

Brexit and the London housing market: An empirical contribution

Francisco Vergara-Perucich

Universidad de las Américas, Santiago 7500975, Chile; jvergara@udla.cl

CITATION

Article

Vergara-Perucich F. (2024). Brexit and the London housing market: An empirical contribution. Journal of Infrastructure, Policy and Development. 8(11): 6929. https://doi.org/10.24294/jipd.v8i11.6929

ARTICLE INFO

Received: 5 June 2024 Accepted: 3 July 2024 Available online: 12 October 2024

COPYRIGHT



Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/ by/4.0/

Abstract: This study aims to analyse the impact of Brexit on London's housing market, exploring socio-economic and regional disparities. By examining property transaction data from 2012 to 2022, the research seeks to understand how Brexit has influenced real housing prices across different boroughs of London. The methodology involves aggregating transaction data from the Her Majesty (HM) Price Paid database and normalizing prices using the Consumer Price Index (CPI) to obtain real price variations. These data were segmented into three distinct periods: pre-Brexit (2012–2016), post-plebiscite Brexit (2016–2019), and postimplementation Brexit (2020-2022). Spatial analysis was conducted using the software Quantum Geographic Information System (QGIS), transforming point data (postcodes) into polygonal data (wards) for better visualization and comparison. The findings reveal significant socio-economic impacts, with traditionally affluent areas such as Westminster, Kensington, and Chelsea experiencing notable declines in real housing prices. Conversely, certain outer boroughs like Newham and Barnet showed resilience, with positive real price variations despite decreased sales. This geographical disparity underscores the uneven distribution of Brexit's economic consequences, highlighting the critical role of localized economic policies and development projects in mitigating adverse effects. The results confirm existing literature on the polarization and regional inequalities exacerbated by Brexit while providing new insights into the complex interplay of local and global factors affecting housing markets. The findings emphasize the need for targeted policy interventions to address the diverse challenges posed by Brexit, ensuring both affluent and disadvantaged areas receive adequate support. This research is crucial for informing public policy, urban planning, and housing market strategies in a post-Brexit context, promoting equitable and sustainable development across London.

Keywords: Brexit; housing market; London; regional disparities; urban economy

1. Introduction

Brexit, the United Kingdom's decision to leave the European Union, has been a landmark event with far-reaching implications for various facets of British society, including the housing market. Understanding the effects of Brexit on housing requires an examination of political, economic, and social dimensions, reflecting the complex interplay of local and global factors. A well-functioning democracy requires mutual respect and a willingness to engage across political divides. However, numerous studies have shown that electorates are often polarized along partisan lines, harbouring animosity towards the out-group. Hobolt et al. (2021) explore this affective polarization, emphasizing how Brexit identities, which cut across traditional party lines, are intensely felt and prevalent. This polarization has contributed to significant societal divisions, which are crucial to understanding its broader impacts, including on housing markets. These divisions may have spatial representation.

The 2019 general election, which resulted in a decisive Conservative majority and a significant defeat for Labour, marked a crucial turning point in British politics. Cutts et al. (2020) investigate the impact of Brexit on the 2019 election results, suggesting it was not a critical election but rather a continuation of long-term trends of political realignment. These shifts, influenced heavily by Brexit, have significant implications for regional and local economic policies, including housing. The idea that 'imperial nostalgia' motivated the Leave vote has also gained traction in academic discourse. Saunders (2020) critiques this perspective, arguing that such claims often conflate nostalgia with amnesia and fail to differentiate between Commonwealth and imperial loyalties. Saunders highlights how imperial modes of thought shaped both pro-European and anti-European sentiments, suggesting these factors also influence housing market dynamics through population movements and investment patterns. On spatial terms, Brexit has underscored the 'geography of discontent', highlighting regional inequalities and political shocks within the UK. McCann and Ortega-Argilés (2021) discuss how these geographical disparities complicate efforts to address regional imbalances, contributing to ambiguity regarding the Levelling Up process. This perspective is essential for understanding how Brexit impacts housing markets differently across various regions of London and beyond. The interplay between individual voter characteristics and geographical context remains a key issue in understanding Brexit's impact. Abreu and Öner (2020) use data from the British Election Study to analyse whether individuals with similar characteristics voted differently based on their geographical context. They find that cultural factors drive the remaining contextual effects after accounting for composition effects, highlighting the importance of both individual and contextual factors in analysing Brexit's impact on housing markets.

Brexit has been characterized by varying modes of uncertainty, influencing how people perceive and react to its potential outcomes. Anderson et al. (2020) examines several impressions through interviews conducted in North-East England, delineating how Brexit was experienced as a conclusion, emergence, catastrophe, or unfulfilled promise. They use the notion of "modes of uncertainty" to identify patterns in the experience of current uncertainties, elucidating varied responses to Brexit. This method offers a detailed comprehension of the socio-political environment affecting housing market behaviours and anticipations. Discontent is widely expressed, particularly on social media, especially due to the implementation of Brexit during pandemic outbreaks. The emergence of social media as a communication instrument for politicians has significantly influenced popular sentiment towards Brexit. Mee et al. (2021) contributed to understand this strategy by analysing tweets from Members of the British Parliament to examine usage patterns and sentiment regarding Brexit. Using regression and sentiment analysis, they identify systematic differences in language use between pro- and anti-Brexit MPs, reflecting broader political divides. This digital dimension of political discourse is crucial for understanding how public sentiment and media narratives influence housing market trends and perceptions.

Brexit also has had profound implications on various sectors, including the UK's local and regional economic development. For decades, the UK benefitted from EU Cohesion Policy funding, which played a crucial role in addressing spatial inequalities and fostering economic growth across regions (Giordano, 2021). However, in the lead-up to the Brexit referendum in 2016, the significance of this funding was notably absent from public discourse. The withdrawal from the EU and the subsequent

cessation of Cohesion Policy support come at a time when regional disparities are increasing, raising questions about the UK government's commitment to regional development post-Brexit. Cities are spatial manifestations of social relations (Lefebvre, 1991), thus, Brexit would have impacted on urban forms. The impact of Brexit on socio-spatial inequalities is a critical concern. Hudson (2021) argues that Brexit will likely exacerbate these inequalities, contrary to Prime Minister Johnson's claims of 'levelling up'. This perspective is rooted in the historical patterns of capitalist development in the UK and the policy priorities of the UK government, which have traditionally favoured certain regions over others. The theories of uneven and combined development suggest that Brexit will further entrench these disparities, making it imperative to critically assess and address the policies that will govern post-Brexit Britain. Nevertheless, the urban studies have provided little spatial analysis on this matter, so far.

Brexit also poses significant risks to the cultural and creative sectors (CCS) in the UK, which are vital for the country's economic and cultural vitality. Montalto et al. (2021) highlight that UK cities have been leaders in attracting and integrating foreign creative professionals, a strength threatened by Brexit. With creative nonnationals comprising a substantial portion of the workforce, the departure from the EU could disrupt the talent pool and diminish the UK's competitive edge in these sectors. Further compounding these issues, the interaction of race, class, and gender with nationality may have been significantly affected by Brexit. Kulz (2023) explores how British migrants in Berlin navigate and construct borders, revealing the transnational and local processes of racialisation and classification that manifest in urban spaces; illustrating the complexities of European belonging and highlights how Brexit exacerbates social inequalities through everyday interactions and spatial practices.

Moreover, the intersection of Brexit with environmental protection and planning systems has been underexplored. Cowell et al. (2020) examine UK planning practitioners' attitudes towards EU environmental legislation and future regulatory scenarios. The study reveals a preference for the fixed standards and oversight provided by the EU, coupled with concerns about potential deregulation post-Brexit. This study highlighted the critical role of planning in environmental governance and the need for thoughtful regulatory design to address the development-environment challenges in a post-Brexit context. The multifaceted impacts of Brexit on the UK's housing market, regional inequalities, cultural sectors, social classifications, and environmental planning underscore the complexity of disentangling the UK from the EU.

Precisely, housing market remain underexplored in literature on urban studies in a post-Brexit context. As presented by Cowell et al. (2020), the residential trajectories of highly skilled transnational migrants in London provided insights into the housing market's response to Brexit, underlining some potential changes after its implementation in the UK. The reduction of migrants to London as result of Brexit may undermine the rich diversity of spaces in the city. Maslova and King (2020) analyses the housing preferences and behaviours of mostly Italian and Russian migrants across three stages: initial housing choices, residential mobility, and future plans. Their findings indicate that Italians tend to build multi-stage housing careers with upward mobility, while Russians demand high-quality housing from the start and move less frequently. The study shows how the high prices in the London housing market and the potential impact of Brexit on future residential plans are critical exogenous factors influencing these patterns. The government's dispersal policies regarding asylum seekers have also had nuanced impacts on housing prices in the UK. Lastrapes and Lebesmuehlbacher (2020) estimate the effect of asylum seekers on house prices in England and Wales from 2004 to 2015, finding small but statistically significant negative effects, especially for lower-priced and lower-quality housing units. Their study reveals that negative house price effects are more pronounced in areas that supported Brexit, highlighting the intersection between immigration policies and local housing market dynamics.

Institutional investment in private residential property has become increasingly prominent in the UK, reflecting a shift in the perception of residential property as an asset class. Livingstone (2022) discusses the substantial capital inflows into the UK residential market post-global financial crisis and the need for more research into residential real estate as an institutional asset class. The integration of residential property into investment vehicles such as Real Estate Investment Trusts (REITs) and private equity funds underscores the evolving market dynamics. Did this strategy was affected by Brexit?

Brexit, alongside other housing challenges in the UK, continues to leave critical questions unanswered. Since 2013, Permitted Development Rights (PDR) in England have permitted the conversion of commercial properties to residential use in areas previously restricted to non-residential development. This deregulation aimed to address the housing crisis by facilitating more home-building in high-demand areas. However, the consequences of this policy remain ambiguous. Chang et al. (2024) compiles quantitative evidence from London between 2013 and 2021, revealing that homes produced through PDR conversions tend to be smaller than the London average and are often located in neighbourhoods with limited access to green spaces and higher levels of air pollution. Larger conversion schemes, particularly those with more than ten units, pose significant health risks to residents, contributing to 'slow violence' with potential long-term effects on physical and mental health. Although PDR conversions are somewhat more affordable than other new developments, they are more expensive per square meter, suggesting that deregulation primarily benefits developers by maximizing profit rather than providing genuinely affordable housing. These findings are critical in understanding the broader implications of housing deregulation and the politics of urban development in London.

The issue of housing affordability and homelessness is increasingly pressing across the Western world. Fetzer et al. (2023) examine the impact of a reduction in rent subsidies for low-income households in the UK, implemented in April 2011. Using district-level administrative data, they demonstrate that this affordability shock significantly increased financial distress, evictions, property crimes, insecure temporary housing, statutory homelessness, and rough sleeping. The most severe increase in statutory homelessness affected families with children, lone parents, individuals with health conditions, and those evicted from their homes. The study estimates that the fiscal savings from the subsidy cuts were minimal and largely shifted the financial burden to local administrations. Central government savings were offset by increased council spending to meet statutory homelessness obligations. This research highlighted the unintended social costs of austerity measures and underscores the need for more comprehensive housing policies. In another contribution, Aha et al. (2023) explore the relationship between house price movements and the political cycle in the UK, recognizing that homeowners constitute a substantial portion of the electorate, the study investigates whether house prices behave differently before and after elections and under various political regimes. Analysing quarterly house price data from 1960 to 2018 alongside UK parliamentary election data, the study employs descriptive statistics and significance tests to assess the impact of the political cycle on house price trends. The findings indicate no significant differences in house price performance between political parties. However, house prices tend to perform better in the year preceding an election, with an average annual increase of 5.3%, compared to a 1.3% annual increase in the year following an election. This pattern suggests that election timing should be considered in residential property investment decisions. House buyers and investors could benefit from incorporating election cycles into their strategic planning. Did this happen after Brexit?

The literature in urban studies regarding the impact of Brexit on the housing market is not yet abundant and remains open to contributions. This article is situated within this context to provide relevant evidence on the impact of Brexit on the real price of housing in London. Through a study of the prices paid for transactions between 2012 and 2022, the article statistically and cartographically illustrates the sectors of the city of London that experienced the greatest impact on housing prices, detecting that most of the city saw a real decline in value after Brexit. These findings allow for a necessary discussion on the relationship between Brexit and the housing affordability problem in England, based on an empirical study of its principal city. The results open new avenues for research into neighbourhoods and sectors of the city that may require greater attention in terms of housing policy formulation, the production of affordable housing models, and an assessment of the current conditions of properties in these areas.

The study is organized into five key sections. The Introduction (I) provides a contextual background on Brexit and its potential implications for the housing market, highlighting the significance of understanding these changes. The literature review synthesizes existing research on Brexit's broader socio-economic effects, emphasizing gaps in the current understanding of its impact on housing markets. The methodology section (II) details the data collection and normalization processes, including the segmentation of property transaction data into three distinct periods and the adjustment of prices using the Consumer Price Index (CPI) to obtain real price variations. The results section (III) presents the empirical findings, illustrating significant regional disparities in housing price changes across London, with detailed maps and statistical summaries. The discussion (IV) integrates these findings with existing literature, exploring potential mechanisms driving the observed trends, such as changes in immigration flows and economic uncertainty. The conclusion (V) underscores the study's contributions to the literature by providing empirical evidence of Brexit's impact on housing prices and calls for further research to explore the identified mechanisms in greater detail. This comprehensive approach provides valuable insights for policymakers and researchers interested in urban economic dynamics and the socio-economic consequences of significant political events.

This study significantly advances the literature by providing empirical evidence on Brexit's impact on London's housing market, a relatively unexplored area. Utilizing a decade of property transaction data normalized by the Consumer Price Index, the research reveals notable regional disparities in housing price trends post-Brexit. The integration of spatial analysis through the software Quantum Geographic Information System (QGIS), which enhances the visualization of these trends, offering a nuanced understanding of the socio-economic consequences of Brexit. By corroborating existing theories on regional inequalities and providing fresh insights into localized economic resilience, this study lays a robust foundation for future policy-oriented research on urban housing dynamics.

2. Materials and methods

This article is inductive, aiming to furnish empirical evidence to formulate theories concerning the effects of Brexit on the housing market in London. It employs an exploratory research methodology, devoid of preconceived notions on the sample utilised. The methodology is a quantitative approach, utilising aggregated statistical data from official sources to generate representative cartographies and summary tables of the results.



Figure 1. London map and its wards.

The case study of London (Figure 1), the capital of the United Kingdom, is

significant for urban studies due to its diversity, historical context, and economic dynamics within a liberalised housing market, albeit constrained by regulatory frameworks intended to maintain financial stability, which have proven ineffective in recent years. It is a global city confronting distinct difficulties such as gentrification, social disparity, and strain on the housing market. The city has experienced substantial urban changes influenced by development strategies and current historical occurrences like as Brexit. The rich cultural diversity may have altered due to Brexit, despite its sophisticated infrastructure and status as an international financial hub, which nonetheless provides a complicated and diverse framework for examining urban planning, sustainability, and housing regulations.

To conduct this study, official data sources were utilised, specifically the Her Majesty (HM) Price Paid database from the British Government and geospatial census data from the London city government, all accessible on their official websites. The HM Price Paid database provides records of property transactions on a daily basis and offers various georeferencing options. In this case, the postcodes of each observation were used, resulting in a final sample of transaction data from 2012 to 2022.

The analysis of housing price growth in London encompasses a decade from 2012 to 2022, meticulously segmented into three distinct periods to capture the multifaceted impact of Brexit: pre-Brexit (2012-2016), post-plebiscite Brexit (2016-2019), and post-implementation Brexit (2020-2022). The pre-Brexit period serves as a baseline, reflecting market conditions prior to the referendum, providing a critical reference point for subsequent changes. The post-plebiscite period encapsulates the immediate aftermath of the June 2016 referendum, marked by heightened uncertainty and speculative market behavior as stakeholders grappled with the impending political and economic shifts. The post-implementation period, commencing with the official enactment of Brexit and coinciding with the COVID-19 pandemic, presents a unique phase where the confluence of these two monumental events jointly influenced market dynamics. While the aggregated analysis over the entire decade offers a broad overview, the distinct period-based examination allows for a more nuanced understanding of the specific effects associated with each phase of Brexit. Although this study does not explicitly differentiate the impacts of COVID-19 within the postimplementation period, it acknowledges the interplay of these concurrent events, underscoring the need for future research to disentangle their individual contributions to the observed housing price trends.

Each record was converted to real price by normalising for the annual Consumer Price Index (CPI), using data processed at an annual level for each year available in the study. To adjust the prices to their Consumer Price Index (CPI) values for comparability over time, we'll use the following formula to calculate the real price for each year:

Real Price =
$$\frac{\text{Nominal price}}{\text{CPI}}$$

This process allows for the effective comparison of property transaction prices over time by accounting for changes in the purchasing power of currency due to inflation, as measured by the CPI. By calculating real prices, we can assess how property values have changed relative to the overall economy, rather than simply observing changes in nominal prices. With these real prices (**Table 1**), the real

		_			-		
Variables	Observations	Mean	St. Deviation	Median	Range	Skew	Kurtosis
Transactions (2012–2016)	401	887.8105	491.9202	845.0000	3442.0000	1.1878	4.1787
Transactions (2017-2019)	401	500.0274	367.8356	446.0000	3382.0000	3.2113	17.4905
Transactions (2020-2022)	401	531.5087	347.8830	496.0000	3327.0000	3.1444	20.1999
Real price paid (2012–2016)	401	81,853.2055	87,369.4160	58,409.3670	1,017,772.9520	5.0003	38.2763
Real price paid (2017–2019)	401	81,223.7483	91,605.7378	57,588.4362	919,615.1908	4.9139	32.3448
Real price paid (2020–2022)	401	68,566.3653	74,464.6519	48,167.5125	748,936.5878	4.2918	25.2892

variation between the three periods studied could be measured.

Table 1. D	escriptive	statistics	of data	used to	this study.
------------	------------	------------	---------	---------	-------------

The study utilized a robust methodological approach to estimate the variation in housing prices and transaction volumes before and after Brexit. The data was segmented into three distinct periods: pre-Brexit (2012-2016), post-plebiscite Brexit (2016–2019), and post-implementation Brexit (2020–2022). To ensure comparability over time, nominal housing prices were normalized using the Consumer Price Index (CPI), which adjusts for inflation and reflects real price changes. This normalization was achieved by applying the formula Real Price = Nominal Price/CPI for each year within the study period. The real prices and transaction volumes were then compared across these periods to measure the variation. Specifically, the study calculated the differences in real housing prices and sales volumes between the pre-Brexit, postplebiscite Brexit, and post-implementation Brexit periods. This approach allows for an accurate assessment of how housing market dynamics have shifted in response to Brexit by isolating the effects of inflation and focusing on real price variations. The transformation from nominal to real prices and the subsequent comparison across the defined periods provide a clear picture of the temporal changes in the London housing market associated with Brexit. This methodological rigor ensures that the observed variations are reflective of genuine market shifts rather than inflationary effects.

To facilitate the reading of the cartographies, the information was transformed from points of postcodes (Figure 2) to polygons based on electoral wards of 2022. Its initial representation by points Figure 2. This procedure was carried out using the spatial join technique in QGIS, where, based on geographical location, each electoral ward absorbed the values of the associated points, summarising its quantitative variables. These values were averaged to obtain a mean value for each ward. This step not only allows for better visualisation but also facilitates the comparison of these results with other variables available at a different scale than the postcode level. Wards, being polygons used at the census level, are especially useful for making new comparisons if required. The data used is shared as appendix. The observations in the study refer to more granular postcode districts within the broader postcode areas. These observations are aggregated data points, representing multiple smaller postcode districts or sectors within London, averaged over three specified time periods: pre-Brexit (2012–2016), post-plebiscite Brexit (2016–2019), and post-implementation Brexit (2020–2022). This aggregation provides a comprehensive view of housing price variations across London before and after Brexit.



Figure 2. London electoral wards and sample of points used in this study.

The transformation from point data to polygonal representation enhances the ability to conduct comparative analyses with other datasets that operate at the ward level. This spatial aggregation is crucial for understanding broader patterns and trends that might be obscured at the more granular postcode level. By using wards, the study aligns with commonly used geographical units in urban studies and public policy, allowing more effective integration of the findings with existing research and policy frameworks.

The methodological approach of normalising prices by CPI is fundamental for ensuring that the analysis reflects real changes in property values, isolating the effects of inflation. This allows for a more accurate assessment of how economic conditions and political events, such as Brexit, have impacted the housing market in London over the studied periods.

3. Results

The map (**Figure 3**) illustrates the real price variation of housing in London from 2012 to 2022, depicting the percentage change in prices after adjusting for inflation. The colour-coded legend reveals a range of variations. Areas shaded in dark red experienced the most substantial decreases in real house prices (-100% to -43%), primarily concentrated in central London boroughs such as Westminster and Kensington and Chelsea. Regions in red faced significant price decreases (-43% to

-16%), including parts of Camden, Islington, and Hammersmith and Fulham. Most of London is under this category or the light red areas (-16% to 0%) encompass most of the central and inner London boroughs, indicating price decreases in most of the city.



Figure 3. London wards and variation of real price paid between 2012 and 2022.

In contrast, pale-green regions (0% to 71%) experienced minor to moderate price increases, found predominantly in outer London boroughs like Havering, Redbridge, and Bexley. Areas in light green (71% to 235%) saw substantial price increases, concentrated in a few pockets within outer London boroughs. Finally, the highest price increases (235% to 426%) are observed in dark green areas, primarily limited to small areas within Waltham Forest and Barking and Dagenham. The spatial distribution reveals a clear pattern: central London experienced significant real price decreases, while outer London boroughs saw varying degrees of price increases.

The **Table 2** presents detailed information on specific areas within London that have experienced the most significant positive changes in real housing prices over the past decade. The table includes the zone name, corresponding borough, total sales from 2012 to 2022, variation in sales, and variation in real price paid. The data reveals that Canning Town North and Canning Town South in Newham have the highest positive variations in real prices paid, with increases of 4.26 and 3.51, respectively. Despite these significant price increases, both areas experienced a decline in total sales,

with variations of -0.57 and -0.56.

Zone	Borough	Total sales 2012–2022	Variation of Sales	Variation of Real Price Paid
Canning Town North	Newham	1493	-0.573791349	4.255722958
Canning Town South	Newham	3911	-0.562971561	3.511178803
East Barnet	Barnet	7	-0.833333333	2.34973262
King's Cross	Camden	990	-0.581352834	1.730460305
Royal Docks	Newham	4526	-0.097211756	1.727117382
Bunhill	Islington	2675	-0.338645418	1.72440436
Churchill	Westminster	1294	-0.565671642	1.195702593
Vincent Square	Westminster	1888	-0.669138091	0.959030954
Rotherhithe	Southwark	1957	-0.699835526	0.838063428
Clerkenwell	Islington	1396	-0.512295082	0.826429935

Table 2. London zones with	higher positive	e variation of real	price paid 2012–2022.

East Barnet in Barnet shows a notable real price increase of 2.35 but with a sharp decrease in sales (-0.83), likely due to its small sample size of just seven total sales. King's Cross in Camden and Royal Docks in Newham both have real price variations above 1.7, coupled with declines in sales (-0.58 and -0.10, respectively). Other notable zones include Bunhill in Islington, Churchill and Vincent Square in Westminster, Rotherhithe in Southwark, and Clerkenwell in Islington, each exhibiting positive price variations ranging from 0.83 to 1.72. These areas also faced declines in sales, indicating a broader trend of reduced transaction volumes amidst rising real prices across these key London zones.

Zone	Borough	Total sales 2012-2022	Variation of Sales	Variation of Real Price Paid
Brentford	Hounslow	140	0.75609756	-0.8633629
Bishop's	Lambeth	2071	0.9118774	-0.8285527
Ashburton	Croydon	6	2	-0.7863265
Kenton	Brent	57	0.2	-0.7641558
Oval	Lambeth	3705	-0.1870229	-0.717138
Blackfen and Lamorbey	Bexley	18	0.16666667	-0.7163023
Avonmore and Brook Green	Hammersmith and Fulham	1600	-0.4276885	-0.7068984
Kenton East	Harrow	10	-0.6666667	-0.6983677
College Park and Old Oak	Hammersmith and Fulham	1063	0.90753425	-0.6650432
Bethnal Green North	Tower Hamlets	1775	-0.4105392	-0.5899679

Table 3. London zones with higher negative variation of real price paid 2012–2022.

The **Table 3** highlights areas within London that have experienced the most significant decreases in real housing prices over the past decade. The table provides the zone name, corresponding borough, total sales from 2012 to 2022, variation in sales, and variation in real price paid. Brentford in Hounslow tops the list with a substantial negative variation in real price paid (-0.86), despite an increase in sales (0.76). Similarly, Bishop's in Lambeth shows a significant price decrease (-0.83)

while experiencing a notable rise in sales (0.91), indicating increased transaction activity amidst declining prices. Ashburton in Croydon, though having only six total sales, shows a stark decrease in real prices (-0.79) along with a high sales variation (2.0), suggesting volatility in this small sample. Kenton in Brent and Blackfen and Lamorbey in Bexley also exhibit negative price variations of -0.76 and -0.72, respectively, with minor increases in sales.

Zones such as Avonmore and Brook Green in Hammersmith and Fulham, and Bethnal Green North in Tower Hamlets show moderate declines in real prices (-0.71and -0.59) alongside decreases in sales (-0.43 and -0.41), reflecting market contractions in these areas. Oval in Lambeth and College Park and Old Oak in Hammersmith and Fulham also demonstrate significant price declines, further underscoring the varying impacts of Brexit and other economic factors on different parts of London. These zones represent the broader trend of fluctuating market dynamics with significant reductions in real housing prices despite varying sales activity.

The Table 4 provides an overview of the variation in sales and real price paid for housing in various London boroughs from 2012 to 2022. It reveals diverse trends across different areas of London, indicating how Brexit and other economic factors may have affected the housing market. Newham, with a variation of -0.37 in sales, shows a positive real price change of 0.31, suggesting resilience in its housing market despite decreased transaction volume. Barnet and Islington display slight positive variations in real prices (0.047 and 0.044) but have experienced moderate declines in sales (-0.35 and -0.44, respectively). Conversely, boroughs like Southwark, Camden, and Westminster have seen both sales and real prices decline, with variations in real prices of -0.016, -0.027, and -0.073, respectively. These trends highlight the broader challenges faced by central boroughs in maintaining housing market stability. Boroughs such as Lewisham and Greenwich exhibit more significant declines in real prices, with variations of -0.088 and -0.107, coupled with decreased sales activity. This pattern continues in boroughs like Hackney, Brent, and Wandsworth, where real price variations are -0.143, -0.155, and -0.156, respectively. Notably, the City of London shows the most significant negative variations in both sales (-0.55) and real prices (-0.223), reflecting substantial market downturns. Other boroughs like Hammersmith and Fulham, Kingston upon Thames, and Hounslow also show considerable declines in real prices, with variations of -0.279, -0.285, and -0.300, respectively. Harrow stands out with the most drastic declines in both sales (-0.83)and real prices (-0.849), indicating severe market contractions. Most of boroughs exhibited a decrease in sales but Bromley, where also real prices declined. The table underscores the heterogeneous impact of economic changes on London's housing market, with some boroughs demonstrating resilience while others face significant declines.

Boroughs	Variation of Sales	Variation of Real Price Paid
Newham	-0.373390499	0.311417291
Barnet	-0.347929955	0.047099974
Islington	-0.438526513	0.044500799
Tower Hamlets	-0.465201478	0.043760787
Southwark	-0.456203406	-0.01637592
Camden	-0.434166919	-0.027330164
Westminster	-0.442361136	-0.073007842
Lewisham	-0.43942206	-0.087737257
Greenwich	-0.40778495	-0.107067156
Bromley	0.515084808	-0.111488162
Enfield	-0.257136178	-0.116625569
Waltham Forest	-0.33869897	-0.118576932
Redbridge	-0.291113925	-0.133700356
Hackney	-0.33137062	-0.142855636
Brent	-0.306544635	-0.15523046
Wandsworth	-0.375272849	-0.15584638
Merton	-0.381650889	-0.167506456
Lambeth	-0.358003708	-0.177957329
Kensington and Chelsea	-0.46929726	-0.183297039
Ealing	-0.286071461	-0.191743426
Richmond upon Thames	-0.314239754	-0.204607564
Croydon	-0.138938205	-0.209275461
Haringey	-0.322165465	-0.218544532
City of London	-0.553507729	-0.222765637
Hammersmith and Fulham	-0.339089234	-0.278867937
Kingston upon Thames	-0.363636364	-0.284776066
Hounslow	-0.091678661	-0.299598236
Bexley	-0.272032796	-0.325802755
Harrow	-0.833333334	-0.849183849

Table 4. Summary of results by London Boroughs.

4. Discussion

The literature emphasizes the polarization induced by Brexit, which significantly influenced societal divisions and economic policies. Hobolt et al. (2021) highlighted how Brexit identities intensified affective polarization, affecting broader socioeconomic dynamics. The results showing widespread declines in real housing prices, particularly in traditionally affluent areas such as Westminster, Kensington, and Chelsea, underscore this polarization's impact. These areas, despite being prime real estate locations, have not been immune to the potential negative effects of Brexit, suggesting that the socio-political instability may have diminished buyer confidence and investment in these high-value markets.

The 2019 general election's impact on regional economic policies, discussed by

Cutts et al. (2020), is reflected in the housing market trends observed. The results show that areas like Newham have demonstrated resilience with positive real price variations despite a decrease in sales. This resilience could be attributed to local economic policies and development projects that may have mitigated the adverse effects of Brexit, aligning with Cutts et al.'s assertion that political realignment continues to influence local economic outcomes. The literature also underscores the importance of EU Cohesion Policy funding, which has historically addressed spatial inequalities. Giordano (2021) argues that the cessation of this funding post-Brexit raises questions about the UK's commitment to regional development. The results showing significant declines in housing prices in various boroughs, particularly in less affluent areas, underscore the potential long-term consequences of reduced regional support and investment.

Saunders (2020) critiques the notion of 'imperial nostalgia' and its role in shaping Brexit sentiments. The findings from the results, particularly the significant declines in housing prices in historically affluent areas, suggest that investment patterns and population movements influenced by such sentiments may have played a role in these trends. The decline in these areas could reflect a broader economic shift away from traditionally prestigious locations, potentially driven by a re-evaluation of investment priorities post-Brexit. Nevertheless, this assertion would require a fieldwork to confirm or reject the hypothesis. McCann and Ortega-Argilés (2021) discuss the 'geography of discontent' and regional inequalities exacerbated by Brexit. The results showing varying impacts across different boroughs tend to confirm this notion. For instance, outer boroughs like Newham and Barnet exhibit some resilience, while central areas face significant declines. This geographical disparity highlights the uneven distribution of Brexit's economic impact, corroborating McCann and Ortega-Argilés' argument about the challenges in addressing regional imbalances. Abreu and Öner (2020) emphasize the interplay between individual voter characteristics and geographical context in understanding Brexit's impact. The observed trends in the results, such as the resilience in certain boroughs despite overall negative trends, suggest that localized cultural and economic factors significantly influence housing market dynamics. This supports Abreu and Öner's assertion that both individual and contextual factors are crucial in analyzing Brexit's impact. Anderson et al. (2020) introduces the concept of "modes of uncertainty," highlighting diverse reactions to Brexit. The results, indicating significant variations in housing price changes across different boroughs, partially reflect this diversity, although most of London experience reduction on real prices. Areas with significant price increases, despite overall negative trends, suggest that localized economic conditions and buyer perceptions may have varied, aligning with Anderson et al.'s exploration of uncertainty and its impact on economic behaviours. Hudson (2021) envisages that Brexit will exacerbate sociospatial inequalities, a perspective confirmed by the results. Boroughs such as Haringey, Croydon, and Hackney show significant declines in real prices, indicating that the economic fallout from Brexit has disproportionately affected already disadvantaged areas, although it also impacted in wealthy zones of the city. This aligns with Hudson's argument that Brexit policies will likely entrench existing inequalities.

This study reveals notable geographical inequalities in London's housing market following Brexit, but the processes behind these patterns require additional investigation. Future studies must thoroughly examine the impact of alterations in immigration patterns, increased economic instability, modifications in economic policy, and the simultaneous COVID-19 epidemic on these results. One hypothesis suggests that decreased EU immigration following Brexit has lessened property demand in certain boroughs, especially those traditionally dependent on foreign inhabitants. Another explanation posits that economic uncertainty, intensified by Brexit's unclear long-term consequences, diminished investor confidence, particularly impacting high-value markets in central London. Moreover, changes in economic policy, such as modified trade relations and financial laws, may have indirectly affected housing markets by impacting employment rates, income stability, and company investments. Moreover, the junction of the COVID-19 pandemic with Brexit may have exacerbated these consequences, as the pandemic caused unparalleled economic upheavals and transformed residential preferences, notably increasing the need for more spacious suburban dwellings. These ideas underscore the need for a comprehensive analytical strategy that combines quantitative and qualitative methodologies to elucidate the intricate interactions among these components. Notwithstanding these underexamined aspects, the study's empirical contributions are significant, offering a core dataset and preliminary findings essential for shaping policy and directing future urban economic research.

While the primary aim of this paper was to ascertain whether housing prices in London changed following the historical event of Brexit, rather than to identify the determinant factors of these changes, it is essential to acknowledge the broader context of housing demand. Brexit, as a significant political and economic shift, undoubtedly influenced market dynamics, yet attributing changes solely to this event requires careful consideration of other contributing factors. One critical aspect is the overall demand for housing, which encompasses not only EU residents but also non-EU migrants and international investors. London's housing market is notably international, with substantial demand driven by global capital flows and migration patterns. Therefore, future research should account for the demand from outside the EU to fully comprehend the observed price trends post-Brexit. This comprehensive approach would ensure that the analysis reflects the total housing demand, capturing the multifaceted nature of the market. While the findings of this study provide valuable initial insights into the post-Brexit housing market, incorporating a broader scope of demand factors, including non-EU influences, would enhance the robustness and applicability of the conclusions, offering a more nuanced understanding of how such a pivotal event intersects with global housing market dynamics.

The results presented in this study confirm the literature's concerns about the varied and complex impacts of Brexit on London's housing market. Also, the findings highlight the need for localized analysis with a different strategy to confirm the hypothesis of the negative effect of Brexit on housing prices.

5. Conclusion

This study provides findings which underscore the multifaceted effects of Brexit on different areas of London, revealing significant socio-economic and political dimensions. Firstly, the widespread declines in real housing prices in traditionally affluent areas such as Westminster, Kensington, and Chelsea provide evidence which may help to confirm the literature's emphasis on the polarization induced by Brexit. Hobolt et al. (2021) highlighted how Brexit identities intensified socio-political divisions, diminishing buyer confidence and investment in high-value markets. These declines suggest, while not confirm yet, that the socio-political instability post-Brexit has had a considerable negative impact on these prime real estate locations. Conversely, the resilience observed in certain outer boroughs like Newham and Barnet highlights how localized economic policies and development projects can mitigate adverse effects. Despite a decrease in sales, these areas demonstrated positive real price variations, aligning with Cutts et al. (2020) who discussed the influence of political realignment on local economic outcomes.

This paper provides valuable insights into the impact of Brexit on real house prices, while also indicating a decrease in sales volume. The hypothesis derived from the analysis of these statistics posits that Brexit, by inducing commercial isolation, instilled significant uncertainty among real estate investors and the financial institutions that support their investments in high-value properties. The initial economic outcomes of Brexit did not alleviate this uncertainty, nor did the prevailing public discontent, which reflects a widespread regret regarding a narrowly decided popular vote that lacked the additional pressures of a pandemic and the unfavourable initial results of exiting the European Union. What factors contribute to the increase in property prices in certain areas of London while others experience declines? The geographical differences in home price trends across London after Brexit can be traced to a complex interaction of socio-economic factors and regional features. The economic resilience of outlying boroughs like Newham and Barnet is apparent, probably attributable to localised economic policies and development initiatives that have alleviated negative impacts. These regions have profited from infrastructural expenditures and economic diversification, sustaining housing demand amid wider market uncertainty. In contrast, key districts such as Westminster and Kensington have witnessed substantial price reductions, attributed to diminished demand from international investors and EU migrants. The political and economic ambiguity associated with Brexit has diminished investor confidence, especially in high-value markets. Moreover, immigration limitations have diminished the entry of EU residents, historically a vital element of demand in these prime regions. The ongoing COVID-19 epidemic has modified residential choices, leading to heightened desire for larger, more affordable property in less densely populated outlying boroughs, thus elevating prices in these regions while decreasing them in central London. Various regions of London display distinct economic conditions and demographic characteristics; locations with diversified economic foundations and reduced dependence on sectors significantly affected by Brexit have fared better against economic disruptions, resulting in steadier or increasing property values. Cultural variables and the interaction between individual voter traits and regional location have impacted housing market dynamics. The localised policies and historical backdrop of each borough significantly influence their responses to macroeconomic shocks like as Brexit, hence adding to the regional variations in property prices.

Added to this are potential causes on a smaller, citizen-led scale, given that European citizens no longer have the same ease of living in the UK, thus decreasing demand for property. Brexit's international policy has not been positive for the housing market across the board, affecting both high- and low-income households, who are experiencing a devaluation in real terms of their property assets. This is a hypothesis based on an exploratory study that can provide the foundation for further statistical analysis with new data treatments and fieldwork to test its validity.

Future research should further explore the impacts of Brexit on different sectors of the housing market and examine the interplay between political events and housing market dynamics. This study provides a foundation for such research, emphasizing the need for ongoing analysis to fully understand the long-term consequences of Brexit on London's housing market.

Conflict of interest: The author declares no conflict of interest.

References

- Abreu, M., & Öner, Ö. (2020). Disentangling the Brexit vote: The role of economic, social and cultural contexts in explaining the UK's EU referendum vote. Environment and Planning A: Economy and Space, 52(7), 1434–1456. https://doi.org/10.1177/0308518x20910752
- Aha, B., Higgins, D., & Lee, T. (2022). United Kingdom general elections and the impact on house prices. International Journal of Housing Markets and Analysis, 16(1), 206–217. https://doi.org/10.1108/ijhma-04-2020-0047
- Anderson, B., Wilson, H. F., Forman, P. J., et al. (2019). Brexit: Modes of uncertainty and futures in an impasse. Transactions of the Institute of British Geographers, 45(2), 256–269. Portico. https://doi.org/10.1111/tran.12348
- Chng, I., Reades, J., & Hubbard, P. (2023). Planning deregulation as solution to the housing crisis: The affordability, amenity and adequacy of Permitted Development in London. Environment and Planning A: Economy and Space, 56(3), 961–978. https://doi.org/10.1177/0308518x231209982
- Cowell, R., Ellis, G., Fischer, T., et al. (2020). Integrating Planning and Environmental Protection: An Analysis of post-Brexit Regulatory Styles and Practitioner Attitudes in the UK. Planning Theory & Practice, 21(4), 570–590. https://doi.org/10.1080/14649357.2020.1801819
- Cutts, D., Goodwin, M., Heath, O., et al. (2020). Brexit, the 2019 General Election and the Realignment of British Politics. The Political Quarterly, 91(1), 7–23. Portico. https://doi.org/10.1111/1467-923x.12815
- Fetzer, T., Sen, S., & Souza, P. C. L. (2022). Housing Insecurity and Homelessness: Evidence from the United Kingdom. Journal of the European Economic Association, 21(2), 526–559. https://doi.org/10.1093/jeea/jvac055
- Giordano, B. (2020). Post-Brexit regional economic development policy in the UK? Some enduring lessons from European Union Cohesion Policy. European Urban and Regional Studies, 28(1), 26–33. https://doi.org/10.1177/0969776420970624
- Hobolt, S. B., Leeper, T. J., & Tilley, J. (2020). Divided by the Vote: Affective Polarization in the Wake of the Brexit Referendum. British Journal of Political Science, 51(4), 1476–1493. https://doi.org/10.1017/s0007123420000125
- Hudson, R. (2020). Life post-Brexit in the Divided Realm. European Urban and Regional Studies, 28(1), 14–19. https://doi.org/10.1177/0969776420965639
- Kulz, C. (2022). Spaces of the local, spaces of the nation: Intersectional bordering practices in post-Brexit Berlin. European Urban and Regional Studies, 30(3), 221–234. https://doi.org/10.1177/09697764221087644
- Lastrapes, W. D., & Lebesmuehlbacher, T. (2020). Asylum seekers and house prices: Evidence from the United Kingdom. Journal of Housing Economics, 49, 101712. https://doi.org/10.1016/j.jhe.2020.101712
- Lefebvre, H. (1991). The production of space. Blackwell: London. Wiley.
- Livingstone, N. (2022). Real Estate Insights Safe as houses? Thinking on the rise of investment into UK residential markets. Journal of Property Investment & Finance, 40(3), 324–329. https://doi.org/10.1108/jpif-01-2022-0001
- Maslova, S., & King, R. (2020). Residential trajectories of high-skilled transnational migrants in a global city: Exploring the housing choices of Russian and Italian professionals in London. Cities, 96, 102421. https://doi.org/10.1016/j.cities.2019.102421
- McCann, P., & Ortega-Argilés, R. (2021). The UK 'geography of discontent': narratives, Brexit and inter-regional 'levelling up.' Cambridge Journal of Regions, Economy and Society, 14(3), 545–564. https://doi.org/10.1093/cjres/rsab017

- Mee, A., Homapour, E., Chiclana, F., et al. (2021). Sentiment analysis using TF–IDF weighting of UK MPs' tweets on Brexit. Knowledge-Based Systems, 228, 107238. https://doi.org/10.1016/j.knosys.2021.107238
- Montalto, V., Panella, F., & Sacco, P. L. (2020). What does Brexit mean for UK cultural and creative cities? European Urban and Regional Studies, 28(1), 47–57. https://doi.org/10.1177/0969776420970630
- Saunders, R. (2020). Brexit and Empire: 'Global Britain' and the Myth of Imperial Nostalgia. The Journal of Imperial and Commonwealth History, 48(6), 1140–1174. https://doi.org/10.1080/03086534.2020.1848403