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# FDI and regional development policy

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## Abstract

The transformations in the worldwide division of labour brought about by globalisation and technological change have shown an unintended negative effect, particularly evident in advanced economic systems: uneven spatial distribution of wealth and rising within-country inequality. Although the latter has featured prominently in recent academic and policy debates, in this paper we argue that the relevance of connectivity (here proxied by foreign capital investments, FDI) for regional economic development is still underestimated and suffers from a nation-biased perspective. As a consequence, the relationship between the spatial inequality spurred by the global division of labour and the changes in the structural advantages of regions remains to be fully understood in its implications for economic growth, territorial resilience and industrial policy. Furthermore, even though connectivity entails bi-directional links – i.e. with regions being simultaneously receivers and senders – attractiveness to foreign capital has long been at the centre of policy attention whilst internationalisation through investment abroad has been disregarded, and sometimes purposely ignored, in regional development policy agendas. We use three broad-brushed European case-studies to discuss some guiding principles for a place-sensitive regional policy eager to integrate the connectivity dimension in pursuing local economic development and territorial equity.

**JEL classification:** F21, F23, R11, R12, R58, O1, O25, O52

**Keywords:** FDI, multinational enterprises, regions, connectivity, regional development policy

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## 1. Introduction

“Investment policymaking is getting more complex, more divergent and more uncertain.” (UNCTAD, 2017, xi). Unprecedentedly fast technological change – currently in the midst of a shift from the mature ICT revolution to a new, still undefined, technological paradigm – coupled with the intensification of globally integrated production and innovation networks (GPNs) and value chains (GVCs), have spurred the need to place regional growth and development in a truly open and interdependent framework. Despite substantial progress made by academic research at the intersection of international business studies and economic geography in identifying the subnational dimension of these structural transformations, rethinking regional development in such a perspective still presents a number of challenges, particularly in terms of policy design.

In this paper we maintain that it is essential to extend the debate on connectivity – i.e. the exposure of a place to the inflows and outflows of assets, knowledge, capabilities and expertise from and towards the rest of the world, here exemplified by global foreign direct investment (FDI) flows – from the nation-state level, traditionally conceived in theory and policy, to a more fine-grained subnational geography consisting of regions, cities, and industrial clusters, thus embedding inter- and intra-regional scales of analysis. Such a geographical scale is in fact the relevant one for unveiling the inequality effect on growth and economic development spurred by globalisation and technological processes, which change absolute and relative advantages of territories. At the same time, it is paramount to take simultaneously on board, particularly in the policy domain, both directions of connectivity: territorial attractiveness towards foreign capital inflows – and the dynamic processes of specialisation and diversification able to reconfigure economic and institutional location advantages – and outward investments from locally operating firms, which can contribute in various ways to the re-orientation of the local industrial structure and economic functionality.

Different geographical scales of analysis and the interdependence of inward and outward FDI flows translate into the challenges of greater complexity and heterogeneity of place-specific business strategies and development policies. To tackle such challenges it is necessary to adopt new policy principles emerging from current regional economic development debates, which can help managing the rapid evolution of location advantages and counterbalancing the diverse impact of globalisation on the fate of people, firms and regions.

The remainder of this paper is structured as follows. Section 2 first summarises some broad trends of connectivity through global FDI, considers its economic geography and territorial equity implications, and then reviews the theoretical rationale behind current internationalisation policies. Section 3 provides a broad-brushed picture of the subnational geography of FDI flows in Europe, and focuses on three regional case-studies – the three “Celtic Tigers” of Southern & Eastern Ireland, Scotland and Wales – by summarising their connectivity position and policy approaches towards passive and active internationalisation through FDI. Section 4 discusses implications and general principles for place-sensitive regional policies eager to integrate connectivity in pursuing local economic development and territorial equity, and indicates research lines in progress, whilst Section 5 presents some concluding remarks.

## 2. FDI today: global shifts and local outcomes

### *2.1 Globalisation through FDI and geography*

The relevance of FDI in the world economy has grown relentlessly in the last three decades. FDI stocks as a percentage of world’s gross domestic product went from around 10% in 1990 to around 35% in 2016 (UNCTAD, 2017). Latest estimates indicate that, in 2012, multinational enterprises (MNEs) were

more than 100,000, and that the number of their affiliates was close to 1 million (Javidan and Bowen, 2013): their exponential growth has been increasingly fed by small and medium-sized firms (SMEs), either born-global, or growing into MNEs. The geography of world FDI recipients and investors has also widened (UNCTAD, 2015, 2017): the share of developing and emerging economies on global FDI flows has gone steadily up, in 2014 accounting for more than a half (55%) of world total inflows (though down to 41% in 2016), and around 40% of total outflows (down to under 30% in 2016). The majority of these cross-border flows span neighbouring economies, rather than being genuinely global transactions. This global regionalism is characterised by the slicing up and recombination of GPNs and GVCs in which establishments and groups of activities are ‘unbundled’ (Baldwin, 2011) primarily across groups of neighbouring economic systems (e.g. Rugman, 2005; Guy, 2009, 2015; UNCTAD, 2017).

In addition, around two-thirds of global FDI stocks are now in service industries. Even considering such a share as somehow inflated by industry classification methods in FDI data (UNCTAD, 2017), it is undeniable that the change in FDI composition reflects the growing complementarity between manufacturing and service industries. The shift to Industry 4.0 – the current industrial revolution based on automation and data exchange in manufacturing technologies – together with the connected modularity and separability of production stages in GPNs and GVCs allowed by technological progress, are rendering industry boundaries more and more blurred: the *new* knowledge economy is more likely to be classifiable in terms of activities and functions, and so it is the notion of comparative advantage.

In the light of these transformations, the geographical scope to analyse globalisation through FDI needs reconsideration. Indeed, particularly in policy perspectives, firms’ ownership advantages are still deemed to be rooted in the competitive advantages of the country of origin, whilst the attraction forces pulling MNE activities coincide with the location advantages of the country of destination. In thinking of the geographical dimension of both determinants and effects of MNE activity and investment, the nation-state has been seen, at least until recently, as the natural unit of observation. Besides, traditional economic theory has mostly implied that the impact of globalisation – through flows of capitals, knowledge, and people – would automatically spread technological capabilities and growth opportunities, promoting income convergence across and, even more so, within nation-states.

Both Marshallian and Jacobian theories of agglomeration predict an impact of geography on growth. The major function of geographical space is that of facilitating learning, knowledge flows and the building up of capabilities among co-located economic actors. However, despite its emphasis on the relevance of knowledge, much of the vast literature on agglomeration economies and spillover mechanisms has been largely unconcerned with connectivity through FDI, overlooking the fact that the dynamics of local specialisation – and thus change in comparative advantages – may stem also from the establishment of such extra-local linkages, which play an increasingly important role in preventing regional stagnation and in spurring diversity conducive to growth (e.g. Boschma and Iammarino, 2009; Iammarino and McCann, 2013).

The suitability of the nation-state as the archetypal unit of analysis for thinking of connectivity and tackling the effects of globalisation and FDI has been put in question. The academic debate has moved progressively beyond thinking of regional advantages as determined by untraded interdependencies (Storper, 1995) within largely national economic and institutional settings. Indeed, regional absolute and comparative advantages (disadvantages) – as well as specialisation and diversification processes – that used to rest on local production capacity, economies of scale and scope, and resources creating virtuous (vicious) circles of innovation, employment and growth, nowadays derive largely from interdependencies and relations that are neither localised nor confined within national systems. It has been recently shown that the influence of the ‘cluster-of-origin’ is far more important than that of the ‘country-of-origin’ in explaining firms’ investment location choices (e.g. Li and Bathelt, 2017; Turkina and Van Assche, 2018), and that localised regional and cluster networks affect the shape of global urban networks (Bathelt and Li, 2014).

The subnational institutional setting is of fundamental importance for connectivity: an open system needs open socio-economic institutions, able to manage change and to work in coordination with local and non-local actors (Scott and Storper, 2003). Similarly, regional and local governance structures and policies – within national frameworks – ought to embed the co-ordination of articulated ‘value and actor networks’, both localized and non-spatial, and to pursue the stabilization of different expectations and interactions to ensure institutional change for sustainable competitive advantages (e.g. Rodriguez-Pose, 2013; Bathelt and Glückler, 2014; Rodriguez-Pose and Storper, 2015). When places are discriminated on the basis of such international interdependencies, connectivity becomes one of the most important differentiators of growth trajectories behind regional survival and revival (Crescenzi and Iammarino, 2017; Iammarino et al., 2018b).

## **2.2 Connectivity and spatial inequality**

The transformations in the worldwide division of labour, its location, the nature and number of players, the interdependence of economic activities and performances, have been accompanied by rising within-country inequality, particularly evident in advanced economic areas such as Europe. The current wave of globalisation has shown two edges: the spatial hierarchy-reinforcing (divergence) effects have proved much stronger than the spatial spread (convergence) effects predicted by economic theory on the distribution of benefits and costs of globalisation and technological progress (Iammarino et al., 2018a). The combined power of the latter two forces has shown that geographical concentration and dispersion of production and innovation can occur simultaneously, giving rise to concurrent convergence and divergence patterns depending on the spatial scale of reference. The concept of “concentrated dispersion” (Ernst and Kim, 2002) emphasizes precisely stronger agglomeration economies within national economic systems, despite the apparently reduced spatial stickiness of economic activities across national borders at the global scale.

The renewed strength of agglomeration forces under globalisation has given prominence to certain types of metropolitan regions and cities within each of the world macro-areas, and particularly in industrially advanced ones. Some ‘global cities’, displaying particular combinations of economic and social openness allied with key hard and soft infrastructures and monopolisation of financial and political powers, have acted as key nodes in worldwide-spreading production, technology and trade networks (e.g. Sassen, 2001, 2009; Taylor, 2004). They are the primary homes and hosts of major knowledge-based MNEs and the true beneficiaries of globalisation, being centres of political influence, corporate decision-making and control, knowledge generation and exchange, skills and jobs (e.g. Yeung, 2009; McCann and Acs, 2010).

However, MNEs may search for wide and general purpose technologies and competencies, as well as for high levels of sectoral, functional and technical specialisation, thus targeting different types of location advantages in combination with those available at home (Jensen and Pedersen, 2011). Furthermore, small-sized MNEs and those originating from emergent economies, with narrower geographical scope of activities abroad, are likely to display different strategic behaviors and respond to diverse attractive factors than truly global corporations operating a stringent control on knowledge flows across the firm’s organisation and ownership boundaries (e.g. Grindley and Teece, 1997; McCann and Mudambi, 2005; Athreye and Kapur, 2009; Mudambi and Venzin, 2010). Connectivity through FDI, and integration in GPNs and GVCs, have offered different opportunities for economies of scale and scope in production, in R&D and in other economic functions, to a variety of regions and industrial clusters, leading to accumulation of capabilities at both geographical ends – i.e. host (receiving) and home (sending) regions. Such interregional connections alter the advantages of agglomeration in specific places and in particular lines of activity, function and technological development, thus reinforcing or broadening the existing patterns of local specialisation (e.g. Cantwell and Iammarino, 2000).

Within the same countries of these global city-regions and local systems of economic excellence championing FDI connectivity in the Global North, there are other cities, regions and industrial clusters

facing both tougher international competition and lower (and historically decreasing) nation-state protection: many relatively routinized activities and occupations in both manufacturing and services industries there located have either become obsolete or moved to the Global South. Such job destruction processes often reflect mid- to low- skills, income and management roles: the international outsourcing and offshoring of these tasks heavily contribute to greater levels of localised job polarisation (e.g. Driffield et al., 2009; Elia et al., 2009; Goos et al., 2009; Kemeny and Rigby, 2012; Castellani and Pieri, 2016). The resulting skewed income distributional changes (e.g. Robert-Nicoud, 2008) tend to favour high- skilled and income groups in industrialised countries – mostly located in globally connected city-regions and clusters – along with a wider range of income groups in the emerging economies, while the low- and middle-skilled cohorts within advanced economies – prominently present in declining and peripheral European regions – face the most difficult transition, recently translating into social distress and rising populism (e.g. Rodriguez-Pose, 2018; Rodrik, 2018; Storper, 2018).

The cross-border corporate network-based organisation of economic activity has thus contributed to integration as well as to segregation. Rising territorial (and individual) inequality due to the concentration of power, employment and value creation in certain cities and regions in the wealthy Global North has coupled with the widespread diffusion of low-tier activities and occupations (but increasingly also of higher value-added ones, such as R&D) towards a range of locations in the emerging Global South (Athreya and Cantwell, 2007). In the most advanced industrial economies this has resulted in a finely-grained, multi-scale, territorial patchwork of diverging real incomes, skill demand and supply, and rates of labour force participation: between and within nation-states and, within regions, between core and peripheral areas (Iammarino et al., 2018a). Once regions and their advantages become unequal in this way, global connectivity ought to be considered in policy making amongst the crucial determinants of economic development and territorial equity.

### ***2.3 The rationale for FDI policy***

Several decades of research on FDI from various theoretical perspectives – e.g. international business and management, international economics, economic geography, innovation studies – have explained much about the determinants of MNEs' operations, their business strategies, locational choices and proprietary advantages, and about the impact of their investments on host and home economies (e.g. Dunning, 1981, 1994, 2001; Dunning and Lundan, 2008). Yet, comparatively less research has been done on the role of policy in attracting inward FDI (e.g. Brewer, 1993; Oman, 2000; Lowendahl, 2001; Ng and Tuan, 2001) or in promoting active internationalisation, or 'multinationalisation' of domestic firms through outward FDI (e.g. Child and Rodrigues, 2005; Luo et al., 2010; Bannò et al., 2014, 2015).

As far as the rationale behind FDI-attraction policies is concerned, the general expectation – based on abundant empirical evidence on the impact of inward FDI (henceforth IFDI) on host economies (see, for reviews, Driffield and Taylor, 2000; Blomström et al., 2001; Görg and Greenaway, 2004; Moran et al., 2005; Haskel et al., 2007) – is that foreign investments will raise employment, exports, or tax revenue, and some of the technological and organisational knowledge brought by the foreign companies will spill over domestic firms raising productivity and competitiveness (Blomström & Kokko, 1998). MNE goals of course differ from those of the host economies: governments seek to spur development and growth, whilst MNEs aim to enhance their profitability and competitiveness (Lall, 2000). Proactive investment policy is thus justified on the basis of the need to address two main types of market failure: the first arising from information and coordination asymmetries resulting in insufficient FDI; the second stemming from divergence between MNEs' private interests and host economies' social returns (e.g. Brewer, 1993; Lall, 2000; Taylor, 2000; Blomström and Kokko, 2003; De Propris and Driffield, 2006; Bartels and de Crombrughe, 2009).

The other, much less studied, side of the coin is the policy support to domestic firms to become multinationals. The rationale is based on the evidence on the impact of outward FDI (OFDI) on the home economy: the internationalisation of indigenous firms enhances their efficiency, scale of

operation, and knowledge transfer (e.g. Feenstra, 2010; Bertrand and Capron, 2015; Cozza et al., 2015), ultimately contributing to their growth. By entering new and larger markets, firms that pursue OFDI tend to become bigger and more productive than purely domestic firms (Helpman et al., 2004; Bannò et al., 2014); they also benefit from higher economies of scale and scope that incentivise investment in R&D activities (Petit and Sanna-Randaccio, 2000), and are more able to source foreign knowledge (Fosfuri and Motta, 1999). Notwithstanding such gains at the individual firm level, if these do not compensate for the aggregate loss of value added resulting from the offshoring of activities abroad the associated effect could be negative (e.g. Castellani and Pieri, 2016), adversely affecting the overall balance of payments and exports and, as shown more recently, domestic employment and skills (e.g. Mariotti et al., 2003; Crinò, 2009; Becker et al., 2013; Gagliardi et al., 2015). In a logic specular to that for IFDI, herein lies the scope for governments' intervention to ensure the accruing of internationalisation benefits at home (e.g. Rasiah et al., 2010). Interestingly, until very recently the evidence on OFDI has been derived primarily from research on large enterprises from advanced economies, such as the US, Sweden and Japan (see, for a review, Lipsey, 2004), presuming that firms internationalise on the basis of home country-specific comparative advantages. Thus, economies with limited location advantages were deemed unlikely to generate competitive firms with ownership advantages strong enough to lead to successful internationalisation abroad (Narula & Nguyen, 2011).

Notwithstanding the rationale behind both IFDI attraction and OFDI promotion in terms of domestic firms' growth, a 'reversed mercantilist' view – i.e. the maximisation of inflows with respect to outflows – has dominated the encouragement of internationalisation through FDI in advanced economies. The increasing importance of worldwide FDI in the last decades has been accompanied by a salient surge and diversification of government policy instruments to attract foreign-owned companies in their territories by lowering entry barriers and providing a wide range of investment incentives. Attracting IFDI has been at the centre of policy attention, involving often various territorial levels of governance in a rather indistinct view of location-specific prerogatives for reaping the benefits of globalisation. On the OFDI side, conversely, location advantages have been somehow obscured in policy considerations, as it has been the importance of multinationality as a stage in firms' growth (Penrose, 1959); the attention has concentrated on privileging export promotion as the main, politically-sustainable, form of active internationalisation. In fact, the old big evil alleged in relation to OFDI has to do with employment destruction at home, consequent wage depression and unemployment surge (e.g. Janoski et al., 2014).

Thus, both in scholarly circles and in policy making, the impact of OFDI on the home economy has generally engendered a rather low appeal, at least in the advanced North of the world; in practice, though, the reality tells us a different story. Indeed, not only is offshoring huge and growing, spreading worldwide across economies with very different levels of development and connecting their firms, increasingly SMEs, through GPNs and GVCs, but governments do negotiate with other governments when it comes to the investment abroad of their own national champion companies (e.g. Smith, 2015), despite the ostensible lack of interest for the territorial roots and consequences of OFDI and for the growth potential of SMEs' active internationalisation.

The importance of emerging economies' MNEs in recent years has coupled with the governments in some of those countries to promote outward internationalisation through FDI at the same time of implementing policies for attractiveness, adopting in some cases distinct subnational approaches. These few emerging economic powers – e.g. China, for all – seem to have acknowledged that the simplistic host-home and inward-outward dichotomies of the past have become not only obsolete, but possibly even treacherous for internal cohesion (e.g. Wei, 2013). The development of active policy frameworks to promote the internationalisation of domestic firms in coordination with inward FDI promotion – and even as a means to circumvent historic insularity, as for example in the case of Japan (e.g. Dunning, 2001) – has been largely an Asian phenomenon, with Western advanced economies mostly unable to undergo thoughtful policy learning (e.g. Davies, 2010; Narula & Nguyen, 2011; UNCTAD, 2018).

The impact of globalisation on development trajectories crucially depends on the capacity of national and regional economic systems to implement and govern global-local systemic integration. This capacity varies widely across and within the national boundaries of advanced economies. In what follows we present and discuss some regional cases of connectivity through FDI in Europe and related public policy.

### 3. Three regional case studies: Southern & Eastern Ireland, Scotland and Wales

#### 3.1 European regions, economic development and FDI

The interaction of global and technological forces and regional characteristics generates a geography consisting of countries, regions, city-regions and clusters that are at different structural positions in the ladder of roles and functions in the international division of labour. Such uneven geography has been accentuated by the latest economic and financial crisis. Recent research has shown that, in the case of Europe, it is possible to identify four broad regional development clubs each sharing similar characteristics and largely corresponding to very high-, high-, medium- and low-income regions. This spatial classification – which, combining GDP per capita with other socioeconomic indicators, gives rise to further subgrouping – offers a way of generating powerful insights into development and distinctive perspectives on regional policy (Iammarino et al., 2018a). Remarkably, although a rigorous analysis of how regional development clubs may reflect in terms of FDI connectivity has not yet been done, European top-performers regions seem to display a relatively balanced openness in terms of inward and outward FDI flows, and an apparent capacity to manage systemic integration between intra- and extra-region networks, proving to be comparatively resilient to major economic shocks such as the 2008 crisis (Crescenzi and Iammarino, 2017).

To provide a simple illustration of connectivity across European regions, we use here IFDI and OFDI flows in the period 2003-2017, as provided by the Financial Times through the fDi Markets database, covering cross border greenfield investments<sup>1</sup> for all countries and sectors worldwide. The capital invested (capex) – expressed in millions of 2005 US dollars – is considered an acceptable proxy of regional connectivity through FDI, widely used in the most recent literature (e.g. Burger et al., 2013; Crescenzi and Iammarino, 2017). Maps 1 and 2 depict the spatial distribution of IFDI and OFDI cumulative capital expenditure (2003-17) normalised by the population in the European regions (including both intra- and extra-EU FDI).<sup>2</sup>

[Maps 1 and 2 about here]

The spatial agglomeration of global IFDI – represented by differently-coloured deciles – overlaps only partially with the traditional European core-periphery economic geography. As also confirmed in Table 1, reporting the first decile regions, the top attractive locations are UK and Irish regions, some of the most advanced city-regions in the Baltic and central and eastern European countries, and a few capital cities. However, a number of more peripheral areas in Poland, Romania, Bulgaria and in the EU Candidate Countries are also relevant hotspots for the attraction of FDI. The geography of cumulative OFDI is instead mainly originating from the European core, e.g. the ‘Blue Banana’, and global capital cities, as also confirmed in Table 2, showing the top investor regions;<sup>3</sup> though substantial investments

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<sup>1</sup> “fDi Markets tracks crossborder investment in a new physical project or expansion of an existing investment which creates new jobs and capital investment. Joint ventures are only included where they lead to a new physical operation. Mergers & acquisitions (M&A) and other equity investments are not tracked.” (<https://www.fdimarkets.com/faqs/>).

<sup>2</sup> Regions are classified according to Territorial Level 2 of the OECD Regional Classification, which corresponds directly to the EUROSTAT Regional Classification (NUTS).

<sup>3</sup> Regional OFDI figures are inflated in certain tax-haven countries, and in capital regions, by a headquarters effect. Outward investment “from” Luxembourg, for instance, is an artefact of the location, for tax purposes, of many European corporate headquarters in that country. This aspect, and its implications for territorial inequality, would deserve more study also in the case of Ireland. See, for instance, <https://ftalphaville.ft.com/2017/11/23/2196028/what-the-foreign-direct-investment-data-tell-us-about-corporate-tax-avoidance/>



abroad – particularly following the beginning of the economic and financial crisis in 2008 – involve increasingly many less favourite and peripheral regions (Crescenzi and Iammarino, 2017).

[Tables 1 and 2 about here]

Here we focus on three regional case studies that were selected on the basis of their especially high and long-term FDI attractiveness in the European context: Southern & Eastern Ireland (S&E Ireland), Scotland and Wales. The latter are two of the twelve UK statistical regions at the NUTS1 level (see, for more details on these regions, Comotti et al., 2018). The NUTS equivalent for Ireland is the country as a whole; as our focus is subnational, we consider for comparison S&E Ireland, one of two Irish NUTS2 regions.

At the time of joining the European Community in 1973, the three regions were all low-income areas, with S&E Ireland and Wales roughly similar in terms of GDP per head below the European average, and a wealthier Scotland particularly due to its North-Eastern counties. Between 1980 and 2015, however, annual GDP per capita growth sharply diverged, ranging from 1.3% in Wales to 3.1% in S&E Ireland, with Scotland somehow in the middle with 1.7%. Today significant differences are found both between and within the regions with respect to GDP levels: in the European regional development clubs' classification mentioned above, S&E Ireland is included in the high-income club (whilst the other NUTS2 Irish region, Border, Midland and Western (BMW), is medium-income); three of the four Scottish sub-regions are categorised as medium-income, while North-Eastern Scotland is in the very-high income club, outperforming the UK average; and of the two sub-regions in Wales, East Wales is medium-income, whilst West Wales and The Valleys is among the European low-income regions.

Although the three regions experienced historically diverse modes of international connectivity,<sup>4</sup> they share a long-term FDI attractiveness dating back at least to the 1970s – for which they were labelled as the “Celtic tiger economies” (Danson et al., 2002) – longstanding internationalisation policies through FDI, a geographical location in the north-west of the European continent, and the broad institutional foundations of liberal market economies in terms of the variety of capitalism model (Hall and Soskice, 2001); they are also broadly comparable in terms of total population (5.4 million in Scotland, 3.5 in S&E Ireland and 3.1 in Wales, in 2017). On the other hand, the regions differ with respect to their OFDI position: while all three are in the first decile in terms of IFDI (Table 1), only S&E Ireland appears among the top investors abroad (Table 2).

Figure 1 and 2 show FDI flows trends between January 2003 and December 2017. The impact of the crisis in 2008 is particularly visible in the case of Wales, which lost its attractiveness especially in terms of amount of foreign capital invested; the other two regions, despite experiencing a contraction of greenfield IFDI in the immediate aftershock, were able to maintain and even overcome pre-crisis values. OFDI, instead, shows similar trends across the three regions, generally diminishing after 2009.

[Figures 1 and 2 about here]

Looking at the distribution by industry over the aggregate period, IFDI in Scotland and Wales appears to be highly concentrated in Coal, Oil and Natural Gas (around 30% of total capital invested in Scotland and more than 15% in Wales) and in Alternative/Renewable energy (both shares around 30%); approximately 10% of foreign capital in Wales is also going into Aerospace. The same sectoral concentration characterises OFDI in both UK regions: over 30% of outgoing capitals from Scotland are in Coal, Oil and Natural Gas, followed by Financial Services and Alternative/Renewable energy; around half of OFDI from Wales originates from Wood products, followed by Coal, Oil, and Natural Gas and Alternative/Renewable energy industries. On the contrary, foreign MNE operations in S&E Ireland are far more diversified: the largest shares of capital are invested in Software and IT services (over 20%)

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<sup>4</sup> As said at the beginning, connectivity builds up through a variety of channels, among which labour migration is a fundamental one. For instance, for an analysis of how the diaspora of human capital helped high-tech firms of different origins to become part of the global division of labour, see Kapur and McHale (2005).

and Pharmaceuticals (around 15%), but substantial IFDI is also directed to Semiconductors, Financial services and Communications. Around one third of OFDI from the region comes from Alternative/Renewable energy and Coal, Oil, and Natural Gas, but considerable internationalisation abroad is also experienced by services (e.g. Transportation, Real estate and Software and IT services).

When thinking in terms of GVCs, the functional dimension is an even more fundamental indicator to grasp FDI implications for the regional economy. As evident from Figures 3 and 4, although production-related activities play a major role in all regions for both IFDI and OFDI, S&E Ireland shows again a more diversified functional portfolio in the attraction of foreign MNEs, with significant foreign operations in Headquarters, Sales and, notably, R&D functions. Outward investments are behind clear transformational processes of the regional industrial structure in all cases, driven by locally-based MNEs' strategies aimed at rationalising production activities, mainly in manufacturing, but in S&E Ireland also in services.

[Figures 3 and 4 about here]

### **3.2 Policies for regional connectivity through FDI**

Whilst the attraction of foreign investors has been a longstanding focus in all three regions, the “Celtic tiger economies” show substantial differences in their policy approaches. As all cases offer a wide range of policies for broad internationalization, the description here should by no means be deemed exhaustive, rather it provides an overview of the main tools and overall national and regional strategies, summarised in the Policy Summaries IFDI and OFDI.<sup>5</sup>

[Policy Summaries IFDI and OFDI about here]

#### ***Southern & Eastern Ireland***

The attraction of foreign MNEs has had a very prominent role in explaining the Irish highly successful economic development (e.g. Barry, 1999; Kirby et al., 2002). The Irish experience – particularly that of Dublin and the south and east of the country – has constituted a textbook case for the empirical investigation of the effects of export-oriented IFDI on host economies (e.g. Barry and Bradley, 1997), and a benchmark for innovative policy learning for both advanced and emerging economies (e.g. Buckley and Rouane, 2006; Rios-Morales and Brennan, 2009; Brennan and Verma, 2010).

S&E Ireland consists of five NUTS3 regions: Dublin, Mid-East, Mid-West, South-East and South-West. Despite the substantial disinvestment experienced during the recent crisis, the region has managed to keep its top position as European destination of IFDI; at the same time, OFDI has also increased steadily over time. The spatially selective nature of the consequences of the crisis and the increasing within-country inequality between S&E Ireland and BMW (Kirby, 2016) have pushed forward the Irish regional development agenda and the acknowledgement of the necessity to integrate internationalization in territorial policies.<sup>6</sup>

Beyond the consistently low rate of taxation, currently a 12.5% tax on corporate profits, offered by the Irish government, the Industrial Development Authority (IDA) has historically provided a “one-stop shop” approach in terms of attracting, facilitating and supporting foreign investors in the country as a whole; it also maintains a widespread global presence through 28 international offices in the US, Asia Pacific, Europe and Latin America. Most importantly for the purpose here, IDA operates nationally – working closely with Enterprise Ireland (EI) and a large number of State Departments, from that of Jobs, Enterprise and Innovation (DJEI), to the Science Foundation Ireland, and the Department of Education and Skills – but has a strong regional articulation throughout the two NUTS2 regions, with

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<sup>5</sup> Both tables have been validated by different institutional actors, including Enterprise Ireland South East, Scottish Development International, and researchers at the Cardiff Business School.

<sup>6</sup> See Department of Jobs, Enterprise and Innovation (2014), Policy Statement on Foreign Direct Investment in Ireland: [http://www.enterprise.gov.ie/en/Publications/Policy\\_Statement\\_on\\_Foreign\\_Direct\\_Investment\\_in\\_Ireland\\_PDF\\_689KB\\_.pdf](http://www.enterprise.gov.ie/en/Publications/Policy_Statement_on_Foreign_Direct_Investment_in_Ireland_PDF_689KB_.pdf)

one office for each NUTS3 region in both S&E and BMW (the latter comprising three NUTS3 units). Dublin, due to its national capital status and its strong high-technology agglomerations and scientific research infrastructure, has been the major attractor of inward FDI, followed by Cork. In its five-year plan, *Winning: Foreign Direct Investment 2015-2019*, the IDA has set targets of FDI attraction at the NUTS3 level with the purpose of achieving a greater geographical dispersion of inward productive capitals. The explicit aim is “to optimise the potential contribution of FDI to regional economic development as part of cohesive regional spatial and economic strategies.” (DJEI, 2014, p. 9). For example, one of the tools used for this scope is the property solution, where public investment is directed to work with market players to provide a suitable and affordable range of property and site choices for foreign investors.

The IDA operates with sectoral-region-specific approaches. One example is that of the South East IDA, which includes the counties of Kilkenny and Waterford. Here, the regional agency especially targets financial, technological, and international business services, and high value added manufacturing such as pharmaceuticals, which represent the base of the regional comparative advantages. There is also a close collaboration with the Institutes of Technology in Waterford and Carlow, both through the provision of relevant skills and talent, and their participation in the Technology Gateway clusters – 10 in S&E Ireland, located in Dublin, Tallaght, Carlow, Waterford, Cork, Limerick and Tralee – that provide R&D laboratories and expertise to both local firms and foreign MNEs in advanced technological fields (e.g. bio-diagnostic, applied design, pharmaceutical and health care, applied biotechnology).<sup>7</sup>

On the OFDI promotion side, Ireland – and especially S&E Ireland, given its exceptionally high share of outward investment abroad as seen in Table 2 – is one of the European regions demonstrating full awareness of the importance of promoting bi-directional FDI connectivity. However, this is still pursued at the national level, mainly through bilateral agreements that reduce regulatory barriers, as for instance through double taxation agreements with over 70 countries, which facilitate both IFDI and OFDI. Enterprise Ireland is the responsible actor for building and improving the capacity of local firms to grow and become international. Although the main action still lies in conventional export-oriented programmes, there is increasing encouragement and support for firms, including SMEs, wishing to invest abroad. In the US, for example, EI-supported firms opened 59 subsidiaries in 2017, with a total of approximately 800 Irish-owned MNEs operating across the 50 states, making Ireland the 9<sup>th</sup> largest foreign investor in the US economy.<sup>8</sup>

### **Scotland**

The Scottish government has legislative and executive powers for regional economic development devolved by the UK government. As in the case of S&E Ireland, Scotland’s regional strategy has also put a lot of emphasis on FDI attraction to create jobs and spur economic growth, becoming an international benchmarking for emerging open economies particularly with respect to the electronics and life sciences industries (e.g. Ross, 1996; Cooke, 2004; Potter, 2004; Wight et al., 2004). In terms of modes of delivery intervention, Scotland stands out within the UK for its stable, integrated and well-coordinated web of agencies and institutions with clear-cut responsibilities. The publicly owned development agencies, Scottish Enterprise (SE) and Highlands and Islands Enterprise (HIE), work across different Scottish areas delivering tailored programmes to promote local economic development.

The investment arm, Scottish Development International (SDI), sponsors the Scottish brand internationally and Scotland as a destination for high value added foreign investment through

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<sup>7</sup> Technology Gateway clusters are overall 15, 5 of which located in the BMW region. See <https://www.technologygateway.ie/network/>

<sup>8</sup> Enterprise Ireland (2018), *Irish innovation and investment in America drives record employment and economic growth. Americas Enterprise Ireland*. Available at: <https://americas.enterprise-ireland.com/irish-innovation-investment-u-s-drives-record-employment-economic-growth-2018/> [Accessed 26 Mar. 2018].

international offices, a close relationship to the UK Trade and Investment (UKTI) department, and the engagement in global partnerships. Its effectiveness is clearly attested by its leadership in attracting more R&D FDI projects than any other UK region in recent years: software and life sciences are the main recipient industries (EY, 2017). The industry-targeting strategy aims at mobilising investments that can provide larger export markets. In terms of policies and programmes for IFDI, SDI, in close collaboration with SE and HIE, delivers policy solutions ranging from tailored business support to financial incentives, enterprise zones, regional assistance grants, R&D tax-related incentives and grants for the development of new products and processes, and training grants (i.e. Training Plus, for any business undertaking a mobile direct investment project based anywhere in Scotland).

In all programmes offered, from grants to financial incentives, there is no discrimination between domestically- and foreign-owned firms, and growing attention has been devoted to high-growth SMEs (Mason and Brown, 2012). The Enterprise Areas, for example, scattered across 16 locations around the region, offer discounted business rates up to 100%, business tax relief, capital allowances for investment in plants, machinery and equipment, multi-level coordination (i.e. among the Scottish government, relevant local authorities, agencies and developers) to ensure simplified and rapid planning permission, ICT infrastructure, international promotion and marketing, skill and training support, with SME-oriented support depending on the specific site-industry. Scottish enterprise areas are defined in terms of four broad industry/technological areas (Life sciences, Low carbon/renewable, General manufacturing, Growth sectors) and their sub-regional location is driven by the necessity to boost intra-regional sectoral networking, to ensure spatial equity and to reflect the priorities of industries and the local relative advantages. An example is the low carbon/renewable area, concentrated in the north and east of Scotland, which represents the greatest potential for renewable energy due to natural resources and land availability.

Furthermore, the Scottish Investment Bank operates two main equity funds for companies that have already set up in Scotland: the Scottish Co-Investment Fund and the Scottish Venture Fund, both of which are based on a co-investment model with SDI following a lead investor.

In terms of OFDI, despite numerous programmes for boosting exports and global awareness, there are no specific tools for supporting local firms willing to invest abroad. This is still perceived to be outside the scope of the regional development agencies: support to active internationalisation is being given to strengthen Scottish-owned firms' presence on global export markets. However, the awareness of the importance of two-way connectivity is growing: the Scottish 2016-2020 trade and investment strategy reports the ambition for *"a much broader agenda for internationalisation; for creating a Global Scotland which seeks to create an environment within Scotland that supports a better understanding of international opportunities and a greater appetite and ability to seize them."* (The Scottish Government, 2016: 56). The many programmes supporting firms to think globally – for instance, assistance to gain market access, support to networks of Scottish firms and individuals abroad (e.g. GlobalScot), grants and loans to open new markets and develop new products – represent still a grey area where OFDI by domestic firms may be the outcome, although not explicitly planned in the support framework.

### **Wales**

As Scotland, Wales has a devolved responsibility for regional economic development to the Welsh Assembly Government (WAG) by the UK government. Like Scotland, inward FDI has been highly relevant, particularly capitalising on the region natural resources such as abundant coal and water, with a 'golden age' through the 1970s and 1980s (e.g. Morris, 1987; Phelps et al., 1998). However, Wales has gone through an inversion trend of massive disinvestment over the past three decades, losing 171 foreign-owned plants and approximately 31,000 jobs, mainly in manufacturing, in the 1998-2008 period (WAC, 2012). This has been ascribed to the loss of locational advantages of the region, being out-competed by the new EU member states in Central and Eastern Europe, China's increased openness, and the rise of other emerging economies as global players in GPNs and GVCs (NEF, 2013).

The policy approach has also been criticised for being too short-term oriented, with “employment at any price” type of goals, instead of focussing on sustainable development targets (WAC, 2012). Of the three “Celtic tiger” regions compared here, the overall regional strategy relies on traditional economic policies maximising inward investment ‘no-matter-what’.

Wales does offer tools similar to S&E Ireland and Scotland in terms of inward investment attraction, such as enterprise zones with financial and regulatory incentives, sectoral approaches targeting high value added and knowledge-intensive industries, promotion activities and business support for potential and current investors. However, the same tool can differ substantially in its implementation across regions: for example, whilst enterprise areas in Scotland are defined at the industry level and then as intra-region networks, in Wales they are presented first as spatially distinct areas – often referred to as “property-led economic development zones” – built with the main purpose of supporting the local economy, and acting as a catalyst for growth elsewhere in Wales, with less emphasis on intra-regional sectoral networks.

As to OFDI, similarly the other two regions Wales is strongly focussed on export-promotion and active internalisation of local firms is not explicitly reported as part of the regional strategy. However, unlike S&E Ireland, the relevant national government does not fill this role; and unlike Scotland, there is no manifest awareness on the side of the regional government. Wales does offer financial aid to potential buyers looking to acquire businesses through the Development Bank Wales (DBW), although it does not show a particular international focus.

Overall, Wales lags behind the other two regional cases in institutional stability and strategic continuity in the broad domain of local economic development policy. The publicly-owned Welsh Development Agency (WDA) was, from 1976 to 2006, the main responsible in this field, and it had a well-known brand outside Wales and internationally. In 2006 WDA was abolished, and most of the prerogatives for internationalisation were overtaken by the newly formed International Business Wales (IBW) within the Department for the Economy and Transport. IBW ceased to exist in 2010, and the functions were transferred to the WAG initiative Trade & Invest Wales, exclusively directed to attract foreign entrepreneurs or MNEs willing to invest in the region. Support to local firms is instead provided by a different agency, Business Wales, located in Llandudno, North Wales, with a strong orientation on SMEs and entrepreneurship capacity building. The relative weakness of the formal local institutions in embedding foreign MNE activities in the economic fabric of the territory couples with that of broader institutional setting, including local labour markets or business networks for the diffusion of knowledge and information within the region (Phelps et al., 2003).

#### **4. Towards place-sensitive policies for connectivity**

From the three cases illustrated above, all amongst the most FDI-attractive in Europe, some interesting insights can be extracted. Among the three regions, S&E Ireland shows a rather balanced connectivity, a more diversified sectoral and functional FDI portfolio on both inwards and outward investment, and national and subnational policy approaches carefully coordinated and articulated at industry-location levels. Similarly, devolved Scotland’s connectivity approach focuses on defined industry/technological areas with the aim of enhancing intra-regional sectoral networking. Although in both these regions OFDI promotion, mostly based on support to export, is still pursued at the national level, their stable and harmonised local institutions, with clear-cut responsibilities within the respective national frameworks, have shown growing awareness of the urgency to tackle the priorities of the local relative advantages and ensure spatial equity. The case of Wales – despite sharing with Scotland devolution from the UK government – demonstrates how FDI attraction can differ substantially in its implementation across regions, even within the same national boundaries. A more fragmented regional institutional context has resulted in slacker intra-regional networks, and the reliance on old-style maximisation of foreign investment has brought about possibly more but less quality employment.

In all three regions, both ownership and location advantages of firms show distinct geographical profiles, even at the level of city or industrial cluster. This however by no means has diminished the role of nation-states and their governments: in fact, the latter become even more essential as fairness and equity across territories and people are threatened by globalisation and technological change processes, calling for renewed forms of public intervention.

Connectivity, an essential but somehow disregarded dimension of territorial equity and economic development policy, extends far beyond the idea of 'attractiveness': connected places are flows' recipients as well as senders. The interactive dynamic capabilities of firms – emphasised in the business and management literature as a fundamental requirement for successful entrepreneurship (e.g. Zahra et al., 2006; Yiu et al., 2007) – represent the extent to which the firm is able to integrate, build and reconfigure internal and external competences and knowledge sources to address rapidly changing environments (e.g. Teece et al., 1997; von Tunzelmann and Wang, 2007). By the same token, regional interactive dynamic capabilities refer to the overall ability of the local system to engage in innovative and organisational processes and ensure institutional change by combining internal and external knowledge sources (e.g. Feldman et al., 2005; von Tunzelmann, 2009). Industrial policies, especially in advanced economies, can only progress by following an integrated approach of alignment between local and global resources, capabilities and skills, taking into account the connectivity to/from the region and its interdependence with neighbouring and distant areas and territories (Iammarino and McCann, 2013; Crescenzi and Iammarino, 2017).

Place-based policies, and related smart specialisation (RIS3) and constructing regional advantage strategies, have increasingly gained momentum especially, but not exclusively, in the EU (e.g. Barca et al., 2012; Boschma, 2014; McCann and Ortega-Argilés, 2015). Beyond a few recent exceptions – which, in the context of RIS3, emphasise the crucial link between active and passive internationalisation and innovation upgrading, and the high dependence of EU regions on inter-regional production and innovation networks (Uyarra et al., 2014; Radosevic and Ciampi Stancova, 2018) – the incorporation of connectivity through FDI (and not only) among the goals of such policy schemes remains a "missing strategy" (Bailey and Driffield, 2007). In illustrating some general regional development policy principles, we prefer to use the term 'place-sensitive' as it better adapts to multilevel governance, not essentially micro-based and bottom up.

First, place-sensitive industrial policies for connectivity requires *territorial differentiation* within both core and periphery, and across and within regions of the same nation-state. As seen above, the three regions historically among the most FDI- attractive and -proactive in Europe have shown markedly different evolutionary trajectories and performances, and belong to different development regional clubs. Exclusively national, or standardised policy approaches that disregard the nexus sector-function-space would condemn weaker regional groups to persistent marginalisation. Particularly in the case of OFDI, the general practice to design broad support strategies on the basis of effects that are, at the aggregate level, neutral or positive, tend to push declining and peripheral regions towards relentless downgrading in the global division of labour. The European traditional core-periphery dichotomy makes no more sense, and neither it does the excessive reliance on 'global cities' as gatekeepers as a recipe for diffused growth. Winners and losers turn out to be both core and peripheral regions; places within the same nation-state of world-dominating global cities or technological centres of excellence are those currently paying the highest charges of globalisation; the distribution of benefits and costs of the latter can be skewed even within the same region or city (Crescenzi and Iammarino, 2017).

Second, place-sensitive policies for connectivity require strong *integration* between the 'silos' of inward and outward FDI, overcoming once and for all the 'reversed mercantilism' that has dominated so far. On the OFDI side most attention has been devoted to trade, manufacturing and the building of territorial competitive advantages, with limited consideration of how to promote openness, stimulate – SME and larger domestic – firms' risk propensity for 'going global', and build institutional capacity to spur bidirectional connectivity. In addition, little or no attention has been paid to the sectoral and

functional features of IFDI versus OFDI into/from the same region. Support to FDI attractiveness without careful consideration of what is leaving the region may be the wrong recipe for sustainable growth and renewal of local competitive advantages, as the case of Wales seems to indicate. On the other hand, as pointed out by Bailey and Driffield (2007), incompatibility of policy goals may arise when attracting foreign MNEs to reduce regional unemployment or upgrade skills, without simultaneously looking at the promotion of domestic firms' growth through, among other means, offshoring and international outsourcing.

Financial incentives and access to capital are necessary but not anymore sufficient to support connectivity: institutional capacity-building, technical, legal, fiscal and administrative assistance, targeted and timely communication and information, provision of specialized skills, all support firms' decisions to invest abroad, helping regions creating absolute advantages – or “knowledge monopolies” (Malecki, 2010) – and making them less “provincial” (Gambardella et al., 2009). As the examples of S&E Ireland and Scotland have shown, despite OFDI support is still very national, awareness of the interdependence between inward and outward global capital flows and intra- and extra-region networks is growing, and a more holistic industrial strategy will be decisive to ensure a balanced and diversified structural change at the local level (Bailey and Lenihan, 2015). The coordination and stability – the ‘thickness’ indicated by Amin and Thrift (1995) – of regional development and internationalisation institutions and strategies are fundamental to pursue bidirectional openness without threatening the density of relational networks within the region (e.g. Cusmano et al., 2010).

Finally, place-sensitive policies for connectivity entail strong *coordination* of ‘mission oriented’, top-down, science-led approaches, and ‘diffusion-oriented’, bottom-up, capacity-building programmes, achieving effective compromises and fruitful dialogues between the two main governance views depending on the type of region (Iammarino et al., 2017). As anticipated by some scholars, the territorial politics and policy for FDI is one area in which the stress on the balance between decentralisation and national coordination is toughest (Tewdwr-Jones and Phelps, 2000).

Top-down approaches – national, European and international – ought to account for the necessary conditions for a ‘fairer globalisation’, or rules of law: large MNEs based on intangible assets, exerting monopoly powers and control on intellectual property rights, operating in increasingly elusive industry boundaries, fleeing taxation and generating growing shares of profits and rents (e.g. The Economist, 2017)<sup>9</sup>, undeniably call for concerted and binding regulation for territorial and individual equity to be taken seriously (Guy and Iammarino, 2018). But top-down does not tackle the idiosyncratic socio-economic characteristics of places, i.e. the sufficient conditions for development (e.g. Dopfer et al., 2004; Pike et al., 2010; Uyarra and Flanagan, 2010). Here the three regional cases offer rather clear evidence. The national coordination role, coupled with the pervasive territorial articulation at the NUTS 3 level targeting intra-regional sectoral networks, is one of the most innovative features of the Irish internationalisation model (Rios-Morales and Brennan, 2009), though its translation into a best practice for OFDI strategies depends on further consolidation (Bailey and Lenihan, 2015). Scotland has a similar model of governance based on defined and coordinated responsibility for strengthening the region position in GPNs and GVCs, whilst Wales' lack of definition and synchronisation of accountabilities and tasks across the relevant actors can contribute to a progressive erosion of the regional competitive base and ownership advantages of its firms. Moreover, the two UK regions are now confronted with the Brexit shock that can severely affect their historical attractiveness and overall position in both national and international division of labour.

This paper aimed at providing a broad-brushed picture of the heterogeneity of place-specific development policies in highly FDI attractive regions broadly comparable in their involvement in global capital flows, but also very different in terms of development trajectories and economic resilience.

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<sup>9</sup> <https://www.economist.com/briefing/2017/01/28/the-retreat-of-the-global-company> (last accessed on 21/08/2018).

Further research is in progress to widen regional comparisons within national boundaries, and across different varieties of capitalistic systems in Europe. The principles of differentiation, integration and coordination discussed above need be enriched with a comprehensive picture of regional development policies, with particular attention to innovation and smart specialization strategies, and possibly extended to a larger sets of global connectivity indicators.

## 5. Conclusions

The growing acknowledgement, in academic research and in public perceptions, that one of the most noticeable effects of globalisation and technological change is a rising within-country socio-economic inequality has put seriously in question the rather modest achievements of traditional industrial policies for internationalisation, still firmly grounded on the maximization of inward FDI and on the view that firm ownership and location advantages are shaped by the nation-state of origin or destination.

Interdependence and connectivity of regions, cities and clusters through FDI (and not only) make public policy increasingly important to ensure a balanced distribution of benefits and costs of the global division of labour through GPNs and GVCs. The role of national governments becomes crucial both for 'looking up' – i.e. lobbying and exerting pressures to address global negative externalities that ought to be corrected through harmonised international regulation with respect, for example, to anti-trust and financial markets, sustainability, corporate social responsibility, tax regimes and human rights – and for 'looking down' – i.e. providing the broad framework conditions for the regulation of IFDI and OFDI and supporting regional systemic integration, institutional and innovation capacity building for development and territorial equity. On the other hand, reconciling firms' cross-borders organisational networks with space-specific assets and institutional structures – i.e. the 'strategic coupling' process which ultimately drives regional economic development (e.g. Coe et al., 2004; Yeung, 2016) – is a task that, to be effective, requires the acclaimed, but rarely attained, multi-level governance and coordination of top-down and bottom-up approaches to internationalisation (e.g. Torres and Clegg, 2014; Torres, et al., 2016).

The evolution of the modalities of global productive capital flows has been rapid and drastic, as that of its geography. FDI has shifted from greenfield investments to M&A, from capital-intensive to high-tech manufacturing, from technology-intensive manufacturing to knowledge-intensive services, from production activities to R&D, from sectoral to functional specialisation; the number of attractive locations and, especially, investors from emerging and developing economies has grown exponentially in the 2000s (e.g. Padilla-Pérez and Gomes Nogueira, 2016; Savant, 2017), reversing, possibly once-and-for-all, the supremacy of the large MNEs from the advanced North as leading investors. A few emerging economies, particularly in Asia, have developed active internationalisation policy frameworks to support their domestic firms in 'going global' (Narula and Nguyen, 2011; UNCTAD, 2018). As pointed out by the literature on the Asian NICs, outward FDI growth from emerging economies mainly reflects the use by domestic firms of the support by their national governments in order to upgrade their ownership and location advantages. The most salient recent case is China, whose OFDI has grown at an accelerating rate since 2000, as a result of the adoption of a strong government intervention – progressively articulated at the subnational level – to encourage domestic enterprises to become global (Davies, 2010; Wei, 2013). Despite Europe's historic openness and connectivity, its regions may need to look eastwards for inspiring lessons on regional economic development under globalisation.



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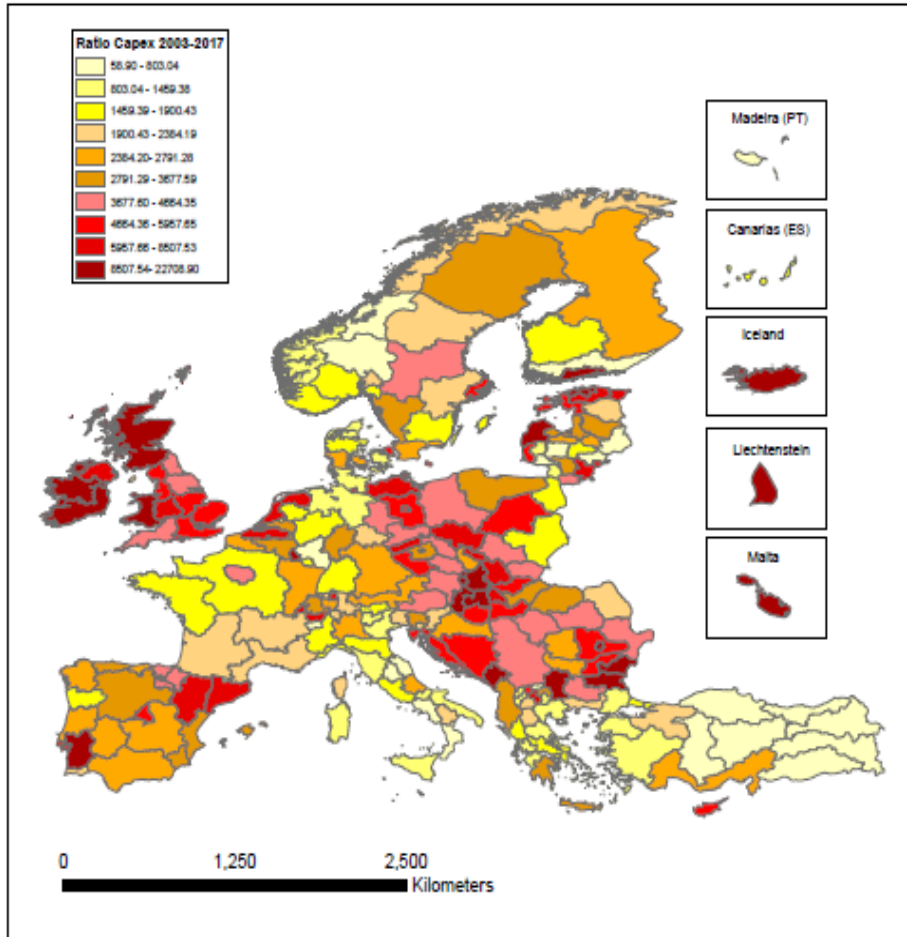
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### Biographical sketch

**Simona Iammarino** is Professor of Economic Geography at the Department of Geography & Environment of the London School of Economics and Political Science (UK). She was Head of Department (2014 – 2017), and she is currently academic member of the LSE Council and Court of Governors. She was nominated Fellow of the Academy of Social Sciences in 2017.

## MAPS, TABLES AND FIGURES

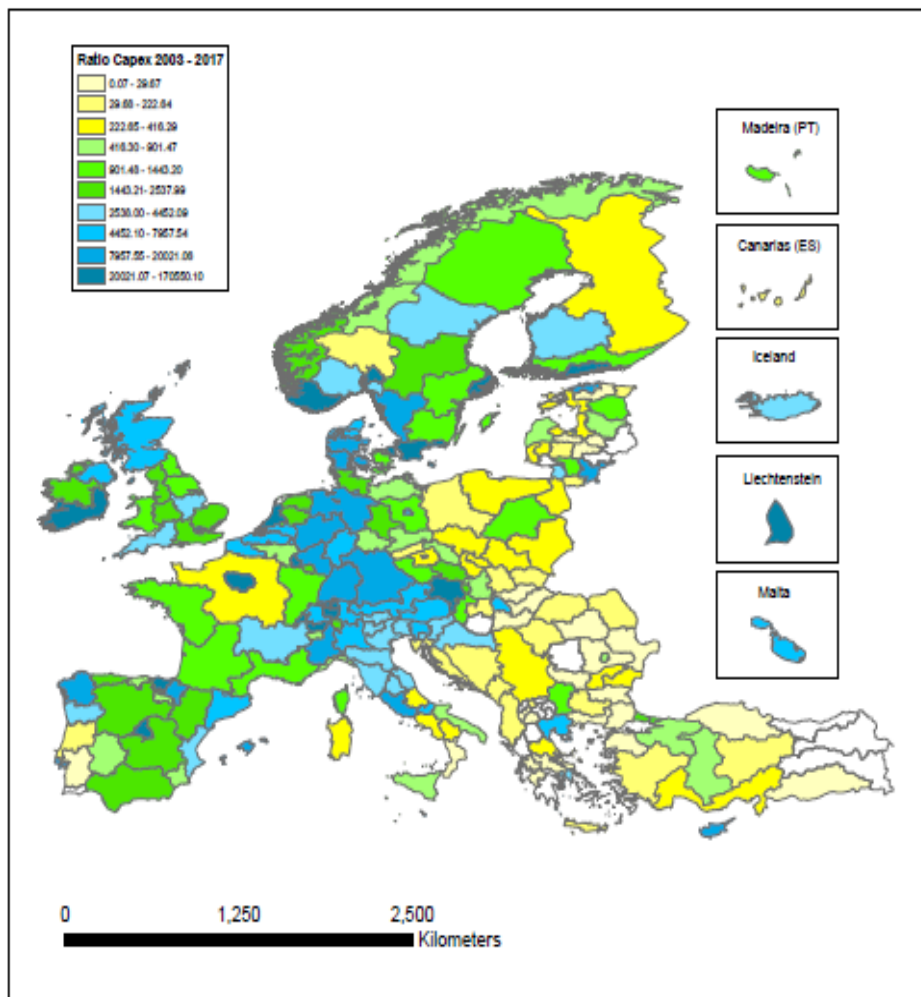
**Map 1 – IFDI into the European regions: cumulative capital expenditure (Capex 2003-17) normalised by regional population (decile distribution)**



Source: fDi Market database and Regions & Cities-Eurostat



Map 2 – OFDI from the European regions: cumulative capital expenditure (Capex 2003-17), normalised by regional population (decile distribution)



Source: fDi Market database and Regions & Cities-Eurostat



**Table 1 - Cumulative IFDI (capex normalised by regional population 2015) & GDPpc - First decile regions, 2003-2017**

<b>NUTS</b>	<b>Regions</b>	<b>FDI/pop 2003-2017 (US\$)</b>	<b>GDPpc 2016 (EUROS)</b>
SK01	Bratislavský kraj	22,708.91	35,800
UKI	South East (UK)	19,736.61	63,700
<b>IE02</b>	<b>Southern and Eastern</b>	<b>19,013.18</b>	<b>69,900</b>
RO32	Bucuresti - Ilfov	14,235.55	20,500
LU0	Luxembourg	13,977.46	90,700
<b>UKM</b>	<b>Scotland</b>	<b>13,327.78</b>	<b>34,000</b>
HU21	Közép-Dunántúl	13,073.09	11,000
PT18	Alentejo	12,612.18	16,900
CZ01	Praha	12,281.44	34,700
LV006	Riga	12,116.73	20,600
IE01	Border, Midland and Western	11,689.49	27,600
IS002	Rest Country	11,187.59	54,700*
BG34	Yugoiztochen	10,613.68	5,900
SK02	Západné Slovensko	10,328.80	13,900
<b>UKL</b>	<b>Wales</b>	<b>9,874.02</b>	<b>26,200</b>
HU22	Nyugat-Dunántúl	9,775.83	12,700
FI1B	Uusimaa-Helsinki	9,712.05	51,600
BG41	Yugozapaden	9,468.89	10,900
BG33	Severoiztochen	9,467.38	5,400
EE001	Põhja-Eesti	9,457.54	23,300
LV003	Kurzeme	8,848.30	9,000**
ME0	Montenegro	8,597.78	N/A
Liechtenstein	Liechtenstein	8,594.98	147,300*/**

Notes: \* GDPpc at the national level; \*\* data 2015

Source: author's elaborations on fDi Market database and Regions & Cities-Eurostat

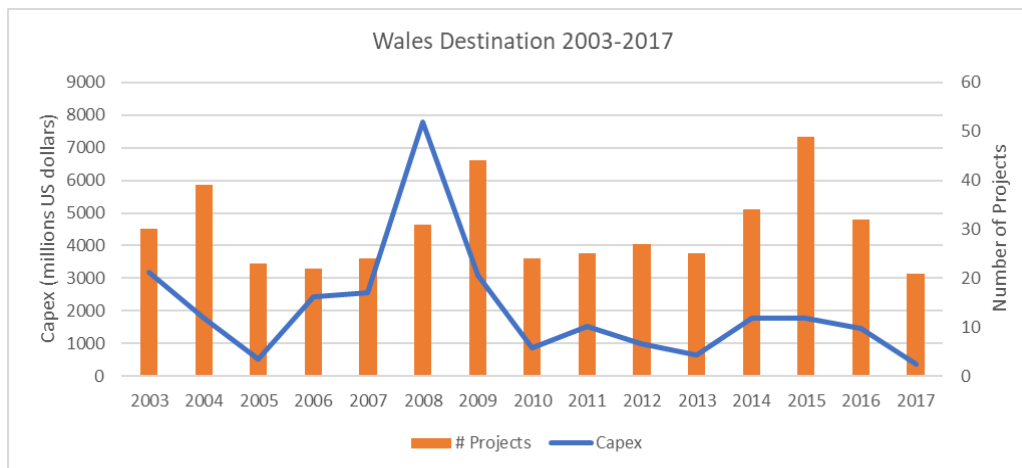
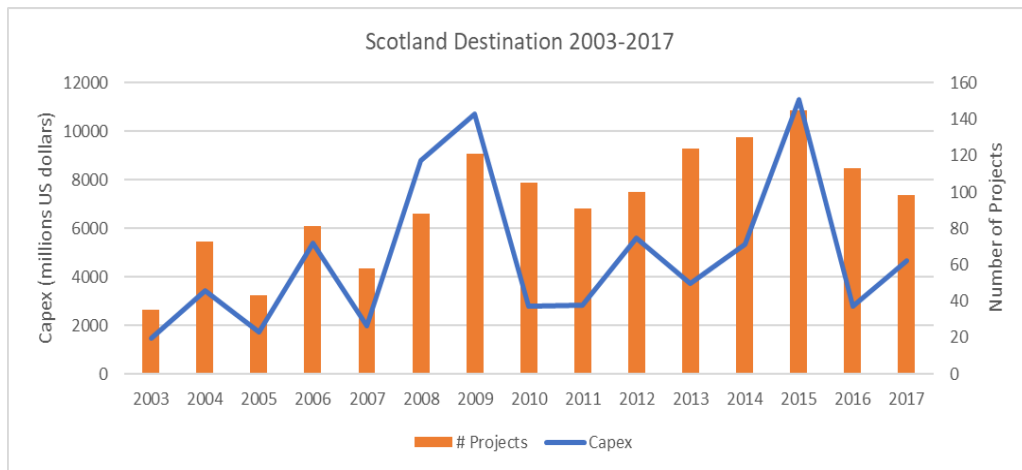
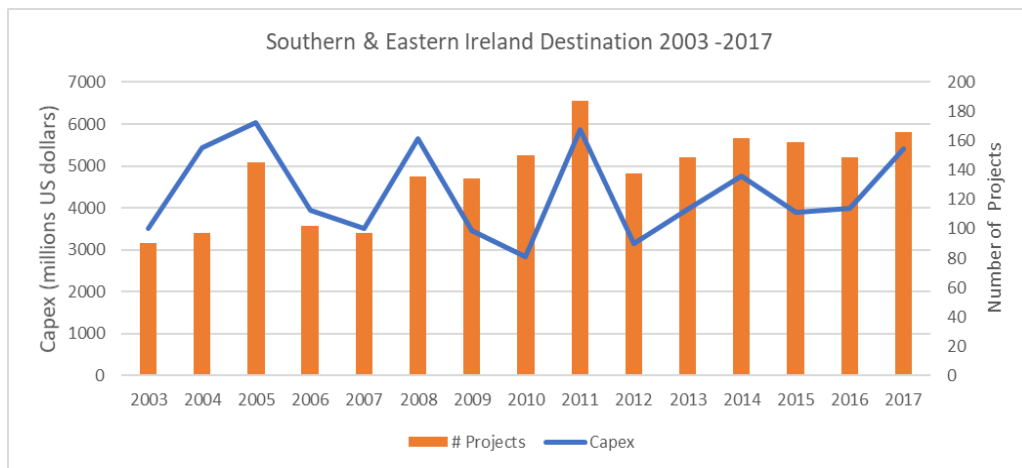
**Table 2 - Cumulative OFDI (capex normalised by regional population 2015) & GDPpc  
- First decile regions, 2003-2017**

<b>NUTS</b>	<b>Regions</b>	<b>FDI/pop 2003-2017 (US\$)</b>	<b>GDPpc 2016 (EUROS)</b>
LU0	Luxembourg	170,550.11	90,700
CH06	Central Switzerland	88,642.05	72,200*
UKI	South East (UK)	74,127.93	63,700
IS001	Capital Region	54,066.99	54,700*
FI1B	Uusimaa-Helsinki	51,408.33	51,600
CH01	Lake Geneva region	47,927.36	72,200*
FR1	Ile-de-France	47,234.20	56,000
NO01	Oslo og Akershus	43,920.33	75000**
BE1	Reg. Bruxelles-Cap.	40,209.93	63,800
SE11	Stockholm	38,880.65	65,700
DK01	Hovedstaden	38,229.68	62,200
NL3	West-Nederland	37,547.03	46,000
CH04	Zurich	36,229.28	72,200*
SE22	Sydsverige	35,591.16	39,400
CH03	Northwestern Switzerland	34,897.52	72,200*
Liechtenstein	Liechtenstein	33,168.55	147,300*/**
ES21	Pais Vasco	25,453.27	31,800
ES30	Comunidad de Madrid	25,432.45	32,800
AT1	Ostosterreich	25,187.80	40,300
<b>IE02</b>	<b>Southern and Eastern</b>	<b>24,395.75</b>	<b>69,900</b>
NO04	Agder og Rogaland	20,624.02	58,800**

Notes: \* GDPpc at the national level; \*\* data 2015

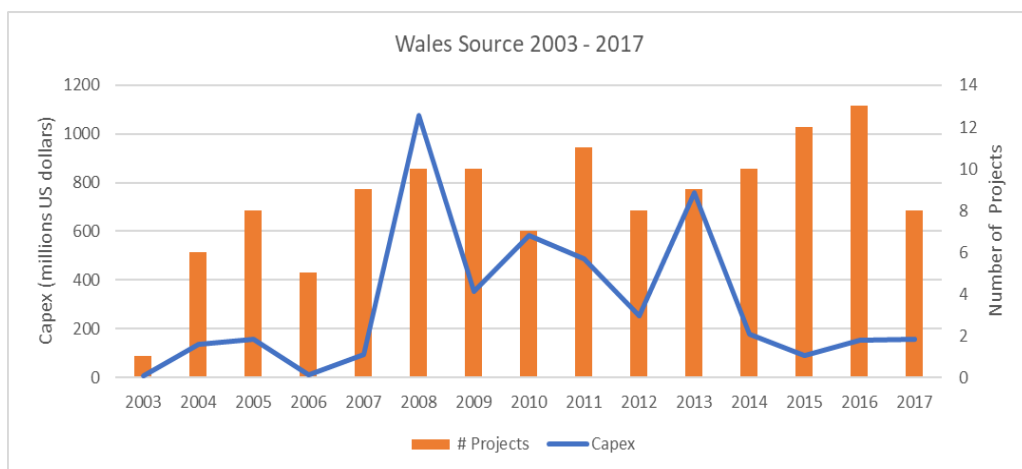
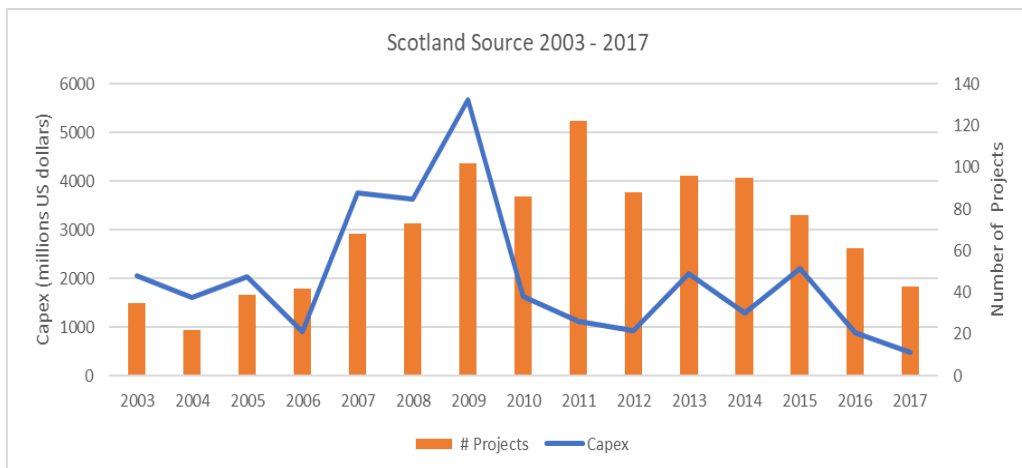
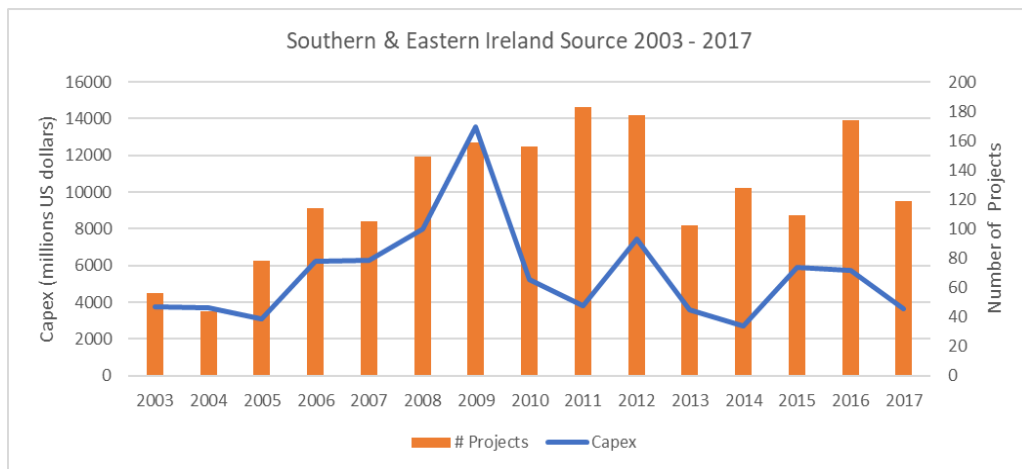
Source: author's elaborations on fDi Market database and Regions & Cities-Eurostat

**Figure 1 – Inward FDI between January 2003 and December 2017. Capex and number of projects**



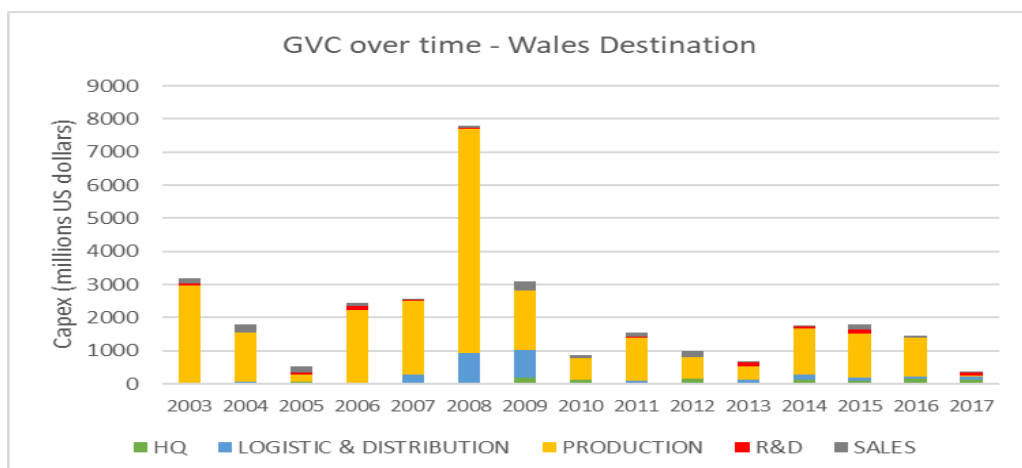
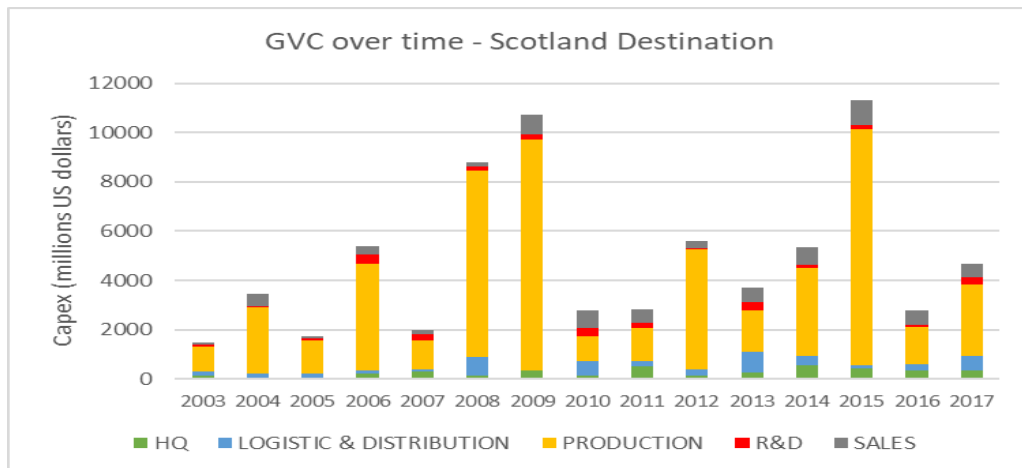
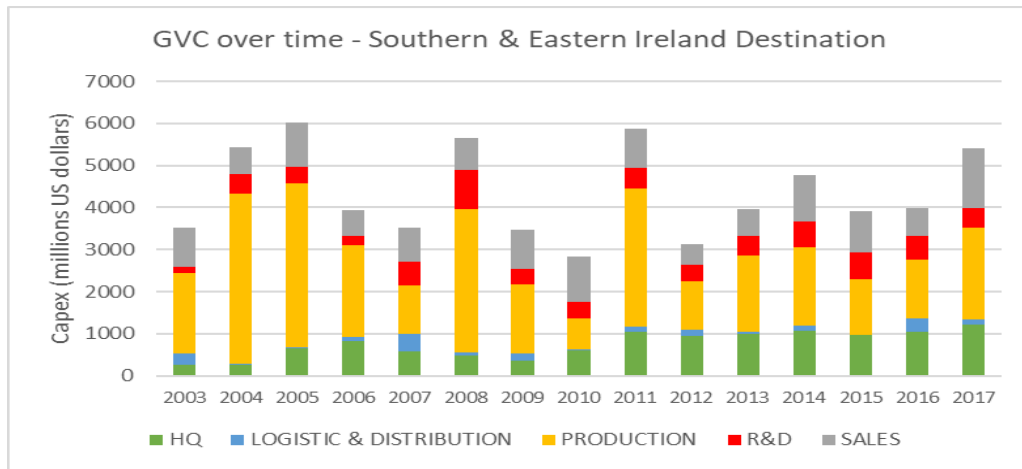
Source: author's elaboration on fDi Market database

**Figure 2 – Outward FDI between January 2003 and December 2017. Capex and number of projects**



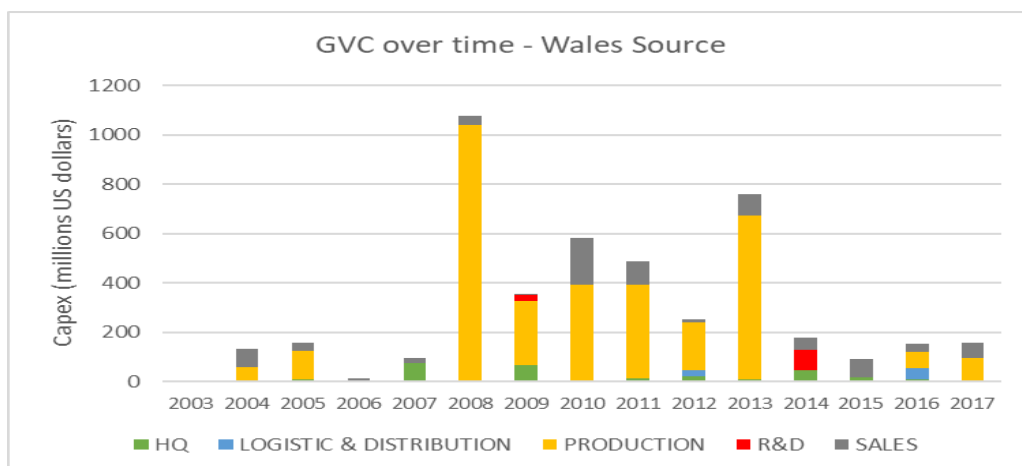
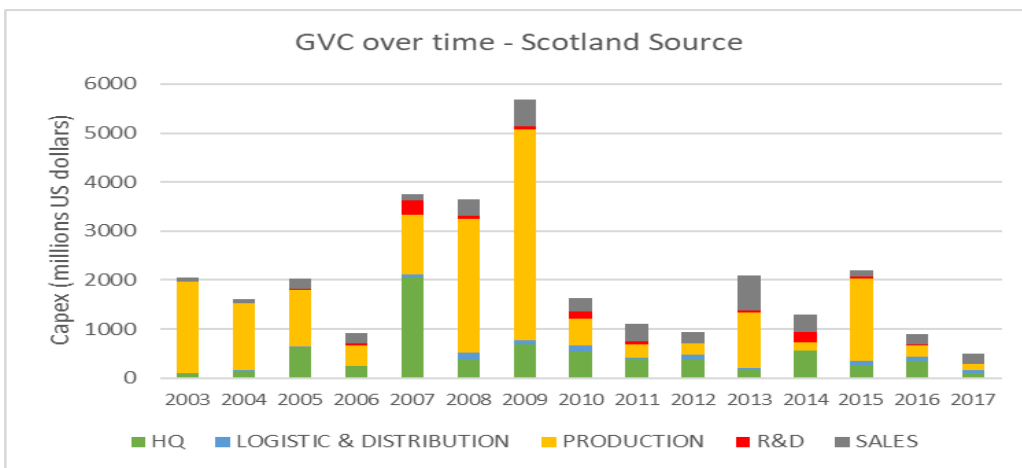
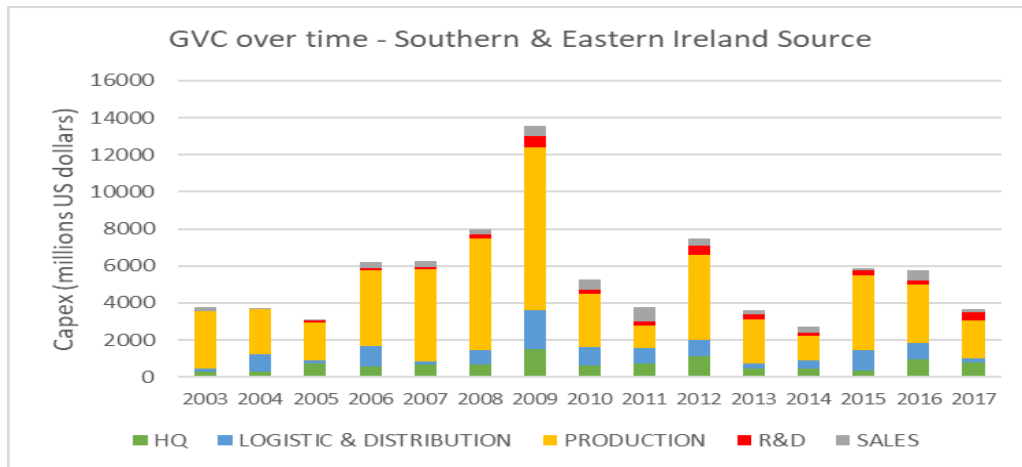
Source: author's elaboration on fDi Market database

**Figure 3 – Inward FDI by GVC function. Capex, 2003-2017**



Source: author's elaboration on fDi Market database

**Figure 4 – Outward FDI by GVC function. Capex, 2003-2017**



Source: author's elaboration on fDi Market database

**Policy Summary IFDI – Selected main policies for Inward FDI by region**

South & Eastern Ireland			Scotland			Wales		
Inward FDI Policy	Actor	Timing	Inward FDI Policy	Actor	Timing	Inward FDI Policy	Actor	Timing
<b>Dedicated regional offices for investment attraction:</b> “One-stop-shop”-approach with all support services integrated under one agency, Industrial Development Authority (IDA), with regional and sub-regional offices (for each of the 5 NUTS3 regions).	IDA	1949 -	<b>Enterprise Areas:</b> 4 broad industry/technological areas (Life sciences, Low carbon/renewable North and East, General manufacturing, Growth sectors) with place-industry targets across 16 top locations developed through a variety of tools to stimulate business opportunities, skills, investments and job creation. Various life-cycles for the different areas.	S-Gov, SE, SDI, HIE	1981 - several areas developed over 35 years	<b>Inward investment support:</b> support for foreign companies willing to invest in Wales from initial interest to aftercare services.	WDA, IBW, WAG	1975 - 2006 2006 - 2010 2011 -
<b>Tax incentives:</b> 12.5% Corporate tax, 25% R&D tax credit, zero tax rates for foreign dividends.	Irish Government	1998 - (corp.tax)	<b>Regional Selective Assistance Grant:</b> grant schemes offered when the project aims directly to generate/safeguard employment in particular disadvantaged areas in Scotland (“assisted areas”).	SE, HIE	2000 - current	<b>Overseas offices:</b> international presence through offices – mainly located in the US, China and India - promoting Wales as investment location and hunting potential investors.	WDA, IBW, WAG	1975 - 2006 2006 - 2010 2011 -
<b>Technology Gateways:</b> sector-specific clusters of firms and research institutes providing research facilities, materials, equipment, expertise in advanced technology fields. 10 located in S&E Ireland.	EI, IoT, EU	2008	<b>Account management:</b> assistance for foreign investing companies to ensure they obtain aftercare services.	SE, HIE, SDI	2001	<b>Inward investment marketing:</b> general support and assistance, securing talent/skills, advice on land policy.	WDA, IBW, WAG	2006 - 2010
<b>Skillnets:</b> financial support provided to networks of firms (domestic and foreign) from the same sector or geographical location with similar current and future skill needs; subsidizing training of management, employees and active job-seekers for upskilling and/or critical areas.	Skillnets	1999	<b>Smart: Scotland:</b> financial support for feasibility studies and prospective R&D projects that can have commercial application and potential global market. Targeted particularly on SMEs, university spin-outs or individuals.	SE	1999	<b>Enterprise zones:</b> 8 geographical areas providing specific financial incentives, accelerated planning, sectoral networks, university research linkages, hard and soft infrastructure. The areas are specialised in specific industries.	WAG	2011 -

## Policy Summary OFDI - Selected Main Policies for Outward FDI and Internationalisation by region

Southern and Eastern Ireland			Scotland			Wales		
Outward FDI/ Internationalisation policy	Actor	Timing	Outward FDI/ Internationalisation policy	Actor	Timing	Outward FDI/ Internationalisation policy	Actor	Timing
<b>Double Taxation Treaties:</b> tax and regulatory barriers to FDI flows between countries removed through international agreements, such as double taxation treaties. Agreements concern income tax, corporation tax and capital gains tax.	Irish Government	Continuously updated, 73 in 2017	<b>Readiness to internationalise:</b> modules aimed at firms at different stages of internationalisation. Offers: i) preparation ii) developing international strategy iii) mentoring iv) overseas market support v) exhibitions, visits and learning fieldtrips.	SDI	2002 - current	<b>Financial assistance for business acquisition:</b> financial and business support to domestic firms for local or international acquisitions. Flexible loans and equity.	DBW	2017 - current
<b>Tailored support:</b> support provided by EI tailored to local firms' level of development and needs. This allows for a great diversity and flexibility of the support offered, also in terms of outward investment and active internationalisation.	EI	1998 - current	<b>GlobalScot:</b> global network of Scottish firms and successful businessmen abroad providing assistance and advice to firms planning to export/invest.	Global Scot, SE	2001 – current	<b>Export Assist Programme:</b> promotion of and support to internationalisation of businesses in pre-determined industries, with the aim to increase competitiveness in global markets, particularly of SMEs.	WAG, EU	2009 - 2015
<b>Enterprise Ireland's global offices:</b> access to incubators, local sectoral and market knowledge, and intermediation with buyers/suppliers/partners through 32 offices worldwide. Close collaboration with IDA global offices.	EI	1999 - current	<b>International Strategy Development Programme:</b> aiming to increase the number of Scottish companies globally through the provision of external consultants for 20 days to help developing international strategy and action plan.	SDI	2001 – current	<b>Trade and internationalisation support teams:</b> provided by the Welsh Development Agency. After the abolishment in 2006, overall funding for this action was cut by 66%.	WDA	Until 2006
<b>Internationalisation Grant:</b> financial support to the cost of researching and exploring new international business opportunities. Ceased to exist in 2018.	EI	2004 – 2018	<b>Specific overseas strategies:</b> presence and diplomatic collaboration to increase FDI from emerging and established markets, and simultaneously working to increase access to these markets for domestic traders.	S.Gov, SDI	2006 - current	<b>Overseas offices:</b> multifunctional offices in strategic locations abroad aiming to promote attractiveness (I-FDI); in addition they support Welsh exports, providing market information to domestic firms and promoting tourism.	WDA, IBW, WAG	1975 - 2006 2006 - 2010 2011 -