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MNEs and Ireland: A Firm Level Analysis

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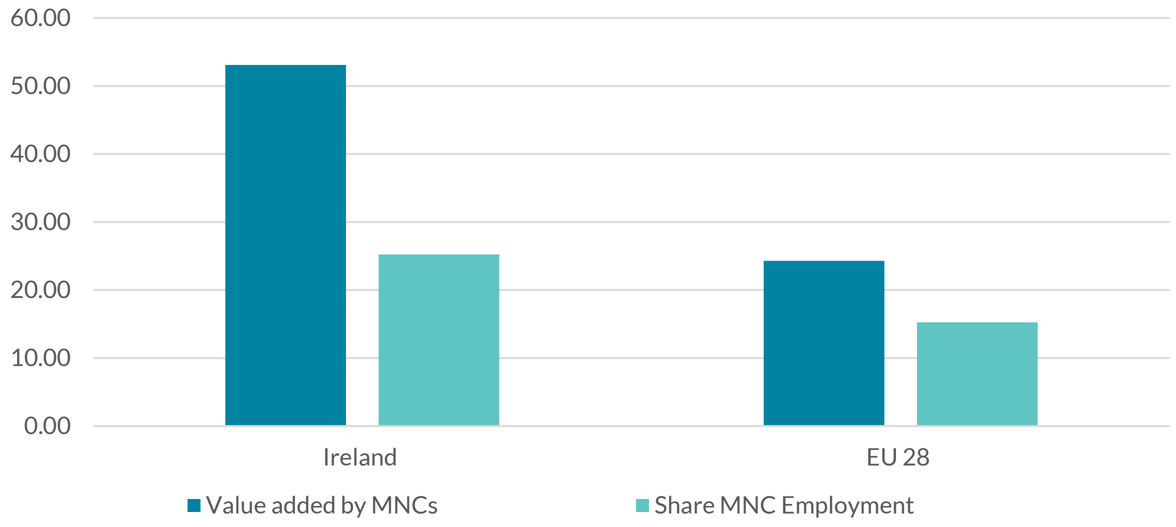
Foreign-owned multi-national enterprises (MNEs) make a valuable contribution to the Irish economy, supporting economic growth and living standards.[1] Almost one quarter of the Irish business workforce are employed by MNEs, well above the EU average of 15%. They account for over half of value added in the business sector, where the comparable EU number is just under a quarter for 2014 (Figure 1).[2] Moreover, these firms also make substantial payments to the exchequer, with 77% of corporate tax receipts coming from this sector and their employees account for 40% of USC and income tax in 2018.[3] The value added of the pharma and computer and electronic sectors in manufacturing is almost entirely driven by MNEs. This is also true for corporate tax receipts, where MNEs account for the bulk of the ICT and manufacturing sectors. Similarly, the top 20 exporting firms are dominated by firms in the Tech and pharma sectors, as they accounted for 83% of the exports of the top 20 group in 2015 (Figure 2).[4] In addition, these firms employ highly skilled people, reflected in the relatively high wages paid by US owned MNEs in Ireland compared to the wages paid by domestic firms (Figure 3).

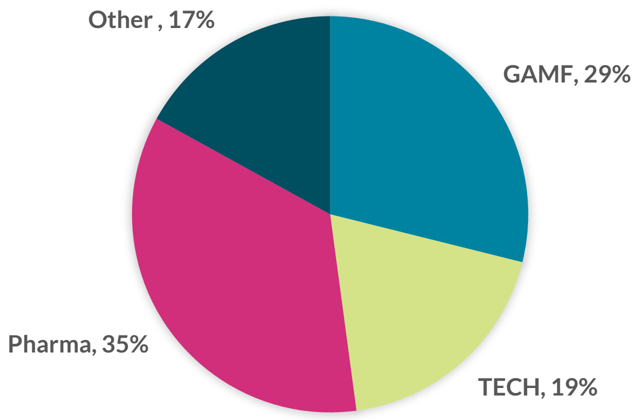
[1] For brevity, throughout this note we use MNEs to refer to foreign-owned multinational enterprises.
[2] The business economy includes manufacturing, construction, retail, wholesale, hotels, restaurants, transport, information and communication (ICT), real estate, professional services and leasing services. It does not include agriculture, financial/insurance services or public sectors like health and education.
[3] Source: Corporation Tax Payments & Returns 2018, Revenue May 2019.
[4] "Top 250 Exporters in Ireland and Northern Ireland 2015", The Irish Exporters Association (2015).

Figure 1: MNE Share of Business Sector Activity



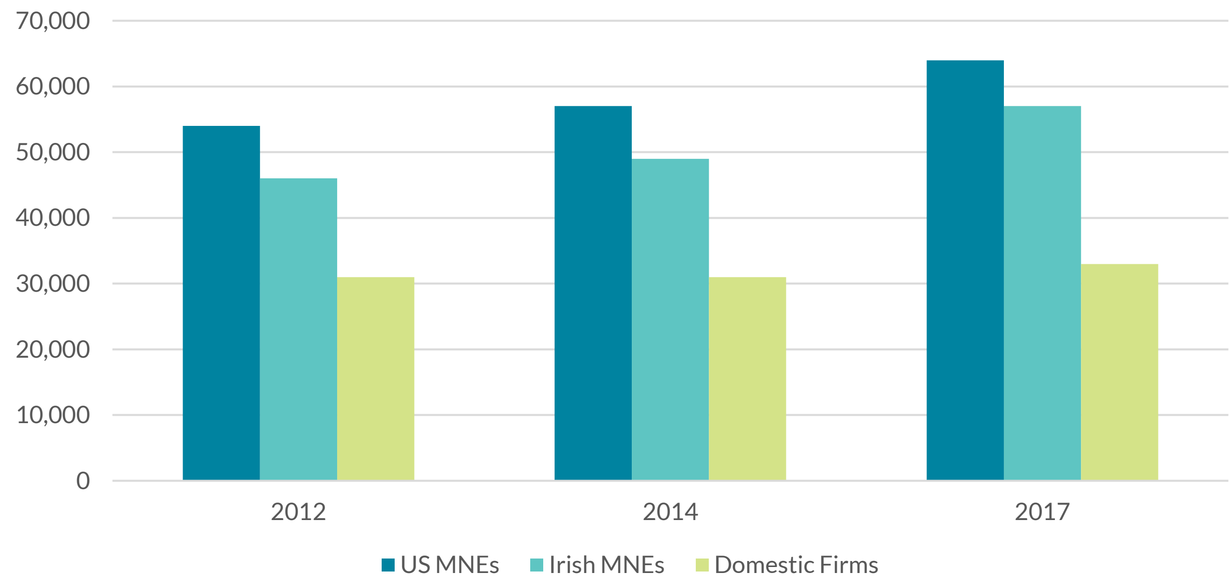
Source: Eurostat, latest available year 2014
Note: Percent of total.

Figure 2: Pharma and Tech Firms Dominate the Top 20 Exporters



Source: The Irish Exporters Association (2015) "Top 250 Exporters in Ireland and Northern Ireland 2015".
Note: The firms are: Microsoft Ireland, Google Ireland, Apple Ireland, Facebook Ireland, Dell Products, Oracle EMEA, Intel Ireland, Kingston Technology International, Sandisk International, Medtronic Ireland, Johnson & Johnson in Ireland, Actavis, Pfizer Global, Boston, Scientific Group, Perrigo Co, MSD Ireland, Ingersoll Rand, Smurfit Kappa Group, Kerry Group, Total Produce.

Figure 3: Average Wages Paid to Irish Employees by US MNEs and Domestic Firms



Source: Foreign Direct Investment in Ireland 2017, CSO.
Note: Average annual wages in euro.

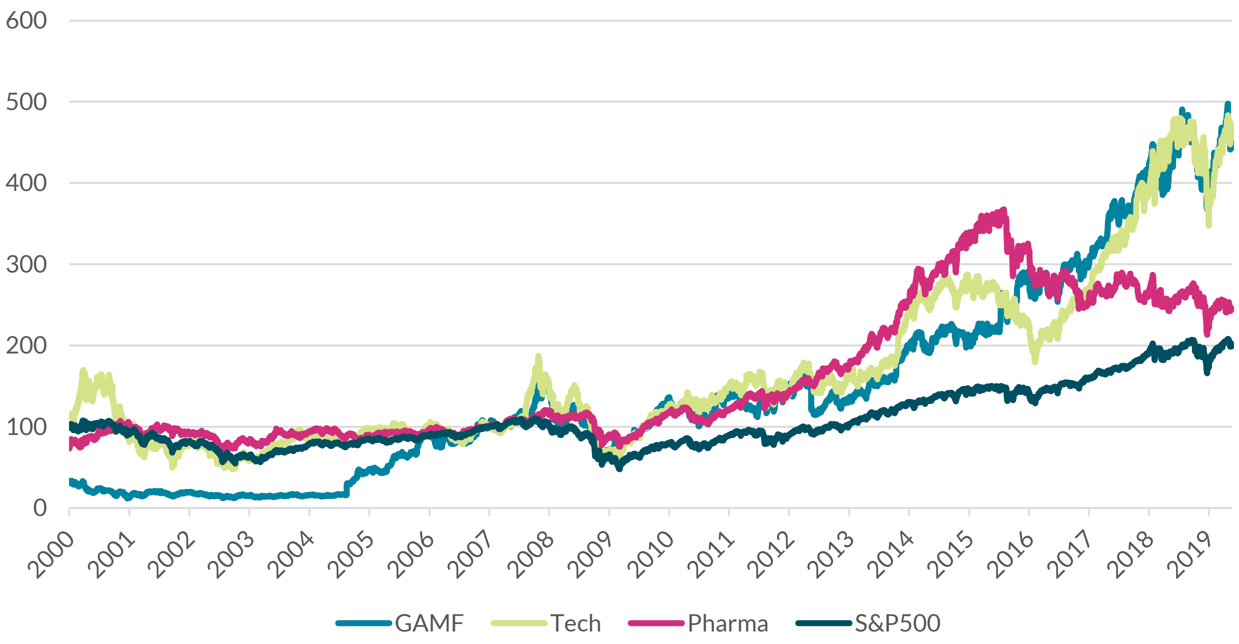
In addition to national and sectoral level data, this box examines firm level indicators to increase understanding of the individual MNEs. MNE level information provides insight into the opportunities and challenges the firms face and a deeper understanding of the sectors in which they operate. In turn, this will help monitor areas of vulnerability and opportunities for the Irish economy more broadly. Monitoring this sector is important given the amount of jobs, tax revenue and value added it creates in Ireland.

This box takes a closer look at the top MNEs in Ireland, as defined by their exports. We examine what sectors they are in, how their equity and profits have performed, and some characteristics that explain their performance. We divide these exporters as three groups, GAMF (Google, Apple, Microsoft and Facebook), Tech and Pharma. The GAMF group consists of what are often denoted as "superstar firms" that have substantial operations located in Ireland.[5] Tech refers to the largest remaining ICT firms operating in Ireland; we make this distinction to highlight the different types of firms engaging in the ICT sector. The tech sector includes some particularly large employers in Ireland, who have had a longstanding relationship with the country. Pharma refers to those firms engaged in pharmaceutical and life sciences activities, which now accounts for the majority of Ireland's merchandise exports.

[5] The inclusion of Microsoft in the group is consistent with existing research. See: Ayyagari, Meghana, Demirguc-Kunt, Asli, and Maksimovic, Vojislav (2018). "Who are America's star firms?", World Bank Policy Research Working Paper WPS8534.

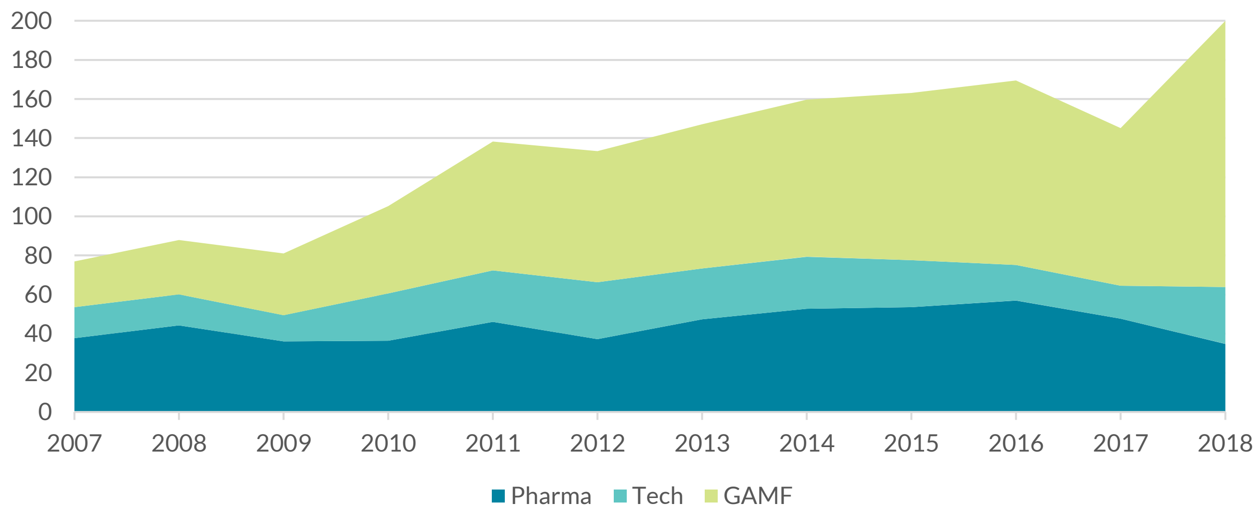
First, we consider the equity and profitability of the MNEs. The equity prices of the firms included in each of the three groups has consistently outperformed the S&P 500 over the past decade (Figure 4). The GAMF group in particular has experienced very strong profitability growth over the last decade (Figure 5). For Pharma, there is evidence of a slowdown in profitability and some decline in equity market valuations. When thinking of the resilience of the economy, it is important to consider the future prospects of these MNEs. In this way, in addition to equity prices, growth in forecast earnings for these companies can also be informative. The tech and GAMF groups have a positive outlook for the next 12 months, albeit weakening somewhat in recent months, while the forecast for the Pharma sector is somewhat less positive (Figure 6). The latter may be related to the fact that the Pharma sector also has higher operating expenses compared to the tech sector generally, and particularly the GAMF group (Figure 7).

Figure 4: Equity Performance vs S&P 500



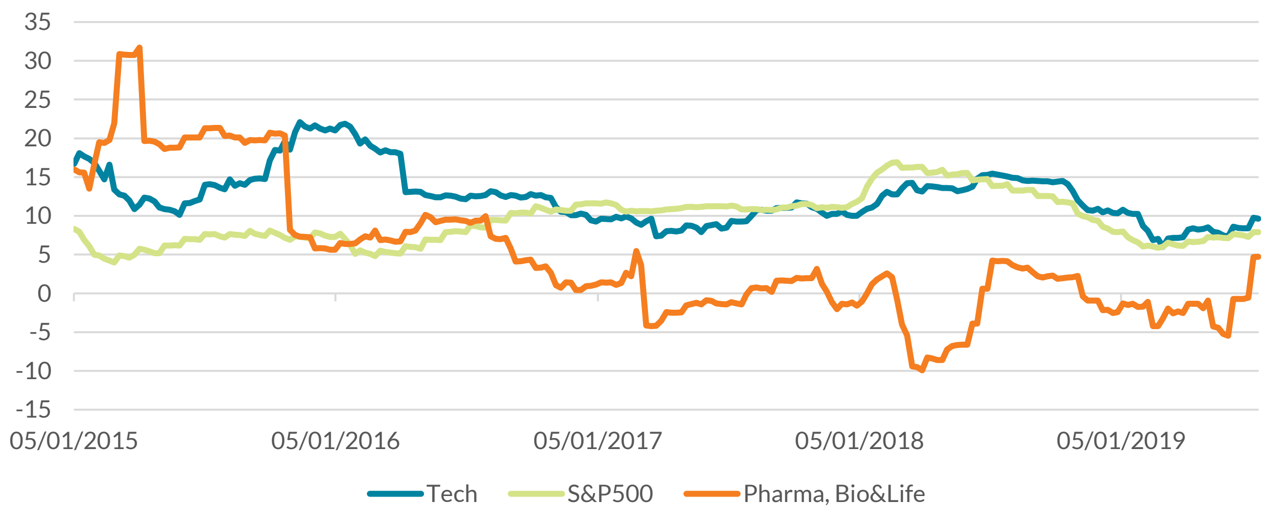
Source: Bloomberg
Note: 2007=100, average within group. Based on 24 large MNEs operating in Ireland. GAMF refers to Google, Apple, Microsoft and Facebook. Tech consists of 6 companies: Adobe, Dell, Intel, Oracle, VMware, WesternDigital. Pharma includes 14 companies, namely: AbbottLab, Alexion, Allergan, Baxter, BostonScientific, Gilead, Johnson & Johnson, Mallinckrodt, Medtronic, McKesson, Merck, Perrigo, Pfizer, and Takeda.

Figure 5: MNE Profits



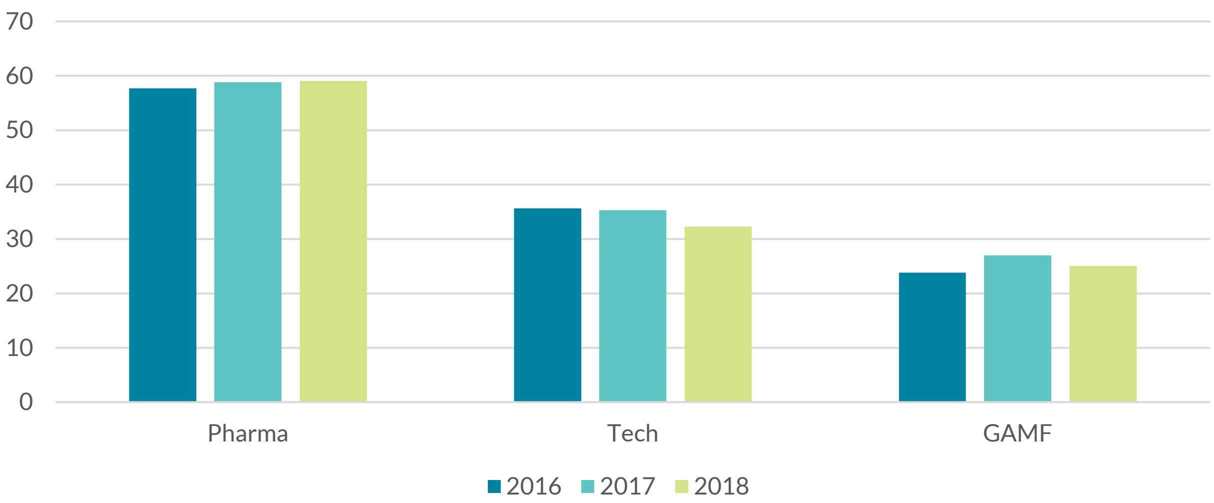
Source: Bloomberg
Note: Billions of USD, based on 24 large MNEs operating in Ireland. GAMF refers to Google, Apple, Microsoft and Facebook. Tech consists of 6 companies: Adobe, Dell, Intel, Oracle, VMware, WesternDigital. Pharma includes 14 companies, namely: AbbottLab, Alexion, Allergan, Baxter, BostonScientific, Gilead, Johnson & Johnson, Mallinckrodt, Medtronic, McKesson, Merck, Perrigo, Pfizer, and Takeda.

Figure 6: Forecast Earnings Per Share



Source: Thomson Reuters I/B/E/S
Note: year-on-year growth in 12 months forecast of earnings per share in per cent. Forecasts are subject to uncertainty. Sectoral groups are those defined by I/B/E/S and may include firms other than those referred to in other charts.

Figure 7: Operating Expenses Revenue Ratio



Source: Bloomberg
Note: Based on 24 large MNEs operating in Ireland. GAMF refers to Google, Apple, Microsoft and Facebook. Tech consists of 6 companies: Adobe, Dell, Intel, Oracle, VMware, WesternDigital. Pharma includes 14 companies, namely: AbbottLab, Alexion, Allergan, Baxter, BostonScientific, Gilead, Johnson & Johnson, Mallinckrodt, Medtronic, McKesson, Merck, Perrigo, Pfizer, and Takeda.

While it has performed strongly relative to the S&P 500, the Pharma sector has faced a number of challenges in recent years. According to Deloitte (2018), the return on R&D in the pharma sector has declined from just over 10% in 2010, to barely 2% in 2018, while the cost of bringing an individual product to market has increased from USD 1.2 billion to USD 2.2 billion over the same period.[6] This may be because, in order to introduce new drugs, Pharma companies must undertake increasingly complex and expensive R&D activities, as much of the 'low hanging fruit' has already been discovered. At the same time, new products are subject to intense regulatory scrutiny. While the aim of the regulations is to ensure the safety and efficacy of medicines, they also increase the cost of introducing new products, reducing firm's return on investment. At the same time, current revenue streams are threatened by the expiry of existing patents, which exposes highly profitable products to competition from generic drugs and biosimilars.[7] Despite this, industry analysis suggests that the prospects for the sector remain promising, as global healthcare expenditure is expected to rise, with smaller firms and the life sciences expected to outperform some of the large established firms (Deloitte 2019).[8]

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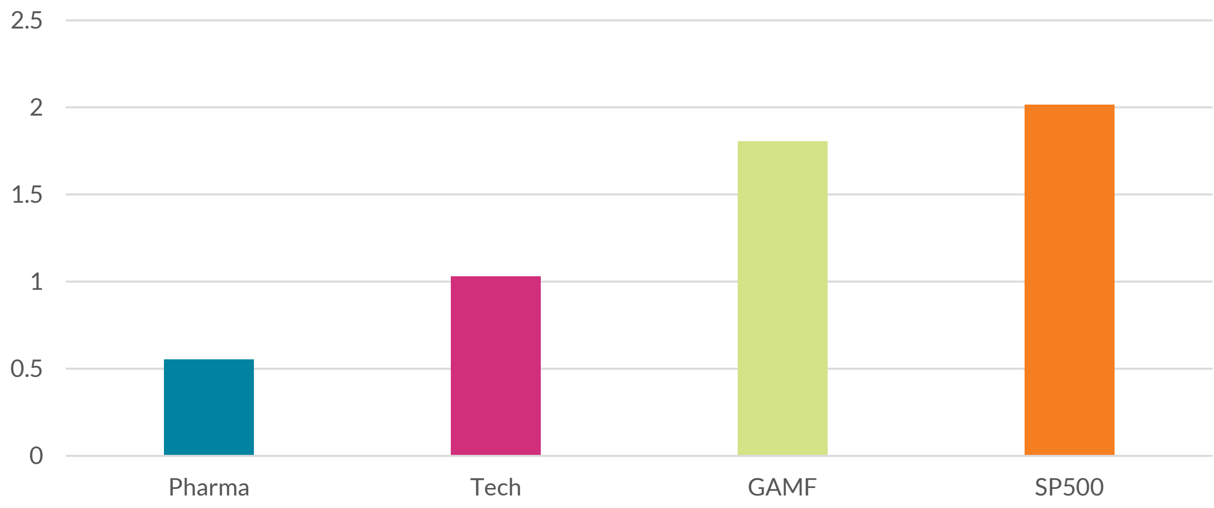
[6] Deloitte (2018) "Unlocking R&D productivity: Measuring the return from pharmaceutical innovation 2018." Deloitte Centre for Healthcare Solutions.
[7] The ending of pharmaceutical patents were seen to have had a noticeable impact on Irish national accounts in 2012 and 2013, when a number of blockbuster drugs manufactured in Ireland went off patent. See: Fitzgerald, John (2013) "The Effect on Major National Accounting Aggregates of the Ending of Pharmaceuticals Patents." ESRI Research Note, Economic and Social Research Institute.
[8] Deloitte (2019) "2019 Global life sciences outlook: Focus and transform – Accelerating changes in life sciences." Deloitte.

Although the Tech sector in general has performed very well, the performance of the GAMF group has been exceptional. The success of the Tech sector generally can be attributed to its new products and innovations. What separates the GAMF group is the additional network externalities associated with the widespread use of their products. Some research suggests that this has endowed these firms with considerable market-power, such that they can charge higher mark-ups and generate greater profitability than other, smaller firms.[9] For the Tech sector generally, the rapid pace of technological innovation constantly creates opportunities for new entrants to disrupt the existing business models of incumbent firms. However, the enormous market valuation and cash holdings of the GAMF companies often gives them the ability to purchase potential new entrants before they become a threat.[10] Taken together, these factors not only help profitability in the short run, but may also increase their ability to maintain dominant market positions and high profitability into the future. One risk for large firms is that their market power has raised anti-trust concerns which could constrain their ambitions. Concerns around data ownership and data privacy also present a challenge to these firms.

While global capital investment by the MNEs is substantial in absolute terms, their capital expenditure to assets ratio is relatively low. Many of the firms operating in Ireland have a lower (global) tangible capital investment to assets ratio than other S&P 500 firms (Figure 8).[11] At the same time, intangible capital is becoming increasingly important for many firms. Since 2014, the book value of the S&P 500 has increased, but this increase has been entirely due to intangible capital as the book value of their tangible capital has actually declined (Figure 9). It is also notable that the intangible share of income is particularly high in the pharma and tech sectors (Figure 10).

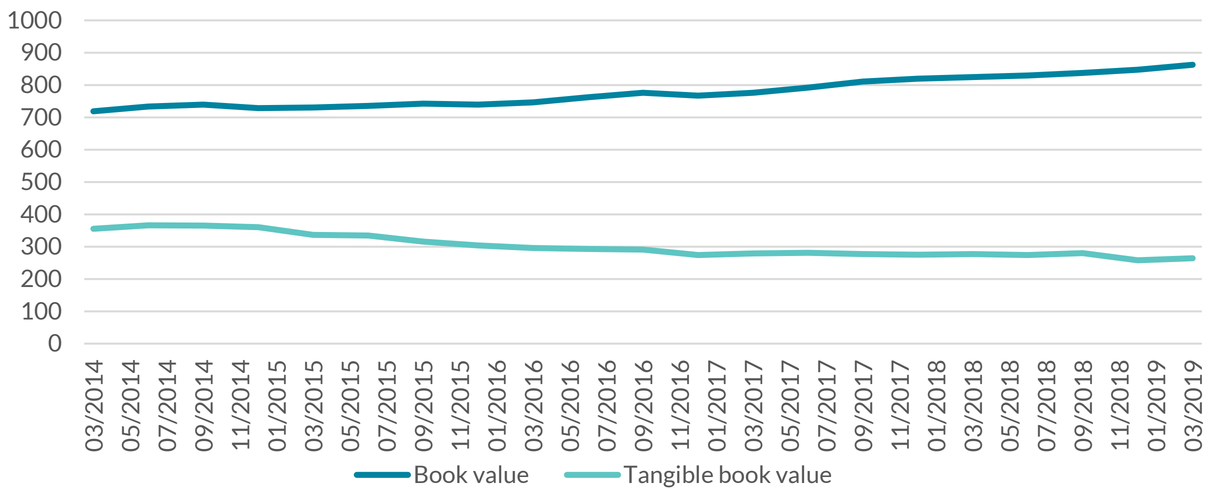
[9] Autor, David H. and Dorn, David and Katz, Lawrence F. and Patterson, Christina and Van Reenen, John, (2017). "The Fall of the Labor Share and the Rise of Superstar Firms". CEPR Discussion Paper, No. DP. 12041.
[10] See for example, the purchase by Facebook of Instagram in 2012, and Whatsapp in 2014.
[11] The low number for Pharma partly reflects the large value of assets held by firms in this sector.

Figure 8: Capital Expenditure to Assets Ratio (Q4 2018)



Source: Bloomberg
Note: Based on 24 large MNEs operating in Ireland. GAMF refers to Google, Apple, Microsoft and Facebook. Tech consists of 6 companies: Adobe, Dell, Intel, Oracle, VMware, WesternDigital. Pharma includes 14 companies, namely: AbbottLab, Alexion, Allergan, Baxter, BostonScientific, Gilead, Johnson & Johnson, Mallinckrodt, Medtronic, McKesson, Merck, Perrido, Pfizer and Takeda.

Figure 9: Book Value and Tangible Book Value Per Share

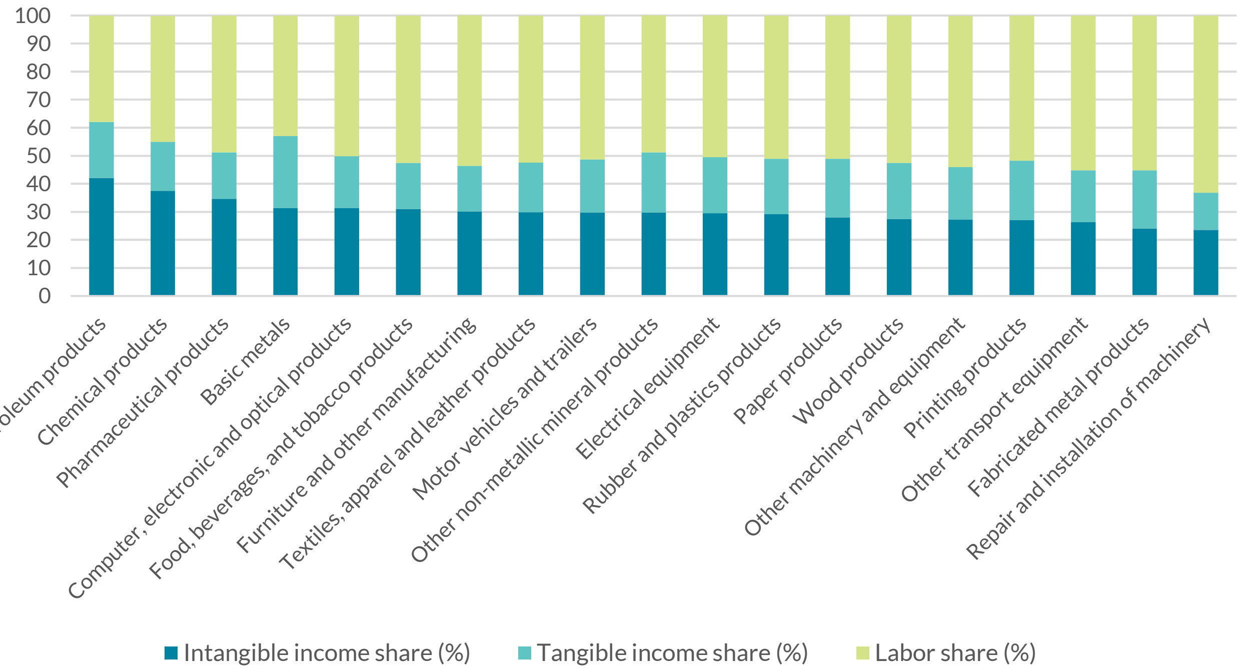


Source: Bloomberg
Note: Book value and tangible book value per share of firms on the S&P 500.

The increasing role of intangibles is particularly important for US controlled MNEs in Ireland. Although considerable in absolute terms, US firms have not invested in tangible capital assets in Ireland in proportion to the share of profits and value added reported here. This also reflects the type of value added created in Ireland, with services playing an increasingly prominent role relative to manufacturing. Similarly, as Ireland has moved up the value chain, MNEs increasingly require highly skilled employees. This is reflected in the relatively high wages paid to employees in US owned MNEs in Ireland compared to those in domestic firms. In addition, foreign MNEs are increasingly taking advantage of tax supports aimed at R&D activity in Ireland, thereby increasing the investment in intangibles generated here.[12]

It follows that the highly profitable firms located in Ireland are often more reliant on intellectual property assets than physical capital. However, the more mobile nature of these assets means that their location, and the location of the associated profitability in Ireland, may be especially sensitive to pull factors such as low taxation, a supportive business environment or the availability of skilled workers.

Figure 10: Income Share as a Percentage of Total, by Sector (2014)



Source: Chen et al. (2017)
Note: Percent of Total.

MNEs make a valuable contribution to the Irish economy and hosting these firms creates both opportunities and vulnerabilities for Ireland. These firms have consistently outperformed the S&P 500 and the short-term outlook is positive, particularly for tech firms. Intangible capital is a central driver of profitability, as these firms have relatively low operating expenses and tangible capital expenditure.

[12] Revenue Commissioners, R+D Tax Credit Statistics.

Although it would be difficult to create the necessary conditions, the presence of these high-tech MNEs could provide Ireland with an opportunity to become established as a global R&D hub. Capturing new R&D activity allows Ireland to establish itself higher up the global value chain. This provides scope for further spillovers and trickle-down effects to the domestic economy. However, the importance of mobile intangible assets also implies a vulnerability for Ireland. With less tangible investment anchoring some of these firms, these activities may be less anchored than more physical capital intensive MNEs. Given the relative size of the MNE sector, it is important to build the resilience of the Irish economy to possible shocks to the sector. [13]

[13] Financial Stability Review, Central Bank of Ireland, 2019:1.