Business Investment in NI

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Contents

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Glossary

Term	Definition
Private Equity (PE)	PE is a type of medium to long term finance in which a private equity firm will take an equity stake in a business in return for cash and expertise to grow the business.
Venture Capital (VC)	VC is a form of finance that focuses on early-stage, innovative firms with growth potential. VC funds buy equity stakes in return for financial support and expertise.
Buyout	The purchase of majority/controlling stake in a business (>50%).
Gearing	Gearing assesses the extent to which a firm's operations is funded by debt compared to equity capital.
Debt finance	Finance which involves borrowing money from lenders, to raise capital, which is to be repaid with interest.
Equity finance	Finance which involves a company selling shares to raise capital.
Capital expenditure	Expenses associated with acquiring, upgrading and maintaining physical assets.

Executive Summary

Introduction

- Capital investment is widely recognised as a crucial driver of economic growth, with strong evidence linking higher business investment to increased productivity. Northern Ireland (NI) has been seen as a 'converging' region within the UK, where, despite initially lagging behind the UK average in terms of investment, it has experienced above-average growth in this area over the past two decades. Despite this, the rise in investment has not been matched by a proportional increase in productivity.

- The financial health of companies is closely linked to their investment strategies, with firms choosing to finance investments through internal, external, or mixed sources. Prior research shows that internal resources play a significant role in business investment, especially for Small and Medium-sized Enterprises (SMEs), who face additional challenges in accessing external finance. Despite business investment being fundamentally an individual business decision, however, there has been little research undertaken in NI at the firm level to understand business investment and how its financed, partly due to data constraints.

- The aim of this research project is to address this gap in knowledge to better understand investment at the firm level, including the type, scale and motivation for business investment and to understand more about the financial health of firms and how investment is financed.

Business Investment

- Business investment is when firms allocate funds to purchase, maintain or improve their long-term assets to increase operational efficiency or to generate future income. These investments are typically to acquire physical or intangible assets. At the UK level business investment has increased in monetary terms, but as a share of GDP, it has fallen over the long-term. More recent factors which have curtailed investment include Brexit, the Covid-19 pandemic and austerity measures, fuelled by widespread uncertainty.

- In NI there has been stronger growth in investment in intangibles, than physical assets, over recent decades. Business R&D spend in NI, as a share of the UK, is now commensurate with the region's share of the economy despite it being a riskier form of investment due to the uncertainty in outcomes. But patenting activity remains lower, and innovation activity is also below the UK average.

- Theory suggests that businesses fund investment in a certain order due to asymmetric information, issues around ownership and control, and the cost of capital. The preference is for funding via the path of least resistance and

low cost, with internal resources preferred, followed by low-risk debt and finally via issuing equity. Survey evidence confirms this pattern for UK businesses regardless of size, even though larger firms are less likely to face the same external financing constraints as SMEs. But this preference is also linked to underinvestment due to the inability to self-fund, or to self-fund at a constrained level, and a reluctance to take on risk, which can lead to missed growth opportunities. Financial literacy, in particular lack of awareness and understanding of the range of financing options for investment, compounds the issue particularly for SMEs. While for firms of all sizes the higher cost of debt capital and economic uncertainty, which induces caution, influences the preference for self-financing.

Business Investment Activity in NI

- Secondary data points to less optimism in NI about future expectations for capital expenditure than other UK regions. Replacement and efficiency improvements are the main motivations for investing but investment in technology is particularly low. Although not unique to NI, SMEs prefer internal financing, limiting the scale of potential investments. The use of external finance has increased in recent years but primarily due to the use of pandemic-related loans rather than specifically for investment reasons. In fact, ongoing economic uncertainty continues to make businesses more cautious about future investment. Barriers to external finance are also higher in NI compared to Scotland and Wales, but there are also sub-regional variations in NI in terms of awareness of, and use of, external sources. NI's share of private equity and venture capital remains minimal, mainly concentrated in consumer goods and services.

- NI businesses show mixed results in financial health and investment compared to other UK regions and the Republic of Ireland (RoI). In certain sectors NI businesses perform well in terms of financial metrics such as profit margins and return on capital employed but fall behind in intangible assets and investment levels. Despite this, there are no significant differences between regions, suggesting factors such as risk aversion, and lower awareness of finance options, may explain the lower investment levels in NI.

Business Investment Consultations

- Over the past few years, businesses in NI that have engaged in investment have done so consistently although not always at the same scale each year. Their focus remains primarily on capital investment, particularly in property and machinery, but there's a growing shift towards digitalisation and automation. Amongst the consultees, there was evidence that R&D is also widespread, though often under-reported and lacking formal protection of outputs. As in previous findings, most businesses still prefer self-financing through internal cash reserves, with external financing being used more sparingly. While the banking environment has traditionally been conservative, the rise of alternative financing options has been met with

limited uptake. Business owners and advisors often lack awareness of these options, compounded by a reliance on long-standing bank relationships. Furthermore, the financial support landscape remains fragmented and challenging to navigate, with concerns also raised about losing control through equity investment.

- Despite these barriers, businesses actively utilise available support mechanisms, including widespread use of R&D tax credits. However, recent HMRC crackdowns have created significant uncertainty, causing many SMEs to pull back from applying for R&D support. On top of this, recent policy changes, such as increases in National Insurance Contributions and the National Living Wage, have raised concern about future investment capacity. The rise in employee costs could lead to staff reductions and an accelerated push toward automation. In light of these pressures, businesses are calling for a shift in policy—one that prioritises productivity-focused support over job creation, improves the planning system, and addresses the rising costs of energy and ongoing skill shortages.

Policy Considerations

- Constraints on business investment significantly hinder productivity growth, making it crucial for policy to address system weaknesses. While short-term policy changes may be challenging due to the current economic climate, long-term strategies should focus on overcoming financing and capability barriers for investment. Key actions include improving financial literacy for SMEs and raising awareness of the range of financing options; expanding access to and uptake of diverse funding sources; fostering a stronger investment culture and enhancing innovation capabilities to tackle Northern Ireland's investment challenges. When seeking to address these issues, thought should also be given to ensuring these aspects are embedded within management and leadership training. The UUEPC has previously highlighted this as an area for improvement in NI[1] while wider analysis points to better managed firms being more likely to invest, and to invest more[2].
- **Improving Financial Literacy and Access to Finance**: Businesses in NI of all sizes predominantly rely on internal funds for investment, which leads to slower growth and underinvestment. To address this, and reduce information asymmetry, policy should enhance awareness and understanding of diverse finance options through workshops, webinars, and peer case studies. For larger firms, for which access to finance may be less of a challenge than SMEs, there is still the need to encourage the use of alternative forms of finance to support growth beyond that enabled by internal financial capability. Although there will be a time lag between awareness raising and changed behaviour, a continuation of support for existing provision which currently includes the British Business Bank Investment Fund roadshows, the E-ConX service, 'Meet the Funder' events and Investor readiness programmes such as Founder Labs, should gradually

[1] UUEPC Management & Leadership Training in NI SMEs

[2] Department for Business & Trade Business Investment Analysis

help to change investment culture. Providing pre-accelerator programmes for startups and tech-oriented businesses could also improve investor readiness, while on the supply-side an improved understanding of revenue models for new industries would help align business needs with the right financial solutions and metrics for measurement.

- **Cultivating a Strong Investment Culture**: While many businesses are investing regularly, the focus is primarily on replacement rather than new technologies or innovations. Encouraging investment in areas such as technology, new products, services, and talent is critical for future growth, particularly in AI, digital transformation, and sustainability. Increased access to R&D grants, especially for SMEs, and the reintroduction of productivity-focused grants would help mitigate risk aversion and promote innovation. There is also a need to ensure that firms in NI are not at a competitive disadvantage in relation to those in the RoI or the UK, particularly in relation to access to capital grants[3]. Shifting mindsets to view investment as a path to growth and value creation is also key. Behavioural change in business can be complex and long-term in nature and involves understanding organisational culture, leadership and motivation. Interventions can support change but are often time-intensive involving weeks-long commitment from businesses. Given time constraints, particularly within SMEs, consideration should be given to lighter touch interventions which can help support change through new habit formation[4].
- **Enhancing Innovation Capabilities**: Although R&D spending in NI has risen, it remains concentrated in relatively few firms[5]. Likewise, the share of businesses with innovation-related expenditure is lower in NI than the UK for both SMEs and large firms, and innovation activity lags behind other regions. To further develop innovation capabilities, SMEs need better access to skilled talent and the ability to leverage existing innovation support programmes, such as those offering industry-academic linkages. Addressing recruitment challenges and enhancing awareness of these resources will be vital in overcoming current capability limitations and fostering broader innovation across the business base.

[3] Previous research, for example, has highlighted the risk to large food manufacturers in NI that are excluded from capital grant schemes: Independent Strategic Review of NI Agri-Food reports

[4] For example, see: Developing a Scalable Solution to Improve SME Productivity: A Pilot Study - The Productivity Institute

[5] In 2023 there were 1,278 R&D performing firms in NI (Source: NISRA R&D Survey).

1. Introduction

1.1 Capital investment is widely regarded as a key means to improve the productive capacity of the economy with evidence showing a clear link between higher business investment (measured as capital investment per hour worked) and higher productivity[6]. Northern Ireland (NI) has been considered a 'converging' region in the UK in that while the level of investment per hour worked, and intangible investment per hour worked, were lower than the UK average in the late 1990s both measures have experienced above average growth in the subsequent two decades. Although a positive, NI is still a mid-table performer across the UK regions in terms of intangibles investment[7]. The increase in investment also does not seem to have translated to the same level of productivity increase, with output per hour still 13% below the UK average in 2022 (Figure 1.1)[8].

Figure 1.1: Index of UK labour productivity (GVA per hour worked), 2022, UK regions (UK=100)

Source: ONS

[6] Becker, M., Martin, J. (2023). New Insights on Regional Capital Investment in the UK, 1997-2019. Productivity Insights Paper, No. 016. The Productivity Institute.

[7] UUEPC Outlook Winter 2024

[8] ONS annual labour productivity indices by subregion

1.2 Prior research on investment has typically been carried out at the UK level, and to some degree, the regional level, but less is understood from a firm-level perspective, despite investment being fundamentally an individual business decision. To address this gap, and despite data limitations, the aim of this research project is to better understand investment at the firm level including the type, scale and motivation for business investment and also to understand more about how investment is financed.

1.3 The financial health of companies is found to be linked to their investment strategies as firms choose to finance investment from either internal or external sources, or a combination of both. Previous research has provided the following insights:

- The level of corporate investment is affected by internal resources[9] because of the presence of asymmetric information between the firm and the market. SMEs in particular are more likely to face constraints accessing external finance due to a lower willingness by banks to lend because default risks are negatively associated with firm size and firm age; higher relative costs for financial institutions for appraisal and monitoring; and higher relative costs for liquidising assets in case of default[10]. As a result, internally generated cash flow is thought to be the most likely source of funds for investments[11].
- It is also the case that firms with greater internal cash flow may find it easier to obtain external finance, as they will be perceived as less risky by lenders[12].
- Under/ over-investment is linked to the degree of financial distress of a company[13].

1.4 Given the importance of the financial health of a company, regardless of how it seeks to finance its investment, the research also aims to analyse company financials as part of the wider understanding of business

[9] Kadapakkam et al. (1998). The impact of cash flows and firm size on investment: the international evidence. *Journal of Banking and Finance*, Vol. 22:293-320

[10] Kersten, R., Harms, J., Liket, K., Maas, K. (2017) Small Firms, Large Impact? A systematic review of the SME Finance Literature, *World Development*, Vol. 97: 330-348,

[11] Bhagat, S., Moyen, N. and Suh, I. (2005). Investment and internal funds of distressed firms, *Journal of Corporate Finance*, Vol.11 (3): 449-472

[12] Guariglia, A., (2008). Internal financial constraints, external financial constraints, and investment choice: Evidence from a panel of UK firms, *Journal of Banking & Finance*, Vol. 32(9): 1795-1809

[13] López-Gutiérrez, C., Sanfilippo-Azofra, S., & Torre-Olmo, B. (2015). Investment decisions of companies in financial distress. *BRQ Business Research Quarterly*, Vol. 18(3): 174-187.

investment. Firms in NI will be compared with those in the same sectors in other UK regions and the Republic of Ireland (RoI) to assess whether there are any differences that could help explain regional variations in investment activity.

1.5 Using a combination of secondary data sources, commercial datasets and qualitative interviews, the main research questions the study aims to address are:

- *At the firm-level what do we know about business investment in NI and how does that compare to elsewhere in the UK and RoI?*
- *How is business investment financed and what impacts the decision?*
- *How does the financial profile of businesses in NI sectors compare to those in the same sectors elsewhere and what potential impact does this have on business investment?*
- *What are the potential policy lessons to be learned?*

2. Literature Review: Business Investment

Introduction

2.1 Since the 1980s, the UK has experienced persistent underinvestment, as measured by Gross Fixed Capital Formation (GFCF), compared to other G7 countries. In the 1980s, investment in the UK was about 23% of GDP however, by the 2000s, this figure had dropped to 17%, and in 2023, it stood at just 18%. In contrast, investment rates in other G7 nations have remained consistently between 20% and 25%[14].

2.2 Business investment[15] in the UK also experienced a similar decline (Figure 2.1), particularly during and after the 1990s recession. It was impacted further by the economic downturn of 2007-08, which saw a significant reduction in machinery and equipment investment in particular. More recent factors, such as Brexit, the Covid-19 pandemic, and austerity measures, have also played a role in holding back investment, driven primarily by widespread uncertainty[16]. Research has shown that uncertainty "increases the separation between the marginal product of capital which justifies investment and the marginal product of capital which justifies disinvestment" (p391)[17], essentially indicating that firms prefer to wait and see rather than engage in action with uncertain consequences. Investment behaviour therefore becomes more cautious in uncertain circumstances. Furthermore, it is suggested that small single-unit firms reduce their investment more than large multi-unit firms during uncertainty shocks[18].

[14] D. Coyle, B. van Ark, and J. Pendrill (eds) (2023) The Productivity Agenda. Report No. 001. The Productivity Institute

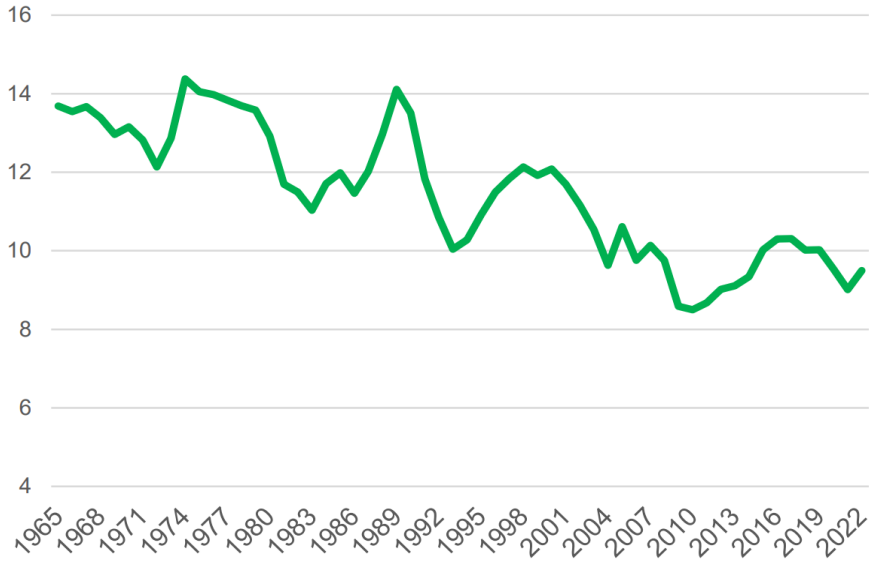
[15] This is defined as total investment minus government and dwellings investment.

[16] Economics Observatory (2024). Available at: Boosting productivity: why doesn't the UK invest enough?

[17] Nick Bloom, Bond, S., & van Reenen, J. (2007). Uncertainty and Investment Dynamics. *The Review of Economic Studies*, 74(2), 391–415.

[18] Kim, Junhyong, (December 1, 2020). The Impact of Uncertainty Shocks on the Investment of Small and Large Firms: Micro Evidence and Macro Implications

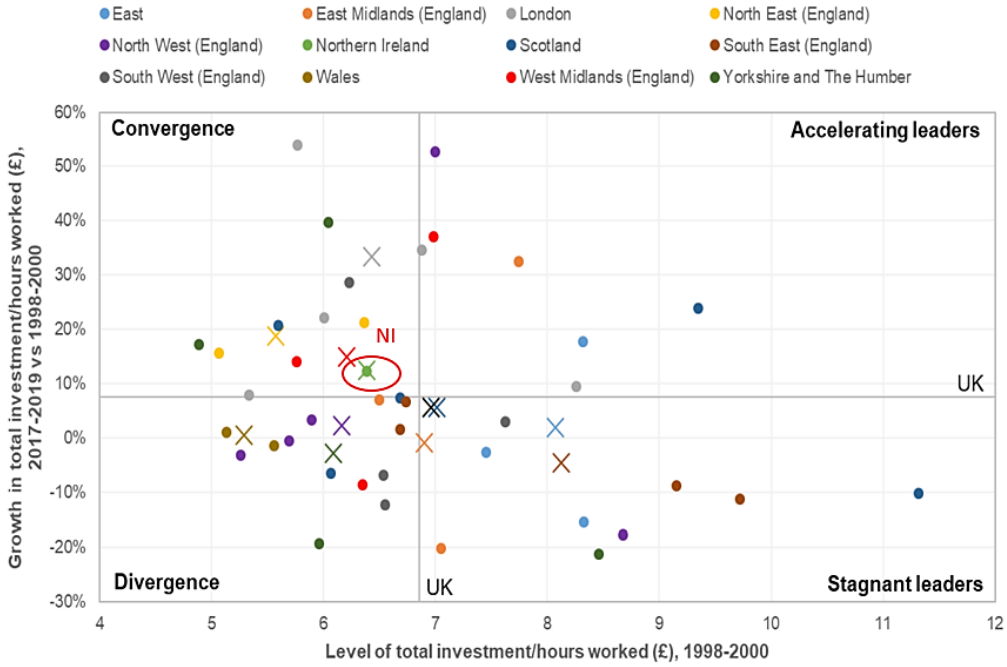
Figure 2.1: UK Business investment as a share of GDP (current prices)



Source: A. Alayande, D. Coyle (2023) Investment in the UK: Longer Term Trends. Working Paper No. 040, The Productivity Institute

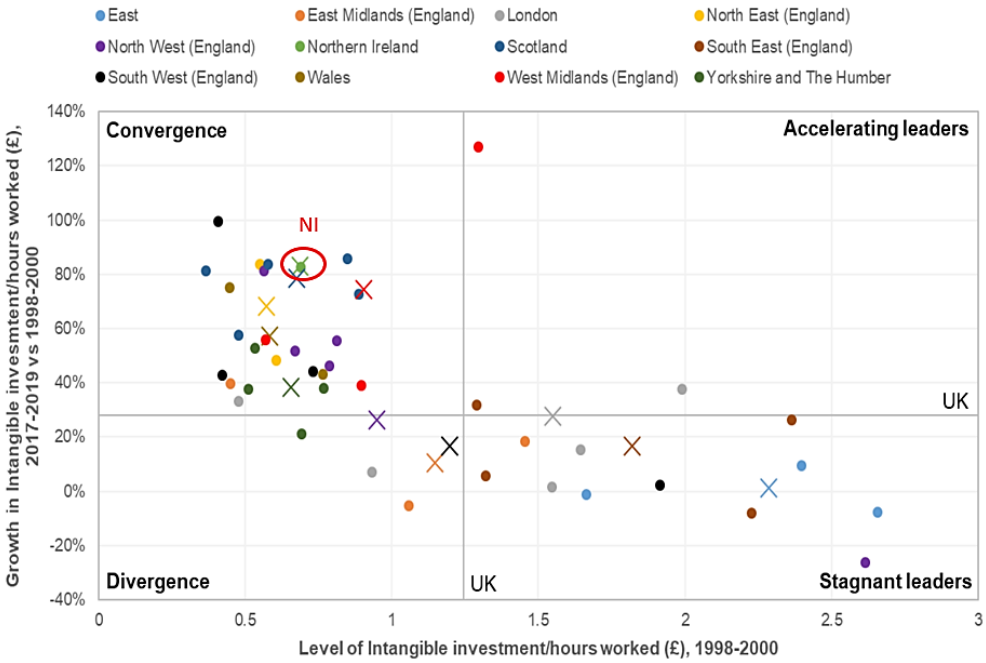
2.3 NI has experienced relatively low levels of investment in the past. Recent analysis, based on developments in regional data availability, shows NI to be a converging region in terms of total investment per hour worked and intangible investment per hour worked. Figures 2.2 and 2.3 show NI to lie in the top left-hand quadrant of both charts, indicating that NI's levels of investment were initially below the UK average over 1998-2000 but had above average growth in the period 1998-2000 to 2017-19. This convergence represents a catching up process due to the low initial levels, with Figure 2.3 showing intangible investment in NI to have been particularly low, but with a growth rate of around 80% during the period.

Figure 2.2: Level and growth of total investment per hour worked, 1998-2000 and 2017-19, ITL 1 and 2 regions



Source: M. Becker, J. Martin (2023) New insights on regional capital investment in the UK, 1997 to 2019. Productivity Insights Paper No. 016, The Productivity Institute

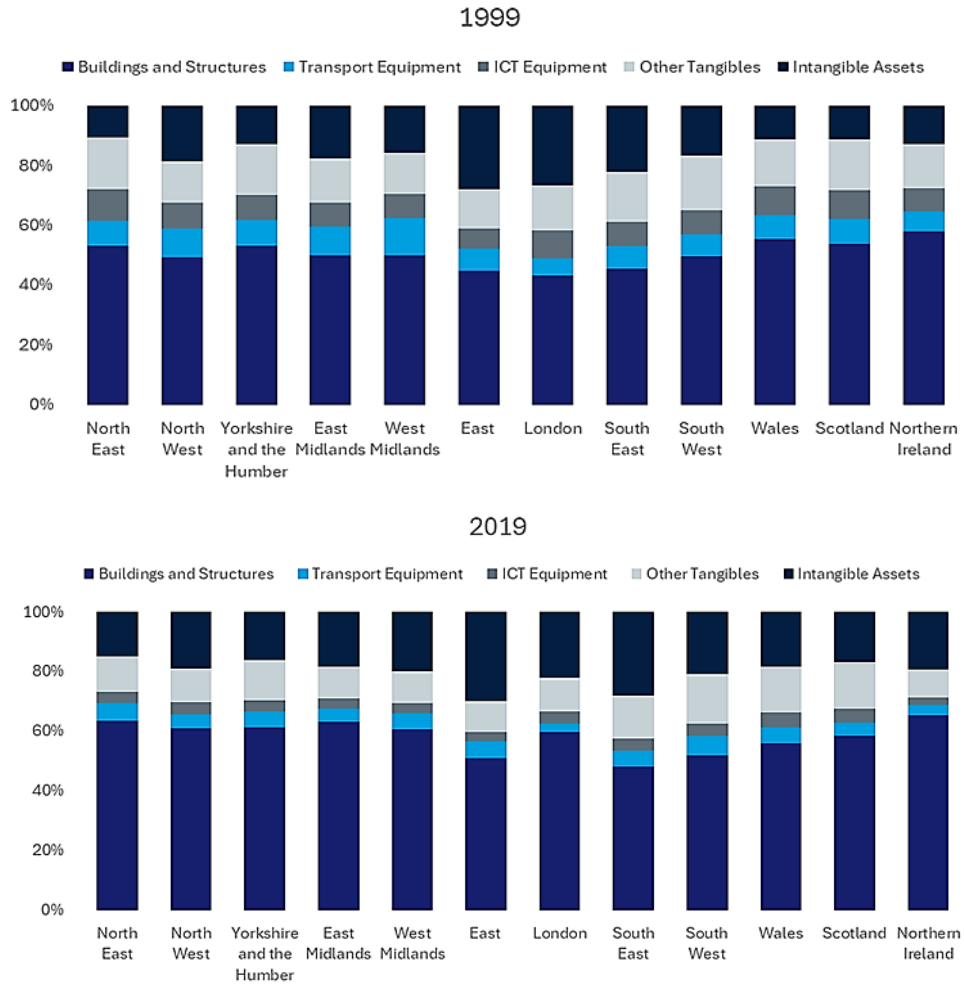
Figure 2.3: Level and growth of intangible investment per hour worked, 1998-2000 and 2017-19, ITL 1 and 2 regions



Source: M. Becker, J. Martin (2023) New insights on regional capital investment in the UK, 1997 to 2019. Productivity Insights Paper No. 016, The Productivity Institute

2.4 The growth in intangible investment in NI can further be seen by comparing the composition of total investment (GFCF) in 2019 relative to 1999. Figure 2.4 shows that investment in intangible assets[19] grew from 13% of total investment in NI to 19% in 2019. Consequently, the share of investment in 'other tangibles[20]', 'ICT equipment' and 'transport equipment' fell over the period. Although not directly comparable[21], investment in intangibles in the RoI accounted for 50% of total investment in 2022, which was higher than the EU average of 38%[22].

Figure 2.4: Components of Investment (GFCF), 1999 & 2019, UK regions



Source: ONS Experimental Regional GFCF estimates by asset type

[19] Intangible assets include R&D, mineral exploration and evaluation, computer software and databases, and entertainment, literary or artistic originals.

[20] Other tangible assets include other machinery and equipment, cultivated assets and weapons systems.

[21] The definition of intangible assets in the RoI is given as R&D, software, training and business processes.

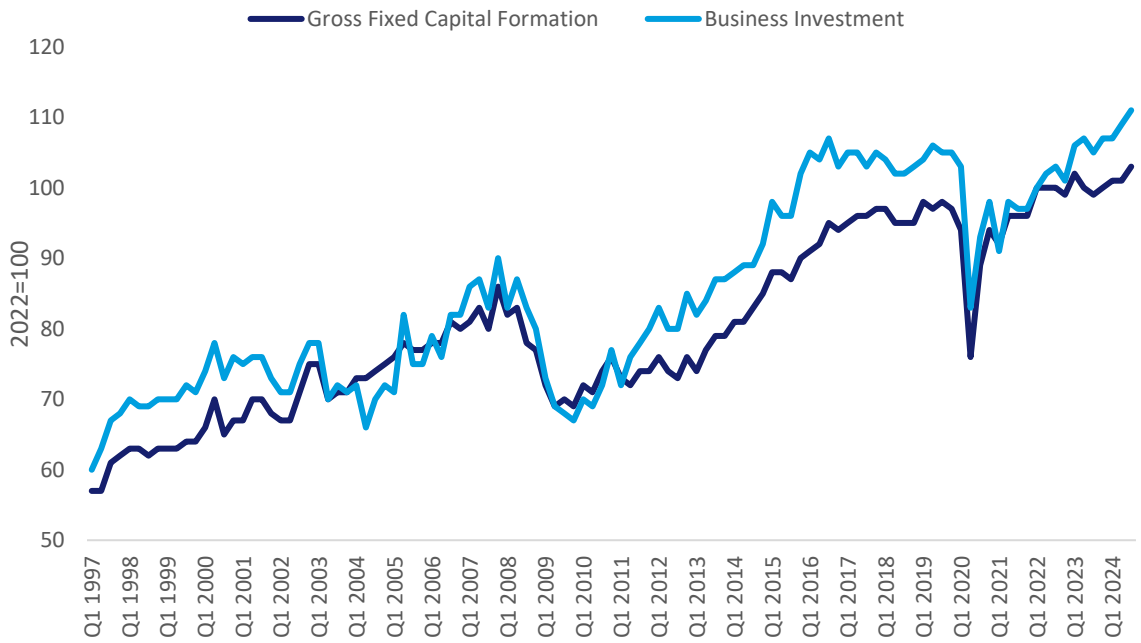
[22] EIB (2024)EIB Investment Survey Country Overview 2023: Ireland

Business Investment

2.5 Business investment is when firms allocate funds to purchase, maintain or improve their long-term assets to increase operational efficiency or to generate future income. These investments are typically to acquire physical assets such as machinery, buildings, land, or technology, as well as intangible assets such as intellectual property or research and development (R&D). Firms can also make investments in human capital whereby they invest in training and development to improve the skills, knowledge and ability of their employees.

2.6 As previously mentioned, business investment in the UK was negatively impacted by the financial crisis of 2007-08 and the Covid-19 pandemic. More recent data has shown that business investment has risen above pre-pandemic levels. Growth in business investment has also increased at a faster rate than total investment (GFCF), up 5.8% on the year to Q3 2024 compared to an increase of 3.9% for total investment (Figure 2.5). The largest contributors to business investment growth were increases in transport and buildings investment[23].

Figure 2.5: Index of total investment (GFCF) and business investment, seasonally adjusted, Q1 1997 – Q3 2024, UK (2022=100)



Source: ONS Business Investment

[23] ONS Business Investment in the UK

2.7 Businesses typically decide whether to make an investment based on their expectation of that investment's ability to yield a sufficiently high profit in return or to sufficiently lower costs. When demand in the economy is lower, that may make some investments less profitable and therefore less likely to go ahead[24]. In some sectors, particularly where the workforce is low-skilled and cheap (and flexible), there may also be no point in investing in more expensive new technologies or equipment[25]. Lower investment can also be associated with higher uncertainty, or the incentive to delay investment until there is more stability or clarity. Investments are often hard to reverse and typically involve upfront costs that cannot easily be recovered so when uncertainty is high it often makes sense for businesses to wait until future prospects are clearer before deciding whether it is worth incurring those fixed costs. Other factors, including the cost and availability of finance, will also influence investment decisions.

2.8 The IMF (2023)[26] analysed the UK's weak business investment through comparison with G7 peers, investigating the drivers of investment. At the macro level they show that business investment over the 1980-2022 period was constrained by high debt levels and Brexit-related uncertainty. Investment was, however, positively associated with firms' growth expectations and with public sector investment, suggesting a crowding-in effect. At the firm level, the results for UK firms showed a positive and significant coefficient for sales growth and return on assets meaning firms were more inclined to invest when they anticipated higher prospects. Likewise, those with higher levels of retained earnings were more likely to invest, indicating a preference for internal financing. There was also a positive effect from long-term debt, suggesting that those with access to long-term financing undertook higher investment. Sectors such as advanced manufacturing, transport, communications, health, education and research and development also all had higher levels of investment. Negative impacts on investment were found for the effective interest rate, emphasising the negative impact of higher borrowing costs. Brexit uncertainty and the Covid shock were also linked with lower investment levels.

[24] Bank of England bulletin - Influences on Investment by UK Businesses

[25] D. Coyle, B. van Ark, and J. Pendrill (eds) (2023). The Productivity Agenda. Report No. 001. The Productivity Institute

[26] Carella, A. Chen, R. Shao, X. (2023).Available at: Enhancing Business Investment in the United Kingdom.

Investment in Intangibles

2.9 Investment in intangibles includes outlay for items such as patents, brand development and research and development (R&D). In the UK, such investments are estimated to account for around 4% of GDP in 2024[27]. R&D investment in particular is viewed as a highly valuable asset[28] as it promotes the creation and use of new technologies and drives innovation. Evidence for the UK from 1992-2007 finds a positive and statistically significant correlation between intangible assets (mostly R&D) and industry total factor productivity growth[29]. Likewise, a 2017 study by the ESRI[30], using data from a range of different sized firms in the RoI, finds that a 10% increase in investment in intangible knowledge-based capital results in a 2% increase in productivity. They also find that the impact on productivity is larger if the firm invests in R&D compared to other intangible assets.

2.10 As with business investment more generally, the UK's R&D spend as a share of GDP is low in comparison to other G7 countries, averaging less than 2% over recent decades compared to 2.8% in the US and 3.5% in Japan[25]. NI's business expenditure on R&D (BERD) has been increasing, in 2023 BERD was over £800m, up 5.3% in real terms on 2022[31,32]. NI's BERD as a share of the UK total is now broadly in line with its share of the business population, accounting for 1.8% of the total. A similar trend is observed in terms of R&D tax credits, with NI businesses accounting for 2% of the total amount claimed[33]. The increase in BERD spend in 2023 meant that NI businesses spent more on R&D than either Wales or the North East of England, although spend was around one tenth or less of that in the leading regions, of London, the East and South East (Fig 2.6).

[27] Economics Observatory (2024). Available at: Boosting productivity: why doesn't the UK invest enough?

[28] Becker, B. (2014). Public R&D policies and private R&D investment: A survey of the empirical evidence. *Journal of Economic Surveys*. Vol 29, Issue 5, pp 917-942.

[29] Goodridge, P. Haskel, J. Wallis, G. (2017) Available at: Spillovers from R&D and other intangible investment: Evidence from UK industries.

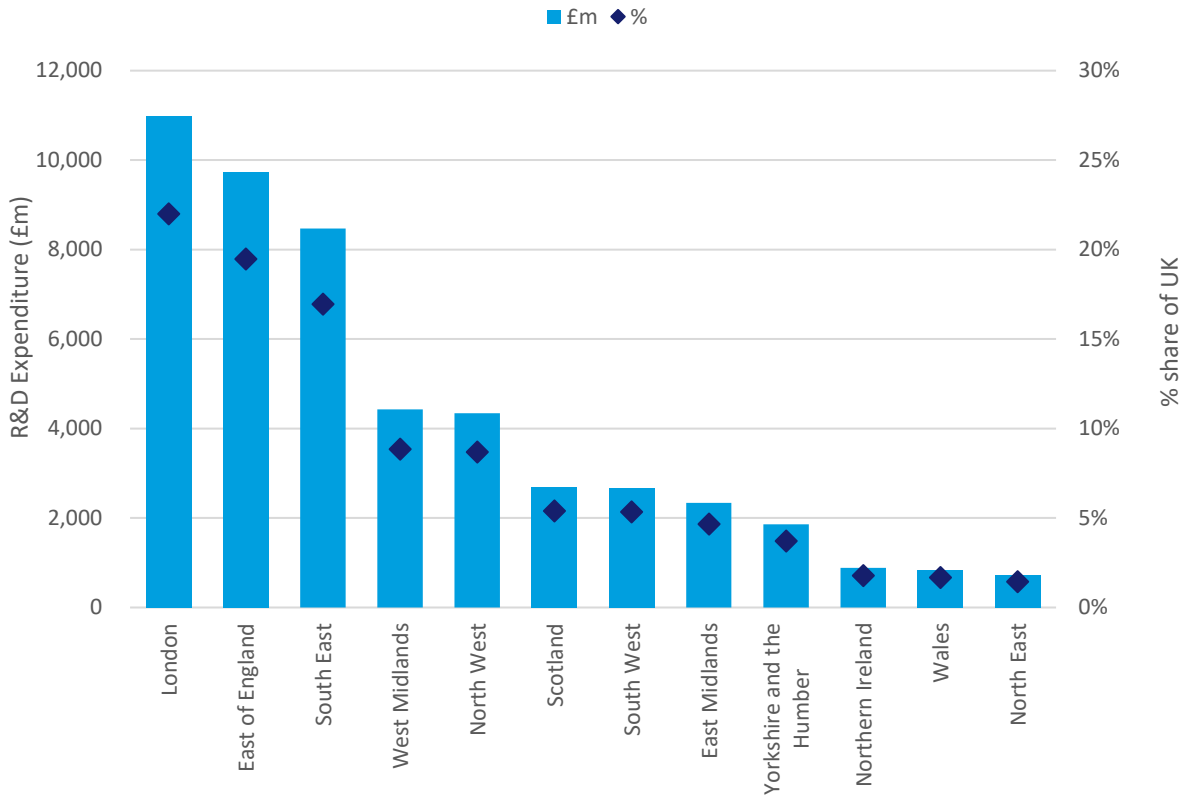
[30] Ubaldo, M, D. Siedschlag, I. (2017). The Impact of Investment in Knowledge-Based Capital on Productivity: Firm-Level Evidence from Ireland. ESRI Working Paper No. 556.

[31] Due to methodological improvements on the R&D data, estimates of BERD as a share of GDP are not yet available.

[32] NI R&D survey 2023

[33] R&D tax credits statistics

Figure 2.6: Business R&D spend (£m) and % share of the UK, 2023, UK regions

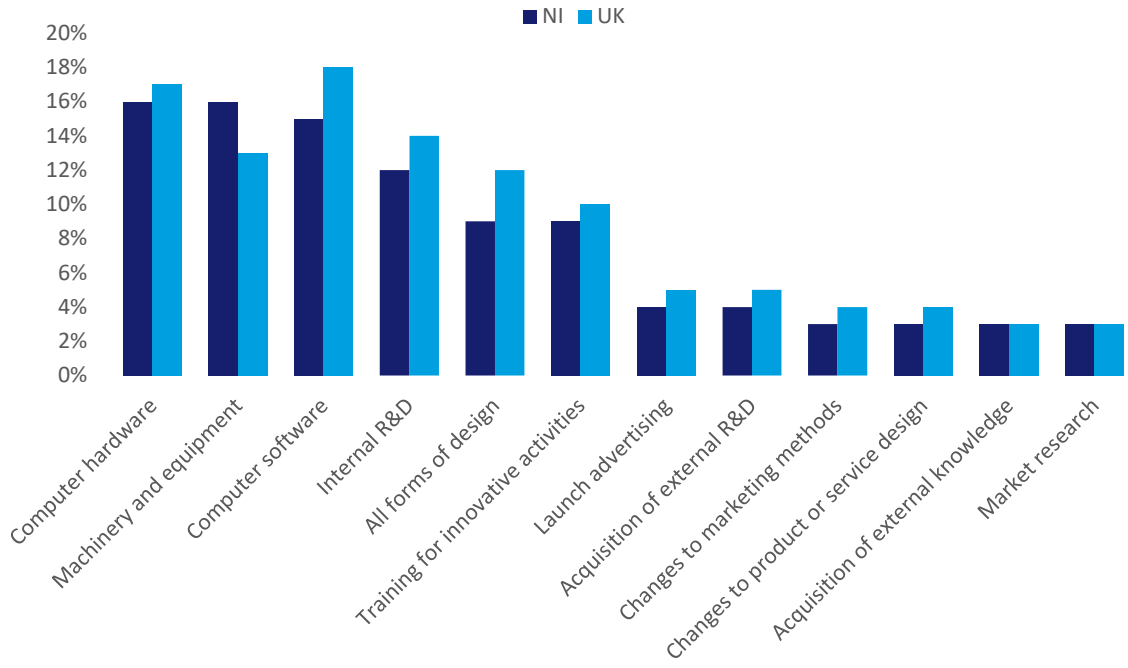


Source: ONS BERD

2.11 In addition, a lower share of NI's most innovative businesses invest in R&D relative to their UK counterparts. Figure 2.7 shows that over the 2020-22 period 12% of NI's innovation-active businesses invested in internal R&D compared to 14% in the UK. Just 4% acquired external R&D compared to 5% in the UK. Investment in tangible assets was higher, with a greater share of NI businesses investing in machinery and equipment than their UK counterparts, at 16% versus 13% in the UK. But innovation-related expenditure was also lower in NI than the UK during 2020-22. In total 34% of NI firms had innovation-related expenditure compared to 37% in the UK, with the figures the same for SMEs. Amongst large businesses 45% in NI had such expenditure compared to 50% in the UK[34].

[34] NISRA NI Innovation Survey

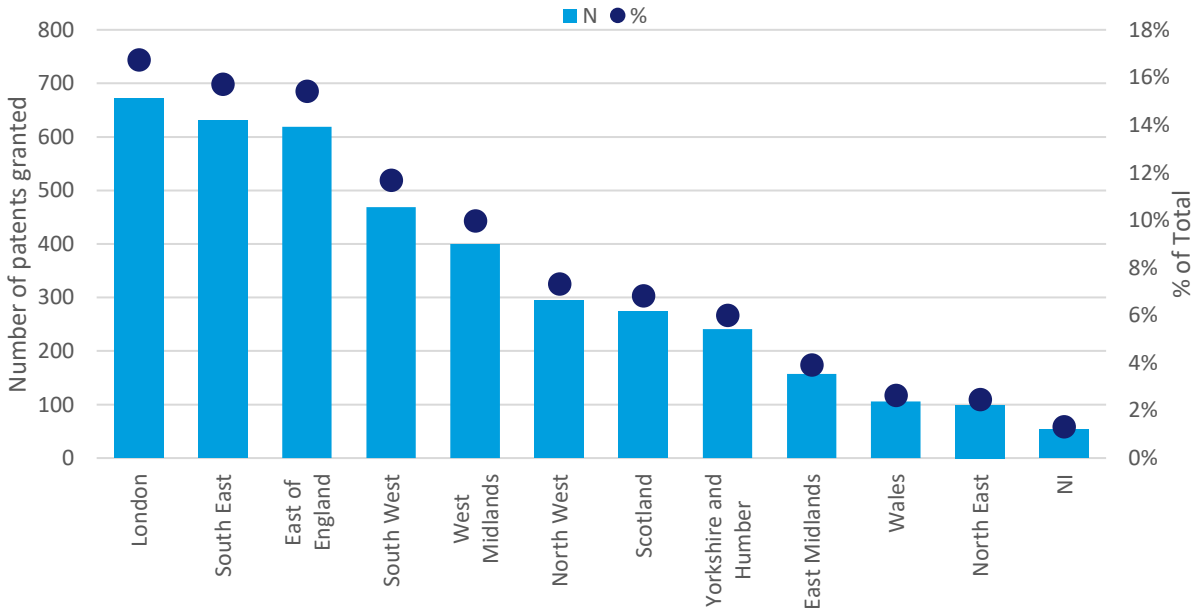
Figure 2.7: Innovation activity by type of investment, % of innovation-active businesses, 2020-22, NI and UK



Source: NISRA UK Innovation Survey

2.12 Patenting activity also represents a form of investment in intangible assets, as well as an output of R&D activity. In 2023 NI had the lowest number of patents granted of the UK regions at just 53, accounting for just 1% of all patents granted in the UK (Figure 2.8). This was a similar share to patents filed and was also unchanged on the 2022 figure.

Figure 2.8: Number and % of patents granted in the UK by region, 2023



Source: Intellectual Property Office

2.13 A low share of R&D spending constrains productivity improvements[35], as summarised by the Institute for Manufacturing at the University of Cambridge[36]:

> *"Low R&D spending contributes to overall low investment spending in the UK and hampers the capital deepening needed for labour productivity growth" (p31).*

Despite its potential to drive growth, businesses can underinvest in R&D for a number of reasons. R&D can be expensive, requiring significant financial resources with no guaranteed return on investment. Businesses may therefore be reluctant to invest due to the uncertainty of outcomes particularly when coupled with the significant upfront investment typically involved. Some companies may not have the necessary capital to fund such initiatives, particularly smaller firms with limited resources. More generally, limited access to funding for high risk R&D activity and/or high borrowing costs can also deter businesses. R&D also typically yields results over a longer time frame, which can conflict with the need for more immediate financial returns, making businesses hesitant to commit resources to it.

2.14 Without the necessary expertise, businesses may also find it more challenging to undertake R&D. Recent research from Buyse et al. (2020)[37] notes that '…human capital is an important determinant of an economy with regards to international technology and knowledge diffusion' and an educated population is a 'central factor in the R&D production function' showing the two to be linked. Previous research on R&D activity in NI[38] also highlights the link between absorptive capacity[39] and the likelihood of undertaking R&D, although the authors suggest that human capital may not be a good proxy for absorptive capacity. Nevertheless, they suggest that constraints to R&D in NI are not due to a 'resource gap but a capabilities gap' (p17). As a remedy they suggest the need for the increased internationalisation of locally owned

[35] Breslin, M. Ospina, J, V. (2024) UK Business R&D: A worrying decline

[36] Institute for Manufacturing, University of Cambridge (2021). UK Innovation Report

[37] Buyse, T., Heylen, F. and Schoonackers, R. (2020) On the impact of public policies and wage formation on business investment in research and development Vol. 88, pp.188-199, ISSN 0264-9993,

[38] Harris, R. Li, Q. C. Trainor, M. (2009) Is a higher rate of R&D tax credit a panacea for low levels of R&D in disadvantaged regions? *Research Policy* Vol.38, Issue 1, pp 192-205.

[39] Absorptive capacity refers to the ability of a firm to recognise the value of information, adapt it and apply it for business purposes

firms, instead of a reliance on FDI[40], and increasing absorptive capacity combined with challenging the 'lack of culture' for R&D.

Finance and Investment

2.15 It is acknowledged that access to finance is an issue facing businesses, particularly SMEs who often have access to less diversified funding sources due to information opacity, asymmetric information problems, agency risks, shorter operating track records and insufficient collateral[41]. This is further exacerbated for R&D investment, which is inherently riskier, reducing the likelihood of financing via traditional financing markets and creating a reliance on internal funds which may not be sufficient, creating a 'growth capital gap'[42]. Meanwhile larger firms, which typically have better access to capital markets and larger internal reserves can also face financial hurdles. A survey of UK firms preparing to grow from medium-sized to large showed that two fifths identified difficulties with securing capital from banks and lenders and a similar share identified limited investment from venture capital and private equity[43]. Larger firms can also face internal or structural barriers to investment. For very large firms smaller investments can get lost on the management agenda and long-term investments may be avoided in favour of visible near-term projects with lower value creation intensity[44]. Due to their size larger firms can also face organisational inertia, complex internal approval processes, or stakeholder pressures that may slow down or complicate investment decisions[45].

2.16 Asymmetric information along with issues around ownership and control, and cost of capital, have also given rise to theories which identify the order in which businesses finance investment. Pecking order theory[46] in particular suggests that businesses have a preference for funding their growth firstly through internal resources, such as cash flow or retained earnings, secondly via low-risk debt and finally by issuing equity. The idea is that firms will fund

[40] Although specific to Great Britain only, recent research by the Department of Business and Trade has shown that foreign-owned firms are more likely to invest than UK-owned firms. Business Investment Analysis

[41] Bongini, P., Ferrando, A., Rossi, E. et al. (2021). SME access to market finance across eurozone report

[42] Patton, D. Huynh, T. (2018). Barriers to start up and scale up in R&D intensive firms

[43] Menzies (2024). Are you ready for the greatest leap? Research Report

[44] Lawler, N, F. McNish, R, S. Monier, JH, J. (2004). Why the biggest and best struggle to grow. McKinsey & Company.

[45] Gibbons, S. (2022). Why big and complex businesses find it difficult to innovate. Forbes

[46] Myers S.C. and Majluf N. (1984). Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics*, 13, 187-221.

investment "via the path of least resistance" and choose the low-cost financing instrument first[47],[48].

2.17 Recent survey evidence from the Bank of England[49] appears to confirm this theory, showing that half of UK SMEs reported that they only used internal funds to finance investment. Credit cards were the mostly widely used source of external finance, with the use of debt and equity very limited (Figure 2.9). Notably around one fifth of SMEs stated that they had underinvested, with uncertainty about the economic environment, inability to self-fund, unreasonable terms for accessing debt finance, and reluctance to take on risk as the main reasons. In fact, risk aversion came out strongly on the demand-side with 77% of the SMEs agreeing that they would accept a slower growth rate than borrow to grow at a faster rate. A similar share, 75%, also agreed that they like to be debt free.

2.18 A Barclays survey[50] covering firms of all sizes shows a greater appetite for borrowing to invest among medium and large firms compared to small firms. But sizeable shares of even the largest firms said they had not considered borrowing more to invest (28%) or they had considered it but did not go ahead (38%). High interest rates, the uncertain economic outlook and a preference for using cash reserves were the main reasons given. Furthermore, it has been suggested that businesses, including larger firms, can overlook funding opportunities due to misconceptions or unfamiliarity with the options open to them, particularly in regards to private equity[51]. This information asymmetry where firms are not fully aware of available schemes can also be compounded by a lack of expertise to structure and negotiate deals. The appointment of directors with equity finance experience has been cited as a key ingredient for success in securing such funding, suggesting that firms without this expertise may struggle to engage effectively with VC and equity markets[52].

[47] Al Manaseer, M. F., Gonis, E., Al-Hindawi, R. M., & Sartawi, I. I. (2011). Testing the pecking order and the target models of capital structure: Evidence from UK. *European Journal of Economics, Finance and Administrative Sciences*, 41(41), 84-96.

[48] Grant assistance is not explicitly addressed within pecking order theory but as a form of non-dilutive external funding it is assumed it would be preferred before debt and equity. It may also come after internal financing if internal funds are readily available and sufficient.

[49] Bank of England (2024). Identifying barriers to productive investment and external finance: a survey of UK SMEs. An analysis of the 2023 Finance and Investment Decisions Survey

[50] Barclays Business attitudes to investing

[51] Are you ready for the greatest leap? Menzies report

[52] Equity Finance and the UK regions

2.19 Data from the RoI[53] also shows internal sources as the main source of finance, accounting for 80% of investment finance in 2023. External finance accounted for 16% and the remining 4% came from intra-group financing. In terms of the share of firms, just one third financed at least some of their investment through external sources. One in eight (13%) firms using external financing in the RoI have received grants, in line with the EU average (16%). Manufacturing firms using external finance are most likely to have received grants (24%), followed by services firms (16%). One in seven (14%) medium or large firms using external finance have received grants, compared to 6% of micro or small firms. In contrast to the UK, where 22% of firms said they had underinvested and 76% had invested the right amount, the survey data shows that just 8% of RoI firms believe they invested too little over the previous three years with 92% suggesting they had invested the right amount. The latter was higher than the EU average of 82%.

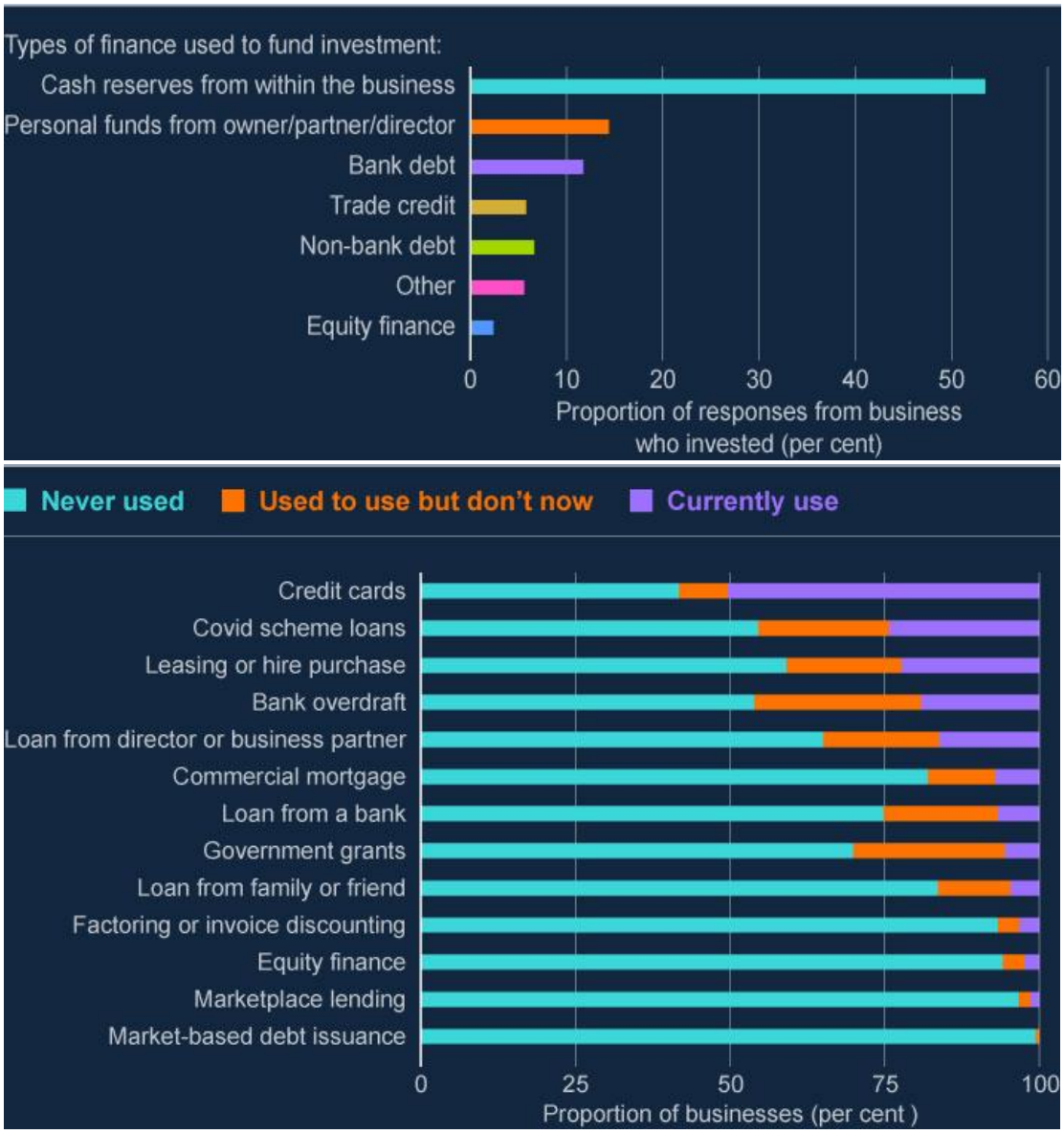
2.20 A study of European firms[54] also confirms internal finance as the most important source of funding for all types of investment, irrespective of firm size. Large firms were found to use a higher share of external finance than SMEs but the rank order in which they are used is the same for all, with bank loans the most preferred external source. Two thirds of SMEs were also found to only use one source of finance for investment compared to 45% of large firms. The analysis indicates that internal finance, along with insider finance[55], grants and equity are predominantly used to finance intangible assets, with the latter three preferred for R&D investment. In contrast, bank finance is positively linked with financing tangible investment.

[53] European Investment Bank (2024). EIB Investment Survey 2023 Ireland Overview.

[54] Ferrando, A., Preuss, C. Econ Polit 35, 1015–1053 (2018). What finance for what investment? Survey-based evidence for European companies.

[55] Insider finance is defined here as intra-group lending and loans from family and friends, due to the fact that the lender has at least some insider information about the borrowing company.

Figure 2.9: Types of finance used by SME businesses to fund investment (top) and types of external finance used (bottom), UK 2023



Source: Bank of England Finance and Investment Decisions Survey

2.21 Given the importance of internal financing to the investment decision, the financial health of companies is a key influence both in terms of ability to self-finance and in terms of external funders perception of risk. Research suggests that investment and cashflow are linked, although the strength of the relationship and the cause is still under debate. Early research on the relationship[56] finds that investment is more sensitive to cash flow for firms that are more financially constrained. That is, firms that cannot easily raise

[56] Fazzari, S.M., Hubbard, R.G. and Petersen, B.C. (1988) Financing constraints and corporate investment. *Brookings Papers on Economic Activity* 1: 141–195.

external funds must rely on internal cash flows to finance their investments. The relationship between cash flow and investment is not always linear, however. In cases where firms have excess cash flow, they may engage in over-investment, where they make inefficient or non-profitable investments because they have the cash to do so. Conversely, firms with low cash flow may engage in under-investment, failing to take on valuable projects because they lack the funds to do so which can lead to missed growth opportunities. Others[57] argue that firms with significant growth opportunities will make investments regardless of cash flow constraints by issuing debt or equity or using retained earnings.

2.22 Despite the preference for internal financing, lack of knowledge on where to access finance as well as issues around financial literacy also impact investment. The FSB[58] found that two thirds (66%) of SMEs planned to invest between 2022-2024 but just under half (49%) said they didn't know what options were available for financing these investments and 41% had not applied for any form of finance in the previous five years. Similarly, a survey by Enterprise Northern Ireland[59] found that in 2023 there was an 89% gap in finance supply for SMEs and 61% reported having little to no knowledge of the financing options available to them.

2.23 A recent UK study[60] analysing the links between financial literacy, access to finance, and growth amongst SMEs confirms a link. It shows that improved financial literacy among managers/owners allows them to produce high quality financial information about their firm allowing them to successfully gain access to external finance by reducing information asymmetry and mitigating collateral deficit. A Portuguese study[61] denotes similar sentiments in that small businesses with a higher level of financial literacy are likely to perform to a higher standard. Notably, their results showed a lack of awareness among managers of their own financial literacy, with 11% admitting to having poor financial literacy but the authors identifying it to be 44% of managers, suggesting a "they don't know what they don't know" effect. The opportunities forgone due to lack of financial literacy at a managerial level calls for consideration to be given to prior UUEPC research

[57] Brealey R., Myers S., Principles of Corporate Finance, The McGraw-Hill Companies, 2003

[58] Federation of Small Businesses (2022). Credit Where Credit's Due. Small businesses and the need for external finance for investment growth.

[59] British Business Bank. Enterprise Northern Ireland. (2024). Northern Ireland SME Access to Finance Report. Sub National and Devolved Nation Analysis.

[60] Hussain, J. Salie, S. Karim, A. (2018). Is knowledge that powerful? Financial literacy and access to finance: An analysis of enterprises in the UK. *Journal of Small Business and Enterprise Development*, Vol 25 No 6, pp 985 – 1003.

[61] Fernandes, T, I, M. (2015). Financial literacy levels of small business owners and its correlation with firms operating performance.

on management and leadership training in NI[62]. Research has indicated that firms that are better managed are "more likely to invest and invest more"[63]. Therefore, when developing management and leadership training programmes/courses, providers should ensure financial literacy is a key aspect within the curriculum and course outcomes.

Summary

2.24 Business investment, which covers both tangible and intangible assets, has recovered in the UK post-pandemic but lags behind G7 peers, and has been on a long-term downward trend (as a share of GDP). In NI business investment has increased over time, particularly in intangibles, and the region has converged with other parts of the UK but has been doing so from a position of catch-up. NI also continues to trail in terms of patent generation and innovation activity. Investment decisions are influenced by expected profits, economic conditions and financing availability although most businesses prefer internal funding over external sources due to information asymmetry and risk aversion. Key barriers to investment include economic uncertainty, limited financial knowledge, insufficient internal resources and reluctance to take on debt. SMEs in the UK have underinvested due to these reasons, with evidence highlighting that this ultimately constrains productivity growth and economic growth.

[62] UUEPC Management & Leadreship Training in NI SMEs

[63] Department for Business & Trade Business Investment Analysis

3. Business Investment Activity

Introduction

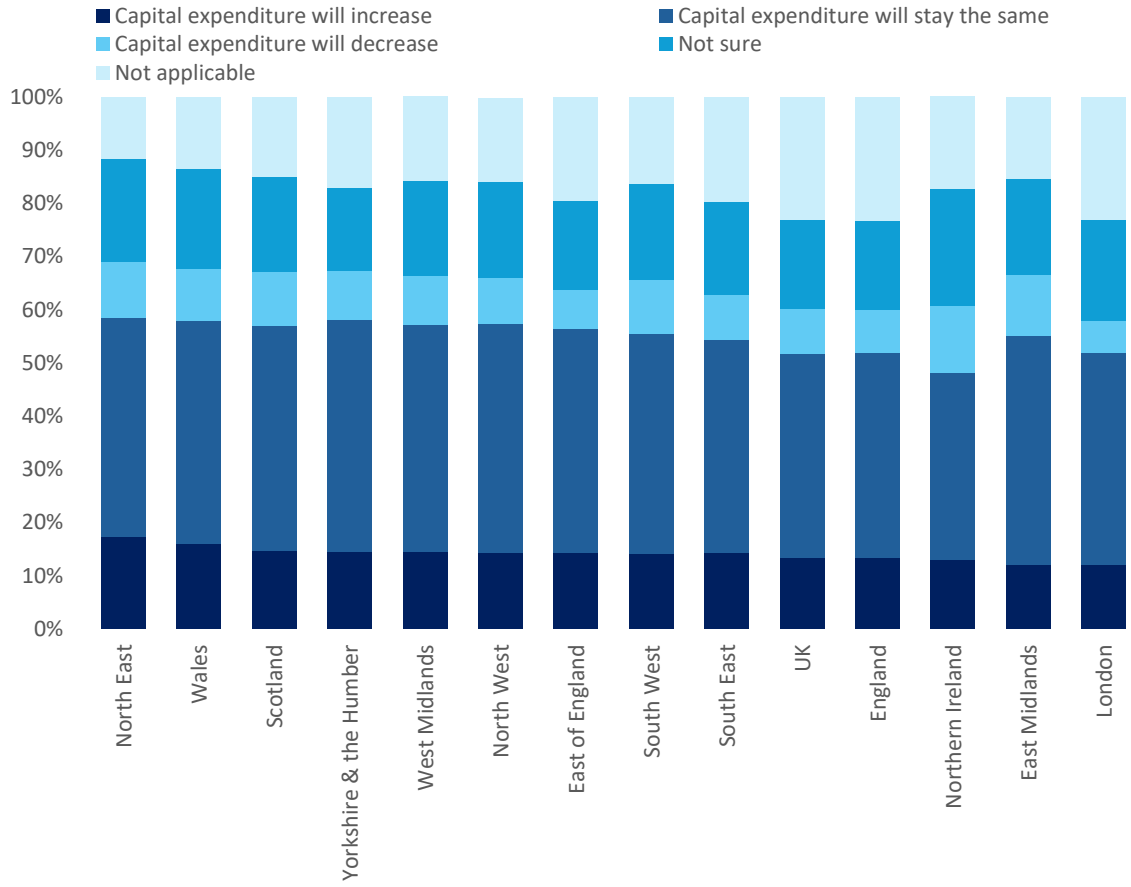
3.1 To better understand business investment in NI, a range of secondary survey data is analysed to explore capital expenditure, usage of bank and market debt and equity finance, and to shed light on the relative financial health of businesses.

Capital Expenditure

3.2 The Business Insights and Conditions Survey (BICS) is a fortnightly survey collecting data on the impact of challenges faced by UK businesses, capturing their views on the impact on turnover, the workforce, prices, trade and business resilience amongst other factors. Investment activity is captured through questions on capital expenditure[64]. Using data from October 2024, businesses were asked about their expectations for capital expenditure over the next three months (Figure 3.1). NI was one of the bottom three regions in terms of expectations for an increase in capital expenditure at just 13%, which was 4 percentage points lower than top region, the North East at 17%. NI also had the lowest share expecting capital expenditure to stay the same (35%) but the highest expecting it to decrease, at 13%, versus a UK average of 9%.

[64] Response rate to BICS can vary across regions and waves. The data presented is also unweighted. A degree of caution is therefore urged with interpretation of results.

Figure 3.1: Business expectations for capital expenditure between October and December 2024, by UK region

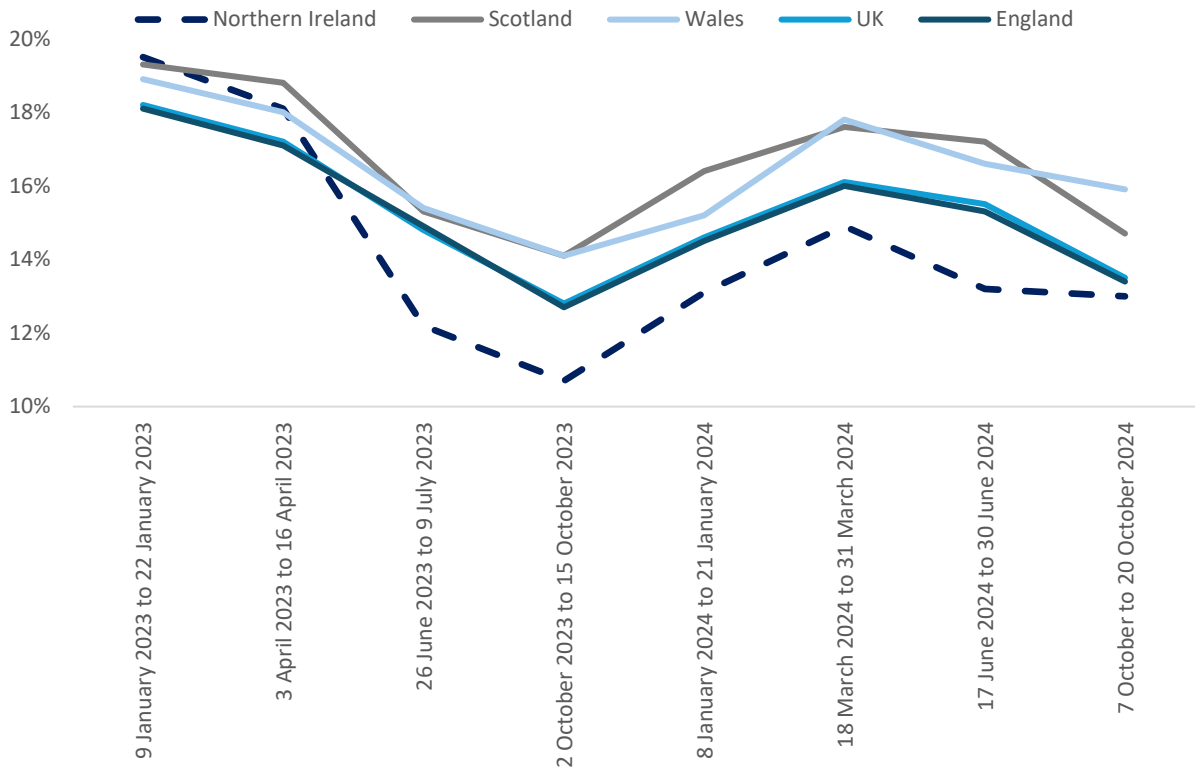


Source: ONS BICS

Note: Answers gathered from 7 October 2024 to 20 October 2024

3.3 Since mid-2023 a lower share of businesses in NI than elsewhere reported that capital expenditure would increase over the next three months (Figure 3.2). The trend in NI, has however, generally followed that of the other regions, declining rapidly during 2023 to a low in the October survey before a recovery of sorts in 2024. For all regions, the share reporting that capital expenditure would increase in the next three months was lower in Oct 2024, than it had been in March that year.

Figure 3.2: % of businesses that said capital expenditure would increase over next 3 months, by UK constituent country, 2023-24

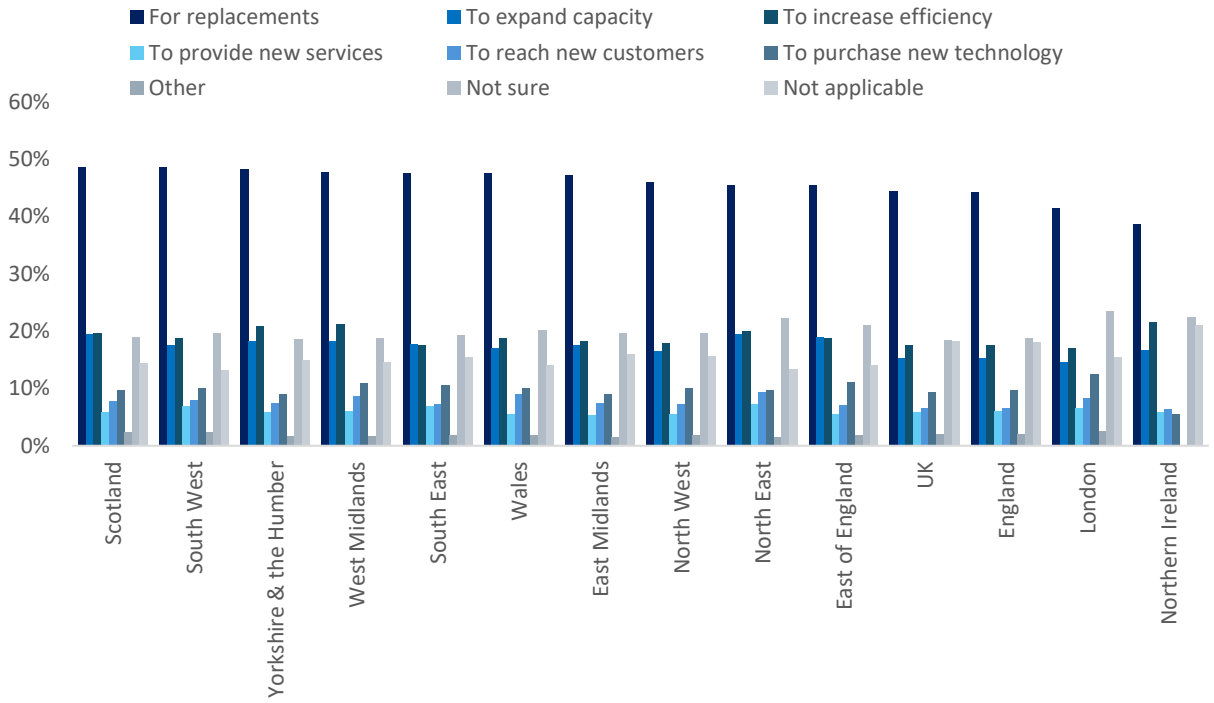


Source: ONS BICS

3.4 The most common reason given by businesses as to why they were authorising capital expenditure was 'for replacements' (Figure 3.3), where the share ranged from 39% of those in NI to 49% in Scotland, with a UK average of 45%. 'To increase efficiency' was the next most common answer although around half as many firms cited this reason. NI had the highest share of firms citing efficiency reasons at 22%, compared to a UK average of 18%. 'To expand capacity' was the third most common reason for authorising capital expenditure. In NI 17% of businesses gave this reason which was higher than the UK average of 15% but lower than the top region, the North East at 20%. Notably, capital expenditure for the purchase of new technology was cited by only around one in ten firms. NI had the lowest share at just 5% while London had the highest at 12%. Although not directly comparable, one third of firms in the RoI indicated that investment in 'capacity expansion' was the priority for the next three years. Investment in 'new products or services' was cited by 26% of firms with 18% citing investment for 'replacement'. One quarter of firms indicated they had no investment plans, which was higher than the EU average of 10%[65].

[65] European Investment Bank (2024). EIB Investment Survey 2023 Ireland Overview

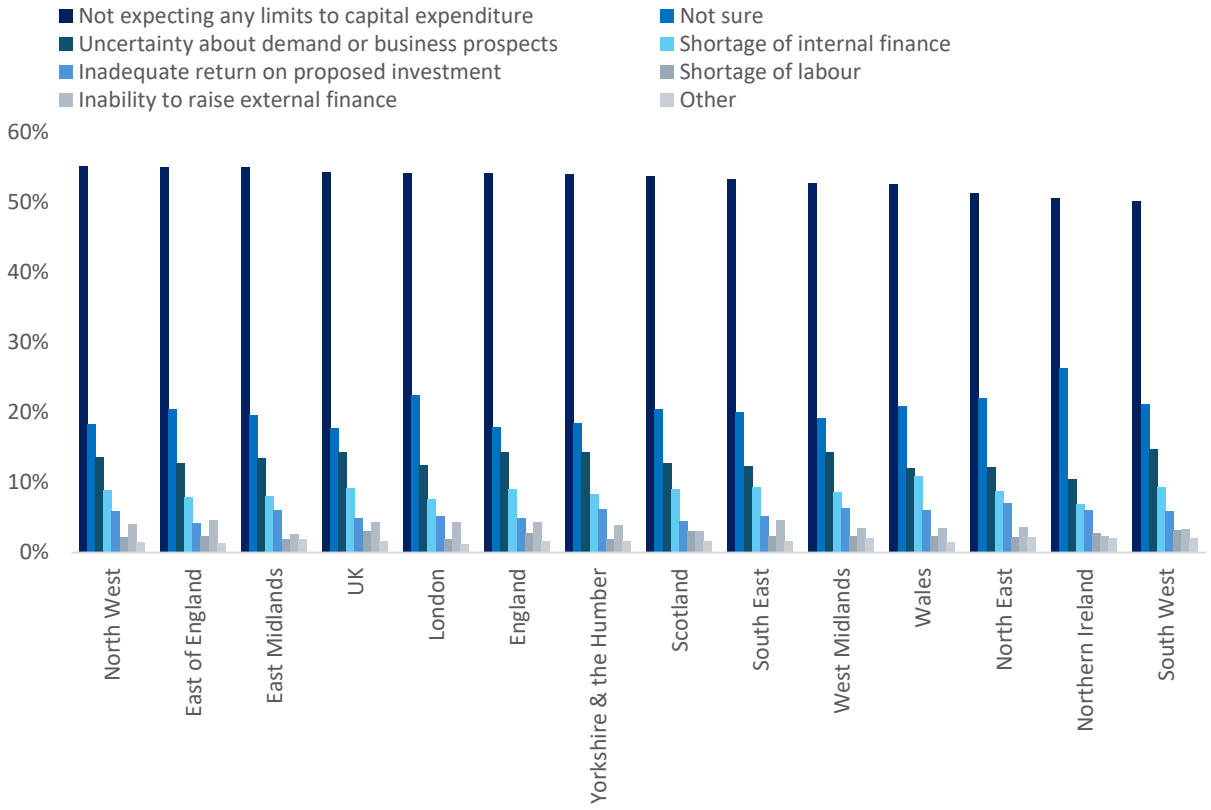
Figure 3.3: Reasons for authorising capital expenditure between Oct-Dec 2024, by UK region



Source: ONS BICS

3.5 Around half of all UK businesses reported that they were not expecting any limits to their capital expenditure over the three months to December 2024. For those expecting to limit capital expenditure, the main reason was uncertainty about demand or business prospects (15% NI, 14% UK) and shortage of internal finance (7% NI, 9% UK). In the RoI long-term barriers to investment were identified as energy costs, the availability of skilled staff and uncertainty about the future[65].

Figure 3.4: Reasons why businesses may limit capital expenditure between Oct-Dec 2024, by UK region

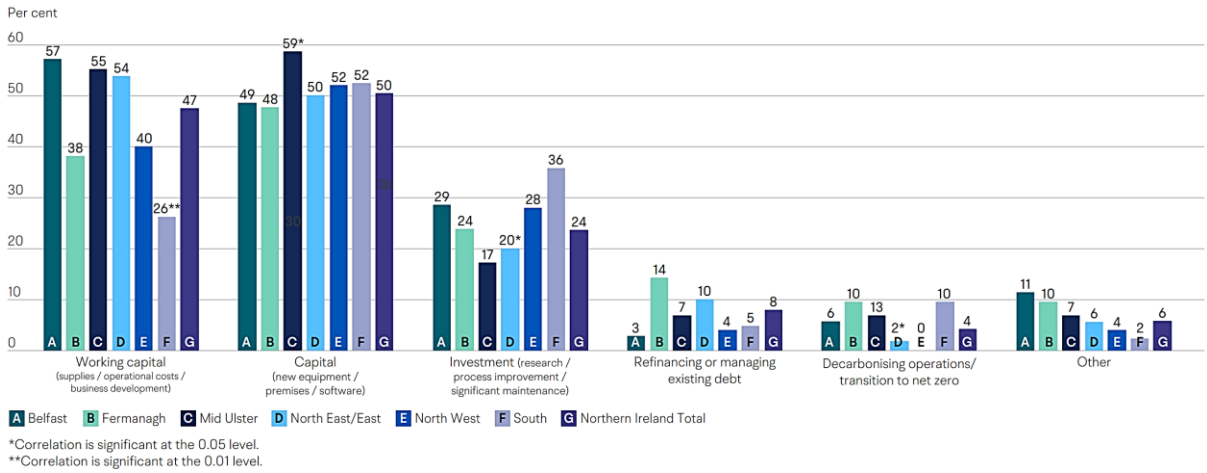


Source: ONS BICS

3.6 Focusing specifically on SMEs across NI, survey data from 2023[66] shows that around half of businesses in NI felt they would require additional finance in the coming year (Figure 3.5). Of those, 50% indicated this would be for capital assets (equipment, premises, software), with the highest share in Mid Ulster (59%). Just under one quarter planned to use it for other investment purposes (research, process improvement, maintenance), with this most prevalent in the South NI (36%). The planned use of finance for capital assets was similar in NI (50%) and Wales (51%) and slightly higher than in Scotland (44%) while the share planning to use finance for investment was higher in Scotland (33%) than in NI (24%) but was lower in Wales (14%).

[66] British Business Bank/Enterprise NI (2024). Northern Ireland SME Access to Finance Report. Sub-National and Devolved Nation analysis.

Figure 3.5: Planned use of finance by SMEs that anticipate additional financing in 2023, by NI region



Source: British Business Bank/Enterprise NI SME Access to Finance

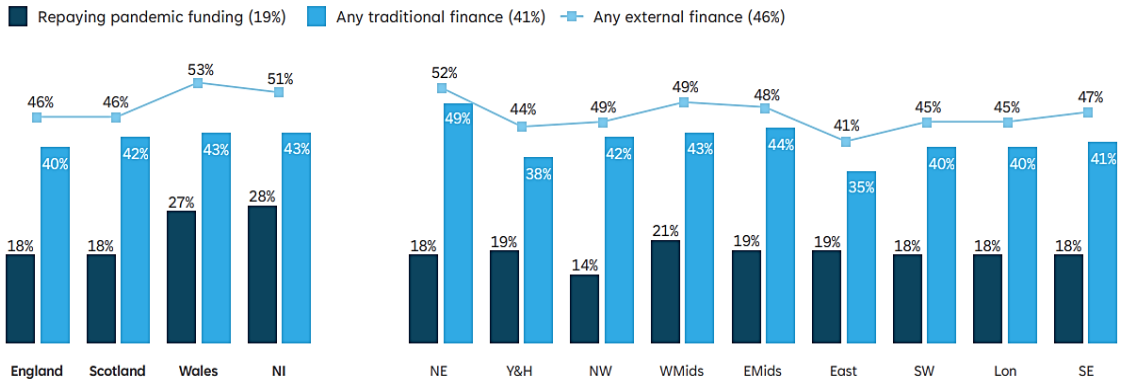
Bank and Market Finance

3.7 The previous literature review on business investment highlights the reliance on internal finance, across firms generally, to fund both tangible and intangible investment. External finance which includes sources such as debt and equity financing, is an alternative means of providing companies with the additional capital they need to fund investments. Relative to internal financing, the use of external finance can introduce additional risk in terms of having to service interest repayments and/or meet shareholder expectations.

3.8 Data from the SME Finance Monitor (Fig 3.6) shows that in 2023 a higher share of SMEs in NI were using external finance[67] (51%) compared to the UK average (46%). This is partly explained by NI having a considerably higher share of SMEs repaying pandemic funding at 28% compared to the UK average of 19%. The share using any traditional finance in NI (43%) was only slightly above that of the UK (41%), with the North East taking the top spot at 49% of businesses.

[67] External finance here includes 'core products' such as loans, overdrafts, credit cards, and 'other products' such as leasing and asset finance.

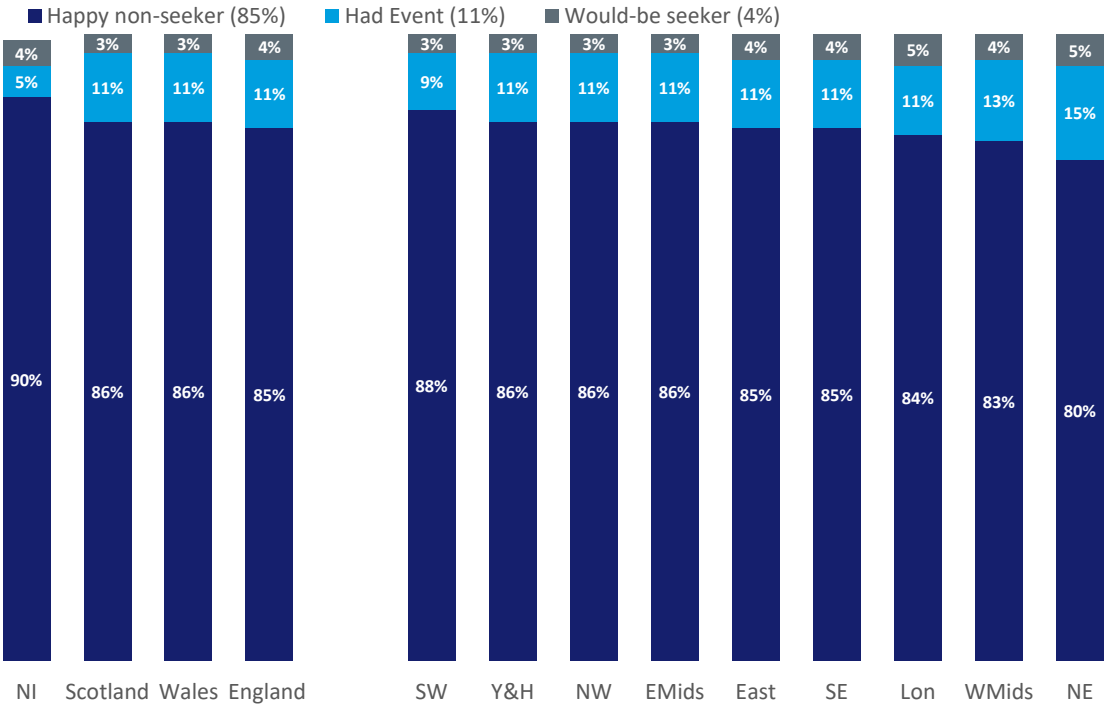
Figure 3.6: Use of external finance by SMEs, 2023, by UK region



Source: BVA-BDRC SME Finance Monitor

3.9 When asked about whether they specifically had a 'borrowing event' in the previous 12 months, half as many SMEs in NI compared to elsewhere had borrowed, at just 5% compared to a UK average of 11% (Figure 3.7). At 4%, a similar share were 'would-be seekers' in that they wanted to apply but something stopped them, while 90% where 'happy non-seekers' – those with no appetite for finance.

Figure 3.7: Extent of borrowing, 2023, by UK constituent country



Source: BVA-BDRC SME Finance Monitor

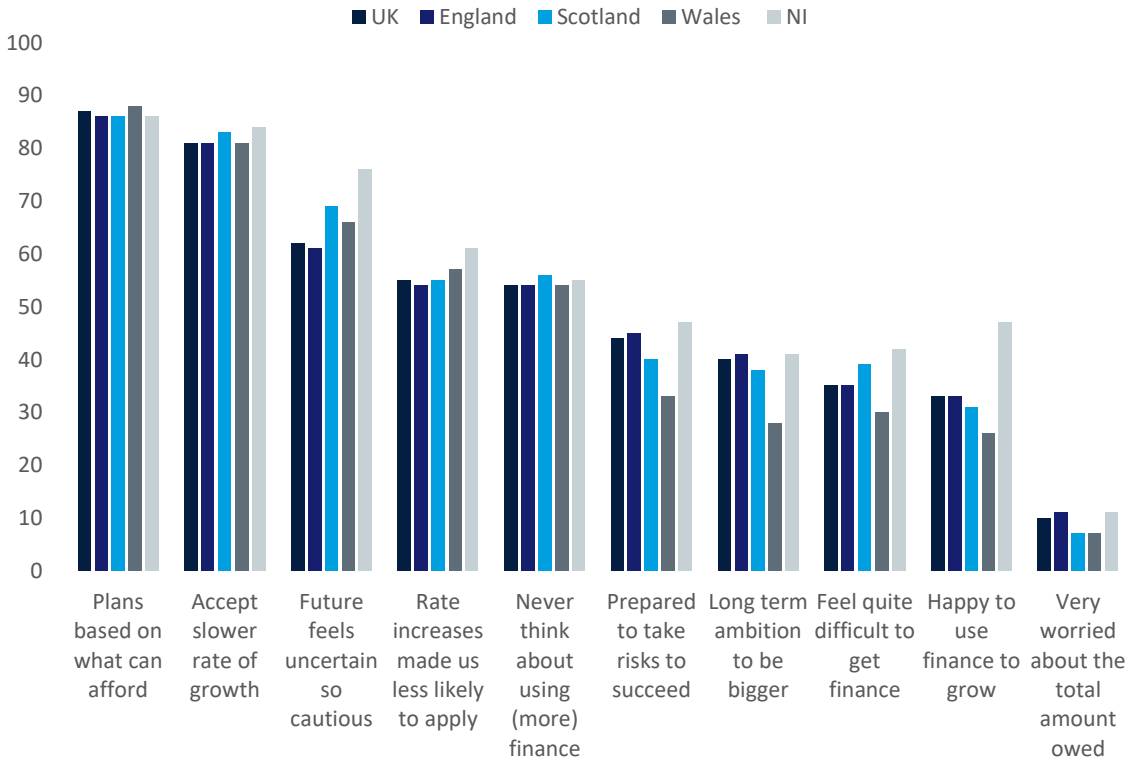
3.10 Within NI, 56% of SMEs were using external finance in 2023, with those in Belfast (64%) and Mid Ulster (65%) having the highest usage rates and those

in the North West the lowest (48%)[68]. As previously indicated Covid-19 loans were the most used types of external finance (28%) followed by credit cards (19%), business overdrafts (14%) and other loan products (10%). Just 3% of SMEs in NI were using equity or external investment although this was 9% in Belfast. For those that indicated they would require additional finance in the coming year, 49% in NI indicated use of a business loan and 38% a grant, with preference for a grant much higher in NI than either Wales or Scotland. The majority of SMEs suggested they would be seeking finance of up to £50k (76%), 17% would need £50-250k and just 7% more than £250k. NI SMEs were more likely than elsewhere to seek smaller amounts of funding.

3.11 When questioned on their attitudes to external finance (Fig 3.8) almost 90% of SMEs in NI agreed that "our current plans for the business are based entirely on what we can afford to fund ourselves" which was in line with the other UK regions, confirming a preference for internal funding. Similarly, over 80% in all regions indicated they would "accept a slower growth rate that we fund ourselves rather than borrowing to grow faster". Where NI differed more substantially from other regions was in risk averseness with 76% of NI SMEs agreeing "because the future feels uncertain we are being very cautious with our plans for the business" compared to an overall UK average of 62%. A much higher share in NI (47%) did indicate that they would be happy to use external finance to grow than the UK average (33%) but those in NI were also more likely to say that a rise in the cost of credit would be a deterrent and that it would be difficult for firms such as theirs to get finance.

[68] British Business Bank/Enterprise NI (2024). Northern Ireland SME Access to Finance Report. Sub-National and Devolved Nation analysis.

Figure 3.8: Attitudes to external finance, 2023, by UK constituent country



Source: BVA-BDRC SME Finance Monitor

3.12 One fifth of NI SMEs identified one or more barriers to accessing external finance which was similar to Wales (20%) but lower than Scotland (38%)[69]. The main barrier was 'ability to obtain/repay finance' as cited by 37% of firms but this varied from 17% of those in South NI to 60% in Fermanagh. 'Awareness/availability of finance options' also varied across NI from 8% in Mid Ulster to 50% in the North West of NI, and an overall NI average of 10%. In comparison to Scotland and Wales NI had a much higher share of those reporting awareness and availability barriers. Intermediaries (such as accountants, lawyers, business support specialists) in NI also identified gaps in awareness of finance options by SMEs with 61% indicating an awareness gap (60% in UK) and 78% indicating that SMEs are not well informed about alternative finance (UK 75%)[70].

3.13 With regards to market finance, data from the British Venture Capital Association (BVCA)[71] shows that NI firms account for less than 1% of all private equity (PE) and venture capital (VC) investment across the UK, with just 40 such business investments in NI in 2023 equating to £59m in investment (Fig 3.9). Of these, and in line with other regions, the largest

[69] British Business Bank/Enterprise NI (2024). Northern Ireland SME Access to Finance Report. Sub-National and Devolved Nation analysis.

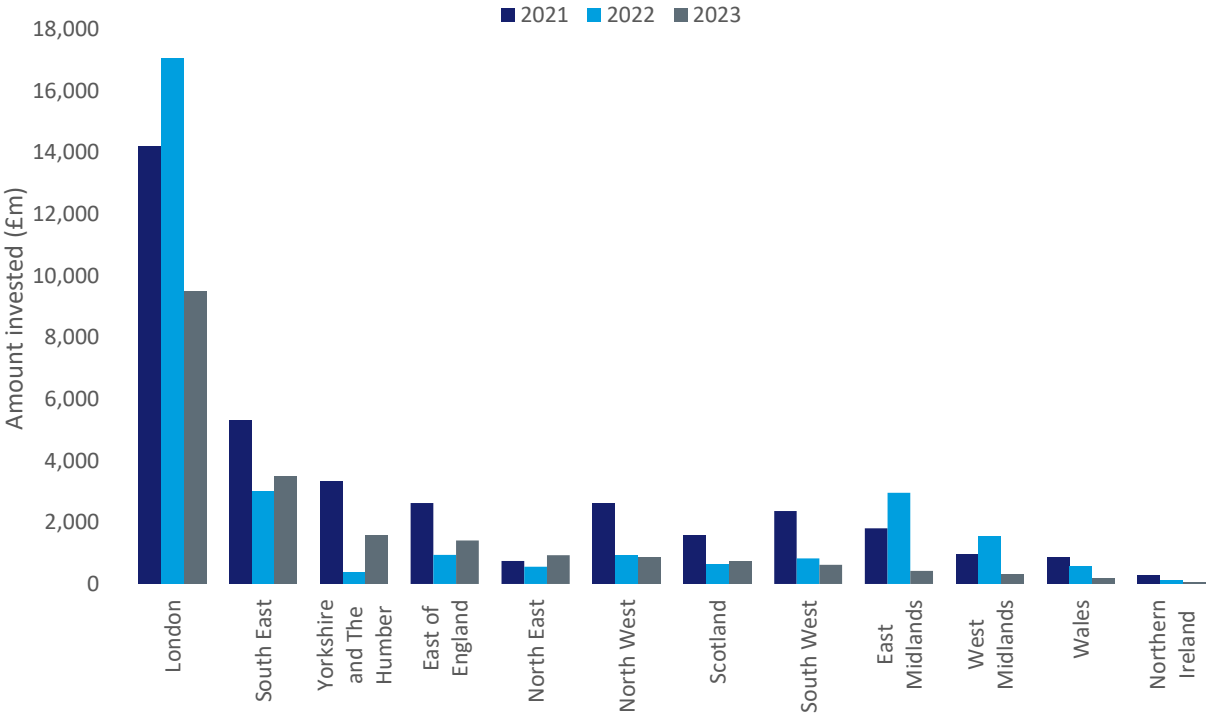
[70] British Business Bank (2024) SME Intermediary Research: Northern Ireland, January 2024

[71] BVCA (2024). BVCA Report on Investment Activity 2023

share of investments was in ICT (16), followed by consumer goods and services (8) and biotech and healthcare (6). In contrast to other regions, such as Wales, there were no investments in NI in financial and insurance activities.

3.14 According to the BVCA, the number of businesses receiving private investment has remained relatively flat in NI since 2021, but the amount invested has dropped from £268m in 2021, to £119m in 2022 and £59m in 2023[72]. Likewise, NI's share of total investment has fallen to 0.3% of the UK total in 2023. London dominates the market, with investment worth £9.5bn in 2023 across 623 companies. Firms in London and the South East combined account for 65% of all UK investment.

Figure 3.9: All PE and VC investments (£m) 2023 across UK regions

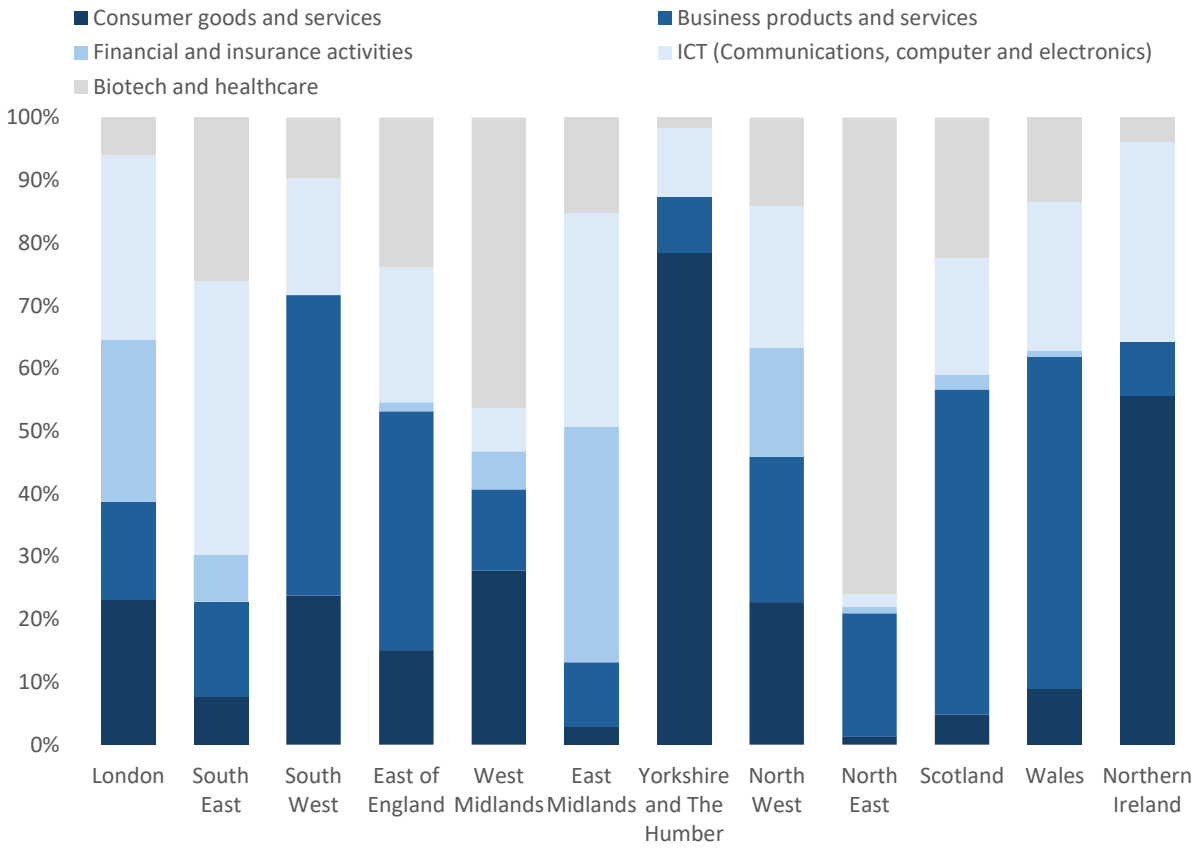


Source: BVCA

3.15 For all regions, the majority of investments in 2023 are in SMEs, at around nine in ten of the total. NI has the highest share, with investment in SMEs accounting for 98% of all investments while the North West of England has the lowest share at 83%. In NI over half of all investment by value was in firms in the consumer goods and services sector and just under one third in ICT (Fig 3.10). Investments in NI in the consumer goods and services sector accounts for 1% of all investment in that sector, and less than 1% in all other sectors.

[72] Data from Catalyst, which draws on other sources including Companies House and the Irish Venture Capital Association, indicates that investment into tech firms in NI reached its highest level ever in 2023 at £143.2m across 72 deals. This compared to £139m in 2022 across 89 deals.

Figure 3.10: Investment by industry sector (%), 2023, within UK regions



Source: BVCA

3.16 Almost two fifths of the investment in NI in 2023 was venture capital, a higher share than in any other region (Figure 3.11) but at £22m it accounts for just 1% of all venture capital in the UK. Buyout accounted for the largest share of investment in NI in 2023, at 45%, equating to £26m. The drop in investment overall in NI since 2021 has been primarily due to the drop in buyout, which fell from £247m in 2021. Growth capital in NI accounted for £10m or just 17% of total investment.

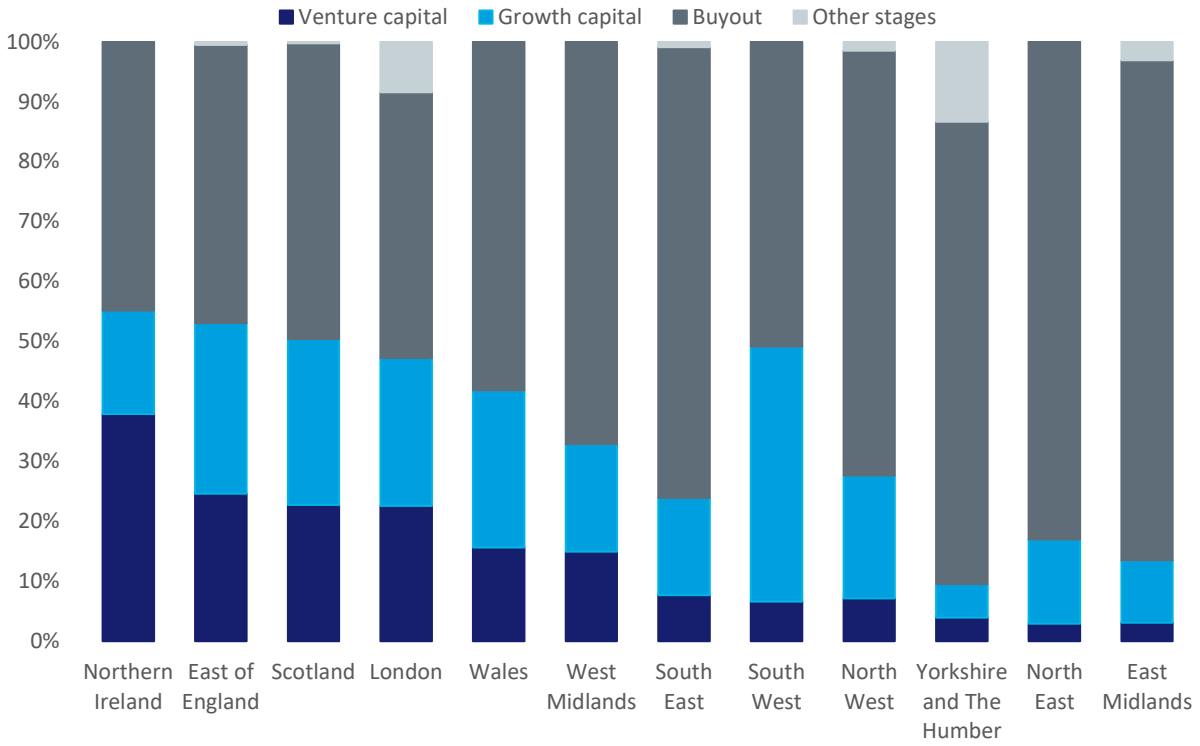
3.17 Despite the differences noted above across UK regions for both bank lending and equity, research has suggested that there is no evidence of differential access to bank lending for SMEs outside of London compared to those in London[73]. While there is a large equity funding gap, the vast majority of this gap can be explained by differential business characteristics across regions. Quoting research by Wilson, Kacer and Wright (2019)[74] they report that equity investment disparity is explained by differences in the investment opportunities available to equity investors. Analyses on all equity investments

[73] Balls, E. Stansbury, A. Turner, D. (2023). Tackling the UK's regional economic inequality: Binding constraints and avenues for policy intervention.

[74] Wilson, N., Marek K., and Wright, M. (2019). Equity Finance and the UK Regions: Understanding Regional Variations in the Supply and Demand of Equity and Growth Finance for Business. BEIS Research Paper

in SMEs in the UK 2011-17 found that 90% of variation in deal flow can be explained by three differences in regions' economic structure: the number of SMEs, the share of 'high-growth firms' and the share of firms in high-tech manufacturing or knowledge-intensive sectors. There was no statistical difference in the likelihood of receiving equity funding for SMEs located in the North East or NI as compared to London.

Figure 3.11: Investment by stage (%) 2023 within UK regions



Source: BVCA

Financial Health

3.18 While the survey data provides a useful overview of NI as a whole relative to other regions, as the research highlighted above indicates, the industrial structure of regions differs making it likely that regional variation in investment is due, at least in part, to industry composition. To undertake a more like-for-like comparison, a more in-depth analysis of a number of industrial sectors was undertaken to assess the financial health and investment activity of NI businesses versus those elsewhere. Analysis was undertaken at the firm level using commercial datasets. Here, firms in specific industry sectors in NI were selected and summary key financial metrics were compared to those in the same sectors in other regions of the UK and the RoI. The choice of sectors was influenced by the Department for the

Economy's seven priority sectors[75], with specific sub-sectors within those selected for comparison where there were sufficient regional observations for key financial metrics.

3.19 Using data from the Financial Analysis Made Easy (FAME) database, Table 3a shows selected metrics for two manufacturing sub-sectors for 2023, Manufacture of Fabricated Metal and Manufacture of Machinery and Equipment. Cells for each region have been coloured green if the value lies above the overall average for all regions combined, and red for those that lie below – although not necessarily implying that this is an adverse outcome.

3.20 Firstly, it is apparent that no one region performs above average on all the selected metrics. In terms of the Manufacturing of Fabricated Metal sector NI has a higher than average profit margin at 11.7% compared to an overall average of 8.7%. Its average return on capital employed (ROCE) of 24.3% – which shows how efficiently a company is using its capital to generate profits – is also higher than the combined average of 21.4%. The financial ratios in NI are below the average for the sector, but only marginally so and both the liquidity and current ratios are healthy and well above the benchmark of one, whereby a company can exactly pay off all its current liabilities with its current assets. NI's gearing ratio is also lower than the average which suggests that, although the sector is relatively highly leveraged, NI firms in the sector are less levered than all other regions other than the RoI. Firms in the sector in NI are also well placed in terms of working capital and while the value of overdrafts/loans is lower than average in NI it is not substantially so. Where NI does fare worse is in terms of the value of intangible assets and average investment levels. In both, NI lies well below the overall average, and while both averages are skewed due to high values in individual regions, NI remains below the average even if these are excluded.

3.21 The financial health of the Manufacture of Machinery and Equipment sector presents a similar picture. While the profit margin is slightly below average, the rest of NI's financial ratios are solid, even though they fall just short of the sector's average. Notably, the ROCE is much higher than the overall average, standing at 31.7% compared to 17.5%. However, metrics related to firm assets and investment show that NI firms in this sector perform below average, with intangible investments being the lowest of all regions.

3.22 Table 3b presents the same metrics for two service sectors, Computer Programming (Consultancy and Related Activities) and Financial Services. NI performs well in Computer Programming with the average profit margin and ROCE above the overall average, particularly the latter at 42.8% compared to an average of 27.6%. The liquidity, current and gearing ratios are all just under the overall average, but the liquidity ratios in particular are high in

[75] DfE Priority Sector definitions

relative terms at over 4%. Net tangible assets in the sector are above average, at just under £1m per firm. Intangible assets are below the overall average but this is highly skewed due to the extremely high value for RoI firms (£28m). If this value is excluded average intangible assets in the sector are higher in NI than the combined average of the UK regions. Average investment in this sector in NI, at £1.6m, is also higher than the overall average.

3.23 The metrics for the Financial Services sector also shows NI firms in good financial health with the ratios and margins all above the sector average for the regions combined. The gearing ratio is the only NI ratio below the overall average, but the sector's average gearing is high, at over 100%, thus in context NI's firms are lower risk. Working capital per employee is highest in NI, while the average value of loans is also above average in NI. Where NI performance diverges is in regards to the level of assets and investment. The value of intangible assets in NI, at £3.3m per firm, is lowest of all regions and considerably lower than the £25m average. The level of investment, at £2.2m, is also considerably lower than the £9.9m average.

3.24 The same exercise was undertaken for a number of other sectors, with the results shown in Table A1.1, Appendix One. As with the above, it shows a mixed picture for NI sectors, with generally good financial health but lower average levels of intangible assets, and also lower levels of investment. In fact, of all the sectors investigated Computer Programming was the only sector where investment levels were higher than the overall average of the other regions. Despite this, regression analysis showed no statistically significant differences between NI and the other regions in terms of investment activity. In fact, the only statistically significant impact was from previous investment levels, suggesting that past investment is the best predictor of future investment[76].

[76] Regression analysis was based on all sectors combined but due to the relatively low number of firms with investment activity (the dependent variable) and omitted data across other financial metrics, the final sample size reduced substantially. Caution is therefore urged with these results.

Table 3a: Selected financial metrics by industrial sector 2023, by region

Region	N	Avg Emp	Avg Profit Margin %	Avg ROCE %	Avg Liquidity Ratio %	Avg Current ratio %	Avg Gearing %	Working Capital per Emp (£)	Avg Loans/ Overdraft per Firm (£000s)	Avg Fixed Assets per Firm (£000s)	Avg Net Tangible Assets per Firm (£000s)	Avg Intangible Assets per Firm (£000s)	Avg Investment per Firm (£000s)
Manufacture of Fabricated Metal													
NI	248	29	11.7	24.3	2.4	2.8	61.2	26,680	18	917	2,490	181	431
North East	326	42	7.0	18.1	2.4	2.7	79.3	19,088	32	1,668	2,845	370	549
North West	964	27	9.1	19.1	2.3	2.6	79.4	19,224	22	1,146	2,416	573	1,713
RoI	365	42	13.8	29.8	4.0	4.5	47.1	22,584	15	1,516	3,230	2,641	571
Scotland	494	27	6.7	29.7	2.7	3.0	75.9	20,153	30	746	1,765	597	408
South East	335	16	7.6	17.7	2.4	2.8	79.4	20,790	31	371	1,174	118	239
Wales	375	27	6.3	13.6	2.9	3.3	69.1	22,720	22	853	2,447	224	708
Total	**3,107**	**29**	**8.7**	**21.4**	**2.6**	**3.0**	**72.3**	**20,913**	**23**	**1,042**	**2,329**	**609**	**856**
Manufacture of Machinery and Equipment													
NI	129	49	6.9	31.7	2.4	3.1	54.5	35,379	25	1,852	3,585	448	1,116
North East	97	58	0.4	0.6	2.0	2.6	87.3	38,459	32	5,737	8,166	7155	12,531
North West	412	41	7.7	16.0	2.5	3.0	63.6	35,108	16	1,726	3,443	1674	3,394
RoI	240	35	8.1	20.6	2.9	3.6	44.9	29,966	14	2,065	3,844	3261	888
Scotland	152	33	8.9	18.3	2.8	3.3	74.7	34,556	52	1,756	3,188	2072	589
South East	137	38	12.6	23.8	2.6	3.1	57.8	37,959	23	5,199	10,735	3393	15,331
Wales	137	25	5.3	7.1	3.1	3.6	83.0	28,082	26	1,002	2,196	853	777
Total	**1,304**	**39**	**7.6**	**17.5**	**2.6**	**3.2**	**63.8**	**33,853**	**23**	**2,380**	**4,488**	**2,423**	**4,383**

Source: UUEPC analysis of FAME

Table 3b: Selected financial metrics by industrial sector 2023, by region

Region	N	Avg Emp	Avg Profit Margin %	Avg ROCE %	Avg Liquidity Ratio %	Avg Current ratio %	Avg Gearing %	Working Capital per Emp (£)	Avg Loans/ Overdraft per Firm (£000s)	Avg Fixed Assets per Firm (£000s)	Avg Net Tangible Assets per Firm (£000s)	Avg Intangible Assets per Firm (£000s)	Avg Investment per Firm (£000s)
Computer Programming, Consultancy and Related Activities													
NI	473	26	13.0	42.8	4.2	4.3	71.2	10,196	54	907	999	4,311	1,621
North East	542	11	16.6	32.9	4.1	4.2	78.9	10,184	29	317	462	1,791	611
North West	3,366	9	12.7	26.4	4.6	4.7	72.9	12,199	27	703	597	5,375	1,105
RoI	631	55	8.8	20.6	4.0	4.1	74.1	13,949	26	8,106	2,371	28,047	2,364
Scotland	1,333	14	9.7	34.8	4.4	4.4	69.1	10,552	46	1,023	1,129	4,968	2,799
South East	2,198	6	11.1	29.5	4.6	4.6	71.5	11,203	32	178	376	1,413	324
Wales	891	6	10.4	11.7	4.8	4.9	80.3	10,151	18	140	347	693	247
Total	**9,434**	**13**	**11.3**	**27.6**	**4.5**	**4.6**	**73.1**	**11,591**	**31**	**1,039**	**728**	**7,411**	**1,342**
Financial Services													
NI	283	85	9.0	22.6	4.7	5.1	74.7	35,379	25	1,852	3,585	448	1,116
North East	336	108	5.9	6.7	3.8	3.9	97.6	38,459	32	5,737	8,166	7,155	12,531
North West	1,834	147	6.2	20.6	4.2	4.3	114.7	35,108	16	1,726	3,443	1,674	3,394
RoI	337	190	11.7	21.1	4.8	4.9	74.2	29,966	14	2,065	3,844	3,261	888
Scotland	671	53	8.0	11.9	4.4	4.6	96.5	34,556	52	1,756	3,188	2,072	589
South East	793	50	7.9	20.8	4.2	4.4	109.4	37,959	23	5,199	10,735	3,393	15,331
Wales	552	42	3.9	6.6	4.2	4.3	106.1	28,082	26	1,002	2,196	853	777
Total	**4,806**	**103**	**7.4**	**17.6**	**4.3**	**4.4**	**103.9**	**33,853**	**23**	**2,380**	**4,488**	**2,423**	**4,383**

Source: UUEPC analysis of FAME

3.25 To overcome the limitations with coverage of the FAME data[77], a similar analysis was run using a dataset from Growth Flag, which has a better coverage of the small business population. Businesses in relevant sectors in NI were again compared to those elsewhere based on a number of selected financial variables (Table 3c, 3d & Appendix A1.2). Those with above average values are again shaded green, and those below shaded red.

3.26 As before, there is no sector which performs above average across all financial metrics while the share of firms with growth potential is similar in NI to the overall average. Firms in the Manufacture of Fabricated Metal sector in NI have a lower than average gross profit margin, at 21% versus the overall average of 26% but their operating profit margin is above average. NI businesses in the sector hold approximately equal shares of their current assets as cash at the bank (34%), stocks (33%) and debtors (33%) but for the regions combined, assets are weighted towards debtors, at 40% on average, while only 25% is held as cash at the bank. NI businesses also have a higher share of tangible assets as a share of fixed assets, at 58% compared to an overall average of 43%. Consequently, they have a lower share of intangible assets at just 2% of all fixed assets; the overall average is 7%.

3.27 NI firms in the Manufacture of Machinery and Equipment sector have lower profit margins than the other regions combined, and at 14% NI's gross profit margin is lowest of the selected regions, with Wales the next lowest at 22%. The breakdown of current assets is broadly similar to the overall regional average while the fixed asset breakdown in NI is again skewed towards tangible assets, with 55% of fixed assets as tangibles compared to the regional average of 35%. Share capital represents just 5% of fixed assets relative to an overall average of 21%, while the intangible asset share of 2% is in line with the overall average.

3.28 The results for the service sectors Computer Programming and Financial Services are shown in Table 3d. Here profit margins are generally higher than the Manufacturing sectors while share capital is also more prevalent. In Computer Programming NI's gross profit margin is below the overall average at 41% compared to 60%. The fixed assets breakdown also differs, with a lower share of tangible assets in NI (5% compared to an average of 20%) but higher shares of the other categories including intangibles and share capital. Similarly gross profit margins are lower in NI for Financial Services, but here tangible assets constitute a lower share of fixed assets, 9% versus an overall average of 19%. Share capital is, in contrast, much higher at 72% compared to the 49% average.

[77] FAME data is based on annual returns to Companies House (UK) and the Companies Registration Office (RoI). Smaller companies are not obliged to provide the same level of detail and therefore coverage is lower compared to medium-sized and large firms.

Table 3c: Selected financial metrics by industrial sector, 2024, by region

					Current Asset Breakdown				Fixed Asset Breakdown			Growth Potential	
Region	**N**	**Avg Emp**	**Gross Profit Margin %**	**Operating Profit Margin %**	**Cash at Bank %**	**Stocks %**	**Debtors %**	**Tangible %**	**Intangible %**	**Share Capital %**	**Other Fixed Assets %**	**Likely**	**Very Likely**
Manufacture of Fabricated Metal													
NI	1,032	17	21	6	34	33	33	58	2	9	31	19	6
Wales	875	19	29	7	21	38	41	33	2	12	52	17	6
Scotland	2,262	16	21	5	25	35	39	48	4	22	26	16	5
NE	2,168	32	33	-2	22	28	49	39	22	23	16	18	6
West Midlands	6,934	20	25	3	23	38	39	35	6	17	42	19	5
Total	**13,271**	**21**	**26**	**4**	**25**	**34**	**40**	**43**	**7**	**17**	**33**	**18**	**6**
Manufacture of Machinery and Equipment													
NI	781	30	14	5	23	53	24	55	2	5	37	21	5
Wales	437	16	22	7	36	41	23	22	1	18	58	16	5
Scotland	731	38	26	6	29	45	26	12	8	40	40	20	6
NE	1,074	27	34	9	7	71	22	36	0	27	36	21	6
West Midlands	1,409	24	27	5	27	35	39	48	1	15	36	19	5
Total	**4,432**	**27**	**25**	**6**	**24**	**49**	**27**	**35**	**3**	**21**	**42**	**19**	**5**

Source: UUEPC analysis of Growth Flag

Table 3d: Selected financial metrics by industrial sector, 2024, by region

					Current Asset Breakdown				Fixed Asset Breakdown			Growth Potential	
Region	**N**	**Avg Emp**	**Gross Profit Margin %**	**Operating Profit Margin %**	**Cash at Bank %**	**Stocks %**	**Debtors %**	**Tangible %**	**Intangible %**	**Share Capital %**	**Other Fixed Assets %**	**Likely**	**Very Likely**
Computer Programming, Consultancy and Related Activities													
NI	2,620	11	41	7	57	5	37	5	38	36	21	13	5
Wales	2,940	5	63	2	54	7	39	1	49	47	3	11	4
Scotland	7,394	8	91	13	97	1	3	9	45	31	15	13	5
NE	6,884	7	54	14	56	2	42	22	16	29	33	11	5
West Midlands	7,548	9	51	6	40	8	52	65	3	16	17	12	5
Total	**27,386**	**8**	**60**	**8**	**61**	**5**	**35**	**20**	**30**	**32**	**18**	**12**	**5**
Financial Services													
NI	1831	35	37	10	27	4	69	9	1	72	19	19	2
Wales	2782	163	53	15	34	1	64	37	2	21	40	13	3
Scotland	5205	104	93	11	10	0	90	4	1	89	6	14	2
NE	2340	163	69	31	37	6	57	33	7	18	42	15	3
West Midlands	8188	99	62	10	21	1	77	14	4	45	36	15	2
Total	**20346**	**113**	**63**	**15**	**26**	**3**	**71**	**19**	**3**	**49**	**29**	**15**	**2**

Source: UUEPC analysis of Growth Flag

Summary

3.29 The previous chapter showed that NI was a converging UK region in terms of trends in total investment. More recent firm-level data shows, however, that NI businesses are less optimistic about capital expenditure compared to other UK regions with trend data showing a lower share expecting to increase spending, and a higher share expecting a decrease in capital spending, over coming months. The most common reasons given for capital expenditure were replacement and efficiency improvements while investment in technology was relatively low, particularly in NI. The use of external finance was higher in NI than the UK average, but this was due primarily to the repayment of pandemic-related loans. As with other UK regions, NI SMEs showed a strong preference for internal financing of investment, preferring to fund only what they can afford, thus potentially reducing the scale of investment that could otherwise be achieved. Those in NI were also more cautious about future plans due to economic uncertainty. There were regional variations in NI on the use of external financing, and on the awareness and availability of finance. These barriers were also higher in NI than in Scotland and Wales. In addition, NI's share of private equity and venture capital investment remains minimal and is mostly concentrated in consumer goods and services.

3.30 In terms of the financial health and investment activity of NI businesses compared to other UK regions and the RoI, analysis based on firm-level data highlights mixed results. In manufacturing sectors such as Fabricated Metal and Machinery & Equipment, NI businesses generally show solid financial health with higher profit margins and ROCE than the average, though they fall behind in intangible assets and investment levels. Similarly, the Computer Programming sector in NI performs well with higher ROCE and investment levels but lower intangible asset values, while the Financial Services sector shows good financial health but lags in intangible assets and investment. Overall, NI businesses tend to have lower investment levels and intangible assets compared to other regions, with the Computer Programming sector being an exception where investment exceeds the UK average. Additionally, a secondary analysis using a dataset from Growth Flag confirmed these trends, showing that NI firms generally have lower profit margins in manufacturing and services, but with notable differences in the composition of assets. Overall however, and based on the financial metrics included, there were no statistically significant differences across regions in terms of investment activity. Other non-measured variables, such as risk averseness, and a lack of awareness of alternative finance options, potentially explain lower investment levels in NI as there is no indication that the financial health of businesses is any different or worse in NI than elsewhere.

4. Business Investment Consultations

Introduction

4.1 To gain further insight and perspective on business investment in NI, a number of consultations were undertaken with relevant organisations. These included businesses who had invested in recent years[78], trade body organisations, and those on the finance and advice supply side. Amongst businesses and trade organisations, the aim was to better understand:

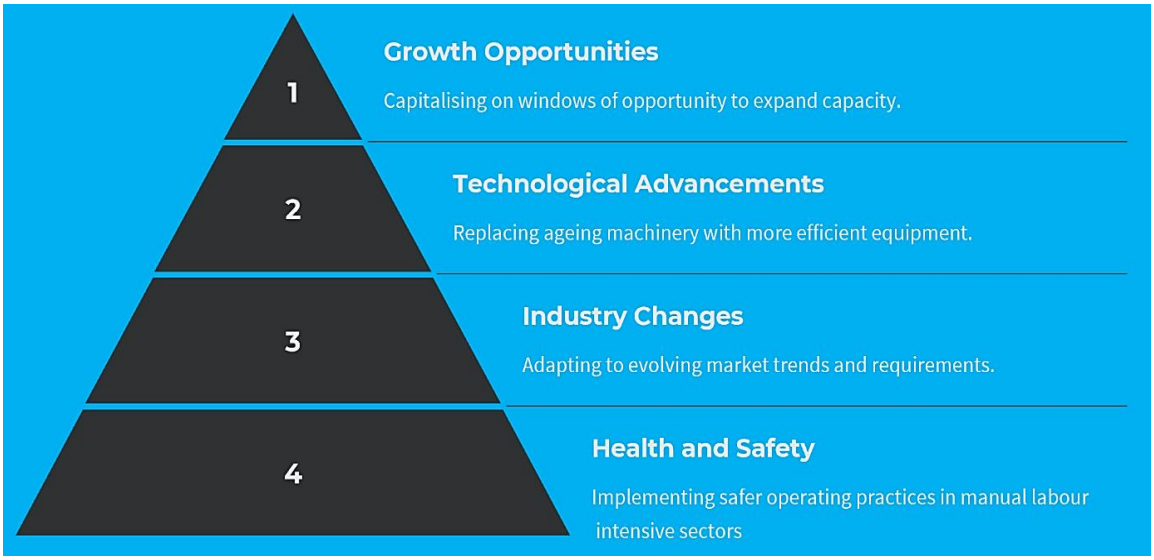
- The motivations for investment,
- Use of finance,
- The impact of the economic climate and policy changes on investment decisions,
- The use of policy interventions.

Motivation

4.2 All the businesses had made investments within the last 3-4 years, 90% of whom had undertaken capital investment, mainly in property and machinery. All businesses described investment as being a regular activity, with an annual budget, although not necessarily at the same scale annually. Figure 4.1 highlights the key motivations for undertaking investment. Across these motivations there was an increasing focus on digitalisation and automation, including partnerships with universities for expertise.

[78] The businesses we spoke to covered four of the priority sectors: Advanced Manufacturing, Materials and Engineering; Life and Health Sciences, Low Carbon, and Software.

Figure 4.1: Motivations for business investment



Source: UUEPC analysis

4.3 In the manufacturing sector, investment typically focused more on physical assets—such as premises and machinery—than on digital resources. In contrast, sectors such as software often saw lower capital investment, with a stronger emphasis on R&D and sales-driven activities such as marketing. Given that our sample was deliberately limited to those that had made investments within the past three years it was not representative of the wider business population. Within these businesses R&D investment was common, with 80% of businesses actively engaging in it, while the remaining 20% indicated that R&D was handled by separate departments or sites within the wider organisation. For the majority, R&D was a continuous, core focus. Half of the businesses had either secured patents or were in the process of applying for them, signalling a strong commitment to innovation. However, the other half felt their work could not be fully protected. Despite this, R&D was prevalent, particularly in manufacturing, with companies of all sizes across the sector securing patents. It was suggested, however, that many businesses are underreporting and underclaiming their R&D activities, often viewing continuous improvement activities as routine tasks rather than recognizing them as valuable, claimable activities.

Financing Investment

4.4 Consultees from trade/supply-side organisations recognised that businesses in NI were open to investing however they identified the more cautious approach of NI firms compared to the more open-minded nature of those in the UK. There was also a recognition of a lack of awareness amongst NI businesses of financing options beyond traditional banking. Business investment was recognised to be typically funded using firms' internal cash, with external funding coming primarily from traditional banks with whom

businesses had long-standing relationships. It was noted that banks' conservative approach and reliance on personal guarantees often discourages firms from borrowing and while experiences with alternative lenders were generally thought to be positive, most firms preferred to avoid them or weren't aware enough about the options to make informed decisions on their use.

"Financing here is slightly narrow in terms of options and how it's structured. It's still quite stringent in terms of banks with personal guarantees, where we find in England, they seem to be able to get easier access to finance, with less barriers".

"There have been other occasions where banks have demanded that directors of businesses guarantee with their own pension pots. That conservative approach by some of our local banks hasn't helped".

4.5 There was also a recognised lack of connectivity between businesses and potential investors, and of sufficient investor readiness programmes. Software and technology-based companies were identified as more likely to use private equity and venture capital, though it was recognised that many other NI businesses avoid these sources due to fear of the unknown and of losing control, preferring self-funding, even if it takes longer.

"The experiences of those who have brought in private equity…has been positive. It comes with a whole world of additional reporting, layers in terms of decision making, demands from investors but my assessment of those firms is that it has brought in external wisdom, drive, and determination that has moved some of these businesses on quite considerably… There's a need for demystifying and the sharing of other experiences. Firms don't trust people who aren't like themselves, so word of mouth and that informal network is much more valuable".

4.6 Aligned to this, the self-funding of investment was prevalent amongst the NI business consultees and the preferred option, with all businesses using internal funds for finance. Just under a third used a mix of internal funds combined with bank loans or asset financing. Use of other external sources was generally limited, particularly use of equity finance, while there was occasional use of credit financing and invoice discounting.

"NI firms tend to stay away from private equity as they fear losing control of their firm and would rather fund investments themselves even if it takes a much longer time".

4.7 Most businesses were confident and content with the way they currently finance investment. Some, which were part of global operations, highlighted

the need to present a business case and compete internally against other site locations for investment finance. It was noted that changes in UK policy, particularly the increase in National Insurance Contributions (NICs), would make the NI sites less competitive relative to the other intra-firm locations which would have a knock-on effect on investment in NI. Concerns around the impact of the NICs increases on investment were also more widely shared across consultees, which is discussed in more detail below under the Economic Climate impact.

4.8 Consultees views on the financial landscape for supporting investment was mixed, particularly in terms of whether there was sufficient availability. The majority of firms had a positive outlook on the landscape noting sufficient finance and supportive relationships with banks, with longstanding bank relationships the norm. This, however, was also suggested as the reason for the low uptake of external finance, with the problem seen as low demand, rather than lack of supply, due to businesses desire to deal solely with local banks and bank managers.

"There is sufficient funding across the board in NI, but the issue is with the lack of demand as NI has low uptake. I find that NI banks make it difficult for firms to access the level they need. Furthermore, NI firms want to deal with local banks and bank managers but there is a severe lack of this in NI as the face of banking has changed".

"I would say in more rural locations, if your first port of call has been your local accountant or your High Street bank or your local enterprise agency, if they're not familiar with all of the alternative options that are out there, then that's where the conversation can kind of end".

4.9 A small number of firms identified an issue with banks being slow and stringent on decision making, and financing options being narrow. As a result, some struggled to access the desired levels of financing for large projects. Interest rates and the cost of borrowing were also raised as an issue. Within the manufacturing sector, the cost of finance was identified as the biggest barrier to investment, with high interest rates causing businesses to delay investments. It was noted, however, by others that there had been a clear improvement in the NI financial landscape due to technology advancements and the use of comparator websites.

4.10 From the supply side, it was noted that there is a fragmented support landscape and that businesses struggle to navigate the complex financing ecosystem. There is limited time for business owners to research and understand the various financing options while running their operations hence the dominant use of high street lending and, during the pandemic, Covid loans. It was noted, however, that there is an increasing trend for businesses

to use multiple complementary finance providers but more worringly, the use of credit cards and high interest online lenders is also common. There was a recognition that more needs to be done in terms of early conversations around equity and other types of finance rather than waiting until the need is urgent. Likewise, there is a need to continue current efforts to spread knowledge and uptake of different forms of finance across NI to reduce the Belfast-centric focus.

4.11 There was a belief that financial models often favour traditional companies and sectors which was challenging for more innovative businesses – indeed it was suggested that the financial landscape isn't as supportive for such businesses. Where alternative lenders/finance had been used, the experience was generally positive. Although based on a minority sample, the use of equity finance was identified as being laborious and challenging in terms of justifying the purpose, although support from Invest NI was identified as useful within the process. There was a view that Silicon Valley investors were getting a good bargain when investing in NI firms, with higher valuations in the US for similar businesses. Amongst those that hadn't accessed equity finance some were open minded in terms of their potential to use it in future due to its increasing popularity and availability.

"No, it may be of interest in the future. I have spoken to some equity companies, to find out what is available out there for when we are scaling up. So we know what's out there and what level we need to be at before we press the button on that and have serious conversations with those investors".

4.12 Indeed, some trade organisations have been promoting equity financing, aiming to demystify it by sharing experiences, recognising that firms often distrust outsiders. This is particularly the case in NI's SME and family-owned sector, where there is a cultural preference for debt over equity, as firms fear interference from external investors, with the dilution of ownership and decision-making key concerns. This is seen to be less of a concern in software, where investors are recognised as bringing valuable expertise.

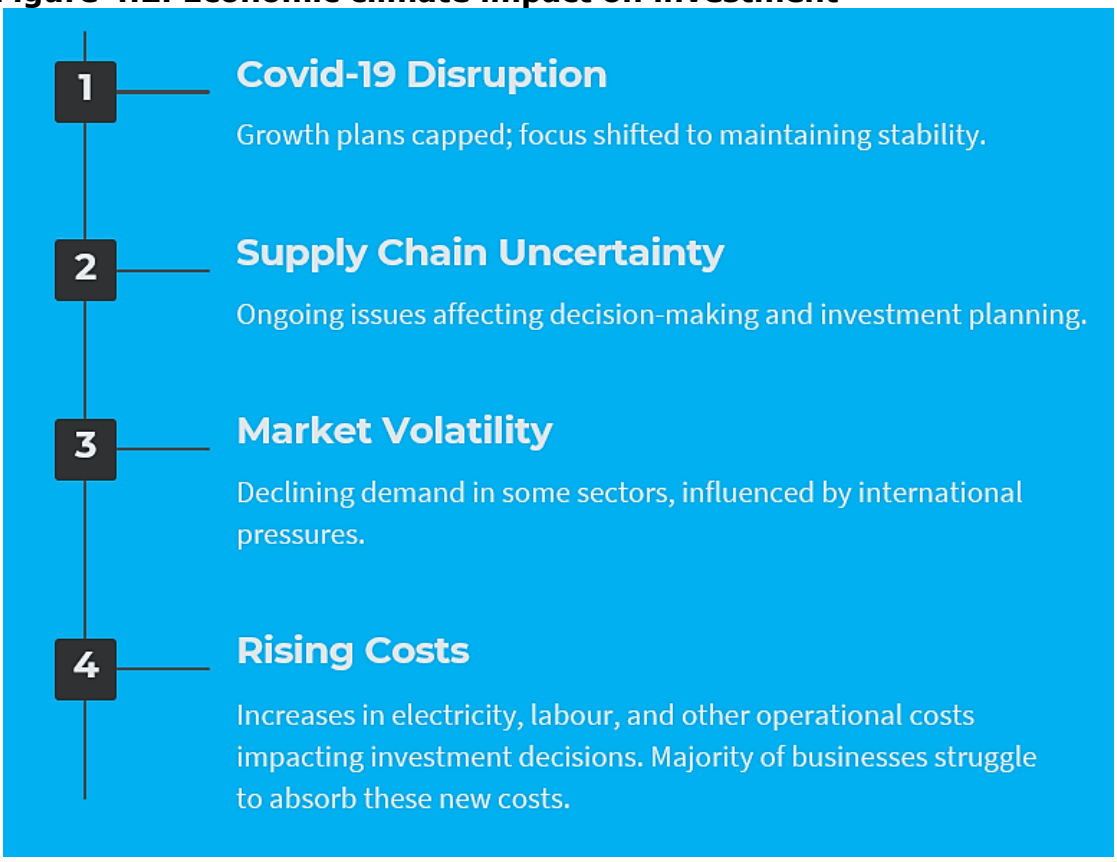
"To realise our full potential, we need external finance…… so we are happy to sell part of our firm to derisk and spread the burden".

"The only way we could've got that money to keep up with development is through equity, which there is a general reluctance towards as it dilutes everybody in the business, or through organic growth but by that stage other players in the market will have moved on and taken your ideas".

Economic Climate Impact

4.13 Consultees identified a number of ways the economic climate had impacted investment decisions over the last number of years. More than half said the impact had been negative due to issues such as Covid-19, interest rates, supply chain issues, increased costs and uncertainty (Figure 4.2). Within more internationally focused firms geopolitical issues were said to have created a drag on markets, with order books down significantly, driven solely by international pressures. A number of others highlighted the market requirement to invest despite the challenging economic climate. This was particularly the case for the software sector where the spike in demand saw increasing demand for staff and soaring salaries. Businesses in the sector needed to invest to just stay afloat, meaning budgets were lower for other activities. Some positive Covid impacts were also identified including a post-Covid growth journey among original equipment manufacturers (OEMs) and a build-up of cash internally during the pandemic. On the supply-side it was suggested that with the repayment of Covid loans coming to an end, it may have permanently changed financing behaviour for the better as for many it would have been their first foray into borrowing.

Figure 4.2: Economic climate impact on investment



Source: UUEPC analysis

4.14 The rise in National Insurance contributions (NICs), national minimum/living wage (NLW) and changes to business property relief were listed as some key takeaways from the recent budget which will impact business investment. Almost all businesses described the additional costs of NICs and NLW as potentially impacting a range of business decisions relating to investment, wages, employment and where the burden of the increased costs should and could be placed. The increase in payroll costs due to the rise in the NLW was also identified as not being restricted to those on low pay only but would have impacts throughout the payscale due to the need to retain pay band differentials. As a result of the strong chilling effect due to rising employment costs, pauses on recruitment and potential staff losses were identified as likely outcomes. Firms were also considering whether they should be investing in AI to automate tasks and reduce the need for hiring.

"… It will directly hit our bottom line, I don't think we will be able to pass it onto our customers because we have a lot of business locked in at a fixed price, so we will have to absorb it."

"Disaster on a number of levels. The employment related stuff is incredibly damaging… Despite having very few staff on national minimum wage, the wages in manufacturing are banded so when the bottom rises the differentials must be kept. That (money) would've allowed the firm to give an above inflation pay rise, employ more people, put money into R&D investments. Whereas now, they're looking at losing people".

"… It will impact our investment going forward. Roughly our cost of people has gone up… across the piece so we are looking to see how we can do the same with… less staff which will lead to unemployment. I know every business in our area is doing exactly the same."

"There's a chilling effect at the very least and your problem here is AI in general…One, because the actual cost of your stand still position is going up, but two the advances in AI are just so extreme that this is affecting your investment on two levels. The first, will you or should you hire more people? Because in the next 6/12 months, AI agents and various roles are already being made redundant… to keep up do you need to be investing in AI itself? I think definitely a huge impact but not helped by AI itself in respect to the budget."

4.15 Furthermore, those who compete internally within the company for business and funding were concerned about the increase in their wrap rate[79], making the NI business site less competitive in the company portfolio and deterring business activity in NI. Notably, some of those businesses who hired low

[79] The wrap rate is a method of calculating the cost of employee labour used when bidding for projects.

levels of highly skilled staff felt the increase in these costs wouldn't affect them as much but there was a general uncertainty about the scale of the cost increases, and subsequent impact on investment until the numbers had been run.

"The ongoing minimum living wage strategy and also NICs all increase our operating costs and if you take that in the context of us as a manufacturing facility within a corporation that has global capability then in turn, we end up competing internally for business, so we are trying to maintain a competitive cost base. The knock-on effect as our cost base increases, we become less competitive so there's possibility that we will produce a product here that could [in future] be produced elsewhere and then that product could be imported from one of the other locations which decreases our demand and means it has impact on our employment decisions."

4.16 Recent changes to business property relief have also created a significant disincentive to invest. Some firms expressed concerns that the more they grow and invest, the higher their tax burden becomes. As a result, there's a tendency to avoid expanding beyond the taxable threshold. Similarly, capital gains tax is seen as a major obstacle, particularly in the manufacturing sector, where many founders and business leaders will be ready to pass on their companies but deterred by the tax implications. Instead of focusing on growth, these firms are prioritising retaining cash to cover the tax bill.

4.17 These policy decisions were said to have come at a particularly challenging time, as companies need resources to invest in talent and drive productivity, while also meeting decarbonisation goals. There was general agreement that recent budget changes have created a climate that discourages investment at a time when it's most needed.

Policy Supports

4.18 Business within the manufacturing sector utilise a number of government policy supports to assist with investment. Invest NI support was identified as central in helping businesses with their investment, particularly in relation to skills and efficiency improvement. Firms detailed the strong relationship with Invest NI and also the importance of the non-financial supports they offer namely mentoring, training, networks and events to support investment. Enhanced capital allowances were considered to be very positive and make investments worthwhile. Derisking incentives which put in place a form of guarantee were also important for manufacturing. The previous Invest NI productivity improvement grant was also seen to encourage manufacturers

to invest who may have been previously fearful. Others, such as in the software sector, were more likely to utilise UK-wide policy supports due to the restrictive requirements of locally-based Invest NI schemes which are aimed at, or applicable to, a select few companies.

"If the government are serious about driving productivity and decarbonisation then the government needs to intervene. There needs to be support for both of those things. A scheme [was] launched … around productivity improvements by DfE, so I think they recognise that they need to do something to stimulate the market to make things happen. Invest NI productivity scheme would absolutely be useful if it was brought back".

4.19 R&D tax credits were also widely used, 90% of businesses use or have used R&D tax credits, the remaining 10% identified they don't carry out R&D activities on site. When asked which was the most effective support for investment, R&D-related interventions were most cited, including the R&D grant and R&D tax credits. Skills for growth, the growth accelerator programme and C-BILS support were also highlighted as important interventions along with other Invest NI supports. Almost three quarters of the businesses felt that they wouldn't have gone ahead with the investment without support, many remarking at least not in the same time frame. It was also suggested, however, that most firms don't have a choice whether they want to invest or not, with a need to do so whether that be for renewing, improving or replacing equipment or keeping up with industry trends.

4.20 Innovate UK funding was less commonly accessed and often seen as a difficult/challenging process; several businesses highlighted multiple unsuccessful applications. The complex application process was not only seen as a deterrent, but some businesses also noted that they wouldn't want to use Innovate UK grants or other UK funding mechanisms due to their knowledge sharing aspect. There was also a suggestion of a lack of awareness and promotion of Innovate UK grants in NI.

"Innovate UK stuff looks really interesting and attractive on the face but then when you get into what is required to make an application firms would rather do it themselves or find another way".

4.21 There were similar downsides identified in terms of accessing the above supports mentioned. Red tape and the arduous application and associated paperwork was said to be off-putting, particularly for SMEs. Furthermore, a common issue identified was the relevance of the metrics set by Invest NI which were more focused on numbers employed.

"The only thing about Invest NI, a lot of the funding is based around numbers employed and we aren't in that market because

there's a very low employment rate… If the model changed to bring in productivity as a KPI I think that may have a greater impact".

"I think it would be really helpful for Invest NI to have an understanding of a scaling tech company and the power/value of recurring revenue. When they're developing metrics it's important".

"The only thing with Invest NI is that their funding is still very much linked to job creation and that in manufacturing is a bit of a bugbear because we are all trying to… be more productive and efficient and do a higher level of turnover with the same people… If they can move away from those job creation targets and link it to productivity per head or another similar metric, it would be much more prevalent in the sector".

4.22 Specifically, with regards to R&D tax credits it was noted that the recent changes in accessibility and the HMRC crackdown on fraudulent claims within the system had resulted in a drop in qualifying R&D activities, particularly in SMEs across all industries. It was also said to have instilled a sense of fear among genuine claimants. The potential for a lengthy and arduous investigation into claims had resulted in the widespread stopping of R&D activities, particularly amongst smaller firms. The differentials in R&D tax credits in NI versus the RoI was also highlighted; tax credit compliance is similar but the RoI offers a more attractive benefit—30% credits. When paired with lower corporation tax rates, this favourable environment has spurred increased innovation and investment among Irish firms, putting NI businesses at a competitive disadvantage. As a result, NI businesses find themselves in a weaker position, struggling to keep pace with the innovation-driven growth seen across the border.

4.23 Apart from the budget-related issues previously highlighted, firms didn't feel there were many policies which acted as a disincentive to invest. Those which were identified as having an impact were UK level rather than local policies, and included:

- Corporation tax rises which would leave firms with less cash to invest.
- Brexit generally wasn't viewed as causing any significant impacts or challenges. One company highlighted dual market access as being a huge asset and that clarity and education was needed in order to utilise this. Another identified the Windsor Framework as extremely detrimental.

"… the Windsor Framework is killing us with huge costs. Due to customs duties, paying European duties which are significantly higher, no access to British Generalised Scheme of Preferences (GSP), customs paperwork. As a manufacturing company we've got

full frontier customs costs with everything and there are certain things we can longer do because the component count is so high. Parts come in which can't meet any British rules of origin and therefore become dutiable from the country".

4.24 Consultees offered a variety of suggestions of supports they would like to see introduced to support business investment. Within manufacturing, policies to support productivity improvements and decarbonisation were seen as key, particularly in order to meet the Minister's economic objectives. In particular, bringing back the successful Invest NI productivity grant was seen as crucial. Furthermore, improvements to the planning system were seen as essential, making it investment friendly, as was taking control of energy policy, making it more affordable particularly for high energy users in the manufacturing sector[80].

4.25 Outside of manufacturing, helping tech and software companies to become greener, and loosening the criteria for accessing support were seen as key to increase investment activity. An improvement in the HMRC R&D tax credit enquiry system, an increase in the value of the tax credit and a change in rules around foreign R&D were also identified as essential to reform the R&D tax credit system.

4.26 More generally there was also a call for:

- The need for more support focused on property and industrial space, particularly for expansion;
- Policy to mitigate high energy costs such as funding for solar panels;
- Increased ability for collaboration between tech companies and local governments to solve problems and inefficiencies;
- Help to address skills shortages and lack of future pipeline of skilled employees – for some this was a bigger barrier to investment than any finance issues;
- In terms of Invest NI - a move away from job creation targets to using productivity per head or another similar metric, and alternative export support beyond graduate to export, with more experienced personnel preferred;
- The need to reduce corporation tax.

4.27 On the supply-side, there was a recognition of the need to continue building on existing efforts that are helping to improve awareness of finance options

[80] Wider constraints in capacity have been acknowledged elsewhere: BBC NI Energy Target; Sewer System Problems

across NI, although there will likely be a time lag between awareness raising and a change in investment behaviour. These included continuing to support and building on existing activities such as the British Business Bank Investment Fund roadshows, the creation of the E-ConX service designed to simplify access to the fragmented finance landscape, 'Meet the Funder' events and Investor readiness programmes such as Founder Labs. Additional suggestions related to financial literacy and awareness included:

- Enhanced education for financial advisors and intermediaries on the range of financing options and products available to businesses;
- Use of case studies and success stories to reduce fear around equity finance;
- Addressing high-interest financing behaviours before they become problematic for businesses;
- Developing more pre-accelerator or "accelerator-like" programmes for those not accepted into or not ready for existing schemes;
- Continued focus on regional balance in finance distribution.

Summary

4.28 The consultations reaffirmed many of the earlier points from the data analysis. Focusing on those that had undertaken investment in the last 3-4 years the businesses confirmed that investment is a regular activity although it's not necessarily undertaken at the same scale annually. Investment is also primarily capital-focused, in property and machinery, although there is an increasing focus on digitalisation and automation. R&D activity is also prevalent but not necessarily recorded as such, nor necessarily with outputs that can be formally protected. As with other evidence, most businesses prefer self-funding of investment through internal cash reserves with more limited use of external financing. Historically, the banking environment has been relatively conservative and although there are now a greater range of financing options, the lack of awareness from business owners and advisors of the range of financing products, and the familiarity with existing bank relationships, has impacted take-up. The financial and associated support landscape is also viewed as fragmented and difficult to navigate while there are also concerns about loss of control through equity investment.

4.29 Despite the challenges businesses used a variety of available supports to help fund investment, with R&D tax credits used widely. The recent HMRC crackdown on these has, however, created uncertainty and led businesses, particularly SMEs, to withdraw from applying and engaging with R&D activities. Recent policy announcements relating to NICs and the NLW are

also creating significant concerns about future investment capacity, with additional employee costs likely to result in staff reduction and increased automation. Businesses were keen to see changes to the support system including more productivity-focused support rather than job creation, planning system improvements and more to address high energy costs and skill shortages.

5. Conclusion

5.1 This report sought to investigate business investment in NI from a firm-level perspective to address gaps in existing knowledge. Due to lack of data availability on investment activity the study drew from a range of secondary data and qualitative interviews with businesses, to better understand the nature of investment, how investment is financed, whether businesses in NI are more financially constrained than elsewhere and whether and how policy interventions are used to support investment activity.

5.2 Business investment remains crucial to productivity growth and the long-term growth of the economy yet faces persistent challenges. In the UK, whole-economy investment activity has lagged G7 counterparts particularly since the 1990s recession. The long-term trend shows that business investment has increased in monetary terms, but as a share of GDP it has fallen over time, with widespread uncertainty since the pandemic one of the recent contributory factors constraining investment. In NI, investment lagged other parts of the UK in the late 1990s but by 2017-19 there had been a degree of catch-up with both investment per hour worked and intangible investment per hour worked converging with other regions of the UK. Despite this, NI continues to rank mid-table of the UK regions with regards to intangible investment, with lower levels of R&D investment and patenting activity than elsewhere. There is evidence for a stronger preference for tangible investment in NI, such as in machinery and equipment, but since mid-2023 a lower share of NI businesses than elsewhere in the UK have expected capital expenditure to increase in coming months.

5.3 The challenges in NI, on the intangible side, stem from what researchers have identified as a "capabilities gap" rather than simply resource limitations, including insufficient absorptive capacity and a weak R&D culture. Business spend on R&D has increased in recent years, although it is still relatively concentrated[81] and the region continues to lag with regards to outputs, such as innovation activity and patents. Indeed, analysis of firm level data show that the financial health of NI firms is not sufficiently different from other regions of the UK or the RoI. The financial barriers instead appear to stem primarily from risk aversion among businesses, information asymmetry in financial markets, and a strong preference for internal funding over external financing. The latter in particular appears to compound issues around investment, with surveys indicating that businesses invest based on what they can afford from internal funds and that there is underinvestment as a result. Added to this businesses, and business advisors, are unaware of the range of available external financing options. Many tend to stick with familiar

[81] There were 1,278 businesses in NI in 2023 engaged in R&D expenditure, down from 1,750 in 2019 (source: NISRA).

forms, even when accessing external finance, with bank loans and credit cards the most prevalent types.

5.4 Businesses in NI confirmed their preference for internal financing of investment and further identified a number of barriers stemming from the economic conditions of the last five years. Covid, higher interest rates, supply chain issues and the associated increased costs, combined with an uncertain economic climate, all had an impact on investment. The use of Covid loans may, however, have changed attitudes and behaviour towards borrowing as for many it would have been their first business loan. Despite this, the changes arising from the 2024 Autumn Budget were viewed as being detrimental towards investment with increases in NICs and NLW, in particular, identified as having a chilling effect on future investment.

5.5 Businesses had favourable opinions on the range of supports available to them to support investment. R&D tax credits in particular were used extensively but recent changes in accessibility and HMRC investigations into fraudulent activity had reduced qualifying activities. The potential for investigation, even for genuine claims, had curtailed R&D particularly amongst SMEs. Meanwhile the differentials between the UK tax credit system and the RoI system was seen to put NI firms at a competitive disadvantage.

Policy Considerations

5.6 Constraints on business investment have notable impacts, particularly on productivity growth, therefore it is important for policy to address weaknesses in the system. Businesses are currently in a difficult economic and trading climate with recent employee cost increases the most immediate impediment to investment on top of the pre-existing challenges. As a result, it may be difficult for policy to change investment behaviour over the short term, but medium to long-term policy efforts could focus on the key financing and capability barriers. A focus on improving financial literacy for SMEs, expanding knowledge on and access to diverse funding sources, cultivating a stronger culture of investment in tangible and intangible assets, and developing innovation capabilities are key to addressing NI's investment challenges. When seeking to address these issues, thought should also be given to ensuring these aspects are embedded within management and leadership training. As previously highlighted as an area for improvement in NI, wider analysis also points to better managed firms being more likely to invest, and to invest more

5.7 **Financial literacy and finance options** – evidence from both the survey data and consultations indicated that a) firms prefer to fund investment from

internal funds; b) this results in underinvestment and growth at a slower rate; c) where external funding is sought, traditional forms are most prevalent (loans and credit cards); and d) there is an awareness gap about wider finance options and availability. To remedy this, and address information asymmetry, policy could support and build on existing measures which are designed to improve awareness and understanding of the range of finance options available such as supporting enhanced education for business leaders, financial advisors and other intermediaries. Sub-regional workshops, webinars, meet the funder activities, and in-person consultations could all help to educate on types of finance and the stage at which they are most appropriate. For larger firms, for which access to finance may be less of a challenge than SMEs, there is still the need to encourage the use of alternative forms of finance to support growth beyond that enabled by internal financial capability. In conjunction, the sharing of case studies of businesses that have utilised other forms of finance, and the use of peer-to-peer networks where business leaders can share their experiences, would help with an understanding of the process, the financial payoff and the tangible results that could be achieved. Although there will be a time lag between awareness raising and changed behaviour these interventions should gradually help to change investment culture. For those in the start-up and more tech-oriented space, for which equity financing may be more appropriate, pre-accelerator or "accelerator-like" programmes for those not accepted onto existing schemes may be useful to help with their investor-readiness. Similarly, for those on the supply-side, an understanding of how firms in new or developing industries are typically financed and the development of metrics to reflect their revenue models would help with the understanding of business need.

5.8 **Culture of investment** – although the businesses that we spoke to are investing on a regular basis, this would not be the case for all businesses. In addition, the most common reason for investing, based on survey data, was for replacement, while investment in technology was lowest. Encouraging and supporting businesses to invest in areas such as technology, new products and services, and talent, will position them for growth and resilience in the shift towards AI, digital transformation, sustainability and decarbonisation. The aim should be to help shift mindsets whereby investment is viewed as a pathway to growth and value creation rather than just a means to cut costs. There are a range of existing policy interventions designed to support businesses to invest in such areas but to minimise risk averseness, consideration might be given to increased availability/accessibility of R&D grants to counteract the drop in activity due to the R&D tax credit changes and crackdowns, particularly for SMEs. Similarly, although a new business innovation grant has recently been announced, the re-introduction of a productivity grant (akin to the previous Invest NI grant) was also seen to be crucial, along with metrics to capture productivity or efficiency enhancements

rather than a focus on job creation. There is also a need to ensure that firms in NI are not at a competitive disadvantage in relation to those in the RoI or the UK, particularly in relation to access to capital grants amongst large firms[82]. Shifting mindsets to view investment as a path to growth and value creation is also key. Behavioural change in business can be complex and long-term in nature and involves understanding organisational culture, leadership and motivation. Interventions can support change but are often time-intensive involving weeks-long commitment from businesses. Given time constraints particularly within SMEs, consideration should also be given to lighter touch interventions which can help support change through new habit formation[83].

5.9 **Developing innovation capabilities** – Linked to the above, although business spend on R&D has increased in NI over recent years, it is concentrated within a relatively small number of firms, rather than spread across the business base. Innovation-related expenditure and innovation activity and the number of patents also remains lower than other regions. Aside from the existing grant-based interventions to support innovation, the ability of businesses to attract skilled employees is central to further developing capability. SMEs are likely to be more disadvantaged in this area, being unable to match the salaries and benefits that larger firms can offer. Consideration should be given to increasing awareness among SMEs as to how to leverage existing innovation interventions and in particular, those that enable the recruitment of skilled staff (such as InterTradeIreland's Innovation Boost[84]) and those that support industry-academic linkages (such as knowledge-transfer partnerships(KTPs)[85], Business Explorer[86], InnovateUs[87], Connected[88]). The use of such interventions may offer more timely solutions to capability limitations particularly in light of existing widespread recruitment challenges.

[82] Previous research, for example, has highlighted the risk to large food manufacturers in NI that are excluded from capital grant schemes: Independent Strategic Review of NI Agri-Food Reports | Department of Agriculture, Environment and Rural Affairs

[83]For example, see: Developing a Scalable Solution to Improve SME Productivity: A Pilot Study - The Productivity Institute

[84]Intertrade Ireland Innovation Boost programme

[85]Innovate UK KTP scheme

[86]Intertrade Ireland Business Explorer programme

[87]NI business info InnovateUs programme

[88]DfE Connected programme

Appendix One

Table A1.1: Selected financial metrics by industrial sector, 2023, by region (FAME analysis)

Region	N	Avg Emp	Avg Profit Margin %	Avg ROCE %	Avg Liquidity Ratio %	Avg Current ratio %	Avg Gearing %	Working Capital per Emp (£)	Avg Loans/Overdraft per Firm (£000s)	Avg Fixed Assets per Firm (£000s)	Avg Net Tangible Assets per Firm (£000s)	Avg Intangible Assets per Firm (£000s)	Avg Investment per Firm (£000s)
Construction of Buildings													
NI	1,077	49	5.1	16.6	3.5	4.3	91.5	39,664	25	481	1,440	116	694
North East	577	10	9.8	33.0	2.9	3.2	111.3	22,378	23	306	852	131	902
North West	2,532	15	7.4	24.7	3.4	3.9	124.8	18,368	23	1,211	3,354	389	1,464
RoI	1,620	14	10.5	37.9	3.5	4.2	58.7	18,195	25	617	1,341	3,653	884
Scotland	1,471	21	5.3	19.0	2.9	3.3	106.3	16,334	34	1,092	3,623	359	2,738
South East	1,877	9	7.4	28.1	3.3	3.7	118.4	19,638	30	1,597	2,455	27,134	3,526
Wales	1,334	7	7.1	31.4	2.9	3.4	112.2	24,646	20	333	909	102	820
Total	**10,488**	**13**	**7.4**	**26.3**	**3.2**	**3.7**	**105.1**	**20,924**	**26**	**925**	**2,275**	**4,168**	**1,792**
Specialised construction													
NI	1,679	8	7.3	30.9	2.6	2.7	81.0	18,624	31	196	515	88	184
North East	2,133	10	7.7	34.8	2.9	3.0	104.0	10,970	31	224	428	470	303
North West	7,563	8	10.8	45.9	2.9	3.0	109.9	13,408	30	180	420	193	495
RoI	2,142	16	9.8	22.8	3.9	4.4	47.4	15,968	23	483	1,377	992	576
Scotland	4,921	12	7.3	63.2	2.8	2.9	105.2	10,566	30	431	629	444	372
South East	4,785	6	11.9	44.8	2.7	2.7	117.8	15,411	30	146	324	107	287
Wales	2,859	7	7.2	16.1	2.6	2.7	100.4	12,050	23	199	466	37	566
Total	**26,082**	**9**	**9.5**	**41.4**	**2.9**	**3.0**	**101.9**	**13,545**	**28**	**253**	**532**	**284**	**432**
Architectural and Engineering Activities													
NI	384	27			3.2	3.3	80.8	14,928	80,121	2,170	2,172	7,461	296
North East	722	7	17.4	26.4	3.1	3.1	81.4	15,981	69,447	111	329	52	113
North West	2,049	14	11.5	34.1	3.2	3.2	73.9	15,841	75,179	834	825	4,675	1,426
RoI	684	17	8.4	22.1	3.8	4.0	53.4	15,146	91,216	1,451	2,143	202	395
Scotland	1,659	14	12.8	28.7	4.0	4.1	74.7	16,236	82,074	1,538	1,283	16,309	2,237
South East	988	9	18.3	60.5	3.6	3.7	78.1	16,653	79,083	421	536	4,003	1,067
Wales	642	8	11.5	28.8	4.2	4.3	75.2	14,658	75,235	161	324	244	1,116
Total	**7,128**	**13**	**12.3**	**32.7**	**3.6**	**3.7**	**73.9**	**15,784**	**78,554**	**939**	**995**	**6,167**	**1,175**

Source: UUEPC analysis of FAME

Table A1.2: Selected financial metrics by industrial sector, 2024, by region (Growth Flag analysis)

					Current Asset Breakdown				Fixed Asset Breakdown			Growth Potential	
Region	N	Avg Emp	Gross Profit Margin %	Operating Profit Margin %	Cash at Bank %	Stocks %	Debtors %	Tangible %	Intangible %	Share Capital %	Other Fixed Assets %	Likely	Very Likely
Construction of Buildings													
NI	4,912	8	9	2	29	35	35	29	0	14	57	14	2
Wales	7,069	11	16	9	12	80	7	35	0	25	39	12	2
Scotland	8,945	10	13	5	20	66	15	25	1	23	51	14	2
NE	4,185	13	17	10	10	84	6	18	2	38	42	13	2
West Midlands	14,205	7	19	6	27	57	16	34	4	17	44	12	2
Total	**39,316**	**10**	**15**	**6**	**20**	**64**	**16**	**28**	**1**	**23**	**47**	**13**	**2**
Specialised Construction													
NI	6,513	8	19	5	39	25	37	49	0	11	40	15	3
Wales	13,642	7	23	6	42	17	40	37	0	6	57	11	2
Scotland	23,550	8	14	7	38	14	48	71	7	12	10	12	3
NE	11,454	9	20	9	16	69	15	46	3	10	42	11	3
West Midlands	28,041	7	28	-10	26	25	48	75	0	24	1	12	3
Total	**83,200**	**8**	**21**	**3**	**32**	**30**	**38**	**55**	**2**	**12**	**30**	**12**	**3**
Architectural and Engineering Activities													
NI	2,620	12	19	2	35	26	39	44	1	15	40	14	4
Wales	4,837	9	19	4	40	17	43	41	2	16	42	12	6
Scotland	11,953	9	33	9	43	16	42	76	2	13	10	12	6
NE	5,057	15	39	-6	25	24	51	27	1	14	59	11	7
West Midlands	10,886	19	29	-16	26	28	46	75	0	24	0	13	5
Total	**35,353**	**13**	**28**	**-1**	**34**	**22**	**44**	**52**	**1**	**16**	**30**	**13**	**6**

Source: UUEPC analysis of Growth Flag

About UUEPC

UUEPC is an independent research centre focused on producing evidence based research to inform policy development and implementation. It engages with all organisations that have an interest in enhancing the Northern Ireland economy. The UUEPC's work is relevant to Government, business and the wider public with the aim of engaging those who may previously have been disengaged from economic debate.

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