The Impact of Brexit on UK Private Equity Firms' Activity Based on the Case Study of Private Equity Firms Pre- and Post- Brexit

Yanling Huang[1]
yanling.huang.22@ucl.ac.uk

[1] Department of Bartlett School of Sustainable Construction, University College London, London, UK

Abstract. This study has analyzed the impact of Brexit on private equity activity. This paper uses the Capital IQ database to collect the number of acquisitions and direct investments of nine top British private equity firms in the six years before and two years after Brexit, and uses stata to build a regression model and perform multiple regression analysis. The conclusions show that Brexit has a significant impact on UK private equity firms, but not on direct investment in UK private equity firms. It also discusses the impact of Brexit on employment and policy in the private equity industry. Brexit-related factors can have both negative and positive effects on private equity firms. Uncertainties arising from Brexit will harm private equity firms' M&A confidence, but the advantage of uncertainty is that it makes the expansion more cautious and Brexit will also allow the UK to reformulate new policies to boost the activity of private equity firms.

Keywords: Private equity, Acquisition, Investment.

1 Introduction

1.1 Background

Private equity firms have expanded dramatically since the mid-1990s, and academic research is increasingly centered on the effects of private equity.[1]. Brexit has had a huge impact on the private equity sector recently, but there has been little discussion about the private equity sector. This paper aims to fill this gap.

Company Acquisition. Company acquisition and direct investment are two important indicators to evaluate the activity of the private equity industry. Through leveraged buy-outs (LBO), private equity is employed as venture capital to finance the acquisition of established businesses. A portfolio company acquired through a leveraged buyout will combine the equity capital of the PE fund with the assets of the portfolio company and future debt financing [2]. LBO causes modifications to portfolio companies' ownership and governance. An important portion of the stock is often allocated to the management team, which helps the executive support the objectives of the PE company. Private equity companies often have controlling ownership in larger transactions to steer the company toward capital gains [3]. In terms of deal volume, LBO makes up over 75% of all UK M&A activity, and the country has the biggest European private equity market [4]. The middle of the 1980s saw the start of the PE market, which peaked in 2007. Leveraged buyout activity dropped following the financial crisis. Before Brexit, the market had recovered to levels similar to those of 1990, the late 1990s, and the early 2000s. The first half

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of 2016 saw a sharp decline in deal values, with the largest deals being adversely affected by macroeconomic uncertainty like Brexit [4]. Before the referendum, there was a widespread belief that portfolio firms would benefit most from remaining in the EU [5]. Before 2007, the private equity industry worked mainly under the radar; nevertheless, immediately before the financial crisis, governments and parliaments on both sides of the Atlantic examined it. According to critics, portfolio firms are more likely to fail as a result of overly leveraged buyouts, which also have negative consequences on employment, innovation, and employee relations [6]. The academic discussion that followed resulted in more regulation and disclosure [7]. Due to this regulation at the EU level, it is important to comprehend how Brexit can affect PE. Brexit offers management researchers a natural experiment to examine the effects of significant exogenous shocks on PE [3].

Direct Investment. Due to market uncertainty, Brexit will indirectly affect UK private equity investment. PE must constantly raise fresh funds because each fund has a finite lifespan [8]. However, Brexit is a shocking development, and some private equity firms might choose to open offices overseas, which could result in employment losses in the sector. Concerns have been expressed concerning how transnational financial services businesses affect the outside world [3]. PE funds cannot be canceled or withheld because they represent a long-term commitment to investors in contrast to other types of funds. Investors in funds may decide to try selling their commitments on secondary markets. Private equity businesses can better insulate themselves against short-term market sentiment because of the fund's long-term investment maturity. PE funds won't experience the same withdrawal restrictions as some other UK fund categories. This implies that investors can swiftly depart their portfolio company without having to meet any external obligations. The length of the holding time for investments will lengthen further if this circumstance sparks a recession. Since the financial meltdown, the drawback of using corporate acquisitions to sell a portfolio firm has grown. The return, as determined by the internal rate of return, will be lower if the holding time is extended. Many of the funds raised following Brexit were raised within the EU and were in euro, which added to the uncertainty. As a result of the financing triggering pre-completion constraints on Brexit in debt financing instruments, which caused this source of financing to be withdrawn, certain proposed investments have also been put on hold. The Alternative Investment Fund Managers Directive (AIFMD) was created by the European Union in response to the financial crisis. AIFMD affects private equity businesses in two key ways: first, by regulating AIFMD marketing to safeguard investors, and second, by controlling the flow of money to reduce the risk of fraud [3]. The original draught of the legislation was significantly revised under the influence of the UK, as was previously indicated because the UK dominated the terms of the permanent establishment in Europe [3]. The next revision will be discussed, and if the UK declines to take part, the EU may impose rules that restrict access to EU institutional and retail investment markets for UK private equity firms. The loss of regulatory power may pose a financial threat to UK companies because a significant amount of their investment comes from EU investors [9].

1.2 Related Research

Britain voted to leave the EU in a referendum on 23 June 2016. The Brexit event was largely unexpected and led to a surge in uncertainty among British businesses. Some historical events are associated with an immediate surge of uncertainty, and then tend to resolve relatively quickly, such as the oil crisis of 1973 and the financial crisis of 2007. However, Brexit is unprecedented because it creates prolonged uncertainty [10]. The British Parliament did not approve the exit agreement with the EU until the December 2019 general election, and the UK officially left the EU on 31 January 2020.

Acquisition Research. Economic, regulatory, and policy uncertainties play an important role in corporate acquisitions. Cao notes that the uncertainty agent may be an endogenous factor in the decisions of acquisition activities [11]. In their discussion of the effects of the Brexit vote's uncertainties on the UK private equity (PE) industry, Wright et al. (2016) pointed out that the UK private equity market is the biggest in Europe [12]. They emphasized, in particular, that while the PE market activity levels restored to pre-crisis levels in the years following the global financial crisis (GFC), the trading value drastically declined in 2016, showing greater uncertainty. Additionally, the report contends that the referendum outcome had a major shock early in the Brexit debate, affecting market confidence and potentially harming the returns **and** capital raising capabilities of PE funds as well as their reliance on loan availability [12]. However, Dixit and Pindyck (1994) show that, under conditions of uncertainty, corporate expansion becomes more cautious, and waiting during these periods is beneficial [13]. Gulen and Ion suggested for companies with higher irreversibility, the actual options to delay investments during uncertainty are more valuable [14]. Additionally, the EU may no longer be eligible to receive state aid from the UK, and future actions of UK private equity firms may be less regulated and result in a deregulation premium.

Investment Research. Many factors determine a company's investment positioning and investment location. Richer, bigger marketplaces typically draw more businesses. The UK is a desirable place for foreign direct investment, whether it is in the EU or not, due to its strong rule of law, flexible labor market, and highly educated workforce. But even after adjusting for these other reasons, joining the EU could still have an effect because it lowers trade and investment costs.

According to Bruno et al., the amount of Foreign Direct Investment (FDI) flows between any two countries depends on the size of their respective markets, their proximity to one another, and other elements like GDP per capita [11]. A statistically substantial beneficial impact on foreign direct investment in the EU was always discovered, according to Bruno et al [11]. FDI grew anywhere from 14% to 38%, with an average increase of 28%. Campos and Coricelli (2015) also note that foreign direct investment in EU member states is affected by 25 to 30 percent [11]. The stock of FDI imported by EU member states from non-EU nations rose by 14%, and from other EU member states by 28%, according to Straathof et al [12].

Dhingra et al. discovered that there is no statistically significant difference between entering the EFTA and completely quitting the EU, such as the US or Japan [13]. Thus, the EU is not a good choice to be part of a broad free trade agreement after Brexit.

By contrast, according to Baier et al., membership in the EU boosts commerce with other EU members by at least a quarter. Therefore, FDI has a similar effect on Brexit as it does on trade in general [14].

1.3 Research Aim.

According to the literature, the majority of research currently conducted evaluates how Brexit uncertainty will affect private equity firms. The purpose of this study was to identify the precise components of private equity company activities that were impacted. The research objective is to examine the impact of its activity in two ways. First, is the impact of Brexit on several companies acquired. Second, is the impact of Brexit on the number of direct investments. Two research questions are posed in the article. First, how has Brexit affected the number of businesses UK private equity firms have bought? Second, how has Brexit affected the volume of private equity investments made directly in the UK? The study's time frame will span from six years before Brexit to two years after Brexit and will include a sample of one of the top ten private equity firms in the UK. This will make it possible to conduct a thorough empirical comparison analysis.

The article research structure is the first part, through background and literature review, briefly reviews two factors that affect the activity of British private equity firms, namely acquisition ability, and investment ability, examines how Brexit has affected British private equity firms, and proposes a research gap. At the same time, the research objectives, research directions, and research questions are given. In the second part, I'll provide the paper's hypothesis, sample, variables, and model. The final component contains an empirical examination of nine UK banks before and after Brexit. The fourth section will be a discussion of the paper, and the final paragraph will be a summary of the piece.

The impact of Brexit differs per industry, which is the study's justification. The impact will be greater on industries with strong trade ties to the EU or those that are more susceptible to price changes. However, the effect of Brexit on sectors with a comparatively small price change is less noticeable. Therefore, it is crucial to evaluate how well the economy performed before and after Brexit because doing so will help managers and professionals in the field modify their business strategies and attract more private equity firms. It will also advance the body of knowledge on how Brexit may affect the operations of private equity firms.

2 Methodology

2.1 Hypothesis

Hypothesis 1: Brexit affects the number of companies acquisition (NCA). An acquisition is one of the key corporate methods to achieve external expansion since it enables both the acquirer and the target to access new resources, enter new markets, and improve operational efficiency [15]. The acquisition framework offers a great environment for a better understanding of the financial impact of corporate social responsibility efforts, in contrast to day-to-day operational decisions, as it may provide beneficial synergies but may also have an impact on all stakeholders [15]. To ascertain the connection between the number of acquired businesses and Brexit, regression analysis was performed. Hypothesis testing can be determined the impact of Brexit on the number of companies acquired.

Hypothesis 2: Brexit does not affect the number of direct investments (NDI). Direct investment is when private equity firms make investments in privately held businesses that have the potential to be profitable using the cash of institutional investors. Profit from the investment normally happens within three to seven years if a private equity firm is successful in raising the company's value and then selling its shares at a price greater than the purchase price. Private equity transactions can cost tens of millions to hundreds of millions of dollars, and returns of 20% to 30% are typically anticipated. Private equity companies employ a range of tactics to raise the value of their practices, including cutting expenses through layoffs and boosting productivity by integrating and internalizing previously outsourced procedures [3]. To ascertain the connection between Brexit and the amount of direct investment, regression analysis was utilized. To ascertain the effect of Brexit on direct investment in UK private equity businesses, hypothesis testing was done.

2.2 Sampling

The top nine private equity firms in the UK are represented in the study sample, including CVC Capital Partners, Apax Partners, Permira, Cinven, Charterhouse Capital Partners, Bridgepoint, Pamplona Capital Management, Intermediate Capital Group, and Blackstone London.

2.3 Data Collection

To determine whether Brexit has an impact on UK private equity firms, it analyzed the acquisition and investment data of the top nine major private equity firms in the UK. Data was collected from the Capital IQ database. The period time of each data set was from January 2014 to June 2022. To satisfy the research objectives, this paper chose the two indicators that affected the most private equity activity, the number of acquisitions and the number of direct investments, index data for each company was obtained from the Capital IQ database.

2.4 Variable Selection

Choosing the reliant variables. The majority of previous studies have evaluated how uncertainty affects private equity company activity, including how Brexit would affect the general activity and how economic uncertainty will affect their policies. The study examined the precise components of activity, the number of companies acquired, and the number of direct investments, with a focus on the actual effects of Brexit on UK private equity firms. This study was able to identify the activity-related characteristics that were impacted. In this study, the impact of Brexit on two NCA and NDI parameters is examined.

Table 1. Abbreviation

Dependent Variables	Code	Definition
number of companies' acquisition	NCA	The company uses the assets of the acquisition target company as collateral for debt to acquire another company
number of direct investments	NDI	Various types of equity investments in businesses

Selection of independent variables. Full Brexit happened in 2020. The independent variable is Brexit. In this study, I used 1-6 to represent 2014-2019 which is pre-Brexit, and (-1)-(-3) to represent 2020-2022 which is post-Brexit. This will help me to build the regression model and accurately analyze the activity of private equity companies as the years increase before and after Brexit.

2.5 Statistical analysis

A regression description is provided in this section. STATA 16 version MP was used to conduct all statistical analyses.

Based on the study hypothesis and the selection of the explained and explanatory variables, a linear regression model will be developed. Below is a formula for the linear regression model that will be used to compile the anticipated models from the ten private equity firms.

Impact of Brexit on UK private equity firms' activity: a linear regression model:

$$NCA= \beta_0 + \beta_1 Br + \varepsilon \tag{1}$$

$$NDI= \beta_0 + \beta_2 Br + \varepsilon \tag{2}$$

Where: NCA is the number of companies acquired. NDI is the number of direct investments. Br is Brexit. β0 is the y-intercept. The coefficient of the unrelated variables is β1. Ɛ is the stochastic error term of the firms.

2.6 Model Premises.

It was believed that other variables impacting profitability would remain constant. Personnel changes, investment styles, and investment strategy copying are additional elements that have an impact on the operations of private equity firms.

3 The Empirical Analysis

3.1 Linear regression model

Tables 2-5 show the estimates (the exclusion extreme value) of the linear regression model for UK private equity firms in the sample, assuming no group or individual effects. Tables 3 and 4 were used to test this hypothesis.

Table 2. Linear regression model for NCA and Brexit part one

Regression statistics	Value
Multiple R	0.1023
R Square	0.0105
Adjusted R Square	0.0089
Root MSE	2463.5513
Number of obs	661

Table 3. Linear regression model for NCA and Brexit part two

	Coefficients	Std.Err.	t Stat	P-value
Intercept	1261.90	116.04	10.87	1.90
X Variable 1	-86.11	32.62	-2.64	0.01

Table 3 shows that the NCA values were significantly associated with Brexit (P-value 0.008, absolute value of the t Stat 2.64). Table 2 shows the value of r squared indicates that explanatory variables in the model account are not well for variation in the number of acquisitions (r square=1.05%). Multiple R illustrates that NCA and Brexit have a positive relationship. This suggests that the number of pre-Brexit acquisitions will increase with the year, but the number of UK acquisitions after Brexit will decrease with the year.

Table 4. Linear regression model for NDI and Brexit part one

Regression statistics	Value
Multiple R	0.0229
R Square	0.0005
Adjusted R Square	-0.0021
Root MSE	2677.7707
Number of obs	381

Table 4 displays the outcomes of the ANOVA test for NCA and Brexit. Because the P-value is higher than 0.05, it should accept the original hypothesis that Brexit will have an impact on the NCA.

Table 5. Linear regression model for NDI and Brexit part two

	Coefficients	Std.Err	t Stat	P-value
Intercept	1197.35	157.16	7.62	2.07
X Variable 1	-19.70	43.99	-0.45	0.65

Table 5 shows that the NDI values were not significantly associated with Brexit (P-value 0.654, absolute value of the t Stat 0.45).

Table 6 shows the value of r squared indicates that explanatory variables in the model account are not well for variation in the number of acquisitions (r square=0.05%). Multiple R illustrates that NDI is not related to Brexit. This shows that the NDI will not be significantly affected by Brexit. Table 7 displays the outcomes of the ANOVA test for the NDI and Brexit. Because the P-value is higher than 0.05, it seems to accept the original theory that Brexit won't have an impact on the NCA.

These tables show whether two factors in different years after Brexit were influenced by Brexit. Therefore, the regression model determined that Brexit had an overall positive effect on the NCA, but not on the NDI.

Table 6. ANOVA check for NCA and Brexit

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	390617207.7	1	390617207.7	127.5700	2.64449	3.8485
Within Groups	4041815586	1320	3061981.505			
Total	4432432794	1321				

Table 7. ANOVA check for NDI and Brexit

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	256904980.9	1	256904980.9	71.8075	1.2245	3.8537
Within Groups	2719043980	760	3577689.447			
Total	2975948961	761				

4 Discussion

The ability of private equity companies to make acquisitions will be negatively impacted by a few Brexit-related problems. First, a lot of debt funds have foreign ownership and could leave the UK as a result of Brexit. Reduced debt may be harder to put together with money to fund the acquisition. In reality, the average acquisition leverage has decreased in the six months since the referendum. Additionally, Brexit won't have access to European Investment Funds anymore (EIF). Due to its leadership position, private capital has also been converted into funds. EIF has always been a prolific investor in private equity funds. Third, while the new Alternative Investment Fund Managers Directive (AIFMD) would not be impacted by Brexit, it may limit the market access that UK private equity firms have to EU institutions and retail investors.

Positively, it will be able to internalize the development of its private equity operations policies following a full Brexit. For instance, to encourage private equity investment in growth financing and acquisitions, the UK government will once again be allowed to provide more flexibility regarding state aid [16].

4.1 Employment

Recruitment has been hampered by potential limits on freedom of movement following Brexit. Low- and high-skilled job recruitment is becoming more challenging for British private equity firms, which may result in greater pay. As a result, requiring portfolio firms to be more efficient may be more challenging in the UK. Top talent may still be sought after by portfolio companies and private equity firms even if EU individuals reside in the UK for an extended period. Brexit might have a detrimental effect on the company's human capital, which would lower productivity if EU citizens do not stay in the UK as immigrants for a long period.

Since the European free markets have vanished as a result of Brexit, future EU labor policy may take into account the political preferences of the European coordinated market economies. After Brexit, British private equity portfolio companies operating in the EU will have more difficult employment problems. Therefore, the UK and the EU can have companies comply with different labor market regulations. This will make it harder for EU portfolio companies to achieve increased efficiency after a leveraged buy-out, but even easier for portfolio companies in the UK.

Due to different strategies employed, such as growth in efficiency, the macroeconomic environment may affect the employment of the portfolio companies. Growth acquisitions will seek to use entrepreneurial opportunities to increase employment [16], but due to economic uncertainty and the economic downturn, we may observe a reduction in such transactions [16]. Efficiency acquisitions reduce costs, but this is more likely to lead to unemployment. However, private equity firms seek to buy entrepreneurial businesses, which could retain jobs they would have lost.

Even though the majority of labor laws that are important to portfolio companies date before the UK joined the EU, UK private equity firms are expected to push for revisions to EU regulations. Additionally, lessening regulation may result in eased regulatory premiums, which would facilitate cost-cutting for portfolio firms. It may be feasible to determine how much poorer terms and conditions for UK workers affect portfolio company performance growth and investor returns, according to research [3]. Please take note that the UK would need to abide by EU labor law to preserve entry to the European Economic Area.

4.2 Regulatory

The burden of complying with EU laws is enormous for UK businesses doing business there. It is challenging to put a monetary value on the impact of Brexit regulation because financial regulation is still developing. The EU is the greatest exporter of financial services in the world, accounting for 50% of all cross-border loans. These laws have less of an effect on the EU's international financial services exports because it is the largest exporter of financial services in the world [16].

There is little evidence that the UK's ability to conduct business with EU members is significantly hampered by membership, as the City of London developed into a global financial hub during the establishment of the EU. One of the primary drivers of EU countries' direct investments in British businesses is the single market. The UK can also challenge new regulations at the European Court of Justice if it stays in the EU, a power it successfully used when, for instance, the ECB tried to restrict all clearing services to the eurozone. Britain will lose its clout in negotiating and contesting future EU rules if it leaves the EU [16].

4.3 London Stock Exchange's cross-border bourse buyout

London Stock Exchange Group’s acquisition of its rival Deutsche has been trading for years. Finally, the German exchange announced a $1 billion merger in 2016, when it looked like it was a finalized deal. But British voters had other ideas. The deal was canceled after British voters voted [16].

Some senior German politicians had declared that the merger had failed before Brexit, but others remained hopeful. They thought the acquisition could continue if the London Stock Exchange Group moved to Frankfurt. But when the deal remained unfinished during Brexit, EU regulators decisively blocked the merger in the spring of 2017, arguing that it would create a monopoly on certain financial services [16].

There are three important reasons for this takeover to stop due to Brexit. First, if the acquisition is completed, the most important trading venues in the euro area will be controlled by headquarters outside the EU, which has led to dissatisfaction among EU countries. Second, euro-based transactions are likely to go through Frankfurt, which may also soon be home to the European Banking Authority, which will have to move its base from London due to Brexit. Third, if London had remained in the European Union before Brexit, London would have been able to manage the euro-clearing business. However, following Brexit, the United Kingdom will no longer be able to do so.

4.4 Further, Recommend

There is also a potential opportunity for PE to take advantage of new opportunities after Brexit. From the company's perspective, there are two main determinants of export performance. First, private equity firms should be relatively efficient. Second, private equity firms should have diversified and experienced directors with international networks [16]. With the aid of beneficial adjustments in relative export pricing, the resetting of international trade relations may open up new export market prospects. Given the haziness of trading arrangements with the EU and others, the risk of undermining the UK's export-leading trade model rises. Banks that provide financing for private equity transactions are probably going to be more cautious. As a result, this study anticipates that the kind of enterprises supported by PE funds will shift from exporters to local companies.

The UK economy's regional and sectoral imbalances have received a lot of attention since Brexit. The knowledge of private equity might be used in government initiatives to address these problems, which would be crucial in the restructuring of Brexit. The UK government may profit from what the EU's state aid legislation may eliminate by creating incentives for investors to support specific industries, regions, and export markets.

5 Conclusion

Private equity firms and their portfolios are threatened and given an opportunity by Brexit. PE funds are more resilient than other fund kinds in the UK context. The study looked at how Brexit affected the operations of nine UK private equity firms. Studies on the effect of the specific activity on private equity businesses are scarce. This study developed a model and conducted a multiple regression analysis using data from the nine banks 6 years and two years after the UK regression. The theoretical and empirical study's presumptions and findings lead to the conclusion that Brexit has a detrimental effect on British private equity firms' acquisitions, but has no impact on direct investment. According to the ANOVA test, the study accepts the original hypothesis 1 and this paper accepts both the original hypothesis 2 and that Brexit does not affect the investment of British private equity firms. However, Brexit affects the acquisition of British private equity firms.

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