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Ireland and the changing global foreign direct investment landscape[1]

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Introduction

Changes in the global foreign direct investment (FDI) environment are of particular significance for Ireland because of the FDI intensity of the Irish economy. This paper discusses five major external developments that are currently in train. The focus is on the implications for Ireland as an FDI host location. Issues pertaining to indigenous industry and outward FDI by Irish-owned multinational corporations (MNCs) warrant separate analysis and are not considered here.

Three of the changes relate to political and economic developments in what might be termed the encompassing Atlantic economy: the UK's proposed withdrawal from the EU, the recently enacted changes to the US corporate tax regime, and post-crisis political dynamics within the eurozone. The other ongoing developments are global in scope: the steadily increasing digitalisation of the business world, and the eastward shift of the centre of gravity of global income and production. Brexit, as the issue of most urgent concern, receives particular attention and discussion of this topic is left until last.

A note on how FDI is measured will prove useful at the outset. For Ireland, as for other economies that also function as offshore financial

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centres, the bulk of FDI activity is in international financial services. As noted by Forfás (2002), such inflows entail 'large movements of capital by parent companies to their treasury, fund management and other IFSC financial subsidiaries, mostly to be reinvested in overseas assets. In this sense, *such flows of direct investment into IFSC companies are roughly matched by outward flows of portfolio investment, and have little impact on the real domestic economy*' (italics added). For this reason the FDI flow data produced by the United Nations Conference on Trade and Development (UNCTAD) – the source generally used for international comparative purposes – can prove misleading. UNCTAD (2004, p. 104) too warns that 'a good deal of services FDI – notably that in holdings and financial affiliates – involves activities with little value added, employment, sales or investment expenditure on fixed capital'.

Employment numbers in overseas firms provide a more accurate representation of the 'real economy' impact of FDI.[2] Ireland is one of the most FDI-intensive economies for which employment data are available. The close to 50 per cent share of the Irish manufacturing workforce employed by foreign MNCs is around twice the EU average. Services across the globe are less FDI-intensive, but in the case of services too the share employed by foreign MNCs in Ireland is around twice the EU average.

The paper begins with a brief survey of the history of Ireland's interactions with the encompassing FDI environment. History is not considered here simply for its own sake, however: each historical point made has implications for how we might think about the opportunities afforded by the developments in the external FDI environment that are the primary focus of the present paper.

Lessons from history

From the foundation of the state until the policy shift towards export orientation in the mid 1950s most inward FDI was undertaken by British firms and was directed towards production for the protected Irish market. Such 'tariff-jumping' FDI was until recently considered to be a thing of the past. Trade barriers, though frequently motivated

[2] Export measures are less revealing because the share of domestic value added in Irish gross exports is low by international standards (Byrne & O'Brien, 2015). Tax revenues generated by overseas firms would be another useful measure of FDI intensity but are not available on an internationally comparable basis. The tax revenue contribution of foreign MNCs has been unusually buoyant in Ireland in recent years.

by a desire to protect or stimulate domestic import-competing firms, also incentivise foreign firms to establish inside the protected market. Brexit will clearly have implications of this nature.

Because of the particular constellation of duties and taxes in operation when the Free State customs frontier was erected in 1923, there was a particularly dramatic effect on the manufactured tobacco sector (Banking Commission, 1938, p. 54). Three British tobacco companies immediately commenced factory construction in Dublin and by 1929 Players-Wills, into which the companies amalgamated, was among the largest manufacturers in the state. Indigenous tobacco firm Carroll's jumped the tariff barrier in the opposite direction, establishing a factory in Liverpool to protect its British sales. Barrier-induced foreign investments, as in this case, frequently flow in both directions: Irish firms surmount the barriers to establish in Britain – the construction of a Guinness brewery in London in the 1930s is another case in point – just as British firms establish behind Irish barriers. There are clear parallels here with the steps that Irish and Northern Irish agri-food firms have been taking to protect their respective markets in anticipation of a British withdrawal from the EU.

Tariff-jumping FDI in the protectionist era was substantial. By 1960 up to one-third of Irish manufacturing jobs may have been in foreign-owned firms – not so very far off the proportion of one-half that prevails today. For contemporary foreign firms such as Google, Apple, Intel and Pfizer, on the other hand, the local market is of little significance. Ireland, for them, serves as an 'export platform' from which to sell into the international market.

Such 'export platform FDI' became predominant with the policy shift towards outward orientation in the mid 1950s. In thinking about the implications for Brexit, however, it is important to recognise that the distinction between these traditional and modern forms of FDI is not as clear-cut as might be supposed. Britain in the 1920s imposed tariffs on imported cars but Commonwealth producers could access the British market at preferential tariff rates. This led US car manufacturers to cross the border from Detroit to Southern Ontario, where they established export-platform operations from which to tariff-jump into the protected British market (Kindleberger, 1990, p. 141).[3] A similar blend of motivations was discernible in Ireland in the

[3] Note that both tobacco products and motor vehicles – the cases cited in this discussion of tariff-jumping FDI – are advertising-intensive sectors (as seen in Table 1). Brand loyalty and product heterogeneity explain why local firms find it difficult to capture these markets even when protected by tariff barriers.

pre-EEC era. One of the attractions the Industrial Development Authority (forerunner of today's IDA Ireland) advertised to foreign MNCs was that Irish-produced manufactures enjoyed preferential access to the UK and Commonwealth markets at the time (Barry & O'Mahony, 2017). This blend of tariff-jumping and export-platform motivations will provide the basis of much of the discussion of the Brexit case later in the paper.

Most tariff-jumping FDI in Ireland was British while the bulk of export-platform FDI in Ireland today is American. It is worth considering how Ireland managed to create an environment that has proved so attractive to US firms. The country's pivot towards outward orientation was in part a consequence of the last major shift of the centre of gravity of the global economy. That the US overtook Britain as the major global source of FDI from the end of the Second World War diminished political opposition in Ireland to the adoption of the new FDI strategy (Barry & O'Mahony, 2017).

US consultancy firms were invariably commissioned to advise on FDI-related matters once the shift in thinking occurred, and this proved significant in making Irish policymakers aware of the steps needed to attract US firms. The earliest example came when a small tranche of Marshall Aid funding was used to hire a New York consultancy firm to produce what became known as the 'Stacy May' report of 1952. The report drew attention to how the US protectorate of Puerto Rico had developed as an export platform by exploiting its tariff-free trade relations with the US to attract light manufacturing firms through tax holidays and excise-duty exemptions. Puerto Rico's favourable tax concessions would appear prominently in the 1956 IDA report on its recent visit to the US. Many American firms were reported to have enquired whether any such concessions were available in Ireland. The year 1956 saw the introduction of export sales relief (or 'export profits tax relief') – the origin of Ireland's low corporation tax regime.

A 1960 report commissioned from another team of US consultants familiarised Irish policymakers with the intricacies of the US tax system and how American firms benefited by exploiting the asymmetries between different corporate tax systems (Barry, 2016). Boston consultancy firm Arthur D. Little – which had been instrumental in developing Puerto Rico's tax offering – was commissioned to advise on the major reorganisation of the IDA in the late 1960s. Another US consultancy firm, Ira Magaziner's Telesis Group, was responsible for the next major review of Irish industrial policy in 1982. Though none of the US consultancy advice was accepted without extensive discussion within Irish policymaking circles, and much of it (including the general thrust of the 1960 and 1982 reports) was rejected, these interactions contributed to the deep understanding within the Irish policymaking apparatus of the drivers of US overseas investment.

Irish America proved helpful from the 1950s in arranging contacts with potential investors. Establishing contacts in Asian economies today will clearly prove more challenging. But Teeling suggests that the Irish–American business community may have been slow to come on board in the early years of the new outward-oriented strategy because of a widespread belief among Irish Americans that the Irish character was unsuited to industrial life: ‘these potential investors were not uncertain about an Irish project, they were certain that it would be a disaster’ (Teeling, 1975, pp. 58, 67).[4] This would change once the country had proved itself a profitable location. By the 1970s the IDA officials whom Teeling interviewed believed that cultural ties were responsible for many of the projects undertaken (Teeling, 1975, p. 58). Padraig White (2000, p. 189), for example, identifies an Irishman who had emigrated to the US after the civil war as the dominant influence on Pfizer’s decision to invest in Ringaskiddy in 1969.

American firms did not respond as strongly as British and continental European firms to the new tax relief measures of the mid 1950s. A major factor was their focus on gaining access to the newly emerging Common Market, which was not within Ireland’s gift. The Shannon Free Airport initiative which followed later in the decade proved of particular interest to US firms who located at Shannon to produce for the North American market (Barry & O’Mahony, 2017).[5]

Another interesting element of the early Shannon story relates to investment from Asia. Mason (1992) describes Sony’s decision to establish a plant at Shannon in 1959 as the first post-war direct manufacturing investment in Europe by any major Japanese corporation.[6] The following year, he notes, ‘to support the company’s

[4] Similar jaundiced views within the American business community have also been recorded by Groutel (2016) and Barry (2016).

[5] *The Irish Times* of 13 February 1963 reported how one particular US firm was producing components at Shannon for 30c that would have cost it $1.25 to produce in the US.

[6] The investment proved controversial in the UK as it appeared to offer a backdoor way for Japanese products to access the British and Commonwealth markets (*The Irish*

(continued overleaf)

European efforts and take advantage of local tax laws', Sony established a regional office in Zug, Switzerland – an example of what would today be referred to as aggressive tax planning.

One further historical point that will prove of relevance below and that may be little remembered today is that the US firms attracted to Ireland in the first few decades of the new policy regime were not the most significant global MNCs of the era. Many were relatively new to overseas production – Teeling (1975, pp. 81–90) reports that half had no other overseas subsidiaries – and, of those that were MNCs, the parent companies were only of small-to-medium size (see also O'Loughlin & O'Farrell, 1980).[7] For such firms, the familiarity of the Irish environment – the fact that Ireland was an English-speaking country with a common law system – would have been particularly attractive. This point will prove of relevance below when the paper comes to discuss Brexit damage-limitation strategies.

Aspects of the changing global FDI landscape

Changes to the US corporate tax system

The first change in the external FDI environment to be discussed is the US corporate tax regime that came into effect in January 2018. The substantive business tax elements to the US Tax Cuts and Jobs Act included:

i. a reduction in the headline federal tax rate from 35 per cent to 21 per cent;
ii. a shift from a worldwide to a territorial tax system;
iii. a one-time toll charge on foreign profits held offshore; and
iv. the introduction of a series of new taxes to police the offshoring incentives introduced by the shift to territoriality.

The precise details of the new US tax regime are highly complex, as is analysis of their likely implications. This applies particularly to item

[6] (continued) *Times*, 1 January 1960). The Japanese manager of the plant admitted that the 'made in Ireland' label would prove of benefit as some European countries still frowned on Japanese imports (*The Irish Times*, 8 July 1960). Sony pulled out of Shannon when Britain imposed a 15 per cent surcharge on manufactured imports in 1964 (SFADCo Annual Report, 1964/5).

[7] This was true also of the German firms attracted to Ireland in the early days of the new strategy. As reported in *The Irish Times* (25 May 1974) 'most of the German firms which have come to Ireland [tend to be] small to medium-size firms by German standards, employing about 300–400 in their German plant'.

(iv), which relates primarily to the offshoring of intellectual property.[8] Some of the more significant consequences can be explained relatively easily, however, and will serve to illustrate why the overall effects for Ireland are unlikely to be adverse, as many had feared.

The focus here is on the joint implications of elements (i) and (ii): the reduction to the headline tax rate and the shift to a territorial tax system. Though newspaper coverage focused on the rate reduction, the latter element is likely to be at least as significant. Under the previous worldwide system, US corporations owed taxes to the US government on all of their worldwide income: if a low tax rate was paid in an overseas location, the difference between this rate and the US rate remained due to the US authorities – though the US tax liability was only payable upon repatriation of the overseas profits. Under the new territorial system this residual liability largely disappears.

Consider first the effect of the dramatic cut to the US tax rate. What matters for Ireland is the impact on US outbound FDI. Economists analyse the implications of such changes in terms of income and substitution effects. The 'substitution effect' associated with the relative rise in the post-tax return on investments in the US discourages outbound FDI, while the 'income effect' – the increase in the firm's post-tax profits – incentivises investment both at home and overseas. The empirical evidence surveyed by Davies (2017) suggests that the income effect is likely to dominate, a conclusion supported by Clancy (forthcoming), who analyses the effects on Ireland of variations in the effective US corporate tax rate over the decades to 2006.

The shift to a territorial system further incentivises overseas investment. Consistent with this, a simulation analysis of the US tax changes conducted by a team of German economists predicts a sharp increase in *two-way* FDI flows between Europe and the US (Spengel et al., 2018, Figure 7). As for the effects on individual European countries, a recent IMF analysis of the 2009 UK shift to a territorial tax system found that UK MNCs engaged in significantly more overseas investment in low-tax jurisdictions (Liu, 2018).[9]

How do these suggested implications relate, however, to the findings reported by UNCTAD (2018, 2019) of a recent sharp fall in US FDI inflows to Ireland, which UNCTAD ascribes to the US tax

[8] See Barry (2019) for an assessment of the likely overall effects for Ireland.

[9] In 2009 the UK abolished dividend taxes on foreign repatriation from many low-tax countries, including Ireland (Liu, 2018).

changes? A hint is given by the fact that similar falls were also reported by other offshore financial centres such as Switzerland and the Netherlands. As the background analysis to the UNCTAD reports reveal, these outflows reflect the repatriation of profits that had been held offshore for deferral purposes and hence are a consequence of the once-off toll charge – item (iii) above – designed to encourage repatriation. As such, these are identifiable as what was referred to earlier as 'IFSC-type' flows, as opposed to the 'real economy flows' that drive output and employment.

EU fiscal integration

The second change concerns the deeper, post-crisis realisation of the stability benefits of eurozone fiscal integration.[10] The conventional wisdom up to the 1990 publication of the European Commission document *One Market, One Money* was that a large centralised Washington-style budget was a necessary precondition for monetary union. Exchange-rate depreciation is a potentially valuable adjustment mechanism for economies that are subject to region-specific or 'asymmetric' shocks: a federal budget, which automatically redistributes funds to adversely affected regions, can compensate to some extent for the loss of this adjustment mechanism.

As the 1977 MacDougall report on the role of public finance in European integration explained:

> Public finance in existing economic unions plays a major role in cushioning short-term and cyclical fluctuations... If only because the Community budget is so relatively very small there is no such mechanism in operation on any significant scale as between member countries, and this is an important reason why in present circumstances monetary union is impracticable. (Commission of the European Communities, 1977, p. 12)

In *One Market, One Money* the Commission admitted that 'since the Community budget only amounts to 2% of total EC government expenditures, neither its interregional nor its global function can be compared to that of federal budgets'. It went on to point out that 'in so far as shocks affect incomes of Member States in an asymmetric way, other adjustment mechanisms will have to take the place of a central budget as an automatic stabilizer. To the extent that aggregate

[10] Barry (2017) provides a more extensive discussion of the material in this section.

fiscal policy measures are required, most if not all of this policy will have to be implemented through coordination among Member States' (Commission of the European Communities, 1990).

Such coordination was not apparent over the course of the eurozone crisis, however. As has been pointed out more recently, the US and the eurozone also differ in terms of the extent to which they can be characterised as 'banking unions' (Gros, 2012). The eurozone has been taking some steps towards banking union in the wake of the crisis, though many remain sceptical that this can substitute adequately for deeper fiscal integration.

Herein lies a major dilemma for Ireland. Because of the extent of its dependence on the US and UK economies and vulnerability to fluctuations in sterling and the dollar, Ireland as a member of the eurozone is particularly prone to asymmetric shocks. Deeper fiscal integration hence offers clear advantages. The problem is that it is likely to encroach on national tax sovereignty. This is largely why Ireland favours the OECD as the forum for international discussion on corporate tax matters.[11]

EU pressures on the tax regime will be more difficult to withstand without the traditional support of the UK. Nor does the current regime have unanimous support within Ireland. Some commentators are sharply critical of what they perceive to be its distributional consequences (see, for example, Jacobson, 2018). Some suggest that the current 12.5 percent corporate tax rate may be unnecessarily low.[12] Others question the magnitude of the contribution of inward FDI to economic growth (see Barry, 2002, for a partial review of this debate) and suggest that Ireland has already 'gone a long way to wean itself off dependence on the tax regime attracting multinationals' (FitzGerald, 2017). Many or most are concerned about the extent to which output, exports and corporate tax revenues are concentrated in the foreign-owned sector.[13] These issues can be expected to generate much research and debate over the coming years.

Digitalisation

Ireland's geographic location and small island nation status increase its logistical distance from its European trading partners. Driven in

[11] IDA Ireland, of course, views several non-EU countries as among its major competitors for particular foreign investments.

[12] Off-the-record accounts suggest that Department of Finance officials favoured a rate of up to 18 per cent rather than the 12.5 per cent rate eventually adopted.

[13] Clancy (forthcoming) provides a list of references to this literature.

large part by the FDI sector, its export pattern has adjusted over time to overcome this disadvantage. Pharmaceuticals and other chemicals – whose low bulk-to-value ratio reduces the significance of transport costs – now make up more than half of the value of Irish merchandise exports, while services exports comprise an extraordinarily high share of around 50 per cent of total exports.[14] Measures of revealed comparative advantage, which show how Ireland's export structure compares to that of other countries, confirm this picture. Ireland is found to have a strong revealed comparative advantage in such sectors as chemicals and chemical products, computer and information services, and insurance services.[15]

Trade in IT-enabled services is almost cost-free and a much higher proportion of Irish services exports correspondingly go to locations beyond the EU and North America than is the case for merchandise exports. Advancing digitalisation will further reduce the disadvantages of geographic peripherality. Network effects, however, play a central role in the digital economy and the production side of the market is dominated by a new wave of mega-firms (the so-called 'FANGs': Facebook, Amazon, Netflix, Google and the like). It is unsurprising that the vast bulk of exports in Ireland's comparative advantage sectors are produced by foreign MNCs. Whether digitalisation will continue to work as disproportionately to Ireland's advantage in the future would seem to depend then on Ireland being able to maintain its position as a premier export-platform location.

Eastward shift of the centre of gravity of the global economy

Ireland's outward-oriented FDI strategy has been strongly linked from the start with US businesses. The US will remain a significant global source of FDI but issues of geography and cultural distance will make it more difficult to remain at the FDI frontier as the centre of gravity of the global economy shifts eastwards.

The IDA has, of course, been responding to this global shift. Its earliest overseas offices were in Europe and the US, and up to two decades ago it had no offices in India or mainland China. Today, seven of its twenty overseas offices are in Asia proper, with a further one in Australia, though the distribution of staff is still heavily weighted towards the traditional source locations.

[14] Central Bank of Ireland (2017, 'Box D: Sectoral specialisation of Irish exports').
[15] Several sets of alternative measures of revealed comparative advantage are produced by the Central Bank of Ireland (2017) and the Department of Finance (2017).

Chinese outward FDI (OFDI) flows have been growing far more rapidly than those of other countries in recent decades and China now has the sixth largest OFDI stock in the world. For these reasons – though Chinese FDI is a special case (Knoerich & Miedtank, 2018) – it is worth considering in some detail. Chinese overseas investments were initially natural-resource-seeking but have become increasingly market-seeking, efficiency-seeking and strategic-asset-seeking. The characteristics of Chinese OFDI have changed in other ways as well. Outward flows were initially dominated by state-owned enterprises but by 2016 private enterprise investments had grown to comprise almost 50 per cent of the Chinese overseas stock (World Bank, 2018, pp. 106–7). The latter enterprises are more similar in their motivations to their counterparts elsewhere, being more strongly influenced by corporate tax differentials, for example, than are state-owned enterprises.

Chinese direct investments in Europe have grown particularly sharply since 2010. Three features of these flows stand out. They are targeted at the larger, more-advanced European economies, are focused mainly on mergers and acquisitions, and are concentrated at the sectoral level in transport, utilities and infrastructure, ICT, and advanced industrial machinery and equipment (Bickenbach & Liu, 2018). These particular characteristics do not provide a good match for what Ireland has to offer. The characteristics of Chinese OFDI will continue to change in nature, however, as the source economy matures and develops.

The Chinese business system is likely to be more opaque than that of many other countries. Ireland can learn from the deep understanding of the US business system promoted by the use of US business consultancies. Though much of the latter's policy advice was rejected, the interactions proved of value in long-term strategic policymaking. While Chinese investment raises concerns within US and European policymaking circles (Bickenbach & Liu, 2018) – and there are obviously risks to be guarded against in the present proposal – there are advantages to be derived from developing relationships with Chinese business consultancy firms over the coming years and decades.

Brexit

Brexit is, of course, the issue of most immediate concern. In its discussion of the FDI implications of a British withdrawal from the EU, the ESRI (2015) relied on analysis of the 'patterns of the location choice of new FDI projects in Europe over the past ten years' to assess whether inflows that would otherwise have gone to the UK might be diverted to Ireland. This avenue was found to offer little room for optimism. The ESRI study, however, ignores the type of FDI discussed earlier that combines both export-platform and trade-barrier-jumping elements. Another government-commissioned study, Copenhagen Economics (2018), makes only a passing reference to this type of FDI, noting merely that 'increasing costs of final goods trade to the EU can [make] it more attractive for the UK to use Ireland as an export hub for EU destinations'.

This 'dual motive' FDI, however, is the type that arises in the case of the London-based financial services firms that have been establishing outposts in Ireland since the 2016 UK referendum to allow them to retain access to the European Single Market. A recent report from London-based New Financial (Wright et al., 2019) notes that assets under management amounting to hundreds of billions of pounds sterling have moved out of the UK in the interim, with Dublin identified as the favoured destination, ahead of rivals such as Luxembourg, Paris, Frankfurt and Amsterdam. IDA Ireland (2019) recorded 55 Brexit-related investments by the beginning of 2019, with over 4,500 related jobs. Furthermore, the shift from London, it is believed, has yet to begin in earnest (Wright et al., 2019).

Agri-business is the sector that would face the highest tariff rates if the UK were to default to World Trade Organization (WTO) rules. Similar precautionary foreign investment flows have been occurring in this sector, but here the flows have been in the opposite direction. Irish agri-food firms have been buying up UK facilities, expanding existing UK operations or engaging in joint ventures with British and Northern Ireland firms to provide insurance against a loss of UK market access (Barry & Sun, forthcoming). Though these moves make solid business sense, they provide no insurance to Irish farmers: the UK facilities will be processing non-Irish produce if trade barriers are erected.

How are the excess supplies of Irish agricultural inputs that would arise in a hard Brexit scenario to be soaked up? Opening up new foreign markets is no easy task. Success takes years or even decades of endeavour. It cannot be achieved in a matter of months. The parallel between UK financial services firms establishing in Ireland and Irish agri-business firms investing in the UK suggests an avenue of opportunity. Some of the damage of a hard Brexit would be offset if UK agri-food firms were to establish export-platform facilities in Ireland to service their existing EU markets.

Given that tariff-jumping FDI is often two-way in nature, why have British firms not been doing so already? Breinlich et al. (2019) find that though the Brexit vote has led to a 12 per cent increase in new investments by UK firms in the remaining EU27, these investments have solely been in services sectors. The reason, they suggest, is that the UK government has been perceived to have prioritised the interests of manufacturers in the Brexit negotiations. Membership of the Single Market is of particular importance to services firms. This was ruled out from the start. The focus has instead been on minimising customs frictions. There can be no guarantee that this will continue to be the case.

Though the UK is a net food importer, it is also a substantial exporter of particular agri-food items. UK dairy exports to the EU are 150 per cent of Irish dairy sales to the UK. A large share of these UK exports are of brand-name products, and the value of a brand is measured by the loyalty of its customers. The ingredients of these brand-name products are precisely the agricultural inputs that Ireland will have in excess supply in the event of a hard Brexit. For some of these firms at least, Ireland will represent an attractive export platform.

The key to unleashing this potential is suggested by former IDA managing director Padraic White, who described the traditional modus operandi of the organisation as follows. It begins by identifying the sectors that represent a good fit for Ireland. It then identifies the particular companies within these sectors in which it has an interest and seeks to persuade them to consider establishing in Ireland (White, 2000, p. 272).

The first obvious identifier of the sectors to be targeted in the present case is that the goods attract a high WTO tariff rate. In many cases, of course, the vacuum created when UK-based firms face a reduction in EU27 market access will simply be filled by existing competitor firms. This is the case when products are relatively homogeneous.[16] The vacuum will be more difficult to fill when current UK suppliers possess the brand recognition associated with 'knowledge capital' of the type embodied in patents, trademarks and the like (Markusen, 1998). Manufacturing products of this type are concentrated in advertising-intensive and R&D-intensive industrial sectors, a selection of which are shown in Table 1.[17]

[16] Such products are concentrated in the industrial segments not shown in Table 1. These comprise the bulk of the roughly 100 industries into which the manufacturing sector is divided by Davies & Lyons (1996).

[17] The classification in Table 1 applies only to manufacturing. For discussion of other economic sectors see Barry & Hannan (2003).

Table 1: Selection of sectors of different categories

	Advertising-intensive	
Oils and fats	Dairy products	Fruit and vegetable products
Confectionery	Animal foods	Other foods
Distilling	Wine and cider	Beer
Soft drinks	Tobacco	Toys and sports
	R&D-intensive	
Chemicals	Man-made fibres	Machine tools
Textile machinery	Transmission equipment	Rubber
Computers and office machinery	Insulated wires and cables	Electrical machinery
Electrical equipment	Telecom and measuring equipment	Electric lights
Motor vehicle parts	Railway stock	Cycles and motor cycles
Aerospace	Measuring instruments	Medical instruments
	Both advertising-intensive and R&D-intensive	
Paint and ink	Pharmaceuticals	Soaps and detergents
Tractors and agricultural machines	Radio and television	Domestic electrical appliances
Motor vehicles	Optical instruments	Clocks and watches

Source: Davies & Lyons (1996, Appendix 2).

Dairy products, to take a particularly pertinent example, are both advertising-intensive and subject to high WTO tariffs. The policy implications in a case such as this are clear. The Irish raw materials used in the production of cheddar cheese for the UK market will face a dramatic decline in demand in the event of a hard Brexit. In order to create an immediate alternative outlet for these raw materials, efforts must be directed towards attracting UK-based companies currently exporting into EU markets to establish export-platform operations in Ireland.

Irish agricultural raw materials have replaced British inputs in this way in the past, as the following example illustrates. Cadbury had been producing in Dublin for the Irish market since the 1930s and Rowntree since the 1920s. Both companies initially used British chocolate crumb. Their chocolate crumb factories in Rathmore and Mallow were built only in the late 1940s when British milk and sugar were in short supply. The Irish chocolate crumb was henceforth used in both their Irish and UK operations for many years afterwards.

The implications of the analysis are much broader than dairy of course. Other advertising- and R&D-intensive sectors will also face substantial WTO tariffs.[18] Some of the UK firms that will suffer diminished market access may be relatively small and have little experience of overseas production: to these the familiarity of the Irish environment will be particularly appealing. While land-bridge problems will make the task more difficult, on the plus side are the UK tax changes of 2009 referred to earlier, which increase the attractiveness of the Irish corporation tax regime.

Concluding comments

Global competition for FDI has intensified over the decades. That Ireland has remained a leading export-platform location testifies to the learning capacity of the Irish FDI policymaking system. This paper has considered some current and ongoing changes in the external FDI environment and has sought to apply the lessons of history to the new challenges the country faces.

The most immediate challenge is Brexit. For many UK-based firms, Ireland may represent an attractive location in which to base export-platform operations that will allow them to retain unimpeded access to EU27 markets. The agri-food sector is of particular importance since a new source of downstream demand is required to make up for the loss in UK-market access that Ireland will suffer if WTO tariffs come into effect.

With respect to the recent changes in the US corporation tax regime, the paper differs from the bulk of media coverage in suggesting that the positive effects for Ireland are likely to outweigh the negatives. Whether Ireland will remain as attractive a location for US MNCs over the longer term depends on its ability to retain its sovereignty on the issue of corporation tax. The greatest challenge here is likely to come from the increasing recognition of the stability benefits of enhanced eurozone fiscal integration.

Digitalisation has been seen to have benefited Ireland disproportionately by reducing the disadvantages of geographic

[18] See Figure 3 of Lawless & Morgenroth (2016). For some of these sectors, of course, Ireland will represent a less appropriate location for export-platform operations than in the case of dairy.

peripherality. It is notable, however, that the vast bulk of Irish services exports are produced by the foreign-owned sector. Indigenous exports remain largely concentrated in traditional manufacturing. The likelihood of Ireland continuing to benefit disproportionately would seem to depend then on Ireland retaining its position as a leading FDI export platform location.

A final topic considered concerns the consequences for Ireland of a long-term eastwards shift of the centre of gravity of the global economy. While the US will continue to be the most significant source of Irish inward FDI for the foreseeable future, Ireland's ability to attract a disproportionate share of EU-bound Asian FDI will present new challenges. The Irish policymaking system has developed a detailed understanding of the nature of US businesses over the last half-century. Some considerations as to how to develop a similar understanding of other business systems have been advanced in the paper.

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