IMPACT OF BREXIT
ON THE UNITED KINGDOM’S HOUSING MARKET

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ABSTRACT

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To St Petersburg, for instilling in me a love of architecture.
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1. Introduction

The spirit of property doubles a man’s strength.
- Voltaire

The current British exit from the European Union is the most significant economic divergence between the leading countries since the Second World War and much about the forthcoming process of transitioning out of the EU has no precedent. Though it is certain already, both the UK and the EU will be changed significantly by what is about to unfold. The European Union – oftentimes referred to as the EU - is a political and economic cooperation between 28 European countries. It began after World War Two to promote economic co-operation, with the idea countries have trade agreements and a single market are less likely to go to war with each other.

![Picture 1](image.png)


This Bachelor’s dissertation identifies the United Kingdom’s exit from the European Union (Brexit’s) implications on homeownership, letting market, and the real estate sales market in the UK. The current history witnesses one of the most meaningful votes for the British and for the Europeans in the 60-year history of the EU. The repercussions are expected to be vast and major and would influence nearly all spheres of life in Europe, as well as overseas. The key focus of the current thesis is to examine factors are expected to prompt an economic or social
change in the real estate in the aftermath of the Article 50 initiated on March 29, 2017 by Theresa May. Article 50 is a plan for any country wishes to exit the EU. It was created as part of the Treaty of Lisbon - an agreement signed up to by all EU states which became law in 2009. Before treaty, there was no formal mechanism for a country to leave the EU.

![Diagram of Brexit risks](image)


Since the Article 50 revoked, the succession of the socio-economic changes has gained a considerable momentum and entails changes are already happening, contemplating the bigger ones, are yet to come. It is of academic and professional interest to trace, identify, research and categorize economic fundamentals, such as change in immigration or regulation, the housing prices are driven by. And, while the majority of people, interested in the subject, understand the most important stipulation of an Article 50: “Any Member State may decide to withdraw from the Union in accordance with its own constitutional requirements”, it is yet unclear what does leaving the European Union really mean for the current homeowners and those trying to “get on the ladder”?

This thesis aims to analyse the changes of the real estate market in the United Kingdom and identify the factors producing a price change. The dissertation investigates the possible change in value of housing caused by Brexit, which is a specific group of investment assets and a major component of household wealth for the UK. Understanding the nature and degree of change of
housing prices will make market participants aware of the size of their risk exposure and can help them to detect early signals of the possibility of investment opportunities or threats. Policy-makers can use the current dissertation’s information as an information sheet about the underlying valuation drivers of the house prices to stabilize the market. This thesis proposes a comprehensive analysis of the possible influences. This dissertation also contributes to literature and wider academic community both methodologically and empirically.

![Image](image_url)


### 1.1 Research Problem

The Economist describes Brexit vote as: "On February 20th David Cameron, Britain's prime minister, set June 23rd as the date for a referendum on the country’s membership of the European Union". His announcement followed a protracted renegotiation of the current conditions of Britain’s membership at a summit in Brussels. A particular interest in the development of the housing prices grew in the aftermath of the referendum vote on 23 June 2016 in the UK, where the majority at the percentage of 51.89% of the British citizens voted to leave the European Union and the following recession spread around the country as a consequence. For many it seems difficult to understand how the future would unfold and what changes in mortgages, housing prices, rents and stamp duty can be expected. People and
economic researchers alike therefore became more aware of the seemingly more intertwined financial system and – this part being the focus of this thesis – housing prices.

![Image](https://example.com/image.png)

**Picture 4 - RICS, 2017. The Built Environment in Figures: Global.**

It is important to stress out not only a personal interest in housing and in particular in the British housing market, but also the scientific need in this topic to be researched lies behind the current research. Attached to the housing market in the United Kingdom is around £11 billion in mortgage debt, from which £1 billion belong to lenders from abroad, altogether incorporating one of the most extensive concentrations of financial risks (The Economist, 2016). The total value of Britain’s housing stock has passed the £6 trillion mark for the first time after gains of £385 billion in 2015, but post-credit crunch gains continue to favour the south over the north, and unmortgaged home owners and private landlords over homeowners with debt, according to new analysis from real estate adviser, Savills. The relevance of housing in the context of economics is high. The importance of the reals estate market in the UK’S economy is unparalleled. The £6 trillion of housing stock in the United Kingdom form maybe the biggest asset class in the world. The statistics (Savills, 2017) show how great the importance of housing is in the context of the British economy. Total Value of UK Housing Stock exceeds £6tn for the first time (£6.17tn), +£385bn in 2015 and +£1,156bn in 3 years. Housing wealth stands at £4.84tn, net of mortgage debt, or 2.7 times GDP. Owner occupiers with no mortgage: total property wealth exceeded £2tn for the first time (£2.097tn). Private rented sector: total value now £1.29tn, up 55% in 5 years (with number of homes in the sector +28%); net wealth passed £1tn in 2015, overtaking held by mortgaged owner occupiers for the first time (£1.077tn vs £1.067tn). Total value of homes in London exceeds £1.5tn for the first time (£1.612tn),
accounting for more than a quarter of the total value of housing stock in the UK and having risen by £589bn in 5 years. South of England: total value growth (+£179bn) exceeded London growth (+£126bn) for the first time in 5 years. Bristol shows the biggest increase in total housing stock value (+£4.5bn to £44bn) outside London.

The market value of the UK real estate is £1,662bn. The UK has 260,000 professionals shaping the built environment. Real estate contributes £94bn to the UK economy, representing a major share of 5.4% of the Britain’s GDP. Commercial property directly employs 2.1 million people representing 6.8% of labour force. In 2015 Gross Value Added (GPA) from England’s predominantly rural areas contributed 16.5% to England’s GPA. Therefore, it is not surprising, various institutions, be it governmental, academic or private, strive to find appropriate risk metrics or, when analysing price levels, downfall indicators to navigate through the maze of post-Brexit legislation. However, the debate about housing crisis is far from being settled and research about appropriate measures is ongoing and conflicting. This work will shed light on some of the most recent econometric techniques that pioneer in the field, so called fundamental based approaches. Measures used in this thesis takes in to account housing only, not other types of real estate, although the name might suggest other-wise. The observatio examining just one or a few market properties can be misleading motivates me to attempt to develop a more holistic methodology for housing investigation.

![Image of anticipated demand growth and training deficit in UK construction](image)

**Picture 5 - RICS, 2017. The Built Environment in Figures: UK.**

Housing is especially relevant, because the asset involved is not only held by private, capital strong investors. This would be typical for the commercial real estate sector. In contrast, private single household’s account for a major share in the housing domain and connected to this is an outstanding sum of mortgage loans – household’s main liabilities. On top of , if the legal
environment and bank practices are securitization friendly, loans can be bundled and sold, extending the dependencies of the loans – and therefore the risk of default from the owner. Isolated defaults and related foreclosures are not necessarily a problem. If, however properties are in general overvalued and the mortgage debt is by far bigger than market prices reflect, spill over effects are inevitable, as was seen in the US housing bubble before 2008. So it is in the interest of both property owners and investors houses are fairly valued and prices reflect the current market situation.

For a brief time, a post-vote uncertainty in the housing market is characterized by a long period of irrational and unjustified price increases, followed by price correction. Real estate market uncertainty can have serious impact on other markets and the economy as a whole. Reasons for the price regime shifts in housing markets can be various, but often they are related to speculation and high capital gain expectations. With increasing prices, demand, however counter-intuitively, is increasing as well, because people expect prices to inflate even further (Meen 1990, Jowsey 2011). These can then pass on shocks to the real economy, for instance when households withdraw equity from their mortgage for an increase in consumption, as happened in the early 2000s (Anundsen 2013). According to Black et al. (2006), house busts have a much stronger effect on the economy than stock busts. This is why understanding them better is also important for policy making. The observation examining just one or a few market properties can be misleading motivates me to attempt to develop a more holistic methodology for a network investigation.
1.2 Objectives and Approach

I would like to cover the economic, financial, and legal fundamentals that could generate a change in the United Kingdom’s housing market. Some of the main uncertainty-driven mine, as well as research think-tanks, questions are as follows. It is to be noted, while all the attempts to fill the data, know-how, legislation uncertainty and other research problem gaps were made, some of the questions were unable to be answered within the current time frame and the bachelor’s dissertation framework. The questions addressed while working on this dissertation are:

1. What is the effect of Brexit on the legal structure of, and the legal risks associated with, real estate transactions?
2. What impact will Brexit have on real estate inward investment volumes?
3. What are the implications for the financing of the UK commercial real estate?
4. Will there be significant changes to environmental and health and safety regulation in the UK following Brexit?
5. Will Brexit have an impact on the planning process for development projects?

General reasoning behind this work is a need to assess the research gap in analysing the repercussions of Brexit on the UK housing market. This is largely backed up by the fact real estate is at the core of the British economy – in fact it “houses the economy” – it is the buildings to live, get education, hospital care, work and rest – and the means through which people commute, import and export. The review of the recent trends in the housing market, as well as the overview of the factors potentially shifting the price or influence the market in any other way.

The primary objective of the current thesis is to support filling up the gap of the research strives to structure, or at least assess, the ambiguity created by the British exit from the European Union. I contend there is a gap in the existing publications for real estate economics. Currently there are two types of research in the real estate books on the market: the first is highly academic with little practical relevance, and the second is highly practical with little of the academic rigor required to fully comprehend the reasoning behind the changes prompted by Brexit. This Bachelor’s thesis investigates tests and the existing research materials, as well as the outcomes of my own survey and research. The theoretical part primarily overviews publications accessible electronically, such as collections of policy documents, standards, archive material, videos, and audio-recordings.
1.3 Structure of the Dissertation

The dissertation complies the theoretical and empirical findings on the favoritism of the real estate sector of the United Kingdom, imposed by Brexit. The theoretical part of the thesis overviews the hypotheses, theories, existing evidence, previous historical examples of the countries changing their position within the European Union, as well as the literature foundation of the study.

The Chapter 1, Introduction opens the document and sets a purpose for the study; it assesses the scope of the research and how the issues are addressed. The first chapter is followed by a subheading 1.1 Research Problem that justifies the industrial necessity for a across-the-board research and the economic urgency of the issue. The following subtitle 1.2 Objectives and Approach sets the aims for a dissertation work and the means by which the findings were achieved. The paragraph 1.3 Structure of the Thesis is an outline of the dissertation. The Chapter 2 Literature Review comprises an exhaustive literature review and outlines hypotheses on the post-Brexit housing market taken from the existing literature, articles, speeches, interviews and publications on the current state of the housing market in Britain. The research is executed by
sector; e.g.: political background, practice background, methodological background, geographical background, literary background; it is subdivided by the nine subheadings: Regulation, Planning, Infrastructure, Immigration, Trade, Foreign Direct Investment, Housing Prices, GDP and Output and Uncertainty. The paragraph 2.1 Regulation synopsizes the biggest amount of literature as the Brexit process necessitates an immense amount of institutional change is ordered by the number of law-enforced requirement and procedures. The subsection 2.2 Planning overviews the possible alteration in the planning regulation, with an outline of the conceivably positive changes that could happen should Britain be no longer regulated by the European Union. The paragraph 2.3 Infrastructure indications the changes within the built transport environment, as the United Kingdom is a predominantly public-transport using country that creates neither enough space, nor taxation environment for regular car ownership. The passage 2.4 Immigration submits the second largest observed amount of literature and legal documents, since one of the main doctrines of the initial Brexit vote proposal was to regulate the unrestricted migration from the European Union, and the wider European Economic Area, as a process highlighted by politicians as potentially harmful for the economy. The paragraph 2.5 Trade looks into imports’ and exports’ influence on the housing market. The paragraph 2.6 Foreign Direct Investment assesses whether Brexit will restrict investment to the United Kingdom. The section 2.7 Housing Prices discusses monetary changes in transactions. The subheading 2.8 GDP and Output identifies the diversion in spending. The concluding section 2.9 Uncertainty summarises general impressions and economic shocks that occur in Brexit environment in the real estate sector in the United Kingdom.

The empirical part describes the experiment, its theoretical prediction and background, methods, materials and comprehensive analysis of the results, as well as analyses finding of the empirical research. Chapter 1.2. Objectives And Approach states the primary hypothesis and sets the agenda for the research. The second chapter gives an overview of the finding from an existing publications: academic literature. It also defines the limitations to the research and pitfalls in the current studies. The chapter Literature Review effectively sets-out a checklist of the immediate and known issues on which city leaders, businesses and investors should focus over the coming few months in order to promote cooperation, dialogue and smoother exit from the European Union. This should be the agenda for cities as they shape their response to the post-Referendum world. It should be the basis on which cities and their stakeholders negotiate with a new Government. And the centrality of these issues makes a powerful case for city leaders to be fundamentally involved, alongside the devolved administrations, in the withdrawal
negotiations. The Chapter 3, Materials and Methods sets a purpose for the study, and how the issue is going to be tackled; it assesses the scope of the research and how the issues are going to be addressed, the chapter also discloses how the results are delivered. It consists of the five sub-paragraphs. Paragraph 3.1 Methodology is a description of the questionnaire, target audience, respondents and time frame. The second paragraph 3.2 Questionnaire’s Composition is divided by four parts, each describing the reasoning behind the given question, its format, wording, and background. The paragraph 3.3 Data and Experiment gives a proposal overview of how the thesis could be used, and by who. The paragraph 3.4 Theoretical Prediction explains the background research and market’s estimates on the subject. It shows what results were predicted, and which ones have shown unexpected diversion from the theoretical framework. The Chapter 4, Results contains two paragraphs: Description and Discussion, and analyses the gathered data, as well as explains the possible contradiction from the literature-based theoretical predictions of the paragraph 3.4, Theoretical prediction. The chapter 5, conclusion closes the research and identifies the answers on questions asked in the chapter 1.2, Objectives and approach.

The purpose of this dissertation is not to forecast or contemplate on how the unprecedented historical events of the last week will play out - this is already available on the front pages of every newspaper daily - but to set out the facts as they are known today, and consider the range of likely impacts. The possible economic impacts include the loss of significant European Union funding streams such as ESIF and EDRF, jobs and investment linked to European trade, future investment in infrastructure and business, universities’ ability to continue to attract EU academics and students, and research and innovation investment.

2. Literature Review

Up until now, a year since the historic referendum vote, there existed no rich data on the predicted after-Brexit state of the housing market providing the turnout of Brexit vote was largely unexpected. From the very first date when the official campaign period started on April 15, 2016 and for the clear majority of the campaign — 10 weeks before polling day — until June 23, 2016 both polls and markets had “remain” with a solid lead. I have analysed publications by the leading think-tanks (eg OECD, WTO, UNESCO), real estate institutions (eg RICS, Manchester City Council: Great Manchester Brexit Monitor) and political newspapers (Financial times, Bloomberg, The Economist, Frankfurter Allgemeine) and can conclude real estate market was rarely used directly as a pro- or contra- argument in the referendum debates. Instead, it is more a correlation than a causation with the political sentiment. Real Estate is always talked about at a dinner table across the UK, getting on a housing ladder is a plot of plays staged at the London National theatre and the Barbican, chronic shortage of the living space is deeply wined theme of British humor. Reals Estate problems are outcomes of socio-political changes that were used in Brexit talks: immigration and population control, foreign workers, centralized power and crowding-out, trade and investment.

In the current literature review, I will analyse bibliography that assesses the different spheres of the real estate market in the United Kingdom. To this date, there exists no book published in the years of 2016-2017 that would allow a reader to get a across-the-board overview on possible changes in the country’s housing situation. This, therefore, highlights the empirical and academic value of my dissertation and allows for comprising an outline for further research. I divided possible Brexit repercussions on the real estate onto nine categories, each of which I analyse using different literature from economic fields and approaches. I am comparing advances academic literature to the prevailing political arguments manipulating Brexit talks to distinguish the relevance in theoretical framework. I then add forecasts aiming at drawing a broad picture. Below is the table drawn by the Economist that outlines different political sentiments that politicians used to shape the voters’ perception on the referendum.
When the predicted result shifted towards “leave” early in June, bettors moved in the same direction, but not enough — never once did “leave” come close to taking the lead. However, with several the pro-remain surveys results, shortly before the vote shifted the polling average close to equal, markets took as a clear symptom of an upcoming victory. On the election day, markets recorded some 85% probability the United Kingdom would stay within the European Union. Such miscalculations are hard to forecast. In order to anticipate outcomes of any given vote, sociologists have only one source at their disposal, — the statistical data, gathered from the responses to the poll.
“In contrast, bettors in prediction markets have full knowledge of all public polls plus other valuable types of information such as fundraising, endorsements, media coverage, insiders trading on non-public knowledge and the like.” Admittedly though, unlike polls, prediction markets have another tool to measure the respondents degree of certainty in their bet: someone who is really sure about an event is likely to wager more on it than someone who is “just taking a punt” (Who said Brexit was a surprise?, The Economist, Jun 24, 2016). The predicted vote was, according to markets, some 38% of the United Kingdom (UK) leaving the European Union (EU), against 62% of staying in the EU. The Huffington Post Pollster trend prediction was 45.6% for leave with 43.1% for remain.
2.1 Regulation

Theresa May has made it clear the UK will not seek to stay in the EU single market (The Guardian, March 2, 2018), but the strategy has now been put in doubt by the general election result, with some of her MPs - and the strengthened opposition Labour Party — thought to be against it. Labour has said it wants the UK to retain all the benefits of being in the single market, even though it does not necessarily have to be a member. Staying in the single market means the UK staying under the patronages of the European Court of Justice and having to allow unlimited EU immigration, under freedom of movement rules. One could find out more detail about Mrs May's negotiating priorities in the letter officially starting the process of the leaving the EU on 29 March.

Mrs May says she wants the UK to reach a new customs union deal with the EU. A customs union is where countries agree not to impose tariffs on each other’s' goods and have a common tariff on goods coming in from elsewhere. This is important for the real estate market as it assures the supply of best material for the construction and building. The UK is currently part of the EU customs union but this stops the UK being able to do its own trade deals with other countries. The day after initiating Brexit, the government published details of its "Great Repeal Bill". Described by Theresa May as an "essential step" on the way to leaving the EU, it aims to ensure European law will no longer apply in the UK. It is now being introduced to Parliament, with the formal title of the European Union (Withdrawal) Bill. Here's how it will work: as its informal name suggests, the repeal bill will repeal the 1972 European Communities Act, which took Britain into the EU and meant European law took precedence over laws passed in the UK Parliament. It will also end the jurisdiction of the European Court of Justice. All existing EU
legislation will be copied across into domestic UK law to ensure a smooth transition on the day after Brexit. The government says it wants to avoid a "black hole in our statute book" and avoid disruption to businesses and individual citizens as the UK leaves the EU (BBC News, EU Withdrawal Bill: A guide to the Brexit repeal legislation, 13th November 2017). The UK Parliament can then "amend, repeal and improve" the laws as necessary. Ensuring the continuity of EU rules and regulations is also meant to aid trade negotiations with the EU because the UK will already meet all of its product stands. The repeal bill is likely to be "one of the largest legislative projects ever undertaken in the UK", a report by the House of Commons library predicts, with "major swathes of the statute book" needing to be examined to see how they will work after Brexit. This is because working out which bits of UK law came from the EU is not as simple as it may sound. In fact, it presents a "unique challenge", a House of Lords committee warned recently, because "the body of EU law is found in a number of different places, and in a number of different forms". Simply transposing all EU law into UK legislation will not be enough, the government's White Paper on the bill says. Swathes of UK law "will no longer work" on exit, for example because they refer to EU institutions. Not all of this can be done through the Repeal Bill, so the government plans to create powers to "correct the statute book where necessary" — without full Parliamentary scrutiny. This is the one of the most controversial features of the bill (see below). More complications are presented by the government's negotiations with the EU, which will be taking place while the bill is passing through Parliament. Those talks could shape what the UK's post-Brexit laws look like — but the repeal bill will need to be done and dusted by the day the UK leaves. The bill was included in the Queen's Speech in June and will be introduced to Parliament on 13 July. It will then have to pass through both Houses of Parliament. The plan is for it to be passed ahead of the UK's exit from the EU but to become law only when it actually leaves. Under the formal timetable for negotiations, the UK is due to leave the EU in March 2019 unless both sides agree to an extension. Until the UK exits formally, EU law will continue to apply. But after leaving, the European Union (Withdrawal) Act (as it will be by then) comes into force. The government says having the legislation in place will ensure a "calm and orderly exit". Then begins the long-term process of the government, and Parliament, choosing what it wants to do with the laws it has incorporated from the EU. With so many pieces of legislation to be considered, this could turn out to be a "major drain on resources" and should not "crowd out" other government policies, the Institute for Government think tank has warned.
Steps to UK leaving the European Union

1. UK votes Leave

2. Two year time limit begins

3. Negotiations begin between UK and EU

4. The UK leaves the European Union

5. Remaining 27 EU countries meet 29 April to discuss withdrawal

6. Draft deal put to European Council (27 leaders)

7. Needs approval from at least 20 countries with 65% of the population

8. Ratification by European Parliament

9. After two years, negotiations can be extended if all 27 countries agree but if not EU treaties cease to apply to the UK

10. Great Repeal Act comes into force, copying EU laws into UK law, to give time for UK to amend or repeal them

In 2015 the median house price in England and Wales was roughly nine times median earnings, probably the highest level ever (The Economist, 2017, Britain’s housing market is broken — but not in the ways the government thinks, The Economist, The Economist Group Limited, Feb 11, 2017). Leaving returns control over legislation and returns sovereignty to UK Parliament; burden of regulation would be removed from UK businesses, particularly SMEs.

The Complete Real Estate Encyclopaedia (The Complete Real Estate Encyclopaedia, Denise L. Evans, JD O. William Evans, JD, McGraw-Hill, 2007) outlines 20 legal ways to hold real estate:

1. Community property
2. Condominium
3. Cooperative apartment
4. Corporation
5. General partnership
6. Interval ownership
7. Joint tenants with right of survivorship
8. Joint venture partners
9. Lease
10. Leasehold interest
11. Life estate
12. Limited liability company
13. Limited partnership
14. Ownership in severalty
15. Remainder interest
16. Tenants by the entireties
17. Tenants in common
18. Tenants in common with cross contingent remainders
19. TIC properties
20. Trust
None of these will be directly affected by Brexit, as the UK’s legal jurisdictions will not be affected by the Brexit vote. To be precise, there is a specific set of domestic jurisdictions that govern real estate prices in the UK, with no significant intervention at the EU level. Hence, the legal formalities required for land ownership, land registration, leases and tenancies, the conveyancing process, taking security over land and property taxes such as stamp duty land tax and non-domestic rates, are largely unscathed by Brexit. In fact, increasing devolution within the UK is likely to have more of an impact in some of these areas than Brexit.

![Diagram showing the institutional environment and property market organisations](image)

**The institutional environment**
- political institutions
- social institutions
- economic institutions
- legal institutions

**The property market as institution**
- market (and non-market aspects)
- decentralised and informal
- legal and conventional aspects of property rights
- legal and conventional aspects of land use and development

**Property market organisations**
- users
- investors
- specialist developers
- constructors
- property service providers
- financial service providers
- professional bodies
- governmental and non-governmental agencies

Picture 14 - The institutional hierarchy of property markets, Development and Developers: perspectives on property, Simon Guy, John Henneberry, 2002

Eamonn D'Arcy and Geoffrey Keogh in the Development and Developers (Development and Developers: perspectives on property, Simon Guy, John Henneberry, 2002) indicate the legal structure of the institutional hierarchy. It can be seen that country’s internal political institutions regulate the market.
Key points

- The state no longer seeks to deliver all its policy aims directly through its own agencies.
- ‘The state’ is no single entity, but speaks with numerous voices with different interests.
- The development of European-level government and increasingly powerful regional government has led to arguments about the power of the central state being ‘hollowed out’.
- A criticism of using charitable ‘third sector’ bodies to deliver policy is that those bodies can end up merely reproducing or ‘shadowing’ the policies of the state, losing their individual expertise.

However, this is only a part of the story as real estate transactions are not ring-fenced. Many of the associated legal risks stem from other areas that are heavily influenced by EU requirements. These include planning, public procurement, employment and, perhaps most significant, environmental regulation. As an example, obligations imposed on EU member states have led to compulsory measures to improve the energy efficiency of buildings and to forthcoming restrictions on letting commercial and domestic private property that do not meet a minimum energy efficiency standard. Any impact of Brexit on these related areas will potentially have repercussions for real estate.

2.2 Planning

In this section, I analyse what are the relevant land development regulations, such as local government zoning, rezoning, subdivision, building construction, or sign regulations or any other regulations controlling the development of land. I then set my economic intuition against existing literature.

Phil Jones and James Evans argue that the idea of urban regimes was developed in the United States through the work of Stephen Elkin (1987), examining the city of Dallas, and Clarence Stone (1989) looking at Atlanta. Both authors examined in great detail the development of a long-term relationship between the city council and local businesses to promote the economic development of the city as a whole (Urban Regeneration in the UK, Phil Jones, James Evans, 2008). It may not have been a regular subject at dinner tables around the country, but in the last couple of years, many of the UK’s cities have been undergoing a period of radical structural reform as powers and finances have been transferred gradually from national to local government. These reforms have culminated in the City Devolution programme, which now covers ten cities and regions across the UK, and the creation of the Northern Powerhouse, to
balance the London and South East economic powerhouse. Phil Jones states, that “land-use planning is <…> the most important form of local regulatory intervention in the economy, as it has the power to alter the physical landscape of cities”. “On the other hand, the increasing pressure of development demands that planning control needs to be both efficient and capable of ensuring good buildings and environments are created” (Remaking Birmingham, The visual culture of urban regeneration, Liam Kennedy, 2004).

There can be no doubt the UK economy itself, and the housing market as a considerable fraction of it, is going to be affected by economic fallout as the withdrawal from the EU, the only question is how deeply and for how long the impact will be feasible. Cities are increasingly seen as the engines of economic growth and their response to the UK’s withdrawal from the EU will be key to limiting its economic impact. The wisest cities will already be reaching out to local businesses, universities, and investors to assess the range of possible scenarios resulting from Brexit, and planning accordingly. Referendum results present a number of issues, but there will also be opportunities. City leaders, working in tandem with the private sector, universities and think-tanks, need to identify those opportunities and ensure appropriate plans are put in place to realise them. Local government is best placed to do this with devolved powers. For these reasons, devolution as a policy objective should continue. The Plan for Britain needs to be seen in a wider domestic policy context. The Brexit process gives added impetus to solving several major policy challenges, not least around housing. The primary objective of the current research work is to assess the gap in the already existing study on the implications of Brexit on the UK housing market. The gap is formed by the relative modernness of the referendum vote on and therefore lack of information on Brexit, uncertainty caused by the unclarified regulation and non-availability of published literature on the subject. The Conservatives are bringing in a Repeal Bill. This will end the primacy of EU law in the UK. This Repeal Bill is supposed to incorporate all EU legislation into UK law in one lump, after which the government will decide over a period of time which parts to keep, change or remove.

Labour had said they would scrap the Repeal Bill if they won the election but they lost. They now are demanding a number of changes to the Repeal Bill before they’ll support it. It may not have been a regular subject at dinner tables around the country, but in the last couple of years, many of the UK’s cities have been undergoing a period of radical structural reform as powers and finances have been transferred gradually from national to local government. These reforms have culminated in the City Devolution programme, which now covers ten cities and regions.
across the UK, and the creation of the Northern Powerhouse, to balance the London and South East economic powerhouse. At the time of writing, there is significant trepidation the events of the last few days could put these reforms at risk. The vote to leave the European Union (‘EU’) will impact upon the economies of cities and metropolitan areas. This impact will be felt acutely by local authority teams in cities, by businesses operating in cities, and by investors who fund development in cities.

The political uncertainty which is a by-product of the Referendum, creates short-term uncertainty about the prospects for the City Devolution programme. There is at least a risk the process of devolution could be slowed or even halted as the political parties work through leadership changes and ensuing policy is realigned. For those places yet to start a formal City Devolution process, there is a worry the window may have started to close.

2.3 Infrastructure

David Lidington’s (UK’s Chancellor 2017-2018, speech made in autumn 2017) statement speech included a commitment to investment in infrastructure and innovation, and that between 1.0%-1.2% of GDP will be invested in the recommendations of the National Infrastructure Commission (0.8% at present). The £23 billion National Productivity Investment Fund (NPIF) programme announced will be targeted at four areas to improve productivity: Housing, Transport, Digital Communications and Research and Development. The £2.3bn new Housing Infrastructure Fund is part of the NPIF, and is allocated to “provide infrastructure targeted at unlocking new private house building in the areas where housing need is greatest.” Further infrastructure spend included a £1.1bn to upgrade local roads/public transport; and £1bn for digital infrastructure.

As with many spheres of the United Kingdom’s built environment, infrastructure relies on European Union funding. On 4 January 2017, Environment Secretary Andrea Leadsom announced that “the remaining European funding from the Rural Development Programme for England (RDPE) Growth Programme will be launched on a national call. GM RDPE allocation is £415,000 (open call until the funding is allocated) supporting small tourism infrastructure projects in GM”.

For UK infrastructure, the Brexit vote may in the short term mean a slowdown in investment, due partially to the uncertainty and fluctuations in GBP. Andrea Colantonio and Tim Dixon
delineate the (Urban Regeneration & Social Sustainability: Best practice from European cities, Andrea Colantonio, Tim Dixon, 2011.)

The UK’s global competitiveness will be hampered unless Ministers tackle the major infrastructure challenge. The Government must seek out and entice private investors. This is key to improving our productivity and regional rebalancing in the UK, whilst enabling us to become an even greater global gateway for trade and tourism beyond Brexit.

The United Kingdom’s Government has initiated some six major projects, the so-called ‘6 H’s’: HS2, Hinckley, Heathrow, Highways, Housing and Heritage (from the discussion held at the National Housing Federation, 2017). The complexity of delivering these alongside each other, with pressure on costs, labour and material supplies, cannot be underestimated. The largest gap however is attracting private finance for the plethora of projects in the National Infrastructure Delivery Plan, many of which are smaller, regional game changers.

![Diagram](Image)

2.4 Immigration

And if you’re one of those people who lost their job, who stayed in work but on reduced hours, took a pay cut as household bills rocketed, or - and I know a lot of people don’t like to admit this - someone who finds themselves out of work or on lower wages because of low-skilled immigration, life simply doesn’t seem fair.

- Theresa May's conference speech, 2016

It is intuitive mass immigration has an effect is housing. More than one third of all new housing demand in Britain is caused by immigration. And there is evidence without the demand caused by mass immigration, house prices could be ten per cent lower over a twenty year period (Dhingra, S., G. Ottaviano, T. Sampson and J. Van Reenen (2016a) ‘Dhingra, S., G. Ottaviano, T. Sampson and J. Van Reenen (2016a) ‘The Consequences of Brexit for UK Trade and Living Standards’ CEP Brexit Analysis No. 5 ). Hostility to and disapproval of immigration was one of the key instruments in UE Referendum vote rhetoric and the main driver of Britons’ vote on June 23rd to leave the EU. Yet restriction migration will be both complicated and expensive.

The second reason used in favour of control of immigration is it’s impact on infrastructure and public services. It seems obvious immigration should have an impact on the availability and cost of housing, the transport system, the National Health Service or the number of school places. But in the past, the government impact assessments didn’t measure the effects of more immigration or determine where its effects would be felt the most. “Facts like these need to be carefully considered, and I look forward to seeing the results of the work we’re doing in the home office, but I think we can already be confident mass immigration puts pressure on infrastructure and public services.” – Theresa May on immigration and housing, 2016.
'The desirability of sizeable immigration is a matter more of values than of economics. It is not a choice between wealth and poverty, but of the sort of country one desires to inhabit.'

- Martin Wolf, chief economics commentator of the Financial Times

Normally, economists tend to agree net migration comes with a range of economic benefits, and the impact on wages and unemployment rates is rather limited, if not secondary. Since migrants tend to be university-educated, of working age, with higher or equal spending power, compared to natives, and therefore are net contributors to the government’s finances.
The sizable amount of current academic literature examines interconnectedness of immigration, unemployment and housing supply. (Wadsworth, 2015; Portes, 2016a; Centre for European Reform, 2016; Dustmann et al, 2005, among others). The conclusion of this research is that the large increase in immigration in the UK has not significantly harmed the job and wage prospects of UK-born workers. Counterintuitively, some literature refers to the general perception by the locals (British-born or holders of the citizenship) that immigrants are given better treatment when applying for social housing. Battiston et al (2013) show that controlling for demographic, economic and regional circumstances, immigrant households are less likely to be in social housing than their UK-born counterparts. Lack of access to social housing has more to do with the falling supply of social housing.

Whereas the local population fears immigrants take up job positions and drag down wages, there exists another half of an equation – migrants create their own demand, work places and businesses. ‘Large scale immigration is consistent with rising real wages, though it is not guaranteed as recent experience shows’ (Pettinger, 2016). As well as increasing the supply of labour, there will be an increase in the demand for labour – relating to the increased spending within the economy. Ceteris paribus, net migration should lead to an increase in real GDP. The impact on real GDP per capita is less certain. Though, what is the impact on housing? And what would be the impact of large scale migration in the UK, where there is a shortage of housing?

Decreased net immigration as a result of tightened entrance regulations would inevitably bring down the demand for housing. According to Oxford Migration survey 74% of recent migrants
(those who have been in the UK for five years or less) were in the private rented sector in the first quarter of 2015. Furthermore, the overall decrease in the number of households and rentable demand would put downward pressure on house prices too; weakened demand for renting will decrease number of buy to let landlords looking to profit from weakening demand and falling rent prices. With net immigration increasing number of UK households, demand for housing will rise.

There also exists a belief immigrants force the local population out of the social housing. It goes without saying, however, that not all migrants are eligible for social housing. In order to be eligible, migrants must have, in general, settlement status or be a national of the EEA (taken from the Housing Rights Information website for details on the different housing rights of migrants). Governmental report on Immigration states that 17% of UK-born and 18% of foreign-born individuals live in social housing (2016). While there are variations, these participation rates are somewhat stable over time. The research also shows, women are on average slightly more likely than men to live in social housing. This gender difference largely holds for UK-born/UK-nationals and foreign-born.

![Image of social housing](image1.png)


Prime Minister Theresa May has said one of the main messages she has taken from the Leave vote is the British people want to see a reduction in immigration. She has said this will be a focus of Brexit negotiations as she remains committed to getting net migration — the difference
between the numbers entering and leaving the country — down to a "sustainable" level, which she defines as being below 100,000 a year. Labour has said the free movement of people has to end when Britain leaves the EU. It has yet to reveal what system it would use for people who come to the UK for work or study. Net migration to the UK was estimated to be 248,000 in 2016 — a fall of 84,000 from 2015. The total number of people moving to the UK was made up of 264,000 non-EU citizens, 250,000 EU citizens and 74,000 British citizens. Balancing 117,000 EU citizens left the UK, out of an estimated total of 339,000 emigrants.

The UK is endowed with an exceptionally strong university sector that attracts many bright international students, academics and research funding (AdiEU: The Impact of Brexit on UK Cities, 2016). The economies of many cities are dependent on these vital economic assets: the large numbers of European students who study in these cities exercise significant spending power; the intellectual prowess of European researchers and students contribute to universities’ research and development strengths; and the EU’s research funds invest heavily in UK academic institutions. The UK’s decision to leave the EU will indefinitely impact on all these dynamics. Each year, universities generate over £73bn for the UK economy, and support nearly 380,000 jobs. Almost £4bn of this sum is generated by students from EU countries. More than 1.8mn undergraduate and postgraduate students are registered in the UK. Almost 25% of the number are overseas students (436,000), and of which, approximately 125,000 are from the EU.

There is a consensus that there are positive effects of trade and foreign direct investment on UK productivity. But there is somewhat less of a consensus on the effect of immigration on productivity. There is strong evidence of positive effects for more educated immigrants (for example, Ottaviano et al, 2016, for UK service productivity; Ortega and Peri, 2014). Indeed, most studies show insignificant or positive effects of overall immigration. For example, Felbermayr et al (2010) concludes that a 10% increase in the immigrant stock leads to a per capita income gain of 2.2%.

Migrants hence leave countries with weaker work ethic and thus lower salaries and move to ones with higher efficiency; this way, productivity increases throughout the world. Migrants also contribute to the skill-set of a country’s population and might fill it breaches in expertise and experience.
There are more international students studying and contributing to the British economy than the populations of a mid-sized city like Liverpool, Edinburgh or Bristol. The picture 21 above gives an indication of how those students are distributed across some of the major regions of the UK. To date, EU students have benefited from the same funding regime as UK students. They are charged Scottish (£nil), Welsh (up to £3,900), Northern Irish (£3,925), or English (up to £9,000) fees, and benefit from access to student loan finance. These fees represent a very significant discount on the fees charged to non-EU students: overseas students pay up to £35,000 a year for clinical courses, and up to £16,000 for arts courses. It is likely EU students currently studying or applying for 2016/7 entry will not face changes to funding or fees. But beyond, universities are likely to face stiffer competition to attract EU students. In addition, the Erasmus Plus student mobility programme may no longer fund EU students at UK academic institution which would also contribute to a reduction in students from the EU. The picture 22 comprises a composition of the EU immigrants in the United Kingdom, segmented by nationality.
One of the main polemic of the Labour party in 2016-2017 it would guarantee the rights of EU citizens living in the UK to stay there on "day one" of a Labour government. EU nationals with a right to permanent residence, which is granted after they have lived in the UK for five years, should not see their rights affected after Brexit. The government needs to focus on the ‘educational supply chain’, which stretches back from employers via training bodies and schools, into secondary education. Without the alignment of these to increase and upskill the workforce, our construction ambitions will be frustrated. The industrial strategy is an obvious vehicle for this. Ministers can signal their intent through a radical reform and repositioning of CITB.

Britain can change the expensive and malfunctioning system that offers an open door to EU migrants and blocks other non-EU migrants could contribute to the UK economy. Filipa Sá, a labour economist and academic, found immigration actually lowers, rather than raises, house prices in some areas. In a 2014 Economic Journal article, “Immigration and house prices in the UK”, Sá wrote: “an increase of immigrants equal to 1% of the initial local population leads to a 1.7% reduction in house prices, based on immigration data from the Labour Force Survey”.

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Source: CEP analysis of Labour Force Survey.

This article studies the effect of immigration on house prices in the UK. It finds immigration has a negative effect on house prices and presents evidence this negative effect is due to the mobility response of the native population. Natives respond to immigration by moving to different areas and those who leave are at the top of the wage distribution. This generates a negative income effect on housing demand and pushes down house prices. The negative effect of immigration on house prices is driven by local areas where immigrants have lower education. The UK experienced a large increase in both immigration and house prices in recent years. In the mid-1990s immigrants accounted for just over 8% of the working age population in England and Wales. Today, they account for less than 13%.

The general conclusion is immigration has only small adverse effects on the united kingdom’s housing market, housing prices and their connection to unemployment. For the UK, this result is confirmed by Dustmann et al. (2005), who find no strong evidence immigration has overall effects on employment, participation and wages. Dustmann et al. (2013) estimate wage effects along the distribution of wages. They find immigration depresses wages below the 20th percentile of the wage distribution, but leads to slight wage increases in the upper part of the wage distribution. Overall, the wage effect of immigration is slightly positive. The authors suggest this may be because immigrants are paid less than the value of what they contribute to production, generating a surplus which may benefit native wages.

These areas have often been associated with unsafe neighbourhoods and urban violence, either because they are places where crimes are committed or because people find shelter in the area after crimes have been committed (Jacquier et al., 2007). The most successful programmes of regeneration are those that recognise the importance of promoting cultural diversity. Also key finding in favour of immigration is that positive treatment and inclusion of the ethnic, immigrant communities that form part of the overall community, benefits the neighbourhood’s well-being. One study shows that residents living in walkable neighbourhoods exhibit at least 80% greater levels of social capital than those living in car-dependent ones (The Social Capital And The Built Environment: The Importance of Walkable Neighbourhoods, Kevin M. Leyden, 2003). That is something to consider, given that only a half of Brits know their neighbour’s name. This view also implies that ‘integration’ is important. Historically, a lack of integration is perhaps part of the reason for some of the key problems associated with regeneration, and this is where British cities show similar behaviour to the European ones: research compares Barcelona (including neighbouring areas such as Sant Adriá de Besós) and Cardiff (Urban
Regeneration & Social Sustainability: Best practice from European cities, Andrea Colantonio, Tim Dixon, 2011.).

2.5 Trade

After discussing migration, it is natural to cover possible after-Brexit changes in trade. Oddly enough, there exists a striking lack of literature on the subject of Changes in Trade with respect to real estate in post-Brexit context. When speaking about trade, Ortega F. and G. Peri (2014), write: “migration acts much like trade, as people tend to move to countries where they can be more productive and earn higher incomes.” There are also questions about what would happen to Britain's position as global financial centre, without access to the single market, and the land border between the UK and Ireland. There is also concern Brits living abroad in the EU could lose residency rights and access to free emergency health care.

Though there is a shortage of literature on Trade due to vague uncertainty caused by Brexit, its’ importance cannot be underestimated. A measurable amount of materials, utilized it production of the United Kingdom’s built environment, is exported from abroad. I reviewed monthly reports (monthly bulletins) Building Materials and Components: Monthly Statistics taken from www.gov.uk and the Building Materials webpage (https://www.gov.uk/government/collections/building-materials-and-components-monthly-statistics-2012), to compare the changes in price, and import and export values in the post-Brexit time. This section brings together all documents relating to building materials and components monthly statistics. Interestingly, none of the observed reports mentions, in any form, Brexit, potential exit of the UK from the European Economic Area, or market Uncertainty. However, it is possible to look at statistics on the trade with The economic outcomes largely depend on the scenario which Britain will choose when exiting the European Economic Area. Below is the table showing how much of construction materials are coming from imports.
According to the governmental report of February 2017, “The top five exported materials in 2015 accounted for 37% of total construction material exports. The top five imported construction materials in 2015 accounted for 31% of total construction material imports. “

Table 1 - UK Trade of Construction Materials with EU and Non-EU Countries, Monthly Statistics of Building Materials and Components, January 2017.

<table>
<thead>
<tr>
<th>£ Million (% of total trade in italics)</th>
<th>EU</th>
<th>Non-EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Building Materials &amp; Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>8,415</td>
<td>5,490</td>
</tr>
<tr>
<td></td>
<td>61%</td>
<td>39%</td>
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<tr>
<td>Exports</td>
<td>3,493</td>
<td>2,506</td>
</tr>
<tr>
<td></td>
<td>58%</td>
<td>42%</td>
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<table>
<thead>
<tr>
<th>£ Million</th>
<th>Top-5 Export Markets</th>
<th>Top-5 Import Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republic of Ireland</td>
<td>781</td>
<td>China</td>
</tr>
<tr>
<td>Germany</td>
<td>563</td>
<td>Germany</td>
</tr>
<tr>
<td>France</td>
<td>527</td>
<td>Italy</td>
</tr>
<tr>
<td>USA</td>
<td>479</td>
<td>Spain</td>
</tr>
<tr>
<td>Netherlands</td>
<td>442</td>
<td>Netherlands</td>
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</table>

The governmental report outlines, that the top five export markets covered 47% of total construction materials exports in 2015. The top five countries contributed most are China, Germany, Italy, Spain and the Netherlands. Whereas China is only going to profit from Britain Exiting the European Economic Area, trade chains with the remaining countries are likely to be affected. A highly positivist pro-leave report “The consequences of a British exit from the European Union”, created by European Movement International, offers as a the post-Brexit agenda to “open up to China, USA, India and Indonesia”. While on the macroeconomic level this will contribute to the trade liberalization, the quality of exports are unlikely to stay the same.
The total value of 18% of all imports are from China. When it comes to another side of the medal, The Republic of Ireland remains the largest receiving market, despite having shrunk from a pre-recession peak of 27% of total exports in 2007, to 13% in 2015. In 2015, the report indicates, the top 5 import markets comprised 49% of total construction materials imports in 2015. Compared to pre-recession levels in 2007, the share of total UK construction material exports going to the EU has declined from 70% to 58%. This is a likely outcome of the market’s instability and occurred geopolitical situation. Compared to pre-recession levels in 2007, the share of total UK construction material exports going to the EU has declined from 70% to 58%.

The trade deficit was historically at its smallest throughout the 1990s, with a mean of £0.3 billion over this period. This trade deficit was 24% of the value of imports. Currently (Quarter 3 2016), the trade deficit is £2,288 million, 58% of the value of imports.

As of 2016, a dropdown in imports and a simultaneous increase in exports is seen. The two tables drawn below summarise by-monthly change in the prices of the materials, utilized in construction. Imports of construction materials increased by £144 million in the third quarter of 2016 (to £3,929 million) compared to the previous quarter, an increase of 3.8%. Exports of
construction materials increased in the third quarter of 2016 by £46 million (to £1,642 million), a 2.9% increase. As a result, the trade deficit widened by £98 million to £2,288 million in Quarter 3 2016, an increase of 4.5% Over the period from Quarter 1 1984 to Quarter 3 2016, construction materials imports have increased, on average, by 3.6% per quarter. Over the same period, exports increased by an average of 1.9% per quarter.
### United Kingdom

<table>
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<th>2012</th>
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<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>January</td>
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<td>108.6</td>
<td>109.5</td>
<td>107.6</td>
<td>112.3</td>
</tr>
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<td>109.4</td>
<td>109.9</td>
<td>108.2</td>
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<table>
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<td>January</td>
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<td>111.1</td>
<td>112.1</td>
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<td>March</td>
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<td>107.7</td>
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Note: These indices are weighted averages of Producer Price Indices. They do not include electrical or mechanical engineering materials. Please note there is an inputting error for New Work affecting April only.

Source: ONS/BEIS

Table 3 - Change in prices (a). Monthly Statistics of Building Materials and Components
<table>
<thead>
<tr>
<th>Table 4 - Change in prices (b). Monthly Statistics of Building Materials and Components.</th>
</tr>
</thead>
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<tr>
<td><strong>AGGREGATES</strong></td>
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<tr>
<td>Crushed rock - including levy</td>
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<tr>
<td>- excluding levy</td>
</tr>
<tr>
<td>Sand &amp; gravel - including levy</td>
</tr>
<tr>
<td>- excluding levy</td>
</tr>
<tr>
<td>Coated roadstone - excluding levy</td>
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<tr>
<td><strong>CEMENT AND CONCRETE</strong></td>
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<td>Cement</td>
</tr>
<tr>
<td>Ready-mixed concrete **</td>
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<tr>
<td>Pre-cast concrete products</td>
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<tr>
<td>of which : Blocks, bricks, tiles &amp; flagstones</td>
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<tr>
<td>Concrete reinforcing bars (steel)</td>
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<tr>
<td><strong>CLAY PRODUCTS</strong></td>
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<tr>
<td>All Bricks</td>
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<tr>
<td>Ceramic tiles *</td>
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<tr>
<td>Ceramic sanitary ware</td>
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<tr>
<td><strong>TIMBER AND JOINERY</strong></td>
</tr>
<tr>
<td>Imported sawn or planed wood</td>
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<tr>
<td>Imported plywood</td>
</tr>
<tr>
<td>Sawn wood **</td>
</tr>
<tr>
<td>Particle Board **</td>
</tr>
<tr>
<td>Builders' woodwork **</td>
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<td>of which : Doors &amp; windows **</td>
</tr>
<tr>
<td><strong>METAL PRODUCTS</strong></td>
</tr>
<tr>
<td>Fabricated structural steel</td>
</tr>
<tr>
<td>Doors &amp; windows **</td>
</tr>
<tr>
<td>Screws &amp; **</td>
</tr>
<tr>
<td>Other builders' ironmongery**</td>
</tr>
<tr>
<td>Central heating boilers *</td>
</tr>
<tr>
<td>Taps and Valves for sanitary ware</td>
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<tr>
<td>Metal Sanitaryware*</td>
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<tr>
<td><strong>PLASTIC PRODUCTS</strong></td>
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<td>Pipes and fittings (rigid) **</td>
</tr>
<tr>
<td>Pipes and fittings (flexible) **</td>
</tr>
<tr>
<td>Sanitaryware **</td>
</tr>
<tr>
<td>Doors &amp; windows **</td>
</tr>
<tr>
<td><strong>OTHER BUILDING MATERIALS</strong></td>
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<tr>
<td>Asphalt products *</td>
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<tr>
<td>Insulating materials (thermal or acoustic)</td>
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<td>Paint (aqueous)</td>
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<tr>
<td>Paint (non-aqueous)</td>
</tr>
<tr>
<td>Lighting equipment for buildings</td>
</tr>
<tr>
<td>Lighting equipment for roads **</td>
</tr>
<tr>
<td>Electric heating apparatus</td>
</tr>
<tr>
<td>Electric water heaters *</td>
</tr>
<tr>
<td>Kitchen furniture</td>
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</table>

Notes: Most of these indices, which are compiled by the Office for National Statistics, are a selection of producer price indices.
- The complete list is available online at www.statistics.gov.uk by searching for the reference M002.
* The Office for National Statistics state that these indices are based on relatively few quotes and in the long term should not be relied upon for contractual purposes.
** These index values are considered less reliable mainly due to lack of market coverage.
Table 5 - Construction materials experiencing the greatest price increases and decreases in the 12 months to December 2016, UK. Monthly Statistics of Building Materials and Components, January 2017.

According to the academic literature, house prices are “the sum of adding up land costs, construction costs and builder’s profit” (Ball 1983, pp. 112ff.). Therefore, significant fluctuations in the prices and import values of construction materials, observed in this chapter, and caused by Brexit-imposed instability, have a direct impact on the real estate sector in the United Kingdom.

The single market is seen by its advocates as the EU's biggest achievement and one of the main reasons it was set up in the first place. Britain was a member of a free trade area in Europe before it joined what was then known as the common market. In a free trade area countries can trade with each other without paying tariffs — but it is not a single market because the member states do not have to merge their economies together. It can be seen from the material observed, that the housing market in the United Kingdom depends on exports from the European Union, as 4 out of five main construction suppliers are from the EU. It can also be easily established, that there has been an unwelcomed rise in prices imposed by the political instability and possible changes in supply chains as the UK’s trade partners are promptly wrapping up businesses with the UK and moving offices from London to Continental Europe.

2.6 Foreign Direct Investment

Foreign direct investment (FDI) comprises investments from outside a country to start up new subsidiaries, to expand existing establishments or to acquire local companies. The UK is a major recipient of FDI with an estimated stock value of over £1 trillion, about half of which is from other members of the European Union (EU), according to UK Trade and Investment. Only the United States and China receive more FDI than the UK (Centre for Economic Performance London School of Economics and Political Science, 2017, The impact of Brexit on foreign investment in the UK). FDI has an undeniably positive economic effect of the countries’ economies as it supports production, which constitutes country’s output and wages. FDI entails direct benefits, since overseas firms are perceived to be more productive and pay higher wages than the home-based ones. However, FDI could also bring indirect benefits as the new technological and managerial know-how in foreign firms can be adopted by domestic firms, often through multinationals’ supply chain (Harrison and Rodriguez-Clare, 2009). FDI can also increase competitive pressure, which forces managers to improve their performance.

There are at least three reasons why FDI might fall if the UK left the EU:

1. First, being fully in the Single Market makes the UK an attractive export platform for multinationals as they do not bear potentially large costs from tariff and non-tariff barriers when exporting to the rest of the EU.
2. Second, multinationals have complex supply chains and many co-ordination costs between their headquarters and local branches. These would become more difficult to
manage if the UK left the EU. For example, component parts would be subject to different regulations and costs; and intra-firm staff transfers would become more difficult with tougher migration controls.

3. Third, uncertainty over the shape of the future trade arrangements between the UK and the EU would also tend to dampen FDI.

A number of factors determine where firms choose to locate and invest. Bigger and richer markets tend to attract more firms, and want to be close to their customers. The UK has strong rule of law, flexible labour markets and a highly educated workforce, all of which make it an attractive FDI location whether or not it is in the EU. But since EU membership reduces trade and investment costs, it is likely to have an impact even after controlling for these other factors. To estimate the size of the effect of being in the EU on FDI, we provide a new empirical analysis—see Bruno et al (2016) in the Technical Appendix to this report. It is a statistical model based on the bilateral FDI flows between 34 OECD countries from 1985 to 2013. The model estimates why foreign investors choose to invest in the UK, as opposed to other countries such as Germany, France or the United States. It is similar to the ‘gravity model’ is the standard way of estimating bilateral flows of exports and imports.

Bilateral FDI flows between any pair of countries depend on their respective market size (measured by GDP), the geographical distance between them and other factors such as GDP per capita. The model addresses the question of how much more FDI would flow between two countries if the sender or the recipient joins the EU, once all these factors are taken into account. Since many FDI determinants—such as geographical distance and culture—are broadly stable over time, we can fully control for them by looking only at changes in FDI and its determinants. The data show there is always a statistically significant positive effect of being in the EU on inward FDI. The magnitude ranges from a 14% to 38% increase in FDI depending on the exact statistical method used with an average of 28% across the main three methods. These estimates are also consistent with those in Campos and Coricelli (2015), who find an impact of 25% to 30% on FDI flows from EU membership using an alternative method comparing the evolution of UK FDI with a set of matched countries as a comparison group. Similarly, Straathof et al (2008) find EU membership increases inward FDI stocks by 14% from non-EU countries and by 28% from other EU members (using a gravity model but with earlier data). Being a member of the European Free Trade Association (EFTA) like Switzerland does not restore the FDI benefits of being in the EU. In fact, we find no statistical difference between being in EFTA
compared with being completely outside the EU like the United States or Japan. So striking a comprehensive free trade deal after Brexit is not a good substitute for full EU membership. By comparison, Baier et al (2008) estimate EU membership leads to trade with other EU members increasing by a quarter or more (compared with EFTA membership). So the magnitude of the FDI effect on Brexit is in the same ballpark as the effect on overall trade.

There is much evidence FDI brings benefits in terms of enhanced productivity. For example, Bloom et al (2012) find multinationals boost productivity in UK establishments through enhanced technologies and management practices. On top of this direct effect, Haskel et al (2007) find there are foreign investment “spillovers” to other, UK-owned firms in the same industry. But to get at the nation-wide impact of FDI on output, we need to factor in the many complex ways in which FDI affects people and firms in multiple parts of the economy. This is a tricky task, but fortunately we can draw on the work of Alfaro et al (2004), who estimate the effect of changes in FDI on growth rates across 73 countries. They find increases in FDI have a large positive impact on GDP growth, especially for countries like the UK have a highly developed financial sector. To be very conservative, we assume a scenario where the Brexit-induced fall in FDI lasts only for 10 years and then reverts to its current level. Using the average of the estimates in the Technical Appendix combined with Alfaro et al’s estimates implies a fall in real income of about 3.4% (see the Annex for more detail). Looking at the wider range, we obtain a fall in income of between 1.8% and 4.3%. The magnitude of our FDI effect on income, of 3.4%, is larger than our static estimates of the losses from trade (between 1.3% and 2.6% in Dhingra et al, 2016). The effect of changes in FDI is equivalent to a loss of GDP of around £2,200 per household. Using earlier data, Pain and Young (2004) estimate EU membership added 2.25% to UK GDP via FDI. As FDI into the UK has grown over time, we find this channel is becoming more important for income. Such macroeconomic analysis is useful for a bird’s-eye view of the impact of Brexit on national income via lower FDI. Firm-level studies will tend to underestimate the positive impact of FDI as they focus on the productivity of the foreign firm itself or can examine only a limited number of mechanisms for the FDI “spillovers” (for example, firms who are in the same industry as the multinational or are suppliers or customers). Nevertheless, identifying the causal effects of FDI on economy-wide productivity is intrinsically very difficult and our estimates are subject to considerably more uncertainty than the impact of Brexit on FDI (or trade) itself. So, to obtain a more granular view of the way key sectors may be affected, we analyse two important UK industries in more detail: cars and financial services.
2.7 Housing Prices

As many of us are aware, there are two most British of conversations – the weather and house prices. Maybe it is because Britain have just experienced the wettest winter since records began in 1910 (according to the UK National Weather Service), or maybe it is because house prices have experienced a remarkable renaissance. Once again, the whole nation appears to be focused on the performance of the UK housing market. Jon Cunliffe, appointed in a Deputy Governor for Financial Stability at the Bank of England (BoE), called housing “the brightest light” on the risk dashboard of the Financial Policy Committee (FPC), while the vast majority of questions at the BoE’s May 2014 Inflation Report press conference centred around the prospects of a bubble having developed in the UK housing market. With that in mind, what is the state of the UK housing market? And, more importantly, what are its investment implications?

Graph 2 - UK house price inflation: main scenario projections with and without Brexit, ONS historic data, PwC analysis, 2017.

At the same time, average house prices increased from just over £60,000 in 1995 to nearly £180,000 in 2007. This was followed by a reduction as a result of the financial crisis and a recovery in 2010. Behind this overall evolution there is substantial variation across local authorities. Table 1 lists the local authorities with the largest share of immigrants in the working age population in 2010. Not surprisingly, this share is largest in some London boroughs where immigrants account for the majority of the population. Outside London, there are several local authorities where over 20% of the population is foreign born. Table 2 shows the local authorities with the highest average house prices in 2010. The highest prices are registered in London.
boroughs, with Kensington and Chelsea registering an average price well above £800,000. There is a large literature looking at the labour market impact of immigration.

<table>
<thead>
<tr>
<th>Year</th>
<th>Main scenario</th>
<th>Pre-Brexit scenario</th>
<th>Difference (%)</th>
<th>Cumulative price difference (£)</th>
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<tr>
<td>2016</td>
<td>3.1%</td>
<td>5.2%</td>
<td>-2.1%</td>
<td>-£4,000</td>
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<tr>
<td>2017</td>
<td>0.9%</td>
<td>5.3%</td>
<td>-4.4%</td>
<td>-£13,000</td>
</tr>
<tr>
<td>2018</td>
<td>4.0%</td>
<td>5.6%</td>
<td>-1.6%</td>
<td>-£17,000</td>
</tr>
<tr>
<td>Total change (2016-18)</td>
<td>8%</td>
<td>16%</td>
<td>-8%</td>
<td>-£17,000</td>
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</tbody>
</table>

Graph 3 - UK house price inflation – the potential impact of the Brexit vote, PwC analysis based on ONS house price index, 2017.

In the second quarter of 2016, the housing prices rose dramatically, heightening the pro-Brexit voters’ reaction against migrants. Tejvan Pettinger, an Oxford-based economist, observes: ‘Given rapid rise in house prices since mid 1990s and corresponding rise in number of immigrants, it is hard to avoid the conclusion, levels of net migration are having, at least, some effect on exacerbating the UK housing crisis.’ Nonetheless, the number of studies proves high levels of net immigration can lead to lower house prices in certain locations, as local people are forced to seek housing elsewhere. Rob Paral & Associates also found there was little apparent relationship between recent immigration and rise in housing prices at the regional, state, or county level.
One area where we may be concerned is the effect of immigration on house prices. The UK’s terrible track record of building insufficient houses does mean that the population increase generated by immigrants adds to housing pressure. But the failure to create enough housing supply would be a problem even in the absence of EU immigration. It is rooted in the failure of the UK planning system to make appropriate infrastructure decisions more generally (LSE Growth Commission, 2013; Hilber, 2015). Having said this, the empirical evidence does not find positive effects of immigration on local house prices (Sa, 2015).

Growth in home prices in the primary and secondary market is the subject of continuous interest of central banks and regulators, as it rapidly translates into changes in real estate development production, drives housing cycles (see Augustyniak et al., 2013) and generates risk for the banking sector. The stiffness of supply in short term can cause pricing shock and also create price bubbles.

All risk assets, including global REITs have experienced substantial price declines as equity risk premiums have risen in response to heightened political turmoil and an uncertain economic future for the UK and the European Union. Currently, UK listed property is the weakest subsector despite lower leverage and sound direct property fundamentals. This reflects the
substantial capitalisation rate compression we’ve seen since 2012 and the dramatic reversal of implied valuations with recent price movements.

![Markets react chart](Economist.com)

Table 8 - Bloomberg, 2017. Markets react.

### 2.8 GDP and Output

David Cameron, his Chancellor George Osborne and many other senior figures who wanted to stay in the EU predicted an immediate economic crisis if the UK voted to leave. House prices would fall, there would be a recession with a big rise in unemployment — and an emergency Budget would be needed to bring in the large cuts in spending would be needed.
The pound did slump the day after the referendum — and remains around 15% lower against the dollar and 10% down against the euro — but the predictions of immediate doom have not proved accurate with the UK economy estimated to have grown 1.8% in 2016, second only to Germany’s 1.9% among the world’s G7 leading industrialised nations.

Inflation has risen — to 2.6% in April — its highest rate for three and a half years, but unemployment has continued to fall, to stand at an 11 year low of 4.8%. Annual house price increases have fallen from 9.4% in June but were still at an inflation-beating 4.1% in March, according to official ONS figures. If Britain left the EU, it would win back its net contribution to the EU’s budget, which the Treasury estimates will be 0.5% of GDP per year between 2014 and 2020. UK GDP could be 2.2% lower in 2030 if Britain leaves the EU and fails to strike a deal with the EU or reverts into protectionism. In a best case scenario, under which the UK manages to enter into liberal trade arrangements with the EU and the rest of the world, whilst pursuing large-scale deregulation at home, Britain could be better off by 1.6% of GDP in 2030.

![Graph 4 - Cumulative house price impact of Brexit vote relative to pre-Brexit outlook (by 2018), PwC analysis based on ONS house price index, 2016.](image)

**2.9 Uncertainty**

When we talk about Brexit uncertainty, it's not necessarily the fact we're leaving Europe, it's the impact might have on the economy [which is damaging buyer sentiment]

Lucian Cook, head of residential research at Savills

In 2015 the median house price in England and Wales was roughly nine times median earnings, probably the highest level ever. Young people are bearing much of the burden: in the past 25 years the rate of home-ownership has fallen by 30 percentage points among 25- to 34-year-olds.
Small wonder that Sajid Javid, the communities secretary, on February 7th boldly declared that the housing market was “broken”.

When it comes to pricing, analysts say the main effect of the vote has been in London, which had previously been experiencing a house price boom. Looking at the broader economy, a key factor will be inflation, which has already begun setting in because of the decline in sterling. As Article 50 is triggered, the property market nervously awaits exit negotiations. Britain’s broken and cruel housing market may be the country’s most grotesque inequality. In 1997 it took a middle-income household three years to save up a deposit to buy a house; today it takes 20 years.

When it comes to pricing, analysts say the main effect of the vote has been in London, which had previously been experiencing a house price boom. Looking at the broader economy, a key factor will be inflation, which has already begun setting in because of the decline. “Government can minimise uncertainty over the EU exit negotiations by laying out a clear timeline and set of ambitions. Certainty and stability are required for the development pipeline.

In the short term, Brexit will produce an element of uncertainty which is hated by all markets. Volatility is to be expected in liquid investments such as shares and listed debt in the capital markets and in the value of the pound sterling. Such effects will be far less severe upon demand in a relatively illiquid asset class such as commercial real estate, where an investment pause/breathing space, rather than severe volume or price falls, is the worst impact to be expected.
3. Materials and Methods

3.1 Methodology

The mean of conducting the empirical research and gathering the experiential data for the second part of the current dissertation is done in a form of a questionnaire. From May 2014 to October 2014 I worked as a Junior Consultant in one of the biggest, most efficient and successful real estate companies, Colliers International. My position was Junior Consultant in Investment services and Luxury Real Estate department. My primary professional focus was curation of the most innovative and Europe-oriented projects, taking place in St Petersburg, Russia. This professional experience introduced me to many great professionals in the areas of Market Valuation, Real Estate Investment, Construction, Development, Urban Economics and Design. What is more important, I gained access to a great network of colleagues abroad and attended conferences on real estate investment, where I was introduced to the Consultants from Colliers International UK, Colliers International Ireland, as well as various colleagues in large European Units; later on, I got support from Colliers International Munich. When designing an empirical study on impacts of Brexit on United Kingdom’s housing market, my first and foremost objective was to gain real estate professionals’ opinion on the market conditions and oppose it to the theoretical prediction, comprised in the literature review chapter, as well as my own economic intuition.

In order to gather the empirical data, I used is a Survey Monkey platform to create an easily accessible online questionnaire. My rationale behind that was to distribute the survey to a maximum amount of colleagues from Colliers International UK. I obeyed the 10-question limit as my goal was to create a questionnaire that can be filled in during a coffee break or lunch break, therefore passing the maximum amount of people without being postponed due to the questionnaire’s length or complicity. Some of these consultant’s salary is reaching 100 pounds /hour, and this is something to consider when asking to devote valuable time on helping with a bachelor’s thesis. I used Financial Times and the Economist’s report to formulate questions that would be similar to the most discussed heading of the trending Brexit articles. Now, in order to not dwell into populism, I asked professional opinions and also asked for suggestions. I designed a succinct yet comprehensive 10-question form, targeting the professionals, Consultants and Senior Consultants from the real estate companies. Colliers International in Russia works closely with Jones Lang LaSalle Incorporated (further referred to as JLL) and
oftentimes works together on the same projects, and I profited from a network of colleagues and received support when writing this thesis.

I distributed the questionnaire form to employees in the following companies:

1. Colliers International Russia (St. Petersburg office; Moscow office)
2. Colliers International UK (London office)
3. Colliers International Germany (Munich office; Berlin office)
4. JLL Russia (St. Petersburg office)
5. JLL Germany (Munich office)
6. JLL UK (London office)

The invitation link was sent to the employees’ emails. The only condition for completing the form is either professional knowledge of the United Kingdom’s housing market, or being currently involved in one of the real estate projects in the UK. Since I am no longer employed at Colliers International, I used external mail service to reach out to colleagues; I specifically contacted head HR Managers to monitor that the email with a survey link would not be categorised as “spam”. The questionnaire comprises a market sentiment survey, aiming at collecting opinions, experience and market outlook of the professionals, who operate in the residential sales and lettings markets. It is important to note, the questionnaire was not translated into German before reaching German employees as it was deemed unnecessary.

3.2 Questionnaire’s composition

For the sake of academic and professional value, accuracy and timeliness of the current dissertation, it was crucial to gather responses from the market professionals, actively involved into housing sales, residential development, letting and market valuation in the United Kingdom. Only professionals, involved at present, or having previous professional exposure to the housing market in Britain, were kindly asked to fill in the questionnaire. Since a negative sentiment towards Brexit was expected from a real estate companies’ offices in Europe, it would have been of no academic value when it comes to the framework of the present bachelor’s thesis, to compare the outlook of professionals, not employees in the field. The questionnaire was consciously composed with the respondents’ time in thought, and the questions were carefully selected to encompass most of the housing market’s tendencies, though without enclosing the outliers, unnecessary or irrelevant information, or being long, tedious and congested in formulation. The survey is exactly 10 question-long, nonetheless it incorporates
four most influential sections: Sales Market section, Letting Market section, Market Valuations, and Respondent Details. It mirrors most of the theoretical framework built in the Literature Review section and tests the predictions, as well as academic literature.

3.2.1 Sales Market

The Sales Market section opens with a question “How have average prices changed over the last 3 months?”. This question addresses the most recent average price variation within the past 3 months: from April 2017 to June 2017. It is an imperative question to start a research with, as it is exactly a year since the referendum vote and one month since the Article 50 triggered on March 29, 2017. The theoretical prediction behind the question is that it mirrors uncertainty of the market, hostility associated with pound depreciation, overall fall in the interest rates, and changes in GDP and output, discussed in the Literature Review’s eponymous subsection. The question is carried out in a matrix with a rating scale design, four rows on eight columns. The respondents have to pick the price deviation in the following types of property: 1 bedroom, 2 bedroom, 3 bedroom, 4 bedroom. I used the United Kingdom’s government website and the research report English Housing Survey: Housing stock report 2016 to choose the most common and therefore relevant types of property. The variation range to choose from is +<8%, +5 % to +8%, +2 % to +5%, stays same as an option “same”, 0 to -2%, -5 to -8%, -5 to -8% and -8%. It is also possible to opt n/a and proceed to further questions, ie if a respondent does not have data to reply.

The second question of the Sales Market section is Activity indicators — How have the following changed over the last month? It is a matrix question, which allows to express the respondent’s opinion on each of the four estimates: New Buyer Enquiries, New Vendor Instructions And Agreed Sales. The answer options are: Down, Same, Up and Not Applicable which is an option for the case when there’s not enough data or knowledge on the subject.

The third question - Sentiment - How do you expect the following [prices] to change? Closes the section. It is designed to create a market’s sentiment forecast and find out the professional opinion of three main topics of the current research: Prices - 3 months ahead, Sales - 3 months ahead and Sales - 12 months ahead. The response options are Down, Same, Up and Not Applicable to provide clear yet concise qualitative outlook of a general trend.
In order to foresee how the housing prices are going to evolve in the forecoming 12-month period, a more quantitative question was designed. It is a rating matrix question allows to allocate a price estimate, ranging from the rise on 20 percent to a drop on 20 percent on each of the four categories: 1 bedroom apartment, 2 bedroom apartment, 3 bedroom apartment, and 4+ bedroom houses.

3.2.2 Letting Market

The Letting Market section researches the change in rents, rental demand tenants- and landlord’s sentiments in the aftermath of Brexit and provides a forecast of the upcoming changes. The first question of the Letting Market section is question number five of the survey - Activity indicators. It comprises an opportunity to evaluate Tenant demand - over last 3 months, Landlord instructions - over last 3 months, and Rent expectations - 3 months ahead, with answers ranging from Down, Same, Up and Not Applicable.

The second question of the Letting Market section, question number six is a quantitative overview of the changes have occurred within a year since the referendum vote: it allows to evaluate the demand tenancy.

The last, closing question allows to forecast the change in demand over the next 12 months, the answer choices are changes in price: with +20% and lowering to -20%, with a five percent increment.

3.2.3 Market Valuations

First question of the Market Valuations asks opinion on the change of the price level in any given area. The reply options are: Very Expensive, Expensive, Fair value, Cheap and Very Cheap. It is a multiple-choice question does not imply grading.

The ninth question is asking to express a forecast on an average annual growth in any given area. The response options are: Very positive, Somewhat positive, Somewhat negative and Very negative.
The tenth and last question constitutes a dropdown menu and is a query about the respondent’s geography, constituency and the area of expertise. It is expected that interviewed have exposure in all the regions covered.

The options of the regions covered were:

1. East Midlands
2. East of England
3. London
4. South West
5. West Midlands
6. North East
7. North West
8. South East

Note: It is important to note that the dropdown menu only allowed to choose from the regions in England. Due to the lack of expertise in Scotland, Wales and Northern Ireland these regions were removed in the experiment and thus observed only in theoretical chapter.

![Monthly Price Changes](image)

Picture 23 - UK House Price Index for December 2017, Land Registry, Gov.uk
3.3 Data and Experiment

It took overall 1 month to distribute the survey. The time frame was April 2017 – July 2017, for the question “How have average prices changed over the last 3 months?”. Thus, question “House price expectations - next 12 months?” covers timespan of July 2017 to July 2018.

To exclude personal opinion bias on this highly discussed topic, no personal interviews were conducted. The responses on the survey show the current market trends in the housing prices and informed professional opinion. It is of academic interest to compare forecasts of professionals working in leading real estate companies with or in the United Kingdom’s housing market with those of researchers and the existing academics literature.

3.4 Theoretical Prediction

Before the last respondent has submitted survey responses, analysed data and studied related literature provided sufficient background for the theoretical predictions of the potential questionnaire outcomes. Long-standing theoretical framework shows that shocks in the economy are naturally negative towards the people, having negative equity. A home-owner has negative equity, when the market value of his property is lower than the value of his outstanding loans (The Negative Equity Map of Britain, Daniel Dorling, Vol. 26, No. 4 (Dec., 1994), pp. 327-342). Thus, when the housing prices go down, the negative equity ratio rises. However, the opposite effect is true for the other type of the home-owners. From the studied RICS surveys, Sills Consulting reports, London School of Economics and Political Science’s Series of CEP Brexit Analysis (Issues 1 to 5), it was evident that Brexit-caused uncertainty produces negative demand shock on the market. Britain's housing market has slowed down significantly during the past year. This tendency is naturally favourable for those trying to get on the ladder and less welcomed by those trying to sell.

Official Land Registry data shows annual house price growth in the UK was 5.6% in June. Transactions in the real estate are also slowing, as people are hesitant. The Royal Institution of Chartered Surveyors (RICS)'s monthly UK Residential Market Survey described the market as "stagnant" in May 2017. Fresh signs of a slowdown are expected later this year when RICS releases its June report. It is expected to show a further depression in the number of members reporting house price rises. Much of the focus has been on what's happening at the top end of
the market — expensive London boroughs, for instance, which have seen sharp price falls since the Brexit vote. Although the slowdown has been sharpest in the capital, a softening has occurred across the entire country. The result of last year’s referendum on EU membership appears to have driven down the number of people moving house. UK housing transactions in the second half of 2016 fell by 9% compared to the same period a year before, according to HMRC data.

### Price change by region for England

<table>
<thead>
<tr>
<th>Region</th>
<th>Average price October 2017</th>
<th>Annual change % since October 2016</th>
<th>Monthly change % since September 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Midlands</td>
<td>£184,544</td>
<td>7.0</td>
<td>0.2</td>
</tr>
<tr>
<td>East of England</td>
<td>£289,168</td>
<td>6.1</td>
<td>0.1</td>
</tr>
<tr>
<td>London</td>
<td>£481,102</td>
<td>2.1</td>
<td>-0.9</td>
</tr>
<tr>
<td>North East</td>
<td>£127,224</td>
<td>2.4</td>
<td>-0.1</td>
</tr>
<tr>
<td>North West</td>
<td>£154,056</td>
<td>3.9</td>
<td>-2.0</td>
</tr>
<tr>
<td>South East</td>
<td>£322,311</td>
<td>4.6</td>
<td>-0.5</td>
</tr>
<tr>
<td>South West</td>
<td>£251,376</td>
<td>6.7</td>
<td>0.2</td>
</tr>
<tr>
<td>West Midlands</td>
<td>£186,351</td>
<td>5.2</td>
<td>-1.1</td>
</tr>
<tr>
<td>Yorkshire and the Humber</td>
<td>£155,281</td>
<td>3.3</td>
<td>-1.1</td>
</tr>
</tbody>
</table>

Picture 24 - Price change by region in England. Land Registry, Gov.uk.

Lucian Cook, head of residential research at Savills, said a combination of stagnant wage growth and political uncertainty linked to the Brexit vote is impacting buyer sentiment. It is partly about household finances, and partly about earnings potential and job security. "When we talk about Brexit uncertainty, it's not necessarily the fact we're leaving Europe, it's the impact might have on the economy [which is damaging buyer sentiment]," he told Business Insider (Thomas Colson, 2017).
4. Results

4.1 Description

Within 1 month, 121 professionals responded to the survey.

The infographics Empirical study 1 below reflect opinions on the price change from April 2017 – July 2017. It is evident respondents note a minor >2% decrease in prices among all types of property. This is coherent with theoretical prediction that pound depreciation and market uncertainty drag down the prices. Some 33 professionals noted <2% increase in prices of 2-bedroom apartments and some 31 experts noticed <2% increase in prices of three-bedroom apartments. This can reflect the decision of young professionals to sell their property and relocate to continental Europe.

Empirical study result 1 - Page 2: Sales market section.

The Empirical study result 2 shows activity of buyers and vendors (sellers). The market stagnation is clear: the majority of 64 people agreed that there were no increase in buyer inquiries. Some 49 respondents reflected no change in new vendor instructions. Absolute majority of 68 real estate professionals admitted there was no increase in agreed sales. This is
comprehensible with the theoretical framework from the chapter 2. Literature review, subchapter 2.9. Uncertainty: there were expected no change in the market due to improbability to predict whether prices will rise or fall. It is evident that for the past three months the real estate market in the United Kingdom have shown inactivity.

Empirical study result 2 - Page 2: Sales market section.

It is possible that retarded market conditions produced negative market expectations. Empirical study result 3 table shows some 56 respondents (56%) believe that there would be change in the real estate market condition within 12 months to come, by April 2018. However, the outlook for the upcoming 3 months is more positive, some 48, 89% believe in upward rise in market productivity. I believe, this is correlated with the fact that prices will remain the same. Given continued pound depreciation, it may be attractive to foreign buyers and those citizens, previously indecisive towards the decision to invest in property or buy a first house.
Empirical study result 3 - Page 2: Sales market section.

The infographic shows the price forecast for the different types of property. Overall, it is evident that for 12 months to come, prices either will stay the same or show slight decrease on >2%. This now corresponds with Empirical study result 4, where market professionals predicted rise in sales: decreasing prices continue to attract buyers.

For one-bedroom apartment, some 27 questioned forecasted -2.5% fall in sales and some consequent 25 people predicted no change.

For the two bedroom-apartment 28 respondents predicted no change and 27 people even admitted the likelihood of rise in prices. The same responses, but for the shorter timespan on three months were shown in replies on question 1. This proves that questioned replied consistently.

For the 3 bedroom apartments, 27 respondents replied they believe prices will fall on -2.5% and 26 replied that prices are expected to go up on 2.5%. When analysing such deviation, one must bear in mind regional differences. It could be that in New Castle area prices experience downfall, while in Manchester continue to go up. The level of investment in the cities, explained
in the chapter 2.2 Planning is incomparable and thus can provoke price variation. This theoretical prediction is also supported by the map of the regional price differences (Picture 25 - UK House Price Index for December 2017, Land Registry).

The biggest evidence of the market immobility is in responses on question five of the survey. The infographic below shows that absolute majority replied that no change is expected in all three directions: Tenant Demand, Landlord Instructions, Rent expectations. The replies are more radical than expected in the theoretical prediction or in literature review, however they do not deviate from the framework or the original estimation.
Empirical study result 5 - Page 3: Lettings market section.

The question Empirical study result 6 addressed differences in demand with a timeline of April 2017 to July 2017. The infographics is shown below.

For one-bedroom apartments, the leading amount of people estimate there was no change in demand in the past 3 months. Given the fall in prices, indicated in Empirical study result 1, it can be predicted that one-bedroom accommodation became more available for young professionals and an increased amount of people could afford their first accommodation. Thus, the demand for rented accommodation (for one-bedroom houses) went down, or showed no change. It can be expected to fall furthermore, as Empirical study result 4 shows that price for one-bedroom accommodation will continue to go down within the upcoming 12 months.

For two-bedroom apartments, a significant amount (a majority of 40) of people predicted it would go down on -2.5%. This is coherent with economical intuition for the one-bedroom housing. The need for own property is higher for young families, who are deemed a primary target group for two-bedroom accommodation, that for the young professionals who can opt to
rent and allow a possibility to move more frequently. This rationale, however, contradicts findings from the question 2, where majority indicated no change in recent sales.

For the three-bedroom houses, the demand is expected to be steady, with 39 professionals believing it will stay the same.

For the 4 bedroom and larger houses, the demand is increasingly predicted to stay the same. This can be explained by the prices of such accommodation, that preclude current renters from buying their own property of the same size. Looking at it the other way, The question Empirical study result 6 also shows it is much easier to move from renting one-bedroom property to buying one, than shift from renting four-bedroom accommodation to becoming an owner of one.

The following question Empirical study result 7 shown below continues to investigate housing market, but now from the perspective of 12 month to come. The results mirror those of The question Empirical study result 6, which proves that respondents were consistent in their predictions. Some 35.35% believe the rents will go up on +2.5%. It is important to note that I
did not indicate, should respondents take inflation into account or not. Some 28.28% of respondents believe the rents will stay the same, which means, given fluctuation in pound, it is expected to change insignificantly.

The same is true for the two-bedroom property; 38% percent replied they expect an increase in rents on +2.5% and 34 questioned indicated they do not predict rents to go up.

The highest number of people believing there would be no change in rents expect so with three-bedroom and four-bedroom properties. Only 25% of interviewed people expect prices to go up on 2.5%.

Empirical study result 7 - Page 3: Lettings market section.

The question Empirical study result 8 (below) addresses current price level. It is evident that most people believe they are employed or working with projects where property is of fair value. The second biggest amount of respondents at 3% are convinced the property can be categorised as “expensive”. Only 4% of respondents replied the property is “Cheap”. Even lower amount
of people, 1% relied they believe the property is “Very Cheap”. It is important to note, while above mentioned is consistent with theoretical predictions, none on interviewed replied they are working with property which is “very expensive” This now shows that by narrowing down research to England, outliers were successfully eliminated. The most expensive property in the United Kingdom is considered to be in Scotland, St. Andrews. The average price of property there is £2,179,000 (Lloyds Banking Group Press Release of 23 December 2016). This can be compared to the average price of properties, observed in this thesis: £481,102 being average price for London (Gov.uk Press release, UK House Price Index for October 2016)


The last quantitative question Empirical study result 9 asks to forecast average annual growth rate for the next 12 months, April 2017 to April 2018. The leading amount of 58% expect the price growth will be negative (“somewhat”). In the conscious absence of a question “will not change”, and given natural inflation, it is a clear market of rent decrease.
Empirical study result 9 - Page 4: Market Valuations.

Below is the infographic for the respondent’s regions, for which results are valid. A prevailing amount of professionals either operate or have projects in London. This can also be safely assumed the majority of replies are correlated to this region.
4.2 Discussion

Overall, the respondents show rather unexpected negative market sentiment (Question 9), with the majority believing in market stagnation, i.e. prices will either not rise or fluctuate insignificantly (Question 1, Question 3, Question 4, Question 6 and Question 7). While this may be positive for the new buyers, it is also harmful for the people with outstanding mortgages, as the price of their property goes down.

It is becoming easier to buy or afford down payment of the one-bedroom apartment and less so for the two-bedroom properties. There is expected no change for the three- or four-bedroom houses (Question 6, Question 7).
5. Conclusion

The primary goal of this dissertation was to compound a comprehensive outlook that covers academic literature and recent publications from economic journals, and complement the study with empirical analysis on the topic of Impact of Brexit on the United Kingdom’s Housing Market. In April 2014, I was able to complete exchange course in Manchester. At the time, the important development in Manchester was the renovation of the public transportation system, which is built with financial support from the European Community. This is a single example of the added value of European Community membership of the UK. It helps modernize the city and the Great Manchester area, eg Salford, where we stayed, and improves the quality of the built environment and consequently, the quality of life. The objective of this dissertation was to understand, how the Britain economy, seen through the real estate, will develop, having this support from the European Union excluded.

I believe a lively, maintainable and robust property sector is a vital element in ensuring the long term prosperity of the United Kingdom as a country and as a leading economy. This affluence will grow through the post-Brexit maintained access to international labour, markets and capital. Though for most of the country, Brexit will have little effect on house prices. In much of the UK, homebuyers are moving because they need to, because of jobs or an expanding family; this means prices will hold up in much of those areas.

The property market is slowing down, uncertainty stifles market sentiment, with no market expansion expected for twelve months to come, according to the survey. Inquiries from buyers are diminishing, as Brexit negotiations cause market uncertainty. The empirical evidence shows that property transactions are slowing down, too.

The findings, data and analysis of the United Kingdom Residential Market Survey discussed in this dissertation could be used by the Government, the Bank of England and other key institutions, including the IMF, as an indicator of current and future conditions in UK residential sales and lettings. The analysis cover extensively market intelligence, and could be used both by investors and across the industry.
I. References


II. Bibliography


I. Appendix

i. Questionnaire

Note: Please respect the fact that respondent’s emails is restricted information and thus were squared out using Censure Mask function in the program Adobe Photoshop.
a. Informed Consent

Informed Consent

I would truly appreciate your help in completing this short survey. It should not take more than 5 minutes to complete. The survey aims to provide the necessary information for a dissertation that focuses on understanding the attitudes and perceptions of the UK housing firms' towards Britain's decision to leave the EU (Brexit). All your answers will be treated in strictest confidence and used only for research purposes. This survey does not involve direct benefits for the participants. However, I hope this survey benefits the research community in Germany, the United Kingdom and wider European Union.

Confidentiality

All recorded data will be for private use of the investigators and will only be used for this research and other related studies. Publishable documents based on the aggregated results of the survey may be generated, but no individual information will be disclosed.

Consent

By proceeding to the survey you are stating that you are 18 years of age or older, accepting to participate in this survey, and declaring that this acceptance is voluntary. In addition, acceptance to participate does not take away the right to withdraw from the survey. If you feel like doing so, you may do it without any explanation and without any consequences.
b. Sales Market

### Impact of Brexit on the UK Housing Market

#### Sales market section

1. How have average prices changed over the last 3 months?

<table>
<thead>
<tr>
<th></th>
<th>+&lt;0%</th>
<th>+5 to +9%</th>
<th>+2 to +5%</th>
<th>Same</th>
<th>0 to +2%</th>
<th>-2 to -5%</th>
<th>-5 to -9%</th>
<th>-&gt;9%</th>
<th>n/a</th>
</tr>
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<tbody>
<tr>
<td>1 bedroom</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>2 bedroom</td>
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<td>4+ bedroom</td>
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</tbody>
</table>

2. Activity indicators - How have the following changed over the last month?

<table>
<thead>
<tr>
<th></th>
<th>Down</th>
<th>Same</th>
<th>Up</th>
<th>n/a</th>
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<tbody>
<tr>
<td>New buyer enquiries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New vendor instructions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreed sales</td>
<td></td>
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</tbody>
</table>

3. Sentiment - How do you expect the following to change?

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<th></th>
<th>Down</th>
<th>Same</th>
<th>Up</th>
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</thead>
<tbody>
<tr>
<td>Prices - 3 months ahead</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Sales - 3 months ahead</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales - 12 months ahead</td>
<td></td>
<td></td>
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</tbody>
</table>

4. House price expectations - next 12 months?

<table>
<thead>
<tr>
<th></th>
<th>+20%</th>
<th>+15%</th>
<th>+10%</th>
<th>+5%</th>
<th>+2.5%</th>
<th>Same</th>
<th>-2.5%</th>
<th>-5%</th>
<th>-10%</th>
<th>-15%</th>
<th>-20%</th>
<th>n/a</th>
</tr>
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<tbody>
<tr>
<td>1 bedroom</td>
<td></td>
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<tr>
<td>2 bedroom</td>
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<td>3 bedroom</td>
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<tr>
<td>4+ bedrooms</td>
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</tbody>
</table>

2 / 5

[Previous] [Next]
c. Letting Market

6. How has tenant demand changed over the last 3 months?

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<tr>
<th></th>
<th>+20%</th>
<th>+15%</th>
<th>+10%</th>
<th>+5%</th>
<th>+2.5%</th>
<th>same</th>
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7. How do you expect average rents, in your area, to change over the next 12 months?

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<th>+20%</th>
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<th>-5%</th>
<th>-10%</th>
<th>-15%</th>
<th>-20%</th>
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</table>
d. Market Valuations

8. What is your sense of current price levels being achieved in your area?
- Very Expensive
- Expensive
- Fair value
- Cheap
- Very Cheap

9. What do you expect the average annual growth rate in rents will be over the next 12 months in your area?
- Very positive
- Somewhat positive
- Somewhat negative
- Very negative

Other (please specify):
e. Respondent’s Details