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Brexit and SME strategy: evidence from the UK's post-referendum business environment

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ABSTRACT

We investigate the potential impact of Brexit perceptions on SME strategic behaviour (investment, innovation, internationalisation, growth plans) in the UK's post-referendum business environment. Using data from the UK Government Longitudinal Small Business Survey, we find that around a quarter of SMEs view Brexit as a major barrier to business success. SMEs holding this view are less likely to plan overseas capital investment and to plan the development and launch new products or services, but more likely to plan R&D investment, pursue future export expansion, and target sales growth, while no statistically significant effect is found for UK capital investment. These findings relate to SMEs' forward-looking plans over the next three years. Export-oriented SMEs appear particularly affected, with a higher probability of attributing anticipated declines in sales turnover to Brexit. Results suggest that Brexit has become embedded in managerial expectations and is associated with a heterogeneous reconfiguration of UK SME strategic behaviour.

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Brexit; UK-EU relations; SMEs; investment; internationalisation; strategic behaviour

1. Introduction

Small and medium-sized enterprises (SMEs) form the backbone of the firm ecosystem and are a core part of the modern economy.¹ In the UK, SMEs account for over 99% of registered firms and 60% of total private sector employment. These SMEs face various challenges related to: regulation; taxation; late customer payments; staff recruitment, training and retention; accessing appropriate financial advice and funding for tangible and intangible investments; supply chain disruptions; competition; global pandemics; inflation; and wars. The vote for the UK to leave the EU (Brexit) in 2016, followed by the eventual formal departure in January 2020, added to these challenges, leading to increased uncertainty about trading conditions with resultant economic implications for UK firms across sectors and regions (Bailey, Hearne, et al., 2023; Bloom et al., 2025; Du et al., 2023) as well as far-reaching effects across countries (Cumming & Zahra,

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2016; Hassan et al., 2024). Given their importance to the economy, the paucity of evidence on the long-lasting and persistent impacts flowing from the decision to leave the European Union, this paper investigates the impact of Brexit on SME perceptions and strategic intentions within the UK's post-referendum business environment.

SMEs are agile and can adapt quickly to changing trading conditions. Nevertheless, SMEs often suffer from the 'liability of smallness,' which reduces their resilience to systemic shocks (Eggers, 2020). A lack of financial and human resources presents challenges for SMEs in adapting to short- and medium-term changes in trading conditions caused by Brexit, with consequences for international trade (Thissen et al., 2020), investments and productivity (Bloom et al., 2019). Early evidence from a government survey covering 2016–2017 suggests that many SMEs view Brexit as a significant negative barrier to future performance (Brown et al., 2019). Moreover, the EU-UK Trade and Cooperation Agreement, implemented following Brexit, introduced significant new barriers (including rules of origin checks) for UK firms seeking to trade with counterparts located in EU member states (Alessandrini et al., 2022; S. Dhingra et al., 2022). However, a 2022 government report suggests that Brexit provides significant economic opportunities by allowing the UK government to '... deliver bespoke UK-orientated regulation that is primarily focused on delivering growth, innovation and competition, while minimising burdens on business' (HM Government, 2022). Moreover, several key achievements were highlighted in the Department for Business and Trade (DBT)'s Brexit 4th Anniversary update. These include: the UK economy growth exceeding Germany, Italy, and Japan; securing trade agreements with 73 countries; a comprehensive trade deal with the EU; revoking or reforming over 2,000 pieces of Retained EU Law (REUL); simplifying import tariffs on almost 6,000 goods; and removing approximately 500 trade barriers since 2020 (Department for Business and Trade, 2024).

Given the general importance of SMEs to the UK economy, there is strong empirical justification for investigating how Brexit affects them. Brexit represents a landmark change to trading and political arrangements between the UK and the EU, and despite 10 years since the vote to leave the EU, the current knowledge base regarding the overall impact on SMEs remains limited. In the present study, our primary data source is the Longitudinal Small Business Survey (LSBS) of UK SMEs produced by the Department of Business, Energy and Industrial Strategy.² Using probit models, we examine the relationship between SMEs' perceptions of Brexit as a major barrier to business success and its impact on SME strategic intentions regarding investment, innovation, internationalisation, growth objectives, and expected changes in sales turnover in the post-referendum period.

An analysis of our dataset reveals that around a quarter of SMEs view Brexit as a major barrier to business success. Exporters are significantly more likely to perceive Brexit as a major barrier to business success than their counterparts focused on trading within the UK.³ The concerns among export-oriented SMEs are expected, given their exposure to changes in international trade terms and regulations following Brexit. We also find that innovative SMEs are more likely to perceive Brexit as a major barrier to business success. Our results also show that SMEs viewing Brexit as a major barrier to business success are more likely to adjust their strategic intentions. They are less likely to plan overseas capital investment and to plan the development and launch of new products or services, but more likely to plan R&D investment, pursue future export expansion, and aim to

grow sales. No statistically significant effect is evident for UK capital investment. Additional heterogeneity analysis further suggests that these adaptive responses differ across SME types, with stronger effects observed among some non-exporting and non-innovative firms, particularly in relation to planned R&D investment and growth ambitions. These results indicate a reallocation of strategic priorities rather than a uniform reduction in activity.

We also employ multinomial probit models to examine the impacts of Brexit on future sales turnover, with a focus on export-oriented and innovative SMEs.⁴ We partition our sample into SMEs that expect a decrease, an increase, or no change in sales turnover. We regress SME expectations of changes in sales turnover due to Brexit on firm export status, innovation capacity, and other control variables. Our findings suggest that among SMEs expecting a decline in sales turnover, export-oriented firms are 13.5% more likely, and innovative firms 13.1% more likely, to attribute the anticipated sales decrease to Brexit. This highlights the sensitivity of such firms to disruptions arising from Brexit. The impacts are less pronounced among SMEs anticipating an increase in sales turnover. Export-oriented firms are only 3.3% more likely, and innovative firms are 1.8% more likely to consider Brexit a major contributing driver of changes in sales turnover. This suggests that innovative, export-oriented SMEs are more inclined to associate Brexit with expected declines (rather than increases) in sales turnover. This supports the view that Brexit poses a greater perceived risk for exporters and innovative firms forecasting adverse performance (financial) outcomes.

Our findings complement prior research showing that Brexit has reduced productivity (Millard et al., 2024) and GDP (Bloom et al., 2025), increased uncertainty (Cumming & Zahra, 2016), and dampened firm-level investment in the UK (Bloom et al., 2019), alongside evidence of declining UK–EU trade that has disproportionately affected SMEs (Freeman et al., 2024). These effects are further compounded by the UK's highly centralised banking system, which weakens relational lending and constrains SME growth and regional development (Mayer et al., 2021). At the same time, this paper contributes directly to the interdisciplinary body of Brexit research, which emphasises the uneven, place-based and expectation-driven consequences of the UK's withdrawal from the EU for firms, regions and economic actors (Bailey, de Ruyter, et al., 2023; Bailey, Hearne, et al., 2023; Du et al., 2023). While that literature primarily documents changes in trade patterns, regional resilience and macro-level adjustment processes, our analysis extends these insights to the micro level by explicitly linking SME managers' perceptions of Brexit to forward-looking strategic decisions on investment, innovation, internationalisation and growth. In contrast to studies focused on realised outcomes, we show that Brexit has become embedded in managerial expectations, generating a reconfiguration of SME strategic behaviour rather than a uniform contraction in activity. In doing so, our findings provide firm-level microfoundations for the broader patterns identified and point to the importance of place-based policy interventions (such as those aimed at reducing trade costs and strengthening export capability) to mitigate the ongoing and heterogeneous impacts of Brexit on UK SMEs.

We make three key contributions to salient literature. First, by examining how SME managers' perceptions of Brexit shape their strategic planning, rather than its actual economic impact, we contribute to the literature on managerial sentiment, grounded in uncertainty literature (Bloom et al., 2019; Bloom et al., 2021). Our findings highlight how

sentiment drives business expectations. Second, by examining firm-level (long-term post-Brexit) effects from a national perspective, we provide new empirical insights into Brexit's impact on UK SMEs' strategy and performance, thereby augmenting prior empirical evidence (Brown et al., 2019; Calabrese et al., 2022).⁵ Third, we leverage the most extensive longitudinal dataset on UK SMEs to date to analyse specific Brexit-specific questions across multiple waves of the LSBS spanning 2018–2021. This allows us to document how Brexit uncertainty has affected SME strategic planning and expectations in areas such as internationalisation (Jibril & Roper, 2022; Ramdani et al., 2022; Ruzzier et al., 2006); innovation (Deschryvere, 2014; Hoffman et al., 1998; Jibril & Roper, 2022); and financial performance (Deschryvere, 2014; Oke et al., 2007). Consequently, our results provide practitioners and policymakers with new insights into how Brexit has become embedded in SME strategic decision making.

The rest of this paper is structured as follows. Section 2 provides a background discussion and review of relevant literature. Sections 3 and 4 describe the empirical methodology and data used. In Section 5, we present the main results of our empirical analysis. Section 6 concludes.

2. Literature

Managerial sentiment plays a central role in shaping business decision-making, particularly during periods of heightened uncertainty (Bloom et al., 2007; Dixit & Pindyck, 1994). Uncertainty can lead firms to become risk-averse and adopt a wait-and-see approach, delaying investment and hiring decisions (Ghosal & Ye, 2015). It can also drive proactive responses, such as increased investment in innovation or international expansion, as firms seek to mitigate risks arising from expected deterioration in trading conditions (Piaskowska & Trojanowski, 2014; Pikulina et al., 2017).

Brexit introduced significant uncertainty regarding regulation, immigration policy, and trade relations between the UK and the EU. Its impacts have largely been assessed through anticipated macroeconomic effects on growth, trade, and inflation (Armstrong & Portes, 2016; Swati Dhingra et al., 2017; Sampson, 2017; Van Reenen, 2016). McCann (2023) identifies Brexit as a key driver of recent productivity imbalances, compounded by insufficient investment and planning constraints. Business-level assessments have focused on large firms, especially in sectors with complex cross-country supply chains, such as automotive manufacturing (Bailey, de Ruyter, et al., 2023).

Brexit has increased transaction costs through non-tariff barriers such as customs procedures, regulatory divergence, and rules of origin requirements (Bailey et al., 2022; Bailey, De Propriis, et al., 2023), which in turn may affect disproportionately SMEs (Freeman et al., 2024). These frictions could shape SME behaviour by discouraging investment and internationalisation (Brown et al., 2019), while potentially redirecting resources as a strategic response to external constraints. Importantly, their effects are unlikely to be uniform, as exporters may face more direct exposure to border frictions, while innovative firms might be better positioned to respond through capability-building strategies such as R&D investment. Beyond these macro-level effects, Brexit has created significant barriers for SMEs, particularly regarding access to finance, investment in innovation, and internationalisation. Evidence suggests a decline in capital investment amid Brexit-related uncertainty (Swati Dhingra et al., 2018).

The implications for SMEs are complex and multifaceted. A lack of government planning appears to have amplified day-to-day and strategic challenges (Billing et al., 2019). Studies show that export-oriented and innovative SMEs were most concerned about Brexit's negative impacts immediately after the referendum (Brown et al., 2019). Exporters face challenges from increased trade barriers and regulatory uncertainty, while innovative SMEs risk losing access to EU research funding and collaborative networks. Calabrese et al. (2022) highlight additional uncertainty around debt finance, and Sun et al. (2021) report tighter bank lending conditions for SMEs reliant on EU trade. These findings indicate Brexit is particularly problematic for SMEs whose business models depend on internationalisation or innovation.

Despite growing evidence, gaps remain regarding how Brexit affects SME investment, innovation, and growth. Managerial sentiment is likely to determine whether SMEs view Brexit as an insurmountable challenge or an opportunity to adapt. Uncertainty typically reduces physical investment and R&D activity (Bloom et al., 2007; Dixit & Pindyck, 1994). Brexit-related uncertainty has also led private equity firms to adopt conservative investment strategies (Kellard et al., 2022). Ghosal and Ye (2015) show that uncertainty negatively affects employment growth, particularly harming SMEs.

Sentiment can sometimes lead to positive investment decisions. Piaskowska and Trojanowski (2014) suggest internationally experienced managers can mitigate uncertainty, facilitating strategic decisions such as foreign acquisitions. Cognitive biases like overconfidence may also encourage aggressive investment despite uncertainty (Pikulina et al., 2017). Similarly, organisational psychological capital can foster innovation during crises (Grözingner et al., 2022). Thus, while uncertainty often drives caution, it can also spur proactive strategies.

Brexit-related uncertainty influences SMEs' export strategies, often reducing willingness to pursue new markets (Cumming & Zahra, 2016). Yet, some contexts encourage internationalisation despite uncertainty. Lavery et al. (2024) find private equity-backed firms have a greater propensity to export post-Brexit. Wai et al. (2022) show SMEs developing new products and market-entry capabilities concurrently, enhancing adaptability. These findings highlight the dual nature of managerial sentiment. While prevailing attitudes lean toward caution, opportunities for internationalisation remain.

Uncertainty also affects growth plans. Brexit-related concerns about trade and finance may constrain SMEs' ability to pursue aggressive sales growth (Cumming & Zahra, 2016; Kellard et al., 2022). However, alternative funding mechanisms, such as equity crowdfunding, can offset these constraints (Eldridge et al., 2021). Government-backed loan guarantee schemes have also enabled SMEs to access finance during uncertain periods (Kazembalaghi et al., 2025). These developments suggest that while uncertainty often dampens growth ambitions, SMEs can leverage innovative financing and policy support to maintain resilience.

3. Empirical methodology

This section assesses the impact of Brexit on UK SMEs using two modelling approaches. In section 3.1, we use binary probit models to examine how Brexit influences SMEs' strategic intentions regarding investments, innovation, internationalisation, and growth. To further explore heterogeneity in these strategic responses, Figures 2–7 present interaction effects between Brexit perceptions and SME exporter and innovator status. Section 3.2 employs

multinomial probit models to further evaluate the impact of Brexit on sales turnover expectations.

3.1. Assessing the impact of Brexit perceptions on SME strategic decisions

This section has a twofold objective. First, we utilise several LSBS survey questions to identify which SMEs perceive Brexit as a major barrier to business success and examine whether their export orientation and innovation status influence this sentiment. Second, we conduct a regression-based analysis to assess the extent to which these perceptions impact SMEs' strategic plans regarding investment, innovation, internationalisation, and growth aspirations.

We adopt a two-stage empirical approach based on separate probit models with different dependent variables. In the first stage (Table 1), the dependent variable captures whether SMEs perceive Brexit as a major barrier to business success. In the second stage

Table 1. Determinants of Brexit as major business obstacle.

	Model A	Model B	Model C
SME innovator t_{-1}	0.108*** (0.011)		0.076*** (0.008)
SME exporter t_{-1}		0.228*** (0.009)	0.209*** (0.006)
Size: Micro 1–9	0.050*** (0.007)	0.041*** (0.007)	0.043*** (0.007)
Size: Small 10–49	0.055*** (0.011)	0.038*** (0.007)	0.036*** (0.007)
Size: Medium 50–249	0.088*** (0.009)	0.061*** (0.009)	0.056*** (0.009)
Business age: 6–10	–0.013 (0.013)	–0.019* (0.010)	–0.019** (0.009)
Business age: 11–20	–0.003 (0.005)	–0.014** (0.007)	–0.011** (0.005)
Business age: 20+	–0.014 (0.013)	–0.029** (0.013)	–0.025* (0.013)
Sales turnover: Stayed the same t_{-1}	–0.064*** (0.010)	–0.068*** (0.011)	–0.064*** (0.010)
Sales turnover: Increased t_{-1}	–0.048*** (0.006)	–0.049*** (0.008)	–0.056*** (0.008)
Makes profit t_{-1}	0.044*** (0.014)	0.040*** (0.013)	0.041*** (0.013)
Has business plan t_{-1}	0.060*** (0.008)	0.068*** (0.005)	0.062*** (0.006)
Women-led	–0.001 (0.013)	0.008 (0.012)	0.005 (0.011)
MEG-led	0.017*** (0.003)	0.024*** (0.004)	0.014*** (0.004)
N	11,910	11,923	11,883
Log pseudolikelihood	–6406.250	–6268.422	–6208.076
Pseudo R ²	0.035	0.058	0.063

This table reports average marginal effects from probit models estimated via maximum likelihood. The outcome variable is whether firms report Brexit as an obstacle to their business. Model A includes a dummy variable capturing whether SME is a product/service innovator, Model B includes a dummy capturing whether a SME is exporter, and Model C includes both simultaneously. Standard errors in parentheses computed via the delta method. Omitted categories are firm size (zero employees), firm age (0 to 5 years), and sales turnover changes (decreased). All models include regional dummies (England, Scotland, Wales, Northern Ireland), SIC 2007 sector dummies (ABCDEF, GHI, JKLMN, PQRS), wave dummies, and a constant term. Standard errors are clustered at the regional level. Pseudo R² refers to McFadden's pseudo-R². ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

Table 2. Impact of Brexit on firms' investment, innovation, export and growth intentions.

	Model A	Model B	Model C =1 Develop and launch new products/ services	Model D	Model E	Model F
	=1 UK Capital investment	=1 Overseas Capital investment		=1 Invest in R&D	=1 Export expansion	=1 Aim to grow sales
Brexit is a major barrier _{t-1}	0.015 (0.012)	-0.042*** (0.012)	-0.119*** (0.021)	0.032*** (0.008)	0.036** (0.015)	0.085*** (0.021)
SME innovator _{t-1}	0.108*** (0.014)	0.156*** (0.006)	0.133*** (0.019)	0.130*** (0.019)	0.040*** (0.008)	0.044*** (0.009)
SME exporter _{t-1}	0.001 (0.013)	0.223*** (0.018)	0.063* (0.034)	0.212*** (0.028)	0.303*** (0.029)	0.082*** (0.034)
Size: Micro 1–9	0.041*** (0.006)	0.073*** (0.013)	0.089*** (0.013)	0.088*** (0.018)	-0.016** (0.007)	0.105*** (0.005)
Size: Small 10–49	0.175*** (0.013)	0.077*** (0.019)	0.179*** (0.045)	0.124*** (0.028)	0.019 (0.014)	0.229*** (0.015)
Size: Medium 50– 249	0.333*** (0.015)	0.039** (0.016)	0.266*** (0.016)	0.183*** (0.024)	0.062*** (0.023)	0.316*** (0.016)
Business age: 6–10	0.057*** (0.022)	0.089*** (0.024)	0.017 (0.051)	0.114*** (0.014)	0.022* (0.011)	-0.234*** (0.041)
Business age:11–20	-0.009 (0.022)	0.098*** (0.011)	0.012 (0.016)	0.052*** (0.008)	0.004 (0.011)	-0.305*** (0.024)
Business age: 20+	0.010 (0.027)	0.001 (0.005)	0.025*** (0.009)	0.029** (0.014)	-0.018 (0.011)	-0.400*** (0.012)
Sales turnover: Stayed the same _{t-1}	-0.049*** (0.016)	0.020* (0.012)	-0.038*** (0.011)	-0.000 (0.007)	-0.003 (0.009)	0.070*** (0.012)
Sales turnover: Increased _{t-1}	-0.004 (0.007)	0.039** (0.017)	0.018 (0.033)	0.048*** (0.009)	-0.004 (0.005)	0.238*** (0.010)
Makes profit _{t-1}	-0.008 (0.025)	-0.003 (0.013)	-0.057 (0.037)	-0.040 (0.029)	-0.072*** (0.009)	-0.149*** (0.010)
Has business plan _{t-1}	0.091*** (0.012)	0.126*** (0.022)	0.109*** (0.017)	0.046*** (0.010)	0.035*** (0.008)	0.080*** (0.020)
Women-led	-0.031 (0.024)	0.030 (0.031)	0.034*** (0.011)	-0.026 (0.028)	0.020 (0.030)	-0.060 (0.050)
MEG-led	0.146*** (0.004)	0.079*** (0.011)	0.233*** (0.013)	-0.006 (0.006)	-0.057*** (0.004)	-0.061*** (0.004)
N	1,487	1,487	1,487	1,487	1,487	1,487
Log pseudolikelihood	-716.471	-836.351	-846.875	-566.554	-457.510	-969.910
Pseudo R ²	0.100	0.119	0.097	0.214	0.275	0.145

This table reports average marginal effects from probit models estimated via maximum likelihood. Outcomes relate to firms' investment (Model A and B), innovation (Model C and D), export (Model E) and growth intentions (Model F) over the next three years. Sectoral and regional dummies are included in all specifications. Standard errors in parentheses computed via the delta method. Omitted categories are firm size (zero employees), firm age (0 to 5 years), and sales turnover changes (decreased). All models include regional dummies (England, Scotland, Wales, Northern Ireland), SIC 2007 sector dummies (ABCDEF, GHI, JKLMN, PQRS), wave dummies, and a constant term. Survey weights were applied to represent the population of SMEs in the UK. Standard errors are clustered at the regional level. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

(Table 2), the dependent variables capture SMEs' forward-looking strategic plans. This approach provides a more transparent and parsimonious framework, while allowing us to flexibly explore heterogeneity in the effects of Brexit perceptions across different types of SMEs. Specifically, we assess the impact of Brexit perceptions on investment (proxied by future intentions to invest in capital in the UK and overseas and R&D), innovation (proxied by plans to develop and launch new products or services), internationalisation (proxied by future export plans), and sales growth (proxied by firms' stated

ambition to grow sales). Importantly, all dependent variables capture planned activities over the next three years, rather than realised outcomes. Accordingly, the dependent variables capture strategic intentions and expectations rather than realised firm behaviour or performance outcomes.

Because the LSBS relies on self-reported firm responses, some degree of measurement error may affect perception-based variables. While instrumental variable estimation could potentially address this issue, identifying valid instruments for Brexit perceptions within the LSBS is difficult. Instead, we adopt a conservative empirical strategy using lagged explanatory variables and multiple robustness checks across alternative specifications. Although the use of lagged explanatory variables helps mitigate simultaneity concerns, unobserved managerial characteristics and reporting heterogeneity may still influence the estimated relationships. Therefore, given the observational and perception-based nature of the LSBS data, the results should be interpreted as conditional associations between Brexit-related perceptions and SME strategic intentions rather than definitive causal effects.

The empirical approach comprises two sets of binary outcome models estimated via probit, corresponding to [Tables 1](#) and [2](#), as follows:

$$BREXIT_{i,t} = \beta'X_{1i} + v_{1i} \quad (1)$$

$$Y_i = \beta'X_{2i} + \gamma BREXIT_{i,t-1} + v_{2i} \quad (2)$$

In Equation (1), $BREXIT_{i,t}$ is a binary variable indicating whether SME i reports Brexit as a major business barrier. In Equation (2), Y_i is a binary measure of SMEs' forward-looking strategic plans, including investment (UK and overseas), innovation activities (new products/services and R&D), export expansion, and sales growth ambitions. $BREXIT_{i,t-1}$ captures the lagged perception that Brexit is a major business barrier.

X_{1i} and X_{2i} are vectors of control variables capturing firm characteristics such as size (zero employees; micro, 1–9 employees; small, 10–49 employees; medium, 50–249 employees), innovation status, exporter status, prior year's sales turnover, profitability, leadership characteristics (female- and minority ethnic-led), firm age (0–5 years, 6–10 years, 11–20 years and 20+ years), and whether the firm has a business plan. The exact set of controls differs across equations to reflect the determinants of Brexit perceptions and strategic behaviour, respectively, and all models include regional, sectoral, and survey wave fixed effects. The error terms, v_{1i} , v_{2i} are assumed to be independently normally distributed with zero mean and unit variance. All results for these models are presented as average marginal effects (AME), and errors are clustered at the regional level to account for individual-level correlations within each geographic area.

3.2. The impact of Brexit on sales turnover expectations

To investigate whether Brexit has a major, minor, or no impact on SMEs' expectations regarding future sales turnover, we use a multinomial probit (MNP) model. This model is appropriate for analysing discrete dependent variables with more than two unordered outcomes, such as SMEs' perceptions of the impact of Brexit on sales turnover expectations (Cameron & Trivedi, 2005). The MNP framework is well-suited to the present analysis, given that it allows us to estimate the probability of each category as a function of

firm-specific characteristics, while accounting for unobserved factors through a stochastic error structure.

In line with Table 4, the dependent variable captures the extent to which SMEs consider Brexit to be a factor in expected changes in sales turnover over the next 12 months, distinguishing between ‘not a factor’, ‘a minor factor’, and ‘a major factor’, and separately analysing firms expecting decreases and increases in sales turnover. In this model, we assume SME i ’s utility for choosing whether the effect of Brexit on sales turnover expectations j is ‘not a factor’, ‘a minor factor’ or ‘a major factor’, U_{ij} ($i = 1, \dots, n$; $j = 1, 2, 3$) is a function of firm-level characteristics and a stochastic error. The utility of choosing alternative j is therefore modelled as:

$$U_{ij} = x'_{ij}\beta + \varepsilon_{ij} \quad (3)$$

where x_{ij} is a vector of covariates, and the errors are assumed to be normally distributed, with $\varepsilon \sim N(0, \Sigma)$ where $\varepsilon = (\varepsilon_{i1}, \varepsilon_{i2}, \varepsilon_{i3})$. The probability that option j (not a factor, minor factor or major factor) is chosen is

$$p_{ij} = \Pr(y_i = j) = \Pr\{\varepsilon_{ik} - \varepsilon_{ij} \leq (x_{ij} - x_{ik})'\beta\}, \text{ for all } k \quad (4)$$

where y_i is a random variable that indicates the choice made by SME i . The MNP model extends the binary probit model by allowing the coefficients of the explanatory variables to vary across choices and by enabling us to assess whether specific characteristics are associated with a higher probability that an SME is classified in alternative j .

Given the focus on expected turnover changes, the analysis is conducted separately for SMEs anticipating a decrease and those expecting an increase in sales, allowing for asymmetric effects of Brexit perceptions across these groups. Moreover, given that we are interested in the change in the probability associated with changes in business characteristics, all results are presented as average marginal effects (AMEs). Standard errors are clustered at the regional level to account for individual correlations within each region.

4. Data

We utilise the UK Longitudinal Small Business Survey (LSBS) for the empirical analysis. Commissioned by the Department for Business, Innovation and Skills (BEIS), the Longitudinal Small Business Survey (LSBS) is a large-scale telephone survey of owner/proprietors, Managing Directors or other senior directors at UK-based SMEs. We utilise the four most recent waves of LSBS data from 2018 to 2021. This is necessary because questions asked in previous years are not consistent with those included in the 2018–2021 waves.⁶ As with other large-scale business surveys, the LSBS is subject to potential non-response bias. To improve representativeness, the survey provides weights based on firm size, sector, and location, which are applied throughout the empirical analysis.

The LSBS provides detailed information on the characteristics of SMEs, ranging from basic demographic data to various firm-level characteristics and strategic variables related to internationalisation, investment, and innovation. Consequently, the LSBS is a valuable resource for gaining insights into the characteristics and potential vulnerabilities of UK SMEs in relation to the impacts of Brexit. Variable definition and descriptive statistics are presented in Tables A1 and A2 in the Appendix. 22.1% of SMEs in the sample view Brexit as a major barrier to business

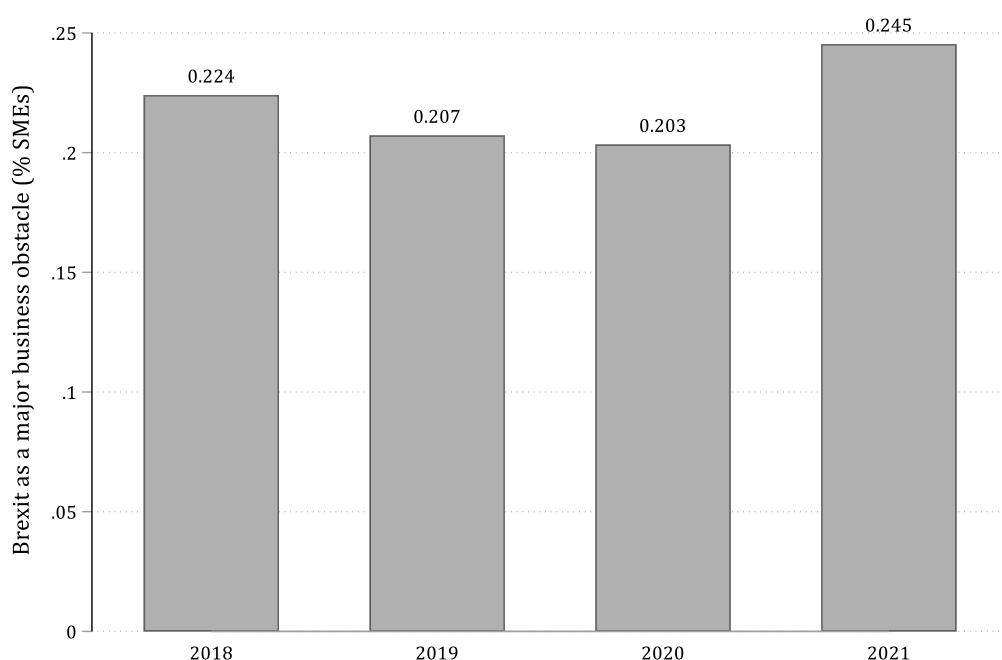


Figure 1. Brexit as a major business barrier. This figure reports the percentage of SMEs that perceive Brexit as a major barrier to business success. Cross-sectional survey weights were applied to represent the UK SME population.

success. **Figure 1** shows the percentage of SMEs that perceive Brexit as a significant business barrier. In 2018, 22.4% of SMEs identified Brexit as a major barrier, slightly decreasing to 20.7% in 2019 and 20.3% in 2020. This increases again to 24.5% in 2021. This suggests that Brexit remains a persistent perceived barrier to business success.

As for future strategic intentions over the next three years: 58.3% of SMEs aimed to grow their business; 22.3% plan to make capital investments in the UK; 29.5% plan overseas capital investment; 26.9% plan to develop and launch new products/services; 16.2% aim to invest in R&D; and 12.6% aim to increase export sales or begin selling to new overseas markets. Among SMEs expecting changes in sales turnover, Brexit is more commonly identified as a factor by firms anticipating decreases (33%) than by those anticipating increases (22.4%).

Among the control variables, 20.6% of SMEs are innovators and 14.3% exporters.⁷ Most SMEs have zero employees (75.6%), are classified as micro-sized (20.1%), and have been operating for over 20 years (37.4%). Regarding sales turnover changes over the last year, 31.3% report a decrease, 41.3% report no change, and 27.4% report an increase. 76.8% of SMEs report profitability. As for business characteristics, 27.3% of the SMEs in our sample have a business plan. Women-led and minority ethnic-led businesses account for 20% and 4.8% of the sample, respectively. At the national level, most SMEs are based in England (88.4%). Business services are the most important sector, accounting for 33.5% of SMEs. Most SMEs are companies (48.7%) by legal status. Table A3 presents pairwise correlations between the explanatory variables. The highest correlation between profit and sales turnover change equals 0.23. Hence, multicollinearity issues do not appear to present a critical concern for our empirical analysis.

5. Main results

This section explores the diverse perceived impacts of Brexit on UK SMEs' strategic decisions and expected financial performance in the post-referendum business environment. Section 5.1 identifies which SMEs perceive Brexit as a major barrier to business success and examines whether export orientation and innovation status influence this sentiment. Sections 5.2 and 5.3 assess how these perceptions affect SMEs' strategic plans for investment, innovation, internationalisation, and growth aspirations, and their broader implications for expected changes in sales turnover.

5.1. Determinants of SMEs' perception of Brexit as a major business barrier

Table 1 shows which firm-level factors influence SMEs' perceptions of Brexit as a significant business barrier. The analysis employs a probit model estimated by maximum likelihood. This section focuses on the determinants of perceiving Brexit as a major barrier to business success, while Section 5.2 addresses its implications for SMEs' future plans.

The results suggest that export-oriented SMEs are significantly more likely to view Brexit as a challenge. Innovative SMEs are also more likely to perceive Brexit as a major barrier, suggesting that firms with greater strategic engagement may be more exposed to Brexit-related uncertainties. The results also suggest that SMEs with 1–49 employees, experiencing a decline in sales turnover, but still generating profit, and minority ethnic group (MEG)-led businesses are more likely to perceive Brexit as a major barrier. These findings highlight the heterogeneous impact of Brexit on SMEs, where firm characteristics, such as export reliance, financial performance, and leadership demographics, are key drivers shaping Brexit-related sentiment.

5.2. The impact of perceiving Brexit as a major business barrier on future plans

5.2.1. Capital investments

Table 2, columns 1 and 2, summarises the impact of Brexit perceptions on future capital investment in the UK and overseas (in premises, machinery, etc.). Our results, derived from probit models estimated via Maximum Likelihood, incorporate sectoral and regional effects. Our findings suggest that perceiving Brexit as a major barrier to business success has no statistically significant effect on planned capital investment in the UK but is associated with a significant reduction in planned overseas capital investment. Firm characteristics are also likely to affect capital investment decisions. Innovative SMEs are more likely to invest in capital, while exporting SMEs exhibit a strong positive association with overseas capital investment plans.

The impact of firm size is also significant, with medium-sized SMEs (50–249 employees) exhibiting the greatest impact on planned UK capital investment. Firm age also influences investment plans. SMEs aged 6–10 years show a positive effect on overseas capital investment. However, this group of SMEs are less likely to perceive Brexit as a major barrier to business success. In contrast, SMEs with stable sales turnover are less likely to plan UK capital investment and view Brexit as a major barrier.

Ownership and leadership characteristics are also associated with capital investment plans. The presence of a business plan positively influences both planned capital

investment and the likelihood of perceiving Brexit as a major barrier to business success. Minority ethnic group (MEG)-led businesses exhibit a significant positive increase in future capital investment and perceive Brexit as a major barrier to business success. These findings suggest that SMEs perceiving Brexit as a major business barrier reallocate planned investment priorities, particularly reducing overseas investment exposure.

5.2.2. Develop and launch new products/services

Table 2, column 3, summarises the impact of Brexit perceptions on SMEs' innovation plans (proxied by the development and launch of new products or services) over the next three years. The results indicate that SMEs' perception of Brexit as a major barrier to business success significantly reduces the likelihood of developing and launching new products or services. This finding aligns with that of Nathan and Rosso (2022), who suggest that prior innovation and firm capabilities (such as accumulated knowledge, intellectual property, R&D investment, and organisational adaptability) are strong determinants of continued innovation. While Nathan and Rosso do not specifically examine Brexit, their findings suggest that these internal factors play a more significant role in shaping firms' innovative activity. Consequently, external shocks, such as Brexit, may influence firms' propensity to innovate, albeit the extent of this impact is likely to vary across industries and firm types.

Our results also suggest that export-oriented SMEs and those already engaged in innovation are significantly more likely to continue developing and launching new products or services. Firm size is also associated with innovation plans, with medium-sized enterprises (50–249 employees) exhibiting the strongest positive impact on innovation plans. Finally, women-led SMEs exhibit a modest positive impact on innovation plans, while MEG-led SMEs show an even stronger positive impact. These results highlight that while Brexit sentiment presents challenges, it does influence firms' planned product/service innovation strategies.

5.2.3. R&D investment plans

Table 2, column 4, presents the results from probit models to investigate the impact of Brexit perceptions on future investment in research and development (R&D). The findings suggest that perceiving Brexit as a major barrier to business success is associated with an increase in planned R&D investment. The positive association warrants further discussion, given that uncertainty is often associated with reduced investment activity in the literature (Bloom et al., 2007; Dixit & Pindyck, 1994). One interpretation is that some SMEs respond to Brexit-related uncertainty by strengthening innovation capabilities as a defensive or adaptive strategy aimed at improving competitiveness under changing market conditions. Another explanation is that firms with lower prior levels of internationalisation or innovation may view R&D investment as a mechanism for building resilience and reducing vulnerability to external shocks. This interpretation is consistent with Figures 2 and 3, based on interaction models, which show that the positive association between Brexit perceptions and planned R&D investment is strongest among non-exporters and non-innovators. A further explanation is that Brexit perceptions are associated with a strategic reallocation of resources away from planned overseas capital investment, consistent with the broader results reported in Table 2, and towards capability-building activities such as R&D.

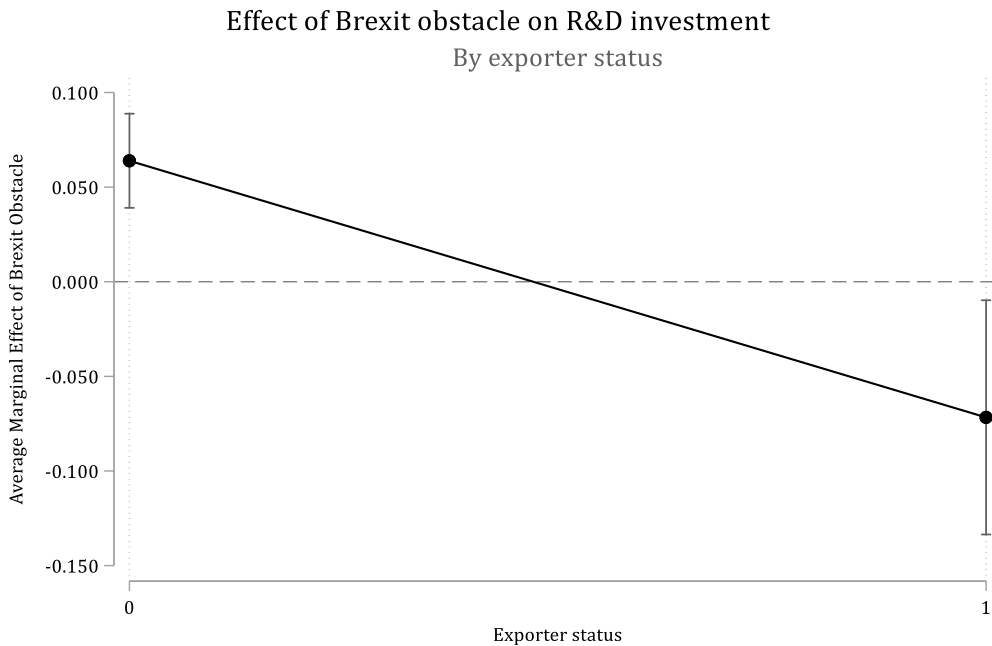


Figure 2. Brexit obstacle and R&D investment by exporter status. This figure shows average marginal effects derived from a probit model using the same variables as in Table 2, but with an interaction between lagged Brexit obstacle perception and exporter status on R&D investment (Model D). Confidence intervals denote 95% confidence intervals based on clustered standard errors at regional level.

As expected, results in Table 2 shows that innovative SMEs are more likely to increase their planned R&D investments, suggesting that firms with an embedded forward-looking approach prioritise innovation despite Brexit-related uncertainties. Firm size also plays an important role in driving R&D investment plans, especially for medium-sized enterprises (50–249 employees). Regarding firm age, SMEs aged 6–10 years show a marginal increase in R&D investment, suggesting that younger, growing businesses may view innovation as a pathway to resilience.

Conversely, prior turnover stability does not appear to be significantly associated with planned R&D investment. A business plan positively affects both planned R&D investment and the likelihood of perceiving Brexit as a major barrier to business success. This implies a more proactive approach to risk assessment and long-term strategic decision-making. Overall, these results suggest that Brexit-related sentiment are associated with a reorientation of innovation investment, shifting focus towards future plans to undertake R&D activities.

5.2.4. Export-led growth plans

Table 2, column 5, presents the relationship between Brexit perceptions and SME plans to increase export sales or enter new overseas markets over the next three years. The findings show that perceiving Brexit as a major barrier to business success is positively associated with planned export expansion. Importantly, this variable captures firms' intentions rather than realised export performance, suggesting that some SMEs may respond to Brexit-related barriers by seeking new international opportunities or diversifying

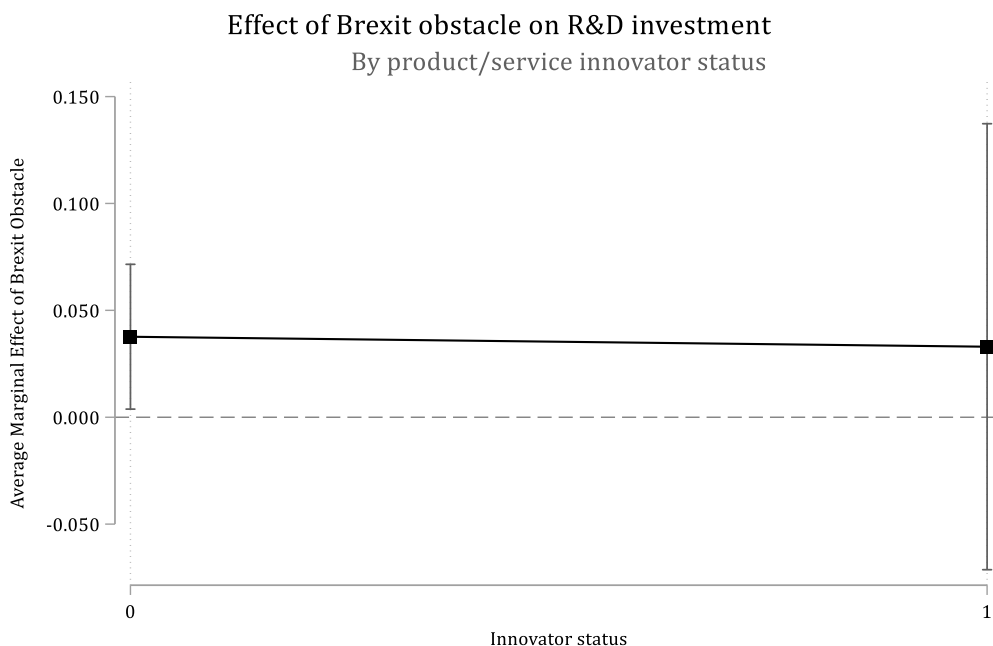


Figure 3. Brexit obstacle and R&D investment by innovator status. This figure shows average marginal effects derived from a probit model using the same variables as in Table 2, but with an interaction between lagged Brexit obstacle perception and product/service innovator status on R&D investment (Model D). Confidence intervals denote 95% confidence intervals based on clustered standard errors at regional level.

market exposure. The interaction results presented in Figures 4 and 5 provide further insight into this relationship. Figure 4 shows that the positive association between Brexit perceptions and export expansion plans is strongest among non-exporters, suggesting that firms without prior export exposure may view internationalisation as a strategic response to increased uncertainty in domestic markets. Figure 5 further indicates that the positive effect is concentrated among innovative SMEs, implying that firms with stronger innovation capabilities may be better positioned to pursue new overseas opportunities despite rising trade frictions. Taken together, these findings suggest that Brexit perceptions are associated not only with caution, but also with adaptive internationalisation strategies among particular groups of SMEs.

With respect to firm size, micro-sized SMEs (1–9 employees) are significantly less likely to plan export expansion, while medium-sized enterprises (50–249 employees) exhibit a positive effect, indicating that larger firms may have greater resources to respond to Brexit-related trade barriers. Business age provides limited evidence of systematic differences in export expansion plans. SMEs aged 6–10 years show a weak positive association, while older age categories are not statistically significant. SMEs with a formal business plan are more likely to pursue export growth, implying a forward-looking approach to assessing risks and opportunities. MEG-led firms are significantly less likely to plan export expansion. These findings highlight that Brexit sentiment is associated with adaptive export strategies rather than simple withdrawal.

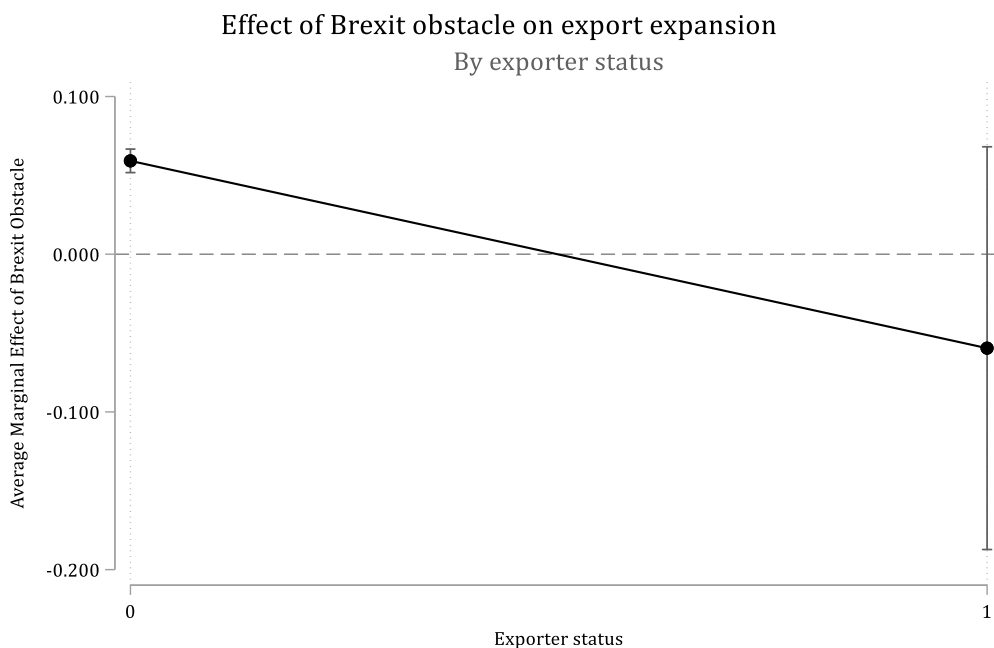


Figure 4. Brexit obstacle and export expansion by exporter status. This figure shows average marginal effects derived from a probit model using the same variables as in Table 2, but with an interaction between lagged Brexit obstacle perception and exporter status on export expansion (Model E). Confidence intervals denote 95% confidence intervals based on clustered standard errors at regional level.

5.2.5. Sales turnover growth aspirations

Table 2, column 6, shows the relationship between Brexit perceptions and SMEs’ aspirations for sales turnover growth over the next three years. The results suggest that perceiving Brexit as a major barrier to business success is positively associated with the likelihood of aiming for sales growth. While this finding may appear counterintuitive given the uncertainty associated with Brexit, it may reflect strategic adaptation rather than optimism regarding trading conditions. SMEs perceiving Brexit as a significant constraint may respond by adopting more ambitious growth objectives in an attempt to strengthen resilience and maintain competitiveness under changing market conditions. The interaction results presented in Figures 6 and 7 provide further insight into this relationship. Figure 6 shows that the positive association between Brexit perceptions and sales growth aspirations is strongest among non-exporters, while Figure 7 indicates that the effect is concentrated among non-innovative SMEs. This suggests that firms with lower levels of international exposure or innovation capability may respond to Brexit-related uncertainty by adopting stronger growth aspirations as part of a broader strategic repositioning process. At the same time, innovative and export-oriented SMEs remain more likely overall to pursue sales growth, suggesting that firms with stronger competitive advantages continue to maintain expansion-oriented strategies despite Brexit-related uncertainty.

Our results also suggest that larger SMEs are more likely to aim for sales growth, while older SMEs (20+ years) are less likely to do so. SMEs that experienced increased sales turnover in the previous year are more likely to aim for further growth. SMEs with

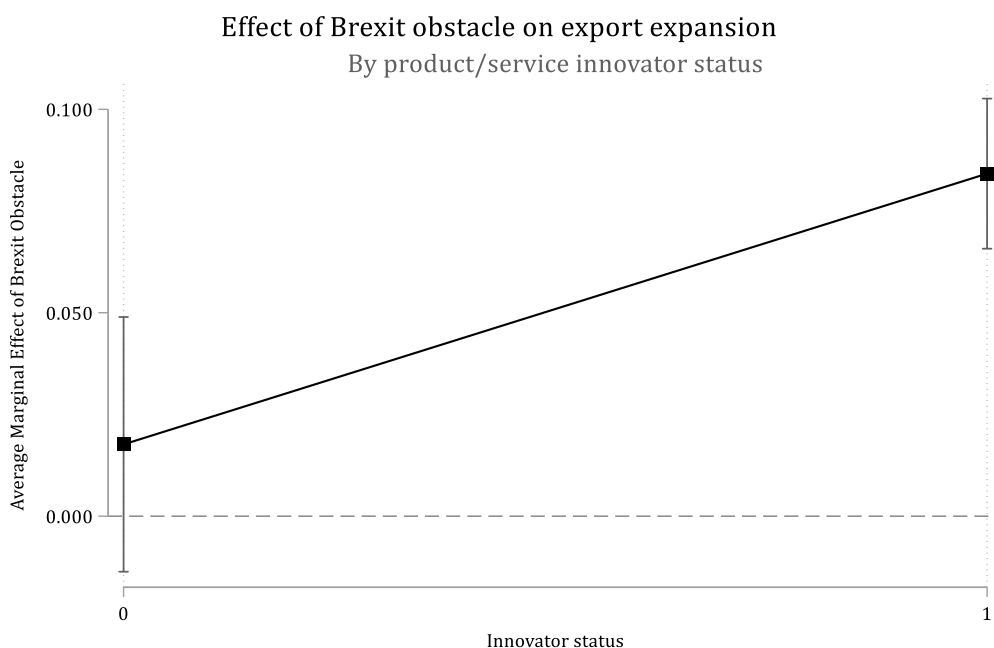


Figure 5. Brexit obstacle and export expansion by innovator status. This figure shows average marginal effects derived from a probit model using the same variables as in Table 2, but with an interaction between lagged Brexit obstacle perception and product/service innovator status on export expansion (Model E). Confidence intervals denote 95% confidence intervals based on clustered standard errors at regional level.

a formal business plan are more likely to aim for sales growth. In contrast, minority ethnic group (MEG) led SMEs are less likely to pursue sales growth. These findings suggest that while growth ambition varies across SME characteristics, strategic planning and leadership demographics are key factors in explaining expansion decisions. These findings highlight the complex relationship between Brexit sentiment and SME growth aspirations, suggesting adaptive and forward-looking responses rather than contraction.⁸

To assess the economic significance of these effects, Table 3 reports predicted probabilities of each outcome for SMEs that do and do not perceive Brexit as a major business barrier. The results confirm that Brexit-related perceptions are associated with lower probabilities of overseas investment and product/service innovation, and higher probabilities of R&D investment, export expansion, and sales growth ambitions. These results are largely consistent across alternative model specifications and estimation approaches. In particular, logit estimates (Table A4) and models with alternative clustering and reduced controls (Table A5) yield broadly similar findings.

5.3. Brexit perceptions and short-term turnover expectations

While the previous analysis focuses on SMEs' forward-looking strategic plans over a three-year horizon, we now turn to their short-term expectations regarding sales

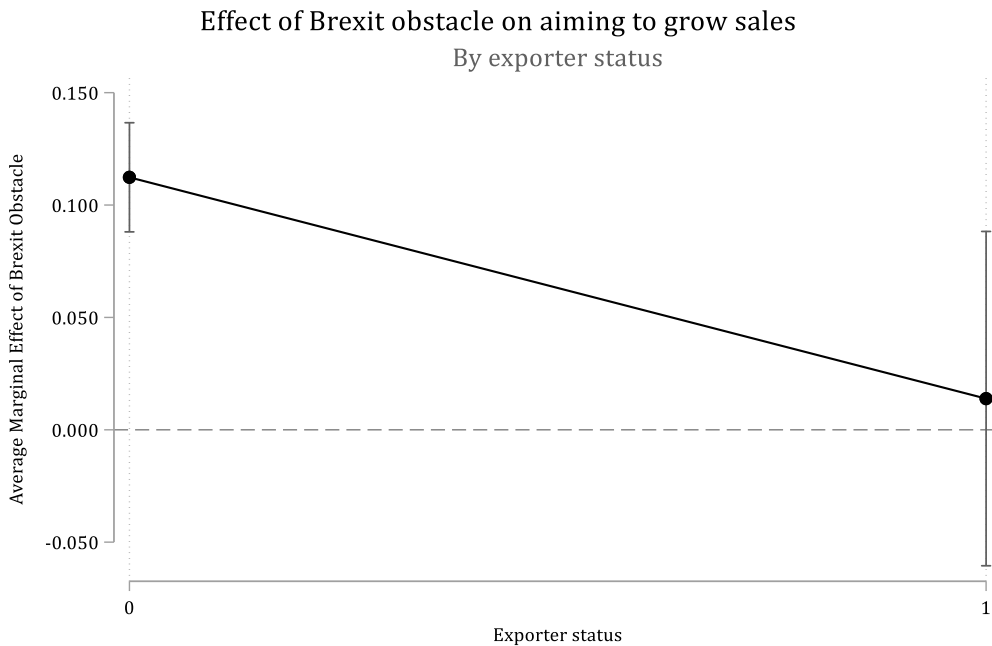


Figure 6. Brexit obstacle and sales growth ambition by exporter status. This figure shows average marginal effects derived from a probit model using the same variables as in Table 2, but with an interaction between lagged Brexit obstacle perception and exporter status on sales growth ambition (Model F). Confidence intervals denote 95% confidence intervals based on clustered standard errors at regional level.

performance. To provide further evidence on the implications of Brexit sentiment for future performance, we also investigate the extent to which SMEs consider Brexit a major factor in expected changes in sales turnover over the next 12 months, focusing on those anticipating a decrease in turnover and those forecasting an increase. By analysing these two groups separately, we provide further insights into how innovation and export orientation shape perceptions of the risks and opportunities associated with Brexit.

Table 4, columns 1 to 3, presents the findings from a multinomial probit regression analysis investigating the role of Brexit as a perceived factor in expected decreases in sales turnover. The results highlight the importance of certain firm characteristics (innovation and export orientation) in responses to Brexit-related disruptions. Innovative and export-oriented SMEs are significantly more likely to identify Brexit as a major factor influencing an anticipated decline in sales turnover, with average marginal effects of 13.1% and 13.5%, respectively. Firm size also plays an important role. Small and medium-sized enterprises are more likely to perceive Brexit as either a minor or a major factor in expected sales declines, while micro firms are primarily more likely to view it as a minor factor. With respect to firm age, SMEs aged 6–10 years and those over 20 years are significantly more likely to perceive Brexit as a minor factor, but less likely to view it as a major factor in driving declines in sales turnover. Moreover, SMEs that reported increased sales turnover in the previous year are less likely to identify Brexit as a major factor in anticipated sales turnover declines. Leadership

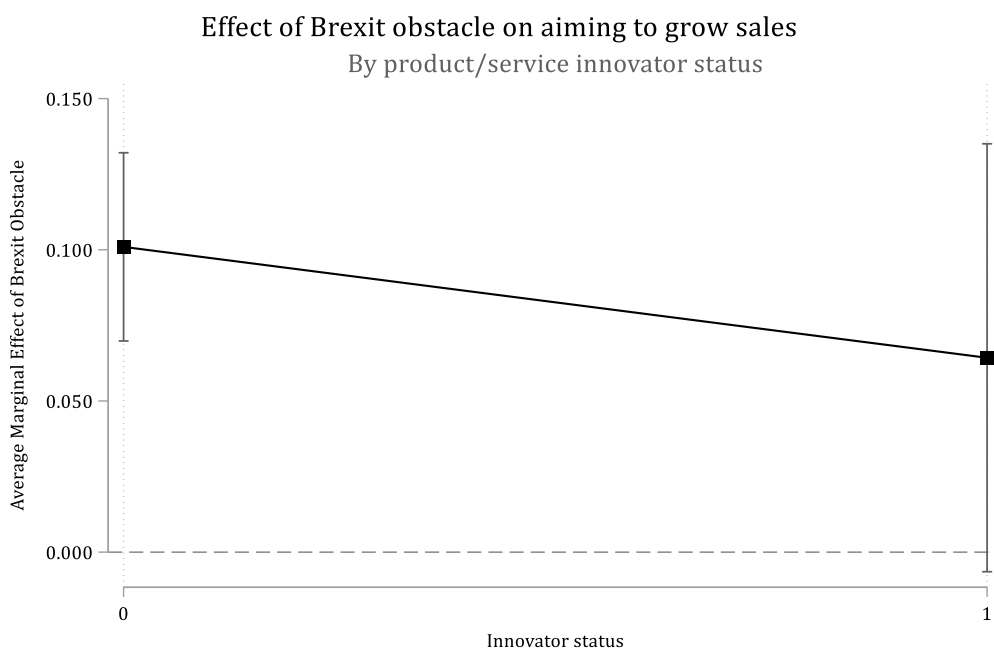


Figure 7. Brexit obstacle and sales growth ambition by innovator status. This figure shows average marginal effects derived from a probit model using the same variables as in Table 2, but with an interaction between lagged Brexit obstacle perception and product/service innovator status on sales growth ambition (Model F). Confidence intervals denote 95% confidence intervals based on clustered standard errors at regional level.

Table 3. Predicted probabilities of forward-looking firm outcomes at low and high Brexit exposure.

	Model A =1 UK Capital investment	Model B =1 Overseas Capital investment	Model C =1 Develop and launch new products/services	Model D =1 Invest in R&D	Model E =1 Export expansion	Model F =1 Aim to grow sales
Brexit is <u>not</u> a major barrier _{t-1}	0.180*** (0.003)	0.269*** (0.003)	0.282*** (0.005)	0.147*** (0.003)	0.114*** (0.005)	0.549*** (0.005)
Brexit is a major barrier _{t-1}	0.196*** (0.010)	0.229*** (0.009)	0.171*** (0.013)	0.179*** (0.006)	0.153*** (0.012)	0.633*** (0.016)
N	1,487	1,487	1,487	1,487	1,487	1,487

This table reports predicted probabilities of six forward-looking SME outcomes based on models from Table 2, at two values of lagged Brexit obstacle status: firms reporting no Brexit obstacle and firms reporting Brexit as a business obstacle. Predicted probabilities are computed from probit models using the margins command, holding all other covariates at their observed values. A comparison of the two rows within each column reveals the degree to which prior Brexit exposure is associated with suppressed or elevated firm intentions. Standard errors in parentheses computed via the delta method. Survey weights were applied to represent the population of SMEs in the UK. Standard errors are clustered at the regional level. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

characteristics also play a significant role. Overall, these findings suggest that SME characteristics, particularly innovation and export orientation, play a central role in shaping the extent to which Brexit is perceived as a key contributor to expected reductions in sales turnover.

Table 4, columns 4 to 6, reports the results for SMEs expecting an increase in sales turnover over the next 12 months. Innovative SMEs exhibit a small but statistically significant positive association with identifying Brexit as a major factor contributing to expected sales growth, with an average marginal effect of 1.8%. Export-oriented SMEs are also more likely to view Brexit as a major factor in anticipated sales increases, although the effect (3.3%) is notably smaller than that observed for firms expecting declines in sales. These findings indicate a clear asymmetry where Brexit is more strongly associated with expected negative outcomes than positive ones. These findings are consistent

Table 4. Extent to which SMEs consider Brexit a factor in expected changes in sales turnover.

	Expected decrease in turnover (next 12 months)			Expected increase in turnover (next 12 months)		
	Not a factor	Minor factor	Major factor	Not a factor	Minor factor	Major factor
SME innovator t_{-1}	-0.181*** (0.015)	0.050** (0.022)	0.131*** (0.007)	-0.030*** (0.004)	0.012* (0.006)	0.018*** (0.005)
SME exporter t_{-1}	-0.145*** (0.019)	0.010 (0.009)	0.135*** (0.012)	-0.065*** (0.011)	0.032*** (0.010)	0.033*** (0.004)
Size: Micro 1–9	-0.095*** (0.017)	0.097*** (0.009)	-0.002 (0.027)	0.028*** (0.009)	-0.040*** (0.008)	0.011 (0.009)
Size: Small 10–49	-0.228*** (0.024)	0.107*** (0.025)	0.121*** (0.005)	-0.004 (0.013)	0.008 (0.011)	-0.004 (0.008)
Size: Medium 50–249	-0.329*** (0.047)	0.184*** (0.045)	0.145*** (0.003)	-0.006 (0.014)	0.025** (0.010)	-0.018 (0.013)
Business age: 6–10	-0.200*** (0.038)	0.272*** (0.052)	-0.072*** (0.024)	0.009 (0.010)	-0.072*** (0.016)	0.063*** (0.017)
Business age: 11–20	-0.110*** (0.004)	0.156*** (0.027)	-0.046* (0.025)	0.040** (0.018)	-0.034*** (0.009)	-0.005 (0.020)
Business age: 20+	-0.122*** (0.012)	0.198*** (0.028)	-0.076*** (0.020)	0.055*** (0.014)	-0.083*** (0.013)	0.027 (0.017)
Sales turnover: Stayed the same t_{-1}	0.009 (0.021)	-0.019 (0.038)	0.010 (0.035)	0.035* (0.019)	-0.024*** (0.008)	-0.011 (0.011)
Sales turnover: Increased t_{-1}	-0.077** (0.032)	0.126*** (0.024)	-0.049*** (0.008)	0.104*** (0.012)	-0.083*** (0.014)	-0.021*** (0.006)
Makes profit t_{-1}	0.057 (0.061)	0.009 (0.039)	-0.067*** (0.022)	-0.010 (0.012)	0.028*** (0.004)	-0.018** (0.008)
Has business plan t_{-1}	0.100*** (0.004)	-0.058* (0.031)	-0.042 (0.029)	0.040*** (0.007)	-0.055*** (0.007)	0.014*** (0.004)
Women-led	0.053*** (0.017)	-0.060*** (0.006)	0.007 (0.023)	-0.019* (0.010)	-0.004 (0.009)	0.023*** (0.002)
MEG-led	0.063*** (0.007)	-0.031*** (0.007)	-0.032*** (0.002)	-0.098*** (0.010)	0.080*** (0.002)	0.018** (0.008)
Observations		355			1,574	
Log likelihood		-328.954			-889.738	

The table reports average marginal effects from multinomial probit regressions, estimating the extent to which SMEs consider Brexit to be a factor in expected changes in sales turnover over the next 12 months. Columns (1) to (3) refer to SMEs expecting a decrease in turnover, while columns (4) to (6) refer to SMEs expecting an increase in turnover. The base categories are zero employees (firm size), 0 to 5 years (business age), and decreased sales turnover. Standard errors, adjusted for clustering at the regional level, are reported in parentheses. All models include regional and industry fixed effects. Survey weights were applied to represent the population of SMEs in the UK. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

with alternative estimation using ordered probit models (Table A8), which confirm the same directional effects and asymmetry between expected declines and increases in sales turnover. Among the control variables, SMEs aged 6–10 years show a statistically significant association with perceiving Brexit as a major influencing factor. Profit-making SMEs are less likely to view Brexit as a major driver of future sales turnover. Women-led SMEs are more inclined to see Brexit as a major factor, while MEG-led firms are more likely to consider Brexit as either a minor or major factor in driving anticipated increases in sales turnover.

A comparison of the results presented in Table 4 highlights the asymmetry in how SMEs perceive the impact of Brexit on anticipated sales turnover. SMEs expecting a decrease in sales turnover attribute greater significance to Brexit than those forecasting increases. This difference highlights the need for policymakers to recognise how innovation and export orientation interact with the perceived financial impacts of Brexit.

6. Conclusions

This study set out to examine how Brexit, a defining political, economic and social event, is associated with the strategic intentions and performance expectations of UK SMEs. The motivation stems from the central role SMEs play in the UK economy, representing over 99% of registered firms and 60% of private sector employment. SMEs are inherently agile but resource-constrained, making them particularly vulnerable to external shocks such as Brexit. Brexit introduced profound uncertainty around trade, regulation, and market access, creating a pressing need to understand its implications for investment, innovation, internationalisation, and growth strategies.

Drawing on the UK Government's Longitudinal Small Business Survey (LSBS), our analysis focuses on SMEs' expectations, intentions, and planned strategic responses and reveals that approximately one-quarter of SMEs consistently perceive Brexit as a major barrier to business success. This perception is not evenly distributed. Export-oriented SMEs are significantly more likely to view Brexit as a challenge, while innovative SMEs are also more likely to perceive Brexit as a major barrier, suggesting that firms with greater strategic engagement may be more exposed to uncertainty. Importantly, perceiving Brexit as a major barrier is associated with a reallocation of strategic activities. SMEs holding this view are less likely to plan overseas capital investment and to develop and launch new products or services, but more likely to plan R&D investment, pursue future export expansion, and target sales growth, while no statistically significant effect is found for UK capital investment.

The findings also reveal substantial heterogeneity in SME responses to Brexit-related uncertainty. The additional interaction analysis suggests that adaptive responses differ across firm types, with stronger positive associations between Brexit perceptions and planned R&D investment and growth ambitions among some non-exporting and non-innovative SMEs, while innovative firms appear more likely to pursue export expansion. These patterns suggest that Brexit-related uncertainty has encouraged strategic adjustment and capability-building among particular groups of SMEs rather than generating a uniform contraction in activity.

Results further suggest that export-oriented and innovative SMEs are also more likely to attribute anticipated declines, and to a much lesser extent increases, in

sales turnover to Brexit, highlighting the increased vulnerability of internationally exposed firms. Taken together, these findings suggest that anticipated SME strategic adjustment represents an important channel through which Brexit continues to shape the UK economy.

Our findings carry important policy implications for SME strategy and resilience in the UK's post-referendum business environment. First, Brexit-related perceptions are associated with a reconfiguration of SME strategies rather than a generalised contraction, signalling the need for targeted support measures. Policies could include financial incentives to offset increased trade costs, grants for R&D activity, and advisory services to help SMEs navigate new regulatory environments.

Our findings also open several avenues for future research. In particular, the role of managerial sentiment in shaping SME responses to external shocks raises important questions about the link between perception, decision-making, and firm performance. Future work could explore whether Brexit-related perceptions are correlated with managerial quality, as suggested by the literature on management practices and productivity (Bloom & Van Reenen, 2007), and whether higher-quality management mitigates the adverse effects of uncertainty. In addition, further research could examine how transaction costs associated with post-Brexit trade arrangements, including frictions arising from arrangements such as the Northern Ireland Protocol and associated GB-NI trade barriers, which have introduced additional administrative and regulatory burdens for SMEs engaged in cross-border trade, shape firm-level strategic responses over time. From a policy perspective, these insights highlight the importance of not only reducing external barriers to trade, but also strengthening managerial capabilities and strategic planning within SMEs to enhance resilience in uncertain economic environments. Overall, Brexit-related perceptions seem to be associated with a heterogeneous reconfiguration of SME strategic behaviour and constitute a channel through which Brexit continues to affect the UK economy. Understanding these expectation-driven responses is therefore essential for designing policies aimed at strengthening SME resilience and competitiveness in the post-Brexit economy.

Notes

1. SMEs are defined following the UK standard classification based on employment size: micro (0–9 employees), small (10–49 employees), and medium-sized (50–249 employees). This classification is consistent with the Longitudinal Small Business Survey (LSBS) sampling framework.
2. In 2023, the UK Government re-organized the Department of Business, Energy and Industrial Strategy to form: the Department for Business and Trade; the Department for Energy Security and Net Zero; and the Department for Science, Innovation and Technology.
3. Export-oriented SMEs are those engaged in exporting goods or services to international markets. Innovative SMEs are those introducing new or significantly improved products, processes, or services.
4. This analysis is based on a new survey question not included in previous version of the LSBS.
5. Prior research including Brown et al. (2019) has explored regional dimensions and immediate post-Brexit referendum effects, with studies, providing valuable insights into regional patterns using earlier (2016–2017) LSBS waves. In terms of access to finance, Calabrese et al. (2022) examine the impact of firm characteristics on the expectations of SMEs regarding access to debt finance following the Brexit referendum and how this, in turn, affects growth expectations and strategic decisions.

6. The LSBS uses a dual sampling frame combining the Inter-Departmental Business Register (IDBR) and the Experian database to capture both employer and non-employer firms. While this approach ensures broad coverage of the SME population, some limitations remain in fully capturing all segments. In the empirical analysis, we account for this by applying survey weights and including region and sector fixed effects.
7. In the LSBS, innovation is measured using question J1, which captures whether firms have introduced new or significantly improved products or processes. Accordingly, we classify SMEs as 'innovative' if they report engaging in either product or process innovation activities.
8. We further assess the sensitivity of the results to sample composition. Estimates for the sub-sample of zero-employee firms remain broadly consistent with the baseline findings (Table A6), while excluding sole traders and zero-employee firms leads to differences in some coefficients, indicating sensitivity to sample selection and weighting (Table A7).

Author contributions

CRediT: **José M. Liñares-Zegarra**: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing; **John O. S. Wilson**: Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing.

Disclosure statement

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