (ranging from 1.3m population in Estonia to 10.5m in Czech Rep)[66] and therefore have a natural limit as to the scale of US skills shortages they could address.

4.4 Summary

Access to talent is a key driver of US overseas investment. The US is host to one of the largest labour pools globally, and also has many of the top universities around the world. There is no question that US firms can access some of the best talent available on their doorstep, but yet they continue to look overseas to fill job roles. This comes down to the availability and cost of skills domestically.

[66] http://data.worldbank.org/indicator/SP.POP.TOTL

The US economy has now recovered from the global recession and is growing strongly. As a result, the labour market is getting much tighter and, as firms are increasing their demand for labour, the corresponding available supply of labour is falling. This is particularly true amongst graduates. US companies are reporting significant difficulties in filling vacancies, particularly for highly skilled jobs such as engineers, computer specialists, scientists and managers & executives. By looking overseas, particularly to highly skilled countries which do not have the same labour market pressures, US firms are able to fill these vacancies.

Cost also plays a part of this too. Not only can US firms access talent which difficult to find in the US, it can also get this talent at more competitive rates. The US has some of the highest salaries globally for both high and lower skilled job roles, below Switzerland and similar to France and Germany. Wages in the UK (and ROI and NI) are therefore significantly lower, whilst still offering highly skilled graduates for US firms to hire. Other less developed locations can also offer even lower wages still, albeit often at the expense of language or specialist skills that may be required.

The extent to which cost is a factor in accessing talent comes down to how skilled the job role is and how scarce it is domestically. There is extremely strong competition for the best graduates in the US, and for highly-skilled job roles there is likely to be more of an emphasis on quality of labour rather than just costs. For lower-skilled job roles which require generic skills and where US employers face much less difficulties in filling domestically, the emphasis is much more likely to be on costs here. Locations which can offer good quality graduates and skills at competitive costs will therefore be very attractive to US employers, and this has been core to NI's proposition for US FDI.

5 US FDI and Corporate Taxes

High corporate tax rates provide a strong incentive for US companies to locate profitable activities in locations with much lower rates, such as the Republic of Ireland. There is widespread agreement that the tax system needs reform, but little progress has been made on delivering this.

5.1 International Tax Comparisons

Tax is an important aspect of how government can facilitate the attraction and growth of businesses, and there is a significant scope for differences in tax systems across countries. A broad assessment of international tax systems are across OECD countries is found in the International Tax Competitiveness Index by Pomerleau and Lundeen (2014). Table 20 suggests that Estonia has the most competitive tax system in the OECD, with a relatively low corporate tax rate at 21%, no double taxation on dividend income, a nearly flat 21% income tax rate, and a property tax that taxes only land (not buildings and structures). France is shown to have the least competitive tax system.

The US ranks 32nd out of 34 OECD comparators, placing it as one of the least tax competitive countries. The largest factors behind this ranking are the highest statutory corporate tax rate in the developed world and that it is one of the six remaining countries in the OECD with a worldwide system of taxation. The United States also scores poorly on property taxes due to its estate tax and poorly structured state and local property taxes. Other issues for the US are its individual taxes with a high top marginal tax rate and the double taxation of capital gains and dividend income.

Table 20: OECD International Tax Competitiveness Rankings, 2014

	Overall Rank	Corporate Taxes	Consumption Taxes	Property Taxes	Individual Taxes	International Tax Rules
Estonia	**1**	1	1	9	1	2
New Zealand	**2**	22	6	3	1	21
Switzerland	**3**	7	1	32	5	9
Sweden	**4**	3	12	6	21	7
Australia	**5**	24	8	4	8	22
Rep of Ireland	**15**	2	24	7	20	26
UK	**21**	21	19	29	18	5
US	**32**	33	5	31	26	34
France	**34**	30	17	34	34	17

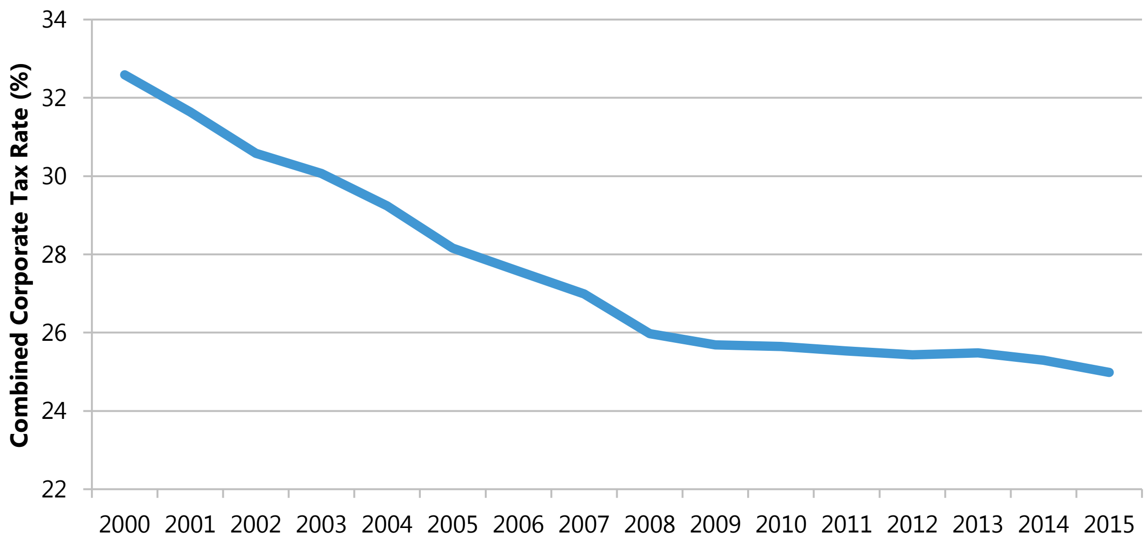
Source: Tax Foundation (2014) International Tax Competitiveness Index

Corporate Taxes

Whilst there are clearly a number of factors which contribute to an uncompetitive tax system in the US, in the context of attracting FDI this chapter will focus on corporate taxes as a key driver (it is interesting to note that, despite having the second most competitive corporate tax rates, the ROI ranks as 15th overall when other taxes are considered). Corporate taxes are shown to have a negative impact on economic activity. A comprehensive report by De Mooij and Ederveen (2008) reviews a total of 427 studies looking at the impact of corporate taxes on FDI, and finds that the median semi-elasticity of these is -2.9. This means that if an increase of one percentage point in the corporate tax rate will, on average, bring about a reduction in FDI flows of almost 3%. Indeed, many of the studies found significantly higher impacts, and the OECD has described corporate taxes as the most harmful type of tax for economic growth.[67]

These findings demonstrate why there is a high degree of corporate tax competition amongst countries. Figure 21 highlights that the overall trend in OECD corporate tax rates has been downwards since 2000, with the tax rate falling from an average of 33% to 25% in 2015. The most significant decrease in central government corporate tax rates was seen from 2000 to 2008, with much less substantial reductions from 2008 onwards. This is unsurprising given that the global economic downturn in 2008 led to a deterioration in public finances in many countries which would have made it much less appealing to reduce a source of tax income.

Figure 21: Average OECD Corporate Tax Rates, 2000-15



Source: OECD Tax Database
Note: Combined corporate tax rate

In order to understand how widespread the reductions in corporate tax rates have been, a count of the number of OECD countries changing their tax rates is shown in Table 21. With a strong global economy, 30 of the 34 OECD economies reduced their corporate tax rate between 2000 and 2008. Following the economic downturn, six countries increased their tax rate with 19 reducing it (although as shown above these cuts were much less severe on average). Over the total period, 32 OECD

[67] http://www.oecd.org/ctp/tax-policy/46605695.pdf

countries cut their corporate tax rates, with just two increasing it (Chile from 15% to 22.5% and Hungary from 18% to 19%).

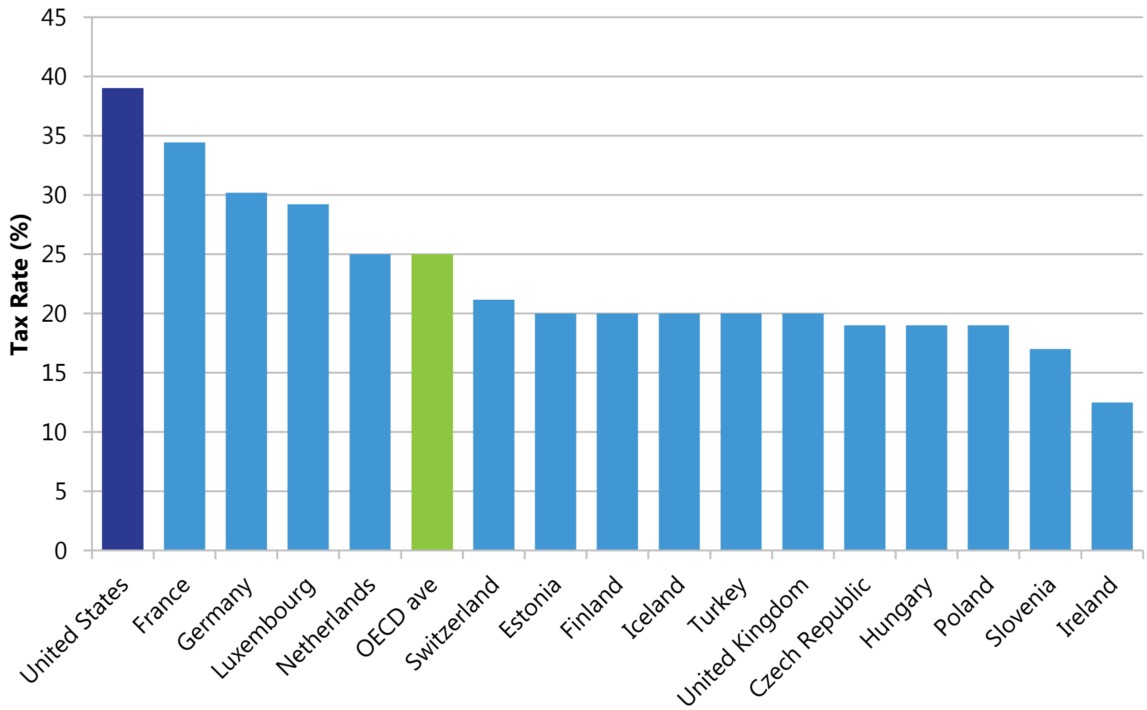
Table 21: Changes in Corporate Tax Rates by OECD Countries, 2000-15

Number of Countries	2000-08	2008-15	2000-15
Rate increased	2	6	2
Rate stayed same	2	9	0
Rate decreased	30	19	32

Source: OECD Tax Database

There is now a wide variation in tax rates amongst OECD countries. Measured by the combined corporate tax rate[68], Figure 22 highlights that the US has the highest corporate tax in the OECD at 39%, significantly above the average of 25%. In contrast, the UK now has the lowest rate amongst the major developed G7 countries; this has fallen from 30% in 2007 to 20% in 2015, 19% in 2017 and with a further reduction to 17% scheduled in 2020.[69] Other OECD countries with low tax rates tend to be Central and Eastern European (CEE) countries, with the exception of the ROI which has the lowest tax rate at 12.5%.

Figure 22: OECD Combined Central Corporate Tax Rates, 2015



Source: OECD Tax Database

[68] Some countries have a single rate set by the central government which applies to all regions and states, whereas others have a central rate and an additional rate set by regional governments. Where a sub-central rate is applied on top, the central rate will sometimes be reduced so the overall rate is lower. The combined corporate tax rate presented by the OECD includes the central rate (adjusted to take into account any deductions when a sub-central rate is applied) and any sub-central rates on top. This allows the best comparison of what the actual statutory tax rate that applies to companies is.

[69] https://www.gov.uk/government/publications/corporation-tax-to-17-in-2020

Effective Tax Rates

Statutory corporate tax rates are not, however, what companies pay in each country. Whilst the nominal corporate tax rate is transparent, the actual level of tax paid by corporations is determined by the breadth of the tax base and other tax credits, deductions and loopholes that are available. In relation to FDI, corporate taxes become even more complex due to companies having different operations across multiple locations with different tax rates and systems. For example, Ernst & Young's most recent Worldwide Corporate Tax Guide is a total of 1,615 pages long[70].

The actual proportion of corporate tax paid by companies is shown by the effective tax rate. This rate takes into account the various tax deductions on offer and also the breadth of the tax base (providing a more meaningful comparison between countries with a high statutory rate but narrow tax base and those with lower statutory rate but broader tax base). This is therefore, in part, a measure of how effective a country's tax system is at collecting taxes against its statutory rate; there is, however, a number of different ways to calculate this. Mintz and Chen (2015) estimate that the effective corporate tax rate in the US in 2011 was 22.1%, Gravelle (2014) cites a figure of 27.1% for 2008, whilst Hufbauer and Viero (2013) present different figures ranging from 27.6% to 29.0%. Regardless of which is correct, it is clear that whilst the US has a high statutory rate, companies are paying much less due to the design of the tax system.

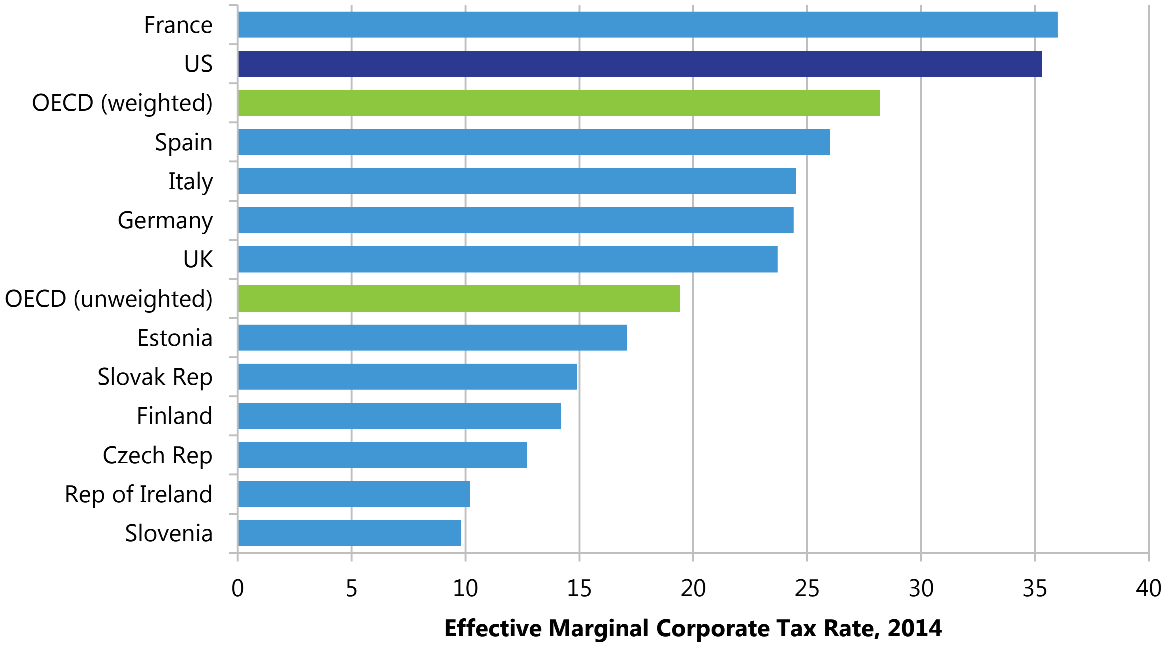
When considering the impact of tax rates on the scale of foreign investment that takes place in an economy, it is the Effective Marginal Tax Rate (EMTR) which is most appropriate. This measure looks at the change in tax liability for a one-unit increase in income, and therefore shows the rate of taxation that will be paid on a new investment. Calculating an EMTR is not straightforward as rates will differ depending on the type of investment, and there are many different estimates of the rate for the US. Mintz and Chen (2015) provides a comprehensive and annually updated source of information on international corporate tax comparisons. As shown in Figure 23, this suggests that the US has the second highest marginal effective tax rate on corporate investment in the developed world at 35.3%. It should be noted these estimates appear on the high side; Gravelle (2014) cites figures in the range of 23.0% to 29.0% depending on the type of investment and suggests that the US rate is broadly similar to the OECD average when it is weighted to take into account economy size.

Countries are not only reducing their corporate tax rates to attract and retain investment, but have also introduced preferential rates for income derived from IP. The UK has operated a Patent Box since 2013 which enables companies to benefit from a 10% rate of corporate tax on profits from patented inventions.[71] In total, Evers et al (2014) found that 12 EU countries operated some form of IP box which allowed for reduced rates of corporate tax, and estimate that the UK effective average tax falls from 15.75% under the regular tax system to 7.5% for Patent Box income. The announced in October 2015 that it will introduce a 6.25% rate for qualifying income.[72]

---

[70] www.ey.com/Publication/vwLUAssets/Worldwide_corporate_tax_guide_2015/$FILE/Worldwide%20Corporate%20Tax%20Guide%202015.pdf
[71] https://www.gov.uk/guidance/corporation-tax-the-patent-box
[72] http://www.rte.ie/news/business/2015/1013/734525-knowledge-development-box-to-have-6-5-rate/

Figure 23: Comparison of Effective Marginal Corporate Tax Rates, 2014



Source: Mintz and Chen (2015)

Note: Unweighted OECD average presents a simple mean of OECD countries, whereas the weighted OECD average takes into account relative economy size

5.2 US Corporate Tax System

There are a significant number of criticisms levelled at US corporate taxes, focusing not only on the high tax rate but also the design of the system. Hufbauer and Vieiro (2013) state that "without reform, US-based MNCs will continue to be hobbled by an outmoded tax structure as they compete in the age of globalization." Hufbauer and Wong (2011) highlight that high statutory rates are seeking to make up for a tax base that is too small, caused by a system with many loopholes and where a huge proportion of business activity is not subject to corporate taxes[73].

Pomerleau (2015a) draws attention to the extent of double taxation that takes place in the US, with corporate tax being paid on a firm's taxable income and then being taxed again when dividends are being given to shareholders. This estimates that the overall US rate of taxation becomes is 56.6% when the double taxation is taken into account, which is the second highest in the developed world. This overall high level of taxation gives companies strong incentives to minimise their US tax burden, and Angellini and Tuerck (2015) review a number of avoidance methods used to do so:

- Most countries have a "territorial" tax system whereby tax is only paid on income earned within the country, whereas the US taxes companies based on their worldwide income. However, this not a pure "worldwide" system as the tax is not payable until it is repatriated to the US; firms are then given a tax credit to offset the tax they have already paid to the foreign government and bring their overall tax burden up to the US rate. Companies can thus avoid

[73] Pass-through enterprises (such as Limited Liability Corporations, Limited Liability Partnerships and S-Corporations) are subject to individuals taxation (which is lower than corporate taxation), and 82% of US firms are not incorporated as a result.

taxes by not repatriating their income, and it is estimated that US corporations have almost $2 trillion of earnings retained in other countries[74]. The US did try a "repatriation holiday" back in 2004 where US MNCs were able to repatriate income at a flat 5.25%, and Hufbauer (2011) estimates that around $300 billion flowed back into the US because of this;

- Corporate inversion is a technique whereby a US company shifts its headquarters and country of residency to elsewhere, meaning it is not subject to US corporate taxes. The company is therefore only subject to tax on its US income and not worldwide. The Treasury department has attempted to introduce regulations to stop this behaviour through measures such as the American Jobs Creation Act 2004[75]. Marples and Gravelle (2014) highlight that whilst this has stopped types of inversions to tax havens such as Bermuda and the Cayman Islands where no business activity is taking place, inversions are still allowed where 25% of business operations are in the foreign country, or where the original US shareholders now own less than 80% of the company. The ROI has become the most popular location for US corporate inversions, with the UK ranking third; [76]

- US firms can shift income from high-tax to low-tax countries so it is subject to much lower rates of tax. This can happen by transferring Intellectual Property (IP) and paying royalty fees for use of the property, meaning the tax is being paid at a much lower overseas rate (the UK, for example, has a lower rate of Corporation Tax on profits earned from patented inventions and certain other innovations).[77] Gravelle (2015) highlights that policing IP is particularly difficult as there are no comparable prices to know what is appropriate. An alternative avoidance approach would be through transfer pricing schemes by buying inventory from other parts of an MNC at inflated prices or selling at lower than normal prices so that a greater share of income appears in the low tax location; and

- Finally, companies can use debt rather than equity financing. Interest on debt repayments is tax-deductible whereas dividends on equity are not, causing an economic distortion which has left large debt burdens on US balance sheets (estimated at $7.4 trillion)[78] and a preference for leveraged buyouts (where a company is bought-over using a large amount of borrowed money to meet the cost of acquisition).[79]

Not only does the high domestic corporate tax rate incentivise US companies to hold profitable assets in lower tax countries, but the design of the tax system allows this to happen. US companies clearly have a number of methods to take advantage of lower tax locations, although consultees for this study noted that it is not just profits which move but also other parts of the business too (i.e. firms with 30% of their profits being reported in a country also want to have a similar proportion of their business activity in that location to comply with tax rules, even if the activity is not directly responsible

[74] http://www.bloomberg.com/news/articles/2014-03-12/cash-abroad-rises-206-billion-as-apple-to-ibm-avoid-tax
[75] http://www.gpo.gov/fdsys/pkg/PLAW-108publ357/pdf/PLAW-108publ357.pdf
[76] http://www.bloomberg.com/infographics/2014-09-18/tax-runaways-tracking-inversions.html
[77] https://www.gov.uk/guidance/corporation-tax-the-patent-box
[78] http://www.cnbc.com/2014/10/21/next-worrysurging-corporate-debt-levels.html
[79] http://www.investopedia.com/terms/l/leveragedbuyout.asp

for generating the profits being reported there). The proposed lower tax rate in NI has been designed specifically so it encourages genuine economic activity.[80]

Given that US profits are now being attributed to lower tax countries, there is a strong incentive to first address the most exploitative locations – tax havens. OECD (2000) defined the following features of tax havens: no or low taxes, lack of effective exchange of information, lack of transparency, and no requirement of substantial activity. It identified 35 uncooperative tax havens, all of whom have now committed to information sharing at OECD standards meaning there is currently no jurisdiction on the OECD blacklist.[81] The first feature of the OECD criteria – low taxes – start to bring in countries when set low tax rates for competitiveness purposes, and a wider interpretation by Gravelle (2015) included developed economies such as the ROI, Switzerland, Singapore and Hong Kong even though they fully meet the broader OECD criteria on information, transparency and activity.

The ROI government has announced that it intends to close the "Double Irish" loophole[82] which allows MNCs to minimise their tax liability by holding IP (and thus royalty payments) in an Irish firm and then establishing an Irish subsidiary that is tax resident in a low or no tax location which would then not be taxed due to the ROIs territorial tax system (for further details see Darby and Lemaster, 2007). Both the Netherlands and Luxembourg, whilst not having low corporate tax rates at 25% and 29% respectively, are also referenced as having similar schemes and thus are favourable destinations for MNCs to locate operations for tax reasons.[83] The combination of the Double Irish arrangement alongside the "Dutch Sandwich" – where an Irish firm passes its profits through the Netherlands and back to an Irish subsidiary to legally minimise its tax burden – is something which has also been observed.[84]

More widely, although Luxembourg has an overall corporate tax rate of 29%, this masks significant variation within it. KPMG (2013) highlights that the corporate tax rate on intangible assets such as IP – which is where the value of a business often lies and where a significant amount of profits is attributed to – is less than 6%. In addition, PKF (2013) highlights that there is a 0% tax rate on dividends for substantial shareholdings. Luxembourg therefore becomes a highly attractive tax location for large investments where IP, trademarks etc are held. Switzerland's federal tax rate is just 8.5%, and its 26 Cantons can set additional rates of their choosing on top of this. Deloitte (2015b) shows that the effective tax rate can typically be as low as 12% in some areas, and some consultations for this research have also referenced the low tax rates available in Swiss Cantons.

A key development of the international corporate tax system is the OECD Base Erosion and Profit Shifting (BEPS) project. BEPS aims to address tax planning strategies that exploit gaps and mismatches in international tax rules to allow MNCs to artificially shift profits to low or no-tax locations where there is little or no economic activity, resulting in little or no overall corporate tax being paid. BEPS is of major significance for countries which rely heavy on corporate income tax, particularly from MNCs.[85] The OECD published its final BEPS reports in October 2015.[86] Some

---

[80] https://www.gov.uk/government/news/new-bill-to-devolve-corporation-tax-in-northern-ireland
[81] http://www.oecd.org/countries/monaco/listofunco-operativetaxhavens.htm
[82] http://www.forbes.com/sites/kellyphillipserb/2014/10/15/ireland-declares-double-irish-tax-scheme-dead/
[83] http://www.economist.com/news/finance-and-economics/21625876-irish-government-plans-alter-one-its-more-controversial-tax
[84] http://www.finfacts.ie/irishfinancenews/article_1026675.shtml
[85] http://www.oecd.org/ctp/beps-about.htm
[86] http://www.oecd.org/ctp/beps-reports-2015-executive-summaries.pdf

consultees suggested that the purpose of the BEPS work is mainly to target US MNCs and address their tax schemes. Rather than being concerned that the outcome of BEPS might make it more difficult for small economies with lower tax rates to attract US FDI, the opposite concern was expressed that it could lead to a substantial shift in genuine US business activities to elsewhere. Given that the OECD work is voluntary and requires agreement from countries, there is doubt over whether the US would sign up to this with its current tax system.

In moving to a 12.5% corporate tax rate in NI in 2017 or thereafter, the impact of BEPS on the decision-making of US (and other) MNCs must be considered as the international tax environment will be different than during much of the Celtic Tiger. The Department of Finance (2014) has considered the draft OECD proposals put forward. This report was clear to stress that BEPS is not about tax harmonisation, and that the Irish 12.5% rate would remain. It proposes that "Ireland's FDI policy has always centred on substance and as such Ireland is well positioned to compete in the global FDI market for any investment relocating as a result of the BEPS process." It does, however, caution that it will be important "to ensure that the changes to the transfer pricing guidelines do not go beyond the fundamentals of the current principles." The overall conclusion is that "while the BEPS project offers a lot of positives, there will also be challenges for Ireland." Recent progress updates highlight that the ROI[87] and the UK[88] have either begun to action the proposals or considered their current tax system meets the requirements; the US,[89] on the other hand, appears to have yet to make any real progress.

Overall, consultations for this study have strongly reinforced the importance of tax in influencing the location of US business activities. There are clearly a lot of developments happening in the area of international taxation (addressing what has been referred to as an "outdated" global regime) [90] and NI will need to ensure it aware of the implications of these in competing for FDI with a low corporate tax rate. Some consultees suggested that corporate tax was most useful as a marketing tool (a very clear and successful one at that), and NI still needs to maintain and enhance its wider value proposition to maximise the benefits of a lower rate.

5.3 Reform of US Corporate Taxes

Given the criticisms levelled at the US corporate tax system, it is unsurprising that there has been significant debate around the need for reform. Keightley and Sherlock (2014) of the Congressional Research Service have recently considered options for US corporate tax reform. These were:

1. Lowering the tax rate but broadening the base to maintain revenue neutrality;
2. Integrating the corporate and individual tax systems to remove incentives which distort economic efficiency;
3. Reducing the discrepancy in taxation of corporate and non-corporate businesses so that pass-through enterprises (at least the largest ones) are taxed as corporations; and
4. Looking at the merits of a territorial or worldwide corporate tax system.

[87] https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-beps-actions-implementation-ireland.pdf
[88] https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-beps-actions-implementation-united-kingdom.pdf
[89] https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-beps-actions-implementation-united-states.pdf
[90] http://www.ft.com/intl/cms/s/0/8bc3e00e-6a89-11e5-aca9-d87542bf8673.html#axzz3qXteQQVB

The above options are not mutually exclusive (reform could incorporate all four), and in the context of outward FDI it is options 1 and 4 which are most pertinent; these would impact the corporate tax rate that the US sets, the base it applies to (thus feeding through to effective rates) and how the foreign income of US MNCs is treated. A range of options relating to these areas were proposed to the President by the Economic Recovery Advisory Board (2010) as follows:

1. Moving to a territorial system where US tax rates only apply to US income;
2. Moving to a worldwide system (where US tax rates apply around the world) but with a lower corporate tax rate;
3. Keeping the current corporate tax rate but limiting or ending the deferral which incentivises firms not to repatriate income; and
4. Keeping the current system but lowering the corporate tax rate.

Businesses and right-leaning think tanks favour a territorial system, with a key argument behind this being that this is what has been adopted by almost all other OECD countries. Hodge (2011) identifies 10 reasons why the US should adopt a territorial tax system, with reasons one and two both about achieving parity with other OECD countries. Altshulter et al (2015) suggests that the reasons for other countries having a territorial approach varies greatly depending on individual circumstances that do not necessarily apply to the United States. It highlights that the US has been more able than other countries to maintain taxation based on corporate residence and higher corporate tax rates due to its economic size and importance, although the ability of the US to sustain this tax exceptionalism is declining as the gap with other economies become more narrow. Gravelle (2012) has looked specifically at the merits of the US moving to a territorial tax system, and argues that a full worldwide system (as opposed to the current hybrid) would solve the same inefficiencies as a territorial system as well as removing the distortions that tax competition can create.

There are clearly a number of different opinions as to what direction this reform should take even though there is agreement that reform is needed. The White House and Department of the Treasury (2012) published the President Obama's framework for business tax reform; this proposed eliminating dozens of tax loopholes and subsidies, broadening the base and cutting the corporate tax rate to 28%. These proposals were intended to be maintain fiscal responsibility and not add to the deficit, therefore not minimising the overall level of tax that US firms pay. Moving to an overall territorial tax system was rejected in favour of imposing an immediate minimum tax level on the foreign earnings of US companies, accompanied by a broader range of measures aimed at discouraging US firms (particularly manufacturers) from investing abroad.

Hufbauer and Vieiro (2012) criticised these proposals on three areas. Firstly, on the choice to strengthen a worldwide tax system with a minimum tax rate which would place US firms at a disadvantage against foreign competitors who operate from countries with territorial systems and lower tax rates. Next, for accompanying lower tax rates with a number of revenue raising proposals and not recognising that low tax rates would help to increase investment and thus raise tax revenue itself. And finally for aiming to try and discourage domestic manufacturing jobs from being moved abroad (i.e. protecting the US against outward FDI). Hufbauer and Vieiro (2013) suggest that US tax policy needs to recognise that outward FDI is not a substitute but a complement for boosting the US economy, referencing research which shows that greater US outward investment raises job creation, investment, and R&D spending in the domestic economy.

Prior to the most recent Presidential election, the Republican response to the President's proposals from the House Budget Committee (2012) outlined an alternative approach based around cutting corporate taxes to 25% and moving to a territorial system. Tax reforms proposed by Jeb Bush assessed in Pomerleau (2015b) would have seen the corporate tax rate cut to 20% under a full territorial system, with a removal of a range of tax deductions and a one-time repatriation tax of 8.75% on all US foreign profits currently being deferred. The overall impact of the proposals were estimated to lead to an increase in US GDP of 10% (mainly due to corporate tax reductions) alongside a loss of $1 trillion in corporate tax revenue.

At the time when consultations for this report were being carried out, the overall opinion put forward was that the prospect of US tax reform was some time away given the differences in the Democratic and Republican parties positions and the belief that no one side would have full control over the Presidency and both Houses of Congress. However, the US elections in November 2016 delivered exactly that for the Republican Party, meaning that tax reform is now closer than it would otherwise have been.

President Trump is a strong advocate of business tax reform.[91] His election campaign centred around a proposal to reduce the US corporate tax rate to 15%, which would make America one of the most competitive countries on business taxes. This would be expected to help to discourage corporate inversions and proclaimed to be revenue neutral by closing a number of loopholes open to businesses, allowing a one-time repatriation of cash held abroad at a lower tax rate of 10%, and the end of deferral on corporate tax overseas (but keeping the foreign tax credit so that firms are not double taxed by both the country they are in and the US). Bringing the corporate tax and personal income tax rates in line at 15% would also remove market distortions where it is favourable for businesses not to incorporate and therefore be subject to higher tax rates.

The Ryan-Brady (2016) plan "A Better Way: Our Vision for a Confident America" was initially seen as a potential vehicle to deliver business tax reform by the Republicans.[92] This proposed a reduced rate of corporate tax to 20% and a move to a territorial system, but as part of a much more radical move to a tax system based on consumption (rather than income) and featuring a "border adjustment tax" which would impose a tax on imports consumed in the US, thus generating additional revenue to fund the tax cut. This plan had its supporters, for example Brill (2016), but Hufbauer and Lu (2017) highlight some of the concerns with this – namely it would increase the price of imported goods for American consumers and companies – that are shared by some Republican senators whose votes would be needed for it to be passed.[93] Hufbauer (2017) notes that the border adjustment debate this plan brought should not obscure the long-term goal of achieving tax reform which it would deliver.[94]

President Trump, however, was not in favour of the border adjustment which was central to funding this plan,[95] and subsequently reaffirmed his desire for a more straightforward reduction to a 15% corporate tax rate under a territorial system.[96] This move is welcomed by Desai (2017) but criticised over the lack of detail as to how this could be funded, being described as "fiscally irresponsible" given

[91] https://assets.donaldjtrump.com/trump-tax-reform.pdf
[92] https://abetterway.speaker.gov/_assets/pdf/ABetterWay-Tax-PolicyPaper.pdf
[93] https://piie.com/blogs/realtime-economic-issues-watch/big-stumbling-blocks-business-tax-reform
[94] https://piie.com/commentary/op-eds/us-economy-needs-president-trumps-tax-reforms
[95] https://www.forbes.com/sites/beltway/2017/01/17/trump-may-have-killed-the-house-gops-business-tax-reform/#4f1e67d871bd
[96] http://money.cnn.com/2017/04/26/news/economy/trump-tax-plan/

the US' long-term fiscal challenges.[97] The Ryan-Brady plan has now been ditched,[98] with the most recent plan – the Tax Cuts and Jobs Act – proposing a 20% federal corporate tax under a territorial system but with a 10% tax on some profits of US foreign subsidiaries.[99] This would make the US domestic tax system much more competitive (albeit with additional state tax rates on top of around 4% on average) but is part of a much wider bill which includes reform of income tax rates and other tax exemptions, and would lead to a $1.5tn reduction in tax receipts over the next 10 years.[100]

5.4 Summary

US firms face some of the highest corporate tax rates globally, which provides a very strong incentive for US companies to seek to invest overseas and establish profit-centres in areas with low tax rates. Many OECD countries have reduced their headline tax rates both to attract overseas investment as well as to retain indigenous companies, something which not happened to date in the US. The ROI represents an obvious choice for US investors with its 12.5% tax rate, whilst countries such as Switzerland, Netherland and Luxembourg are also attractive for tax reasons.

Not only is the US corporate tax rate high, but the design of the tax system is in much need of reform. In contrast to most other countries with a territorial tax system, the US operated a worldwide tax system where US firms must pay US taxes regardless of which territory the profits are made in. This only gets charged when profits are repatriated to the US, creating a strong incentive for firms to keep profits overseas. US multinationals have a variety of techniques to minimise their taxable US profits, including transferring IP to lower tax locations and performing a corporate inversion. Greater attempts are also being made to police tax avoidance by US multinationals, and the OECD BEPS project is largely aimed at addressing this.

There is widespread agreement that the US corporate tax system is in significant need of reform. Many potential options have been proposed, including a combination of reducing the tax rate, widening the base, moving to a territorial system and keeping a worldwide system but ending the deferral. The US election, resulting in a Republican President and control of both Houses in Congress, has made the prospect of a reduction in the corporate tax rate more likely; however, agreeing a plan which would at least partly cover the lost revenue from such a move has provided difficult. Nonetheless, it would be expected that the US will reduce its corporate tax rate to 20-25%.

Any future corporate tax reform in the US matters to NI given the plans for a devolved 12.5% rate. The uncompetitive business tax system in the US provides strong incentives for companies to look to invest abroad, and the current tax system allowing a deferral of US taxes until the income is repatriated gives a means by which US companies can benefit from lower taxes elsewhere. Changes which either makes the US tax system much more competitive or more difficult for US firms to benefit from lower taxes elsewhere could impact on the attractiveness of locations which use lower taxes to attract investment. This reinforces the need for a broad FDI proposition for a small economy, where low taxes are only one part of the offer to investors.

[97] https://hbr.org/2017/05/the-debate-on-corporate-tax-reform-just-started-for-real
[98] https://www.ft.com/content/17c66eb2-72fa-11e7-aca6-c6bd07df1a3c
[99] https://waysandmeansforms.house.gov/uploadedfiles/bill_text.pdf
[100] https://www.ft.com/content/3663c5ca-bfd7-11e7-9836-b25f8adaa111

6 Summary and Conclusions

US companies seek to invest overseas for a variety of reasons, including the desire to access new markets, take advantage of cost competitive skilled labour, and benefit from lower corporate tax rates. Reduced corporate tax can therefore enhance NI's already strong FDI offering.

6.1 US FDI Drivers

There is no simple answer to the question "what determines a US firm's investment decision?" Ultimately this will depend on a range of factors, including the original motive for seeking to invest overseas and the types of activities being located elsewhere. The literature would suggest that there are key factors which get locations on a shortlist for an investment (e.g. access to markets or low corporate taxes) and then key differentiators (e.g. talent, clusters, financial support) which will sway the decision between those locations shortlisted. For NI, this suggests that relatively high corporate tax rates mean that it has not been getting on the shortlist for projects where tax is important, but it also means that low tax still needs to be accompanied by other factors which will make it an attractive location relative to its competitors.

The motives that US companies cite when making investment decisions suggest that the core value proposition of any location competing for any FDI activity needs to be built on a solid foundation of skilled labour, access to markets, government support, business climate and industry clusters. Other factors such as incentives, taxes, language skills, research base, costs and quality of life then become more attractive for attracting certain types of activities over others. Again, this reinforces the need to supplement key "deal breakers" for certain activities with a strong underlying broad value proposition.

Ultimately, when we look at locations which have been successful at attracting US FDI the key differentiators appear to be corporate taxes, operating costs and financial incentives. That is not to say that these are the only factors which are important, nor that any one country can offer all of these, nor indeed will these attract all types of FDI activities. But, on a macro level, looking at the investment decisions of US multinationals since 2003, almost all the most successful locations have been able to offer a pro-business environment supported by at least one of these three factors.

6.2 FDI Propositions

The UK is the only successful location that US companies choose which has not offered low corporate taxes, low costs or high financial incentives over the period reviewed (although its recent and planned reductions to a tax rate of 17% in 2020 will have moved it into this space). The UK offers a broad value proposition and is a natural first location for expanding US firms seeking to access overseas markets (particularly London) and well-educated, English-speaking talent. Even if a US company is attracted to London initially, it can subsequently observe the wide range of skills and cost savings that can be made across other parts of the UK as well. This has made the UK an attractive destination for US headquarters, contact centres, sales & marketing and manufacturing.

The ROI emerges as the most successful US FDI location and offers a straightforward 12.5% corporate tax rate. It would be wrong to suggest that tax is the sole reason why US firms have chosen the ROI as an investment location, particularly as we have shown that it has the strongest and most broad value proposition for US FDI compared with any other European location. Low tax is a key differentiator for the ROI, and its strong overall FDI proposition allows it to use this tool effectively in competing successfully not only for higher value activities such as R&D, headquarters, design & development and technical support, but also for wider support services activities and manufacturing.

Lacking in the UK's scale and diversity, and the ROI's low tax and track record in certain areas, the key drivers of US FDI to NI have been more narrowly focused around strong talent, competitive costs and government support. This existing proposition has delivered considerable success for NI amongst US investors, particularly for design, development & testing, customer contact centres, shared services centres, technical support centres and R&D activities. These activities reflect the proposition on offer, and much less success has been evident in areas such as headquarters and manufacturing which both the ROI and UK have been able to attract (even with having very different propositions themselves). The move to a 12.5% rate of Corporation Tax would be expected to help Northern Ireland become more competitive for these types of investment opportunities.

6.3 Importance of Market Access

Access to the markets has been, and will continue to be, a key driver of US international investment. Although US firms can access a large and wealthy domestic market, they will ultimately look at overseas markets in order to support their growth. The EU and UK represent large and developed economies for US firms to expand into, and London in particular is a natural first step for US firms seeking to expand internationally as it shares a similar culture, language and wealth alongside being the single largest metro market area in the EU.

The ability of US investors in the UK to access the single market once it leaves the EU is uncertain at present; the outcome of negotiations between the EU and UK on the future trading relationship will determine this. Should the UK sign a deep and comprehensive free trade agreement with the EU it is likely that US investors will be able to access the single market in a similar (albeit not identical) manner to before. The UK also has plans to sign a trade agreement with the US which would make the UK more attractive for such investors. There are therefore a range of outcomes resulting from an EU exit which could impact on US FDI to the UK and NI in many different ways.

Since the referendum result, FTAs have become a prominent discussion point, as they improve market access for companies and can support increased trade and investment. In the case of developed economies, where tariffs and trade barriers are relatively low, these agreements tend to focus more on adopting consistent standards and regulations, and ensuring investors are afforded the same protections and opportunities as domestic firms. The US had been negotiating TTIP with the EU, which would have supported increased investment between the two markets, but this now appears to have stalled. There are more positive indications that a potential FTA between the US and UK can now be agreed, and support greater investment between the two economies, although such agreements often take many years to negotiate and come into place given their complexity.

6.4 Importance of Talent

Access to talent is a key driver of US overseas investment. The US is host to one of the largest labour pools globally, and also has many of the top universities around the world. There is no question that US firms can access some of the best talent available on their doorstep, but yet they continue to look overseas to fill job roles. This comes down to the availability and cost of skills domestically.

The US economy has now recovered from the global recession and is growing strongly. As a result, the labour market is getting much tighter and, as firms are increasing their demand for labour, the corresponding available supply of labour is falling. This is particularly true amongst graduates. US companies are reporting significant difficulties in filling vacancies, particularly for highly skilled jobs such as engineers, computer specialists, scientists and managers & executives. By looking overseas, particularly to highly skilled countries which do not have the same labour market pressures, US firms are able to fill these vacancies.

Cost also plays a part of this too. Not only can US firms access talent which difficult to find in the US, it can also get this talent at more competitive rates. The US has some of the highest salaries globally for both high and lower skilled job roles, below Switzerland and similar to France and Germany. Wages in the UK (and ROI and NI) are therefore significantly lower, whilst still offering highly skilled graduates for US firms to hire. Other less developed locations can also offer even lower wages still, albeit often at the expense of language or specialist skills that may be required.

The extent to which cost is a factor in accessing talent comes down to how skilled the job role is and how scarce it is domestically. There is extremely strong competition for the best graduates in the US, and for highly-skilled job roles there is likely to be more of an emphasis on quality of labour rather than just costs. For lower-skilled job roles which require generic skills and where US employers face much less difficulties in filling domestically, the emphasis is much more likely to be on costs here. Locations which can offer good quality graduates and skills at competitive costs will therefore be very attractive to US employers, and this has been core to NI's proposition for US FDI.

6.5 Importance of Corporation Tax

US firms have faced some of the highest corporate tax rates globally, which provides a very strong incentive for US companies to seek to invest overseas and establish profit-centres in areas with low tax rates. Many OECD countries have reduced their headline tax rates both to attract overseas investment as well as to retain indigenous companies, something which not happened to date in the US. The ROI represents an obvious choice for US investors with its 12.5% tax rate, whilst countries such as Switzerland, Netherland and Luxembourg are also attractive for tax reasons.

Not only has the US corporate tax rate been high, but the design of the tax system is in much need of reform. In contrast to most other countries with a territorial tax system, the US operated a worldwide tax system where US firms must pay US taxes regardless of which territory the profits are made in. This only gets charged when profits are repatriated to the US, creating a strong incentive for firms to keep profits overseas. US multinationals have a variety of techniques to minimise their taxable US profits, including transferring IP to lower tax locations and performing a corporate inversion. Greater attempts are also being made to police tax avoidance by US multinationals, and the OECD BEPS project is largely aimed at addressing this.

There is widespread agreement that the US corporate tax system is in significant need of reform. Many potential options have been proposed, including a combination of reducing the tax rate, widening the base, moving to a territorial system and keeping a worldwide system but ending the deferral. The US election, resulting in a Republican President and control of both Houses in Congress, has made the prospect of a reduction in the corporate tax rate more likely; however, agreeing a plan which would at least partly cover the lost revenue from such a move has provided difficult to date. Nonetheless, it would be expected that the US will reduce its corporate tax rate to 20-25%.

Any future corporate tax reform in the US matters to NI given the plans for a devolved 12.5% rate. The uncompetitive business tax system in the US provides strong incentives for companies to look to invest abroad, and the current tax system allowing a deferral of US taxes until the income is repatriated gives a means by which US companies can benefit from lower taxes elsewhere. Changes which either makes the US tax system much more competitive or more difficult for US firms to benefit from lower taxes elsewhere could impact on the attractiveness of locations which use lower taxes to attract investment. This reinforces the need for a broad FDI proposition for a small economy, where low taxes are only one part of the offer to investors.

6.6 Policy Implications

NI is well positioned to build on its current success with a 12.5% corporate tax rate. Even without a lower tax rate, NI has become a leading location for US investors, particularly in tradable services sectors such as software & IT, business services and financial services. Adding low tax to what is already a strong proposition can only enhance this success further, and can potentially help to support further manufacturing FDI where success has been less widespread.

There are clearly a number of uncertainties which could potentially impact on NI's competitiveness for US FDI going forward. US investors are likely to benefit from a lower corporate tax rate domestically, FDI competitors have been reducing their corporate tax rates and the OECD BEPS project is aiming to reform how multi-nationals allocate their profits in line with activities. With negotiations ongoing, it is also currently unclear how the UK exit from the EU might impact on market access for US investors and whether any new UK-US FTA could be agreed. However, regardless of what scenarios play out across each of these areas, a lower corporate tax rate will make NI more competitive for US FDI than would otherwise be the case.

Future success at attracting FDI needs two key elements – a core value proposition that remains internationally competitive and a strong IPA that can sell this to investors. On the first element, it is important that NI retains a broad proposition with lower tax not seen as a replacement for other factors such as market access or government support. The onus here is on NI to ensure that coordinated policy decisions in areas such as tax, skills, enterprise and infrastructure are made which support the FDI value proposition. The Irish Department for Business, Enterprise and Innovation published an FDI policy statement which outlines its overall policy objectives and sets out how government can work to support IDA Ireland to deliver on these.[101] NI currently does not have an equivalent overarching FDI strategy, and something similar could help to ensure a more joined-up and strategic approach to competing for FDI going forward.

[101] https://dbei.gov.ie/en/Publications/Publication-files/Forf%C3%A1s/Policy-Statement-on-Foreign-Direct-Investment-in-Ireland1.pdf

On the second element, Invest NI's success at selling NI as an FDI location to date is clearly evident through its track record, but changing the existing approach to incorporate lower tax will need further marketing to raise awareness of NI as a lower tax location. Whilst NI benefits from a unique location as part of the UK on the island of Ireland, it also means there is less awareness of it as a discrete investment location than the UK or ROI. Invest NI currently has to be very proactive in selling NI to US investors, much more so than UKTI or IDA Ireland, and this is something that a successfully marketed low tax strategy could help to address.

Annex A: List of Consultees

Karl Sauvant	Columbia Law School
Jane Gravelle	Congressional Research Service
Tom Griffin	Demandware
Kathryn Ellis	ED Agency
Judit Czako	Hungarian Investment Promotion Agency
Chris Steele	IC Associates
Ivan Houlihan	IDA Ireland
Gary Hanley	Invest NI
Andrea Haughian	Invest NI
Aine Mallaghan	Invest NI
Bill Montgomery	Invest NI
Niamh Perreault	Invest NI
Norman Houston	NI Bureau
Stuart Matthews	NI Bureau
Lorraine Turner	NI Bureau
Gary Clyde Hufbauer	Peterson Institute for International Economics
Robin Lawrence	Rapid 7
Frank Conte	Suffolk University
Jonathan Haughton	Suffolk University
Richard Torrisi	Suffolk University
Kirsten Chambers	UKTI
Dan Marks	UKTI
Eric Toder	Urban Institute
Jonathan Huneke	US Council for International Business
Don Calvert	US Department of Commerce

Annex B: Bibliography

Alschulter, R., Shay, S. and Toder, E. (2015) *Lessons the United States can learn from other Countries Territorial Systems for Taxing Income of Multinational Corporations*, Tax Policy Centre

Angellini, J.P. and Tuerck, D.G. (2011) *The U.S. Corporate Income Tax: A Primer for U.S. Policymakers,* The Beacon Hill Institute at Suffolk University

Assuncao, S., Forte, R. and Teixera, A.A.C (2011) *Location Determinants of FDI: A Literature Review,* FEP Working Papers, N.433

Brill, A. (2016) *Tax Reform: Ryan-Brady Plan Is a Better Way,* American Economic Perspectives

Brookings Institution (2015) Global Metro Monitor 2014: An Uncertain Recovery

Budget House Committee (2013) *The Path to Prosperity: A Blueprint for American Renewal*

Business Sweden (2016) *International Investment after Brexit: Opportunities for Sweden*

Centre for Economic Policy Research (2013) *Transatlantic Trade and Investment Partnership: The Economic Analysis Explained*

Copenhagen Economics (2015) *TTIP impact in Ireland*, Department of Jobs, Enterprise and Innovation

De Mooij, R.A and Ederveen, S. (2008) *Corporate Tax Elasticities A Reader's Guide to Empirical Findings,* Oxford University Centre for Business Taxation WP 08/22

Deloitte (2015a) *The Skills Gap in US Manufacturing: 2015 and Beyond,* The Manufacturing Institute

Deloitte (2015b) *Corporate Tax Rates 2015*

Department of Business, Enterprise and Innovation (2014) *Policy Statement on Foreign Direct Investment in Ireland*

Department of Finance (2014) *OECD Base Erosion and Profit Shifting Project in an Irish Context*

Desai, M.A. (2017) *The Debate on Corporate Tax Reform Just Started for Real*, Harvard Business Review

Dhingra, S., Gianmarco, O., Sampson, T. and Van Reenen, J. (2016) *The Impact of Brexit on Foreign Investment in the UK,* Centre for Economic Performance

Dunning, J. (1993) *Multinational Enterprises and the Global Economy,* Harlow: Addison-Wesley

Economic Advisory Group (2011) *The Impact of Reducing Corporation Tax on the Northern Ireland Economy*

Economic Recovery Advisory Board (2010) *The Report on Tax Reform Options: Simplification, Compliance, and Corporate Taxation*

Emerson, M., Busse, M., Di Salvo, M., Gros, D. and Pelkmans, J. (2017) *An Assessment of the Economic Impact of Brexit on the EU27*, European Parliament

Ernst & Young (2015) *Worldwide Corporate Tax Guide*

European Commission (2006) *Study of FDI and Regional Development*

Evers, L., Miller, H. and Spengel, C. (2014) *Intellectual property box regimes: effective tax rates and tax policy considerations,* International Tax Public Finance (2015) 22:502–530

fDi Intelligence (2012) *Improving the Quality of Foreign Direct Investment to Northern Ireland,* Department of Enterprise, Trade and Investment

fDi Intelligence (2015) *The fDi Report 2015: Global Greenfield Investment Trends*

Franco, C., Rentocchini, F. and Vitucci Marzetti, G. (2006) *Why do firms invest abroad? An analysis of the motives underlying Foreign Direct Investments*

Freund, C. (2017), *Scrapping NAFTA Will Sink the Peso and Expand Trade Deficit,* Peterson Institute for International Economics,

Gravelle, J.G. (2012) *Moving to a Territorial Income Tax: Options and Challenges,* Congressional Research Service R42624

Gravelle, J.G. (2014) *International Corporate Tax Rate Comparisons and Policy Implications,* Congressional Research Service R41743

Gravelle, J.G. (2015) *Tax Havens: International Tax Avoidance and Evasion,* Congressional Research Service R40623

Hodge, S.A (2015) *The Economic Effects of Adopting the Corporate Tax Rates of the OECD, the UK, and Canada,* Tax Foundation Fiscal Fact No.477

Hufbauer, G.C (2011) *Would a 'Repatriation Tax Holiday' Work?,* Peterson Institute for International Economics

Hufbauer, G.C (2017) *The US Economy Needs President Trump's Tax Reforms,* Peterson Institute for International Economics

Hufbauer, G.C and Lu, Z. (2017) *Big Stumbling Blocks for Business Tax Reform,* Peterson Institute for International Economics

Hufbauer, G.C. and Vieiro, M. (2012) *Right Idea, Wrong Direction: Obama's Corporate Tax Reform Proposals,* Peterson Institute for International Economics PB 12-13

Hufbauer, G.C. and Vieiro, M. (2013) *Corporate Taxation and US MNCs: Ensuring a Competitive Economy,* Peterson Institute for International Economics PB 13-9

Hufbauer, G.C. and Wong, W.F. (2011) *Corporate Tax Reform for a New Century,* Peterson Institute for International Economics PB 11-2

IMD World Competitiveness Centre (2015) *World Competitiveness Scoreboard 2015*

International Monetary Fund (2015) *World Economic Outlook: April 2015*

Invest Northern Ireland (2014) *Annual Report and Accounts 2013-14*

Invest Northern Ireland (2012) *Invest NI Corporate Plan 2011-15*

Keightley, M.P. and Sherlock, M.F. (2014) *The Corporate Income Tax System: Overview and Options for Reform,* Congressional Research Service

Kennedy, J.V. (2014) *Assessing U.S. Corporate Tax Reform in an Age of Global Competition,* The Information Technology and Innovation Foundation

KPMG (2013) *Luxembourg – A Hub for Intellectual Property*

ManpowerGroup (2015) *Talent Shortage Survey 2015*

Marples, D.J. and Gravelle, J.G. (2014) *Corporate Expatriation, Inversions, and Mergers: Tax Issues,* Congressional Research Service R43568

Mintz, J.M. and Chen, D. (2015) *U.S. Corporate Taxation: Prime for Reform,* Tax Foundation

National Association for Business Economics (2015) *Business Conditions Survey: July 2015*

NI Executive (2012) *Northern Ireland Economic Strategy*

NI Executive (2012) *Programme for Government 2011-15*

Organisation for Economic Cooperation and Development (2000) *Towards Global Tax Co-operation: Progress in Identifying and Eliminating Harmful Tax Practices,* OECD

Organisation for Economic Cooperation and Development (2015) *Base Erosion and Profit Shifting Project: Explanatory Statement*

Oxford Economics (2016) *Assessing the Economic Implications of Brexit*

Pelkmans, J., Lejour, A., Schrefler, F.M. and Timini, J. (2014) *The Impact of TTIP: The underlying economic model and comparisons,* Centre for European Policy Studies Special Report No. 932

PKF (2013) Luxembourg Tax Guide 2013

Pomerleau, K. (2015a) *Eliminating Double Taxation through Corporate Integration,* Tax Foundation Fiscal Fact No. 453

Pomerleau, K. (2015b) *Details and Analysis of Governor Jeb Bush's Tax Plan,* Tax Foundation Fiscal Fact No. 479

Pomerleau, K. and Lundveen, A. (2014) *International Tax Competitiveness Index 2014,* Tax Foundation

Porter, M.E. (1990) The Competitive Advantage of Nations, *Harvard Business Review 90211*

Portes (2013) *Commentary: The Economic Implications for the UK of Leaving the European Union,* National Institute Economic Review No. 226

QS (2015) *World University Rankings 2015/16*

Ramondo N., Rappoport, V. And Ruhl, K.J. (2012) *Horizontal versus Vertical Foreign Direct Investment: Revisiting Evidence from U.S. Multinationals*

The Republican Party (2016) *A Better Way: Our Vision for a Confident America*

Simionescu, M. (2016) *The Impact of BREXIT on the Foreign Direct Investment in the United Kingdom,* Bulgarian Economic Papers, 07-2016

Society for Human Resource Management (2015) *The Hiring of College Graduates 2015*

Society for Human Resource Management (2015) *Workforce Readiness and Skills Shortages*

Springford, J., Tilford, S. and Whyte, P. (2014) *The Economic Consequences of Leaving the EU*, Centre for European Reform

SQW Ltd (2013) *An evaluation of Selective Financial Assistance in Northern Ireland 2004/05 to 2010/11,* Department of Enterprise, Trade and Investment

The Conference Board (2014) *International Comparisons of Hourly Compensation Costs in Manufacturing 2013*

The Economist (2013) *India's Outsourcing Business: On the Turn,* January 19th 2013 Print Edition

The White House and the Department of the Treasury (2012) *The President's Framework for Business Tax Reform*

Trump, D. (2016) *Tax Reform that will Make America Great Again*

UK Government (2014) *Stormont House Agreement*

UK Government (2017) *The United Kingdom's Exit From and New Partnership With the European Union*

Ulster University Economic Policy Centre (2016) *Measuring the Economic Impact of a Reduced Rate of Corporation Tax in Northern Ireland*, Department of Enterprise, Trade and Investment

United Nations Congress on Trade and Development (2015) *World Investment Report 2015: Reforming International Investment Governance*

US Bureau of Labor Statistics (2015) *Employment Situation Summary: September 2015*

US Bureau of Labor Statistics (2015) *Job Openings and Labor Turnover: September 2015*

US Census Bureau, (2017) *International Trade in Goods and Services*

WAVTEQ Limited (2016) *The Impact of Brexit on Foreign Direct Investment into the UK: Recommendations for Investment Promotion Strategy*

World Bank (2015) *Doing Business 2015: Going Beyond Efficiency*

World Bank (2015) *Global Economic Prospects: June 2015*

World Economic Forum (2015) *Global Competitiveness Report 2015-2016*

World Intellectual Property Organisation (2015) *Global Innovation Index 2015: Effective Innovation Policies for Development*

CONTACT DETAILS

Email analyticalservices@economy-ni.gov.uk

Further information on DfE research is available at this link