Growth Effects Through Regional Integration in the European Union:

Exploring Regional Integration in relation to Real Estate Investment

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25 February 2022

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1.0 Introduction

1.1 Real Estate Investment: A Global Business

In 1900 it took you around 40 days to travel from Europe to distant places such as Central Africa, South America and Australia. Now, over a century later, you can travel the same distance within a day. As a consequence the world has become increasingly more connected and it has become far easier to do business on a global scale. This has resulted in real estate investment firms that own, manage and develop real estate spread over multiple markets in different continents. As a graduate in the discipline of International Relations I have always been interested in the ways that global phenomana influence our day to day lifes. After a few changes in my professional career I ended up working for a global real estate investor. The daily calls I have with my colleagues abroad are a reminder of the way in which international real estate investment is a global business and is therefore affected by global trends that play their parts in the markets where the real estate investor operates.

The Dutch term for real estate ''onroerend goed'' translates to a good that is connected to a place. It therefore will be unavoidable to have to deal with local players such as municipalities and contractors. However, next to navigating through the realities of local rules, regulations and players, foreign capital is crossing borders and real estate investors need to deal with the strategic decision of how best to allocate capital across asset classes (Geltner, Clayton, Miller, & Eichholtz, 2014). Risk and return are central within each investment strategy. When selecting markets, real estate investors look at factors such as economic activity, investment opportunities, depth and sophistication of capital markets, investor protection and legal framework, administrative burdens and regulatory limitations and the socio-cultural and political environment to find optimal risk return allocations (Lieser & Groh, 2011). A regression analysis for 47 countries (dataset 2000 to 2009) on the significance of the above mentioned factors has shown that the assessment of political stability, and especially the system through which politics is exercised, is an important factor underpinning investment decisions for international real estate investors (Lieser & Groh, 2011).

Even though investors know which variables constuitute risk, the business of foreign direct real estate investment in markets across borders means that you venture into an unknown of different political and economic environments. Currencies can be different and more unstable and cultures and languages can differ from your own (Lee, 2005). It is the real estate investor's job to research opportunities with the goal to reach satisfying risk and return ratios.This entails dealing with future scenario's which come with uncertainty and risk (Lieser & Groh, 2011). It is by studying the political environment that these uncertainties and risks can be mitigated. Therefore, it is important that real estate investors are knowledgable about politicial institutions that can influence real estate transactions.

1.2 Regional Integration in relation to Real Estate Investment

Once an investor has decided to own and manage real assets in a certain market it must meet the local rules and regulations of this market. Even though in Europe land rights and property ownership are mostly the terrain of local or national legislators, indirectly many of the applicable framework around property ownership and management is being decided on higher levels. A report from The European Group of Valuers' Associations states that European Union (EU) legislation is having an increasingly important impact on the use, management, associated costs and development opportunities of property and therefore also on its value (The European Group of Valuers' Association, 2016).

Aside to the above, the EU legislative body has an increasing impact on regulations around energy efficiency, renewable energy, environmental protection, discrimination by landlords, unfair contract terms, access to buildings by the disabled, regulation of retail services including shopping centre development, work site safety, construction products, construction and building-related cartels, state aid to social housing companies competing for middle-income tenants, mortgage credit, capital requirements for mortgage lending and insurance, financial market reform, reduced rates of VAT on renovation and repair of housing, and money laundering (The European Group of Valuers' Association, 2016). From this summary it is not difficult to deduct that daily operations around property investment are definitely affected by supranational governmental decision making.

The European Property Association, a Lobby group that presents itself as the European forum and policy vehicle for real estate since 1997, is making a similar claim. They state that regulations around property have not really shifted from the local, regional or national level to the EU, however, construction, development and property professions make up 10-12% of the EU's economy and therefore economic activity surrounding real property is certainly affected by EU laws and regulations. Supranational decisionmaking and organisation influence real estate via business, industrial, environmental, energy, agricultural and social policies with a real estate fallout (European Property Federation, 2021).

Next to the EU's influence on operational areas such as building management and development the investment or financial side of real estate investment is also subject to supranational regulations. BASEL, Solvency, AIFMD, pension regulations and ECB policies all regulate the ways in which an investment firms needs to operate and report its results.

Assessing the status quo for the real estate Investor uncovers a system in which the EU, as a political body, is having the power and opportunity to influence the business sector that is real estate investment. Ongoing debates around setup and reputation of the European Union will therefore translate into practical consequences for real estate markets. Especially the crisis around the legitimization of the EU could be of influence for investment decisions and the return that is made on real estate investments in European markets in the future.

As the multinational real estate corporation is one of the institutions for whom the European Union is a factor that influences risk and return scenarios. Investigating how the European Union is perceived by those working in the field will create a better understanding of the relation between the legitimization of the EU and investment decisions made by the real estate investor. In other words, to be able to understand and predict economic outcomes for the real estate investment sector it is relevant to know if perceived advantages of regional integration coming from scientific theory are indeed perceived as such by professionals from the field. If this is indeed the case, the European Union, or the phenomenon of regional integration, has an effect on oucomes in real estate markets and therefore one can say that for example problems around the legitimization of the EU will influence real estate investment decisions and will indirectly influence individual economies and the built environment.

A preliminary exploration of the view of the real estate market towards the European Union finds that investors do perceive the development and reputation of the EU as a factor of influence to their business. A market report of Price Waterhouse Coopers 2020 states that political issues are acting as a drag on economic and real estate performance in Europe. Rising populism, regulatory regimes around sustainability and Brexit are all mentioned as possible risk factors for future European real estate investments. Bouwinvest's real estate market outlook for 2021-2023 acknowledges an economic trend of protectionism in countries that are trying to reduce their economic interdependence because of national security and public health concerns. They also predict that political uncertainty is likely to persist in Europe due to Brexit (Bouwinvest, 2020).

Research by Monfared and Pavlov (2019) concludes that British real estate markets were affected after the Brexit referendum result was announced. Based on that result they conclude there is a link between political uncertainty and real estate values. However, they also see that this link is stronger for certain areas and that effects of political uncertainty can differ between regions. The forementioned sources describe what has been observed in the field. Aside to this, the relationship between the European Union and behavioural patterns in real estate investment has also been subject to more indepth scientific research. The following subchapters will offer an exploration of such studies.

1.3 Existing Research

As said, European integration versus behavioural patterns of multinational companies has been subject to previous scientific research. A study by Moschiery, Ragozzino and Campa examined the moment where the takeover directive was issued by the European Commison in relation to firms seeking international growth via mergers and acquisitions (M&A). Specifically they have analysed if uncertainty avoidance and political risk have diminished as factors of influence for M&A decisions. Their study shows that uncertainty avoidance was indeed negatively related with M&A amounts spent. However, this effect gradually faded over time.

A similar pattern was found for political risk (Moschieri, Ragozzino, & Campa, 2014). A study by Blevis et al has also put regional intergration in the EU against M&A activity. By looking at five time series between 1990 and 2012 they have analysed the importance of integration initiatives against M&A behaviour and found that economic geography and the level of integration is a direct determinant of MNC's entry mode decisions. They have found their rational for these findings in institutional theory and transaction cost analysis. ''Countries membership in the Union offers direct and indirect benefits to MNC's allowing them to focus more on strategic issues and less on external considerations'' (Blevins, Moschieri , Pinkham, & Ragozzino , 2015).

These particular studies have chosen to look at different business sectors. By focusing on the relationship between real estate firms and regional integration there are also some important studies to consider. Central in this type of research is modern portfolio theory and the benefits of diversification for real estate investors. Following modern portfolio theory the degree of integration of real estate markets within Europe is a leading factor for investment decisions (Geltner, Clayton, Miller, & Eichholtz, 2014) (Van Gool, Jager, Theebe, & Weisz, 2013). Whether or not real estate markets become more integrated and therefore show more similar traits in terms of risk and return is important information for investors operating in real estate. A study by Mcallister and Lizieri has shown that the European monetary integration after the establishment of the Euro strongly influenced the integration on global equity markets, but this relation is found much less for real estate stocks. This suggests that the influence of local factors is still more important for real estate as an investment category (McAllister & Lizieri, 2006).

Yang, Kolari and Zhu have also put the establishment of the European Economic and Monetary Union (EMU) against the measure of integration in nine specific real estate markets. Their conlusion was that real estate markets in larger EMU economies became more integrated (Germany, France, Netherlands), however, this was not the case for smaller EMU economies (Belgium and Spain). Therefore, this study conluded that integration effects were only observed in more advanced industrial markets (Yang, J. W. Kolari, & Zhu, 2005).

A later research looking at a period up to 2017 by Carpantier and Sapata found higher patterns of real estate market integration in European markets, however, this was only during the start of the financial crisis (2007-2008). After the crisis real estate markets returned to their previous levels of integration. In this research integration is measured by looking at national return series as they are collected and harmonized by the Bank for International Settlements. Next to the pattern around integration Carpantier and Sapata also found support for clusters within the European Real estate markets when it comes to the levels of integration between individual markets (Carpantier & Sapata, 2020). This conclusion mirrors the findings of Yang, Kolari and Zhu when they distinguish different outcomes for different market clusters.

Earlier research around real estate markets in relation to integration initiatives within the European Union supports the assumption that the political environment stands in relation to real estate investment markets. The relationship between professionals operating on real estate markets and the European Union as the instituition that represents integration that influences the same markets has, however, never been researched as such. This research will therefore build further upon the factors of influence that were discussed earlier on in this paragraph and bring a new viewpoint on the relationship between the real estate markets and the European Union. The next subchapter will introduce the central (sub)questions and will present the method through which these questions will be answered.

1.4 Central Question, Subquestions, Theory and Method

Even though market organisations and scientific sources have written about the relationship between the European Union and the real estate investment sector no (scientific) source is available that specifically treats the direct relation between advantages of regional integration and the way these theroretical assumptions are perceived by professionals working in the field. This thesis aims to add to existing research by filling this void by way of survey and expert panel research.

Scientific theory advocates that regional integration would create practical advantages or growth effects that influence economic outcomes for real estate investors (Schiff & Winters, 2003) and therefore it can be expected that an acknowledgement of these theoretical predictions by professionals will lead to outcomes in real estate investment markets that further support the process of regional integration. In the end, the goal of this research is to widen the understanding on the relation between the political (in this case expressed through a supranational organisation i.e. the EU) and investor decision making that directly influences outcomes on economic markets. The following central hypothesis will therefore be leading:

Even though there is debate around the legitimization of the EU, professionals working for international real estate investors acknowledge a relationship between the EU and growth effects on real estate investment markets. They also translate this acknowledgement into action when they predict investment scenarios for the European market.

The hypothesis leads to the following central research question:

Do real estate professionals working for international real estate investors acknowledge a relationship between regional intergration theory and growth effects on the European real estate investment market?

And do they also translate their views on the relationship between regional integration and growth effects into behaviour when they are faced with investment decisions?

The central economic theory behind this research question is twofold. Regional integration theory assumes that market integration leads to growth effects. Even though the European Union has been around for a while, debates and political fragmentation around the question in what form the EU should exist or if it should exist at all makes it so that it cannot be assumed that real estate professionals will automatically look positively towards the effects that regional integration has on economic outcomes for real estate markets. It is in the debate around the concept of regional integration and the form in which it it most beneficial for the economy that we find the significance of this research. As a result, investigating how the EU and the real estate investment sector influence each other through the convictions and behaviour of real estate professionals can add to the understanding of the status quo, ongoing debates and subsequent economic outcomes.

The central research question also treats the contraposition between conviction and behaviour. Behavioural finance is the leading theory around the question if a specific viewpoint will always lead to optimal behaviour in investment decision making. By testing if real estate professionals will express their views on the relationship between regional integration and growth effect through specific actions in investment decisions making, it can be concluded if behaviour follows from conviction. Only when that is the case actual economic effects on real estate markets can be expected. Both theoretical views will be further treated in the second chapter of this thesis.

Regional integration theory will present a set of sub concepts. Each concept will be treated via an individual subquestion leading to partial conclusions. The subquestions treated in this thesis are the following:

1.1 Do real estate professionals working for international investment platforms acknowledge hat regional intergration through the European Union leads to growth effects and do they also make investment decisions based upon their convictions?
1.2 Do real estate professionals working for international investment platforms acknowledge that regional intergration through the European Union leads to growth effects via *economies of scale* and do they also make investment decisions based upon their convictions?
1.3 Do real estate professionals working for international investment platforms acknowledge that regional intergration through the European Union leads to growth effects *via the reduction of transaction costst or via the elimination of internal market inefficiencies* and do they also make investment decisions based upon their convictions?
1.4 Do real estate professionals working for international investment platforms acknowlegde that regional intergration through the European Union leads to growth effects via the creation of *knowledge spillovers* and do they also make investment decisions based upon their convictions?
1.5 Do real estate professionals working for international investment platforms acknowledge that regional intergration through the European Union leads to growth effects through *creating policy credibility for individual states* and do they also make investment decisions based upon their convictions?

The presented research questions will be answered via the survey method complemented by further exploration of the found results through an expert panel session. To be able to operationalize the research, concepts from regional integration theory will be linked to a set of closed questions designed to test the acknowledgement of a relationship between regional integration and growth effects for the European real estate market and also to the behavioural strategies regarding specific investment scenarios. In other words, the independent variable is regional intergration. Its subvariables and the survey questions will be set up in such a way that the respondents contest if they see causal relationships between the independent variable and its subvariables and growth effects, or they are set to test the behavioural reactions to specific investment scenarios that involve considerations around regional integration phenomena.

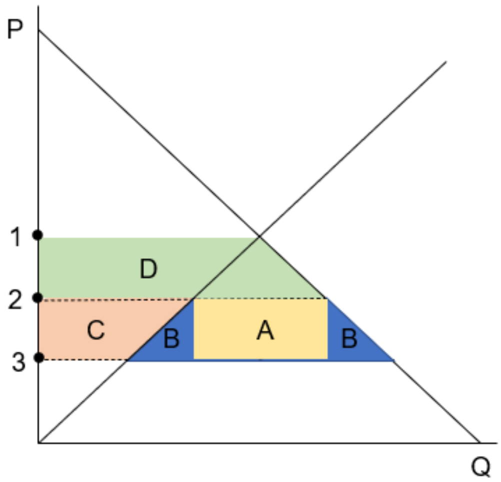
Through the expert session conclusions coming from the survey can be made subject to further in-depth analysis which will allow for a wider understanding of the central relationship between regional integration and the real estate investment sector. Finally, a full data analysis will be offered after which a set of conclusions can be presented. The next chapter will explore the theory around growth effects through regional integration as well as the juxtaposition between conviction and behaviour which stands central in behavioural finance. After that, chapter 3 offers a more indepth exploration of the main methods and how they were operationalised, further considerations around sampling and additional deliberations about reliability and validity. The final data coming from the survey and the expert panel session will be treated in chapter 4 and a conclusion and a discussion will be presented in chapter 5.

2.0 Regional Integration Theory and Behavioural Science

This second chapter will first treat the theory around regional integration and the consequent predictions regarding long term economic growth effects. This will be done by reviewing regional integration theory as well as the different concepts that drive the growth effects that are a function of regional integration. After that a more indepth explanation is offered on behavioural finance theory and its supporting concepts. All concepts from both regional integration theory and behavioural science require to be explained in more detail because through the survey they are translated into specific thesises designed to test repondent acknowledgement of the variables. For this reason they will be central in the set up of the research methods and the treatment of the found data.

2.1 Regional Integration

The economic rationale behind regional integration is obtaining benefits through trade creation (Schiff & Winters, 2003). If a country drops its trade barriers this enlarges markets and creates benefits for producers that want to enter a market where their prices would otherwise have been inflated by duties and other trade barriers. Through this logic larger markets will have greater competition. Also, benefits created by competition will increase the incentive for investment. This will lead to higher incomes because of the increased capital intensity of production and by the encouragement of technical progress (Schiff & Winters, 2003). The below figure shows the deadweight losses incurred by tariffs which can be avoided by free trade regimes:

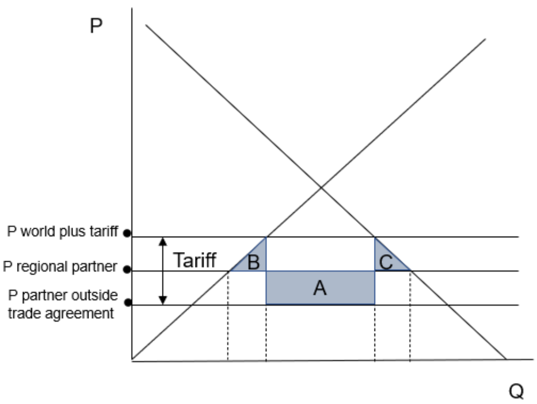


Source: author’s own creation, 2021

1. Domestic price without trade
2. World price plus tariff
3. World price

A) Tax revenue
B) Deadweight loss
C) Producer surplus gain from tariff
D) Consumer surplus gain from importing

On a worldwide scale this theory holds, however, when applied on a regional scale the benefits of trade creation can be offset by trade diversion leading to a net decrease in overall economic output. Trade creation and trade diversion were first introduced by Jacob Viner in 1953 and it works in the following way. If a partner country can export more to a home country at the expense of inefficient enterprises within that home country this will create a positive result in terms of economic outcome. However, if tariffs are only removed for regional partners this can cause a country to switch imports from a country outside of the regional trade block to a partner within the regional trade agreement. It can then be the case that the gains experienced by consumers are lower that the losses incurred by producers and the missed governmental income on the tariff (trade diversion). In terms of economic efficiency regional integration is therefore not always the best option. The representation below indicates the gains obtained by trade creation (A) versus the losses incurred through trade diversion (B+C). In cases where A is smaller than B+C there is a net loss due to regional trade integration (Eicher, Mutti, & Turnovsky, 2009).



Source: author’s own creation, 2021

For investment decisions the multinational corporation will mostly be focused on the benefits for producers under a prefenrential trade agreement through regional integration. These benefits will mostly be obtained through higher expected returns or lowered costs. After regional integration has taken place trade theory predicts that the rate of return on capital and investment rises in all countries joining a trade agreement regardless of capital abundance. This has to do with economic output influenced by phenomena such as market enlargement, the reduction of transaction costs, spillovers, policy credibility and the reduction in internal efficiencies (Eicher, Mutti, & Turnovsky, 2009) (Schiff & Winters, 2003).

In general, world production is increased by crossborder multinational corporation (MNC) activity. This happens through the introduction of technology and managerial expertise that allow greater outputs from the same inputs. There is no conclusive evidence though that domestic firms also benefit from MNC activity in their markets. It is also for this reason that MNC activity knows different political reactions ranging from hostility to more positive ones (Eicher, Mutti, & Turnovsky, 2009).

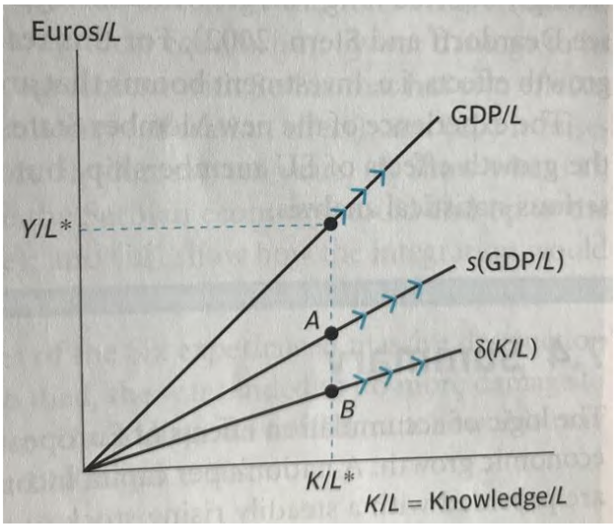
This research has put regional integration central as the independent variable and not the position of the MNC. However, for the sake of introduction of the institutions involved in regional integration it is good to note that the position of the MNC and their investments through FDI are not positioned neutral in the framework around regional integration. The next subchapter will treat growth effects as the possible result of regional integration.

2.2 Growth Effects through Regional Integration

The different scientifc perspectives all see a relation between regional integration and the achievement of more efficient outputs, whether they are achieved for governments, consumers, producers or MNC's. The next step is to take a look at how these more efficient outputs translate into growth effects (our independent variable).

Achieving growth effects through regional integration is explained through the connection between the relationship of gross domestic product (GDP) per worker and the relationship between GDP and the amount of capital. The Solow diagram, invented by economist Robert Solow, presents the relationship between output and capital invested. If one raises the capital vs labour relation in an economy this will increase the output per hour of labour. However, the rate of increase diminishes as the level of the capital to labour ratio rises. An economic equilbrium is reached at the point where the inflow of new investment just balances the depreciation of capital (Baldwin & Wyplosz, 2009).

To sum up the logic behind this theory, a citation is provided from Baldwin and Wyplosz. ''Intergration → improved efficiency → higher GDP versus labour ratio → higher investment per worker → the economy's capital to labour ratio starts to rise towards a new, higher equilibrium value → faster growth of output per worker during the transition from the old to the new capital/labour ratio''. This is the medium term growth effect caused by European integration (Baldwin & Wyplosz, 2009). An important assumption made within Solow's theory is that capital is not a source of growth. After an equilibrium is reached some other factor of influence needs to change to go from medium-term growth to long term growth effects. The step to long term growth effects is made through other effects from regional integration, for example through economies of scale or through technological advances.



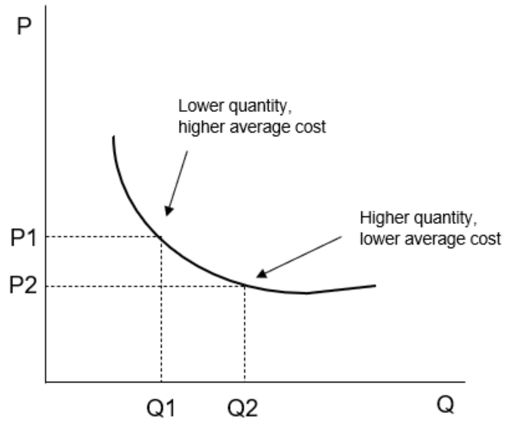
Source: Baldwyn & Wyplosz 2009

The next subchapters will offer more insights into the relationship between the theoretical concepts and the research questions. It will also provide a methodological justificaton.

2.3 Economies of Scale

Classic economists look at how the price of a product is build up. Each producer knows fixed costs as well as variable cost which lead to the total cost price of a product. The economy of scale principle states that larger markets will lead to a higher output and fixed costs per product will fall. This leads to more output and a lower cost price per output. Regional integration opens up markets which leads to bigger market sizes for producers. In a competitive market the lower markup will not only translate to larger profits for producers but also into lower prices for consumers (Pugel, 2009).

Within a trade block setting or within regional integration initiatives such as the European Union, the creation of an economy of scale creates further gains next to the reduction of prices and reduction of prduction cost. First, as firms of different countries are brought into more competition with each other, monoploy power will reduce. Second, the market enlargement will create larger companies that will be able to exploit the larger market more fully. Through the existence of these larger firms there will also be more competition, also with external markets. The third gain originates through further expansion in product variety and the fourth gain is made where internal inefficiencies are reduced (this principle will be explained seperately later) (Schiff & Winters, 2003).



The concept of minimim efficient scale predicts that for an individual company there is always a point where there is an optimal allocation of scale effects. Once this point is surpassed the benefits of the ecnomy of scale will reverse into a higher mark-up again. This turning point is also able to shift, for example, when a market adapts wages to the higher output in production. Once the point is reached where the benefits of agglomoration are in its totality offset by higher wages there is no growth effect connected to the regional integration initiative anymore (Eicher, Mutti, & Turnovsky, 2009). The below curve indicates that effect of economies of scale including the optimal amount for production.

Source: author's own creation, 2021

2.4Transaction Costs and Internal Inefficiencies

Transaction cost were introduced into the realm of economic theory in 1937 by Ronald Coase. The reason why business is organised in firms etc. is because these institutions are more equipped in dealing with transaction costs. Transaction costs are those costs incurred in the making of a business transaction, one can think about the gathering of information, planning costs or the hiring of brokers to negotiate a transaction (Coase, 1937).

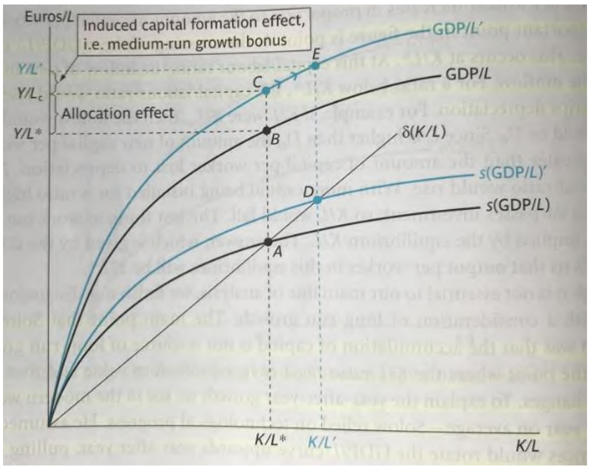
In a similar way firms also deal with costs incurred through internal inefficiences. An efficient business is one where production can take place without much wasting of time and money. Where time and money is spent when there is an alternative to not do so, a company is suffering from internal inefficiencies. One can for example think of establishing offices in a particular location even though a physical location including personnel is not needed for the purpose of doing business in a market. Another example is costs that are incurred around exchange rate risk or import/export tariffs when they could have been avoided. Through regional integration these transaction costs and internal efficiencies can be limited. In all events where resources are saved for example by limiting unproductive activities or the lowering of market access barriers, firms can incur cost benefits (Schiff & Winters, 2003). Firms operating in the EU do not have the nessecity anymore to open multiple locations and firms and can therefore avoid tariffs on imports and exports between EU member countries.

The single market initiative in the European Union has ensured the free movement of capital, goods, people and services, however, it is important to note that not all partner countries recognize these freedoms fully (not all countries are a partner in the Shengen treaty for example) and rules around capital integration such as tax regimes for example are not yet fully integrated. A real estate firm will still have to research different tax regimes in the different partner countries on individual transactions. Therefore, not all internal inefficiencies have been taken away for companies operating from within the EU.

2.5 Knowledge Spillovers

Where foreign companies enter into a home market they will often bring knowlegde, capital and equipment to which they also expose the workers which they recruit from the home market. This will lead to knowledge spillovers (Eicher, Mutti, & Turnovsky, 2009). It is through the theory of Solow that these spillovers can be linked to growth effects.

Knowledge is an economic input that can be used over and over without depraciating in value. A worker is more productive if opportunity is offered to learn from other workers. Knowledge is therefore a form of capital that does not depreciate in the same way as other capital inputs. It therefore creates a shift in the GDP versus labour ratio. Every time new knowledge gets added, output per worker will rise more. If this is not offset against a larger depreciation, which for technical advances happens less often than with other capital inputs because they can be used more often without depreciating, there is continuous growth.



In the Solow-diagram presented here this difference between depreciation and new knowlegde is represented by the space between the s(GDL/L) line (output per worker) and the δ(K/L) line (the depreciation per worker), the s(GDPL/L) line. The result is a shift in the Solow-diagram where the output per worker along with the amount of new knowledge created will rise forever. This continuous growth is indicated via the arrows on the lines in the diagram. Automatically the depreciation per worker will also keep rising but not with the same amount as the amount of output per worker. It is the continuous difference between these two values that leads to growth (Baldwin & Wyplosz, 2009).

Source: Baldwyn & Wyplosz 2009

2.6 Policy Credibility

The last concept is less about the economics of production and optimal relations between benefits and costs, it is more about the relationship between the political environment and economic efficiency. The political environment is connected to economic relations. It is through the fusion of the two worlds that policy credibility enhances long term economic growth.

Policy credibility is defined as the expectation that an announced policy will be carried out (Drazen & Masson, 1994). Where institutions that operate in the market believe that announced policies and existing rules and regulations can be trusted upon to be carried out and not to be altered, they will have more faith that their business decisions will not be affected by unforeseen decision making by national governments or supranational institutions. Political risk can therefore be mitigated by policy integration through regional integration.

Reducing trade barriers and creating a common market creates the prerequisites for growth through integration. In practice, that does not just entail the removal of tariffs and opening of borders. By harmonising national policies and enforcement mechanisms around trade transactions and companies it will be made easier to operate in an integrated market. Policy integration is often driven by market access concerns and by the rationale that more competition will create economic benefits (Schiff & Winters, 2003).

The institution that is the European Union is present in the daily lives of many. EU regulations around the shape of fruits and vegetables or the rules around agriculture and the ethnicity of certain products have led to severe protests. On the other hand, when we follow the logic of the neofunctionalists from withinthe scientific discipline of International Relations, arguments around the relationship between the EU and peace and properity on the European continent are plentiful (Haas, 1970). It is in light of this discussion that this thesis wants to test the way policy credibility is seen in relationship to the operations of real estate investors. The theory predicts that policy credibility can be enhanced through regional intergration but it is up to those that formulate the expectation to decide if they indeed believe that regional integration enhances policy credibility within the European market.

To finalize the exploration of the main underlying theory to this research the next chapter will provide a more detailed treatise of behavioural finance and the contraposition between convicton and behaviour.

2.7 Behavioural Finance

The basis for this second part of our central research question lies in behavioural finance theory. Real Estate Investment theory (for example modern portfolio theory or the CAPM model) will always assume that an investor is rational, will always fully control emotion, is fully informed and is always completely egoistic. Several studies have showed that this is not the case and that as a consequence investment decision making can lead to suboptimal results. A study by Gregory Curtis for example shows that even though financial advisors often recommend diversified portfolios following the indications of modern portfolio theory, the likelyhood that clients willl follow these recommendations is low (Curtis, 2004). Behavioural Finance therefore instructs researchers to try and understand investor decision making, instead of looking at the how economic theory suggests that decisions should be made (Bazerman & Moore, 2017) (MacGregor, Schulz, & Green, 2019) (Van Gool, Jager, Theebe, & Weisz, 2013). The difference between conviction and behaviour is explained through the usage of several concepts from behavioural finance theory.

Investors that try to estimate returns or try to model risk are influenced by bounded rationality. A decision making process is logically expected to lead to optimal results but because of certain biases that are programmed into human behaviour this is rarely the case (Bazerman & Moore, 2017). The difference between the expected optimal result and the actual result is explained through behavioural expressions such as different forms of heuristics, biases such as overconfidence, expressions of bounded awareness because of the complexity of a situation or the relating of past experience to new experience through anchoring (Bazerman & Moore, 2017).

All presented expressions in behaviour that are limited through bounded rationality could cause differences in conviction and behaviour in investment decision making. This will automatically have consequences for the development of regional integration regimes. Each individual expression will therefore be explained in more detail and later on linked to the final results from the survey.

2.8 Behaviour and Investment Decision Making in Real Estate

Heuristics are cognitive shortcuts or rules of thumb that reduce the computational cost of decision making and that ultimately lead to biased sub optimal decisions (MacGregor, Schulz, & Green, 2019). A general expression of heuristics is that people do not investigate all factors that could be of influence to an investment decision. Underlying motivation often is that the time spent on researching every factor of influence costs more than eventually reaching a suboptimal decision with less time is spent on weighing all relevant information (Bazerman & Moore, 2017).

When judging a compiled portfolio heuristics often causes decision makers to apply an 1/N rule. Such a rule ignores, however, that different assets always have different risk and return expectations and results. This could lead ot a situation where the composition of a portfolio is suboptimal because not all elements contribute to the final revenue in the same way (MacGregor, Schulz, & Green, 2019).

Overconfidence is another bias that certainly influences investor decision making. When overprecision is applied to decisions there is a tendency to be too sure that judgements and decisions are accurate (Bazerman & Moore, 2017). Many high level decisions with substantial global influence have suffered from overconfidence. One could think about the the nuclear explosion at Chernobyl, the US invasion or Iraq (Bazerman & Moore, 2017) or more related to our real estate focus, the 2008 financial crisis and the continuous existence of bubbles in real estate markets (Shefrin & Statman, 2011).

For specific real estate investments overconfidence could also be expressed by the believe that markets can be predicted. Inaccurate estimates of inputs in investment scenarios can explain the fact that markets do not react in ways that theory suggest they should. Also, if the believe is right that markets or property values can be predicted, how can you explain that not all investors choose to invest in the same portfolios? (MacGregor, Schulz, & Green, 2019). In regard to real estate investment overconfidence therefore can explain the difference between theory and actual outcomes, which is very much in line with the central research questions of this thesis.

Just as it being impossible to predict markets it is also nearly impossible to make an optimal decision where situations are complex or where information is not easily obtainable. Bounded awareness was introduced by Herbert Simon as a ''behavioural model (in which) human rationality is very limited, very much bounded by the situation and by human computational powers'' (Simon, 1983). Decision makers are always bounded by past experience but also up to the extend where they can understand and rationally interpret the world around them.

Dealing with complexity is being made even more impossible by the way that the human brain is programmed. The ability of the human mind to focus can prevent decision makers from seeing information that is available and important. The focus on the self and what is known for example leads to people always betting for the home team. In business this can lead to sub optimal outcomes such as paying far over market value for the takeover of a competitor or entering into competition where the business case is simple instead of preferring more difficult business cases where more rewards can be gained. (Bazerman & Moore, 2017).

Bounded awareness should also be considered in relation to politics. Voters often focus on issues that can be linked to practical outcomes instead of on bigger issues that essentially influence all outcomes such as campaign-finance reform in the US because the system is hard to fully understand (Bazerman & Moore, 2017). A political regime such as the European Union also cannot easily be fully understood, especially in relation to all the other institutions and markets that are connected to it. Taking into account that a human brain has limited capacities when it comes to understanding complexity the process is hindered by yet another layer. Real estate markets suffer from a similar complexity and therefore are also very hard to fathom.

Anchoring is a specific heuristic that looks at the ways in which initial conditions often have impact on decisions. The brain applies anchoring in two ways. First, it often develops estimates by looking at initial anchors which are based on information that was available to develop this anchor. It then computes a final judgement with this anchor as a reference case. The initial anchor was most probably not established based on rational decision making. The second application of anchoring is where the existence of an anchor leads people to think of information that is consistent with that earlier anchor and as a result other information is often overlooked (Bazerman & Moore, 2017). For real estate decision making anchoring often has implications when it comes to valuations or estimations of risk. Previous valuations can cause biases when appraisers ignore certain market information when esablishing values. This directly translates into market transactions that in their turn influence larger markets (MacGregor, Schulz, & Green, 2019).

The previous subchapters have dealt with the economic concepts that explain growth effects through regional integraton as well as with concepts that can explain differences between conviction and behaviour. The four concepts from regional integration theory will play a central role in answering if real estate professionals acknowledge that regional integration plays a role in investment scenarios and if real estate professionals also act upon this acknowledgement in their concrete decision making. The concepts will therefore also play a central role in the questionnaire that has been presented to the real estate professionals that work for internationally oriented investment platforms. Each inidividual concept and their connecting theoretical argument for explaining growth through regional integration will be translated to concrete theorem that measure conviction or to concrete investment decisions that measures behaviour. If a respondent confirms that they are in agreement with the presented theorem that will lead to conclusions on the explanatory validity of the presented theory. Where behaviour does not automatically follow from conviction the concepts from behavioural science can play a role in explaining this difference.

Before moving on to presenting the data gained after questioning respondents and experts, the next chapter will first present the used research methods in more detail and will offer considerations around sampling, and reliability and validity in research.

3.0 Methodology

This chapter provides a reflection on the methodological choices that were made and will further explain the methodology around survey research.

3.1 Survey Method and Scales for Measurement

To be able to explain the methodological choices for this research it is nessecary to keep the main goal as well as the central question in mind. The main goal for this research is to create an understanding about the relationship between politics and real estate investment. From that flows the question how real estate professionals connect regional integration to growth and if they also translate their convictions about regional integration into behaviour.

In essense, regional integration, or its practical application in the form of the European Union, is an abstract concept, meaning that an attempt is made to measure something which is difficult to measure. The topic is known and you can read about it, but it's influence perse cannot be observed. Only asking if someone believes if regional integration is connected to growth effects will not generate a deeper understanding of how the concept interacts in real world situations. For that reason this research works with structured data gathering through a translation of the abstract phenomenon in measurable concepts. The survey method will then take these concepts to perform measurements against the independent variable. The central questions are therefore translated into the below hypotheses to be able to further operationalise the research.

- *Overall scores on the (sub)variables will be significantly higher than the mean.*
- *Overall scores on the (sub) variables will be significantly higher than a score between neither agree nor disagree and somewhat agree (convicton) or between neutral and likely (behaviour)*

Questionnaires or surveys are often used when data is collected about people. (Robson & McCartan, 2016). Also, the method is most widely applied for measuring attitudes, opinions, feelings, thoughts and knowledge (Baarda, et al., 2017). Interviews could also serve as a method for measuring attitudes, opinions etc.. In this case the survey was chosen over interviews because it enables a researcher to gather information from more respondents. If there is a higher amount of real estate professionals that give insight into their convictions and behaviour, conclusions drawn from this data can be judged to be more widely representative. Aside to this, surveys are often more convenient for respondents, and cheaper and quicker to administer. Also, the data will not be influenced by interviewer effects or interviewer variability (Bryman, 2008).

Disadvantages of the survey are that respondents cannot be prompted or probed, and a researcher cannot easily collect additional data. Additionally, surveys can lead to misleading answers if respondents do not understand the questions and that can lead to a low response rate because respondents are unwilling or do not have time to participate (Bryman, 2008). These downsides do not, however, weigh up against the possibility to gather data from more respondents and to therefore gain a better understanding of the relationship between regional intergration (politics) and real estate investment. Where no valid conclusions can be reached due to the size of the population, i.e. if the response rate is too low, the deficiencies of the method can be offset against further data obtained via an expert panel. By having an expert panel do an indepth review of the conclusions coming from the suvrey data, those patterns that came from survey analysis can be subject to further review and discussion.

Operationalising or measurement was done via the Likert method. This method uses an ordinal scale where measurement is not performed in numbers but in logical sequence. This offers the opportunity to do quantitative data analysis (Baarda, et al., 2017). Aside to other methods for ordinal scale measurement Likert is particularly useful because it offers a possibility to measure conviction as well as behaviour. A 5-point Likert scale was chosen so respondents had options to choose from but would not be overwhelmed by the amount of answer possibilities. After reviewing the choices made around method selection a further insight is now provided into sampling and considerations around reliability and validity.

3.2 Sampling

Sampling, or selection of respondents, was firstly done by a clear demaraction of selection criteria. Only real estate professionals that worked for internationally oriented real estate professionals and that were involved in investment decision making for the European market would be legible to complete the survey. An extra test question was addad at the start of the survey to make sure this was really the case. Real estate professionals are generally not people that have a lot of extra time on their hands and their contact details are not openly available. Because of these reasons the best way to ensure reponse is to send a personalised message, preferably via email and otherwise via Linkedin, or to reach them via (network) organisations that have direct contact details on file.

The researcher works in logistics so chances are that that sector will be over represented in the sample. Also, an overly large amount of respondents that fit the criteria will be from the reseacher's own organisation. These potential sampling errors will be avoided by trying to get the European Public Real Estate Organisation (EPRA), the European Assocation for Investors in Non-Listed Real Estate (INREV), or the Amsterdam School of Real Estate (ASRE) to either dsitribute the survey under their members/contacts or help spread the survey on their social media channels. Other ways to avoid sampling error is taking extra care to select respondents that work with other asset classes than logistics and where the reseacher avoids selecting too many respondents from the own organisation.

Another thing to consider is the nationality of respondents and the European markets from which they operate. Considering that the research is conducted from the Netherlands and that the network of the researcher spreads mostly between The Netherlands, Germany and partly Asia, this will further lead to non-randomness in the sample. To be able to accomodate real estate professionals on a global scale the survey will be conducted in English, which could potentially lead to respondents not participating because they find it more difficult to complete a survey in a language that is not their own. However, more repondents will be excluded if another less widely spoken language was chosen for the survey. After considering decisions made around sampling, the next paragraph will consider the research set-up and method in light of reliability and validity.

3.3 Reliability and Validity in Research

Several choices have been made to make sure that the research is reliable and valid. Firstly, all survey thesises are of a closed nature so as to leave minimum room for interpretation. This closed composite construct is an approprate method for measuring concepts in real world settings (Baarda, et al., 2017). The method avoids deviation around concepts and insures that each respondent is faced with equal thesises when they provide their feedback. This way a similar way of measurement is in place for each of the two survey components.

Even if a survey is similar for every respondent, the possibility exists that respondents interpret the different thesises distinctly because they have a different interpretation or have different knowledge levels when it comes to the topics that are presented. To improve reliability regarding such possible situations an accompanying text is added in the survey to explain concepts such as the European Union and to provide guidance on how respondents should interpret and review the presented thesises. Also, a careful consideration was made about measuring conviction before behaviour. In each sequence the part that is first will always influence the part that comes second. However, if behaviour would come first there could be a stronger inclination to confirm what a respondent would already say they would do. To further improve validity, a test survey has been set up to be able to establish where respondents needed guidance.

The data that is gained through survey and expert panel research is directly connected to regional integration and behavioural science theory. Because measured concepts link directly to the theory, conclusions can be presented on how the theory stands in relation to convictions and behaviour of real estate profesionnals working in real estate investment firms. By way of measuring this relationship, an understanding is gained on the intermutual influence between regional integration and real estate investment.

Even though the set up of the research creates a direct relationsip between theory and data, true consistency in measuring is difficult. A respondent could have just seen a news item on the European Union and will therefore be inclined to intrepret the presented cases differently than he or she would have done if they would not have seen the news item. Random experiences such as these lie outside of the influence of the researcher and will have to be accepted for the sake of the feasibility of the research.

Considering the above deliberations to improve the reliability and validity of this research it is important that the real world nature of the research is not forgotten. Each respondent will have certain conceptions around the presented topics which have been formed over years of information gathering and experiences. This process did not take place in a vaccum and real estate professionals tend to, as was already stated before, come from backgrounds where they have higher likelyhoods to be exposed to certain streams in education as well as specific political inclinations. It is wise to be aware of the way this will influence the validity of this research as it will any real world research set up.

The motivation for this research, the accompanying theory and considerations about method and methodological choices have made up the first part of this thesis. The next chapter will move on to the more practical part, being the presentation and interpretation of the data.

4.0 Survey Research

This chapter will present the data gained through survey and expert panel research. The data was gathered between Friday 24 September 2021 up to Friday 12 November 2021 (survey) and on 10 December 2021 (the expert panel session). The data gained from survey research has been made subject to difference testing. This was done for the both parts of the survey (conviction and behaviour) and further difference testing was performed between the different groups that have responded to the survey. The final part of the chapter will handle the open questions from the survey, which will further serve to gain a more indepth understanding of the relationship between real estate investment and regional intergration. This understanding will additionally be deepened by the inclusion of the interpretation of the data by the panel of experts, which will be presented throughout the chapter. Before the conclusions from the survey and expert panel can be presented, the next two paragraphs will first treat the distribution of the survey and the resulting response rate as well as respondent profiles.

4.1 Distribution and Response Rate

Before distributing the survey, the European Association for Investors in Non-Listed Real Estate (INREV) and the European Public Real Estate Association (EPRA) were contacted to see if they were willing to distribute the survey among their members. Unfortunately both organisations did not want to cooperate. This led to a situation where the possibilities for distribution among the selected population were slimmer than previously anticipated.

At the start of distribution a message was posted on the researcher’s private LinkedIn page asking respondents that met the criteria to fill the survey, plus all relations were requested to share the researcher’s post on their own LinkedIn pages. The message was indeed shared further on multiple occasions. A post has also been placed on the open LinkedIn group VastgoedProfessionals which has over 13,000 members.

After initiating an open message approach via social media the researcher has directly contacted 52 contacts from either the reseracher's private network or through the networks of colleagues and relations. This was mostly done via email. Where an email address was not available respondents were approached via direct messaging on LinkedIn. A setback incurred during distribution in the form of the realisation that a Linkedin Premium account does not offer unlimited direct messaging of relations that are not direct contacts on LinkedIn. Upon encountering a low reponse the plan was to approach as many profiles that met the selection criteria cold, meaning to approach them with a direct request to fill the survey without having an established relation through a network. The 15 credits received from LinkedIn were partly used to approach contacts obtained through networks. After that, only 6 credits were left for cold distribution. All 6 leftover credits were used. This led to the following result:

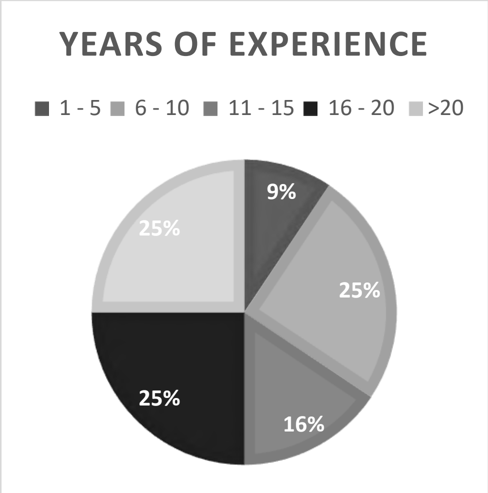
Approached directly	Open messages (estimation)	Responses received	Usable responses for conviction	Usable responses for behaviour	Response rate
58	50	43	32	31	~30%

Source: author’s own creation, 2021

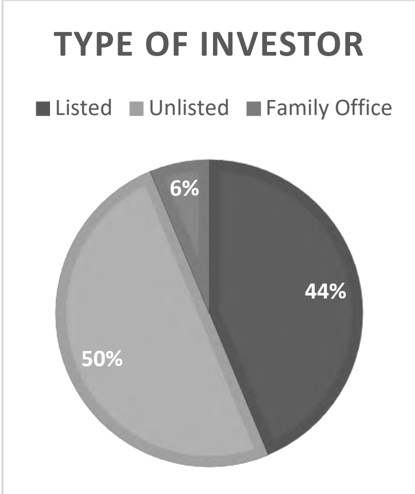
The response rate lies right above the 30% mark. Notwithstanding, a total of 32 suitable responses is very low, especially when one would like to draw conclusions based on statistical methods, such as difference testing. An absolute minimum response rate of 30 is mentioned as needed for difference testing of T-testing in the methods manual by B. Baarda et. al, ((Baarda, et al., 2017). To be able to make up for the low response rate an expert session was hosted to be able to offer more indepth analysis of the data gained from the survey. The full transcription of the expert session can be found in Annex 4 to this thesis.

4.2 Respondent profiles

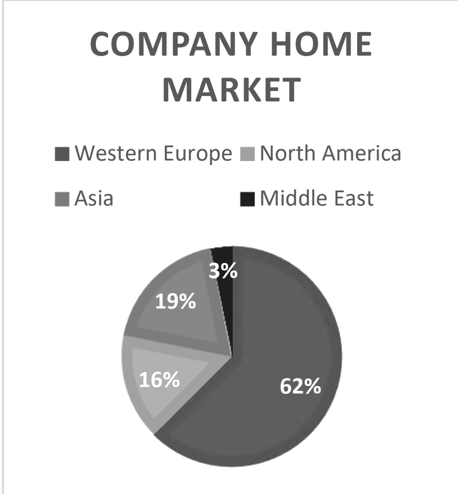
Respondents were asked to provide information on their function titles, where they bere based, what type of investor they worked for and so on. No personal data such as names and the names of the organisations were asked to keep the survey anonomous for privacy purposes. The disclosed function titles show that most respondents were on Management (mostly heads of departments) or even Management Board level (CEO, CFO etc. which made up 17 out of 32). Next to this there were several Portfolio Managers, Research Analysts and Investment Managers in the dataset. The following graphs provide further insight into the respondent profiles.



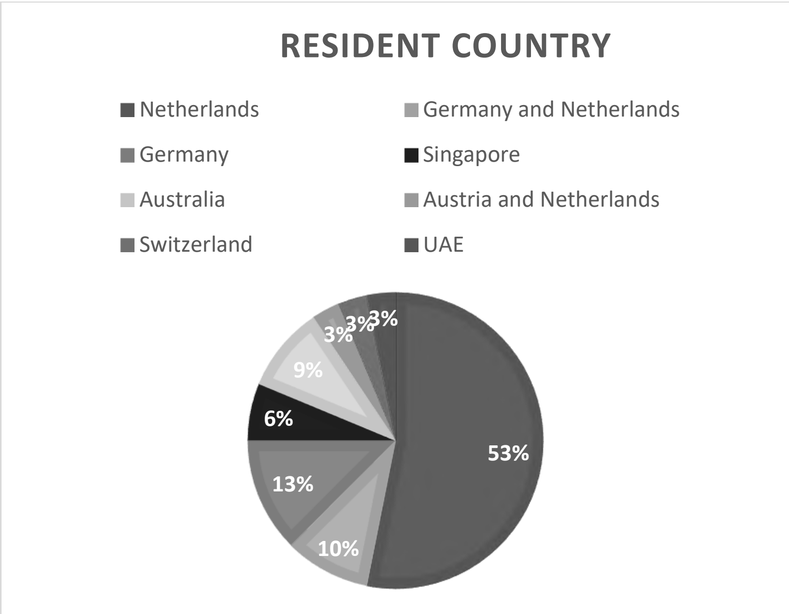
Source: author's own creation, 2021



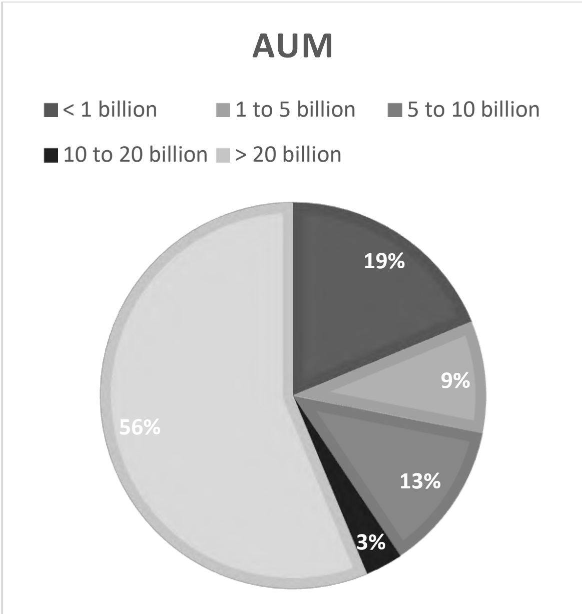
Source: author's own creation, 2021



Source: author's own creation, 2021

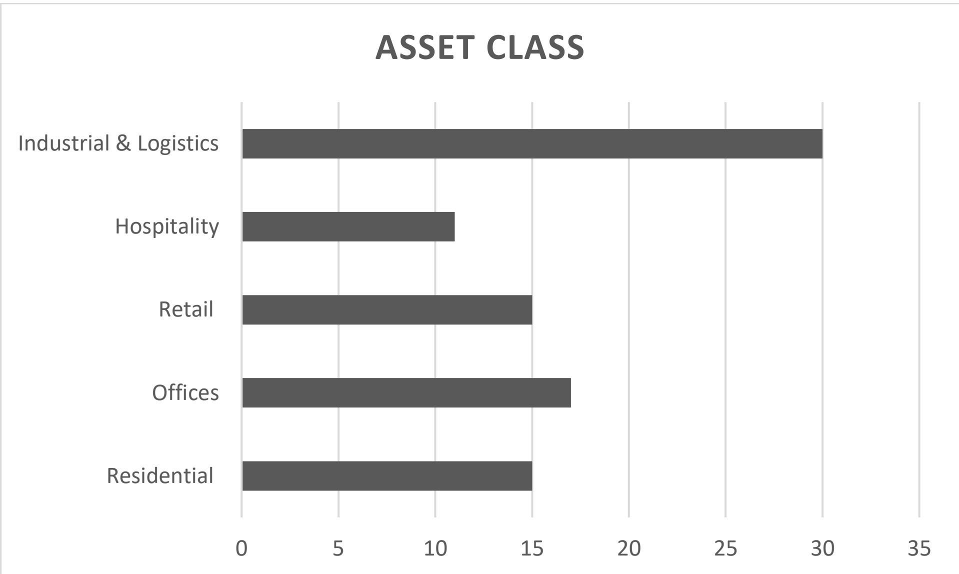


Source: author's own creation, 2021



Source: author's own creation, 2021

Additionally the below graph is an overview of the real estate asset classes that the respondents are active in. Respondents were able to select multiple categories for this question.



Source: author's own creation, 2021

The experts that have been so kind to share insights in relation to the presentated findings were Mr. Lukas Linsi PhD, Assistant Professor of International Political Economy at the Rijksuniversiteit Groningen, Mr. Hans Op t Veld, Head of Responsible Investment at PGGM and Research Fellow for the Amsterdam School of Real Estate and Mrs. Wanshi Zheng, Group Chief Strategy & Planning Officer at Frasers Property. Experts were selected based on their backgrounds and experience, but also to create a mix of expertise in science and in practice. The following section is a presentation of the findings that were obtained after data analysis were performed over the data obtained from the survey supplemented by the insights provided during the expert session.

4.3 Hypotheses Testing for Conviction

The next paragraphs will present the data and will test the central hypotheses. To be able to determine if the hypotheses are correct, a mean was calculated for each statement as well as for each set of statements that referred to the same (sub) variable. This mean was then subjugated to difference testing, or a one paired T-test to see if the scores deviated significantly from the score set in our hypotheses. A T-test is a widely used technique to be able to compare two means or to be able to compare scores between groups (Robson & McCartan, 2016).[1]

When the first hypothesis was tested for the measurements on conviction (part one of the survey) all statements were significantly above the mean except for statement two, eight, nine and ten. Statement two offered a direct relationship between achieving more optimal business transactions in the European market and the existence of the European Union. Eight, nine and ten were all the included statements related to the transaction costs and internal inefficiencies variable. The following table includes all statements that did not score significantly above the mean.

Number	Concept	Full Statement	Mean	T-score
2	Regional integration	A Real Estate investor can achieve more optimal business transactions in the European market because of the existence of the European Union	3,188	1,063
8	Transaction costs and internal inefficiencies	Transaction costs are lower for real estate transactions within the European Union	2,781	-1,269
9	Transaction costs and internal inefficiencies	Less time and money is wasted in real estate transactions because of the existence of the European Union	2,906	-0,571
10	Transaction costs and internal inefficiencies	When I compare it to other markets, real estate investors operating in the European Union need to spend less money on corporate costs and personnel or government tariffs and tax	2,719	-1,869
11	Transaction costs and internal inefficiencies	Overall, I believe that the European Union has led to long-term lowering of transaction costs and internal inefficiencies that will keep benefitting real estate investors.	3,000	0,000

Where the second hypotheses was subjected to T-testing three out of four (16, 17 and 18) statements on the policy credibility variable scored significantly over a score between neither agree nor disagree and somewhat agree. For the other variables there were two out of four (4 and 7) statements on economies of scale that scored significantly higher than a score between neither agree nor disagree and somewhat agree and only one out of three (14) statements on knowledge spillovers scored significantly higher than a score between neither agree nor disagree and somewhat agree. All statements that meet the criteria of the second hypothesis are presented in the following table:

[1] The full data set from survey software tool Qualtrics is too large to add as an annex to this thesis (if desired it can be obtained directly from the researcher). A simplified version of the scores per statement (scores, means, standard deviations and T-scores) has been added in Annex 2. For the purposes of explaining the findings parts of the scores will be presented individually throughout this paragraph. The data analysis part will revert to statement numbers. For the full statements readers can revert to either Annex 1 with the survey set up or Anex 2 which includes the survey statements as well as all the relevant scores.

Number	Concept	Full Statement	Mean	T-score
4	Economies of scale	Market enlargement through the European Union has led to more investment opportunities for real estate investors	4,000	3,215
7	Economies of scale	Overall, I believe that economies of scale have led to long term growth effects for the European market which benefits real estate investors operating in that market	3,906	2,475
14	Knowledge spillovers	Overall, I believe that the European Union creates more favourable long term circumstances for foreign companies to settle and bring knowledge, capital and equipment.	3,938	3,699
16	Policy credibility	The European Union acts as a vehicle through which political risk can be mitigated. This benefits real estate investors and their operations in the European market	3,906	3,906
17	Policy credibility	Harmonization of national policies through the European Union will make it a more stable market for real estate investors to operate in compared to other markets	3,906	3,906
18	Policy credibility	I believe that the existence of the European Union will lead to more policy credibility in the long term	4,000	4,000

The pattern detected is that the variables that predict growth effects through regional integration attain different scores when they are connected to the existence of the European Union. Policy credibility is certainly the outlier towards the positive, followed by economies of scale, then regional intergration as a general concept, then knowledge spillovers and lastly the lowest scorer, transaction costs and internal inefficiencies.

The low scorers on the relationship between optimal business transactions in the European market and the existence of the European Union was also discussed by the expert panel. A first possible explanation provided was related to associations made by real estate professionals between the EU and other factors. What is known about the EU is often transmitted via newspapers or other media. Following from this the impact of the EU on the transaction market is also not widely advertised and therefore those that are active on the real estate market will not always recognize this impact. Therefore, a direct association between growth effects on the real estate market and regional integration is not that what comes to mind when people think about the EU. Elements like bureaucracy and the problems coming forth from that might be more top of mind. Besides, it is not easy to compare today's reality to the ninenteen seventies and therefore benefits are not always seen in relation towards how it used to be in the past.

A central element in this explanation is heuristics. Not knowing because of complexity and therefore only acting on that what you do know is common for investment decision making. For this reason decision making does not always result in the most optimal outcome. This explanation ties back in with the theoretical concepts presented under the behavioural science part of the theoretical chapter. Further support to this analysis is also to be found directly in science. Researchers Kraussl and Mirgorodskaya for example found a causal relationship between media sentiment and global market returns in a 24 months timeframe. Pessimistic media sentiment tended to exert a downward pressure on global market returns and and upward pressure on global market volatilities (Kraussl & Mirgorodskaya, 2014).

Another factor explaining this result is the way of looking at an optimal real estate transaction. Practitioners will look at individual transactions and local legislation. On top of that return scenarios are often leading when trying to make sense of economic growth prospects. Even though one could say that the EU is definitely one of the factors that is making investments attractive, it is not top of mind when making investment decisions for individual transactions.

When explaining the lower scores for transaction costs and internal inefficiencies the experts sought their explanation is the complexity of the environment real estate professionals are faced with. Diminished transaction costs and internal inefficiencies are hard to translate into practical benefits. Also here it would be difficult to compare to a situation before the existence of the EU. Many practicioners will not have been around and will therefore not recognize the growth effects coming from this variable for the European market. Therefore, even though overall cost associated with doing business or transactions is most probably lower than it would be without the EU, this will not be rezognized as such.

Additionally, unclarity around the reference point caused by the phrasing of the statements could have led to confusion and therefore to lower scores.

Looking at the positive outlier presented, policy credibility, the panel of experts found an explanation in the need for stability in combination with the asset class. Real estate knows a long time horizon and therefore a sense of stability and transparency. To some degree harmonisation is also needed to provide clarity to investors. Following these higher scores a paper by Julia Grey advocates that where Brussels approved the policy reform plans for the former Soviet states before entering the EU, decreased expectations of default risk were observed in the financial markets (Grey, 2009). This relation between policy credibility and financial markets can also have effects on variables such as (sovereign) debt and appearances of overconfidence causing financial crises. The former is directly linked to real estate in the influence it has on valuations.

During the discussion Ms. Zheng shared that a break of the EU was marked as a clear risk for the investor where Ms. Zheng is Group Chief Strategy and Planning Officer. Taking into account the recent events around BREXIT, the possibility of a further breaking up of the EU will most probably be top of mind with other internationally oriented investors as well.

To sum up our findings regarding real estate professionals believing that regional integration through the European Union leads to growth effects, the conclusion can be drawn that scores were significantly above the mean but less so if tested if they were significantly above a score between neither agree nor disagree and somewhat agree. Furthermore, scores indicate that there are differences in the ways that real estate professionals think that the presented variables lead to growth effects in the European real estate market. The link between growth effects and policy credibility for example is much more acknowlegded than the link between growth effects and transaction costs and internal inefficiencies. To be able to see if behaviour follows convictions the same hypotheses have been tested for the data set obtained from the second part of the survey. The next paragraph will present the obtained results.

4.4 Hypotheses Testing for Behaviour

Both hypotheses were also tested for the statements on behaviour (part two of the survey). Overall, there were less statements that scored significantly above the mean or a neutral score. Where they did, however, we again see a similar pattern appearing when the scores of the different variables are offset against each other. Policy credibility is again a high scorer with three out of four statements coming in significantly above the mean (15, 16 and 17). Economies of scale and regional integration as a general concept score in between and transaction costs again scores low, but not so low as knowledge spillovers with an average mean that is just above a neutral score.

There were only four statements that had a T-test result significantly above a score between neutral and likely. Statement 4 and 5 were on economies of scale and the other scores were the questions that tested if respondents were likely to investigate (or research) transaction costs and internal inefficiences (8) or policy credibility (15). The former paragraph has already offered some insight into policy credibility as a high scorer. After measuring the likelyhood of acting in accordance with the presented situations knowledge spillovers has now come in last as the variable with the overall lowest score. The statements that met the second hypothesis are presented in the table below:

Number	Concept	Full Statement	Mean	T-score
4	Economies of scale	When conducting a feasibility study for real estate I investigate market size (amount of potential buyers, tenants etc.)	4,484	9,613
5	Economies of scale	I accept lower yields for investments in larger integrated markets	3,935	2,430
8	Transaction costs and internal inefficiencies	When conducting a feasibility study for real estate I investigate transaction cost and expected internal inefficiencies	4,452	8,492
15	Policy credibility	I investigate the credibility of a political regime when conducting a feasibility study for real estate investments in a particular market	4,355	7,826

The lower acknowledgement of a relationship between knowledge spillovers and growth effects on the European real estate market was also reviewed by the panel of experts. Competitiveness of a labour market was marked as just one of the many factors at play for individual real estate transactions. Although it might be relevant for M&A activities or opening up of new offices the effect on an individual real estate transaction is much less observed in the overall local demand and supply dynamics. Also, since real estate is still very much a local business where knowledge of local players, rules and regulations are key, the amount of spillovers that are beneficial to this particular market might be less than for other markets. Adding to that, the specific property type could be of importance here as well. When considering to acquire offices an analysis of the labour market is more beneficial than in a case where an investor considers to buy retail.

Next to the different levels of scoring between the different variables another pattern emerged during analysis of the results on behaviour. The survey was set up in such as way that for all sub variables of regional integration the questions were similar, just the presented variable was different. If you compare means along the similar questions there was a clear order on which questions scored higher and which ones scored lower. The higest scorers were the questions where respondents were asked if they would investigate a presented variable for an investment case. The result was a combined mean just over likely (4,06).

When respondents were asked if they would accept lower yields because of the existence of a presented variable via the EU the scores already dropped to a combined mean between neutral and likely (3,5). Where practical choices needed to be made (adapting your moddeling or choosing an investment within the UK over one outside of the EU) because of the existence of the presented variable in the EU, scores dropped to a combined mean just above a neutral score (3,09). The lowest scorers where definitely the statements where respondents answered to the likelyhood if they would choose an investment in the EU over one in the UK because of the growth effects that a certain variable has in the EU. There the average score was just below the mean, or a neutral score (2,99).

The expert panel had a look at this pattern and came up with several possible explanations. First of all there was overall agreement that investigating something is always a win. There are no consequences if you do it, only if you do not and besides, most real estate professionals know how to do it. The opposite would be to go blindly into an investment which is most probably not desired and not possible because of existing company procedures that are in place. Worth noting here is that not all professionals have the skills to take a next step. A certain level of traning and proficiency in econometrics is needed before factors can be properly isolated in modelling. Not all professionals that make investment decisions have this type of background.

Making the decision to actually factor in lower yields or to choose EU investments over other investments because of growth effects caused by our regional integration variables in the EU seems wise, but is it? Where a real estate investment is primarily an economic decision do you want your employees to factor in political risk that strong? Risk should already be translated in market yields and therefore adapting yields even more would be to take a double discount on them, which means adding a booster to justify an investment which can lead to miscalculation. Adding to that, the rationale for an investment is not purely a risk profile. Many investors have liabilities in certain environments and for them it makes more sense to over allocate to that same region to keep a clean balance in their liabilities. As a final point the degree of freedom in allocation of assets is also often limited. It is wise to keep in mind that even in professionals would want to allocate investments in a certain direction this is often not possible because they are restricted by guidelines. These could of course be subject to biases and what not, but that does not mean that these restrictions are not in place.

After this section some additional findings will be presented that were uncovered via difference testing between groups (two sample T-testing). Before diving deeper into that, there is one more outlier that stood out clearly in the data sets on both conviction and behaviour. All statements where respondents were asked if they were likely to prefer an investment in the EU over one in the UK due to growth effects caused by the central variables the scores were around the mean or even under the mean. Now BREXIT has actually taken place the UK is therefore still seen as an attractive investment market because respondents indicated that the absence of growth effects through regional intergation concepts does not make a UK investment less attractive in their eyes than one in the EU.

Consultation of the expert panel provided some possible explanations. First of all the fact that BREXIT has taken place probably proved beneficial for the real estate market. The doom scenarios where most of the financial sector was going to trade in London for Paris, Frankfurt or Amsterdam have not come true. Uncertainty spooks investors and now that the dust has cleared the market will be less affected by over discounting. Even when there is a belief that the UK should now be inherent to more risk, risk in a negative direction is often preferred over uncertainty. The behavioural science concept of bounded awareness and the human brain's inability to deal with complex matters fits well with this explanation.

Another behavioural science concept that support the further expert views is anchoring. Before BREXIT the UK was already an established investment market especially for liquid investments. As in investor you are likely to already be invested in this market and it would therefore incur difficulty and cost to rid yourself of these positions. At the moment UK investment are also supported by the current attractive exchange rate on the pound, the attractive returns the market can offer and the structural support there is for certain asset classes. The demographical outlook in the UK is more attractive than for some European nation states. If the political outcome can go either way and other factors point towards positive returns why not be guided by those factors that are certain instead of by those that are not? Again, bounded awareness will often guide in this particular direction. After having reviewed the relevant outcomes related to the hypotheses the next session will offer further insight into the data by means of difference testing between groups.

4.5 Difference Testing between Groups

The dataset has been subject to further analysis via difference testing between groups, or two sample T-testing. Via this technique it has been tested if respondents from different groups in the sample have given siginificantly different scores on the presented statements. For the first difference test the data set was divided in a group that has their home market in Western Europe and a second group where the home market was outside of Western Europe. For this group no significant differences were found for any of the statements related to conviction, meaning for the first part of the survey. For the part of the survey that measured behaviour several significant differences were found.

Five out of eighteen statements (3, 7, 11, 15 and 18) had a T-score that indicated a significant difference in how the two groups responded to the statements. Real estate professionals with a home market in Western Europe were more inclined to choose investments in the EU over investments in the UK than real estate professionals with a home market outside of Western Europe. When respondents were asked if they would investigate the credibility of a political regime when conducting a feasibility study for real estate investments in a particular market there was also a significant difference in how the two groups responded. The real estate professionals with a home market in Western Europe responded that they were less inclined to indeed investigate in the presented situation. Below a table that includes the statements that showed a significant difference between the groups divided along home market.

Number	Concept	Full Statement	T-score
3	Regional integration	If all other considerations of risk and return are equal, I prefer an investment in the EU over an investment in the UK now that the UK has left the European Union	2,263
7	Economies of scale	UK investments have lost monetary value now they are not part of a larger integrated market anymore	2,761
11	Transaction costs and internal inefficiencies	If all other considerations of risk and return are equal, UK investments always have less value than investments within the European Union because they are subject to trade tariffs and exchange rate risk	3,222
15	Policy credibility	I investigate the credibility of a political regime when conducting a feasibility study for real estate investments in a particular market	-2,451
18	Policy credibility	If choosing between two countries with equal risk and return expectations I choose an investment in the European Union over an investment in the UK	2,892

For the second set of two paired T-testing, the dataset was divided into respondents working for listed real estate firms and respondents working for non-listed real estate firms. The survey had a third category (family offices), due to the low amount of respondents that selected that category the data for these respondents were left out of the test. The tests again only showed significant difference between the responses of the two groups for the statements related to behaviour. It turned out that real estate professionals working for listed real estate investors are less inclined to choose investments in the EU over investments in the UK because of growth effects caused by the presented variables. This time only statement 3 and 7 showed a significant difference between the responses of the two groups. The same group was also more inclined to investigate transaction costs and expected internal inefficiencies (statement 8) and also less inclined to offer lower prices in the EU because spending could be offset against less overhead (statement 10). Below a more detailed table of the statements that showed a significant difference between groups divided per type of investment firm.

Number	Concept	Full Statement	T-score
3	Regional integration	If all other considerations of risk and return are equal, I prefer an investment in the EU over an investment in the UK now that the UK has left the European Union	-2,973
7	Economies of scale	UK investments have lost monetary value now they are not part of a larger integrated market anymore	-2,831
8	Transaction costs and internal inefficiencies	When conducting a feasibility study for real estate I investigate transaction cost and expected internal inefficiencies	2,000
10	Transaction costs and internal inefficiencies	I am willing to offer a larger purchase price for an investment in the European Union because I can compensate that through lower spending on overhead in that market	-3,247

These difference tests were also commented upon by the panel of experts. The significant differences in response between professionals with a home market within Western Europe versus those that have their home market outside of Western Europe was dedicated to familiarity or home bias. Those investors who have their home market in Europe are more familiar with the market and familiarity is attractive when making investment decisions. Therefore, they would also have less need to investigate market dynamics because they might be already familiar with the things they would like to or need to know. This familiarity or home bias again fits in with the set of concepts from behavioural science that was discussed in the theoretical chapter. Investment decisions are often subject to heuristics that influence actual decision making, whether it comes from what is known from the past (anchoring), skipping steps because of complexity or making decisions based on a believe that you can predict a market (over confidence). All of these concepts can explain the found results.

For the second set of sub groups (real estate professionals working for listed or for non listed real estate investors) it is important to keep in mind that the perception of both groups is different. Both are guided by their own set of interests which is again in line with predictions made in behavioural science theory. For a listed real estate investor relative valuation is perceived differently because of short term interests that are more important for this group. Because of the need to present results earlier in the future the time horizon for this group of investors is just different. Looking at the UK the peformance differental therefore may fit in better with this shorter term outlook.

It is important to note that there are also differences between listed real estate investors as a group. Real Estate Investment Trusts (REIT's) can have a risk appetite that is relatively lower to that of other listed investors because of their additional need to distribute stable growing income next to the need of providing attractive annual returns for their investors. Also here it is worth to mention that the dataset is not extensive. Therefore, these results are subject to scrutiny. A larger dataset could more comfortably confirm such findings. However, the differences found are interesting in light of how the real estate sector functions in concurrence with regional integration and the other theoretical concepts that are a central part of this thesis. The overall discussion of the reasons why certain results were obtained already contribute to the main goal of the thesis, which is to expand on the understanding of the relationship between the presented concepts.

The main focus of the survey consisted in investigating conviction and behaviour, measured via the Likert scale. Supporting that, there were some additional questions supplementing the main themes for the research. The next paragraph will present the data obtained via these additional questions and will offer further analysis on the patterns obtained in relation to the central questions.

4.6 Additional Data from Open Questions and Further Analysis

To provide respondents with a bit of variety in the survey, respondents were additionally probed with a set of mostly open questions related to the relationship between the EU and real estate. When asked where they saw the biggest advantage of the EU for the real estate sector, earlier results were supported. Stability, harmonization and uniformity in standards and regulations were often mentioned. Additionally, the common currency was mentioned by several respondents as the biggest advantage. The stability argument was also part of the result on a question where respondents were asked to sort factors of political risk in terms of relevance. The factors respondents could choose from were (trade barriers, political instability, financial regulation, currency risk, taxes and legislation.

With a mean of 1,86 political instability was definitely put first place by our respondents. Financial regulation and taxes only followed suit with a common mean of 3,45 on average. Legislation was put fourth, trade barriers fifth and currency risk sixth. Going back to one of the comments of the experts, it is very hard to underwrite policy. The same expert also stressed that investors are at least always looking for stability. The importance of stability for the real estate investment market is therefore acknowledged in the core part of the data but again in the supporting questions. Where the EU is able to offer stability that contribution is indeed important, or maybe even most important for the real estate investment market as well as for other investment markets.

In another supporting question the investors were asked to offer further thoughts on the EU versus the real estate investment sector. From the answers it was apparent that respondents focused on areas where they felt there is room for improvement. Existing harmonisation was often brought forward as a base for further integration and room for improvement was often suggested for policy terrains such as tax regulation, but the climate and digitalization were also policy terrains that were earmarked for further harmonization. Lastly, the need for more transparancy in the political process was offered as a proposition for improvement.

The last open question asked respondents to explain why the EU was part of previous investment decisions. Since it was the last question of the set and response was not obligatory, overall response was not high (only 7 out of 31). In the offered responses reference was made to local markets vs the EU. Following this line of thought it is indeed so that individual investment markets are of smaller scale than the EU, just like the individual investment scenario's that were already touched upon in earlier paragraphs. Therefore, it could be said that the individual markets might be more top of mind than this large political concept that plays a role on an overarching and complex level. This further raises the question if the professionals should indeed have their focus on that individual investment case or on that individual market. This question was also put forth to the panel of experts.

The experts advocated that a need to look wider is very much linked to the role of a real estate professional. Someone in a deal sourcing role has a definite need to know the market but he or she does not need to know what happens outside of that market if he or she is also not active there. For those organisations with a wider footprint and diversified portfolios there is a need to have the relative view and it is also important to know how to counterwrite it. At the end of the day investments are made by people and people are always exposed more to local influences and knowledge. This in itself will create a bias. Being aware of this bias is important. If not, it could lead to the assumption that things are the same elsewhere and this is often where investors get burned. Rules and regulations are not the same just because you are part of the EU even though many spheres of influence have already been harmonised. In line with this, one of the experts advocated the need for international businesses to have ongoing conversations about this very topic. Awareness supplemented by a continuous exchanging of views and ideas can improve the performance of people and companies.

Scientific work by Pankaj Ghemawat complements the ideas set out in the former paragraph. Mr. Ghemawat's scientific work treats the elements involved when business expand to foreign markets. These ''impacts of distance'' can exist in the form of cultural differences, administrative and political distances, gregraphical distances and economic distances. The more countries differ on each of the listed aspects, the riskier the target market. The need for businesses to be more rational when it comes to expansion decisions and the need to do a thorough analiysis on all the factors that impact distance are also central to his argument (Ghemawat, 2007) (Ghemawat, 2001).

Going back to the central question. Do real estate professionals working for international real estate investors acknowledge a relationship between the EU and growth effects on real estate investment markets? And do they also translate this acknowledgement into action when they predict investment scenarios for the European market? This will require a final analysis on conviction versus behaviour. Statistics can offer methods for analysis where two sets of questions can be compared against each other leading to arguments for or against a difference in scoring. To be honest, the response rate for the survey is just too low for these methods to be able to come to viable conclusions. A simple mean comparison between the two elements offers a slightly lower overall mean for the behavioural part (3,51 versus 3,42) but this difference is not wide enough to lead to yes or no conclusions in answer to the question if conviction on certain concepts also leads professionals to act in compliance with them. Also, when you measure conviction you measure something different then when you measure behaviour. The statements could therefore never measure a variable in a similar way, which would automatically lead to objections in terms of the statements measuring the same thing and if you can compare them one on one.

What can be said in terms of conclusions is that statistical analysis has shown that our group of respondents have answered significantly over the mean but further difference testing with reference to a score between the mean and one step higher on the five point scale this significance could not be linked to all the statements. Also, clear patterns emerged where some variables of regional integration obtained lower ratings than others. Outliers were definitely policy credibility towards the positive and transaction costs and internal ineffciencies as well as knowledge spillovers towards the negative. When measuring behaviour in itself all statements where respondents had to indicate if they would prefer the EU over the UK because of the presented growth effect variables were low scorers. Difference testing between groups also led to some interesting conclusions, but again only when it related to measurements on behaviour.

Reference is made to the real world character of this research. Statistical analysis can lead to insights into one measured variable towards another but at the end of the day a survey deals with people, who's opinions are constantly changing due to external influences. Also, can you validly conclude that what people say they believe and what they believe they will do translates directly to outcomes on the real estate investment markets? A suggestion made in the expert panel was to supplement the data obtained by data on what is actually done. In other words, you add a third level where you measure what people believe, then what people say they would do and thirdly, you will add a layer in which you measure what is actually been done. This is a research in itself and will certainly add a lot more depth and understanding to the topics that are the focus of this research. However, this will not be possible due to limitations set in terms of achievability. Perhaps, one day in the future this will change and the suggested follow up to this research can be executed. It will certainly be an interesting addition for the science of real estate.

This chapter has put forth all relevant findings from both the survey and the complementary expert panel session. The next part will be a disquisition of the central findings and a reflection on the insights gained and how they have come to be. Finally, the findings will be set alongside the bigger picture.

5. Conclusion and Discussion

Survey and expert panel research have tested if real estate professionals acknowledge a relationship between growth effects achieved thourgh regional integration and European real estate investment. Additionally it was tested if this acknowledgement alse leads to concrete investment decision making.

5.1 Conclusion

From the data analysis performed over the results of the survey it can be concluded that for the conviction part of the survey all statements were significantly above the mean except for a statement that declared that investors were able to achieve more optimal business transactions in the European market because of the existence of the European Union and all statements that connected transactions costs and internal inefficiencies to growth effects on the European real estate market. Further analysis, also from the expert panel, sought the explanation for these results in the way real estate professionals are exposed to information about the EU and the difficulty in translating a complex concept such as transaction costs and internal inefficiencies into practical benefits for a real estate investor. Heuristics are therefore part of the explanation for these outcomes.

When the conviction part was tested for the second hypothesis only the variable policy credibility had scores significantly above the hypothesised mean. Rationale for this variable scoring so high is that stability is important for investors. For the behaviour part of the survey less statements were significantly above the mean but policy credibility was again a high scorer. The lowest scorer was in this case knowledge spillovers. Explanation for this score offered thoughts on the relevance of knowledge spillovers for individual real estate transactions versus for example M&A investments. The asset class not being part of the measured statements could also have had some influence on how this was scored. For the second hypothesis there were only four statements that scored significantly above the set goal. These statements related to economies of scale (2x), transaction costs and internal inefficiencies and policy credibility. Mainly the statements related to investigating a variable made up the high scorers.

The buildup of the behaviour part of the survey showed a further pattern in that statements that asked about to likelyhood of investigating a variable always scored higher than statements that asked about the likelyhood of adapting yields or choosing an investment in the EU over another investment outside of the EU when other risk and return predections were equal. This was especially the case when statements put the UK against the EU as an investment possibility. Behavioural science concepts are part of the explanation for this outcome but other risk factors weighing heavier than political risk, such as a rationale for not taking double discounts on yields and the current inherent traits of UK investment scenario's can also explain these outcomes. Where external phenomena explain the Likert scores they were also part of the suggested explanation for the outcomes that were obtained for difference testing between groups. In a similar manner concepts from behavioural science or heuristics surround the analysis and accounts around these scores.

5.2 Discussion

In hindsight the chosen methodology, or more specifically the responses received after distribution of the survey, has not achieved the desired outcome in terms of a valid response rate. The specific profile of respondents made the reachable population smaller, however, with the help of external parties a higher number could still have been attained. In this instance the network of the researcher became the single main source of distribution, which has made any conclusions drawn from data analysis less valid from a scientific point of view. Survey data complemented by the expert session which was hosted additionally has in the end still led to deeper data analysis and conclusions.

When answering if after analysis of the above it can indeed be said if real estate connect phenomena of regional integration to growth effects on the European real estate markets and if they also take these growth effects into account while making investment decisions for these markets the answer is complex, just like the environment and the actors under study have been complex due to the real world nature of the study. Yes, the overall inclination was to connect growth effects to variables that make up regional integration because the bulk of the scores were significantly above the mean. However, this was not the case if the set goal was in between a mean score and a higher score level. Only a smaller number of statements obtained a significantly higher score than the set goal in the second hypothesis.

Following this line of thought, a clear cut solution to the problem has not been offered but that was also not the goal of this research. The goal was to widen the understanding on the relation between the political environment and investor decisionmaking. Data analysis has included many topics and factors that surround the central problem and offered insight in how all the presented variables, concepts and deliberations made for investment decisions are interlinked. This in itself is a contribution to both science and the practice of real estate investment. In line with this argument it makes sense to again put forward some thoughts on the main lessons learned and on how they can be of value.

This research started by presenting a relationship between the political environment and the economic environment. For those that have the ability to influence the relationship between the two environments, for example by making investment decisions for real estate investments, it is important to be aware of the relationship and to also understand the relationship between the two worlds. Because of the complexity of the established relationship however, this is not something that is achieved in a natural manner. One has to be aware of the relation, study and analyse it to be able to understand it better. This can for example be done by making it a topic of conversation within internationally oriented business for all layers concerned.

In line with the former paragraph, having an understanding of heuristics in investment decision making is also beneficial towards achieveing more optimal outcomes. Throughout the analysis the concepts of behavioural science theory played a central role in explaining how the phenomena under study were connected. Investment decision making is not a rational practice. It is always influenced by the workings of the human brain, natural human reaction when faced by certain problems or by external factors. In itself these external factors have been the main frame that was sketched around real estate investment, in that they helped understand the relation under study. This study became not just about connecting politics and economics or about agreeing with something. In the end it also became about all the additional factors that surrounded and influenced the topics under study in their own way and helped explain the relationship between regional integration and real estate investment.

6. Literature

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7. Annexes

Annex 1: Survey Setup

Topic	Question	Scale of Measurement
Introduction	Welcome and thank you for participating in this survey.	
Aim of the Survey	The aim of this survey is to measure how the European Union is perceived by professionals in the real estate investment sector and how the European Union is incorporated in practical investment decision making. The results from this survey will be published in a freely accessible Masters Dissertation for the Amsterdam School of Real Estate. The following two questions aim to confirm that you meet the respondent criteria and will register your consent for data usage.	
Test Question I	I work for an internationally oriented real estate investor and make investment decisions for the European market.	
Test Question II	My Function (Title) is:	
Test Question III	How many years have you been working with real estate investments?	
Data usage	All data that is obtained through this survey will be treated anonimously and will be kept confidental. Aside to this, all data will be exclusively used for the purpose of a Masters Thesis at the Amsterdam School of Real Estate.	
Test Question II	I consent that all data obtained through this survey is used for a Masters Dissertation for the Amsterdam School of Real Estate.	
Explanantion responden	Please complete the following questions before continuing to the central part of the survey.	
Respondent info |	What type of real estate investor do you work for?	Listed, unlisted, family office
Respondent info |I	What type of investments are you interested in?	Core, Core plus, value-add, opportunistic
Respondent info |II	From which country do you operate?	
Respondent info IV	What is the home market for your company?	Western Europe, Eastern Europe, Middle East, Africa, Asia, Australia & New Zealand, North America, South Amercia
Respondent info V	Please indicate in which geographical locations your organisation invests or considers to invest (mark all that apply)?	Western Europe, Eastern Europe, Middle East, Africa, Asia, Australia & New Zealand, North America, South Amercia
Respondent info VI	Please indicate in which real estate sectors your organisation invests (mark all that apply)?	Residental, Offices, Retail, Hospitality, Logistics
Respondent info VII	What is the amount of assets under management (AUM) for your organisation?	<1 billion, 1-5 billion, 5-10 billion, 10-20 billion, >20 billion
Intro text Part I	Many of the questions in this survey refer to the European Union, meaning the Political and Economic Union that currently exists between 27 Nation States in Europe. This questionnaire only refers to the complete Political Union including all its sub treaties. The Monetary Union that exists between several of the EU members is part of this Union but it is not the investigated entity as such. In questions where you are asked to compare investment scenario's in different geographies the question will always compare markets that are equal in risk as well as return. For example, a stable market such as Germany should be offset against a similarly stable market outside of the European Union. Now follow several questions that aim to measure how you perceive the European Union in relation to real estate investment. Please base your answers on your personal beliefs.	
Intro text part II	Now follow several questions that aim to measure how you act when faced with investment decisions. Please indicate the likelihood of how you will act in the presented situations.	

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Nienke Jansen
Amsterdam School of Real Estate

Question nr	Dependent variable	Question	Scale of Measurement
		Part I - Regional Integration: measuring convictions	
Central Question		**Up to what measure do you agree with the following statements?**	
1	Regional integra	Real Estate investors prefer to operate in regionally integrated markets over a market where no such integration has taken place	5 point Likert scale - Strongly disagree to strongly agree
2	Regional integra	A Real Estate investor can achieve more optimal business transactions in the European market because of the existence of the European Union	5 point Likert scale - Strongly disagree to strongly agree
3	Regional integra	I believe that the real estate investment sector would be smaller in size in a situation where the European Union would not have existed	5 point Likert scale - Strongly disagree to strongly agree
4	Economies of sc	Market enlargement through the European Union has led to more investment opportunities for real estate investors	5 point Likert scale - Strongly disagree to strongly agree
5	Economies of sc	Clients that rent properties enjoy healthier more competitive markets because of the European Union	5 point Likert scale - Strongly disagree to strongly agree
6	Economies of sc	The European Union has facilitated the emergence of larger real estate investment firms who can exploit the market more fully	5 point Likert scale - Strongly disagree to strongly agree
7	Economies of sc	Overall, I believe that economies of scale have led to long term growth effects for the European market which benefiits real estate investors operating in that market	5 point Likert scale - Strongly disagree to strongly agree
8	Transaction Costs and Internal Inefficiencies	Transaction costs are lower for real estate transactions within the European Union	5 point Likert scale - Strongly disagree to strongly agree
9	Transaction Costs and Internal Inefficiencies	Less time and money is wasted in real estate transactions because of the existence of the European Union	5 point Likert scale - Strongly disagree to strongly agree
10	Transaction Costs and Internal Inefficiencies	When I compare it to other markets, real estate investors operating in the European Union need to spend less money on corporate costs and personnel or government tariffs and tax	5 point Likert scale - Strongly disagree to strongly agree
11	Transaction Costs and Internal Inefficiencies	Overall, I believe that the European Union has led to long term lowering of transaction costs and internal inefficiencies that will keep benefitting real estate investors.	5 point Likert scale - Strongly disagree to strongly agree
12	Knowledge Spill	The European Union causes companies to have a higher output per worker	5 point Likert scale - Strongly disagree to strongly agree
13	Knowledge Spill	Because of the European Union more knowledge enters into the market which is beneficial to real estate investment firms	5 point Likert scale - Strongly disagree to strongly agree
14	Knowledge Spill	Overall, I believe that the European Union creates more favorable long term circumstances for foreign companies to settle and bring knowledge, capital and equipment.	5 point Likert scale - Strongly disagree to strongly agree
15	Policy credibility	Because of the European Union I have more faith that governments participating in the Union will carry out announced policies	5 point Likert scale - Strongly disagree to strongly agree
16	Policy credibility	The European Union acts as a vehicle through which political risk can be mitigated. This benefits real estate investors and their operations in the European market	5 point Likert scale - Strongly disagree to strongly agree
17	Policy credibility	Harmonization of national policies through the European Union will make it a more stable market for real estate investors to operate in compared to other markets	5 point Likert scale - Strongly disagree to strongly agree
18	Policy credibility	I believe that the existence of the European Union will lead to more policy credibility in the long term	5 point Likert scale - Strongly disagree to strongly agree
		Open Questions	
1	Open question	What do you see as the biggest advantage of the European Union for real estate investment?	
2	Open question	Are there any further thoughts you would like to share on the European Union in relation to the real estate investment sector?	

Question nr	Dependent variable	Question	Scale of Measurement
Part II - Practical Investment Decisions : measuring behavior			
Central Question		**Up to what likelihood will you act similar to the presented situations?**	
1	Regional integra	When conducting a feasibility study for real estate I investigate if there is a supranational political regime in place in an investment market	5 point Likert scale - Extremely Unlikely to Extremely likel
2	Regional integra	If all other considerations of risk and return are equal, I accept lower yields for investments within the European Union (versus other regions v	5 point Likert scale - Extremely Unlikely to Extremely likel
3	Regional integra	If all other considerations of risk and return are equal, I prefer an investment in the EU over an investment in the UK now that the UK has left the European Union	5 point Likert scale - Extremely Unlikely to Extremely likel
4	Economies of S	When conducting a feasibility study for real estate I investigate market size (amount of potential buyers, tenants etc.)	5 point Likert scale - Extremely Unlikely to Extremely likel
5	Economies of S	I accept lower yields for investments in larger integrated markets	5 point Likert scale - Extremely Unlikely to Extremely likel
6	Economies of S	I model less vacancy contingency for investments in the European Union because of the size of the integrated market	5 point Likert scale - Extremely Unlikely to Extremely likel
7	Economies of S	UK investments have lost monetary value now they are not part of a larger integrated market anymore	5 point Likert scale - Extremely Unlikely to Extremely likel
8	Transaction Costs and Internal	When conducting a feasibility study for real estate I investigate transaction cost and expected internal inefficiencies	5 point Likert scale - Extremely Unlikely to Extremely likel
9	Transaction Costs and Internal	I accept lower yields for investments that benefit from lower transaction costs and reduced internal efficiencies	5 point Likert scale - Extremely Unlikely to Extremely likel
10	Transaction Costs and Internal	I am willing to offer a larger purchase price for an investment in the European Union because I can compensate that through lower spending on overhead in that market	5 point Likert scale - Extremely Unlikely to Extremely likel
11	Transaction Costs and Internal	If all other considerations of risk and return are equal, UK investments always have less value than investmens within the European Union be	5 point Likert scale - Extremely Unlikely to Extremely likel
12	Knowledge Spill	I investigate the knowledge level of laborers when I conduct a feasability study for real estate in a market	5 point Likert scale - Extremely Unlikely to Extremely likel
13	Knowledge Spill	If costs are equal I hire employees from within the European Union because they are the ultimate benefactors from knowledge spillovers crea	5 point Likert scale - Extremely Unlikely to Extremely likel
14	Knowledge Spill	I estimate the cost versus output per laborer ratio to show a more optimal development within the European Union than in the UK	5 point Likert scale - Extremely Unlikely to Extremely likel
15	Policy credibility	I investigate the credibility of a political regime when conducting a feasibility study for real estate investments in a particular market	5 point Likert scale - Extremely Unlikely to Extremely likel
16	Policy credibility	If choosing between two countries with equal risk risk and return expectations I choose a member state of the European Union over a non EU	5 point Likert scale - Extremely Unlikely to Extremely likel
17	Policy credibility	If choosing between two countries with equal risk risk and return expectations I model less risk for political regimes that are part of the Europ	5 point Likert scale - Extremely Unlikely to Extremely likel
18	Policy credibility	If choosing between two countries with equal risk risk and return expectations I choose an investment in the European Union over an investment in the UK	5 point Likert scale - Extremely Unlikely to Extremely likel
Open Questions			
1	Open question	When you judge political risk for a real estate investment, what is for you the most important factor of influence?	
2	Open question	Please sort the below factors for political risk in terms of relevance (1 for highest relevance and 6 for lowest relevance)	Trade barriers, Political instability, Financial regulation, Currency, Taxes, Legislation
3	Open question	If you have let the European Union be a factor of influence for past investment decisions, what made you decide to include this factor?	
4	Open question	Would you be willing to participate in a separate interview to further discuss the topics from this survey? If you are, please provide your contact details.	
Wind-up		Thank you for participating in this survey. You have helped creating better scientific insight into real estate investment and the sector's relationship to politics. If you know of any other relations that also work within international real estate investment, please be so kind as to share the link to this survey further.	

Annex 2: Results Overview and Stata Analysis

Part I Conviction																	**Home market**	**Listed vs Unlisted**
													Mean>3		**Mean > 3,5**			
Question nr	Stata Code	Concept	Full statement	Amount of respondents	Freq value 1	Freq value 2	Freq value 3	Freq value 4	Freq value 5	Mean	Standard Deviation	Group mean	One sample T-test score	Pr(T>t)	One sample T-test score	Pr(T>t)	T	T
1	Upto	Regional integration	Real Estate investors prefer to operate in regionally integrated markets over a market where no such integration has taken place	32	1	1	9	15	6	3,75	0,9158		4,633	1	1,5442	0,9337	0,3932	1,7365
2	AE_	Regional integration	A Real Estate investor can achieve more optimal business transactions in the European market because of the existence of the European Union	32	1	9	6	15	1	3,19	0,9980	3,4896	1,063	0,852	-1,7713	0,0432	-0,6341	1,785
3	AF_	Regional integration	I believe that the real estate investment sector would be smaller in size in a situation where the European Union would not have existed	32	0	7	6	14	5	3,53	1,0155		2,959	0,997	0,1741	0,5685	-0,2213	-0,863
4	AG_	Economies of scale	Market enlargement through the European Union has led to more investment opportunities for real estate investors	32	1	1	3	19	8	4,00	0,8799		6,429	1	3,2146	0,9985	0,4094	1,217
5	AH_	Economies of scale	Clients that rent properties enjoy healthier more competitive markets because of the European Union	32	1	5	9	14	3	3,41	0,9791	3,7422	2,347	0,987	-0,5416	0,296	-0,0459	1,11
6	AI_	Economies of scale	The European Union has facilitated the emergence of larger real estate investment firms who can exploit the market more fully	32	1	3	6	18	4	3,66	0,9370		3,962	1	0,9433	0,8236	0,3361	-0,887
7	AJ_	Economies of scale	Overall, I believe that economies of scale have led to long term growth effects for the European market which benefiits real estate investors operating in that market	32	1	2	3	19	7	3,91	0,9284		5,522	1	2,4754	0,9905	0,4367	0,15
8	AK_	Transaction Costs and Internal Inefficiencies	Transaction costs are lower for real estate transactions within the European Union	32	3	9	13	6	1	2,78	0,9750		-1,269	0,107	-4,1702	0,0001	0,1382	-0,994
9	AL_	Transaction Costs and Internal Inefficiencies	Less time and money is wasted in real estate transactions because of the existence of the European Union	32	1	10	14	5	2	2,91	0,9284	2,8516	-0,571	0,286	-3,6179	0,0005	-0,436	-0,051
10	AM_	Transaction Costs and Internal Inefficiencies	When I compare it to other markets, real estate investors operating in the European Union need to spend less money on corporate costs and personnel or government tariffs and tax	32	2	11	13	6	0	2,72	0,8514		-1,869	0,036	-5,1911	0	0,6911	-0,954
11	AN_	Transaction Costs and Internal Inefficiencies	Overall, I believe that the European Union has led to long term lowering of transaction costs and internal inefficiencies that will keep benefitting real estate investors.	32	2	8	11	10	1	3,00	0,9837		0	0,5	-2,8752	0,0036	0	-0,354
12	AO_	Knowledge Spillovers	The European Union causes companies to have a higher output per worker	32	1	3	15	10	3	3,34	0,9019		2,156	0,981	-0,98	0,1673	1,27	-0,441
13	AP_	Knowledge Spillovers	Because of the European Union more knowledge enters into the market which is beneficial to real estate investment firms	32	1	2	7	20	2	3,63	0,8328	3,6354	4,245	1	0,8491	0,7988	1,099	0,056
14	AQ_	Knowledge Spillovers	Overall, I believe that the European Union creates more favorable long term circumstances for foreign companies to settle and bring knowledge, capital and equipment.	32	0	1	5	21	5	3,94	0,6690		7,927	1	3,6993	0,9996	0,676	-0,835
15	AR_	Policy credibility	Because of the European Union I have more faith that governments participating in the Union will carry out announced policies	32	1	2	6	20	3	3,69	0,8590		4,527	1	1,2347	0,8869	1,04	-0,367
16	AS_	Policy credibility	The European Union acts as a vehicle through which political risk can be mitigated. This benefits real estate investors and their operations in the European market	32	1	2	4	17	8	3,91	0,9625		5,326	1	2,3876	0,9884	0,705	0,145
17	AT_	Policy credibility	Harmonization of national policies through the European Union will make it a more stable market for real estate investors to operate in compared to other markets	32	1	1	4	20	6	3,91	0,8561	3,8750	5,988	1	2,6845	0,9942	-0,474	0,993
18	AU_	Policy credibility	I believe that the existence of the European Union will lead to more policy credibility in the long term	32	0	0	5	22	5	4,00	0,5680		9,96	1	4,98	1	0,6367	0,617
										3,51								

Part II Behavior													Mean > 3		Mean > 3,5			
1	Upto	Regional integration	When conducting a feasibility study for real estate I investigate if there is a supranational political regime in place in an investment market	31	1	3	7	17	3	3,58	0,92		3,503	0,999	0,4866	0,6849	0,381	0,307
2	AY_	Regional integration	If all other considerations of risk and return are equal, I accept lower yields for investments within the European Union (versus other regions with less regional integration)	31	2	5	7	15	2	3,32	1,05	3,41	1,718	0,952	-0,9451	0,1761	1,013	-1,9414
3	AZ_	Regional integration	If all other considerations of risk and return are equal, I prefer an investment in the EU over an investment in the UK now that the UK has left the European Union	31	2	6	9	8	6	3,32	1,19		1,504	0,929	-0,8273	0,2073	2,2628	-2,973
4	BA_	Economies of Scale	When conducting a feasibility study for real estate I investigate market size (amount of potential buyers, tenants etc.)	31	0	0	1	14	16	4,48	0,57		14,5	1	9,613	1	-0,767	0,199
5	BB_	Economies of Scale	I accept lower yields for investments in larger integrated markets	31	0	4	4	13	10	3,94	1,00	3,50	5,22	1	2,4299	0,9894	0,447	-1,394
6	BC_	Economies of Scale	I model less vacancy contingency for investments in the European Union because of the size of the integrated market	31	4	12	9	5	1	2,58	1,03		-2,277	0,015	-4,9916	0	-0,011	1,202
7	BD_	Economies of Scale	UK investments have lost monetary value now they are not part of a larger integrated market anymore	31	2	8	11	8	2	3,00	1,03		0	0,5	-2,6955	0,0057	2,761	-2,831
8	BE_	Transaction Costs and Internal Inefficiencies	When conducting a feasibility study for real estate I investigate transaction cost and expected internal inefficiencies	31	0	0	2	13	16	4,45	0,62		12,95	1	8,4924	1	0,932	2,0003
9	BF_	Transaction Costs and Internal Inefficiencies	I accept lower yields for investments that benefit from lower transaction costs and reduced internal efficiencies	31	2	6	6	14	3	3,32	1,11	3,40	1,622	0,942	-0,8922	0,1897	0,617	0,72
10	BG_	Transaction Costs and Internal Inefficiencies	I am willing to offer a larger purchase price for an investment in the European Union because I can compensate that through lower spending on overhead in that market	31	1	7	13	9	1	3,06	0,89		0,403	0,655	-2,7182	0,0054	1,6	-3,247
11	BH_	Transaction Costs and Internal Inefficiencies	If all other considerations of risk and return are equal, UK investments always have less value than investmens within the European Union because they are subject to trade tariffs and exchange rate risk	31	2	11	11	6	1	2,77	0,96		-1,315	0,099	-4,227	0,0001	3,222	-1,399
12	BI_	Knowledge Spillovers	I investigate the knowledge level of laborers when I conduct a feasability study for real estate in a market	31	1	6	6	14	4	3,45	1,06		2,373	0,988	-0,2543	0,4005	0,1988	-0,43
13	BJ_	Knowledge Spillovers	If costs are equal I hire employees from within the European Union because they are the ultimate benefactors from knowledge spillovers created by the European Union	31	1	6	11	13	0	3,16	0,86	3,14	1,044	0,848	-2,1926	0,0181	1,271	-0,19
14	BK_	Knowledge Spillovers	I estimate the cost versus output per laborer ratio to show a more optimal development within the European Union than in the UK	31	3	6	17	4	1	2,81	0,91		-1,184	0,123	-4,2438	0,0001	0,27	-0,04
15	BL_	Policy credibility	I investigate the credibility of a political regime when conducting a feasibility study for real estate investments in a particular market	31	0	0	2	16	13	4,35	0,61		12,4	1	7,8258	1	-2,451	-0,512
16	BM_	Policy credibility	If choosing between two countries with equal risk risk and return expectations I choose a member state of the European Union over a non EU-member because the EU creates additional policy credibility	31	1	3	7	18	2	3,55	0,89	3,60	3,437	0,999	0,3033	0,6181	1,074	-1,341
17	BN_	Policy credibility	If choosing between two countries with equal risk risk and return expectations I model less risk for political regimes that are part of the European Union	31	1	3	12	12	3	3,42	0,92		2,53	0,992	-0,4866	0,3151	0,807	-0,337
18	BO_	Policy credibility	If choosing between two countries with equal risk risk and return expectations I choose an investment in the European Union over an investment in the UK	31	2	5	15	7	2	3,06	0,96		0,373	0,644	-2,5156	0,0087	2,892	-1,655
										3,42								

Annex 3: Powerpoint Presentation Expert Session

Expert Session

Real Estate Investment and the European Union

Introductions

- Mr. Lukas Linsi PhD: Assistant Professor of International Political Economy
- Mr. Hans op 't Veld: Head of Responsible Investment at PGGM and Research Fellow for the Amsterdam School of Real Estate
- Mrs. Wanshi Zheng: Group Chief Strategy & Planning Officer at Frasers Property
- Ms. Nienke Jansen: Asset Manager at Frasers Property Industrial and student at the Amsterdam School of Real Estate
- Ms. Celine Scheinck: Area Development Manager at the municipality of Gooise Meren and former student of the Amsterdam School of Real Estate

Central Question and hypothesis

Central Question: Do real estate professionals working for international real estate investors connect regional integration to long term growth effects on the European real estate market?

And do they also translate their convictions about regional integration into behavior when they are faced with investment decisions?

Hypothesis: Even though there are problems around its legitimization, professionals working for international real estate investors are inclined to connect the European Union to indicators of long-term growth on the real estate investment markets.

These expectations around the indicators of long-term growth through regional integration are translated into action when investment scenarios are predicted for the European market.

1) **Overall scores per statement will be significantly higher than the mean**
2) **Overall scores per statement will be significantly over a score between neither agree nor disagree and somewhat agree or between neutral and likely**

Theory

- International Relations and International Political Economy
- Regional Integration as the central concept and growth as a possible result of regional integration (dependent variable)

"Regional integration theory states that policies related to integration cause allocation effects which improve efficiency and create a better investment climate. This will lead to more investment in capital goods related to real estate such as for example the properties itself, the skills of workers or technology. The result is a higher output per investment"

Long term growth is measured via a set of independent variables from regional integration theory

- Regional Integration
- Economies of Scale
- Transaction Costs and Internal Inefficiencies
- Knowledge Spillovers
- Policy Credibility

Behavioral Science theory provides the explanation for possible discrepancies between conviction and behavior

- Overconfidence/Bounded Rationality
- Heuristics
- Uncertainty
- Anchoring

Methodology

- A survey has been conducted in which respondents were asked to:
  - State up to what measure they agreed with a set of statements
  - State up to what likelihood they would act in accordance to a set of presented situations
  - Answer additional supporting (open) questions
- 5-point Likert-scale scoring
- Data analysis through:
  - Likert scales were recoded into numbers (1-5).
  - Ordinal scale analysis was applied
  - Calculation of the means and standard deviations
  - One sample T-tests to see if scores significantly deviated from a minimal set mean
  - Two sample T-tests for different groups within the data set
  - Seperate analysis for supporting questions (ordinal and nominal scale)
- This has let to a set of conclusions about long term growth effects through regional integration and its perceived relation to real estate investment

Survey Part I

Question nr	Dependent variable	Question
		Part I - Regional Integration: measuring convictions
Central Question		**Up to what measure do you agree with the following statements?**
1	Regional integration	Real Estate investors prefer to operate in regionally integrated markets over a market where no such integration has taken place
2	Regional integration	A Real Estate investor can achieve more optimal business transactions in the European market because of the existence of the European Union
3	Regional integration	I believe that the real estate investment sector would be smaller in size in a situation where the European Union would not have existed
4	Economies of scale	Market enlargement through the European Union has led to more investment opportunities for real estate investors
5	Economies of scale	Clients that rent properties enjoy healthier more competitive markets because of the European Union
6	Economies of scale	The European Union has facilitated the emergence of larger real estate investment firms who can exploit the market more fully
7	Economies of scale	Overall, I believe that economies of scale have led to long term growth effects for the European market which benefiits real estate investors operating in that market
8	Transaction Costs and Internal Inefficiencies	Transaction costs are lower for real estate transactions within the European Union
9	Transaction Costs and Internal Inefficiencies	Less time and money is wasted in real estate transactions because of the existence of the European Union
10	Transaction Costs and Internal Inefficiencies	When I compare it to other markets, real estate investors operating in the European Union need to spend less money on corporate costs and personnel or government tariffs and tax
11	Transaction Costs and Internal Inefficiencies	Overall, I believe that the European Union has led to long term lowering of transaction costs and internal inefficiencies that will keep benefitting real estate investors.
12	Knowledge Spillovers	The European Union causes companies to have a higher output per worker
13	Knowledge Spillovers	Because of the European Union more knowledge enters into the market which is beneficial to real estate investment firms
14	Knowledge Spillovers	Overall, I believe that the European Union creates more favorable long term circumstances for foreign companies to settle and bring knowledge, capital and equipment.
15	Policy credibility	Because of the European Union I have more faith that governments participating in the Union will carry out announced policies
16	Policy credibility	The European Union acts as a vehicle through which political risk can be mitigated. This benefits real estate investors and their operations in the European market
17	Policy credibility	Harmonization of national policies through the European Union will make it a more stable market for real estate investors to operate in compared to other markets
18	Policy credibility	I believe that the existence of the European Union will lead to more policy credibility in the long term
		Open Questions
1	Open question	What do you see as the biggest advantage of the European Union for real estate investment?
2	Open question	Are there any further thoughts you would like to share on the European Union in relation to the real estate investment sector?

Survey Part II

Question nr	Dependent variable	Question
		Part II - Practical Investment Decisions : measuring behavior
Central Question		**Up to what likelihood will you act similar to the presented situations?**
1	Regional integration	When conducting a feasibility study for real estate I investigate if there is a supranational political regime in place in an investment market
2	Regional integration	If all other considerations of risk and return are equal, I accept lower yields for investments within the European Union (versus other regions
3	Regional integration	If all other considerations of risk and return are equal, I prefer an investment in the EU over an investment in the UK now that the UK has left the European Union
4	Economies of Scale	When conducting a feasibility study for real estate I investigate market size (amount of potential buyers, tenants etc.)
5	Economies of Scale	I accept lower yields for investments in larger integrated markets
6	Economies of Scale	I model less vacancy contingency for investments in the European Union because of the size of the integrated market
7	Economies of Scale	UK investments have lost monetary value now they are not part of a larger integrated market anymore
8	Transaction Costs and Internal Inefficiencies	When conducting a feasibility study for real estate I investigate transaction cost and expected internal inefficiencies
9	Transaction Costs and Internal Inefficiencies	I accept lower yields for investments that benefit from lower transaction costs and reduced internal efficiencies
10	Transaction Costs and Internal Inefficiencies	I am willing to offer a larger purchase price for an investment in the European Union because I can compensate that through lower spending on overhead in that market
11	Transaction Costs and Internal Inefficiencies	If all other considerations of risk and return are equal, UK investments always have less value than investmens within the European Union be
12	Knowledge Spillovers	I investigate the knowledge level of laborers when I conduct a feasability study for real estate in a market
13	Knowledge Spillovers	If costs are equal I hire employees from within the European Union because they are the ultimate benefactors from knowledge spillovers cre
14	Knowledge Spillovers	I estimate the cost versus output per laborer ratio to show a more optimal development within the European Union than in the UK
15	Policy credibility	I investigate the credibility of a political regime when conducting a feasibility study for real estate investments in a particular market
16	Policy credibility	If choosing between two countries with equal risk risk and return expectations I choose a member state of the European Union over a non E
17	Policy credibility	If choosing between two countries with equal risk risk and return expectations I model less risk for political regimes that are part of the Euro
18	Policy credibility	If choosing between two countries with equal risk risk and return expectations I choose an investment in the European Union over an investment in the UK
		Open Questions
1	Open question	When you judge political risk for a real estate investment, what is for you the most important factor of influence?
2	Open question	Please sort the below factors for political risk in terms of relevance (1 for highest relevance and 6 for lowest relevance)
3	Open question	If you have let the European Union be a factor of influence for past investment decisions, what made you decide to include this factor?

Main Goal for Today

Research findings

When measuring convictions all statements were significantly above the mean (one paired T-test) except for:

'' A Real Estate investor can achieve more optimal business transactions in the European market because of the existence of the European Union''

And all four statements on transaction costs of which the lowest scoring ones were:

'' Transaction costs are lower for real estate transactions within the European Union''

'' When I compare it to other markets, real estate investors operating in the European Union need to spend less money on corporate costs and personnel or government tariffs and tax''

Research findings

When measuring convictions only statements regarding policy credibility (3 out of four) were significantly above a mean (in between *somewhat agree* and *neither agree nor disagree).*

'' The European Union acts as a vehicle through which political risk can be mitigated. This benefits real estate investors and their operations in the European market''

'' Harmonization of national policies through the European Union will make it a more stable market for real estate investors to operate in compared to other markets''

'' I believe that the existence of the European Union will lead to more policy credibility in the long term''

Research findings

When measuring behavior Policy credibility is again the outlier towards the positive. Towards the negative however, knowledge spillovers is now the low scorer with a mean very close to *neutral.*

" I estimate the cost versus output per laborer ratio to show a more optimal development within the European Union than in the UK''

" If costs are equal, I hire employees from within the European Union because they are the ultimate benefactors from knowledge spillovers created by the European Union''

" I investigate the knowledge level of laborers when I conduct a feasibility study for real estate in a market''

Research findings

On statements where respondents are asked if they investigate certain variables the scores are much higher than where they are asked if they model in favor of regional integration theory or choose investments inside the European Union over those outside.

Investigation	4,06
Lower yields/Modeling	3,50
EU investment over other	3,09

Research findings

When the UK is provided as an alternative for investment in the European Union respondents are much less inclined to prefer the European Union because of long term growth effects through regional integration.

In fact, in the behavior set, the questions related to the UK were the only ones that on average scored just under the mean.

Research findings

Differences between groups have been investigated with a two sample T-test

- Home market Western Europe vs Other
- Listed vs unlisted investors

No significant differences were found for any of the statements related to conviction. For the statements on behavior several significant differences were found.

Real estate professionals with a home market in Western Europe are:

- More inclined to choose investments in the EU over investments in the UK than professionals with a home market outside of Western Europe
- Less inclined to research a political regime when conducting feasibility studies for real estate investments

Real estate professionals working for listed real estate investors are:

- Less inclined to choose investments in the EU over investments in the UK, also because they perceive UK investments to have lost monetary value after BREXIT
- More inclined to investigate transaction costs and expected internal efficiencies
- Less inclined to offer lower prices in the EU because this could be offset against less overhead

Research findings

When comparing conviction versus behavior the mean scores do not deviate substantially

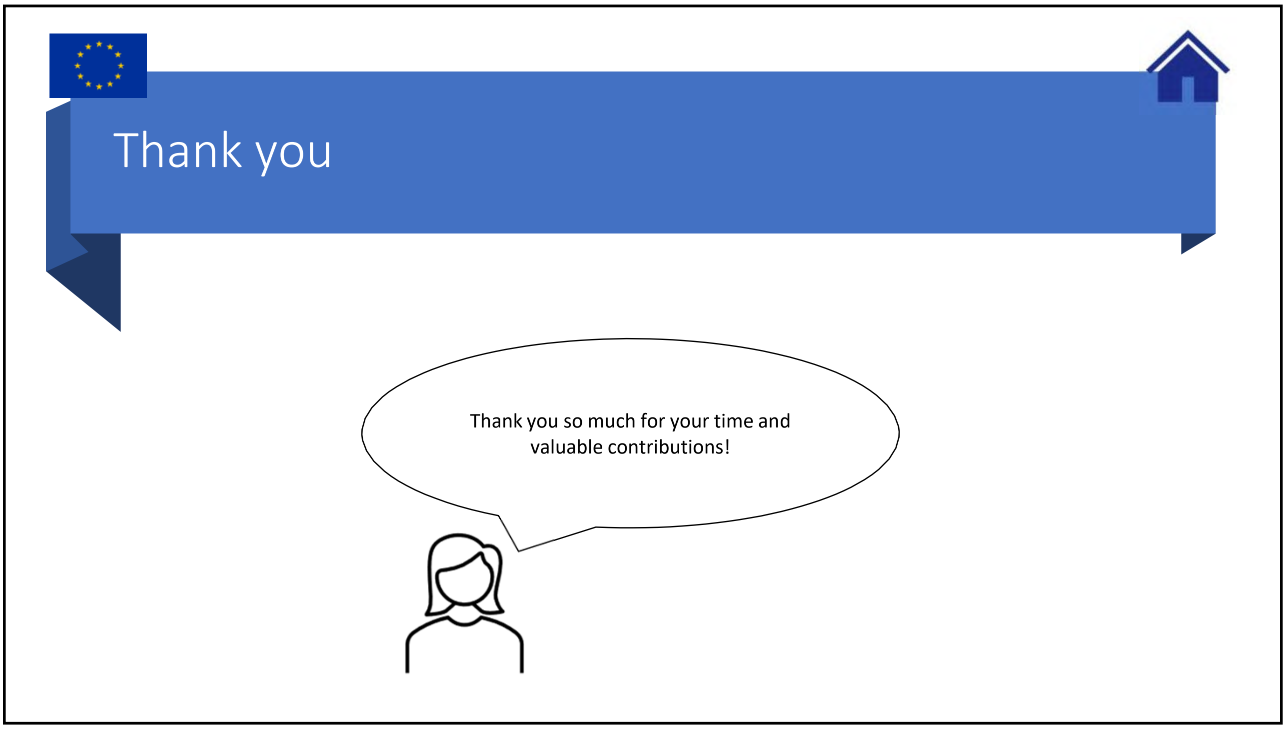
However, the low scorers are different. Analysis on the statements on conviction show that transaction cost and internal efficiency are connected least to long term growth on the real estate market.

Analysis on the statements on behavior shows that knowledge spillovers and economies of scale score in the same lower range as statements on transaction cost and internal efficiency.

Policy credibility and regional integration as a general concept score high in both categories.

Research findings

One respondent noted that real estate professionals are only aware of what is happening in their country and not at an EU level


Thank you
Thank you so much for your time and valuable contributions!

Annex 4: Transcription of Expert Session

Transcription of expert session on relationship between political risk and real estate investment

Date and time: 10 December 2021, 09:00 am – 10:00 am CET.

All participants have given permission to record the session for transcription purposes.

Introduction of experts (as also shared by email in advance of the session):

Mr. Lukas Linsi is Assistant Professor of International Political Economy at the Rijksuniversiteit Groningen. He is part of the International Relations and Political Science faculty and specialises on topics such as multinational corporation, global productions networks, FDI, international trade, inequality and economic statistics. Mr. Linsi has also done some research on heuristics in global capital markets. Following this topic I hope he will be able to offer some insights on conviction versus behaviour in investment decision making, which is an essential part of my research. Before I made my entrance in the world of real estate I got my degree in International Relations at Mr. Linsi's University so I am very happy to include a member of staff affiliated to the Rijksuniversiteit Groningen.

Mr. Hans op t Veld is Head of Responsible investment at PGGM, the investment branch of a Dutch Pension fund for Healthcare professionals. Next to this he is also a Research Fellow at the Amsterdam School of Real Estate, where he (among other contributions) heads the real estate investment module for the Master of Science in Real Estate program. Mr. Op t Veld can therefore offer valuable insights from the crossroads between international real estate investment practice and science.

Mrs. Wanshi Zheng is Group Chief Strategy and Planning Officer for Frasers Property, a global real estate investor with businesses and real estate in South-East Asia, Australia, Europe and China. Wanshi is responsible for the development and integration of Frasers Property's group strategy across the diverse businesses and markets the Group operates in. She also oversees the Group's portfolio management analysis, research, planning, communications and branding and strategic innovation functions. In addition, Wanshi co-leads the Group's innovation governing committee. Not only will Wanshi be able to offer a fast amount of experience around real estate investment, she will also bring an outlook from overseas which will be very relevant for the presented topics.

Ms. Celine Scheink is joining to assist Nienke in timekeeping and technical matters.

Introduction of the research:

Researcher: The main idea behind the research is that real estate investment does not happen in a vacuum. There is a world of politics, governments and regulations around it. This has led to a research that sees if what is said in theory about regional integration agrees with the statements of real estate investments on the phenomena. In short, the theory predicts that certain concepts coming from regional integration will lead to growth on an economic market or on the real estate market. What I would like to know is if real estate professionals also see that link between what theory predicts, or if they see that there is indeed growth on the market caused by the concepts. Following from that there is the second part of the research that investigates if real estate professionals also follow up with concrete behaviour in investments decisions coming from their convictions on the theory.

The hypothesis is that even though there are problems around the legitimization of the EU real estate professionals will see the linkages between theory and outcome, and acknowledge that the concepts create growth in the real estate market. This is measured via survey research and T-tests or difference testing to see if the scores were significantly higher than the mean or even significantly higher than a score above the mean. This has led to some conclusions.

First a quick look at the theory. I am looking at it from the viewpoint of International Relations (IR) and International Political Economy(IPE). This way the political science is merged into real estate science which is often more affiliated to economics. Regional integration is the central concept and I would like to see if growth is an outcome of real estate integration in the view of real estate professionals. The central concepts that are measured are regional integration in general, economies of scale, transaction costs and internal inefficiencies, knowledge spillovers and policy credibility. In addition, there are concepts from behavioural science that can explain any difference between conviction and behaviour.

Through the survey real estate professionals have been asked to respond to a set of statements that are linked to the concepts and the scores are done via 5-point Likert scoring. This was operationalised via difference tests to see if the outcomes were significantly above certain means. This has let to some conclusions. The slides with all the statements are in the slide deck. I will not go through these now but if we would like to come back to them we have them available.

The main goal of today is to present my findings and I have some additional questions to philosophise about if we have some extra time. I would then like to get your view on the presented materials, either from a scientific or from an investment practice point of view. Ok, so lets kick off.

Research Findings 1:

When I measured convictions all statements were significantly above the mean but there were a few outliers. When stated that a real estate investor can achieve more optimal business transactions in the European Real estate market because of the existence of the European Union there was a relatively low score. Therefore no direct relationship was acknowledged between more optimal business transactions and the EU. Could you share some thoughts on why you think that would be the case?

Mr. Op t Veld: I am not that surprised that this was the exception to the rule. Thinking about that there is two reasons that came to mind in terms of why this would be looked upon differently. The two reasons are a that the whole concept of the European Union is associated by practitioners with bureaucracy and I think that practitioners have not really seen the advantages in terms of ease of doing transactions yet. I think in part, and that is the second point, in part it is not really widely advertised what the impact is of European integration on the transaction market. I am always quite surprised because people sort of know this and it is well researched also by the way so from the academic side it is a no brainer I would almost say.

From the practitioner side however it is more complicated than that because the practitioners are spending their time on individual transactions, they don’t really see the big picture and I think also within the European Union it’s a major difference whether you would do a transaction in Germany or for instance in Spain or Italy. I think local legislation is still a priority there and it is much more driven by that than by the European overlay even though it does matter. So all in all I am not that surprised. I will leave it at that.

Mr. Linsi: My thoughts were very similar to Hans’s in the sense that I also think that it might be that there is less awareness among investors about what the EU actually means for them and what it is actually doing. So that they might not really realize how much it does benefit them because they also cannot compare. They cannot compare how it was in the nineteen seventies or how it is today. If you would have this comparison they would probably realize that it is much easier and beneficial for them but there is no counterfactual right. They take it for granted and what they read about the EU is in the newspapers so they read all these bad things about the EU and they kind of associate it with something else. So this would kind of be my intuitive idea on how to make sense of this. It is an interesting finding for sure.

Mrs Zheng: I can see where everybody else is coming from. I guess looking at it from outside of the EU I would look at what we mean with optimal real estate transaction. Looking at it from a real estate investment point of view I think of returns and for real estate investors returns are very much linked to economic growth prospects. So looking at it from the outside perspective I would have thought that because of the existence of the EU from a growth point of view it makes sense for the overall integration and hence Europe will be more attractive as an investment destination so I would not rate it so low, I would rate it slightly higher from that perspective.

Researcher: One of the other variables that came out quite low in the scores was transaction costs and internal inefficiencies. So real estate professionals did not really acknowledge the link or growth on the real estate market to this concept. Do you have any thoughts on why this could be?

Mrs Zheng: I could add on to that. I think it is about what we mean by lower. Is it lower relative to the past or before the EU was formed or is it lower relative to other countries. So if referring in the context relative to other countries, you know there are other countries where the taxes are lower, in that sense its why countries are looking at it 15% minimal tax but from a temporal time perspective than I think its true that transaction costs should be lower compared to before the time when the EU was formed because there is more flow of information and the standards are more normalised across the countries so I think it depends on what you mean by lower.

Mr. Op t Veld: I have to concur with that. I think that the baseline, the reference point is of importance obviously but also what is meant by transaction costs. I think many practitioners will read into it the actual cost associated with a transaction for an individual asset versus all of the other ancillary costs that are associated with it. When you look at it from the focused perspective of doing certain asset transactions I can imagine that it is pretty hard to link that into the wider policy environment. The overall cost associated with doing business I think will be lower and I think that is likely to be, or as far as I am concerned that is undisputed but it is really hard to get that into this so I think it is the interpretation more than the actual opinion about what is the cost of doing business. So there is two things in here, at least that is how I explain it for myself.

Mr. Linsi: I agree with that, I mean there is objective evidence right that they are lower after the introduction of the EU as compared to before. There is data that can show that and there have been many studies in economics. So indeed I think it might have something to do in how the question is phrased. At the same time I was also reminded of some work by Pankaj Ghemawat, I don't know if you know him, he is at the Harvard Business School. I think he has done very interesting work on formal versus informal barriers and he talks about the cultural so more the informal barriers. I think the EU is a very interesting case because most of the formal barriers, so the legal barriers have been abolished but there can still be many other less legal or institutional barriers like maybe there are still language differences or maybe still cultural differences. Or maybe looking at the social networks you have that might be focused within your own country but there are still barriers even though they are not so visible so it might be helpful for you to look at his work because it might fit well. I will put the name in the chat.

Research Findings 2

Researcher: When I measured convictions only the statements on policy credibility were really high scorers, they really stood out and were significantly above the mean. Why do you think that policy credibility is a variable that scores high, or is something that people would recognize as having benefits for the real estate market?

Mrs Zheng: Interestingly from a Frasers point of view a break of the EU is a risk that we would see, you know from a company perspective. I think that goes to show that the EU as a vehicle for international investors is important to give that sense of stability, transparency, and to a certain degree some degree of harmonization which gives clarity for an investor. So I am not surprised to see that the policy credibility point here would rank pretty high. I mean if you look at what happened with BREXIT, one of the biggest concerns with BREXIT is no longer being part of the EU. That they would loose a lot of the benefits after not being part of that broader entity and that has impacted on the UK and also into investor sentiment.

Mr Op t Veld: I think overall what investors are looking for is this stability at least. It is very hard to underwrite policy. Particularly in real estate but we see it also in some other assets as well, for instance infrastructure investments. You require a longer term policy because the horizon of your assets is such that it is very hard to liquidate the assets for instance if the policy perspective changes. And therefore the stability in that, or at least that is sort of the sense of it because its politics right, is quite important and I think that an integrated system will in all likelihood will be more robust in that sense than individual ethics and BREXIT is a great example of this, I mean we do see that it is more idiosyncratic in what happens and therefore it is harder to underwrite which poses issues. So as an international investor you would like there to be as much stability as possible.

Mr. Linsi: I think the findings are also very much in line with other studies. On sovereign debt for example there are lot of studies that show that credit ratings of countries have improved and also in the context of the financial crisis, there were a lot of discussions in that it maybe led to overconfidence in the policy credibility of some countries and again I can also send you a paper here that is by Julia Grey and she argues exactly that, how accession to the EU increases the credibility of a country in the minds of investors and you can see that in capital markets in many dimensions so I think these findings make a lot of sense.

Mrs Zheng: Just to add onto that point, the sovereign debt is really important for investors. They research what relative return you can get on debt right so when the borrowing cost goes up that has implications to the expected returns for real estate and real estate valuations also so there are linkages in there.

Research Findings 3

Researcher: When I measured the statements on behaviour, so really on taking the decisions, policy credibility was again really the outlier towards the positive. Towards the negative it was not so much transaction costs, it was more knowledge spillovers that real estate investors really had difficulty to translate into a benefit. Maybe you could share some thoughts on that. Maybe it could be in line with what Mr. Op t Veld said before, that for this concept it is difficult to see practical implications?

Mr. Linsi: This result could be unexpected but again I think it comes down to what they are comparing this to. I think I understand if they are more likely to hire someone from a local market then from another EU country but they are probably also more likely to hire someone from an EU country than from somewhere far away so I wonder how this is taken into account in the survey or what is the benchmark. I see here that you compare it to the UK but the UK is still kind of in between right and it depends also on the time the survey was done so it might be a bit tricky to go into this coming from a methods perspective.

Researcher: Lets go back to the statements. One statement was if respondents investigate knowledge levels in the market, that was not the low scorer of the tree. One was, if costs are equal I prefer to hire employees from the European Union because they benefit from these knowledge spillovers. The third one was indeed related to the UK. I have a slide on that next because everything related to the UK are very low scorers so we will talk about that as well. So that was here also a low scorer so respondents don’t really see differences between the EU and the UK probably for reasons that were already touched upon before.

Mr. Linsi: The low score surprises me because you have all this rules in place that are supposed to make it easier but then you don’t see so much of that in practice. But again this might also have to do with the phrasing. If you hire someone and compare it to the EU it doesn’t really say to what you are comparing so I think that the benchmarking might be a problem but yeah interesting to maybe look into this more.

Mrs Zheng: Maybe I could add some hypotheses here because I think when it comes to real estate investing from a macro decision point of view you look at the growth prospects of a country and obviously the knowledge level or the competitiveness of the labour market will come into play here but it is not the only factor, there are many factors at play. And of course then it comes down to the micro assessment of the local demand and supply dynamics and all that so my sense is that a labourers knowledge level is not top of mind because it is one of the many points of macro considerations. Then with regards to the first two statements. This probably will come in more relevant when you are looking into investing in a business or when you want to set up a business somewhere in the EU but for the nature of real estate, the nature of the investment in real estate is more about the physical asset you are buying and hence maybe it is about the context of the questions. Or how people are more thinking about real estate from an individual real estate point of view. Then one final point which is about the idea of knowledge spillovers and all that. I mean there was an earlier point that culturally across the different countries at the end of the day they are all quite different. Considering spillovers at the end of the day there might not be as much of that going on since real estate is actually a local thing. Let’s say that Germany and the Netherlands can be very different even though they are in very close proximity. So that is my guess on this.

Mr. Op t Veld: Just adding to that. I would venture a guess that if you were to talk about specific property types for instance you might find better results or different results. I guess that if you were to talk about retail than you would look at consumer spending or you would look at the relative wealth of people which separates into the job market as well. But if you were to engage in an investment in offices for instance than I would take a hard look at what the labour market is like and is it international, is it local, is it stable. I can see that there is multiple factors at play and it might well link into property type as well. So that is how I explain this.

Research Findings 4

Researcher: Moving on. The next one is also about the behavioural part of the research. When respondents were asked how they behave in regards to certain variables the score was really high when asked if they investigate certain variables before they made an investment decision. If I asked them if they would factor in lower yields or if they would actually change something in their modelling the scores were already a bit lower and then when asked if they would actually choose an EU investment over another investment because of the variable presented the scores were almost on the mean, so again lower. This might be an interesting topic for Mr. Linsi to start commenting because of his background on the behaviour of investment decisions. Why do you think we see this pattern?

Mr. Linsi: About your findings. I think that makes sense to me and this is what you would expect. Probably as a Manager of a real estate company you would hope your employees to act like. So they shouldn’t invest in a country just because it is a member of a certain political arrangement. It should in the end be an economic decision right and of course the EU probably does affect the economic calculus that you make through the kind of frameworks that they provide. I think looking at the last question being phrased as would you invest in an EU country basically just because it is in the EU, than the result kind of shows that this is primarily an economic decision. That is what you would expect and hope for in some sense.

Researcher: The difference between researching and modelling, could you say something about that? So that you do not put your research into action so to say. For me it was also sort of interesting that an outcome of an investigation is then not always translated into concrete behaviour.

Mr. Linsi: That is indeed interesting. Unfortunately I am not very familiar of the investment process itself for real estate so maybe one of the other experts could say something but it is indeed interesting that if they indeed collect the data but then not really use it in the actual modelling or decision making process. I will leave the floor to the other who have more experience with the practical side.

Mrs Zheng: What Mr. Linsi is saying is a practical point because to investigate is basically to research something right and most people know how to investigate, it is really accessible. But to actually go into the modelling and the lower yields firstly it would require however is looking at it to actually have the skillsets to know how to model and to know how to isolate for the factors and have the technical training for it. I would say that most people will not have gone through that kind of program because not everyone who gets into investing might have gone through an econometrics training to know that. Hence I think that is why you get a lower score as a result of that.

Mr. Op t Veld: To be honest I am not that surprised. I think that the investigation is sort of a freebee, you always do you research so as not to say I just blindly went into an investment so I will ignore that one. In terms of lower yields, well you could also ask yourself the question whether that will be double counting because basically the yield levels are already a reflection of the environment you are in. So if you were to take another discount of the yields because of a certain environment you run the risk of overdoing it and what we are telling our professionals to explicitly not do is to assume exit yields that are lower than current yields because you would provide yourself with a booster to justify an investment. You run the risk of double counting and that is why it might not get expressed in lower yields. As for the third statement, when you look at allocations and when you look at the biases that are held by investors, they are just lying about it. And btw there are good reasons for that as well because if you expect the inflationary environment or the political environment to be homogeneous then it is sensible to over allocate to that region because many of the investors have liabilities that have a nature that is similar to the asset class. So if you want to look at correlations for instance or if you want to address inflation issues you are more likely to invest into the European Union, or in the Eurozone I should say rather than in the European Union, to compensate for that. So I am not sure and it is not evidenced by the fact that there is no home bias so. But perhaps that is also the reason for the way in which they are structured because in many instances the allocation is set and the professionals really don’t have a lot of degrees of freedom to move about the allocation levels.

Research Findings 5:

Researcher: This topic has already come up. I had many statements on the UK versus the EU and if there is any benefits in doing an investment in the EU versus the UK and those statements were really the lowest scorers in the entire survey, probably not a surprise. Just to share some further thoughts on this. Of course BREXIT happened. Do you think the UK became less attractive after BREXIT or what has changed since BREXIT happened?

Mr. Linsi: It could be interesting to look at the home base of the respondents and how they responded to these questions because I actually find it surprising because at the beginning of BREXIT there was a lot of thought about companies that were going to leave and especially many companies in the finance sector that were going to leave, they were all going to move to Amsterdam, Paris or Frankfurt. But now two years later it seems this is so much the case and the city of London is booming just as it was before and there has actually been relatively little movement away from the city. That suggests it has not really harmed the finance sector in London so much. Therefore the results are in line with this.

Mr. Op t Veld: Perhaps it is also down to the fact that the UK is an important liquid investment market. You are already invested or likely to be invested in that market and you are not easily going to depart from that just because of that. You could argue that the legal system etc. has not changed that much. Certainly there a number of risks associated but I think that people are generally very comfortable with the market. They know the market, they understand what is going on and the actors in the market haven’t really changed so I think it is a reflection of investors being comfortable with the liquid market.

Mrs Zheng: I would agree with that and I think that at the end of the day this is also about relative returns right. So in a very low return environment and where investors can get the right level of returns in the UK, they find it attractive. It also depends on asset class. So even though maybe with BREXIT the economy structurally will have some hit from that but the dust is settling so when investors look at for example industrial real estate they will see structural support for it. If you look on the housing side, the demographics in the UK, there is a slightly younger population than in the EU overall so I think those are the positive factors. And of course the pound also took a big hit so for international investors they might feel that they are getting in cheap on the pound and I do foresee that phenomenon coming from the Asian based investor. And one overall thing is that what became clear with BREXIT, when things are uncertain it always spooks investors and they tend to over discount. So now that its certain and even though it is actually. There is more certainty but in a negative direction. But people still tend to prefer certainty over no certainty. That is probably what comes into play too. A fundamental thing is that it’s about the transparency of the market, which Mr. Op t Veld also mentioned.

Mr. Linsi: I think what is also important in the broader picture is that it suggests that the EU effect is different for different countries. For a country that has a very strong legal framework already in place not being part of the EU probably doesn’t do much but for other countries with a weaker legal system the positive effect should be much bigger so for further research that might be interesting to look at.

Research Findings 6:

Researcher: Here I present some difference testing between a group that has their home market in Western Europe and a group that did not. That has also led to some interesting results. Several of these results are again related to the UK. I found that respondents with a home market in Western Europe were more inclined to choose an investments in the EU over the UK. This was maybe caused by a bias? Respondents with a home market in Western Europe were also less inclined to research a political regime. That could have to do with a stronger sense of security or another form that could be explained by behavioural science or heuristics. Mrs. Zheng could you start sharing some thoughts?

Mrs. Zheng: I think this reflects a familiarity bias. Let’s say for European real estate investors, investments are made to fund a liability in Europe, so from a geography allocation point of view there would be that natural matching in there whereas for international investors they will look at it with all similar lenses, whether it is EU or UK. So I think it depends on the end beneficiary which the real estate is serving and also their level of familiarity with the markets.,

Mr. Linsi: Indeed what Mrs. Zheng hints to, there is a lot of evidence to what is called home biases in investments in general, so that is also in the stock market or individual investors but also funds. You tend to invest in what you know right, or what you are familiar with. I think that confirms this finding. I think the political regime one is interesting. So what you are finding here is that they are less worried about political risk?

Researcher: Perhaps, because they are less inclined to do research so it could be that they are more comfortable making an investment. That was also an interesting finding for me.

Mr. Op t Veld: Perhaps that one is also just down to familiarity.

Researcher: I also did difference testing to see if there were differences for investors linked to listed real estate investment firms or vehicles or those linked to non-listed ones. There were also a few significant differences, again also related to the UK. As a general question, do you think that investors working for listed real estate firms do look differently at the political factors that constitute risk?

Mr. Op t Veld: One thing I was not really sure of and maybe you can clarify that, are we talking about real estate professionals who are active in property securities i.e. lister real estate companies or who work on behalf of these real estate companies.

Researcher: They work for listed real estate companies. The question in the survey was if respondents work for listed investors, non-listed investors or family offices. The last category was not taken into account because that option was only applicable to two respondents.

Mr. Op t Veld: I think valuation is perceived differently by those two when you look at relative valuation. Therefore, as a result of that the expected future returns, the situation or the outlook is a bit different for a listed investor as opposed to unlisted investors so I would argue that listed investors would be more inclined because of the performance differential to look at the UK. It is just more interesting to them because they will expects some reversion to the mean in terms of returns. So I would only concur with them and say you know from a return perspective the UK looks a lot more attractive right now than Europe does, or the EU does. So that is how I explain that finding.

Mrs. Zheng: Actually for listed real estate companies, there is also different types right. There are REIT's, real estate investment trusts that need to distribute stable growing income versus listed real estate developers where the risk appetite is higher. So my guess is based on this response, maybe most of the respondents are working for the first category where they are looking for stable returns that grow over time. So from that point of view, look at Hans's point on the reversion to the mean, the UK provides the interesting returns after you factor in the debt cost or the debt carry. You know that is one element. Two is, on the second bullet point here, precisely because listed funds are very sensitive to the distribution. So the transaction cost and impact on the accretion and cash flow in the near term is very important. Whereas a private investor of family office, they can afford to take a longer term few of things and model longer term upside.

Mr. Linsi: I had the same thoughts as Mrs. Zheng and Mr. Op t Veld. They might have different time horizons. The listed ones probably have more pressure to perform in the shorter term because that is what the stock market is looking at and those that are not listed can have a longer term strategy which uuh btw you have many interesting findings in your survey and it does make sense. I also have to apologize, in 3 or 4 minutes I will have to leave unfortunately.

Research findings 7

Researcher: No problem. In that case let me move on quickly then. The next slide is in general on the differences between conviction and behaviour, We found some differences there in which categories scored lower for example, which we have discussed before. My question now is, do you think that because real estate professionals do not always translate conviction to behaviour there might be sub optimal decision making within real estate investment?

Mr. Linsi: How is conviction measured in this case?

Researcher: I had two separate parts in the survey. One part measured if respondents were likely to agree on certain statements and the second part measured the likelihood of acting according to the situations presented. The means of the two parts did not deviate much but there were a few differences. My question is more general, in a market like real estate, do you think that professionals make sub optimal decisions because of heuristics for example? Do you think that that plays a role when observing that conviction is not always followed by behaviour?

Mr. Linsi: Yes I think heuristics always play a role right. There is never a fully rational investment decision, they always play some role which is part of human nature. That is something that you observe across all kinds of investments. I am not surprised that it also comes up here. But it is certainly interesting if you can show this that at the first stage they try to think about it and when it comes to the investment less so. I also wonder more generally if there is even, because this is mostly what they say they take into account when they decide but do you also have data on what they actually do. I was wondering whether you can connect your survey to the actual investment decisions. So there might be an additional layer that would be interesting to look at. So then you would have even tree stages. So what they say, no first what they think, then what they say they do and then what they actually do. I was wondering if you have looked into that or if it is even possible.

Researcher: I have not I'm afraid, but this would be a very interesting topic for a next research, I agree.

Mr. Op t Veld: Perhaps I can add a little bit, I'll go short because I have a hard stop at 10 as well but my thinking was that if there was any market in which I think that heuristics play a big role it is unfortunately real estate. They were trying to resolve that by putting procedures in place but I think that in terms of the investment processes, people become invested in their ideas, and in their proposals. So even when you do that, once you get to a certain point it is very hard to in an investment committee so say well on second thought we are going to do different things, even though that might be let's say the thinking slow solution to the problem. Having said that I am privy to information that tells me that very often so it still is heuristics that drives this ultimate decision so I like the idea of following up with actual outcomes that are being created.

Mr. Linsi left the session.

Mrs. Zheng: Just a quick point from me. I just want to add that I think it also reflects the complexity of the external environment. In the past heuristics might have been served well by a stable environment but now with all the disruption the past rule of thumb may not work. And also from an investment point of view there is the need to deploy capital because Ray Dalio says cash is trash, it is better to deploy it than to hold it in cash. So I think that is where that dilemma is, there is a lot of uncertainty but yet people feel like they have to act.

Research Findings 8:

Researcher: One thing that I found interesting, I picked something out of the survey, one of the respondents noted that real estate professionals are only aware of what is happening in their own country and not at an EU level and certainly not beyond that. I just wanted to ask your opinion here. Do you agree with this statement? And should it be like that? Maybe because of my background in politics I really look larger and I also notice that not all my colleagues and also colleagues from the studies for example do that. Maybe we can share some quick final thoughts on this. I thought it was an interesting statement to discuss.

Mrs. Zheng: I think it depends on the role of the real estate professional. So if you are a deal sourcing person you really need to know your market very well and if you are based in Germany what happens on the deal floor in France is less relevant because it is about being competitive. But lets say you are in a macro research role then you will know what is happening across. So I think it just depends upon the nature of the role.

Mr. Op t Veld: I think so too. Having said that, I am not that surprised. People are always influenced more by the newspapers they read, what they see in their own environment, what their observations are locally and that influences people to a great degree. This is an issue if you are not aware of these biases. I think that is the risk you have in there, that people assume in many cases things to be the same in one jurisdiction. I actually think that internationally it is even more of an issue if I come to Singapore and think that the way business is conducted is exactly the same as it is being conducted as it is in the European Union. Because many of the institutions look alike etc. you might think that that is the case but it turns out not to be and I think that is actually where a lot of investors get burned. And even within the European space that it the case and it is evidenced by the things that do not go as planned. I see that even close by, taking an own example, we ventured into Germany early on and sort of expected that we understood that market just because it is a two hours drive. It is not. So I happen to agree with the statement and it is a very important one to be conscious of.

Mrs. Zheng: I think at the end of the day real estate is a local business, so that is not surprising at all. Because of everyone's biases knowing the relative view is really important and knowing how to counter write that. So yes, I really agree with what is mentioned by Hans also. But not everyone has the luxury of working in an international organisation so.

Mr. Op t Veld: Particularly within international organisations this is something worth having a conversation about, to actively discuss it, because implicitly assuming that things are the same and interpretations are the same sort of leads to suboptimal results. So it is quite important to be aware of those issues.

After some final thank you's the session was closed.